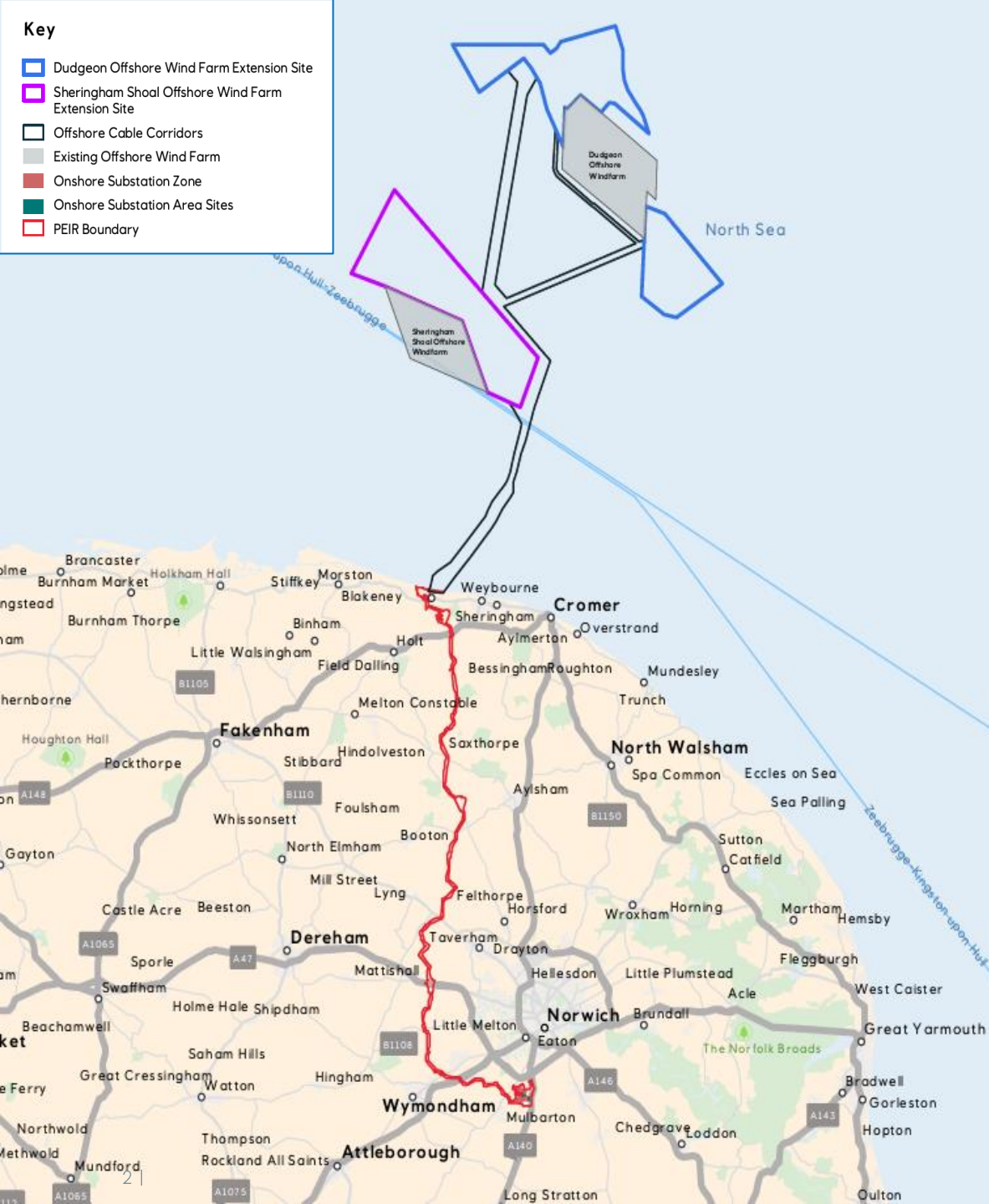


Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects (SEP & DEP)

Weybourne Parish Council

4th October 2023



Sheringham Shoal & Dudgeon Extension Projects

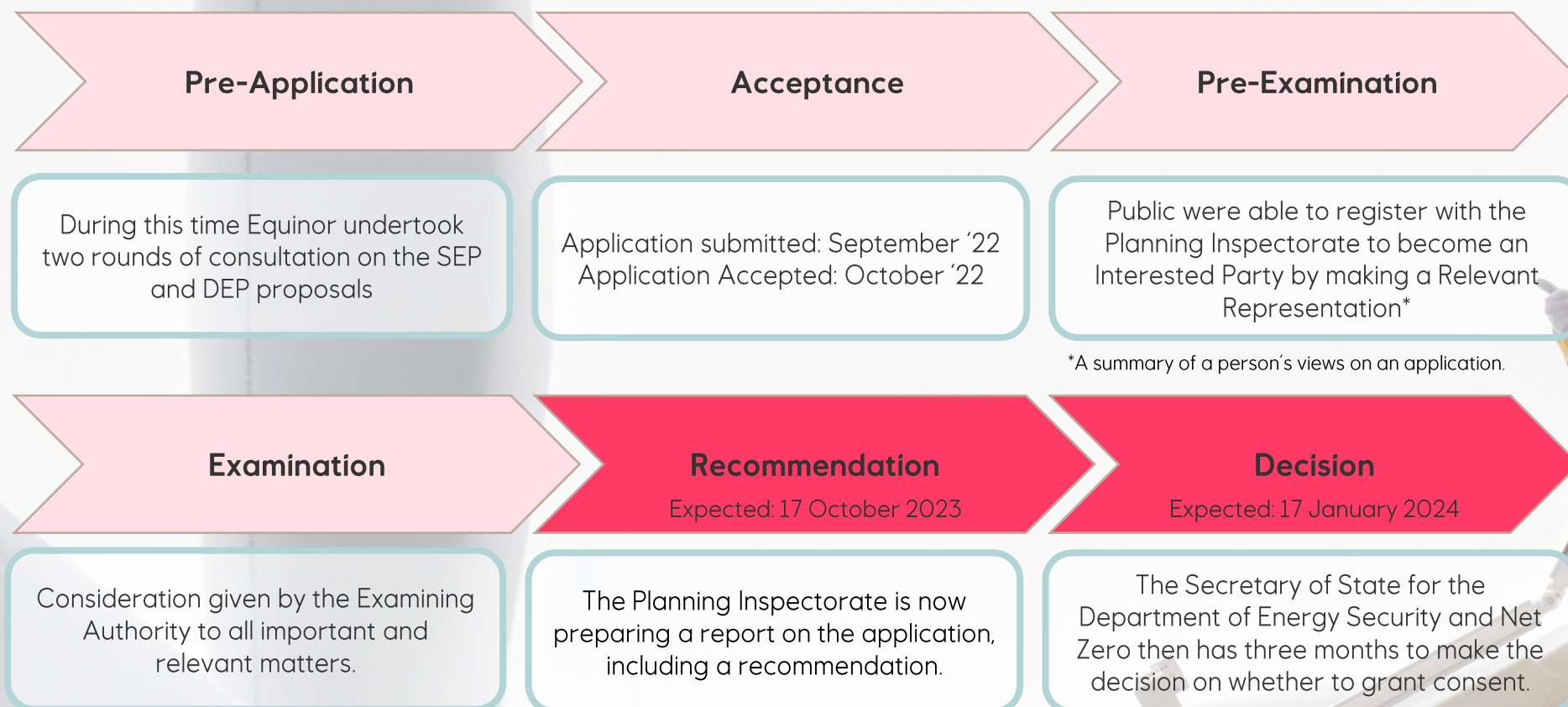
Proposing to double existing capacity, to over **1.4 GW** in total (**1.7 m homes**).

- Build on what we have.
- Industry first, joint development
- Shared point of connection (Norwich Main)
- Development Consent Order (DCO): Accepted in October '22
- Planning Inspectorate Examination: Awaiting Outcome expected January '24

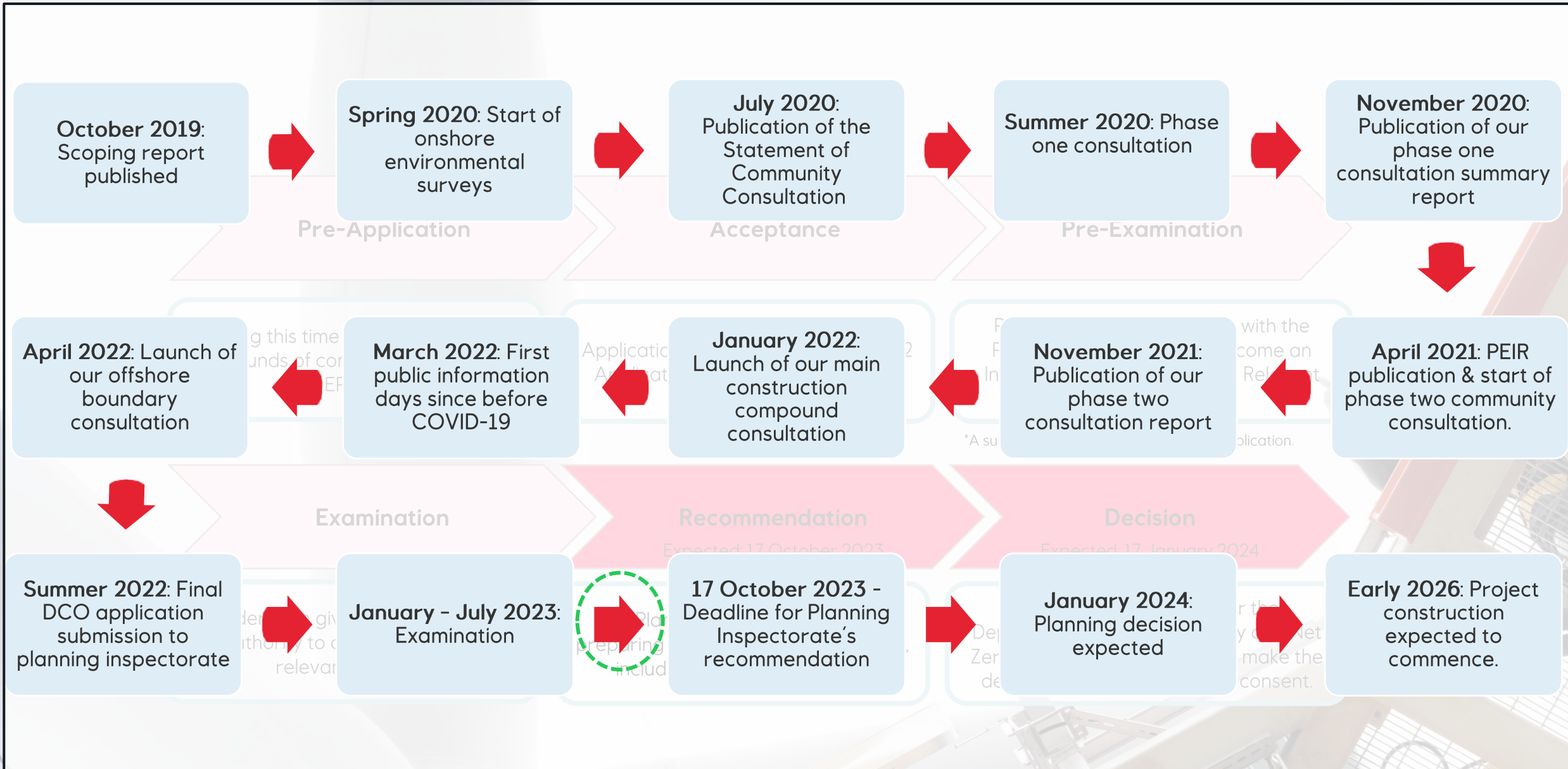


The Development Consent Order (DCO) Process

LINK: [Sheringham and Dudgeon Extension Projects | National Infrastructure Planning](#)



SEP & DEP Timeline





17 JANUARY - 17 JULY 2023

The Development Consent Order (DCO) Process: The Examination



Included three rounds of hearings, consisting of:

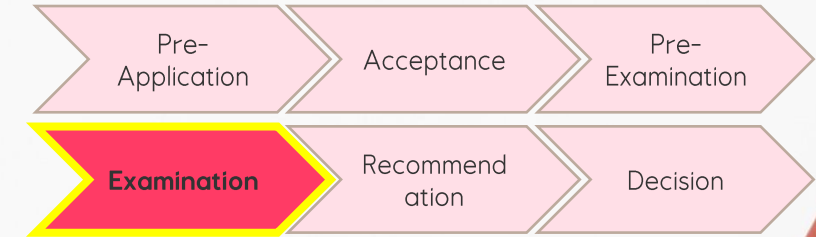
- **Open Floor Hearings:** Allowed community members, groups and organisations to address the Examining Authority directly.
- **Issue-Specific Hearings:** Explored specific issues arising from the application.
- **Compulsory Acquisition Hearings:** Discussed the issues related to the compulsory acquisition of land.

On the [Planning Inspectorate's website](#) you can find and access:

- All recordings from the examinations.
- The Planning Inspectorate's written questions and Equinor & Stakeholder answers.



Key Issues from the Examination



Construction related traffic.

- Impacts on the local road transport network.
- Routing of HGVs .
- Noise and vibration impacts from construction traffic

Cumulative impacts of other projects in Norfolk.

- Coordination with other infrastructure projects such as Hornsea 3.

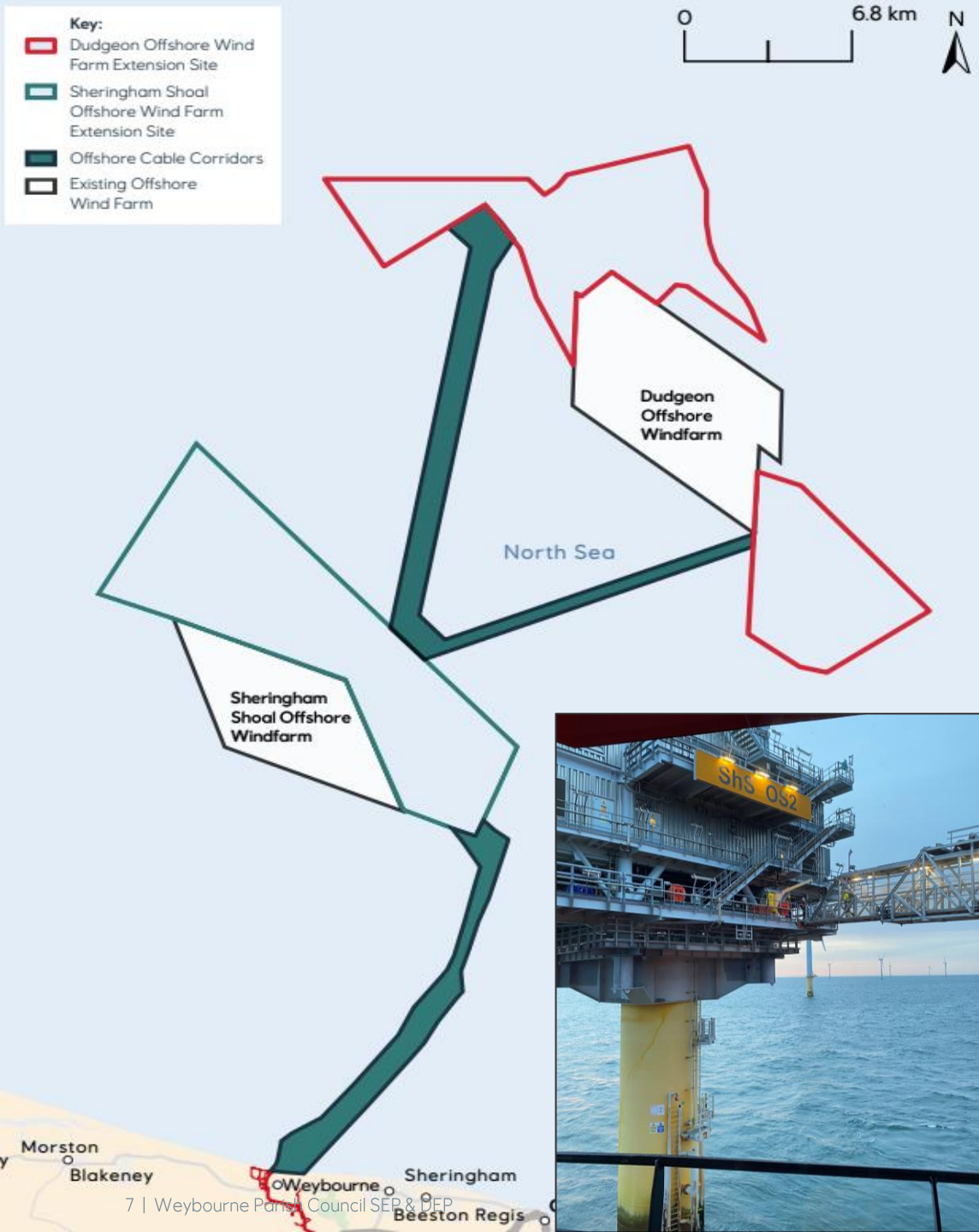
Community Benefits

- Community benefit funds.
- Mitigation for the fishing industry.

Construction scenarios

- Sequential or concurrent construction of SEP & DEP.

Potential effects on the tourism industry.



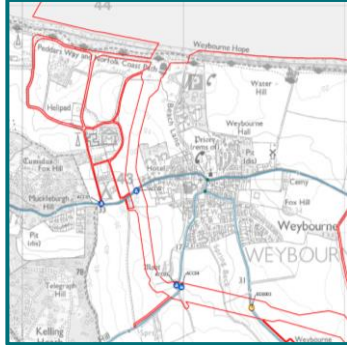
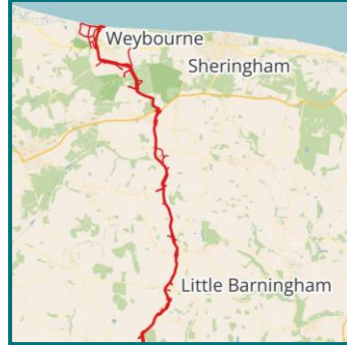
Offshore Proposals

- SEP and DEP will be located approximately **14km** and **25km** offshore at the nearest point to shore, respectively
- Offshore generating areas of up to **196m²** in total
- **30 to 53 turbines** could be located in this area
- Each turbine could be between **15 and 26 MW** in capacity and between **265 and 330 m** in height
- An **offshore substation** will be constructed within the wind farm area to aggregate the power from the turbines and convert it for export to shore
- An interactive map : <https://sepanddep.commonplace.is/>

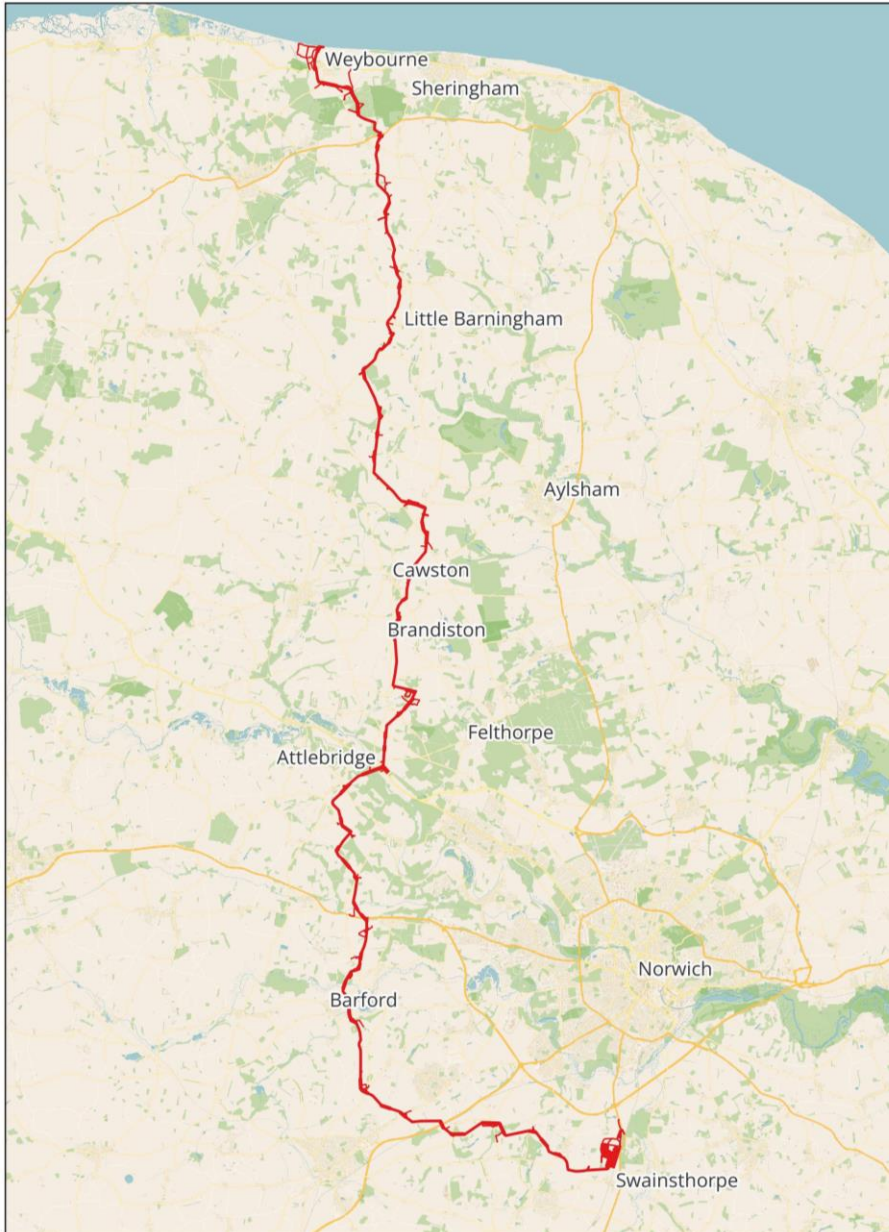
Collaboration with Other Developers

The cumulative impacts of SEP & DEP in conjunction with other projects, including Hornsea Three, were included in the **Environmental Impact Assessment**.

Issues that Equinor are coordinating on include:

			
Site selection of construction compounds 	Access routes to alleviate traffic 	Preparation for cable crossings to minimize disruption to transport networks. 	Collaboration over biodiversity net gain to deliver best possible coordinated results. 

Equinor will continue to coordinate with other infrastructure projects in the area to ensure that cumulative impacts are mitigated as far as possible.



Onshore Cable Corridor

Width:



Reduced to
60m



The working easment
38m
if the project is sequential

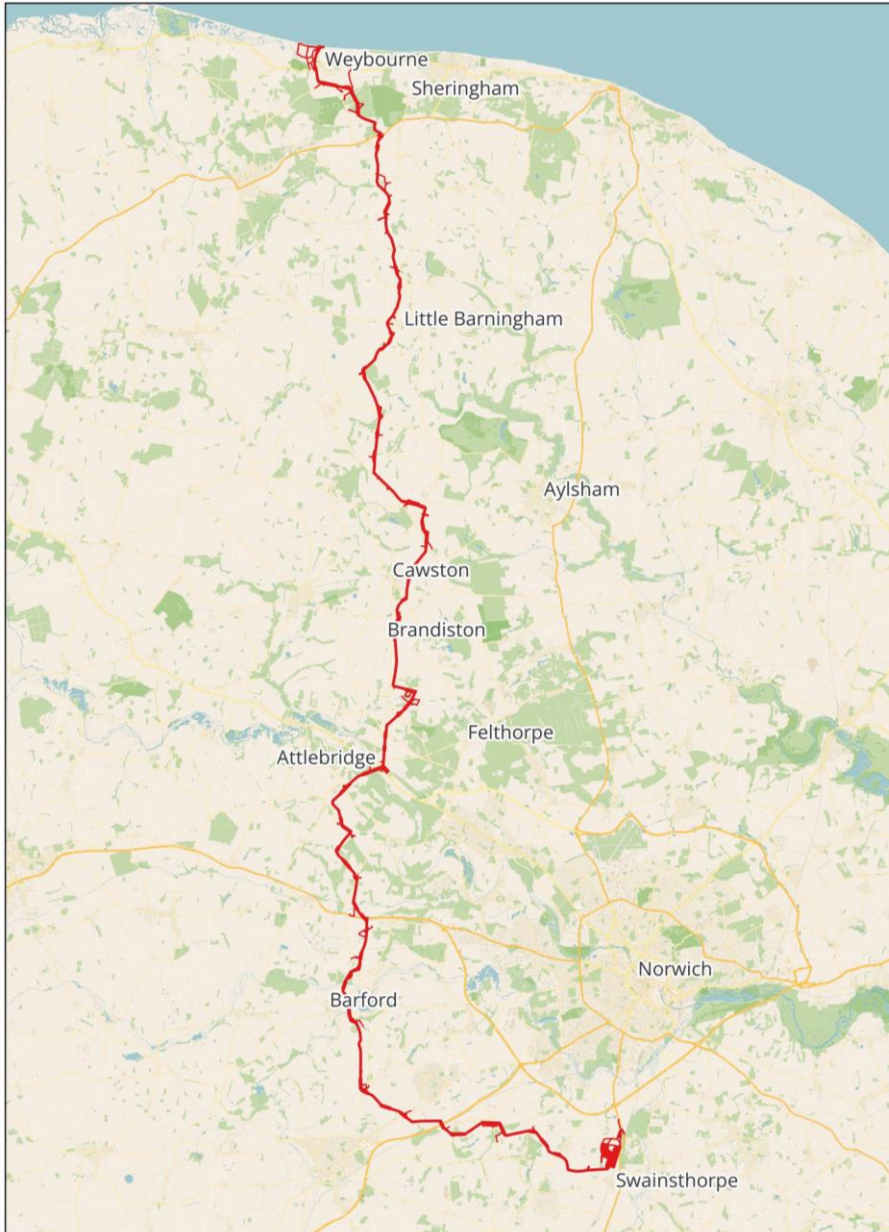


Widest Corridor
100m*

Key Influencing Factors:

- Phase One and Two consultation feedback
- Avoiding populated areas
- Avoiding key sensitive features where possible
- A preference for the shortest route

*For trenchless crossings at locations such as main roads, rivers and woodland.



Onshore Cable Corridor

Will be **constructed in sequential stages** with each **1km** taking about **four weeks** to complete, including the reinstatement of land.



Once construction in an area is completed the land will be reinstated to its previous condition.



A process of replanting trees and hedgerows will also take place with a monitoring period.

Infrastructure in Weybourne Parish

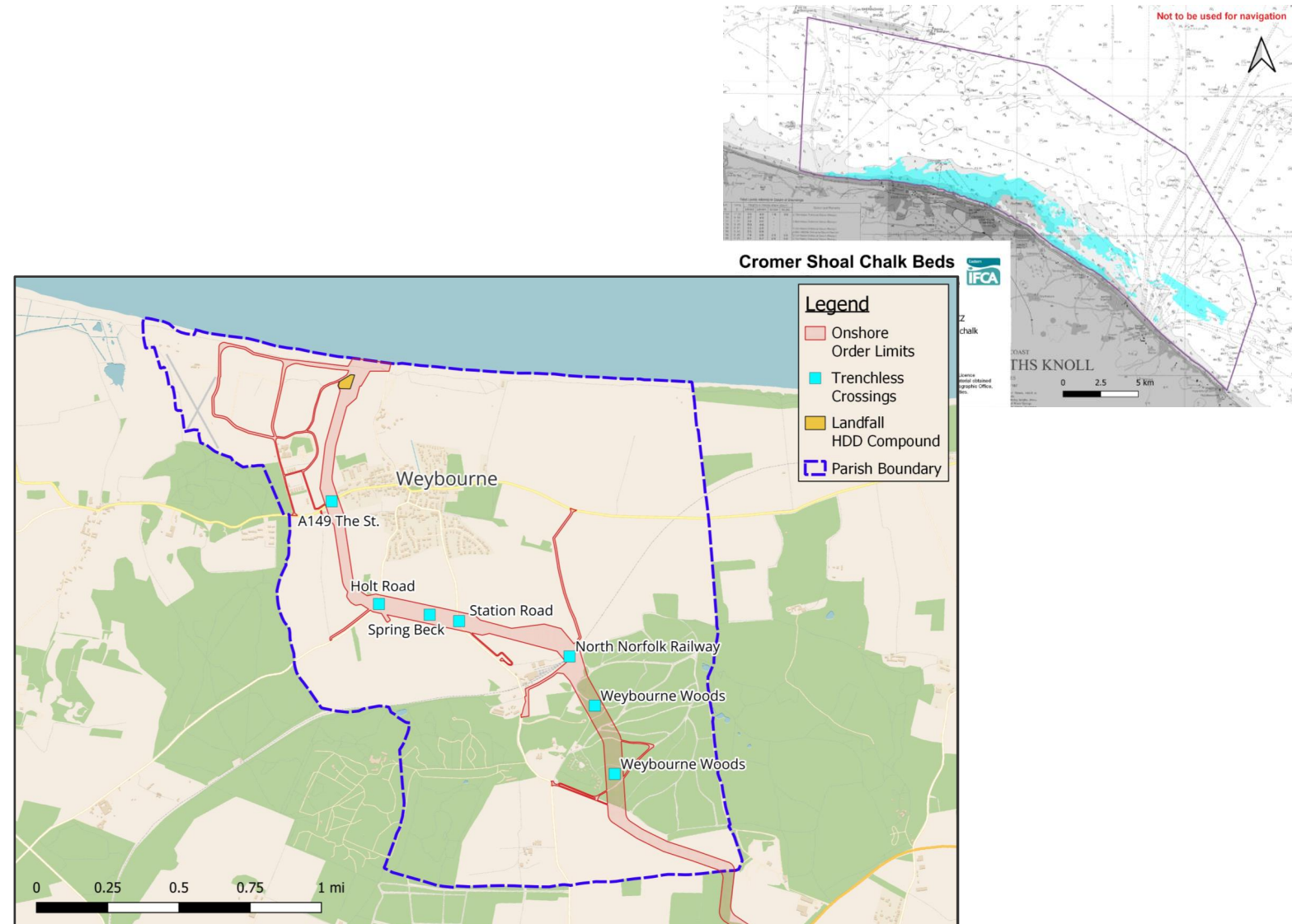


Landfall

The export cables will make landfall near Weybourne at the Muckleburgh Military Museum site (East of the existing Sheringham Shoal and Dudgeon landfall site).

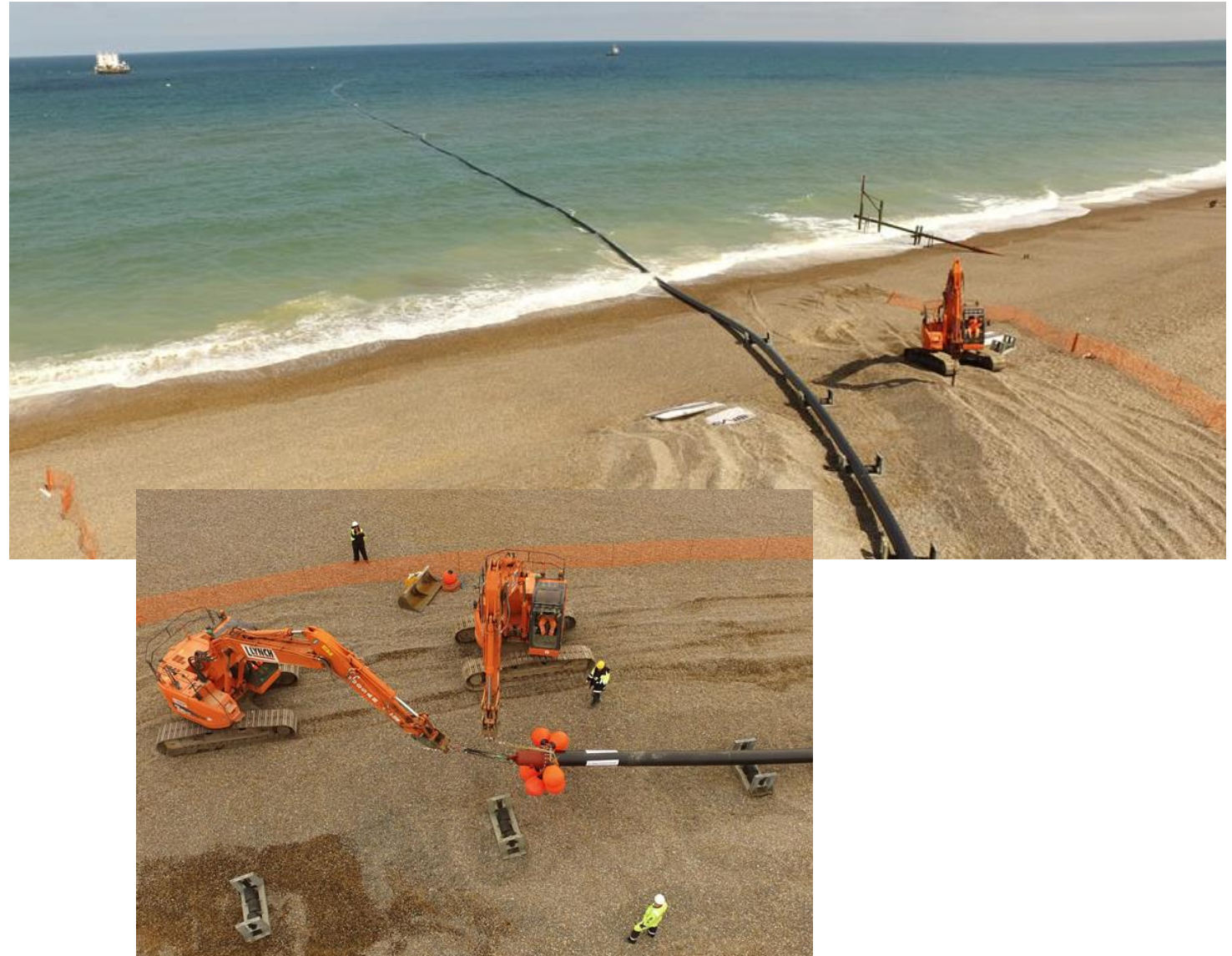
Site chosen as it avoids impacting:

-  The Weybourne Cliffs Site of Special Scientific Interest
-  The outcropping chalk feature of the Cromer Shoal Chalk Beds Marine Conservation Zone.



Landfall: Indicative Timeline

- **Timeframe:** approx. **5 months**, starting in the spring, as per the previous two Landfall HDDs.
- **A beach closure:** approx. **100m wide** will be required for **max. 1 day**.
 - To install the duct within the borehole created by the drilling rig, allowing the duct to be transported from the museum to the drill exit point out at sea.
- This process will repeat **twice**, once for each circuit over a **10-12 week period**.



Landfall Horizontal Directional Drilling (HDD) Compound

Beach Cable Installation:

Done through Horizontal Directional Drilling.

- Minimises disruption to the shoreline.
- Avoids impact on the Weybourne Cliffs SSSI and the outcropping chalk feature of the Cromer Shoal Chalk Beds.

The beach will be closed for a few hours to pull out the cable ducts.

The private land at **Muckleburgh Military Collection** will be used for the temporary landfall construction compound:

- The compound enables the HDD under the beach.
- Location minimizes impact on local habitats.
- Access to the site will be through the private land, avoiding Beach Lane, and minimising access restrictions to the beach.



Example Landfall HDD Compound

Crossing Methods

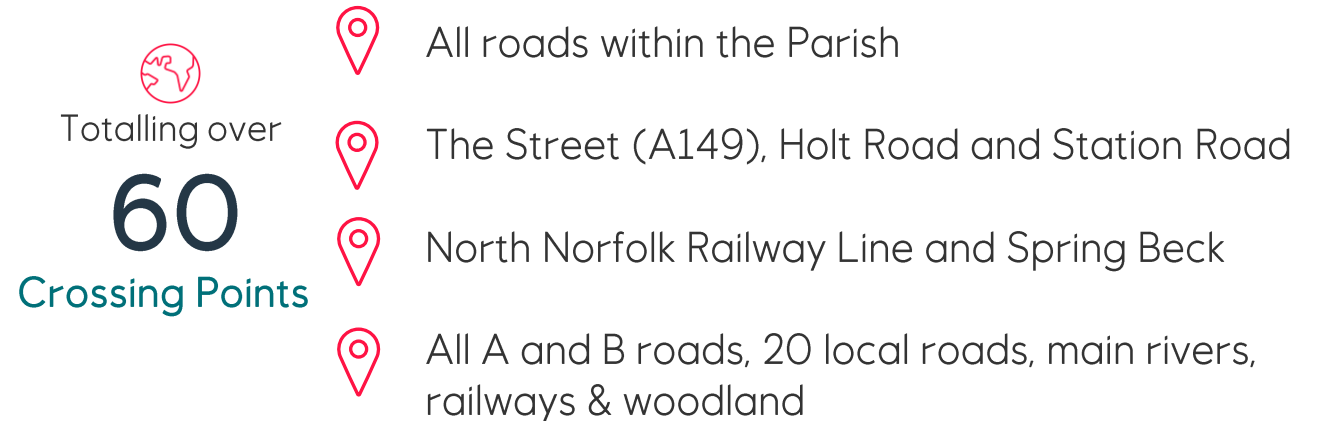
Horizontal Directional Drilling (HDD)

Weybourne Woods

- Undertaken in **2 parts**
- Each **400m** long
- Midway point chosen due to an existing gap in the wood that can be accessed via the woodland firebreak.

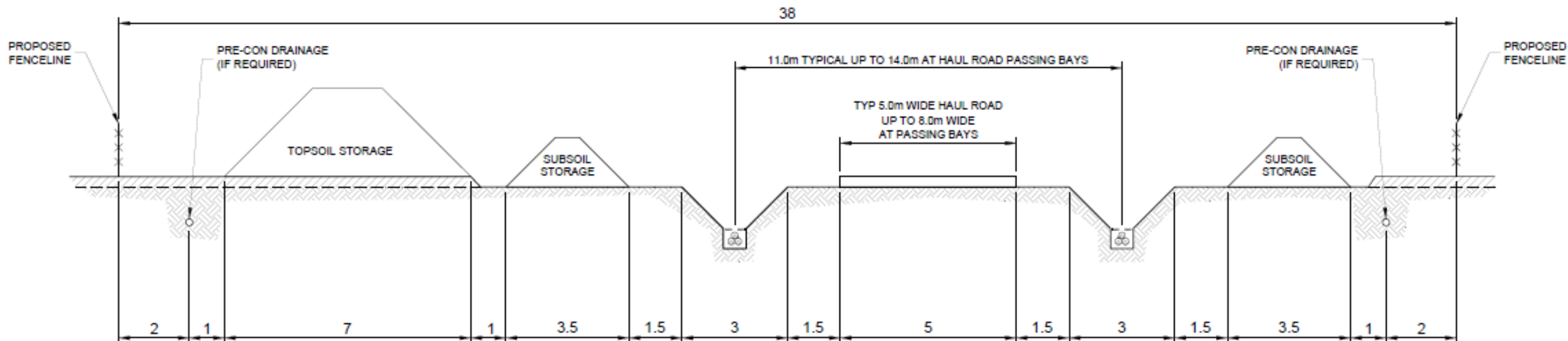
Trenchless Crossing Techniques

Pass the cable under a feature, reducing disruption and allowing the continued use of transport links.



Onshore Cable Corridor: A Haul Road

- In addition to the cable trenches.
- **Purpose:** To deliver equipment to the working easement from construction compounds, storage areas for topsoil and subsoil and drainage.
- The working easement will be narrower (**approximately 38m for two projects built together**) than the width of the Order Limits (**60m**). This will allow room for micro-siting during detailed design, and for onward connection to the existing surface water drainage network.



Transport Considerations: Reducing & Controlling Traffic

Avoiding Weybourne's Centre, accesses are located:

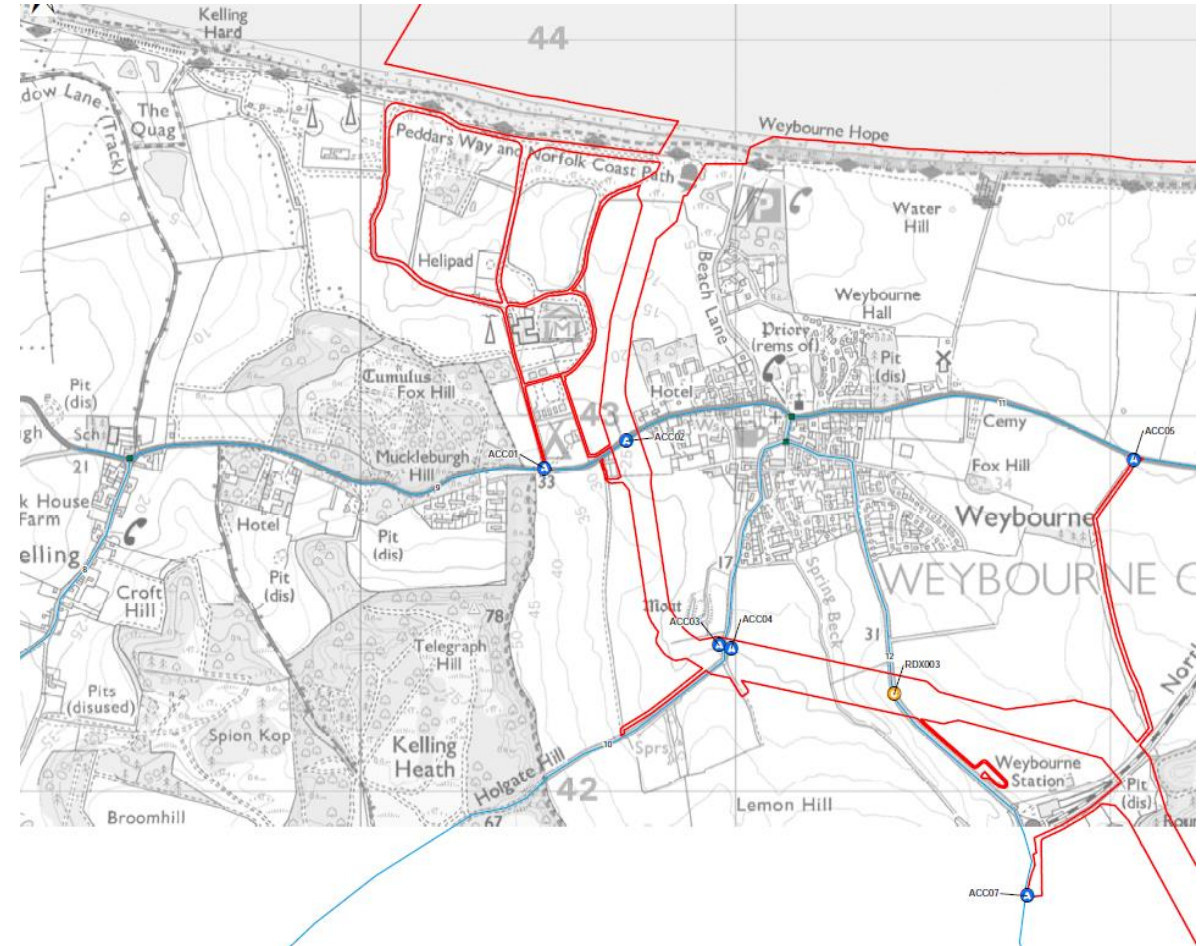
-  East and West of Weybourne, on the A149.
-  South of Weybourne, off Holgate Hill and Sandy Hill Ln (all HGV traffic will travel via Sandy Hill Ln from the south, i.e. towards the A148).

Additional Employees:

- Movements would be managed so the majority of construction employees arrive outside of peak hours.

Continued Collaboration:

- A Community Liaison Officer will be appointed allowing the public to directly report any concerns.



Transport Considerations: HGVs

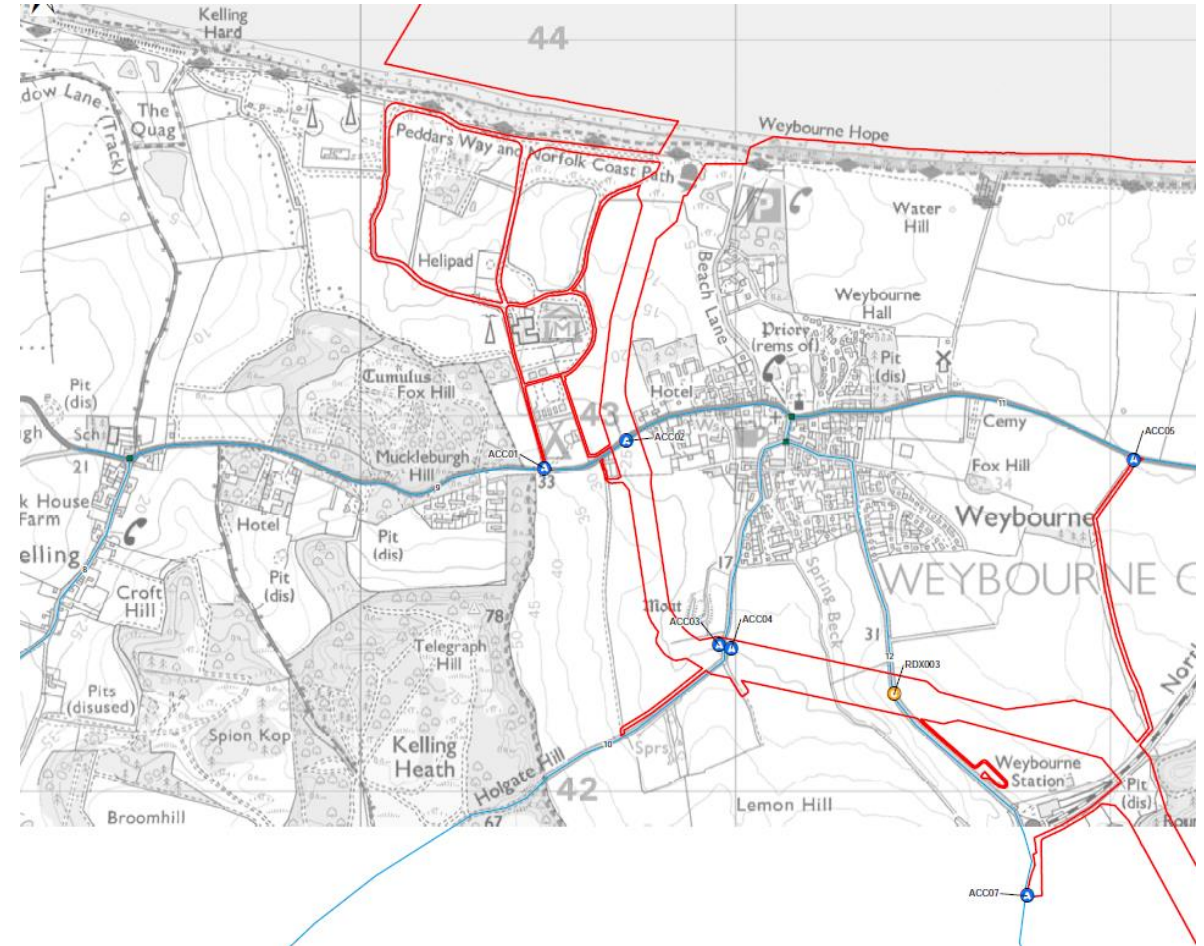
HGV Traffic Flow & Routing:

- HGV flows along the A149 and via Bridge Road (to Kelling):
 - Will be capped at 20 HGV trips per day, equivalent to one arrival and one departure per hour.
- HGV Routing will be controlled through a Construction Traffic Management Plan (CTMP). Measures will include:
 - Providing direction signage and signing prohibited routes.
 - Providing delivery maps/instructions to drivers.
 - Ensuring all HGVs are clearly marked (EG. the Equinor logo) to allow the public to identify vehicles delivering to SEP & DEP from local deliveries.

Highway Works:

Measures will be implemented to manage HGV movements along narrow roads within Weybourne's vicinity. Examples might include*:

- Road/ junction widening;
- New passing places or improve existing informal passing places;
- Using mobile traffic management, such as an escort vehicle to safely guide HGVs along roads and past oncoming traffic.



*These measures must be agreed with Norfolk County Council (NCC) highways prior to the commencement of construction.

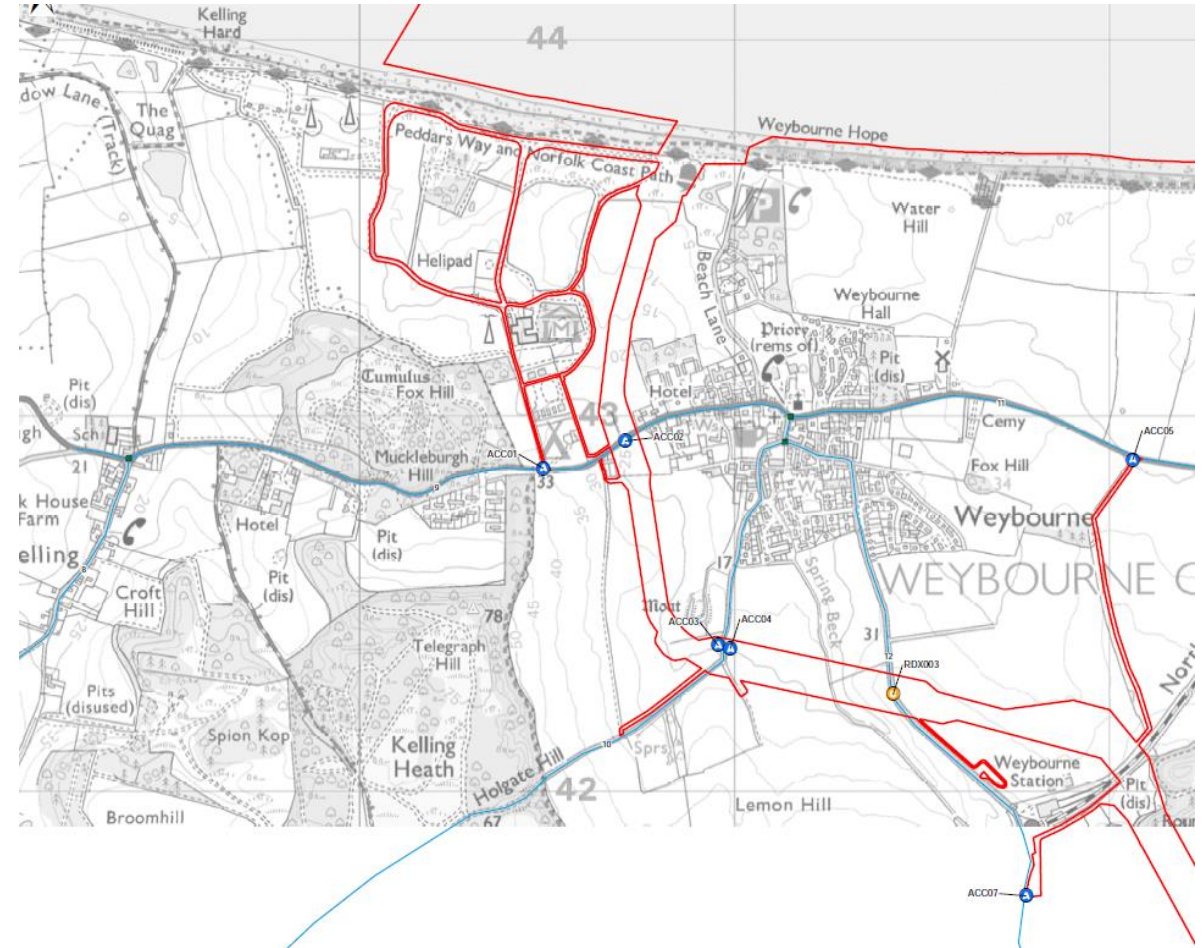
Transport Considerations

Access and Crossings:

- The design of temporary access and will need to be agreed with NCC highways prior to the commencement of construction.
- All accesses and crossings will be subject to an independent Road Safety Audit at the design stage and once open to traffic.

Highway Condition:

- Prior to the commencement of construction, surveys of the existing highway condition will be undertaken.
- Any damage to the highway (including verges) because of SEP&DEP will be repaired by the Contractor.



Community Benefit Funds, Skills and Employment



2010 - 2023

Community Benefit Funds

Sheringham Shoal Supports:

Projects associated with:

- Sustainability
- Renewables
- The marine environment.

Dudgeon Supports:

Training and education for young people.

- A new initiative supporting employability for 16-30 year olds was launched in December 2022.



North Norfolk's Hawk and Owl Trust.

A recent grant from the Sheringham Shoal Community Fund took the total value of grants awarded to over **£1 million**, since its establishment in 2010.

2010 – 2023

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SHERINGHAM SHOAL COMMUNITY FUND

Dilham Village Hall Solar Power System

Provided the Village Hall with a solar panel system, which includes battery storage capability.

- Saves an estimated £420 a year.
- Reduces annual carbon emissions by 1.2 tonnes.

SHERINGHAM SHOAL COMMUNITY FUND

Sea Palling Lifeboat Station Facilities

A £20,000 grant enabled the Sea Palling Lifeboat shed to be renovated.

Created a fully fitted operations room providing full visibility of the coastline and sea.

Have allowed weekly training without affecting the station's operations.



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DUDGEON COMMUNITY FUND

Covid-19 Education

Grants were provided to the Norfolk Community Foundation's COVID-19 initiative, and to the 'Every Child Online' programme.

This ensured that over 6,000 young people in Norfolk had the technology for successful home learning while schools were closed during the pandemic.

A Decade of Field Work

- Funded by Sheringham Shoal CBF.
- Conducted by Fakenham Academy.



10

YEARS

Comparative Beach
Transect Data



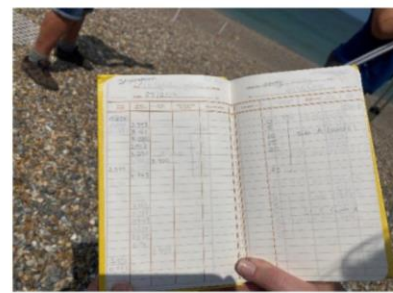
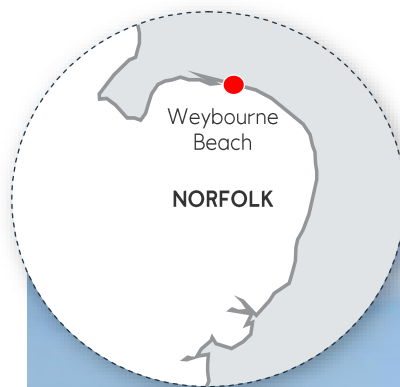
200

STUDENTS

gaining valuable
Field Work Experience.

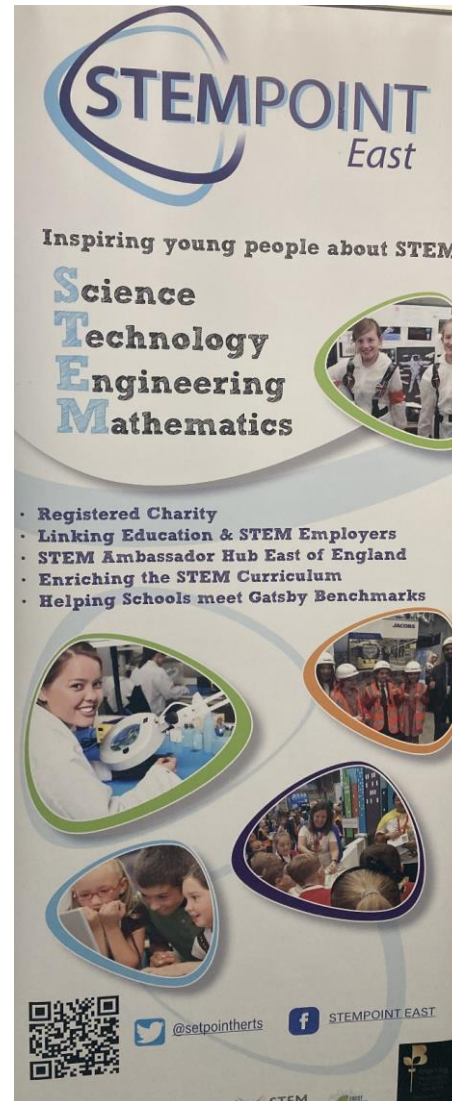


Life changing career experiences
that can help fill recognised skills
gaps.



STEMPOINT East and EEEGR Programme for Year 6 Pupils

- Pilot 1 at East Norfolk 6th Form
 - 228 ten-year olds linking with leading local offshore wind SME's
 - Hands on activities led by EEEGR
 - Supported by 10 inspiring college mentors who also developed their own expertise & networks
- 2 more sessions planned at Attleborough Academy and Alderman Peel High
- Funded by Dudgeon Community Fund

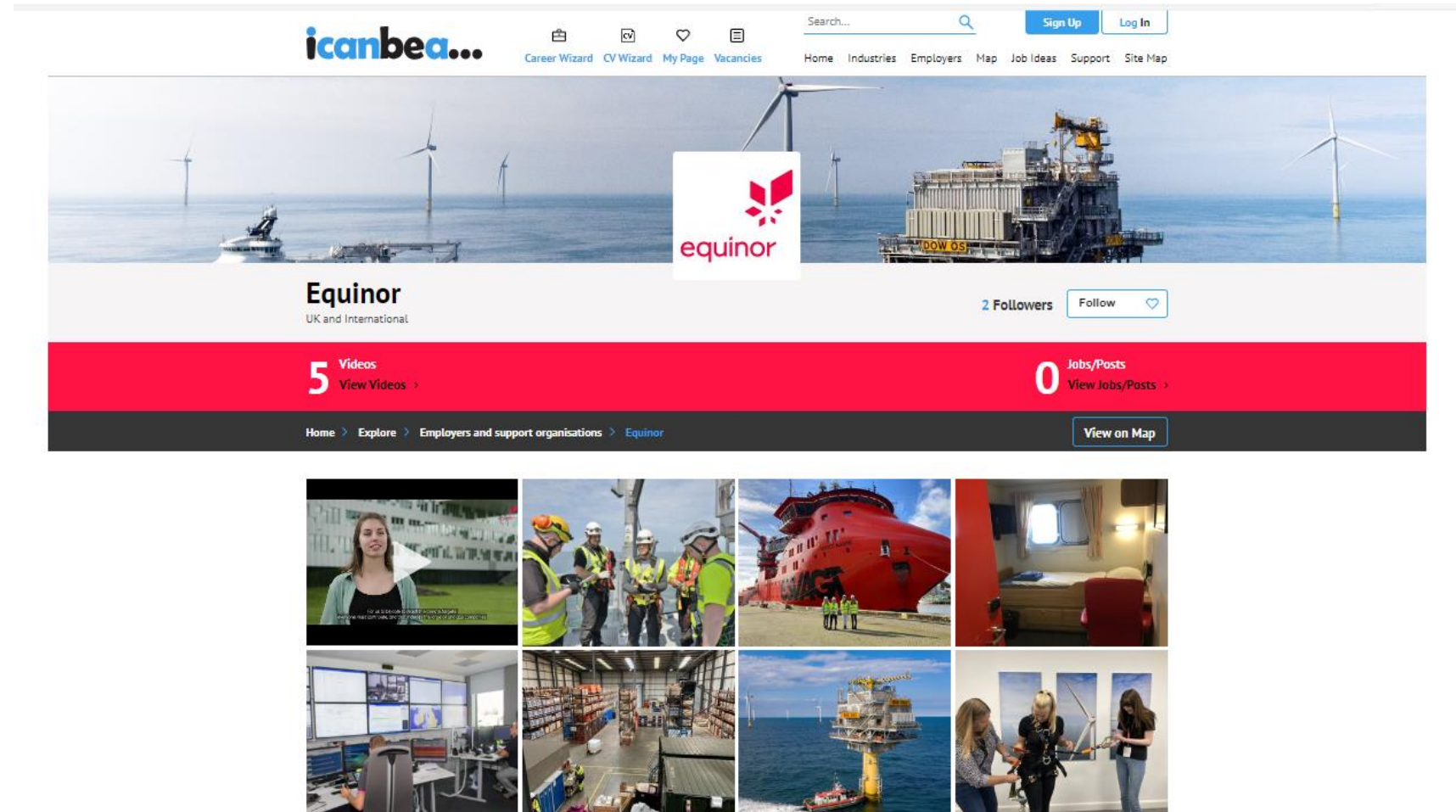


BY YOUNG PEOPLE,
FOR YOUNG PEOPLE

NEW: Equinor Profile on 'I can be a...' Careers Website

Developed and led by the
Ogden Trust Summer
Interns, during their
programme in July '23.

Signposting, informing and
inspiring students to find
out more about careers in
renewables.



Future Community Benefit Funds

To ensure that the benefits of SEP and DEP are realised within the host communities, **Equinor will continue to work with Norfolk community groups including schools and non-governmental organisations.**

Any future fund will look to complement the work already undertaken in Norfolk and focus on:



Marine and
Environment
Safety



Renewable
Energy and
Climate
Change



Promoting
environmental
sensitivity and
sustainability.



Education and
Employment



Assisting the
culture and
sustainability of
targeted
communities

SKILLS, ECONOMIC BENEFIT AND EMPLOYMENT

A Unifying Whole Career Model

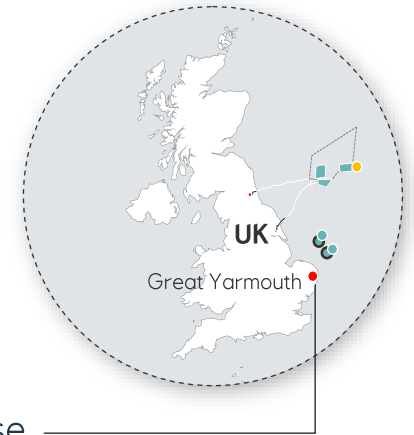
Up to
2190
Jobs
during construction

Up to
450
Jobs
Based in East Anglia

Increase to
150
Jobs
in the GY O&M Base

Around
£28.1mn
Annual GVA

£15.2mn
Captured
by East Anglia economy



Equinor's **Global Digital and O&M Program** base, developing best-in-class digital tools and methodologies.

Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Outline Skills and Employment Plan (Revision B) (Clean)

Revision B
Deadline 3
May 2023
Document Reference: 9.23
APFP Regulation: 5(2)(q)

Detailing our proactive and collaborative approach to strategic workforce planning.

Supply Chain and SME: East of England Process

**Equinor's
Supplier Portal**

Equinor's
Ventures Portal
(For Innovation & Investment)

Equinor Techstars

Grants
(Offshore Wind Growth Partnerships)

Equinor Global Supplier Day
2023

19 October 2023

13:00 - 16:00 (GMT+1)
Stavanger Forum and online broadcast



Keeping our Communities Up to Date

Newsletters

- Physical
- Email

[SEP and DEP Website](#)

[Equinor Norfolk Projects Website](#)

[Key news links](#)



New UK Operations and Maintenance Hub established in Great Yarmouth

Norfolk Newsletter | Spring/Summer

Thank You for Listening



Education and Skills – Early Work

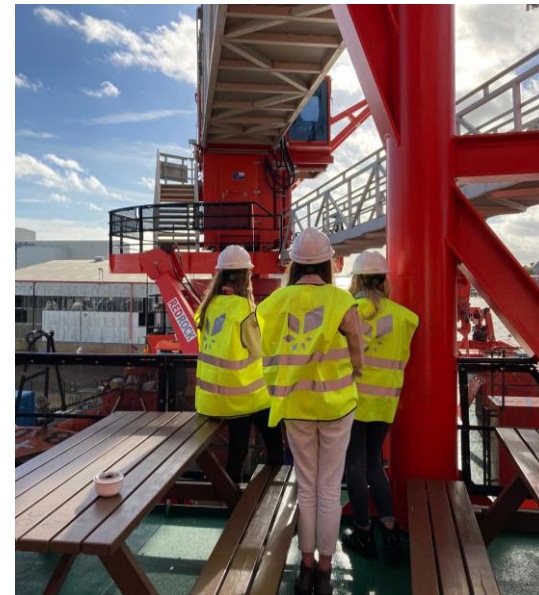
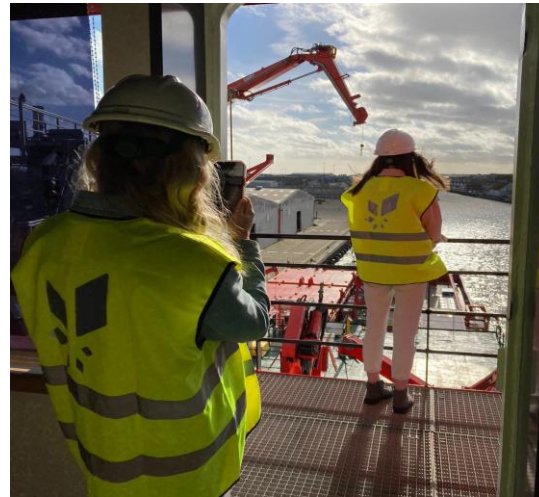
EVEN ONE WEEK HELPS Work Experience

"We have each taken so much away that is already helping us to map out our future."

"Amazing"

"We really appreciate the effort put into this week and will never forget it. We are looking forward to any future events!"

- Kate, Martha and Daisy



MAKING PHYSICS MATTER

Ogden Trust Summer '23 Internships

A 20-Day Summer
Programme

Core Project Focus:

Baselining carbon emissions
at the Greater Wash O&M
base, utilising a system
developed by Opergy's Net
Zero East

Involved in various
Stakeholder activities
across Norfolk and beyond



Cross-Sector Collaboration

Carbon Baseline for the Great Yarmouth O&M Base



Making physics matter



Net Zero East

CLOSING OFFSHORE WIND
SKILL GAPS TOGETHER

Apprenticeship Levy Transfer

Developing the
future's diverse,
competent and
capable workforce.

An initial cohort of East
England based apprentices.

- Able to learn whilst on the job.
- "Allows me to make decisions for myself and develop my own approach towards situations."



Equinor closing offshore wind skills gaps in East of England through new Apprenticeship Levy transfer initiative

📅 27 MAY 2022 10:41 | LAST MODIFIED: 27 MAY 2022 11:18



The Project Management Apprenticeship



Zach Dronfield,
Business Analyst,
Opergy Ltd.



CLOSING OFFSHORE WIND
SKILL GAPS TOGETHER

Apprenticeship Levy Transfer

“An amazing opportunity
for the apprentices ... What
an informative and
interesting day.”

Katy Cassidy

Head of Apprenticeships,
ECC

Project Management Guest Lecture with Asbjørn Haugsgjerd (H2H Saltend)



CLOSING OFFSHORE WIND
SKILL GAPS TOGETHER

Apprenticeship Levy Transfer

3 Level 3 Metal Fabricator
Apprentices

1 Level 4 Engineering
Manufacturing Apprentice

Each will study at East
Coast College for 42
months (Equinor will
sponsor all training)

Training in a skills gap area

- Supported by a local college
- A local, Great Yarmouth business

Metal Fabrication with Armultra

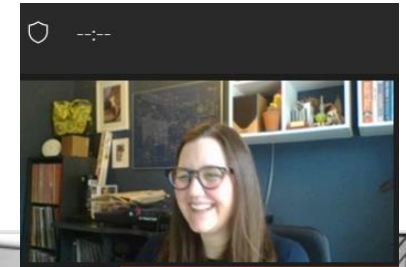


FIVE WEEK
COLLEGE PROGRAMME

Floating Offshore Wind Project Partnership

Created by EEEGR.

Sponsored by Dudgeon
CBF.





SKILLS FOR ENERGY
Find Your Future Challenge

Equinor ORE Catapult EEEGR



Pause for a safety moment



WHAT NEXT?

Skills for Energy
Equinor
ORE Catapult
EEEGR



Who could work in the energy sector?

Equinor
ORE Catapult
EEEGR



DUDGEON
Offshore Wind Farm
Operated by Equinor

SKILLS FOR ENERGY

Find Your Future Challenge

Equinor
ORE Catapult
EEEGR

Susan Falch-Lovesey
Scott Davie
Sophie Skipp

SkillsforEnergy
EAST OF ENGLAND

EEEGR
EAST OF ENGLAND ENERGY GROUP

FIVE WEEK COLLEGE PROGRAMME

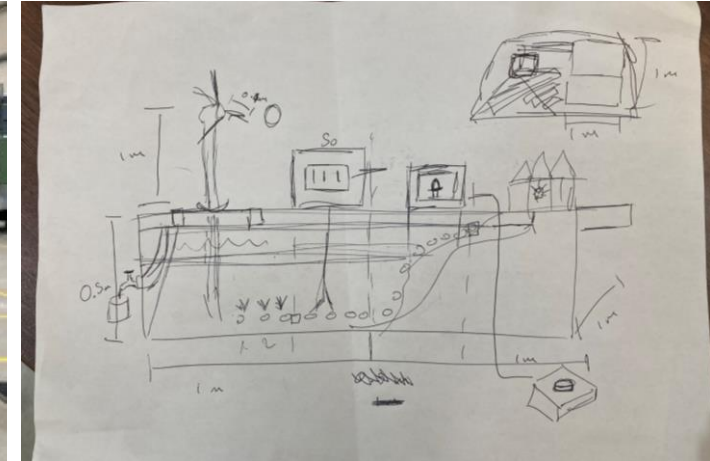
Floating Offshore Wind Project Partnership

Sponsored by Dudgeon
CBF.

A Skills for Energy Project

- Planned a floating offshore wind educational model to inspire the next generation.

72 UTCN 6th Form students work on FLOW models for career events



COLLABORATION

Royal Norfolk Show (East Wind)

Part of the STEMM Village, featuring Sheringham High School Robotics.

Purpose:

- For impact
- To highlight Offshore Wind in the East of England



PLAY VIDEO HERE