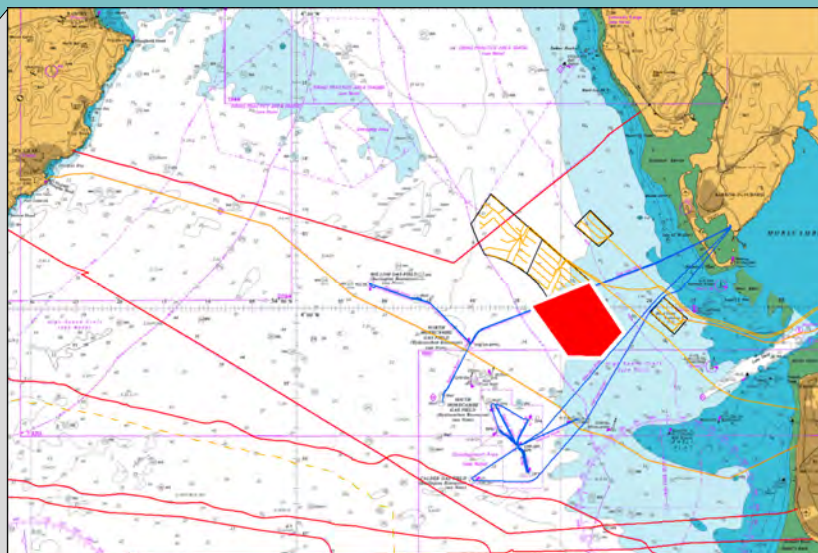
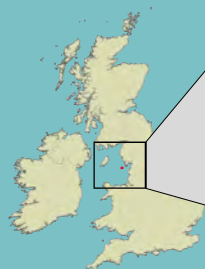


West of Duddon Sands Offshore Wind Farm

SEAFISH

THE KINGFISHER
INFORMATION SERVICE



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Construction Activities

The West of Duddon Sands Offshore Wind farm is a joint venture between DONG Energy and ScottishPower Renewables. The Wind Farm is located approximately 14km from the nearest coast off Walney Island, Cumbria and covers an area of approximately 66km². The wind farm will comprise 108 wind turbine generators, each with a capacity of 3.6MW giving a total capacity of 389MW. Each wind turbine generator will be connected by submarine cables to an offshore substation inside the wind farm and from there via two 155kV submarine cables to the shore, by way of a landfall near Middleton in Lancashire, and National Grid transmission system.

Key Programme Dates

Dates	Activity	Vessels
Jan 2013 to June 2013	Scour Protection Work	Rockpiper and Sandpiper
May 2013 to Dec 2013	Installation of Foundations and Transition Pieces	Pacific Orca and Sea Installer
April 2013 to Dec 2013	Installation of Substation	Barges Rambiz and Louis, support tugs Kestrel, Victory and Multratug 4
April 2013 to Sept 2013	Installation of Export Cables	Stemat Spirit
July 2013	Cable Splice Operation	Stemat 89, support tugs Smit Buffalo and Odin, crew boat Wildcat 3
May 2013 to March 2014	Installation of Inter Array Cables	MV Sia and MV Nico
Aug 2013 to June 2014	Installation of Wind Turbine Generators	Sea Installer
Jan 2014 to Sept 2014	Installation of Scour Protection: Armour	Vessel to be announced

Advisory Safety Zones

At all times during construction, an Advisory Safety Zone of 500m is requested around all installation vessels and a 50m Advisory Safety Zone around each turbine and substation structure after installation. After the installation of the export cable, a 200m anchorage exclusion zone is requested. All vessels are requested to respect the Advisory Safety Zones, which as well as reducing the risk of collision damage, will provide protection to the installation vessels, the export cables and the wind turbine structures.

Contact Details

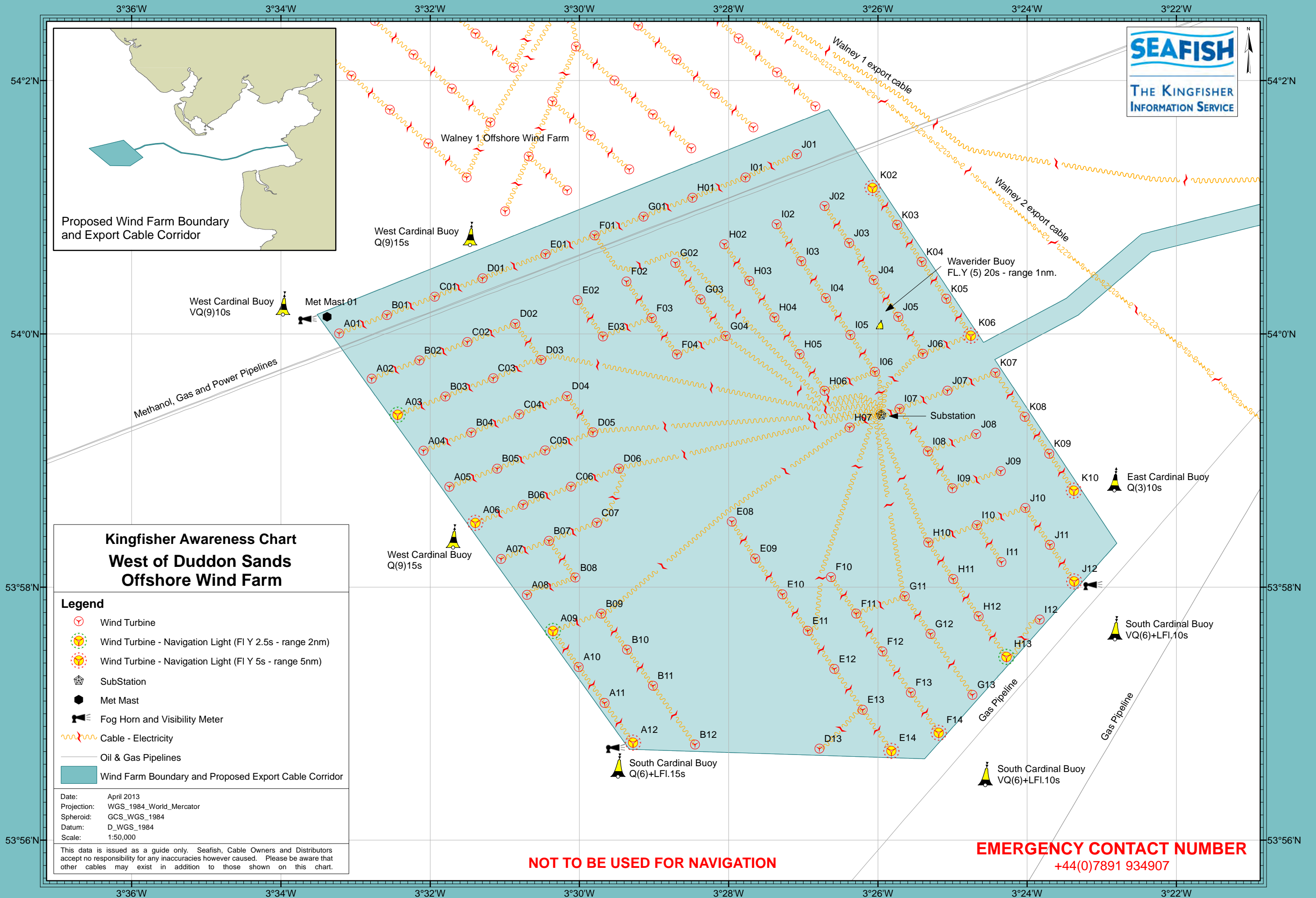
Tom Watson - NFFO Fisheries Liaison Officer
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Dong Energy - West of Duddon Sands UK Ltd
Marine Coordinator Tel: +44(0)7891 934877

Always ensure you have the latest Kingfisher Information onboard your vessel

Edition: April 2013

Kingfisher Awareness Chart



KEEP CLEAR OF AND DO NOT DAMAGE SUBSEA CABLES

THESE CABLES CARRY HIGH VOLTAGES AND CAN BE DANGEROUS TO LIFE

IT IS AN OFFENCE TO WILFULLY DAMAGE SUBSEA CABLES

Examples of Vessels Involved



Stemat Spirit
Laying Export Cables



Pacific Orca
Foundations Installation



Sea Installer
Turbine Installation



MV Sander 2
Support / Survey Vessel



Rambiz
Heavy Lift Catamaran



Barge Louis
Heavy Transport Barge



Smit Buffalo
Tug Boat



Wildcat 3
Crew Boat

Wind Farm Coordinates

PROPOSED TURBINE POSITIONS		
No.	PROPOSED COORDINATES	
A01	54°00.004'N	003°33.221'W
A02	53°59.647'N	003°32.785'W
A03	53°59.362'N	003°32.438'W
A04	53°59.078'N	003°32.091'W
A05	53°58.793'N	003°31.744'W
A06	53°58.508'N	003°31.397'W
A07	53°58.223'N	003°31.051'W
A08	53°57.939'N	003°30.704'W
A09	53°57.654'N	003°30.357'W
A10	53°57.369'N	003°30.011'W
A11	53°57.085'N	003°29.664'W
A12	53°56.771'N	003°29.283'W
B01	54°00.149'N	003°32.580'W
B02	53°59.791'N	003°32.144'W
B03	53°59.506'N	003°31.797'W
B04	53°59.221'N	003°31.450'W
B05	53°58.936'N	003°31.103'W
B06	53°58.651'N	003°30.756'W
B07	53°58.366'N	003°30.409'W
B08	53°58.076'N	003°30.055'W
B09	53°57.791'N	003°29.709'W
B10	53°57.506'N	003°29.363'W
B11	53°57.221'N	003°29.015'W
B12	53°56.756'N	003°28.452'W
C01	54°00.294'N	003°31.940'W
C02	53°59.936'N	003°31.503'W
C03	53°59.650'N	003°31.155'W
C04	53°59.365'N	003°30.808'W
C05	53°59.080'N	003°30.461'W
C06	53°58.794'N	003°30.114'W
C07	53°58.509'N	003°29.767'W
D01	54°00.439'N	003°31.299'W
D02	54°00.080'N	003°30.861'W
D03	53°59.794'N	003°30.514'W
D04	53°59.508'N	003°30.167'W
D05	53°59.223'N	003°29.819'W
D06	53°58.937'N	003°29.472'W
D13	53°56.724'N	003°26.785'W
E01	54°00.630'N	003°30.455'W
E02	54°00.267'N	003°30.026'W
E03	53°59.980'N	003°29.686'W
E08	53°58.518'N	003°27.960'W
E09	53°58.226'N	003°27.645'W
E10	53°57.943'N	003°27.281'W

PROPOSED TURBINE POSITIONS		
No.	PROPOSED COORDINATES	
E11	53°57.655'N	003°26.941'W
E12	53°57.354'N	003°26.585'W
E13	53°57.031'N	003°26.205'W
E14	53°56.706'N	003°25.821'W
F01	54°00.778'N	003°29.799'W
F02	54°00.414'N	003°29.371'W
F03	54°00.126'N	003°29.032'W
F04	53°59.838'N	003°28.694'W
F10	53°58.080'N	003°26.630'W
F11	53°57.791'N	003°26.292'W
F12	53°57.492'N	003°25.941'W
F13	53°57.167'N	003°25.560'W
F14	53°56.849'N	003°25.187'W
G01	54°00.926'N	003°29.142'W
G02	54°00.561'N	003°28.716'W
G03	54°00.273'N	003°28.378'W
G04	53°59.984'N	003°28.041'W
G11	53°57.928'N	003°25.641'W
G12	53°57.631'N	003°25.296'W
G13	53°57.149'N	003°24.734'W
H01	54°01.075'N	003°28.486'W
H02	54°00.708'N	003°28.060'W
H03	54°00.419'N	003°27.724'W
H04	54°00.130'N	003°27.388'W
H05	53°59.840'N	003°27.051'W
H06	53°59.551'N	003°26.715'W
H07	53°59.261'N	003°26.380'W
H10	53°58.353'N	003°25.326'W
H11	53°58.064'N	003°24.991'W
H12	53°57.770'N	003°24.651'W
H13	53°57.449'N	003°24.279'W
I01	54°01.235'N	003°27.775'W
I02	54°00.866'N	003°27.358'W
I03	54°00.574'N	003°27.028'W
I04	54°00.283'N	003°26.699'W
I05	53°59.992'N	003°26.370'W
I06	53°59.701'N	003°26.041'W
I07	53°59.409'N	003°25.712'W
I08	53°59.073'N	003°25.332'W
I09	53°58.781'N	003°25.003'W
I10	53°58.490'N	003°24.674'W
I11	53°58.198'N	003°24.345'W
I12	53°57.744'N	003°23.833'W
J01	54°01.418'N	003°27.086'W

PROPOSED TURBINE POSITIONS		
No.	PROPOSED COORDINATES	
J02	54°01.010'N	003°26.716'W
J03	54°00.718'N	003°26.386'W
J04	54°00.426'N	003°26.057'W
J05	54°00.135'N	003°25.728'W
J06	53°59.843'N	003°25.398'W
J07	53°59.552'N	003°25.069'W
J08	53°59.209'N	003°24.683'W
J09	53°58.917'N	003°24.354'W
J10	53°58.626'N	003°24.025'W
J11	53°58.334'N	003°23.696'W
J12	53°58.045'N	003°23.371'W
K02	54°01.153'N	003°26.074'W
K03	54°00.861'N	003°25.744'W
K04	54°00.569'N	003°25.415'W
K05	54°00.278'N	003°25.085'W
K06	53°59.986'N	003°24.756'W
K07	53°59.694'N	003°24.427'W
K08	53°59.346'N	003°24.034'W
K09	53°59.054'N	003°23.705'W
K10	53°58.762'N	003°23.376'W

MET MAST		
54°00.135'N	003°33.382'W	

BUOY COORDINATES		
53°58.764'N	003°22.832'W	
53°57.588'N	003°22.825'W	
53°56.436'N	003°24.562'W	
53°56.503'N	003°29.484'W	
53°58.313'N	003°31.694'W	
54°00.153'N	003°33.974'W	
54°00.702'N	003°31.467'W	
54°00.040'N	003°25.980'W	

WINDFARM BOUNDARY		
53°56.643'N	003°25.375'W	
53°56.718'N	003°29.331'W	
54°00.153'N	003°33.516'W	
54°01.776'N	003°26.667'W	
53°58.347'N	003°22.799'W	
53°56.643'N	003°25.375'W	

SUB STATION		
53°59.359'N	003°25.957'W	

EXPORT CABLE PROPOSED ROUTE SUBJECT TO CHANGE	
54°00.799'N	002°54.008'W
54°00.283'N	002°57.539'W
54°00.226'N	002°58.460'W
53°59.763'N	003°00.818'W
53°59.689'N	003°01.055'W
53°58.350'N	003°04.286'W
53°58.221'N	003°04.690'W
53°58.193'N	003°04.974'W
53°58.175'N	003°05.135'W
53°57.945'N	003°06.082'W
53°57.885'N	003°06.663'W
53°57.872'N	003°07.097'W
53°57.914'N	003°07.464'W
53°58.316'N	003°09.373'W
53°58.454'N	003°10.115'W
53°58.502'N	003°10.279'W
53°58.774'N	003°11.543'W
53°58.961'N	003°12.824'W
53°59.211'N	003°14.869'W
53°59.308'N	003°15.276'W
53°59.406'N	003°15.528'W
53°59.532'N	003°15.796'W
53°59.880'N	003°16.445'W
53°59.967'N	003°16.643'W
54°00.525'N	003°17.760'W
54°00.681'N	003°17.996'W
54°00.886'N	003°18.222'W
54°01.070'N	003°18.624'W
54°01.117'N	003°18.866'W
54°01.120'N	003°19.022'W
54°01.010'N	003°20.318'W
54°00.978'N	003°20.939'W
54°00.924'N	003°21.432'W
54°00.705'N	003°22.394'W
54°00.592'N	003°22.665'W
54°00.226'N	003°23.332'W
54°00.133'N	003°23.571'W
53°59.828'N	003°24.579'W
53°59.607'N	003°25.614'W
53°59.537'N	003°25.684'W
53°59.414'N	003°25.773'W
53°59.369'N	003°25.881'W
53°59.358'N	003°25.944'W