



Awel y Môr Offshore Wind Farm

Category 6: Environmental Statement

Scoping Opinion

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BARN GWMPASU:

Fferm Wynt Arfaethedig ar y Môr Awel y Môr

Cyfeirnod yr Achos: EN010112

Mabwysiadwyd gan yr Arolygiaeth Gynllunio (ar ran yr Ysgrifennydd
Gwladol) yn unol â Rheoliad 10 Rheoliadau Cynllunio Seilwaith
(Asesu Effeithiau Amgylcheddol) 2017

Gorffennaf 2020

[Mae'r dudalen hon wedi'i gadael yn wag yn fwriadol]



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FFURFIOL

ATODI AD 2: **YMATEBWYR I'R YMGYNGHORIAD A CHOPÍAU O'R**
YMATEBI ON

[Mae'r dudalen hon wedi'i gadael yn wag yn fwriadol]

1. CYFLWYNI AD

1.1 Cefndir

- 1.1.1 Ar 11 Mehefin 2020, cafodd yr Arolygiaeth Gynllunio (yr Arolygiaeth), ar ran yr Ysgrifennydd Gwladol, gais cwmpasu gan Awel y Môr Wind Farm Limited (yr Ymgeisydd) o dan Reoliad 10 Rheoliadau Cynllunio Seilwaith (Asesu Effeithiau Amgylcheddol) 2017 (y Rheoliadau EIA) ar gyfer Fferm Wynt ar y Môr arfaethedig Awel y Môr (y Datblygiad Arfaethedig).
- 1.1.2 Yn unol â Rheoliad 10 y Rheoliadau EIA, caiff Ymgeisydd ofyn i'r Ysgrifennydd Gwladol **ddatgan yn ysgrifenedig ei farn 'ynglŷn â chwmpas, a lefel manylion, y wybodaeth sydd i'w darparu yn y datganiad amgylcheddol'**.
- 1.1.3 Y ddogfen hon yw'r Farn Gwmpasu (y Farn) a roddir gan yr Arolygiaeth ar ran yr Ysgrifennydd Gwladol mewn perthynas â'r Datblygiad Arfaethedig. Fe'i gwneir ar sail y wybodaeth a ddarparwyd yn adroddiad yr Ymgeisydd o'r enw Adroddiad Cwmpasu Asesu Effeithiau Amgylcheddol (yr Adroddiad Cwmpasu). Gall y Farn hon **adlewyrchu'r cynigion fel y'u disgrifir gan yr Ymgeisydd ar hyn o bryd yn unig**. Dylid darllen y Farn Gwmpasu ar y cyd ag Adroddiad Cwmpasu'r Ymgeisydd.
- 1.1.4 Mae'r Ymgeisydd wedi rhoi gwybod i'r Ysgrifennydd Gwladol o dan Reoliad 8(1)(b) y Rheoliadau EIA ei fod yn bwriadu darparu Datganiad Amgylcheddol (ES) mewn perthynas â'r Datblygiad Arfaethedig. Felly, yn unol â Rheoliad 6(2)(a) y Rheoliadau EIA, mae'r Datblygiad Arfaethedig yn ddatblygiad EIA.
- 1.1.5 Yn ôl Rheoliad 10(9) y Rheoliadau EIA, mae'n rhaid i'r Arolygiaeth ystyried y canlynol cyn mabwysiadu barn gwmpasu:
- unrhyw wybodaeth a ddarparwyd am y datblygiad arfaethedig;*
 - nodweddion penodol y datblygiad;*
 - effeithiau arwyddocaol tebygol y datblygiad ar yr amgylchedd; ac*
 - yn achos cais dilynol, y datganiad amgylcheddol a gyflwynwyd gyda'r cais gwreiddiol.*
- 1.1.6 Mae'r Farn hon wedi ystyried gofynion y Rheoliadau EIA yn ogystal ag arfer gorau presennol o ran paratoi ES.
- 1.1.7 Mae'r Arolygiaeth wedi ymgynghori ar Adroddiad Cwmpasu'r Ymgeisydd ac mae'r ymatebion a gafwyd gan y cyrff ymgynghori wedi cael eu hystyried wrth fabwysiadu'r Farn hon (gweler Atodiad 2).
- 1.1.8 Mae'r pwyntiau yr ymdriniodd yr Ymgeisydd â nhw yn yr Adroddiad Cwmpasu wedi cael eu hystyried yn ofalus, a defnyddiwyd barn a phrofiad proffesiynol wrth fabwysiadu'r Farn hon. Pan ddaw i ystyried yr ES, dylid nodi y bydd yr Arolygiaeth yn ystyried deddfwriaeth a chanllawiau perthnasol. Ni fydd yr Arolygiaeth yn cael ei hatal rhag gofyn am wybodaeth ychwanegol os ystyrir bod hynny'n angenrheidiol mewn cysylltiad â'r ES a gyflwynwyd gyda'r cais am Orchymyn Caniatâd Datblygu (DCO).

- 1.1.9 Ni ddylid tybio bod y Farn hon yn awgrymu bod yr Arolygiaeth yn cytuno â'r wybodaeth neu'r sylwadau a ddarparwyd gan yr Ymgeisydd yn ei gais am farn gan yr Arolygiaeth. Yn arbennig, ni fydd sylwadau gan yr Arolygiaeth yn y Farn hon yn lleihau effaith unrhyw benderfyniadau diweddarach a wneir (e.e. pan gyflwynir y cais) **sy'n datgan y dylai** unrhyw ddatblygiad a amlygwyd gan yr Ymgeisydd gael ei drin o reidrwydd yn rhan o Brosiect Seilwaith o Arwyddocâd Cenedlaethol (NSIP) neu Ddatblygiad Cysylltiedig neu ddatblygiad nad oes arno angen caniatâd datblygu.
- 1.1.10 Mae Rheoliad 10(3) y Rheoliadau EIA yn datgan bod rhaid i farn gwmpasu gynnwys:
- (a) *cynllun sy'n ddigonol i adnabod y tir;*
 - (b) *disgrifiad o'r datblygiad arfaethedig, gan gynnwys ei leoliad a'i gapasiti technegol;*
 - (c) *esboniad o effeithiau arwyddocaol tebygol y datblygiad ar yr amgylchedd; a'r*
 - (ch) *gyfryw wybodaeth neu gynrychiolaethau eraill ag y gallai'r sawl sy'n cyflwyno'r cais ddymuno eu rhoi neu eu gwneud.*
- 1.1.11 Mae'r Arolygiaeth o'r farn bod hyn wedi'i ddarparu yn Adroddiad Cwmpasu'r Ymgeisydd. Mae'r Arolygiaeth yn fodlon bod yr Adroddiad Cwmpasu yn ymgorffori'r agweddau perthnasol a amlygir yn y Rheoliadau EIA.
- 1.1.12 Yn unol â Rheoliad 14(3)(a), lle y rhoddwyd barn gwmpasu yn unol â Rheoliad 10, dylai ES sy'n cyd-fynd â chais am orchymyn sy'n rhoi caniatâd datblygu fod wedi'i seilio ar 'y farn gwmpasu fwyaf diweddar a fabwysiadwyd (i'r graddau bod y datblygiad arfaethedig yn parhau i fod yr un fath, yn ei hanfod, â'r datblygiad arfaethedig a oedd yn destun y farn honno)'.
- 1.1.13 Mae'r Arolygiaeth yn nodi'r angen posibl i gynnal asesiad o dan Reoliadau Cadwraeth Cynefinoedd a Rhywogaethau 2017 a Rheoliadau Cadwraeth Cynefinoedd a Rhywogaethau Morol Alltraeth 2017 (y Rheoliadau Cynefinoedd). Mae'n rhaid i'r asesiad hwn gael ei gydlynu â'r EIA yn unol â Rheoliad 26 y Rheoliadau EIA. Felly, dylai ES yr Ymgeisydd gael ei gydlynu ag unrhyw asesiad a wneir o dan y Rheoliadau Cynefinoedd.

1.2 Ymgynghoriad yr Arolygiaeth Gynllunio

- 1.2.1 Yn unol â Rheoliad 10(6) y Rheoliadau EIA, mae'r Arolygiaeth wedi ymgynghori â'r cyrff ymgynghori cyn mabwysiadu barn gwmpasu. Rhoddir rhestr o'r cyrff ymgynghori yr ymgynghorodd yr Arolygiaeth â nhw'n ffurfiol yn Atodiad 1. Mae'r cyrff ymgynghori wedi cael gwybod o dan Reoliad 11(1)(a) am y ddyletswydd a osodir arnynt gan Reoliad 11(3) y Rheoliadau EIA i sicrhau bod gwybodaeth ar gael i'r Ymgeisydd sy'n berthnasol i baratoi'r ES. Dylai'r Ymgeisydd nodi, er bod y rhestr yn gallu llywio ei ymgynghoriad, ni ddylid dibynnu arni at y diben hwnnw.

- 1.2.2 Mae'r rhestr o ymatebwyr a atebodd o fewn y raddfa amser statudol ac yr ystyriwyd eu sylwadau wrth baratoi'r Farn hon wedi'i darparu, ynghyd â chopïau o'u sylwadau, yn Atodiad 2, y dylai'r Ymgeisydd gyfeirio ati wrth baratoi ei ES.
- 1.2.3 Dylai'r ES a gyflwynir gan yr Ymgeisydd ddangos bod y pwyntiau a godwyd gan y cyrff ymgynghori wedi cael eu hystyried. Argymhellir bod tabl yn cael ei ddarparu yn yr ES sy'n crynhoi'r ymatebion cwmpasu gan y cyrff ymgynghori a sut yr ymdrinnir â nhw, neu beidio, yn yr ES.
- 1.2.4 Ni fydd unrhyw ymatebion ymgynghori a dderbynnyr ar ôl y terfyn amser statudol ar gyfer derbyn sylwadau yn cael eu hystyried yn y Farn hon. Bydd ymatebion hwyr yn cael eu hanfon ymlaen at yr Ymgeisydd a byddant ar gael ar wefan yr Arolygiaeth. **Dylai'r Ymgeisydd roi ystyriaeth briodol i'r sylwadau hynny hefyd wrth baratoi ei ES.**

1.3 Deddf yr Undeb Ewropeaidd (Y Cytundeb Ymadael) 2020

- 1.3.1 Gadawodd y Deyrnas Unedig yr Undeb Ewropeaidd fel aelod-wladwriaeth ar 31 Ionawr 2020. Mae Deddf yr Undeb Ewropeaidd (Y Cytundeb Ymadael) 2020 yn **gweithredu trefniadau pontio sy'n para tan 31 Rhagfyr 2020. Mae hyn yn darparu ar gyfer cadw cyfraith yr Undeb Ewropeaidd fel cyfraith y Deyrnas Unedig a hefyd yn gweithredu rhwymedigaethau a allai ddod i rym yn ystod y cyfnod pontio.**
- 1.3.2 Paratowyd y Farn Gwmpasu hon ar sail cyfraith a ddargedwir ac mae cyfeiriadau ynndi at delerau Ewropeaidd wedi cael eu cadw hefyd er mwyn bod yn gyson â dogfennau eraill perthnasol, gan gynnwys deddfwriaeth, canllawiau a nodiadau cyngor perthnasol.

2. Y DATBLYGI AD ARFAETHEDIG

2.1 Cyflwyniad

2.1.1 Mae'r canlynol yn crynhoi'r wybodaeth am y Datblygiad Arfaethedig a'i safle a'i amgylchoedd a baratowyd gan yr Ymgeisydd ac a gynhwyswyd yn ei Adroddiad Cwmpasu. Nid yw'r wybodaeth wedi cael ei dilysu a thybiwyd bod y wybodaeth a ddarparwyd yn adlewyrchu gwybodaeth bresennol am y Datblygiad Arfaethedig a'r adnoddau/ derbynnyddion posibl.

2.2 Disgrifiad o'r Datblygiad Arfaethedig

2.2.1 Rhoddir disgrifiad yr Ymgeisydd o'r Datblygiad Arfaethedig, ei leoliad a'i gapasiti technegol (lle y bo'n berthnasol) ym Mhennod 1 a Phennod 3 yr Adroddiad Cwmpasu. Nid yw lleoliadau terfynol amryw elfennau o'r prosiect a llwybrau ceblau wedi cael eu diffinio, felly, yn lle hynny, mae'r Adroddiad Cwmpasu yn cyfeirio at ardal yr aráe, ardal chwilio llwybr y ceblau allforio (ECR) ar y môr, ardal chwilio'r ECR ar y tir ac ardal chwilio'r is-orsaf ar y tir.

2.2.2 Bydd y Datblygiad Arfaethedig yn cynnwys hyd at 107 o Eneraduron Tyrbin Gwynt (WTG). Bydd yr aráe WTG yn rhychwantu ardal o oddeutu 106.4km² ac mae wedi'i lleoli 10.6km oddi ar arfordir gogledd Cymru (pellter agosaf). Oes weithredol y Datblygiad Arfaethedig yw 25 mlynedd. Bydd y Datblygiad Arfaethedig yn cynnwys y canlynol (gweler yr Adroddiad Cwmpasu, Pennod 3, Tabl 2-22 ar gyfer paramedrau):

- Cydrannau ar y Môr:
 - WTG;
 - sylfeini WTG;
 - mastiau meteorolegol;
 - platfformau is-orsaf ar y môr (OSP);
 - ceblau rhyng-aráe;
 - gosod deunyddiau i atal erydu ac amddiffyn ceblau; a
 - cheblau allforio ar y môr.
 - Cydrannau ar y Tir:
 - ceblau allforio ar y tir;
 - Strwythurau Cymalau Cysylltu (TJB) ar y lan;
 - is-orsaf ar y tir; ac
 - estyn adeilad GIS a ffin is-orsaf y Grid Cenedlaethol yn is-orsaf bresennol Bodelwyddan.
- 2.2.3 Y dechnoleg drawsyrru a ddewiswyd ar gyfer y Datblygiad Arfaethedig yw Cerrynt Eiledol Foltedd Uchel (HVAC).

Safle ac Amgylchoedd ar y Môr

- 2.2.4 Mae cydrannau safle'r cais arfaethedig ar y môr wedi'u lleoli ym Môr Iwerddon oddi ar arfordir gogledd-ddwyrain Cymru, i'r gorllewin o Afon Dyfrdwy ac i'r dwyrafn o Gonwy. Mae safle'r Datblygiad Arfaethedig yn amgylchynu, ond nid yw'n cynnwys, Fferm Wynt ar y Môr (OWF) bresennol Gwastadeddau'r Rhyl (gweler yr Adroddiad Cwmpasu, Pennod 1, Ffigur 1 am y ffin gwmpasu).
- 2.2.5 Mae'r Adroddiad Cwmpasu yn rhestru pum OWF weithredol sy'n agos i'r Datblygiad Arfaethedig, gan gynnwys; Gwynt y Môr, Gogledd Hoyle, **Gwastadeddau'r Rhyl a Burbo Bank a'i Estyniad** (gweler yr Adroddiad Cwmpasu, Pennod 9, Tabl 72). Mae ardal chwilio ECR ar y môr OWF Awel y Môr yn gorgyffwrdd â cheblau allforio o OWF bresennol, ac mae wedi'i lleoli gerllaw Rhyng-gysylltydd Dwyrain-Gorllewin Eirgrid a nifer o biblinellau nwy (gweler yr Adroddiad Cwmpasu, Pennod 9, Paragraff 9.6.4).
- 2.2.6 Mae'r Adroddiad Cwmpasu yn amlygu nifer o ddefnyddiau presennol yn yr ardal ar y môr y gallai'r Datblygiad Arfaethedig effeithio arnynt, o bosibl. Mae'r rhain yn cynnwys rhai pysgodfeydd masnachol, ar gyfer pysgod cregyn yn bennaf. Mae agregau morol yn cael eu treillio yng nghyffiniau'r Datblygiad Arfaethedig ac mae llwybr cludo BMAPA yn torri ar draws ardal yr aráe a'r ardal chwilio ECR. Mae traffig morgludiant yng nghyffiniau'r safle yn cynnwys llongau cynnal a chadw ar gyfer fferm wynt Gwynt y Môr. Mae llongau sy'n mynd i Harbwr Lerpwl ac oddi yno yn mynd heibio i ogledd y Datblygiad Arfaethedig yn bennaf, ond gwyddys bod rhai llongau'n mynd trwy ardal yr aráe a/neu'r ardal chwilio ECR.
- 2.2.7 Mae saith safle a ddynodwyd yn rhyngwladol a naw safle a ddynodwyd yn **genedlaethol ar gyfer cadwraeth natur wedi'u lleoli'n agos i OWF Awel y Môr**. Mae Safle o Ddiddordeb Gwyddonol Arbennig (SoDdGA) Traeth Pensarn ac Ardal Gwarchodaeth Arbennig (AGA) Bae Lerpwl yn cyd-fynd â'r ardal chwilio ECR ar y môr. Mae Ardal Cadwraeth Arbennig (ACA)/AGA Aber Afon Dyfrdwy, ACA Afon Menai a Bae Conwy, SoDdGA Twyni Gronant a Thwyni Talacre a SoDdGA Trwyn y Fuwch wedi'u lleoli yn union gerllaw'r ardal chwilio ECR ar y môr (gweler yr Adroddiad Cwmpasu, Pennod 7, Tabl 27).

Safle ac Amgylchoedd ar y Tir

- 2.2.8 Mae cydrannau'r Datblygiad Arfaethedig ar y tir wedi'u lleoli ar arfordir gogledd-ddwyrain Cymru, i'r gorllewin o Afon Dyfrdwy ac i'r dwyrafn o Gonwy, ac o fewn Sir Ddinbych a Chonwy. Mae Llandudno i'r gorllewin, Talacre i'r dwyrafn, a Dinbych i'r de. Nid yw lleoliad y lanfa wedi'i benderfynu eto, ond yr ardal chwilio sy'n cael ei hystyried ar hyn o bryd yw'r arfordir rhwng Bae Colwyn a Phrestatyn. Darperir y ffin gwmpasu ar gyfer y Datblygiad Arfaethedig ym Mhennod 1, Ffigur 2.
- 2.2.9 Mae twristiaeth yn weithgarwch arwyddocaol o fewn yr ardal chwilio ECR ar y tir; mae'r Adroddiad Cwmpasu hefyd yn amlygu dwy ardal diogelu mwynau a allai fod yn arwyddocaol yn yr ardal chwilio. Mae'r Adroddiad Cwmpasu yn disgrifio nifer o gysylltiadau ffyrdd a rheilffyrdd yn yr ardal chwilio, gan gynnwys y gorsafoedd rheilffordd yn y Rhyl, Abergele a Phrestatyn a gwibffordd yr A55 Gogledd Cymru. Mae gwibffordd yr A55 Gogledd Cymru hefyd yn torri ar draws ardal chwilio'r is-orsaf ar y tir (gweler yr Adroddiad Cwmpasu, Pennod 10.4).

2.2.1 Mae'r derbynyddion amgylcheddol o fewn ardal chwilio'r OCR ar y tir yn cynnwys SoDdGA Coeddydd ac Ogofâu Elwy a Meirchion ac 117 o Safleoedd Bywyd Gwyllt Lleol. Mae'r Adroddiad Cwmpasu hefyd yn amlinu un ased hanesyddol a ddynodwyd yn rhwngwladol a 673 o asedau hanesyddol a ddynodwyd yn genedlaethol o fewn yr ardal chwilio ECR ar y tir. O'r rhain, mae dau ased hanesyddol a ddynodwyd yn genedlaethol wedi'u lleoli o fewn ardal chwilio is-orsaf ar y tir OFW Awel y Môr (gweler yr Adroddiad Cwmpasu, Pennod 10, Tabl 78).

2.3 Sylwadau'r Arolygiaeth Gynllunio

Disgrifiad o'r Datblygiad Arfaethedig

2.3.1 Dylai'r ES gynnwys y canlynol:

- disgrifiad o'r Datblygiad Arfaethedig sy'n cynnwys o leiaf y wybodaeth am safle, dyluniad, maint a nodweddion eraill perthnasol y datblygiad; a
- disgrifiad o leoliad y datblygiad a disgrifiad o nodweddion ffisegol y datblygiad cyfan, gan gynnwys unrhyw waith **dymchwel sy'n angenrheidiol a'r gofynion defnydd tir yn ystod y camau adeiladu a gweithredu.**

2.3.2 Wrth gyflwyno DCO drafft, dylai'r Ymgeisydd nodi'n glir yn yr ES ba elfennau o'r Datblygiad Arfaethedig sy'n rhan annatod o'r NSIP, a pha rai sy'n gyfystyr â 'datblygiad cysylltiedig' fel y'i disgrifir o dan Ddeddf Cynllunio 2008 neu y gellir eu hystyried yn fater ategol. Dylai unrhyw waith arfaethedig a/neu seilwaith sy'n ofynnol fel datblygiad cysylltiedig neu fel mater ategol gael ei asesu yn rhan o ymagwedd integredig at EIA.

2.3.3 Mae'r Arolygiaeth yn nodi nad yw'r Adroddiad Cwmpasu yn rhoi amcangyfrif clir o gapasiti unigol na chyfunol WTGs (MW) ar gyfer y Datblygiad Arfaethedig. Er enghraifft, mae Pennod 1 yr Adroddiad Cwmpasu yn datgan '*capasiti o fwy na 100 MW*', tra bod Llythyr Eglurhaol yr Adroddiad Cwmpasu yn datgan '*capasiti o fwy na 350 MW*'. **Dylai'r Ymgeisydd roi amcangyfrif clir o allbwn WTG (unigol a chyfunol)** a sicrhau bod hyn yn gyson drwy gydol yr ES ac mewn dogfennau atodol.

2.3.4 Mae Tabl 6 yr Adroddiad Cwmpasu yn rhoi'r paramedrau ar gyfer sylfeini seilost unigol WTG, gan gynnwys yr ôl troed mwyaf fesul sylfaen (m^2). Fodd bynnag, nid yw hyn yn cynnwys gosod deunyddiau i atal erydu. Mae paragraff 3.4.6 yr Adroddiad Cwmpasu yn datgan y bydd arwynebedd mwyaf y deunyddiau i atal erydu fesul sylfaen (gan gynnwys arwynebedd ôl troed y strwythur) (m^2) oddeutu 41,000 m^2 . **Dylai'r Ymgeisydd gyfiawnhau yn yr ES pam mae gosod deunyddiau i atal erydu wedi'i gynnwys neu ei hepgor wrth amcangyfrif diamedr mwyaf yr ôl troed (m^2) ar gyfer pob math o sylfaen a ystyriar ar gyfer dylunio'r Datblygiad Arfaethedig.**

2.3.5 Mae'r Arolygiaeth yn nodi bod paragraff 3.4.7 yr Adroddiad Cwmpasu yn datgan bod mast meteorolegol a LiDAR arnofiol yn cael eu hystyried yn nyluniad y Datblygiad Arfaethedig. Fodd bynnag, nid yw LiDAR arnofiol wedi'i ddisgrifio ym Mhennod 3, Tabl 2 ac ni roddwyd paramedrau yn yr Adroddiad Cwmpasu hwn.

Dylai'r Ymgeisydd roi disgrifiad, amcangyfrif o baramedrau ac asesiad o effaith LiDAR arnofiol yn yr ES.

- 2.3.6 Mae'r Adroddiad Cwmpasu yn cyfeirio at gylchedau allforio yn Nhabl 19 a Thabl 20, ond nid yw'r gydran hon wedi'i disgrifio yn yr Adroddiad Cwmpasu. Dylai'r Ymgeisydd roi disgrifiad clir o gylchedau allforio a sut mae'r gydran hon yn berthnasol i elfennau eraill o'r Datblygiad Arfaethedig (e.e. nifer y ceblau) yn yr ES. Yn ogystal, mae Tabl 20 yn amcangyfrif y paramedr 'cyfanswm hyd ceblau ar y tir' ar gyfer dau gebl yn unig. Fodd bynnag, mae'r dyluniad ar gyfer 'uchafswm nifer y ceblau fesul cylched' yn nodi hyd at saith cebli. Dylai'r Ymgeisydd egluro pam y defnyddiwyd dau gebl yn unig yn y paramedr amcangyfrif hwn yn yr ES.
- 2.3.7 Mae paragraff 95 yr Adroddiad Cwmpasu yn datgan y bydd angen gwneud newidiadau i is-orsaf bresennol Bodelwyddan ac os oes angen caniatâd cynllunio ar y newidiadau hyn y gellid ei gael naill ai gan y Grid Cenedlaethol neu gan yr Ymgeisydd. Dylai'r disgrifiad o'r prosiect yn yr ES esbonio p'un a yw'r elfen hon o'r Datblygiad Arfaethedig wedi'i chynnwys yn y DCO. Os nad yw wedi'i chynnwys yn y DCO, mae'n rhaid i'r asesiadau cronnol a gyflwynir yn yr ES asesu unrhyw effeithiau arwyddocaol sy'n deillio o'r newidiadau, hyd yn oed os nad oes arnynt angen caniatâd cynllunio.

Mynediad Arfaethedig

- 2.3.8 Nid yw'n amlwg o'r wybodaeth a ddarparwyd yn yr Adroddiad Cwmpasu sut mae'r ymgeisydd yn bwriadu cael gafael ar y dŵr/tir sy'n ofynnol ar gyfer arolygon cyn-adeiladu a monitro, adeiladu a gweithredu/cynnal a chadw'r Datblygiad Arfaethedig. Dylai'r Ymgeisydd ddisgrifio'r llwybrau mynediad arfaethedig, y mathau o gerbydau a nifer y personél sy'n ofynnol ar gyfer arolygu, adeiladu a gweithredu/cynnal a chadw safleoedd ar y tir ac ar y môr. Bydd angen i hyn gael ei ystyried a'i asesu yn rhan o'r ES.

Adeiladu

- 2.3.9 Mae'r Arolygiaeth yn nodi nad yw'r Adroddiad Cwmpasu yn darparu gwybodaeth am faint a lleoliad cyfadeiladau adeiladu. Er y sylweddolir efallai na fydd y wybodaeth hon ar gael ar yr adeg hon o'r broses ymgeisio NSIP, atgoffir Ymgeiswyr y bydd y wybodaeth hon yn ofynnol ac y dylid ei chynnwys yn y ffin DCO.
- 2.3.10 Mae'r Arolygiaeth o'r farn y dylai gwybodaeth am adeiladu gael ei nodi'n glir yn yr ES, gan gynnwys: camau'r rhaglen; dulliau adeiladu a gweithgareddau sy'n gysylltiedig â phob cam; lleoliad cyfadeiladau adeiladu (gan gynnwys ar y safle ac oddi arno); offer/gofynion goleuo; a nifer, symudiadau a threfniadau parcio cerbydau adeiladu (cerbydau nwyddau trwm (HGVs) a staff).
- 2.3.11 Mae paragraff 126 yr Adroddiad Cwmpasu yn cyfeirio at 'goridor gweithio dros dro' mewn perthynas ag adeiladu ffosydd ar gyfer yr ECR ar y tir. Fodd bynnag, nid yw'r Adroddiad Cwmpasu yn disgrifio maint, lleoliad a hyd (y bydd angen mynediad ar ei gyfer) y corridor gweithio dros dro. Dylai'r Ymgeisydd ddarparu disgrifiad, amcangyfrif o baramedrau ac asesiad o effaith y corridor gweithio dros dro yn yr ES.

- 2.3.12 Mae paragraff 3.6.1 yr Adroddiad Cwmpasu yn datgan y gallai'r Ymgeisydd weithredu cynllun rheoli ar gyfer tynnu pridd ymaith a'i storio yn y corridor gweithio dros dro. Ystyrir y dylai pridd gael ei drin, ei storio a'i adfer yn unol â Chynllun Rheoli Pridd (SMP) sy'n amlinellu mesurau lliniaru arfer da i leihau effeithiau niweidiol ar yr adnodd pridd i'r eithaf. Gallai'r Ymgeisydd ddymuno cyfeirio at ganllawiau a amlinellir yn nogfen Adran yr Amgylchedd, Bwyd a Materion Gwledig (DEFRA) 'Cod Ymarfer Adeiladu ar gyfer Defnydd Cynaliadwy o Briddoedd ar Safleoedd Adeiladu'.

Gweithredu a Chynnal a Chadw

- 2.3.13 Dylai'r ES ddisgrifio dulliau gweithredu a chynnal a chadw'r Datblygiad Arfaethedig gan gynnwys (ond nid yn gyfyngedig i); nifer y swyddi amser llawn/rhan-amser, yr oriau gweithredu a phatrymau sifft (os oes angen), y nifer a'r math o symudiadau cerbydau a gynhyrchir yn ystod y cam gweithredu.

Datgomisiynu

- 2.3.14 Mae paragraff 3.9 yr Adroddiad Cwmpasu yn datgan mai oes weithredol y Datblygiad Arfaethedig yw 'oddeutu 25 mlynedd'. Mae'r Arolygiaeth yn argymhell bod oes ddisgwylledig fwyaf y Datblygiad Arfaethedig yn cael ei nodi'n glir yn y bennod 'Disgrifiad o'r Prosiect' yn yr ES fel ei fod yn glir pa baramedrau a ddefnyddiwyd wrth asesu effeithiau.

- 2.3.15 Mae'r Adroddiad Cwmpasu yn awgrymu y bydd effeithiau o ddatgomisiynu yn cael eu rheoli trwy llynw wrth fesurau lliniaru sy'n debyg i'r rhai a ddefnyddir yn ystod adeiladu. Dylai'r Ymgeisydd sicrhau bod y mesurau lliniaru y dibynnir arnynt yn yr ES yn cael eu diffinio'n briodol ac y sicrheir eu bod yn cael eu cyflawni.

- 2.3.16 Mae'r Arolygiaeth yn cydnabod po bellaf i'r dyfodol y gwneir unrhyw asesiad, y lleiaf dibynadwy yw'r canlyniad. Fodd bynnag, diben asesu'r cam datgomisiynu yw gallu ystyried y cam datblygu hwn yn y broses ddylunio, gan leihau effeithiau amgylcheddol posibl sy'n gysylltiedig â datgomisiynu'r Datblygiad Arfaethedig. Dylai'r broses a'r dulliau datgomisiynu gael eu hystyried, a dylid cyflwyno opsiynau yn yr ES. Lle mae'r ES yn tybio y byddai'r effeithiau'n debyg i effeithiau adeiladu, dylai'r ES roi cyfiawnhad clir i ategu'r safbwyt hwn.

Dewisiadau Amgen

- 2.3.17 Mae'r Rheoliadau EIA yn mynnu bod yr Ymgeisydd yn rhoi 'Disgrifiad o'r dewisiadau amgen rhesymol (er enghraifft, o ran dyluniad, technoleg, lleoliad, maint a graddfa'r datblygiad) a astudiyd gan y datblygwr, sy'n berthnasol i'r prosiect arfaethedig a'i nodweddion penodol, a syniad o'r prif resymau dros ddeithol yr opsiwn a ddewiswyd, gan gynnwys cymharu'r effeithiau amgylcheddol'.

- 2.3.18 Mae'r Arolygiaeth yn cydnabod bwriad yr Ymgeisydd i ystyried dewisiadau amgen yn yr ES. Byddai'r Arolygiaeth yn disgwyl gweld adran ar wahân yn yr ES sy'n rhoi manylion y dewisiadau amgen rhesymol a astudiyd a'r rhesymeg dros ddeithol yr opsiwn/opsiynau a ddewiswyd, gan gynnwys cymharu'r effeithiau amgylcheddol.

Hyblygrwydd

- 2.3.19 Mae'r Arolygiaeth yn nodi awydd yr Ymgeisydd i gynnwys hyblygrwydd yn ei DCO drafft (dDCO) a'i fwriad i ddefnyddio dull Amlen Rochdale at y diben hwn. Lle na ellir diffinio manylion y Datblygiad Arfaethedig yn fanwl gywir, bydd yr Ymgeisydd yn defnyddio scenario achos gwaethaf. Mae'r Arolygiaeth yn croesawu'r cyfeiriad at Nodyn Cyngor Naw yr Arolygiaeth Gynllunio 'Defnyddio Amlen Rochdale' yn hyn o beth.
- 2.3.20 Dylai'r Ymgeisydd wneud pob ymdrech i gulhau'r ystod o opsiynau ac esbonio'n glir yn yr ES ba elfennau o'r Datblygiad Arfaethedig nad ydynt wedi'u cwblhau'n derfynol eto, gan roi'r rhesymau. Ar adeg y cais, ni ddylai unrhyw rai o baramedrau'r Datblygiad Arfaethedig fod mor bellgyrhaeddol â'u bod yn cynrychioli datblygiadau gwahanol i bob pwrrpas. Bydd angen i baramedrau'r datblygiad gael eu diffinio'n glir yn y dDCO ac yn yr ES sy'n cyd-fynd ag ef. Mater i'r Ymgeisydd, wrth baratoi ES, yw ystyried p'un a oes modd asesu'n gadarn ystod o effeithiau sy'n deillio o nifer fawr o baramedrau sydd heb eu penderfynu. Ni ddylai'r disgrifiad o'r Datblygiad Arfaethedig yn yr ES fod mor eang fel nad yw'n ddigon sicr i gydymffurfio â gofynion Rheoliad 14 y Rheoliadau EIA.
- 2.3.21 Dylid nodi os bydd y Datblygiad Arfaethedig yn newid yn sylweddol cyn cyflwyno'r cais DCO, gallai'r Ymgeisydd ddymuno ystyried gofyn am farn gwmpasu newydd.

3. YMAGWEDD AT DDATGANI AD AMGYLCHEDDOL

3.1 Cyflwyniad

- 3.1.1 Mae'r adran hon yn cynnwys sylwadau penodol yr Arolygiaeth ar gwmpas a lefel y manylion sydd i'w darparu yn Natganiad Amgylcheddol (ES) yr Ymgeisydd. Rhoddir cyngor cyffredinol ar gyflwyno ES yn Nodyn Cyngor Saith yr Arolygiaeth (Asesu Effeithiau Amgylcheddol: Proses, Gwybodaeth Amgylcheddol Ragarweiniol a Datganiadau Amgylcheddol)¹ ac atodiadau cysylltiedig.
- 3.1.2 Nid yw agweddu/ materion (fel y'u diffinnir yn Nodyn Cyngor Saith) yn cael eu hepgor o'r broses gwmpasu oni bai bod yr Ymgeisydd yn rhoi sylw penodol iddynt a'u cyfiawnhau, a bod yr Arolygiaeth yn cadarnhau eu bod wedi'u hepgor o'r broses gwmpasu. Dylai'r ES gael ei seilio ar y Farn Gwmpasu i'r graddau bod y Datblygiad Arfaethedig yn parhau i fod yr un fath yn ei hanfod â'r Datblygiad Arfaethedig a ddisgrifir yn Adroddiad Cwmpasu'r Ymgeisydd.
- 3.1.3 Mae'r Arolygiaeth wedi amlinellu yn y Farn hon lle y mae wedi cytuno/heb gytuno hepgor rhai materion o'r broses gwmpasu ar sail y wybodaeth sydd ar gael ar yr adeg hon. Mae'n ymddangos bod anghysondebau rhwng y materion y dangosir eu bod wedi'u hepgor o'r asesiad yn y penodau agwedd o'r Adroddiad Cwmpasu a'r rhai a restrir yn Nhablau 103 – 106. Mae'r Arolygiaeth wedi ystyried y materion hynny y mae'r Ymgeisydd yn ceisio eu hepgor o'r asesiad yn y penodau agwedd yn unig, oherwydd dyma lle y darparwyd y dystiolaeth sy'n ategu casgliadau'r Ymgeisydd. Er mwyn osgoi amheuaeth, yr unig faterion y mae'r Arolygiaeth wedi cytuno i'w hepgor o'r broses gwmpasu yw'r rhai hynny a amlygir yn y Tablau agwedd yn adran 4 yr adroddiad hwn.
- 3.1.4 Mae'r Arolygiaeth yn fodlon na ddylai derbyn Barn Gwmpasu atal yr Ymgeisydd rhag cytuno â'r cyrff ymgynghori perthnasol i hepgor materion o'r fath o broses gwmpasu'r ES wedi hynny, lle y darparwyd dystiolaeth bellach i gyfiawnhau'r ymagwedd hon. Fodd bynnag, er mwyn dangos bod yr agweddu/ materion wedi derbyn sylw'n briodol, dylai'r ES esbonio'r sail resymegol dros eu hepgor o'r broses gwmpasu a chyfiawnhau'r ymagwedd a ddefnyddiwyd.
- 3.1.5 Mae'r Arolygiaeth wedi gwneud ymdrech i sicrhau bod y Farn Gwmpasu hon yn cael ei llywio trwy ymgynghori'n effeithiol â'r cyrff ymgynghori perthnasol. Yn anffodus, nid yw'r Arolygiaeth yn gallu derbyn ymatebion ymgynghori ar ffurf copi caled ar hyn o bryd, a gallai hyn effeithio ar allu corff ymgynghori i ymgysylltu â'r broses gwmpasu. Mae'r Arolygiaeth hefyd yn sylweddoli y gallai cydymffurfio'n gaeth â'r cyngor ynghylch COVID-19 effeithio ar allu corff ymgynghori i ddarparu ei ymateb ymgynghori. Mae'r Arolygiaeth o'r farn y dylai Ymgeiswyr wneud ymdrech i sicrhau eu bod yn ymgysylltu'n effeithiol â chyrff ymgynghori a, lle y bo'r angen, yn datblygu cwmpas yr ES ymhellach i fynd i'r afael â'u pryderon a'u cyngor. Dylai'r ES gynnwys gwybodaeth sy'n dangos sut

¹ Nodyn Cyngor Saith: Asesu Effeithiau Amgylcheddol: Proses, Gwybodaeth Amgylcheddol Ragarweiniol a Datganiadau Amgylcheddol ac atodiad. Ar gael yn:
<https://infrastructure.planninginspectorate.gov.uk/cy/legislation-and-advice/advice-notes/>

yr ymgwymerwyd ag ymgysylltu pellach o'r fath a sut mae wedi dylanwadu ar gwmpas yr asesiadau yr adroddir arnynt yn yr ES.

- 3.1.6 Lle y bo'n berthnasol, dylai'r ES gyfeirio at sut y sicrheir bod y mesurau a gynigir i atal effeithiau niweidiol/ lleihau effeithiau niweidiol i'r eithaf yn cael eu darparu trwy ofynion DCO (neu ddulliau eraill sy'n briodol o gadarn) a ph'un a yw'r cyrff ymgynghori perthnasol yn cytuno ar ddigonolrwydd y mesurau a gynigir.

3.2 Datganiadau Polisi Cenedlaethol (NPSs) perthnasol

- 3.2.1 Mae NPSs penodol i sector yn cael eu cynhyrchu gan Adrannau perthnasol y Llywodraeth ac maen nhw'n amlinellu'r polisi cenedlaethol ar gyfer NSIPs. Maen nhw'n darparu'r fframwaith i'r Awdurdod Archwilio (ExA) wneud ei argymhelliaid i'r Ysgrifennydd Gwladol ac yn cynnwys amcanion y Llywodraeth ar gyfer datblygu NSIPs. Gallai'r NSIPs gynnwys gofynion amgylcheddol ar gyfer NSIPs, y dylai Ymgeiswyr fynd i'r afael â nhw yn eu ES.

- 3.2.2 Dyma'r NPS(s) dynodedig sy'n berthnasol i'r Datblygiad Arfaethedig:

- NPS trofwaol ar gyfer Ynni (NPS EN-1);
- NPS ar Seilwaith Ynni Adnewyddadwy (NPS EN-3); a'r
- NPS ar gyfer Seilwaith Rhwydweithiau Trydan (NPS EN-5).

3.3 Cwmpas yr Asesiad

Cyffredinol

- 3.3.1 Er mwyn helpu'r broses benderfynu, mae'r Arolygiaeth yn argymhell bod yr Ymgeisydd yn defnyddio tablau:

- i ddangos sut mae'r asesiad wedi ystyried y Farn hon;
- i amlygu a choladu'r effeithiau gweddilliol ar ôl lliniaru ar gyfer pob un o'r penodau agwedd, gan gynnwys y cyd-berthynas a'r effeithiau cronnol perthnasol;
- i amlinellu'r mesurau lliniaru a/ neu'r mesurau monitro arfaethedig, gan gynnwys croesgyfeirio i'r dull o sicrhau'r cyfryw fesurau (e.e. gofyniad dDCO);
- i ddisgrifio unrhyw fesurau unioni yr amlygir eu bod yn angenrheidiol ar ôl monitro; ac
- i amlygu ble mae manylion wedi'u cynnwys yn yr Asesiad Rheoliadau Cynefinoedd (adroddiad HRA) (lle y bo'n berthnasol), fel disgrifiadau o safleoedd Ewropeaidd a'u lleoliadau, ynghyd ag unrhyw fesurau lliniaru neu ddigolledu, i'w canfod yn yr ES.

- 3.3.2 Mae sawl agwedd yn yr Adroddiad Cwmpasu yn bwriadu datblygu ardal astudio ar gyfer yr asesiad yn seiliedig ar bellteroedd sefydlog (a bennwyd o flaen llaw). Nid yw'r Adroddiad Cwmpasu yn esbonio'n fanwl pam mae'r ymagwedd hon yn briodol o ystyried yr agwedd benodol neu'r mater dan sylw. Mae'r Arolygiaeth o'r farn y dylai ardaloedd astudio ar gyfer asesiadau gael eu pennu yn seiliedig

ar raddau'r effaith debygol a sensitfrwydd y derbynnydd perthnasol. Dylai hyn gynnwys y Datblygiad Arfaethedig yn ei gyfanrwydd, gan nodi'r diffyg eglurder yn hyn o beth o ran yr aráe a'r ECR ar y môr. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ardaloedd astudio gyda'r cyrff ymgynghori perthnasol.

- 3.3.3 Mae'r Adroddiad Cwmpasu yn gwneud cais am hepgor asesiad o effeithiau cronnol o'r broses gwmpasu mewn perthynas â sawl agwedd. Mae'r rhesymau sy'n ategu'r ceisiadau hyn yn ymwneud â natur 'cyfnod byr', 'lleo'l a 'dros dro' yr effeithiau disgwyliedig. Prin yw'r cyfiawnhad yn y wybodaeth sy'n ategu'r ceisiadau hyn ac mae anghysondeb yn yr Adroddiad Cwmpasu. Er mwyn osgoi amheuaeth ac yn absenoldeb y wybodaeth sy'n ofynnol i ategu'r casgliad, nid yw'r Arolygiaeth yn cytuno hepgor y materion hyn o'r broses gwmpasu. Dylai'r ES gynnwys asesiad o effeithiau cronnol ar gyfer pob agwedd a mater lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Ni ddylai'r asesiad o effeithiau cronnol gael ei gyfyngu i un math penodol o ddatblygiad. Yn lle hynny, dylai ganolbwytio ar y potensial ar gyfer effeithiau sy'n gorgyffwrdd ac effeithiau arwyddocaol tebygol. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar yr ymagwedd at asesu effeithiau cronnol gyda'r cyrff ymgynghori perthnasol. Mae'r Arolygiaeth yn annog yr Ymgeisydd i ddefnyddio'r cyngor sydd wedi'i gynnwys yn ei Nodyn Cyngor Dau ar Bymtheg ynglŷn â'r ymagwedd at asesu effeithiau cronnol.
- 3.3.4 Mae'r Adroddiad Cwmpasu yn gwneud sawl cyfeiriad at ddefnyddio barn broffesiynol wrth asesu effeithiau. Dylai'r ES esbonio'n glir y rhesymau dros ddefnyddio barn broffesiynol, lle y gwnaed hynny, a'r cyfiawnhad dros ei defnyddio.
- 3.3.5 Nid oes gan y ffigurau a roddir yn yr Adroddiad Cwmpasu gyfeirnod sy'n cyfateb i'r rhai a gyflwynir yn y rhestr ffigurau yn adran Cynnwys (e.e. ffigur 1) yr Adroddiad Cwmpasu. Byddai o gymorth i'r Arolygiaeth (pe byddai'r cais yn cael ei dderbyn i'w archwilio) pe gellid mynd i'r afael â hyn yn yr ES. Atgoffir yr Ymgeisydd y dylai'r ES fod yn glir ac yn hygyrch i ddarllenwyr.

Scenario Sylfaenol

- 3.3.6 Dylai'r ES gynnwys disgrifiad o'r scenario sylfaenol gyda'r datblygiad wedi'i weithredu a hebddo, i'r graddau y gellir asesu newidiadau naturiol o'r sefyllfa sylfaenol gydag ymdrech resymol ar sail y wybodaeth amgylcheddol a gwyddonol sydd ar gael.
- 3.3.7 O ystyried nifer y datblygiadau parhaus yng nghyffiniau safle cais y Datblygiad Arfaethedig, dylai'r Ymgeisydd ddatgan yn glir pa ddatblygiadau y tybir eu bod wrthi'n cael eu hadeiladu neu'n weithredol yn rhan o'r llinell sylfaen yn y dyfodol.
- 3.3.8 O ran nifer o agweddu, mae'r Adroddiad Cwmpasu yn bwriadu dibynnu ar wybodaeth a gafwyd yn flaenorol i ddatblygu scenario sylfaenol a llywio modelu dilynol. Mae'r Arolygiaeth yn deall buddion posibl yr ymagwedd hon, ond mae'n cynghori y dylid cymryd gofal priodol i sicrhau bod y wybodaeth yn yr ES yn parhau i fod yn gynrychioliadol ac yn addas i'r diben. Dylai hyn gynnwys ystyried effaith datblygiadau mwy diweddar sydd wedi digwydd ar ôl yr adeg pan gasglwyd y data. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar addasrwydd y

wybodaeth a ddefnyddir ar gyfer yr asesiadau yn yr ES gyda'r cyrff ymgynghori perthnasol (e.e. Cyfoeth Naturiol Cymru).

Dulliau Rhagfynegi neu Dystiolaeth

- 3.3.9 Mae'r Adroddiad Cwmpasu yn cyfeirio at arolygon '*penodol i safle*' fel y rhai hynny a gynhyrchwyd yn benodol at ddibenion y Datblygiad Arfaethedig o gymharu â'r rhai hynny a gynhyrchwyd at ddibenion eraill, ond sy'n berthnasol. Nid yw'r Arolygiaeth o'r farn bod y gwahaniaeth hwn yn arbennig o ddefnyddiol nac yn angenrheidiol. Yn lle hynny, dylai'r ES ganolbwytio ar addasrwydd unrhyw wybodaeth a ddefnyddir i lywio'r asesiad a sicrhau ei bod yn berthnasol at y diben hwnnw.
- 3.3.10 Dylai'r ES gynnwys y graddfeydd amser ar gyfer yr arolygon sy'n sail i'r asesiadau technegol. Er mwyn eglurder, dylid darparu'r wybodaeth hon naill ai ym mhenodau cyflwyniadol yr ES (gan gadarnhau bod y graddfeydd amser hyn yn berthnasol i bob pennod), neu ym mhob pennod agwedd.
- 3.3.11 Mae'r Arolygiaeth yn disgwyl i'r ES gynnwys pennod sy'n amlinellu'r fethodoleg drofwaol ar gyfer yr asesiad, sy'n gwahaniaethu'n glir rhwng effeithiau sy'n 'arwyddocaol' ac effeithiau 'nad ydynt yn arwyddocaol'. Dylai unrhyw wyriad oddi wrth y fethodoleg honno gael ei ddisgrifio mewn penodau sy'n asesu agweddau unigol.
- 3.3.12 Mae'r ymatebion gan sawl ymgynghorai (gweler Atodiad 2 yr adroddiad hwn) yn cyfeirio at yr angen i ystyried y rhywogaethau a'r cynefinoedd yr ymdrinnir â nhw yn adran 7 Deddf yr Amgylchedd (Cymru) 2016. Dylai'r ES gynnwys asesiad o'r effeithiau ar y rhywogaethau a'r cynefinoedd hyn lle y gellid disgwyl effaith arwyddocaol debygol (LSE).
- 3.3.13 Mae nifer o agweddau yn yr Adroddiad Cwmpasu yn gwneud cyfeiriadau cyfyngedig at yr union ddulliau a chanllawiau perthnasol i'w defnyddio i ddiffinio a meintioli effeithiau arwyddocaol posibl. Dylai'r ES gynnwys digon o fanylion ym mhob pennod agwedd i esbonio'r dulliau asesu a ddefnyddiwyd ac unrhyw dybiaethau a chyfngiadau a gymhwyswyd i'r asesiad. Lle y defnyddiwyd 'barn arbenigol' i lywio'r asesiad, dylid adrodd ar hyn a'i gyfiawnhau yn glir.
- 3.3.14 Dylai'r ES gynnwys manylion anawsterau (er enghraift, diffygion technegol neu ddiffyg gwybodaeth) y daethpwyd ar eu traws wrth gasglu'r wybodaeth sy'n ofynnol a'r prif ansicrwydd sy'n gysylltiedig.

Gweddillion ac Allyriadau

- 3.3.15 Mae'r Rheoliadau EIA yn mynnu amcangyfrif, yn ôl math a swm, o'r gweddillion a'r allyriadau a ddisgwylir. Dylid cyfeirio'n benodol at lygredd dŵr, aer, pridd ac isbridd, sŵn, dirgryniad, golau, gwres, ymbelydredd a symiau a mathau o wastraff a gynhyrchir yn ystod y camau adeiladu a gweithredu, lle y bo'n berthnasol. Dylid darparu'r wybodaeth hon mewn modd clir a chyson a gellid ei chynnwys yn yr asesiadau agwedd perthnasol.

Mesurau Lliniaru a Monitro

3.3.16 Dylai unrhyw fesurau lliniaru y dibynnir arnynt at ddibenion yr asesiad gael eu hesbonio'n fanwl yn yr ES. Dylai effeithiolrwydd tebygol y mesurau lliniaru a gynigir gael ei esbonio gan gyfeirio at effeithiau gweddilliol. Dylai'r ES hefyd fynd i'r afael â sut y bydd unrhyw fesurau lliniaru a gynigir yn cael eu sicrhau, gan gyfeirio at ofynion DCO penodol neu gytundebau eraill sy'n gyfreithiol gyfrwymol.

3.3.17 Dylai'r ES amlygu a disgrifio unrhyw fesurau monitro a gynigir ar gyfer effeithiau niweidiol arwyddocaol a sut y byddai canlyniadau'r cyfryw fonitro'n cael eu defnyddio i lywio unrhyw gamau unioni sy'n angenrheidiol.

Risgiau Damweiniau Mawr a/neu Drychinebau

3.3.18 Dylai'r ES gynnwys disgrifiad ac asesiad (lle y bo'n berthnasol) o'r effeithiau arwyddocaol tebygol o ganlyniad i ddamweiniau a thrychinebau sy'n berthnasol i'r Datblygiad Arfaethedig. Dylai'r Ymgeisydd ddefnyddio canllawiau priodol (e.e. y cyfeirir atynt yn Atodiad yr Awdurdod Gweithredol Iechyd a Diogelwch (HSE) i Nodyn Cyngor 11) i gael dealltwriaeth well o debygolrwydd digwyddiad a pha mor agored yw'r Datblygiad Arfaethedig i beryglon a damweiniau mawr posibl. Dylai'r disgrifiad a'r asesiad ystyried pa mor agored yw'r Datblygiad Arfaethedig i ddamwain neu drychineb posibl, yn ogystal â photensial y Datblygiad Arfaethedig i achosi damwain neu drychineb. Dylai'r asesiad roi sylw penodol i asesu effeithiau arwyddocaol sy'n deillio o'r risgiau i iechyd dynol, treftadaeth ddiwylliannol neu'r amgylchedd. Dylai unrhyw fesurau a ddefnyddir i atal a rheoli effeithiau arwyddocaol gael eu cyflwyno yn yr ES.

3.3.19 Gall gwybodaeth berthnasol sydd ar gael ac a gafwyd trwy asesiadau risg yn unol â deddfwriaeth yr Undeb Ewropeidd, megis Cyfarwyddeb 2012/18/EU Senedd Ewrop a'r Cyngor neu Gyfarwyddeb 2009/71/Euratom y Cyngor, neu asesiadau perthnasol a gynhelir yn unol â deddfwriaeth genedlaethol gael eu defnyddio at y diben hwn ar yr amod y bodlonir gofynion y Gyfarwyddeb hon. Lle y bo'n briodol, dylai'r disgrifiad hwn gynnwys mesurau y disgwylir iddynt atal neu liniaru effeithiau niweidiol arwyddocaol digwyddiadau o'r fath ar yr amgylchedd, a manylion y paratoadau ar gyfer argyfngau o'r fath a'r ymateb arfaethedig iddynt.

Yr Hinsawdd a'r Newid yn yr Hinsawdd

3.3.20 Dylai'r ES gynnwys disgrifiad ac asesiad (lle y bo'n berthnasol) o effeithiau arwyddocaol tebygol y Datblygiad Arfaethedig ar yr hinsawdd (er enghraifft, ystyried natur a maint allyriadau nwyon tŷ gwydr) a pha mor agored yw'r prosiect i'r newid yn yr hinsawdd. Lle y bo'n berthnasol, dylai'r ES ddisgrifio ac asesu'r gallu i addasu sydd wedi'i gynnwys yn nyluniad y Datblygiad Arfaethedig. Gallai hyn gynnwys, er enghraifft, mesurau amgen fel newidiadau i ddefnyddio deunyddiau neu dechnegau adeiladu a dylunio a fydd yn fwy cydnerth i risgiau'r newid yn yr hinsawdd.

Effeithiau Trawsffiniol

- 3.3.21 Mae Atodlen 4 Rhan 5 y Rheoliadau EIA yn mynnu bod ES yn cynnwys disgrifiad o'r effeithiau trawsffiniol arwyddocaol tebygol. Mae'r Adroddiad Cwmpasu yn datgan bod y Datblygiad Arfaethedig yn debygol o gael effeithiau arwyddocaol ar Wladwriaeth Ardal Economaidd Ewropeaidd (EEA) arall.
- 3.3.22 Mae Rheoliad 32 y Rheoliadau EIA yn mynnu, ymhlið pethau eraill, bod yr Arolygiaeth yn rhoi cyhoeddusrwydd i gais DCO ar ran yr Ysgrifennydd Gwladol os yw o'r farn bod y cynnig yn debygol o gael effeithiau arwyddocaol ar amgylchedd gwladwriaeth EEA arall a, lle y bo'n berthnasol, ymgynghori â'r wladwriaeth EEA yr effeithir arni.
- 3.3.23 Mae'r Arolygiaeth o'r farn, lle mae Rheoliad 32 yn berthnasol, fod hyn yn debygol o arwain at oblygiadau o ran archwilio cais DCO. Mae'r Arolygiaeth yn argymhell y dylai'r ES amlyu p'un a allai'r Datblygiad Arfaethedig gael effeithiau trawsffiniol arwyddocaol ac, os felly, beth ydynt a pha Wladwriaethau EEA yr effeithir arnynt. Mae'r Adroddiad Cwmpasu yn ceisio hepgor effeithiau trawsffiniol o'r broses gwmpasu ar gyfer rhai agweddu ar yr amgylchedd. Nid yw'r Arolygiaeth wedi cynnal ei hasesiad trawsffiniol ei hun eto, felly nid yw'n cytuno hepgor yr agweddu hyn o'r broses gwmpasu ar yr adeg hon.

Rhestr Gyfeirio

- 3.3.24 Mae'n rhaid cynnwys rhestr gyfeirio yn yr ES sy'n manylu ar y ffynonellau a ddefnyddiwyd ar gyfer y disgrifiadau a'r asesiadau.

3.4 Y Coronafeirws (COVI D-19) a Chasglu Gwybodaeth a Data Amgylcheddol

- 3.4.1 Mae'r Arolygiaeth yn deall y gallai'r mesurau a orfodwyd gan y llywodraeth mewn ymateb i COVID-19 effeithio ar allu Ymgeisydd i gael gwybodaeth amgylcheddol berthnasol at ddibenion ei ES. Mae'r Arolygiaeth yn deall y gallai fod yn anodd cynnal arolygon penodol a chael data cynrychioliadol yn yr amgylchiadau presennol.
- 3.4.2 Mae gan yr Arolygiaeth ddyletswydd i sicrhau bod yr asesiadau amgylcheddol sy'n angenrheidiol i lywio cais DCO cadarn yn cael eu hategu gan wybodaeth berthnasol a chyfredol. Gan weithio'n agos gyda chyrff ymgynghori, bydd yr Arolygiaeth yn ceisio defnyddio dull hyblyg, gan gydbwyo'r angen am drylwyrder addas a sicrwydd gwyddonol mewn asesiadau ag ymarferoldeb er mwyn cefnogi'r broses o baratoi a phenderfynu ar geisiadau mewn modd amserol.
- 3.4.3 Dylai Ymgeiswyr wneud ymdrech i gytuno ar ddull o gasglu a chyflwyno gwybodaeth gyda'r cyrff ymgynghori perthnasol. Yn eu tro, mae'r Arolygiaeth yn disgwyl i'r cyrff ymgynghori weithio gydag Ymgeiswyr i ddod o hyd i ddulliau a phwyntiau cyfeirio addas i ganiatáu ar gyfer paratoi ceisiadau ar yr adeg hon. Mae'n ofynnol i'r Arolygiaeth ystyried y cyngor a gaiff gan y cyrff ymgynghori a bydd yn parhau i wneud hynny yn hyn o beth.

3.5 Gwybodaeth Gyfrinachol a Sensitif

- 3.5.1 Mewn rhai amgylchiadau, bydd yn briodol cadw gwybodaeth yn gyfrinachol. Yn arbennig, gallai hyn ymwneud â gwybodaeth bersonol sy'n nodi enwau a chymwysterau'r rhai sy'n ymgymryd â'r asesiadau a / neu bresenoldeb a lleoliadau rhywogaethau prin neu sensitif, fel moch daear, adar a phlanhigion prin, a allai gael eu haflonyddu, eu niweidio, eu herlyn neu eu hecsbloetio'n fasnachol pe byddai'r wybodaeth yn cael ei chyhoeddi.
- 3.5.2 Lle y bwriedir i ddogfennau aros yn gyfrinachol, dylai'r Ymgeisydd eu darparu ar ffurf dogfennau papur ac electronig ar wahân gan nodi eu natur gyfrinachol **yn glir yn y teitl a thrwy ddyfrnod sy'n nodi hynny ar bob tudalen.** Ni ddylai'r wybodaeth gael ei chynnwys mewn dogfennau eraill y bwriedir eu cyhoeddi neu **y byddai'n ofynnol i'r Arolygiaeth eu datgelu o dan Reoliadau Gwybodaeth Amgylcheddol 2004.**
- 3.5.3 **Mae'r Arolygiaeth yn dilyn y protocolau diogelu data a osodwyd gan Swyddfa'r Comisiynydd Gwybodaeth².** Cyfeiriwch at hysbysiad preifatrwydd Seilwaith Cenedlaethol yr Arolygiaeth³ i gael rhagor o wybodaeth am sut mae data personol yn cael ei reoli yn ystod proses Deddf Cynllunio 2008.

² <https://ico.org.uk>

³ <https://infrastructure.planninginspectorate.gov.uk/cy/help-2/privacy-and-cookie/>

4. TABLAU CWMPASU SEI LI EDIG AR AGWEDDAU

4.1 Yr amgylchedd ar y môr – prosesau ffisegol

(Adroddiad Cwmpasu; adran 7.1)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.1.1	Paragraffau 333-336 Tabl 103	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraffau 333-336 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3 y Farn Gwmpasu hon.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.1.2	Tabl 28, Rhif Effaith 7.1.1	Newidiadau posibl i grynnodiadau gwaddodion crog, lefelau gwely'r môr a'r math o waddodion o ganlyniad i adeiladu a datgomisiynu'r Datblygiad Arfaethedig.	Nid yw'r Adroddiad Cwmpasu yn esbonio'n glir sut y bydd 'asesiadau taenlen' yn defnyddio data sylfaenol presennol ac arolygon penodol i safle i asesu effeithiau ar grynnodiadau gwaddodion crog, lefelau gwely'r môr a'r math o waddodion. Dylai'r ES ddisgrifio'r ymagwedd hon yn glir a rhoi cyfawnhad clir i sicrhau bod dystiolaeth o asesiadau blaenorol yn berthnasol i'r Datblygiad Arfaethedig.
4.1.3	Tabl 28, Rhif Effaith 7.1.6	Gosod deunyddiau i atal erydu o ganlyniad i weithredu'r Datblygiad arfaethedig.	Nid yw'r Adroddiad Cwmpasu yn esbonio'n glir sut y bydd y 'dull ceidwadol gan ddefnyddio perthnasoedd safonol' yn defnyddio'r data sylfaenol presennol i asesu effeithiau o ganlyniad i osod deunyddiau i atal erydu. Dylai'r ES ddisgrifio'r ymagwedd hon yn glir a rhoi cyfawnhad clir i sicrhau bod dystiolaeth o asesiadau blaenorol yn berthnasol i'r Datblygiad Arfaethedig. Dylai'r asesiad hefyd ystyried yr effeithiau sy'n gysylltiedig â defnyddio deunyddiau i atal erydu. Dylai'r

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			Ymgeisydd wneud ymdrech i gytuno ar y dull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys Cyfoeth Naturiol Cymru (CNC).
4.1.4	Tabl 94	Ystyried y rhyngweithio â daeareg y tir a'r asesiad o amodau'r tir.	Mae'r Arolygiaeth yn nodi nad yw'r Adroddiad Cwmpasu yn sôn am ryngweithiad posibl effeithiau rhwng prosesau ffisegol ar y môr a daeareg ac amodau'r tir. Dylai'r ES fynd i'r afael â'r gorgyffyrddiad posibl rhwng daeareg y tir a'r asesiad tir yn yr ES a sicrhau bod unrhyw effeithiau arwyddocaol ar yr ardal rynglanw yn cael eu hasesu.
4.1.5	Paragraff 331	Mesurau lliniaru.	Mae'r Arolygiaeth yn nodi bod yr Ymgeisydd yn bwriadu gweithredu Cynllun Deunyddiau i Atal Erydu a Chynllun Manyleb a Gosod Ceblau. Dylai'r ES ddisgrifio'r mesurau lliniaru y dibynnir arnynt yn yr asesiad a chyflawnhau faint o ddeunyddiau i atal erydu sy'n ofynnol a'r ardal sydd i'w chwmpasu.
4.1.6	Paragraffau 325-328 Tabl 28	Safleoedd dynodedig.	Prin yw'r cyfeiriadau yn yr Adroddiad Cwmpasu at effeithiau posibl y Datblygiad Arfaethedig ar brosesau ffisegol safleoedd dynodedig perthnasol (fel y'u hamlygir yn Nhabl 27 yr Adroddiad Cwmpasu). Mae'r Arolygiaeth o'r farn, er mwyn osgoi amheuaeth, y dylai'r ES gynnwys asesiad o'r effeithiau (uniongyrchol ac anuniongyrchol) ar brosesau ffisegol safleoedd dynodedig perthnasol.
4.1.7	Tabl 28	Effeithiau treillio a Drilio Cyfeiriadol Llorweddol (HDD) ar brosesau ffisegol.	Mae'r Arolygiaeth yn nodi na roddwyd llawer o ystyriaeth i effeithiau posibl treillio a Drilio Cyfeiriadol Llorweddol (HDD) ar brosesau ffisegol. Dylai'r ES gynnwys asesiad o'r effeithiau sy'n gysylltiedig â threillio a gweithgareddau HDD lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.1.8	Tabl 103	Newidiadau i arferion llanw, tonnau a chludo gwaddodion o ganlyniad i	Nid yw'r Adroddiad Cwmpasu yn mynd i'r afael â'r arferion llanw, tonnau a chludo gwaddodion yn ystod adeiladu a datgomisiynu'r

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
		adeiladu a datgomisiynu'r Datblygiad Arfaethedig.	Datblygiad Arfaethedig. Dylai'r ES gynnwys asesiad o'r effeithiau sy'n gysylltiedig â newidiadau i'r arferion llanw, tonnau a chludo gwaddodion lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.

4.2 Ansawdd dŵr y môr a gwaddodion

(Adroddiad Cwmpasu; adran 7.2)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.2.1	Tabl 32, Rhif Effaith 7.2.8	Rhyddhau mwd drilio yn sgil Drilio Cyfeiriadol Llorweddol (HDD) wrth y lanfa o ganlyniad i adeiladu'r Datblygiad Arfaethedig.	Mae'r Arolygiaeth yn nodi bod y wybodaeth a ddarparwyd i gefnogi'r cais yn yr Adroddiad Cwmpasu yn ymwneud â datblygiadau olew a nwy ar y môr. Nid yw'r Arolygaeth o'r farn bod y wybodaeth hon yn gynrychioliadol ac yn berthnasol i'r Datblygiad Arfaethedig. Yn unol â hynny, nid yw'r Arolygiaeth yn cytuno hepgor y materion hyn o broses gwmpasu'r ES. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar y dull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.2.2	Tabl 32, Rhif Effaith 7.2.9	Dirywiad mewn ansawdd dŵr oherwydd bod gwaddodion a halogyddion yn cael eu dal ynghrog drachefn o ganlyniad i weithredu'r Datblygiad Arfaethedig.	Mae'r Adroddiad Cwmpasu yn awgrymu y byddai effeithiau ar ansawdd dŵr yn ystod gweithredu o ganlyniad i osod deunyddiau i atal erydu ' <i>yn is o lawer nag yn ystod adeiladu'</i> , ' <i>yn lleol iawn'</i> ac ' <i>o fewn ystod amrywioldeb naturiol</i> '. Fodd bynnag, ychydig iawn o dystiolaeth a roddwyd i gyfiawnhau'r datganiadau hyn. Nid yw'r Arolygiaeth yn cytuno bod modd i effeithiau posibl deunyddiau i atal erydu ar ansawdd dŵr y môr a gwaddodion, yn sgil gweithredu'r Datblygiad Arfaethedig , gael eu hepgor o'r broses gwmpasu. Mae'r Arolygiaeth hefyd yn nodi y bydd yr effeithiau disgwyliedig yn berthnasol i'r math o sylfeini a lleoliad yr ECR ar y môr, nad ydynt wedi'u penderfynu ar yr adeg hon. Fel y cyfryw, nid yw'r honiad bod effeithiau'n annhebygol ar dderbynnyddion ansawdd dŵr y môr a gwaddodion wedi cael ei gyfiawnhau'n llawn yn yr Adroddiad Cwmpasu. Dylai'r Ymgeisydd sicrhau bod effeithiau arwyddocaol tebygol sy'n gysylltiedig â deunyddiau i atal erydu yn ystod gweithredu yn cael eu hasesu yn yr ES.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.2.3	Paragraffau 373-374 Tabl 103	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraffau 373-374 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3 y Farn Gwmpasu hon.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygydd
4.2.4	Paragraff 346	Dadansoddi halogyddion mewn sampl o waddodion.	Dylai'r Ymgeisydd sicrhau bod samplau gwaddodion a ddefnyddir i ddadansoddi halogyddion (e.e. metelau, hydrocarbonau aromatig polysyklig (PAHs), a Biffenylau Polyclorinedig (PCBs)) yn cael eu casglu ar wahân i samplau ffawna a defnyddio technegau casglu addas. Dylai'r ES gynnwys disgrifiad manwl o'r fethodoleg arolygu a ddefnyddiwyd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.2.5	Tabl 32, Rhif Effaith 7.2.4	Rhyddhau neu ollwng deunyddiau adeiladu neu gemegau yn ddamweiniol – safleoedd dynodedig.	Nid yw'n glir, ar sail y wybodaeth a gyflwynwyd yn yr Adroddiad Cwmpasu, pam mae'r disgrifiad o'r effaith weithredol yn cynnwys 'safleoedd dynodedig' (Rhif Effaith 7.2.4) ond nad ydynt wedi'u cynnwys yn y disgrifiad o'r effaith a roddir ar gyfer adeiladu (Rhif Effaith 7.2.3) a datgomisiynu (Rhif Effaith 7.2.7). Dylai'r ES ystyried effeithiau posibl rhyddhau neu ollwng deunyddiau adeiladu neu gemegau yn ddamweiniol ar safleoedd dynodedig ar bob cam o'r Datblygiad Arfaethedig.
4.2.6	Paragraff 342	Y Gyfarwyddeb Fframwaith Dŵr (WFD).	Mae'r Arolygiaeth o'r farn y dylai'r effeithiau ar gyrrf dŵr yr WFD gael eu hystyried yn gynnar yn y broses ddatblygu. Dylai hyn gynnwys asesiad o effeithiau hydromorffoleg a statws biologol cyrff dŵr yr WFD yn yr asesiad Ansawdd Dŵr y Môr a Gwaddodion. Dylai'r asesiad ddefnyddio canllawiau priodol, gan gynnwys Nodyn Cyngor CNC ar y

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygydd
			Gyfarwyddeb Fframwaith Dŵr, Data Dosbarthiad WFD Water Watch, UKTAG 2008 a Nodyn Cyngor 18 yr Arolygiaeth.
4.2.7	Tabl 32	Effeithiau'r ECR ar y môr yn sgil gweithredu'r Datblygiad Arfaethedig.	Nid yw'r Adroddiad Cwmpasu yn mynd i'r afael ag effeithiau thermol ar Ansawdd Dŵr y Môr a Gwaddodion sy'n deillio o weithredu'r ECR ar y môr. Mae'r Arolygiaeth o'r farn y dylai'r ES asesu'r effeithiau hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.2.8	Tabl 90, Rhif Effaith 10.6.1	Dŵr ffo afloyw o dir.	Dylai'r ES asesu'r cydberthynas rhwng effeithiau, gan gynnwys dŵr ffo afloyw o dir, ar ansawdd dŵr y môr. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.

4.3 Ecoleg fenthig islanw a rhynglanw

(Adroddiad Cwmpasu; adran 8.1)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.3.1	Tabl 36, Rhif Effaith 8.1.9	Llygredd sŵn ar ecoleg fenthig wrth osod sylfeini yn ystod holl gamau adeiladu'r Datblygiad Arfaethedig.	Nid yw'r Adroddiad Cwmpasu yn darparu tystiolaeth benodol i esbonio pam mae sŵn wrth osod sylfeini yn annhebygol o gael effeithiau arwyddocaol ar ecoleg fenthig. Mae'r Arolygiaeth yn deall bod hyn o ganlyniad i'r pellter cymharol o ffynhonnell yr effaith i leoliad y derbynnydd, ond ni ddarparwyd y wybodaeth hon. Nid yw'r Arolygiaeth yn cytuno y gellir hepgor y materion hyn o'r asesiad. Dylai'r ES gynnwys gwybodaeth sy'n esbonio graddau'r effaith debygol ac asesu unrhyw effeithiau arwyddocaol tebygol. Dylai'r ES hefyd asesu effeithiau sŵn a gynhyrchir yn ystod gweithgareddau adeiladu eraill, gan gynnwys gosod yr ECR ar y môr, ar ecoleg fenthig islanw a rhynglanw.
4.3.2	Tabl 36, Rhif Effaith 8.1.10	Llygredd damweiniol sy'n deillio o adeiladu'r Datblygiad Arfaethedig.	Mae'r Adroddiad Cwmpasu yn cynnig y dylid hepgor llygredd damweiniol sy'n deillio o adeiladu'r Datblygiad Arfaethedig o'r broses gwmpasu. Mae'r Arolygiaeth yn cytuno y gellir hepgor yr effaith hon o'r asesiad. Dylai'r ES gynnwys manylion y mesurau lliniaru arfaethedig sydd i'w cynnwys yng Nghynllun Rheoli Amgylchedd y Prosiect (PEMP) a'r Cynllun Wrth Gefn Llygredd Morol (MPCP) sy'n rhan ohono (fel y nodir ym mharagraff 371 yr Adroddiad Cwmpasu). Dylai'r ES hefyd esbonio sut y bydd y cyfryw fesurau'n cael eu sicrhau.
4.3.3	Tabl 36, Rhif Effaith 8.1.11	Aflonyddu ar rywogaethau benthig yn anuniongyrchol gan feysydd electromagnetig (EMF) a gynhyrchir gan geblau rhng-arâe	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor effeithiau meysydd electromagnetig (EMF) ar rywogaethau benthig o'r broses gwmpasu, gan na roddwyd cyfiawnhad digonol ar hyn o bryd i gefnogi'r ymagwedd hon. Mae'r Arolygiaeth yn nodi bod paragraff 255 yr

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
		ac allforio yn sgil gweithredu'r Datblygiad Arfaethedig.	Adroddiad Cwmpasu yn awgrymu y byddai'r cebl yn cael ei gladdu. Fodd bynnag, nid yw'r adroddiad yn nodi ar ba ddyfnder y byddai'r ECR ar y môr yn cael ei gladdu. Dylai'r ES asesu effeithiau sy'n gysylltiedig ag EMF lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.3.4	Paragraff 424	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraff 424 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3 y Farn Gwmpasu hon.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.3.5	Paragraffau 405-410 Paragraff 418	Cynefin Riff a Banc Tywod Atodiad 1 y Gyfarwyddeb Cynefinoedd.	Dylai'r ES gynnwys asesiad o'r effeithiau ar gynefinoedd riff a banc tywod Atodiad I (e.e. Banc Constable) yn ystod pob cam o'r Datblygiad Arfaethedig. Mae'r Adroddiad Cwmpasu yn cyfeirio at ddewis llwybr a microleoli er mwyn osgoi effeithiau arwyddocaol posibl ar riffiau a banciau tywod 'ecolegol bwysig'. Dylai'r ES ddisgrifio sut y defnyddiwyd dewis llwybr a microleoli i fynd i'r afael â'r effeithiau hyn. Dylai unrhyw effeithiau arwyddocaol ar y cynefinoedd hyn gael eu hasesu yn yr ES.
4.3.6	Tabl 35, Rhif Effaith 8.1.1	Effeithiau llongau codi ac angori.	Nid yw'r Adroddiad Cwmpasu yn mynd i'r afael ag effeithiau llongau codi ac angori ar ecoleg fenthig islanw a rhynglanw yn ystod y cam adeiladu. Fodd bynnag, mae effaith gronol llongau codi ac angori wedi'i rhestru o dan baragraff 424 yr Adroddiad Cwmpasu. Er mwyn osgoi amheuaeth, dylai'r ES asesu effeithiau o longau codi ac angori lle mae effeithiau arwyddocaol yn debygol o ddigwydd.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.3.7	Paragraff 380 Tabl 34	Safleoedd dynodedig sy'n berthnasol i'r asesiad Ecoleg Fenthig Islanw a Rhynglanw.	<p>Dylai'r ES asesu effeithiau posibl y Datblygiad Arfaethedig ar y cynefin benthig yn ACA Afon Menai a Bae Conwy (MS&CB). Tynnir sylw'r Ymgeisydd at gyngor gan CNC, sy'n datgan y gallai ACA MS&CB fod yn ddarostyngedig i effeithiau gwaddodion crog o ganlyniad i adeiladu'r Datblygiad Arfaethedig, gan fod yr ACA wedi'i lleoli o fewn yr ardal glustogi 11km (gweler Atodiad 2 y Farn Gwmpasu hon).</p> <p>Mae'r Arolygiaeth yn fodlon nad oes angen i effeithiau ar nodweddion ecolegol benthig islanw a rhynglanw yn ACA Gogledd Môn Forol gael eu hasesu yn yr ES.</p>

4.4 Ecoleg pysgod a physgod cregyn

(Adroddiad Cwmpasu; adran 8.2)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.4.1	Tabl 40, Rhif Effaith 8.2.12	Difrod (e.e. malu) ac aflonyddu uniongyrchol ar rywogaethau pysgod a physgod cregyn dyfnforol a phelagig o ganlyniad i adeiladu a datgomisiynu'r Datblygiad Arfaethedig.	Nid yw'r Adroddiad Cwmpasu yn darparu digon o dystiolaeth i gyfiawnhau hepgor o'r broses gwmpasu difrod ac aflonyddu uniongyrchol ar dderbynyddion pysgod a physgod cregyn yn ystod adeiladu a datgomisiynu. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y byddai effeithiau arwyddocaol tebygol yn digwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.4.2	Tabl 40, Rhif Effaith 8.2.13.	Digwyddiadau llygredd damweiniol o ganlyniad i adeiladu a datgomisiynu'r Cynllun Arfaethedig.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor o'r broses gwmpasu llygredd damweiniol sy'n deillio o adeiladu a datgomisiynu'r Datblygiad Arfaethedig. Mae'r Arolygiaeth yn cytuno y gellir hepgor yr effaith hon o'r asesiad. Dylai'r ES gynnwys manylion y mesurau Iliniaru arfaethedig sydd i'w cynnwys yng Nghynllun Rheoli Amgylchedd y Prosiect (PEMP) a'r Cynllun Wrth Gefn Llygredd Morol (MPCP) sy'n rhan ohono (fel y nodir ym mharagraff 458 yr Adroddiad Cwmpasu). Dylai'r ES hefyd esbonio sut y bydd y cyfryw fesurau'n cael eu sicrhau.
4.4.3	Tabl 40, Rhif Effaith 8.2.14	Effeithiau meysydd electromagnetig (EMF) ceblau sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor effeithiau meysydd electromagnetig (EMF) ar bysgod a physgod cregyn o'r broses gwmpasu, gan na roddwyd cyfiawnhad digonol ar hyn o bryd i gefnogi'r ymagwedd hon. Mae'r Arolygiaeth yn nodi bod paragraff 255 yr Adroddiad Cwmpasu yn awgrymu y byddai'r cebl yn cael ei gladdu. Fodd bynnag, nid yw'r adroddiad yn nodi ar ba ddyfnder y byddai'r ECR ar y môr yn cael ei gladdu. Dylai'r ES asesu effeithiau sy'n gysylltiedig ag EMF lle mae effeithiau arwyddocaol yn debygol o

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
			ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.4.4	Tabl 40, Rhif Effaith 8.2.15	Aflonyddu uniongyrchol a achosir gan weithgareddau cynnal a chadw sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor AFLONYDDU UNIONGYRCHOL a achosir gan weithgareddau gweithredu a chynnal a chadw o'r broses gwmpasu, gan na roddwyd cyfiawnhad digonol ar hyn o bryd i gefnogi'r ymagwedd hon. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.4.5	Paragraff 466	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraff 446 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.4.6	Tabl 39	Meysydd bwydo ar gyfer pysgod ac ardaloedd gaeafu ar gyfer cramenogion.	Nid yw'r Adroddiad Cwmpasu yn mynd i'r afael ag effeithiau posibl ar feisydd bwydo ar gyfer pysgod nac ardaloedd gaeafu ar gyfer cramenogion. Dylai'r ES asesu'r effeithiau hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.4.7	Paragraff 450	Pysgod a warchodir o dan Gonfensiwn Bern, Cyfarwyddeb Cynefinoedd y Comisiwn Ewropeaidd, CITES, Cynllun Bioamrywiaeth y Deyrnas Unedig (UKBAP) a Deddf Bywyd Gwyllt a Chefn Gwlad y Deyrnas Unedig.	Mae'r Arolygiaeth yn nodi bod rhywogaethau pysgod mudol a restrir o dan baragraff 450 wedi'u gwarchod hefyd o dan ddeddfwriaeth a bennir ym mharagraff 449 yr Adroddiad Cwmpasu (e.e. Confensiwn Bern, y Gyfarwyddeb Cynefinoedd, CITES ac UKBAP). Dylai'r asesiad yn yr ES hefyd fynd i'r afael â rhywogaethau sydd wedi'u dynodi o dan UKBAP (e.e. brwyniaid Conwy/brwyniaid), Cyfarwyddeb Cynefinoedd y Comisiwn Ewropeaidd (e.e. eogiad, brithyllod y môr, llyswennod Ewropeaidd) y gwyddys eu bod yn silio yn afonydd

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			gogledd Cymru, a Deddf Bywyd Gwyllt a Chefн Gwlad y Deyrnas Unedig (e.e. maelgwn, sydd mewn perygl difrifol). Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.

4.5 Mamaliaid môr

(Adroddiad Cwmpasu; adran 8.3)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.5.1	Tabl 42, Rhif Effaith 8.3.20.	Llygredd damweiniol sy'n deillio o adeiladu'r Datblygiad Arfaethedig.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor o'r asesiad effeithiau sy'n deillio o llygredd damweiniol yn ystod adeiladu a datgomisiynu ar sail mesurau lliniaru a gynigir i leihau'r risg y bydd damwain yn digwydd. Mae'r Arolygiaeth yn cytuno y gellir hepgor yr effaith hon o'r asesiad. Dylai'r ES ddisgrifio'r mesurau lliniaru a gynigir, sut y byddent yn cael eu sicrhau a phryd y byddent yn cael eu darparu. Dylai'r ES gynnwys manylion y mesurau lliniaru arfaethedig sydd i'w cynnwys yn y Cod Ymarfer Adeiladu (CoCP), y Cynllun Rheoli Amgylchedd Prosiect (PEMP) a'r Cynllun Wrth Gefn Llygredd Morol (MPCP) sy'n rhan ohono.
4.5.2	Tabl 42, Rhif Effaith 8.3.21.	Newid Trothwy Dros Dro (TTS) sy'n deillio o adeiladu a datgomisiynu'r Datblygiad Arfaethedig.	Yn ôl yr Adroddiad Cwmpasu, mae effeithiau TTS yn ystod adeiladu a datgomisiynu yn rhai 'dros dro', 'yn debygol o fod am gyfnod byr' ac 'yn annhebygol o achosi canlyniadau mawr i anifail'. Fodd bynnag, ychydig iawn o dystiolaeth a roddwyd i gyflawnhau'r datganiadau hyn. Nid yw'r Arolygiaeth yn cytuno y gellir hepgor effeithiau posibl o TTS o'r broses gwmpasu. Mae'r Arolygiaeth hefyd yn nodi y bydd yr effeithiau disgwyliedig yn berthnasol i'r technegau adeiladu, nad

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
			ydynt wedi'u penderfynu eto ar yr adeg hon. Fel y cyfryw, nid yw'r ymagwedd a gynigir yn yr Adroddiad Cwmpasu wedi cael ei chyflawnhau'n llawn. Dylai'r Ymgeisydd sicrhau bod effeithiau arwyddocaol tebygol sy'n deillio o TTS yn ystod adeiladu a datgomisiynu yn cael eu hasesu yn yr ES. Dylai'r ES ddarparu'r amrediadau TTS a ddefnyddiwyd i asesu aflonyddu ar y rhywogaethau mamaliaid môr a amlygwyd.
4.5.3	Tabl 42, Rhif Effaith 8.3.22	Llygredd sŵn sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Mae'r Ymgeisydd yn bwriadu hepgor o'r broses gwmpasu sŵn tanddwr sy'n deillio o weithredu'r Datblygiad Arfaethedig, ar sail data monitro tymor hir sy'n dangos nad yw mamaliaid môr yn cael eu dadleoli o ganlyniad i OWF weithredol (e.e. Horns Rev a Nysted). Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol o ddigwydd, ac y gellir hepgor y mater hwn o'r asesiad.
4.5.4	Tabl 42, Rhif Effaith 8.3.23	EMF sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Mae'r Ymgeisydd yn bwriadu hepgor o'r broses gwmpasu EMF sy'n deillio o weithredu'r Datblygiad Arfaethedig, ar y sail nad oes tystiolaeth (hyd yma) i awgrymu bod EMF a gynhyrchir gan 'ddyfeisiau adnewyddadwy morol' yn cael effaith negyddol ar ymddygiad mamaliaid môr. Yn seiliedig ar y wybodaeth a gyflwynwyd yn yr Adroddiad Cwmpasu, mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r asesiad.
4.5.5	Paragraffau 521-523	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraff 523 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.5.6	Paragraff 480	Amcangyfrifon dwysedd mamaliaid môr.	Mae'r Adroddiad Cwmpasu yn bwriadu defnyddio 'amcangyfrifon dwysedd amgen' i gyfrif am ddiffygion mewn arolwg o'r awyr. Fodd bynnag, ni ddisgrifiwyd y fethodoleg asesu. Dylai'r fethodoleg arfaethedig, gan gynnwys unrhyw dybiaethau a wneir, gael eu disgrifio yn yr ES. Lle y dibynnir ar amcangyfrifon dwysedd amgen, dylai'r ES gynnwys cyfiawnhad clir dros wneud hynny a dangos bod yr asesiadau'n addas i'r diben. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol.
4.5.7	Paragraff 480-484. Tabl 42	Dull asesu arfaethedig.	Nid yw'r Ymgeisydd eto wedi cwblhau arolwg dwy flynedd i lywio'r asesiad sylfaenol, sef y cyfnod yr ystyrir yn gyffredinol ei fod yn dderbyniol ar gyfer ymdrech arolygu. Dylai'r Ymgeisydd geisio cytuno ar lefel yr ymdrechion arolygu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC a'r Cyd-bwyllgor Cadwraeth Natur (JNCC). Os yw'r asesiad o'r ES wedi'i seilio ar lai na dwy flynedd o ddata arolwg, dylid rhoi cyfiawnhad clir i ddangos cadernid yr asesiad yn yr ES.
4.5.8	Tabl 42, Rhif Effaith 8.3.6, 8.3.7, 8.3.10, 8.3.11	Perygl gwrthdaro ac aflonyddu (llongau) yn ystod adeiladu, gweithredu a datgomisiynu'r Datblygiad Arfaethedig.	Dylai'r Ymgeisydd sicrhau bod agweddau perthnasol ar yr amgylchedd dynol ar y môr, gan gynnwys Pysgodfeydd Masnachol, Morgludiant a Mordwyo a Defnyddwyr a Gweithgareddau Morol Eraill, yn derbyn sylw yn yr asesiad o berygl gwrthdaro ac aflonyddu ar famaliaid môr o ganlyniad i fwy o draffig llongau yn yr ES.
4.5.9	Tabl 42	Effeithiau rhwystrau ffisegol sy'n deillio o adeiladu, gweithredu a datgomisiynu'r Datblygiad Arfaethedig.	Mae'r Arolygiaeth yn nodi nad yw'r Adroddiad Cwmpasu yn sôn am effeithiau rhwystrau ffisegol ar famaliaid môr sy'n deillio o adeiladu, gweithredu a datgomisiynu'r Datblygiad Arfaethedig. Dylai'r ES asesu unrhyw effeithiau ar famaliaid môr sy'n deillio o rwystrau ffisegol lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.5.10	Adran 8.3.3	Data sylfaenol.	Dylai'r ES asesu effeithiau ar ardaloedd bwydo tebygol; ardaloedd geni/safleoedd glanio hysbys; meithrinffeydd; a llwybrau mudo neu

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			gymudo hysbys lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.5.11	Adran 8.3.3	Data sylfaenol.	<p>Dylai'r ES amlinellu'n llawn y risg bosibl i Rywogaethau a Warchodir gan Ewrop (EPS) a chadarnhau a fydd angen unrhyw drwyddedau EPS (e.e. llamidyddion a morloi llwyd). Tynnir sylw'r Ymgeisydd at gyngor gan y JNCC ynglŷn â'r angen i gael trwydded EPS i gynnal gweithgareddau adeiladu penodol yn yr amgylchedd morol (e.e. gosod seilbyst a chlirio ordnans heb ffrwydro (UXO)) (gweler Atodiad 2 y Farn Gwmpasu hon).</p>
4.5.12	Paragraff 481	Data sylfaenol.	<p>Dylai'r ES ddefnyddio ffynonellau data perthnasol fel Cofrestr Sŵn Morol Defra a'r Weinyddiaeth Gefnforol ac Atmosfferig Genedlaethol (NOAA), fel y bo'n briodol.</p> <p>Dylai'r ES ddefnyddio amcangyfrifon digoneedd wedi'u diweddu (SCANS III, ObSERVE Gwyddelig) ar gyfer Uned Reoli'r Môr Celtaidd a Môr Iwerddon (CIS) i amcangyfrif y boblogaeth llamidyddion.</p>
4.5.13	Paragraff 500	ACA a ddynodwyd ar gyfer Dolffiniaid Trwyn Potel.	<p>Mae'r Arolygiaeth yn nodi bod ACA Pen Llŷn a'r Sarnau hefyd wedi'i dynodi ar gyfer dolffiniaid trwyn potel, ac y dylai gael ei hystyried yn unol â hynny yn yr ES. Dylai'r ES hefyd ystyried cysylltedd rhwng ACA Pen Llŷn a'r Sarnau ac ACA Bae Ceredigion o fewn yr uned reoli ehangach.</p>
4.5.14	Paragraffau 517-520	Aflonyddu ar nodweddion ACA Gogledd Môn Forol sy'n deillio o adeiladu'r Datblygiad Arfaethedig.	<p>Mae ACA Gogledd Môn Forol wedi'i lleoli oddeutu 15km o'r Datblygiad Arfaethedig. Gallai gweithgareddau adeiladu (e.e. gosod seilbyst) aflonyddu ar lamidyddion, ac felly gwrtidaro ag amcanion cadwraeth ACA Gogledd Môn Forol. Os yw'r gwaith modelu sŵn yn dangos bod yr ôl troed aflonyddu yn gorgyffwrdd ag ACA Gogledd Môn Forol, dylai'r ES asesu effaith aflonyddu ar yr ACA hon. Dylai'r ES ddisgrifio a chynnig mesurau i leihau sŵn lle mae'r modelu sŵn yn amcangyfrif</p>

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			bod yr amrediadau effaith PTS yn fawr neu os disgwylir i'r ôl troed aflonyddu orgyffwrdd ag ACA Gogledd Môn Forol.
4.5.15	Tabl 42	PTS, TTS ac amrediadau aflonyddu.	<p>Dylai'r ES ddisgrifio'r PTS, y TTS a'r amrediadau aflonyddu a ddefnyddiwyd i fodol u sŵn.</p> <p>Mae'r Arolygiaeth yn deall na wyddys nifer, math a maint y dyfeisiau UXO. Fodd bynnag, dylai'r ES asesu effeithiau tebygol UXO ac esbonio'r tybiaethau a gymhwyswyd i'r asesiad, fel y bo'r angen.</p>
4.5.16	Paragraffau 517-520	Mesurau lliniaru mamaliaid môr.	Dylai'r ES esbonio i ba raddau y mae mesurau lliniaru arfaethedig ar gyfer mamaliaid môr wedi cael eu cytuno â'r cyrff ymgynghori perthnasol, gan gynnwys mesurau lliniaru i allu dechrau gosod seilbyst a chlirio UXO.

4.6 Adar môr

(Adroddiad Cwmpasu; adran 8.4)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.6.1	Tabl 46, Rhif Effaith 8.4.7	Effeithiau anuniongyrchol trwy effeithiau ar gynefinoedd a rhywogaethau ysglyfaeth: Llygredd damweiniol sy'n deillio o adeiladu'r Datblygiad Arfaethedig.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor o'r asesiad effeithiau anuniongyrchol ar adar môr sy'n deillio o lygredd damweiniol yn ystod adeiladu ar sail mesurau lliniaru a gynigir i leihau'r risg y bydd damwain yn digwydd. Mae'r Arolygiaeth yn cytuno y gellir hepgor yr effaith hon o'r asesiad. Dylai'r ES ddisgrifio'r mesurau lliniaru a gynigir, sut y byddent yn cael eu sicrhau a phryd y byddent yn cael eu darparu. Dylai'r ES gynnwys manylion y mesurau lliniaru arfaethedig sydd i'w cynnwys yn y Cod Ymarfer Adeiladu (CoCP), y Cynllun Rheoli Amgylchedd Prosiect (PEMP) a'r Cynllun Wrth Gefn Llygredd Morol (MPCP) sy'n rhan ohono.
4.6.2	Tabl 46, Rhif Effaith 8.4.8	Aflonyddu a dadleoli (coridor ECR ar y môr) sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor aflonyddu gweithredol o'r broses gwmpasu, gan na roddwyd cyfiawnhad digonol i gefnogi'r ymagwedd hon ar hyn o bryd. Yn absenoldeb gwybodaeth fel dystiolaeth sy'n dangos cytundeb clir â chyrff ymgynghori perthnasol, nid yw'r Arolygiaeth yn gallu cytuno hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn neu'r wybodaeth y cyfeiriwyd ati sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb LSE. Roedd yr Ymgeisydd wedi hepgor aflonyddu a dadleoli gweithredol o'r broses gwmpasu ar y sail bod effeithiau posibl 'yn lleol ac ysbeidiol iawn' . Fodd bynnag, ni ddarparwyd llawer o dystiolaeth i gefnogi'r datganiadau hyn. Dylai unrhyw ddatganiadau o'r fath gael eu hegluro yn yr ES, gan gyfeirio at ganllawiau a/neu waith ymchwil perthnasol a ddefnyddiwyd i ddod i gasgliadau.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
			Tynnir sylw'r Ymgeisydd at gyngor gan CNC ynglŷn â'r angen i ystyried effeithiau gweithredol yr ECR ar y môr ar nodweddion AGA Bae Lerpwl (gweler Atodiad 2 y Farn Gwmpasu hon).
4.6.3	Tabl 46, Rhif Effaith 8.4.9	Effeithiau rhwystrau sy'n deillio o weithredu'r Datblygiad Arfaethedig.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu effeithiau rhwystrau a achosir gan weithredu, gan na ddarparwyd digon o gyfiawnhad i gefnogi'r ymagwedd hon ar hyn o bryd. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC.
4.6.4	Paragraff 559-566	Effeithiau cronnol.	Nid yw'r Arolygiaeth yn cytuno y gellir hepgor o'r broses gwmpasu yr effeithiau cronnol a amlygir ym mharagraffau 559-566 yr Adroddiad Cwmpasu am y rhesymau a roddir ym mharagraff 3.3.3 y Farn Gwmpasu hon.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.6.5	Paragraff 535	Dull asesu arfaethedig.	Nid yw'r Ymgeisydd eto wedi cwblhau arolwg dwy flynedd i lywio'r asesiad sylfaenol, sef y cyfnod yr ystyrir yn gyffredinol ei fod yn dderbynol ar gyfer ymdrech arolygu. Dylai'r Ymgeisydd geisio cytuno ar lefel yr ymdrechion arolygu gyda'r cyrff ymgynghori perthnasol, gan gynnwys CNC a'r JNCC. Os yw'r asesiad o'r ES wedi'i seilio ar lai na dwy flynedd o ddata arolwg, dylid rhoi cyfiawnhad clir i ddangos cadernid yr asesiad yn yr ES.
4.6.6	Paragraff 552	Perygl gwrthdaro.	Dylai'r ES nodi'r model Band, cyfraddau osgoi, amrywiadau uchder hedfan ac unrhyw wybodaeth arall berthnasol. Dylai'r paramedrau a

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			ddefnyddiwyd yn y model perygl gwrthdar o fod yn fanwl, wedi'u cyfiawnhau a chyfrif am yr hyblygrwydd a geisir yn y DCO. Yn ogystal, dylai'r asesiad perygl gwrthdar o esbonio i ba raddau y mae data monitro a modelu presennol wedi llywio'r asesiad sylfaenol a'r tybiaethau a wnaed yn y cyd-destun hwn.
4.6.7	Tabl 46, Rhif Effaith 8.4.1	Colli cynefin/ aflonyddu ar gynefin dros dro yn uniongyrchol o ganlyniad i adeiladu.	Mae'n aneglur, yn seiliedig ar y wybodaeth a ddarparwyd yn Nhabl 46 yr Adroddiad Cwmpasu, pam mae colli cynefinoedd ac aflonyddu ar gynefinoedd yn cael eu gwerthuso gyda'i gilydd fel un effaith. Yn seiliedig ar y disgrifiad a roddwyd yn Nhabl 46 yr Adroddiad Cwmpasu, byddai mwy o weithgarwch llongau a sŵn tanndwr yn arwain at aflonyddu ar gynefinoedd/dadleoli dros dro ac nid colli cynefinoedd yn uniongyrchol. Ystyri'r dylai aflonyddu ar gynefinoedd/dadleoli dros dro a cholli cynefinoedd yn uniongyrchol gael eu disgrifio a'u hasesu fel dwy effaith ar wahân yn yr ES.
4.6.8	Tabl 46	Colli cynefin yn uniongyrchol o ganlyniad i adeiladu a gweithredu'r Datblygiad Arfaethedig.	Dylai'r ES asesu effeithiau ar adar môr trwy golli cynefin yn uniongyrchol yn ystod adeiladu a gweithredu'r Datblygiad Arfaethedig lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.6.9	Tabl 46, Rhif Effaith 8.4.3	Aflonyddu a dadleoli gweithredol.	Mae'r Adroddiad Cwmpasu yn cyfeirio at 'ddull matrices' o asesu effeithiau posibl aflonyddu/dadleoli ar dderbynnyddion adar môr gan ddefnyddio meintiau effaith rhagfynedig. Dylai'r ES amlinellu'n glir y fethodoleg a'r cyfiawnhad ar gyfer y gwerhoedd a'r allbynnau a ddefnyddir yn yr asesiad. Dylai'r ES ddefnyddio adnoddau perthnasol fel SeaORD a Chyd-raglen y Diwydiant Cynhyrchu Ynni Adnewyddadwy ar y Môr (ORJIP) i lywio'r asesiad.
4.6.10	Tabl 46	Hedfanaeth a goleuadau mordwyaeth.	Dylai'r ES asesu effeithiau hedfanaeth a goleuadau mordwyaeth ar dderbynnyddion adar môr yn yr ES.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.6.11	Paragraff 535.	Amcangyfrifon poblogaethau adar môr.	Dylai'r ES ddefnyddio ffynonellau gwybodaeth perthnasol fel Rhaglen Monitro Adar Môr (SMP) Ymddiriedolaeth Adareg Prydain (BTO) i amcangyfrif poblogaethau adar môr.
4.6.12	Paragraff 456	Adar sydd o werth cadwraethol.	Dylai'r ES gynnwys rhestr o'r adar sydd o werth cadwraethol ar gyfer yr asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull o neilltuo gwerth cadwraethol i dderbynyddion adar môr gyda'r cyrff ymgynghori perthnasol.

4.7 Pysgodfeydd masnachol

(Adroddiad Cwmpasu; adran 9.1)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.7.1	Tabl 50, Rhif Effaith 9.1.12, 9.1.14, 9.1.16	Hwylio ychwanegol i feysydd pysgota eraill yn ystod adeiladu, gweithredu a datgomisiynu.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES ar y sail y bydd yr effaith yn lleol ac yn anarwyddocaol o ganlyniad i weithredu'r mesur lliniaru i roi digon o rybudd. Fodd bynnag, nid oes digon o fanylion yn y wybodaeth a roddwyd yn yr Adroddiad Cwmpasu ac nid yw'n rhoi digon o hyder i gefnogi penderfyniad yn hyn o beth. Yn unol â hynny, nid yw'r Arolygiaeth yn cytuno hepgor y mater hwn o'r ES. Dylai'r ES asesu'r effeithiau o hwylio ychwanegol lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.7.2	Tabl 50, Rhif Effaith 9.1.13, 9.1.15, 9.1.16	Effeithiau ar weithgarwch pysgota o ganlyniad i fwy o draffig llongau sy'n gysylltiedig â gweithgareddau a gwaith adeiladu, gweithredu a datgomisiynu.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES gan y byddai'r cynnydd mewn traffig llongau yn lleol ac ni fyddai'n arwain at effaith arwyddocaol yn sgil gweithredu'r mesurau lliniaru i ddarparu digon o rybudd o draffig llongau a gweithgareddau sy'n gysylltiedig â'r Datblygiad Arfaethedig. Fodd bynnag, nid oes digon o fanylion yn y wybodaeth a roddwyd yn yr Adroddiad Cwmpasu ac nid yw'n rhoi digon o hyder i gefnogi penderfyniad yn hyn o beth. Yn unol â hynny, nid yw'r Arolygiaeth yn cytuno hepgor y mater hwn o'r ES. Dylai'r ES asesu'r effeithiau o hwylio ychwanegol lle mae effeithiau arwyddocaol yn debygol o ddigwydd.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.7.3	Paragraffau 588-599	Ardaloedd dyfroedd pysgod cregyn a warchodir.	<p>Dylai'r ES ddisgrifio union leoliad yr ardaloedd dyfroedd pysgod cregyn a warchodir a dangos eu lleoliad ar ffigur(au). At hynny, os bwriedir i'r ECR ar y môr gael ei leoli'n agos i'r ardaloedd pysgod cregyn a warchodir, dylid cynnal asesiad llawn i bennu'r effeithiau canlyniadol ar y fasnach pysgod cregyn masnachol.</p> <p>Yn ogystal, mae paragraff 589 yn datgan y dylai ansawdd y dŵr fod yn dda yn yr ardaloedd dyfroedd pysgod cregyn a warchodir. Fodd bynnag, ni chynigiwyd unrhyw fesurau Iliniaru i sicrhau nad yw ansawdd y dŵr yn dirywio ar draul pysgod cregyn masnachol. Lle mae effeithiau arwyddocaol yn debygol, dylai'r ES gynnwys mesurau Iliniaru manwl i fynd i'r afael â'r effaith ar ardaloedd dyfroedd pysgod cregyn a warchodir.</p>

4.8 Morgludiant a mordwyaeth

(Adroddiad Cwmpasu; adran 9.2)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.8.1	dd/b	dd/b	Ni chynigiwyd hepgor unrhyw un o'r materion a amlygwyd o'r asesiad.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.8.2	Paragraffau 639 a 643	Asesiad Risg Mordwyo (NRA).	Mae'r Arolygiaeth yn nodi'r bwriad i asesu traffig morol o fewn yr ardal chwilio ECR ar y môr diwygiedig gan ddefnyddio Arolwg Adnabod Awtomatig (AIS) yn unig. O ystyried y datganiad ym mharagraff 639 ynglŷn â defnyddio data AIS a'r tebygolrwydd o dangynrychioli rhai mathau o longau, mae'r Arolygiaeth yn cyngori'r Ymgeisydd i wneud ymdrech i gytuno ar yr ymagwedd at yr NRA gyda'r cyrff ymgynghori perthnasol. Dylai canlyniadau'r NRA a dogfennau technegol eraill perthnasol y dibynnir arnynt yn yr ES fod ar gael yn rhwydd gyda chroesgyfeirio priodol i wybodaeth ategol/atodiadau.
4.8.3	Paragraffau 638 a 641 Tabl 54.	Effeithiau gweithredol.	Dylai'r canllawiau a'r fethodoleg a ddefnyddir yn yr ES gael eu hesbonio'n glir er mwyn helpu i ddeall sut y gwnaed rhagfynegiadau yn yr asesiad. Dylai'r Ymgeisydd ddefnyddio ffynonellau gwybodaeth i sefydlu llinellau sylfaen traffig yn y dyfodol yn yr asesiad.
4.8.4	Paragraff 646	Effeithiau'r prosiect.	Tynnir sylw'r Ymgeisydd at y cyngor gan Dŷ'r Drindod (gweler Atodiad 2 yr adroddiad hwn) i sicrhau bod unrhyw strwythurau, fel mastiau meteorolegol, a fyddai'n cael eu gosod y tu allan i'r arâe yn cael eu cynnwys yn yr asesiad o effeithiau. Os yw'n debygol y bydd angen

			<p>amddiffyn ceblau, dylai'r asesiad ddefnyddio senario achos gwaethaf wedi'i seilio ar yr amddiffyniad ceblau mwyaf y disgwylir ei ddefnyddio.</p>
4.8.5	Paragraff 648	Mesurau lliniaru.	<p>Mae'r cyngor gan Dŷ'r Drindod (gweler Atodiad 2 yr adroddiad hwn) yn amlyu angen posibl am fesurau ychwanegol, fel bwiau. Dylai'r ES roi manylion llawn y mesurau lliniaru y dibynnwyd arnynt wrth asesu effeithiau ac amlyu os/sut y cytunwyd ar y rhain gyda'r rhanddeiliaid perthnasol.</p>

4.9 Hedfan milwrol a sifil

(Adroddiad Cwmpasu; adran 9.3)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.9.1	Tabl 57, Rhifau Effaith 9.3.1, 9.3.4, 9.3.11	Effeithiau ar Ardal Ymarfer ac Ymarferion (PEXA) yn ystod adeiladu, gweithredu a datgomisiynu.	<p>Mae'r Adroddiad Cwmpasu yn datgan nad oes PEXA o fewn nac o amgylch gofod awyr y Datblygiad Arfaethedig, ac felly ei bod yn annhebygol y bydd y Datblygiad Arfaethedig yn cael effeithiau arwyddocaol ar PEXA yn ystod adeiladu, gweithredu a datgomisiynu.</p> <p>Mae'r ymateb gan y Sefydliad Seilwaith Amddiffyn (DIO) yn cytuno y gellir eithrio effeithiau ar PEXA hefyd (gweler Atodiad 2 yr adroddiad hwn). Mae'r Arolygiaeth yn cytuno y gellir hepgor effeithiau ar PEXA o'r asesiad gan fod effeithiau arwyddocaol yn annhebygol o ddigwydd.</p>
4.9.2	Tabl 57, Rhif Effaith 9.3.2, 9.3.5, 9.3.12	Effeithiau ar yr ECR ar y môr yn ystod adeiladu, gweithredu a datgomisiynu.	<p>Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r ES gan y byddai'r ECR ar y môr o dan wyneb y dŵr, sy'n golygu y byddai'n annhebygol o gael effeithiau arwyddocaol ar hedfan milwrol a sifil yn ystod adeiladu, gweithredu a datgomisiynu'r Datblygiad Arfaethedig.</p>
4.9.3	Tabl 57, Rhif Effaith 9.3.3	Effeithiau ar radar yn ystod adeiladu.	<p>Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r ES gan na fyddai'r tyrbinau'n symud yn ystod y cam adeiladu, ac felly byddant yn annhebygol o gael effaith arwyddocaol ar radar. Mae'r cytundeb hwn wedi'i seilio ar y dybiaeth y byddai'r effaith yn cael ei chynnwys yn yr asesiad o effeithiau gweithredol cyn gynted ag y byddai tyrbinau unigol yn dechrau symud, hyd yn oed os yw rhannau eraill o'r aráe wrthi'n cael eu hadeiladu o hyd.</p>

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.9.4	Tabl 57, Rhif Effaith 9.3.6	Effeithiau ar Radar Gwyliadwriaeth Eilaidd (SSR) yn ystod gweithredu.	Mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES ar sail canllawiau'r Awdurdod Hedfan Sifil (CAA), ' <i>Polisi a Chanllawiau'r CAA ar Dyrbinau Gwynt</i> ', sy'n datgan bod tyrbinau gwynt yn debygol o effeithio ar SSR dim ond os ydynt wedi'u lleoli o fewn 10km o'r ffynhonnell SSR. Gan fod y tyrbinau gwynt arfaethedig sy'n gysylltiedig â'r Datblygiad Arfaethedig wedi'u lleoli mwy na 10km oddi wrth ffynhonnell radar, mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r ES.
4.9.5	Tabl 57, Rhif Effaith 9.3.7	Effeithiau ar Radar Gwyliadwriaeth Cynradd (PSR) Maes Awyr Caer yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES ar y sail nad yw'r gofod awyr yng nghyffiniau'r arae tyrbinau gwynt o arwyddocâd gweithredol i Faes Awyr Caer. Fodd bynnag, nid yw'r Adroddiad Cwmpasu wedi darparu digon o dystiolaeth i ddangos nad yw'r gofod awyr yng nghyffiniau'r arae tyrbinau gwynt o arwyddocâd gweithredol i Faes Awyr Caer, nac ychwaith i ddangos na fyddai'r Datblygiad Arfaethedig yn cael effeithiau arwyddocaol ar Faes Awyr Caer. Fel y cyfryw, nid yw'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.9.6	Tabl 57, Rhif Effaith 9.3.8	Effaith ar PSR Clee Hill yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES ar y sail ' <i>na fydd [Clee Hill] yn canfod y tyrbinau gwynt yn ddamcaniaethol</i> ' a bod ' <i>NATS wedi datgan na fydd effaith ar PSR Clee Hill</i> '. Mae'r Arolygiaeth yn nodi bod yr ymateb ymgynghori gan y Gwasanaeth Traffig Awyr Cenedlaethol (NATS) yn amlygu effeithiau annerbyniol o bosibl ar Radar St Annes a Radar Great Dun Fell, ond nad yw'n mynegi pryderon ynglŷn â Radar Clee Hill. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
			ymgyngħori perthnasol. Dylai unrhyw effeithiau arwyddocaoi ar Clee Hill yn ystod gweithredu gael eu hasesu yn yr ES.
4.9.7	Tabl 57, Rhif Effaith 9.3.9	Effaith ar PSR Aberporth yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn datgan mai radiws gweithredu PSR Aberporth yw 40 mōr-filktir (nm) a bod yr arāe tyrbinau gwynt arfaethedig mwy nag 80nm oddi wrth PSR Aberporth. Fel y cyfryw, mae'r Arolygiaeth yn cytuno â'r Adroddiad Cwmpasu y gall effeithiau ar PSR Aberporth yn ystod gweithredu'r Datblygiad Arfaethedig gael eu hepgor o'r ES.
4.9.8	Tabl 57, Rhif Effaith 9.3.10	Effaith ar radar meteorolegol yn ystod gweithredu	Mae paragraff 673 yr Adroddiad Cwmpasu yn datgan bod angen asesu'r effaith ar radar meteorolegol dim ond os yw'r radar meteorolegol wedi'i leoli o fewn 20km o dyrbinau gwynt . Oherwydd bod yr arāe tyrbinau gwynt arfaethedig wedi'i lleoli mwy nag 20km oddi wrth y radar meteorolegol, mae'r Adroddiad Cwmpasu yn cynnig hepgor y mater hwn o'r ES. Mae'r Arolygiaeth yn cytuno â'r Adroddiad Cwmpasu, a gellir hepgor y mater hwn o'r ES.
Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.9.9	Paragraff 693	Mesurau Iliniaru ymgorfforedig	Mae NATS wedi dweud eu bod yn disgwyl i'r Datblygiad Arfaethedig gael effaith annerbyniol ar Radar St Annes a Radar Great Dun Fell, ond eu bod yn disgwyl y gellir amlygu mesurau Iliniaru a fyddai'n mynd i'r afael â'u pryderon. Mae'r DIO yn cynghori y bydd angen mesurau Iliniaru ar gyfer yr effeithiau ar y PSR yn RAF y Fali a BAE Warton yn ogystal â Great Dun Fell. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgyngħori perthnasol. Dylai'r ES roi disgrifiad manwl o'r mesurau perthnasol sy'n ofynnol i

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			<p>fynd i'r afael ag effeithiau arwyddocaol. Dylai'r ES hefyd esbonio sut y sicrhawyd y bydd y mesurau hyn yn cael eu darparu yn y DCO.</p>

4.10 Asesu'r effeithiau ar y morlun a'r dirwedd a'r effeithiau gweledol

(Adroddiad Cwmpasu; adran 9.4)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.10.1	Tabl 61, Rhif Effaith 9.4.14	Effeithiau sy'n ymwneud ag adeiladu, gweithredu a datgomisiynu llwybr y ceblau ar y môr	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn oherwydd yr unig effaith debygol fyddai presenoldeb nifer fach o longau ar y môr. Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn gan fod effeithiau arwyddocaol yn annhebygol o ddigwydd.
4.10.2	714	Effeithiau o ganlyniad i'r Datblygiad Arfaethedig yn ystod pob cam o'r datblygiad y tu hwnt i 50km	Mae'r Adroddiad Cwmpasu yn datgan bod y Parth Gweleddedd Damcaniaethol (ZTV) a'r diliysiad arolwg maes yn dangos y bydd gweleddedd y Datblygiad Arfaethedig yn mynd yn gyfyngedig ac yn wasgaredig ar bellteroedd y tu hwnt i 50km ac yn meddiannu rhan fach o'r olygfa. Mae'r Arolygiaeth yn fodlon bod effeithiau arwyddocaol yn annhebygol ar bellteroedd mwy na 50km, ac y gellir hepgor y mater hwn o'r broses gwmpasu.
4.10.3	Tabl 61, Rhif Effaith 9.4.15	Effeithiau ar gymeriad y morlun o fewn Ardaloedd Cynllun Morol Lloegr yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn ar y sail bod y pellter i arfordiroedd Lloegr, safle OWF sydd eisoes yn bodoli rhwng arfordir Lloegr a'r Datblygiad Arfaethedig ac ongl yr aráe o gymharu ag arfordir Lloegr yn sicrhau na fyddai'r effeithiau'n arwyddocaol. Fodd bynnag, mae'r Arolygiaeth yn nodi bod y ZTV a'r ardal astudio yn cynnwys Ardaloedd Cynllun Morol Lloegr. Yn absenoldeb dystiolaeth sy'n dangos cytundeb clir â'r cyrff ymgynghori perthnasol, nid yw'r Arolygiaeth mewn sefyllfa i gytuno hepgor y mater hwn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn neu dystiolaeth sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb LSE.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.10.4	Tabl 61, Rhif Effaith 9.4.16	Effeithiau yn ystod gweithredu ar dderbynyddion cymeriad tirwedd yn Sir Ddinbych, Sir y Fflint a rhannau Lloegr yr ardal astudio	<p>Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn ar y sail bod y pellter i arfordiroedd Lloegr, safle OWF sydd eisoes yn bodoli rhwng yr arfordir a'r Datblygiad Arfaethedig ac ongl yr aráe o gymharu ag arfordir Lloegr yn sicrhau na fyddai'r effeithiau'n arwyddocaol. Fodd bynnag, mae'r Arolygiaeth yn nodi bod y ZTV a'r ardal astudio yn cynnwys rhannau o'r ardaloedd hyn. Yn absenoldeb dystiolaeth sy'n dangos cytundeb clir â'r cyrff ymgynghori perthnasol, nid yw'r Arolygiaeth mewn sefyllfa i gytuno hepgor y mater hwn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn neu dystiolaeth sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb LSE.</p>
4.10.5	Tabl 61, Rhif Effaith 9.4.17	Effeithiau yn ystod gweithredu ar gymeriad y dirwedd y tu hwnt i fathau/ardaloedd cymeriad arfordirol sydd hefyd yn destun dynodiadau Parc Cenedlaethol neu Ardal o Harddwch Naturiol Eithriadol	<p>Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn ar y sail bod ardaloedd cymeriad tirwedd sydd wedi'u gwahanu oddi wrth yr arfordir gan ardal cymeriad tirwedd arall yn tueddu i fod â chysylltiad cyfyngedig â'r môr, ac felly mae newidiadau sy'n digwydd ar y môr yn cael llai o effaith arnynt. Yn absenoldeb dystiolaeth sy'n dangos cytundeb clir â'r cyrff ymgynghori perthnasol, nid yw'r Arolygiaeth mewn sefyllfa i gytuno hepgor y mater hwn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn neu dystiolaeth sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb LSE.</p>
4.10.6	Tabl 61, Rhif Effaith 9.4.18	Effeithiau yn ystod gweithredu ar dderbynyddion yn y nos o ganlyniad i oleuo'r seilwaith o fewn ardal yr aráe sydd wedi'i lleoli i'r dwyrain o Gonwy neu yn Lloegr	<p>Nodir y byddai ffermydd gwynt eraill yn agosach i'r ardaloedd hyn, sy'n golygu y byddai eu goleuadau hwy'n fwy amlwg yn y golygfeydd o'r ardaloedd i'r dwyrain o Gonwy neu Loegr. Mae'r Arolygiaeth yn cytuno y gellir hepgor yr effaith hon o'r asesiad gan fod effeithiau arwyddocaol yn annhebygol o ddigwydd.</p>

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.10.7	Tabl 61, Rhif Effaith 9.4.19	Effaith gronnol yn ystod gweithredu gyda mathau eraill o ddatblygiad, heblaw am ffermydd gwynt ar y tir a chanddynt WTG o fwy na 50m i flaen y llafn a datblygiad ynni adnewyddadwy ar y môr.	Nid yw'r Arolygiaeth yn cytuno y dylai effeithiau cronnol fod yn gyfyngedig i ddatblygiad arall ar ffurf datblygiad tyrbinau gwynt ar y môr yn unig. Dylai'r asesiad o effeithiau cronnol gael ei gynnwys yn yr ES am y rhesymau a roddir ym mharagraff 3.3.3.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.10.8	Paragraff 710	Diffiniad o'r senario achos gwaethaf	Nodir bod yr Ymgeisydd yn bwriadu cytuno ar y senario achos gwaethaf ar gyfer yr agwedd hon ar yr amgylchedd gyda'r ymgyngoreion; mae'r ZTV a ddefnyddiwyd yn yr Adroddiad Cwmpasu wedi'i seilio ar yr uchder mwyaf hyd at flaen y llafn a fyddai'n cael ei ganiatáu o dan y DCO arfaethedig. Dylai'r Ymgeisydd ystyried a fydd dibynnu ar un senario yn ddigonol i gyfleo'r ystod lawn o effeithiau. Yn amodol ar gytundeb yr ymgyngoreion eraill, dylai'r ES gyflwyno asesiadau wedi'u seilio ar senario sy'n defnyddio'r tyrbinau mwyaf a ganiateir o dan y DCO ac un lle mae uchafswm nifer y tyrbinau'n cael eu hadeiladu.
4.10.9	Tabl 60, Rhif Effaith 9.4.6	Derbynnyddion gweledol	Dylai'r ES gynnwys asesiad o'r effeithiau dilyniannol ar ddefnyddwyr ffyrdd a Hawliau Tramwy Cyhoeddus yn yr ardal astudio.

4.11 Archaeoleg forol

(Adroddiad Cwmpasu; adran 9.5)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.11.1	Tabl 70, Rhif Effaith 9.5.5	Symud ymaith waddodion sy'n cynnwys cyd-destunau archaeolegol na tharfwyd arnynt a fyddai'n arwain at golli'r derbynnydd yn llwyr yn ystod adeiladu elfennau'r prosiect ar y môr.	Mae'r Arolygiaeth wedi ystyried yr ymateb gan Gyngor Sir Ynys Môn a Chyngor Bwrdeistref Conwy ynglŷn â'r ymagwedd arfaethedig. Nid yw'r Arolygiaeth yn fodlon y byddai'r ymagwedd arfaethedig at gwmpas yr asesiad yn arwain at asesiad cadarn o'r effeithiau arwyddocaol tebygol ar archaeoleg forol. Yn unol â hynny, nid yw'r Arolygiaeth yn cytuno hepgor y materion hyn o'r ES. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu, gan gynnwys unrhyw fesurau lliniaru perthnasol, gyda'r cyrff ymgynghori perthnasol.
4.11.2	Tabl 70, Rhif Effaith 9.5.6	Ymwthio yn sgil gosod seilbyst sy'n tarfu ar gyd-destunau archaeolegol, gan arwain at golli'r derbynnydd yn rhannol neu'n llwyr yn ystod adeiladu.	
4.11.3	Tabl 70, Rhif Effaith 9.5.7	Cywasgu cyd-destunau stratigraffig sy'n cynnwys deunydd archaeolegol o ganlyniad i bwysau cyfunol y WTG a sylfeini yn ystod adeiladu.	
4.11.4	Tabl 70, Rhif Effaith 9.5.8	Tarfu ar waddodion sy'n cynnwys derbynnyddion archaeolegol posibl wrth osod ceblau rhyng-aráe ac allforio yn ystod adeiladu.	

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn Sylwadau'r Arolygiaeth cynnig y dylid eu hepgor o'r broses gwmpasu
4.11.5	Tabl 70, Rhif Effaith 9.5.9	Effeithiau treiddio a chywasgu yn sgil coesau platformau codi ac angori llongau adeiladu wrth osod tyrbinau, is-orsafoedd neu geblau, gan arwain at golli derbynnyddion archaeolegol yn rhannol neu'n llwyr yn ystod adeiladu.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.11.6	Paragraff 783	Diffiniad o'r ardal astudio	Mae'r Adroddiad Cwmpasu yn datgan bod yr ardal astudio gychwynnol yn cynnwys ardal yr aráe a'r ECR ar y môr hyd at benllanw cymedrig y gorllanw, er y bydd hyn yn destun adolygiad. Mae'r Arolygiaeth yn nodi bod Tabl 69 yr Adroddiad Cwmpasu yn amlygu effeithiau posibl gosod deunyddiau i atal erydu o sylfeini WTG, ceblau ac amddiffyn ceblau. Gan nad yw lleoliad y strwythurau hyn yn hysbys eto, mae'n ymddangos y gallai effeithiau gosod deunyddiau i atal erydu ymestyn y tu hwnt i'r ardal astudio arfaethedig. Dylai'r ES esbonio sut mae'r ardal astudio a ddefnyddiwyd yn yr asesiadau wedi cael ei diffinio i gyfleu effeithiau llawn y Datblygiad Arfaethedig.
4.11.7	Paragraff 814	Mesurau lliniaru	Mae'r mesurau lliniaru a gynigiwyd yn cynnwys Cynllun Ymchwilio Ysgrifenedig Amlinellol a Phrotocol penodol i brosiect ar gyfer Darganfyddiadau Archaeolegol. Mae'r Arolygiaeth yn nodi'r sylwadau gan Gyngor Sir Ynys Môn a Chyngor Bwrdeistref Conwy, sy'n datgan nad mesurau lliniaru yw'r rhain ond, yn hytrach, dulliau i asesu effeithiau'r Datblygiad Arfaethedig a ddylai lywio'r opsiynau lliniaru. Yn ogystal, mae paragraff 793 yr Adroddiad Cwmpasu yn datgan bod

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			<p>astudiaeth flaenorol wedi amlygu bod gan ardal yr aráe a rhan ogledd-ddwyreiniol yr ECR ar y môr botensial archaeolegol a phaleoamgylcheddol uchel iawn. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar y mesurau lliniaru angenrheidiol gyda'r cyrff ymgynghori perthnasol. Dylai unrhyw fesurau y dibynnir arnynt i lywio'r asesiad gael eu diffinio a'u sicrhau'n briodol.</p>

4.12 Defnyddwyr a gweithgareddau morol eraill

(Adroddiad Cwmpasu; adran 9.6)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.12.1	Paragraff 885 Tabl 73, Rhif Effaith 9.7.3	Effeithiau posibl ar y seilwaith dal a storio carbon	Mae paragraff 885 yn datgan y cynigir hepgor y mater hwn o asesiad ychwanegol. Fodd bynnag, mae Tabl 73 yn datgan y bydd effeithiau uniongyrchol ar ffynhonnau chwistrellu a chysylltiadau arfaethedig ar gyfer dal carbon ym maes nwy Hamilton, na wyddys eu llwybr eto, yn cael eu hasesu. Er mwyn eglurder, mae'r Arolygiaeth yn cytuno y dylai'r materion hyn gael eu cynnwys yn yr asesiad a gyflwynir yn yr ES lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.12.2	Tabl 74, Rhif Effaith 9.7.9 Paragraff 889	Effeithiau uniongyrchol ar OWF eraill yn sgil adeiladu seilwaith tyrbinau ac aráe.	Mae'r Adroddiad Cwmpasu yn dangos nad oes gorgyffyrddiad gofodol rhwng ardal yr aráe ac OWF arall. Fodd bynnag, mae'r Datblygiad Arfaethedig yn union gerllaw OWF Gwynt y Môr. Mae'r Arolygiaeth yn nodi paragraff 889 a'r tybiaethau cyffredinol ynglŷn â'r mesurau lliniaru ac osgoi sydd i'w gweithredu. Fodd bynnag, heb wybodaeth am fesurau penodol ar yr adeg hon, ni ystyri'r bod modd eithrio effeithiau posibl yn ystod adeiladu. Mae'r Arolygiaeth yn cynghori y dylai'r ES asesu effeithiau adeiladu ar OWF eraill lle mae effeithiau arwyddocaol yn debygol a darparu gwybodaeth fanwl, lle y bo'n berthnasol, ynglŷn â sut y gellir osgoi neu leihau effeithiau. Mae'r Arolygiaeth yn nodi bod effeithiau yn sgil adeiladu cebbau allforio yn rhan o'r asesiad ac yn cytuno â'r ymagwedd hon. Mae'r Arolygiaeth hefyd yn nodi y bydd effeithiau ar faterion mordwyo yn cael eu hasesu ar wahân.
4.12.3	Tabl 74, Rhifau	Effeithiau uniongyrchol ar seilwaith olew a nwy yn sgil gweithgareddau	Mae'r Adroddiad Cwmpasu yn dangos nad oes gorgyffyrddiad gofodol rhwng ardal yr aráe a seilwaith olew a nwy presennol. Mae hefyd yn

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
	Effaith 9.7.10 a 9.7.17	adeiladu a gweithredu, megis mwy o draffig llongau neu aflonyddu ffisegol o fewn yr ôl troed adeiladu	datgan y bydd cynnydd mewn traffig llongau yn ystod adeiladu a gweithredu yn cael ei asesu ym mhennod yr ES ar forgludiant a mordwyo. Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r asesiad.
4.12.4	Tabl 74, Rhif Effaith 9.7.11	Effeithiau uniongyrchol (aflonyddu neu ddifrod ffisegol) ar geblau nad ydynt yn gysylltiedig ag OWF yn sgil gweithgareddau adeiladu yn ardal yr aráe	O ystyried y wybodaeth yn yr Adroddiad Cwmpasu sy'n dangos diffyg gorgyffyrddiad gofodol ag ardal yr aráe, mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol ac y gellir hepgor asesiad pellach o effeithiau adeiladu uniongyrchol ar geblau nad ydynt yn gysylltiedig ag OWF o'r broses gwmpasu.
4.12.5	Tabl 74 Rhifau Effaith 9.7.12 a 9.7.19	Effeithiau uniongyrchol ar systemau oeri a derbyn niwclear yn sgil adeiladu a gweithredu	Mae'r Adroddiad Cwmpasu yn darparu gwybodaeth sy'n cadarnhau nad oes gorgyffyrddiad gofodol rhwng seilwaith presennol na safleoedd a gynlluniwyd a'r Datblygiad Arfaethedig . Mae'r Arolygiaeth yn cytuno, ar yr amod bod y sefyllfa hon yn parhau, bod effeithiau arwyddocaol yn annhebygol ac mae'n cytuno hepgor asesiad pellach o'r ES.
4.12.6	Tabl 74 Rhifau Effaith 9.7.13 a 9.7.21	Effeithiau uniongyrchol ar safleoedd agregau yn sgil adeiladu a gweithredu	Mae'r Adroddiad Cwmpasu yn darparu gwybodaeth sy'n cadarnhau nad oes gorgyffyrddiad gofodol ardaloedd cynhyrchu neu gymhwysy presennol a'r Datblygiad Arfaethedig . Mae'r Arolygiaeth yn cytuno, ar yr amod bod y sefyllfa hon yn parhau, bod effeithiau arwyddocaol yn annhebygol ac mae'n cytuno hepgor asesiad pellach o'r ES.
4.12.7	Tabl 74 Rhifau Effaith 9.7.14 a 9.7.21	Effeithiau uniongyrchol ar ardaloedd gwaredu ar y môr yn sgil adeiladu a gweithredu	Mae'r Adroddiad Cwmpasu yn darparu gwybodaeth sy'n cadarnhau nad oes gorgyffyrddiad gofodol rhwng safleoedd gweithredol presennol a'r Datblygiad Arfaethedig. Mae'r Arolygiaeth yn cytuno, ar yr amod bod y sefyllfa hon yn parhau, bod effeithiau arwyddocaol yn annhebygol ac mae'n cytuno hepgor asesiad pellach o'r ES.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.12.8	Tabl 74 Rhifau Effaith 9.7.15 a 9.7.22	Effeithiau uniongyrchol ar seilwaith neu ardaloedd milwrol yn ystod adeiladu neu weithredu	<p>Mae'r Adroddiad Cwmpasu yn darparu gwybodaeth sy'n cadarnhau nad oes gorgyffyrddiad gofodol rhwng safleoedd presennol na safleoedd sydd wedi'u cynllunio a'r Datblygiad Arfaethedig. Mae'r Arolygiaeth yn cytuno, ar yr amod bod y sefyllfa hon yn parhau, bod effeithiau arwyddocaol yn annhebygol ac mae'n cytuno hepgor asesiad pellach o'r ES.</p>
4.12.9	Tabl 74, Rhif Effaith 9.7.16	Effeithiau uniongyrchol ar OWF eraill yn ystod gweithredu	Gan fod OWF Gwastadeddau'r Rhyl wedi'i hamgylchynu gan yr ardal chwilio ECR, mae'n bosibl y gallai gweithgareddau cynnal a chadw gael eu gwneud o fewn ei chyffiniau. Gan nad yw'r ECR wedi'i fireinio ymhellach ar yr adeg hon, mae'r Arolygiaeth yn cyngori y dylai'r ES gynnwys asesiad o effeithiau gweithredol ar yr OWF hon a seilwaith cysylltiedig lle y gallai effeithiau arwyddocaol ddigwydd.
4.12.10	Tabl 74, Rhif Effaith 9.7.18	Effeithiau uniongyrchol ar geblau yn ystod gweithredu	<p>Mae Tabl 74 yn cynnig hepgor effeithiau gweithredol o'r broses gwmpasu yn seiliedig ar ddiffyg gorgyffyrddiad gofodol. Fodd bynnag, mae Tabl 73 yn cynnwys asesu effeithiau gweithredol ar geblau (ni nodir pa fath o geblau) o ganlyniad i weithgareddau cynnal a chadw. Er mwyn eglurder, mae'r Arolygiaeth yn cyngori y dylai'r ES gynnwys asesiad o effeithiau gweithredol ar geblau lle y gallai effeithiau arwyddocaol ddigwydd.</p>
4.12.11	Paragraff 893	Effeithiau cronnol ar ddefnyddwyr eraill	<p>Mae'r paragraff yn nodi bod 'defnyddwyr eraill' yn cynnwys seilwaith ac unrhyw ddefnyddiau eraill heblaw am ynni gwynt ar y môr. Mae'n datgan y byddai effeithiau'n dibynnu ar orgyffyrddiad ffisegol a'i bod yn debygol y byddent yn absennol neu y gellid eu lliniaru. Mae'r Arolygiaeth yn cytuno y gellir hepgor effeithiau cronnol o'r broses gwmpasu lle nad oes llwybr ar gyfer effaith yn bodoli. Fodd bynnag, nid yw effeithiau penodol yn cael eu harchwilio yn y paragraff hwn ac mae'r Arolygiaeth o'r farn, lle mae llwybrau'n bodoli (fel yr amlygwyd</p>

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn Sylwadau'r Arolygiaeth cynnig y dylid eu hepgor o'r broses gwmpasu	
			yn Nhabl 73 yr Adroddiad Cwmpasu), y dylai tebygolrwydd effeithiau cronol arwyddocaol gael ei asesu yn yr ES.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.12.12	Adran 9.6.4 a Ffigur tudalen 453	Ffigur â'r teitl 'Seilwaith ynni o fewn Ardal Astudio Awel y Môr'	Mae testun yr Adroddiad Cwmpasu yn cyfeirio at Ffigur 67 mewn perthynas â seilwaith ynni presennol, ond nid yw'r ffigur â'r teitl a nodwyd wedi'i rifo. Mae'r ardal chwilio ECR ar goll o'r allwedd, er ei bod fel petai wedi'i dangos ar y Ffigur. Dylid mynd i'r afael â'r pwyntiau hyn os bwriedir cynnwys ffigur cyfatebol yn yr ES. Mae'r disgrifiad o'r amgylchedd sylfaenol yn yr Adroddiad Cwmpasu yn sôn am nifer o asedau seilwaith presennol a gweithgareddau eraill yn ôl lleoliad ac enw, a byddai'n ddefnyddiol i unrhyw ffigur wedi'i ddiweddu a gynhwysir yn yr ES labelu'r rhai hynny sy'n rhyngweithio â'r Datblygiad Arfaethedig.

4.13 Ecoleg ddaearol a chadwraeth natur

(Adroddiad Cwmpasu; adran 10.1)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.13.1	Tabl 77, Rhif Effaith 10.1.10	Effeithiau ar bysgod wrth groesfannau cyrsiau dŵr yn ystod adeiladu	Mae'r Adroddiad Cwmpasu yn awgrymu y disgwyllir defnyddio Drilio Uniongyrchol Llorweddol (HDD) i osgoi effeithio ar bysgod wrth brif groesfannau cyrsiau dŵr. Fodd bynnag, os na ellir gwarantu defnyddio HDD, bwriedir asesu'r effeithiau ar bysgod wrth groesfannau cyrsiau dŵr lle mae effeithiau arwyddocaol yn debygol o ddigwydd. Mae'r Arolygiaeth yn nodi'r cyngor gan CNC, sy'n datgan bod effeithiau'n bosibl ar bysgod sy'n mudo a/neu'n silio hyd yn oed os defnyddir HDD; felly, dylai'r ES gynnwys asesiad o'r mater hwn lle mae effeithiau arwyddocaol yn debygol o ddigwydd.
4.13.2	Tabl 77, Rhif Effaith 10.1.11	Effeithiau ar rai safleoedd dynodedig lle mae'r nodweddion yn ddaearol neu'n fwy na 200m oddi wrth ôl troed yr ECR a'r is-orsaf a'r ECR ar y môr ac nid oes nodweddion cymhwysos ymudol a/neu gysylltiad hydrolegol yn ystod adeiladu.	Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu i gefnogi'r datganiad na fyddai effeithiau ar safleoedd dynodedig yn ymestyn dros 200m oddi wrth ôl troed yr ECR a'r is-orsaf. Nid yw'r Arolygiaeth o'r farn y darparwyd digon o dystiolaeth i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.13.3	Tabl 77, Rhif Effaith 10.1.12	Effeithiau ar rai Safleoedd Bywyd Gwyllt Lleol (LWS) dros 200m oddi wrth yr ECR, heb nodweddion ymudol a/neu ddim cysylltiad	Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu i gefnogi'r datganiad na fyddai effeithiau ar safleoedd dynodedig yn ymestyn dros 200m oddi wrth ôl troed yr ECR a'r is-orsaf. Nid yw'r Arolygiaeth o'r farn y darparwyd digon o dystiolaeth i gefnogi hepgor y materion hyn o'r

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
		hydrolegol â'r ECR yn ystod adeiladu	asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.13.4	Tabl 77, Rhif Effaith 10.1.13	Gwirio a chynnal a chadw ceblau yn ystod gweithredu (heblaw pan fydd angen o fewn safleoedd dynodedig neu lle mae nodweddion eraill o bwysigrwydd penodol yn bresennol).	Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu i gefnogi'r datganiad na fyddai effeithiau o wirio a chynnal a chadw ceblau yn cael effaith arwyddocaol ar unrhyw nodweddion ecolegol pwysig. Nid yw'n glir sut y byddai nodweddion ecolegol pwysig yn cael eu diffinio na phwy fyddai'n gyfrifol am benderfynu beth yw nodwedd bwysig. Nid yw'r Arolygiaeth yn cytuno hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.13.5	926	Effeithiau trawsffiniol ar ecoleg ddaearol heblaw ar gyfer nodwedd môr-wenoliaid bychain AGA Bae Lerpwl ac AGA Aber Afon Dyfrdwy.	Mae'r Arolygiaeth yn cytuno, ar sail y safleoedd a'r nodweddion a amlygwyd yn yr Adroddiad Cwmpasu, y gellir hepgor effeithiau ar nodweddion ecolegol yn Lloegr a'r Alban o'r broses gwmpasu.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.13.6	Tabl 76, Rhif Effaith 10.1.1	Arfarniad ecolegol rhagarweiniol (PEA)	Nid yw'n glir os/sut mae'r pellteroedd penodol y dibynnir arnynt i ddiffinio'r ardal a rychwantir gan y PEA yn adlewyrchu parth dylanwad tebygol y Datblygiad Arfaethedig. Dylai'r ES gyfiawnhau maint yr ardal a rychwantir gan y PEA ac esbonio sut mae'n berthnasol i'r ardal y mae'r Datblygiad Arfaethedig yn debygol o effeithio arni.
4.13.7	Tabl 76, Rhif Effaith 10.1.2	Arolygon ar hyd yr ECR ar y tir	Mae'r Adroddiad Cwmpasu yn datgan y bydd angen cynnal arolygon ar hyd yr ECR i bennu a allai gwaith gwirio a chynnal a chadw ceblau effeithio ar rywogaethau a warchodir a rhywogaethau nodedig. Nid yw'n glir p'un a fyddai'r arolygon yn cael eu cynnal yn rhan o'r ES

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			<p>neu'n cael eu cynnig fel arolygon yn y dyfodol a fyddai'n cael eu cynnal yn rhan o waith cynnal a chadw wedi'i gynllunio. Os bwriedir i'r arolygon gael eu cynnal yn rhan o'r ES, nid yw'n glir pa mor ddefnyddiol y byddent wrth bennu effeithiau amgylcheddol arwyddocaol o waith a allai gael ei wneud flynyddoedd yn y dyfodol. Os bwriedir defnyddio arolygon fel math o fesur lliniaru i osgoi effeithiau arwyddocaol ar rywogaethau a warchodir/rhywogaethau nodedig, dylid egluro hyn yn yr ES.</p>
4.13.8	Tabl 76	Effeithiau ar ansawdd aer	<p>Nid yw'r Adroddiad Cwmpasu yn cyfeirio at unrhyw effeithiau posibl ar ansawdd aer, e.e. o lwch neu ddyddodion nitrogen o gerbydau adeiladu. Mae'r Arolygiaeth yn disgwyli i'r ES gynnwys asesiad o'r effeithiau hyn lle mae effeithiau arwyddocaol yn debygol o ddigwydd.</p>
4.13.9	-	Y Gyfarwyddeb Fframwaith Dŵr	<p>Mae'r sylwadau gan CNC (gweler Atodiad 2 yr adroddiad hwn) yn mynegi nifer o bryderon ynglŷn â'r effeithiau ecolegol posibl ar gyrrf dŵr y Gyfarwyddeb Fframwaith Dŵr yng nghyffiniau'r Datblygiad Arfaethedig, yn enwedig Afon Elwy. Dylai'r effeithiau ar y derbynnydd hwn gael eu hasesu a'u hadrodd yn yr ES neu mewn asesiad ar wahân ar y Gyfarwyddeb Fframwaith Dŵr. Gweler Nodyn Cyngor 18 yr Arolygiaeth i gael rhagor o gyngor https://infrastructure.planninginspectorate.gov.uk/cy/wp-content/uploads/2018/06/advice_note_18_welsh.pdf </p>

4.14 Archaeoleg a threftadaeth ddiwylliannol

(Adroddiad Cwmpasu; adran 10.2)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisyd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.14.1	Tabl 80, Rhif Effaith 10.2.4	Effaith weledol anuniongyrchol ar asedau hanesyddol nad oes ganddynt gysylltiadau morol	Mae'r Adroddiad Cwmpasu yn cynnig hepgor o'r broses gwmpasu asedau hanesyddol nad oes ganddynt gysylltiadau teilyngu (hyd yn oed y rhai hynny o'r arwyddocâd mwyaf) o fewn yr ardal astudio ehangach lle mae arwyddocâd y lleoliad a golygfeydd ohono yn ddaearol yn bennaf. Mae'r Arolygiaeth yn nodi cefnogaeth cyrff ymgynghori perthnasol (gweler yr ymatebion yn Atodiad 2 yr adroddiad hwn) yn hyn o beth, ac felly mae'n cytuno y gellir hepgor y mater hwn o'r ES.
4.14.2	Tabl 80, Rhif Effaith 10.2.5	Effaith weledol anuniongyrchol ar asedau hanesyddol na ellir gweld y datblygiad ohonynt	Byddai asedau hanesyddol yn y ddwy ardal astudio sydd y tu allan i'r Parth Gweleddedd Damcaniaethol (ZTV) yn cael eu heithrio o'r asesiad. Mae'r Arolygiaeth yn nodi cefnogaeth cyrff ymgynghori perthnasol (gweler yr ymatebion yn Atodiad 2 yr adroddiad hwn) yn hyn o beth, ac felly mae'n cytuno y gellir hepgor y mater hwn o'r ES.
4.14.3	Tabl 80, Rhif Effaith 10.2.6	Effaith weledol anuniongyrchol ar asedau hanesyddol nad ydynt wedi'u dynodi	Yn yr ardal astudio fewnol, byddai asesiad o effeithiau anuniongyrchol posibl yn canolbwytio ar asedau hanesyddol dynodedig ac asedau eraill 'y gellir dangos eu bod o bwysigrwydd cenedlaethol tebyg'. Mae'r Arolygiaeth yn nodi cefnogaeth cyrff ymgynghori perthnasol (gweler yr ymatebion yn Atodiad 2 yr adroddiad hwn) yn hyn o beth, ac felly mae'n cytuno y gellir hepgor y mater hwn o'r ES.
4.14.4	Tabl 79, Rhif Effaith 10.2.3	Effeithiau gweledol o'r aráe tyrbinau ar adeiladau rhesteddig	Mae'r Adroddiad Cwmpasu yn cynnig hepgor yr effeithiau hyn o'r broses gwmpasu gan fod effeithiau arwyddocaol yn llai tebygol o lawer o ganlyniad i'w pellter oddi wrth y tyrbinau. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi

Rhif	Cyfeirnod	Materion y mae'r Ymgeisyd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
		Gradd II neu Barciau a Gerddi Cofrestredig	hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.14.5	Tabl 79, Rhif Effaith 10.2.3	Effeithiau gweledol o'r arae tyrbinau ar Dirweddau Hanesyddol	Mae'r Adroddiad Cwmpasu yn cynnig hepgor o'r broses gwmpasu unrhyw Dirweddau Hanesyddol nad oes gan eu hardaloedd cymeriad gysylltiad penodol â lleoliad morol. Fodd bynnag, nid yw'r adroddiad yn esbonio sut y penderfynir pa dirweddau hanesyddol sydd â chysylltiad â lleoliad morol. Yn ogystal, mae'r ymatebion gan gyrrf ymgynghori perthnasol (gweler Atodiad 2 yr adroddiad hwn) yn amlygu Tirweddau Hanesyddol penodol yr hoffent eu gweld yn cael eu cynnwys yn yr asesiad. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.14.6	Paragraff 943	Maint yr ardal astudio fewnol	Nid yw'n glir o'r Adroddiad Cwmpasu a fydd maint yr ardal astudio fewnol yn ddigonol i gyfleo'r effeithiau gweledol ar nodweddion hanesyddol o seilwaith y prosiect, yn enwedig yr is-orsaf. Dylai'r ES esbonio sut mae'r ardal astudio wedi ystyried yr effeithiau gweledol hyn.
4.14.7	Tabl 78	Dynodiadau hanesyddol perthnasol	Mae'r ymatebion gan gyrrf ymgynghori (gweler Atodiad 2 yr adroddiad hwn) yn amlygu nifer o asedau hanesyddol dynodedig perthnasol y gallai'r Datblygiad Arfaethedig effeithio arnynt yn uniongyrchol neu'n anuniongyrchol. Dylai'r ES gynnwys asesiad o'r effeithiau arwyddocaol ar y derbynnyddion hyn.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.14.8	Tabl 79, Rhif Effaith 10.2.1	Cwmpas asesiad archaeolegol ar gyfer effeithiau uniongyrchol ar weddillion archaeolegol	Mae geiriad y rhan hon o Dabl 79 yn amwys, ond mae'n ymddangos fel petai'n awgrymu, yn dilyn astudiaethau desg, y byddai gwaith maes ychwanegol yn cael ei gynnal, gan gynnwys arolygon ar droed, arolygon geoffisegol a ffosydd profi, ar safleoedd penodol o fewn yr ECR ar y tir. Byddai'r safleoedd hyn yn cael eu hamlygu trwy ddata'r astudiaethau desg a thrafodaethau â'r cyrff ymgynghori perthnasol. Mae'r Arolygiaeth yn nodi'r ymateb a gafwyd gan Ymddiriedolaeth Archaeolegol Clwyd-Powys (gweler Atodiad 2 yr adroddiad hwn) ynglŷn â chwmpas yr arolwg geoffisegol yn y part rhynghlanwol. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol ar yr un pryd â sicrhau bod yr ymdrech sy'n ofynnol yn gymesur ac yn ddigonol i lywio asesiad cadarn o'r effeithiau arwyddocaol tebygol.
4.14.9	Tabl 79, Rhif Effaith 10.2.3	Asedau dynodedig o fewn 500m o'r is-orsaf yn ystod gweithredu	O ran effeithiau anuniongyrchol, mae'r Adroddiad Cwmpasu yn datgan mai dim ond asedau dynodedig o fewn 500m o'r is-orsaf neu'r rhai hynny sydd â phriodoedd forol fyddai'n cael eu hystyried. Nid yw'r adroddiad yn esbonio pam yr ystyri'r bod pellter o 500m yn ddigonol i gyfleu'r holl effeithiau amgylcheddol arwyddocaol tebygol. Dylai'r ES gyfiawnhau'r pellter a ddefnyddir a dangos yr ymdrech a wnaed i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol.

4.15 Sŵn a dirgryniad a gludir drwy'r awyr

(Adroddiad Cwmpasu; adran 10.3)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.15.1	Tabl 83, Rhif Effaith 10.3.14	Effeithiau dirgryniad o weithredu'r is-orsaf	Mae'r Adroddiad Cwmpasu yn datgan ei bod yn annhebygol y bydd gweithredu'r is-orsaf yn arwain at unrhyw effeithiau arwyddocaol o ran dirgryniad gan na fydd yn cynnwys llawer o rannau sy'n symud. Byddai'r effaith hon yn cael ei hepgor o'r asesiad yn amodol ar ymgynghori â Swyddog Iechyd yr Amgylchedd yr awdurdod lleol a'r ymatebion ymgynghori i'r Adroddiad Cwmpasu. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi cael ei darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debaygol ddigwydd.
4.15.2	Tabl 83, Rhif Effaith 10.3.15	Effeithiau sŵn a dirgryniad sy'n gysylltiedig â gweithredu'r cebl tanddaear	Mae'r Adroddiad Cwmpasu yn cynnig hepgor yr effeithiau hyn ar y sail na fydd gan y cebl tanddaear unrhyw rannau sy'n symud. Byddai'r effaith hon yn cael ei hepgor o'r asesiad yn amodol ar ymgynghori â Swyddog Iechyd yr Amgylchedd yr awdurdod lleol a'r ymatebion ymgynghori i'r Adroddiad Cwmpasu. Mae'r Arolygiaeth yn cytuno ei bod yn annhebygol y byddai effeithiau amgylcheddol arwyddocaol yn deillio o'r cebl tanddaear, ac felly y gellir hepgor yr effaith hon o'r asesiad.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.15.3	Paragraffau 993 - 994	Effeithiau cronnol	Mae'r Adroddiad Cwmpasu o'r farn bod effeithiau sŵn a dirgryniad yn lleol o fewn yr ardal astudio; byddai'r asesiad cronnol yn cael ei gyfyngu i brosiectau neu weithgareddau eraill sy'n digwydd o fewn yr ardal astudio a'r mathau o brosiectau a restrir ym mharagraff 994. Fodd bynnag, nid yw'r Adroddiad Cwmpasu yn cyflawnhau pam y byddai effeithiau sŵn a dirgryniad yn gyfyngedig i'r ardal astudio na pham y dylai'r asesiad gael ei gyfyngu i'r prosiectau a restrir ym mharagraff 994. Dylai'r ES esbonio sut mae'r asesiad cronnol wedi amlygu'r prosiectau neu'r gweithgareddau hynny sy'n gorgyffwrdd â pharth dylanwad y Datblygiad Arfaethedig a sut yr ystyriwyd yr holl gyfraniadau posibl.

4.16 Traffig a thrafnidiaeth

(Adroddiad Cwmpasu; adran 10.4)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.16.1	Tabl 86, Rhif Effaith 10.4.8	Sŵn	Mae'r Adroddiad Cwmpasu yn hepgor hyn o'r broses gwmpasu gan y bydd sŵn o drafnidiaeth yn cael ei asesu yn yr adran Sŵn a Dirgryniad a Gludir drwy'r Awyr o'r ES. Yn unol â hynny, mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r adran traffig a thrafnidiaeth o'r ES.
4.16.2	Tabl 86, Rhif Effaith 10.4.9	Amharu ar y rheilffordd	Byddai hyn yn cael ei hepgor o'r ES ar y sail bod yr Ymgeisydd yn bwriadu defnyddio HDD i groesi o dan y rheilffordd. Mae'r Arolygiaeth yn nodi nad yw'r ymchwiliadau tir perthnasol wedi cael eu cwblhau ac nad yw'r cymeradwyaethau perthnasol wedi cael eu sicrhau eto gan Network Rail. Felly, mae'n ansicr p'un a ellir defnyddio HDD o dan y rheilffordd mewn gwirionedd. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi cael ei darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.16.3	Tabl 86, Rhif Effaith 10.4.10	Unrhyw effeithiau yn ystod gweithredu	Byddai gofynion gweithredu a chynnal a chadw'r rhan o'r Datblygiad Arfaethedig ar y tir yn achlysurol, ac felly byddai nifer gyfyngedig o symudiadau cerbydau yn unig. Mae'r Arolygiaeth yn cytuno bod hyn yn annhebygol o arwain at effeithiau arwyddocaol ac y gellir ei hepgor o'r ES.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.16.4	Pagragraff1 002	Diffiniad o'r ardal astudio	Mae'r ardal astudio wedi cael ei diffinio fel llain glustogi 1km o amgylch yr ardal chwilio ECR ar y tir, ar y sail y bydd yr holl effeithiau traffig a thrafnidiaeth posibl yn digwydd wrth y safleoedd adeiladu yn yr ardal hon neu'n agos atynt. Fodd bynnag, nid yw'r Adroddiad Cwmpasu wedi darparu unrhyw wybodaeth am sut y byddai cydrannau allweddol fel y tyrbinau a'r ceblau yn cael eu cludo i'r safle a pha lwybrau y disgwylir eu defnyddio. Dylai'r ES amlygu'r llwybrau tebygol a fyddai'n cael eu defnyddio gan draffig adeiladu, yn enwedig Llwythi Anwahanadwy Anghyffredin, ac esbonio sut y defnyddiwyd y wybodaeth hon i ddiffinio'r rhwydwraith trafnidiaeth yr effeithir arno. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar hyd a lled yr ardal astudio gyda'r cyrff ymgynghori perthnasol.
4.16.5	Paragraffau 1021 - 1023	Effeithiau anuniongyrchol ar Hawliau Tramwy Cyhoeddus (PRoW) a Llwybrau Teithio Egniol (ATR)	Mae'r Adroddiad Cwmpasu yn datgan y bydd astudiaethau PRoW ac ATR manwl yn cael eu cynnal pan fydd lleoliadau'r is-orsaf a'r ECR ar y tir wedi cael eu diffinio. Nid yw'n esbonio'r mein prawf a fyddai'n cael eu defnyddio i benderfynu pa PRoW ac ATR y mae'r Datblygiad Arfaethedig yn debygol o effeithio arnynt yn anuniongyrchol. Dylai'r ES esbonio sut mae'r PRoW ac ATRs a fyddai'n profi effeithiau anuniongyrchol wedi cael eu hamlygu ac asesu unrhyw effeithiau arwyddocaol tebygol.
4.16.6	Tabl 85, Rhif Effaith 10.4.1	Gwahanu ac oedi o ran gyrwyr	Mae'r tabl yn datgan y bydd yr asesiad yn cael ei lywio gan ystod o dybiaethau fel amseriad, amlder a dosbarthiad symudiadau. Mae'n rhaid i'r ES esbonio sut yr ystyriwyd y tybiaethau hyn wrth ddiffinio'r senario achos gwaethaf.
4.16.7	Tabl 85, Rhif Effaith 10.4.1	Senario achos gwaethaf gwahanu ac oedi o ran gyrwyr	Pan ddiffinnir y senario achos gwaethaf, dylai'r ES roi sylw i b'un a yw traffig yn amlwg yn drymach yn ystod cyfnod prysuraf y gwyliau. Os felly, dylai'r senario achos gwaethaf a ddefnyddir yn yr asesiad

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			adlewyrchu'r llifoedd traffig brig hyn. Dylid defnyddio ymagwedd debyg i asesu'r holl faterion a asesir yn y rhan hon o'r ES.

4.17 Ansawdd aer

(Adroddiad Cwmpasu; adran 10.5)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.17.1	Tabl 88, Rhif Effaith 10.5.5	Effeithiau traffig adeiladu	Mae Paragraff 1047 yn datgan y bydd derbynyddion o fewn 200m o'r rhwydwaith ffyrdd a ddefnyddir yn ystod adeiladu yn cael eu cynnwys yn yr ardal astudio. Fodd bynnag, mae Tabl 88 yn datgan y bydd y mater hwn yn cael ei hepgor o'r asesiad, o bosibl, wrth i ragor o wybodaeth ddod ar gael. Er mwyn eglurder, mae'r Arolygiaeth o'r farn na ellir hepgor effeithiau traffig adeiladu o'r ES. Dylai'r ES gynnwys asesiad o effeithiau traffig adeiladu o ran cynhyrchu llwch ac allyriadau traffig ar iechyd dynol, derbynyddion sy'n sensitif yn ecolegol, ac unrhyw dderbynyddion eraill lle mae effeithiau arwyddocaol yn bosibl.
4.17.2	Adran 10.5.5 Paragraff 1063 a Thabl 88	Effeithiau traffig gweithredol a gwaith arall	Mae Tabl 88 yn cynnig hepgor effeithiau traffig gweithredol a gwaith arall o'r asesiad, gan ddatgan y bydd symudiadau traffig a gweithgarwch arall yn gyfyngedig ac y byddai'n cael effaith ddibwys ar ansawdd aer. Prin yw'r wybodaeth a ddarperir i ategu'r datganiad hwn, er enghraift symudiadau traffig rhagfynedig neu fanylion am amlder a natur gweithgareddau eraill. Fodd bynnag, mae'r Arolygiaeth yn cydnabod bod lefel y symudiadau traffig sy'n gysylltiedig â gweithredu a chynnal a chadw ar y tir yn annhebygol o fod yn ddigonol i effeithio ar ansawdd aer. Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r asesiad.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.17.3	10.5.3 Paragraffau 1049 a 1073	Data sylfaenol	Nid yw Paragraff 1049 yn mynegi unrhyw fwriad i gasglu unrhyw ddata ansawdd aer penodol i'r prosiect i helpu i ddeall y data sylfaenol presennol. Mae Paragraff 1073 yn nodi'r bwriad i amlygu derbynnyddion sensitif. Mae'r Arolygiaeth o'r farn, pe byddai derbynnyddion sensitif yn cael eu hadnabod, y gallai fod angen casglu data ansawdd aer penodol i'r prosiect, a dylai hyn gael ei drafod gyda'r awdurdodau cynllunio lleol ac ymgynghoreion eraill perthnasol. Dylai'r ES gyflwyno'r sail resymegol i'r fetholeg asesu, gan gynnwys yr ymgynghoriad a gynhalwyd ar ffynonellau data a chasglu data.
4.17.4	Tabl 22	Tybiaethau traffig adeiladu a data ategol	Mae Tabl 22 ym Mhenod 3 yr Adroddiad Cwmpasu yn rhoi ffigurau dangosol ar gyfer symudiadau adeiladu. Mae Adran 10.4, Traffig a Thrafnidiaeth, yn disgrifio'r amodau traffig sylfaenol a'r gofynion data a amlygwyd ar gyfer yr ES. Nid yw'r bennod ar Ansawdd Aer yn cyfeirio at unrhyw ran o'r wybodaeth hon nac yn disgrifio sut y gallai gwybodaeth am niferoedd cerbydau a llifoedd traffig lywio'r asesiad o effeithiau ansawdd aer. Mae'r Arolygiaeth yn disgwyl gweld y wybodaeth hon yn yr ES. Mae'n rhaid i'r wybodaeth a ddefnyddiwyd fel sail i'r asesiad ansawdd aer o effeithiau traffig gael ei hesbonio'n glir yn yr ES gan groesgyfeirio i'r asesiad Traffig a Thrafnidiaeth, lle y bo'n briodol.
4.17.5	Paragraffau 10.5.2 a 10.5.5	Effeithiau traffig ffyrdd ar dderbynnyddion sy'n sensitif yn ecolegol	Yn y disgrifiad o'r amgylchedd sylfaenol, mae Paragraff 1052 yn amlygu presenoldeb derbynnyddion ecolegol sy'n sensitif i lwch (er na ddarperir llawer o wybodaeth am y derbynnyddion hyn), ond nid yw'n amlygu sensitfrwydd i ddyddodion nitrogen. Fodd bynnag, mae Paragraff 1060 yn amlygu effeithiau dyddodion nitrogen o allyriadau traffig ffyrdd fel effaith bosibl. Dylai'r ES asesu'r mater hwn ar gyfer adeiladu a gweithredu, lle y gallai effeithiau arwyddocaol ddigwydd. Mae'n rhaid i'r ES ddarparu tystiolaeth sy'n ategu'r asesiad, gan

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			<p>gynnwys gwybodaeth am y derbynyddion sensitif a amlygwyd, graddfa a maint daearyddol disgwyliedig effeithiau traffig, a chanlyniadau unrhyw ymgynghoriad perthnasol. Dylid croesgyfeirio i wybodaeth yng ngweddill yr ES (e.e. yr asesiad Ecoleg Ddaearol a Chadwraeth Natur) lle y'i defnyddir i ategu'r asesiad.</p>
4.17.6	Adran 10.5.5	Dull asesu	<p>Mae Paragraff 1057 yn cyfeirio at ddefnyddio 'Canllawiau ar Asesu Llwch o Waith Dymchwel ac Adeiladu' (2014) y Sefydliad Rheoli Ansawdd Aer (IAQM) i amlygu derbynyddion, a defnyddio'r mein prawf sgrinio yng nghanllawiau 'Cynllunio ar gyfer Ansawdd Aer' (2015) yr IAQM a Gwarchod yr Amgylchedd y Deyrnas Unedig i bennu lle mae angen asesu traffig ffyrdd yn fanwl. Cyfeirir at ddefnyddio 'Canllawiau Technegol Rheoli Ansawdd Aer Lleol' DEFRA (2016b) ar gyfer yr ymagwedd at asesu ansawdd aer. Ni chyfeirir at ddefnyddio canllawiau penodol i asesu effeithiau dyddodion nitrogen o allyriadau traffig ffyrdd a'r effeithiau canlyniadol ar dderbynyddion ecolegol. Dylai'r ES gynnwys cyfeiriadau at y canllawiau a ddefnyddir ac amlinellu'n glir lle y defnyddiwyd gwybodaeth o asesiadau eraill yn yr ES, e.e. asesu effeithiau ecolegol.</p>
4.17.7	Paragraffau 1064 - 1068	Mesurau Iliniaru	<p>Mae'r Adroddiad Cwmpasu yn datgan y bwriad i gynhyrchu Cynllun Rheoli Ansawdd Aer yn rhan o God Ymarfer Adeiladu (CoCP) a bod y rhain yn fesurau 'sy'n rhan o'r dyluniad'. Ni ddisgrifir unrhyw fesurau Iliniaru penodol, er y dywedir y bydd mesurau Iliniaru wedi'u seilio ar ganllawiau 2014 yr IAQM. Mae'r canllawiau y cyfeirir atynt yn ymwneud ag effeithiau llwch, ac er y deëllir bod llawer yn anhysbys ar hyn o bryd, ni amlinellir unrhyw ganllawiau na mesurau penodol sy'n angenrheidiol i fynd i'r afael ag effeithiau eraill ar ansawdd aer. Mae Paragraff 1068 yn nodi y byddai unrhyw fesurau ychwanegol yn cael eu pennu trwy ymgynghoriad. Mae'r Arolygiaeth yn cyfeirio'r Ymgeisydd at baragraffau 3.11 i 3.12 y Farn Gwmpasu hon o ran disgrifio mesurau Iliniaru yn yr ES a'u perthynas â'r DCO.</p>

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.17.8	Paragraffau 1069 - 1071	Effeithiau cronnol	Nid yw'r ardal astudio 550m a nodir ym mharagraff 1071 wedi'i hesbonio na'i chyflawnhau yn yr Adroddiad Cwmpasu. Er y nodir y wybodaeth ym Mhennod 4, nid yw'r Adroddiad Cwmpasu yn esbonio p'un a fyddai'r asesiad o effeithiau cronnol ansawdd aer yn gyfyngedig i 'brosiectau seilwaith mawr' eraill a pha brosiectau y mae'r term hwn yn berthnasol iddynt. Dylai'r dull o asesu effeithiau cronnol gyd-fynd â'r cyngor a gynhwysir ym mharagraff 3.3.3 uchod.
4.17.9	Paragraft 1073	Asesu ychwanegol	Nid yw'r adran hon yn sôn am roi ystyriaeth bellach i allbynnau asesu traffig, nad ydynt wedi'u nodi ond y tybiwyd eu bod yn rhan o'r wybodaeth bellach a amlygwyd yn Nhabl 88. Fel y nodwyd yn y sylwadau ynglŷn â Thabl 88 uchod, mae'r Arolygiaeth o'r farn bod angen yr asesiad hwn i sefydlu graddau effeithiau ansawdd aer o draffig y cam adeiladu a gweithredu ac i bennu tebygolrwydd effeithiau arwyddocaol. Dylai'r ES sicrhau bod yr asesiad o effeithiau ansawdd aer wedi'i ategu'n gadarn gan waith asesu arall perthnasol, gan gynnwys yr asesiad traffig, a'i gyflwyno'n briodol gyda chroesgyfeiriadau i dystiolaeth ategol, lle y bo'r angen.

4.18 Hydroleg, hydroddaeareg a pherygl llifogydd

(Adroddiad Cwmpasu, adran 10.6)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.18.1	Tabl 91, Rhif Effaith 10.6.7	Effeithiau ar statws y Gyfarwyddeb Fframwaith Dŵr yn ystod gweithredu o ran cyrff dŵr wyneb neu ddŵr daear asesedig.	Mae'r Adroddiad Cwmpasu yn awgrymu y byddai effeithiau o fewn yr ECR ar y tir yn cael eu hadfer yn llwyr heb unrhyw newidiadau arwyddocaol i ddefnydd o dir wyneb, dŵr ffo a draenio hydrolegol, ac na fyddai'n bosibl i lygrwyr fynd i mewn i'r amgylchedd dŵr. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.18.2	Tabl 91, 10.6.8	Pob cam – gollwng a rhyddhau llygrwyr yn ddamweiniol	Mae'r Arolygiaeth yn nodi'r cyngor gan CNC, sy'n datgan nad yw'n briodol hepgor effeithiau adeiladu o lygredd damweiniol oherwydd y posibilrwydd o effeithio ar statws cyrff dŵr o ran y Gyfarwyddeb Fframwaith Dŵr a'r angen am fwy o wybodaeth am y mater hwn. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.18.3	Paragraffau 1086 a 1087	Ffigurau dŵr daear	I helpu'r darllenwyr i ddeall yr amgylchedd sylfaenol, dylai'r ES gynnwys ffigur(au) sy'n dangos lleoliadau'r dyfrhaenau a drafodir ym Mharagraff 1086 a'r Parth Gwarchod Arbennig y cyfeirir ato ym Mharagraff 1087.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.18.4	Paragraff 1089 a Thabl 89	Safleoedd dynodedig â chysylltedd hydrolig â'r ardal astudio	Mae'r Adroddiad Cwmpasu yn datgan bod gan y safleoedd dynodedig a restrir yn Nhabl 89 gysylltiad hydrolig â'r ardal astudio a ddangosir yn Ffigur 74. Mae'r Arolygiaeth yn nodi nad yw Tabl 89 yn rhoi manylion am sut mae'r safleoedd hyn wedi'u cysylltu'n hydrolig â'r ardal astudio ac nad ydynt wedi'u dangos yn Ffigur 74. Dylai'r ES gynnwys rhagor o fanylion, gan gynnwys sensitifrywedd y safleoedd dynodedig i newidiadau i'r amgylchedd hydrolig a/ neu'r amgylchedd dŵr.
4.18.5	Paragraff 1093	Mesurau lliniaru	Lle y bwriedir gweithredu mesurau lliniaru penodol i safle, dylai'r ES ddisgrifio'r mesur lliniaru yn ddigon manwl i alluogi'r darllenyydd i ddeall sut y bydd y mesur lliniaru'n cael ei adeiladu, yn lleihau'r risg a chynnwys effaith weddilliol ar ôl gweithredu'r mesur lliniaru. Dylai'r ES hefyd amlinellu sut y bydd y mesurau lliniaru'n cael eu sicrhau trwy'r DCO neu ddull cyfreithiol arall.
4.18.6	Tabl 90, Rhif Effaith 10.6.1	Effeithiau adeiladu	Dylai'r ES gynnwys ffigur(au) sy'n dangos lleoliadau: <ul style="list-style-type: none">• drilio cyfeiriadol llorweddol;• ffosydd cloddio;• dad-ddyfrio; a• gosod seilbyst.
4.18.7	Tabl 90, Rhif Effaith 10.6.5	Draenio dŵr wyneb	Mae'r Arolygiaeth yn nodi y bydd yr ES yn cynnwys asesiad o'r effaith ar ddraenio dŵr wyneb yn lleoliad yr is-orsaf yn ystod cam gweithredu'r Datblygiad Arfaethedig. Yn ogystal â hyn, dylai'r ES gynnwys asesiad o sut y bydd adeiladu'r Datblygiad Arfaethedig yn effeithio ar y seilwaith draenio presennol, fel systemau draenio caeau sydd eisoes yn bodoli.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.18.8	Dd/B	System ddraenio gynaliadwy (SuDS)	Os yw'r Datblygiad Arfaethedig am weithredu SuDS yn ystod y cam adeiladu, gweithredu neu ddatgomisiynu, dylai lleoliad a dimensiynau'r SuDS gael eu nodi yn yr ES a'u cynnwys ar ffigur(au).

4.19 Daeareg a chyflwr y tir

(Adroddiad Cwmpasu; adran 10.7)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.19.1	Tabl 95 Rhif Effaith 10.7.13	Effeithiau gweithredol ar ddaeareg a chyflwr y tir, ac effeithiau cysylltiedig ar dderbynyddion dynol ac amgylcheddol	Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r ES, gan fod yr Adroddiad Cwmpasu yn datgan, ' <i>ystyrir bod aflownyddu'n sylweddol ar y tir yn gymharol annhebygol yn ystod y cam gweithredu</i> ', ac felly ei bod yn annhebygol i effeithiau arwyddocaol ar dderbynyddion dynol ac amgylcheddol ddeillio o waith tir/ cloddwaith yn ystod cam gweithredu'r Datblygiad Arfaethedig.
4.19.2	Tabl 95 Rhif Effaith 10.7.14	Colli tir amaeth yn sgil gweithredu ceblau tanddaear	Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o'r ES gan fod y ceblau tanddaear yn annhebygol o gael effaith arwyddocaol ar dir amaeth yn ystod cam gweithredu'r Datblygiad Arfaethedig.
4.19.3	Tabl 95 pwynt 10.7.15	Effeithiau cynnal a chadw ar sterileiddio mwynau a cholli tir amaeth	Mae'r Arolygiaeth yn nodi pryderon Cyngor Bwrdeistref Conwy ynglŷn â'r posiblirwydd y gallai'r Datblygiad Arfaethedig barhau i sterileiddio dyddodion mwynau yn ystod y cam gweithredu (gweler Atodiad 2 yr adroddiad hwn). Nid yw'r Arolygiaeth yn cytuno hepgor y mater hwn o'r broses gwmpasu. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r mater hwn neu wybodaeth sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb LSE. Mae'r Arolygiaeth yn cytuno y gellir hepgor mater colli tir amaeth o'r ES, gan fod yr Adroddiad Cwmpasu yn datgan, ' <i>ystyrir bod gwaith cynnal a chadw ar raddfa fawr yn gymharol annhebygol yn ystod y cam gweithredu</i> '. Fel y cyfryw , mae'n annhebygol i waith cynnal a chadw yn ystod gweithredu gael effaith arwyddocaol o ran colli rhagor o dir amaeth.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.19.4	Paragraff 1119	Ardal astudio	Mae'r Adroddiad Cwmpasu yn datgan, yn yr Adroddiad Gwybodaeth Amgylcheddol Ragarweiniol (PEIR) a'r ES, y bydd yr ardal astudio ar gyfer daeareg a chyflwr y tir yn cael ei mireinio i ddilyn llwybr arfaethedig y cebl ar y tir a lleoliad yr is-orsaf yn agosach. Dylai'r ES gynnwys ffigur(au) sy'n dangos yr ardal astudio wedi'i mireinio mewn perthynas ag unrhyw gyfngiadau amgylcheddol a data sylfaenol a allai effeithio ar adeiladu, gweithredu a datgomisiynu llwybr arfaethedig y cebl ar y tir a'r is-orsaf, neu y gallai adeiladu, gweithredu a datgomisiynu'r llwybr hwnnw effeithio arnynt. Dylai hefyd esbonio sut mae'r ardal astudio a ddewiswyd yn cyfleu part hylanwad y Datblygiad Arfaethedig o ran adeiladu, gweithredu a datgomisiynu.
4.19.5	Paragraffau 1130 - 1131	Ardaloedd diogelu mwynau	Dylai'r Ymgeisydd wneud ymdrech i ymgynghori â'r cyrff ymgynghori perthnasol ynglŷn ag ardaloedd diogelu mwynau i bennu p'un a oes caniatâd cynllunio wedi'i geisio neu wedi'i roi i echdynnu'r mwynau a'r ffordd orau o osgoi sterileiddio mwynau.
4.19.6	Paragraff 1136 - 1137	Ardaloedd mwylodio	Mae'r Adroddiad Cwmpasu yn cynnwys gwybodaeth am gloddio am lo yn yr ardal chwilio ar y tir, ond nid yw'n cyfeirio at fathau eraill o fwyngloddio (fel cloddio am fetelau). Dylai'r ES gynnwys gwybodaeth berthnasol am yr holl hen seilwaith mwylodio a allai achosi peryglon geo-amgylcheddol i'r Datblygiad Arfaethedig.
4.19.7	Paragraff 1158	Methodoleg – Asesiad Ansawdd Tir	Yn ôl yr Adroddiad Cwmpasu, ' <i>mae'r dulliau i'w dilyn wrth asesu ansawdd tir wedi'u manylu mewn amryw ddogfennau canllaw</i> ', ond nid yw'n datgan pa ddogfennau sydd i'w defnyddio, heblaw am Adroddiad Tir Halogedig 11 (CLR11). Dylai'r ES ddatgan yr holl ddogfennau a ddefnyddiwyd i lywio'r fethodoleg a'r asesiad a nodi'n glir pa rannau o'r fethodoleg neu'r asesiad.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.19.8	Tabl 94, Rhifau Effaith 10.7.10 a 10.7.11	Datgomisiynu	<p>Mae'r Adroddiad Cwmpasu yn datgan, 'Ystyrir bod risg ddibwys y gallai gweithgarededdau yn ystod y cam gweithredu gael effaith <i>arwyddocaol ar ansawdd pridd a dŵr daear, ac felly mae'r risg iau a amlygwyd yn ystod adeiladu yn debygol o gael eu gwaethyg yn ystod y cam gweithredu</i>'. Mae'r testun hwn yn anodd ei ddeall – os yw'r risg adeiladu yn ddibwys, sut byddai'r effeithiau'n cael eu gwaethyg yn ystod y cam gweithredu? Mae hyn yn awgrymu y byddent yn mynd yn fwy arwyddocaol, ond nid yw'r Adroddiad Cwmpasu yn nodi sut y byddai'r effeithiau hyn yn cael eu hasesu. Mae'n rhaid i'r ES amlinellu'n glir pa effeithiau a ystyriwyd a sut y'u haseswyd.</p>

4.20 Asesu'r effeithiau ar y dirwedd a'r effeithiau gweleol ar y tir

(Adroddiad Cwmpasu; adran 10.8)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.20.1	Tabl 98, Rhif Effaith 10.8.5	Effeithiau ar y dirwedd ac effeithiau gweledol sy'n deillio o draffig adeiladu	Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu ynglŷn â faint o draffig adeiladu sy'n debygol yng nghyd-destun symudiadau traffig lleol neu hyd tebygol y llwybrau cludo. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.20.2	Tabl 98, Rhif Effaith 10.8.8	Effeithiau ar y dirwedd ac effeithiau gweledol yn y nos yn ystod adeiladu	Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu i gefnogi'r casgliad na fyddai'r effeithiau o oleuadau adeiladu yn arwyddocaol. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.20.3	Tabl 98, Rhif Effaith 10.8.6	Effeithiau ar dderbynnyddion tirwedd a gweledol o ganlyniad i'r ceblau tanddaear yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn tybio na fyddai unrhyw effeithiau o geblau tanddaear yn arwyddocaol pan fyddai'r tir wedi'i adfer. Fodd bynnag, gan nad yw'n glir pa mor hir y byddai'n ei gymryd i'r tir adfer ar ôl i'r ceblau gael eu gosod, mae'r Arolygiaeth yn pryderu bod posiblwydd y gallai effeithiau arwyddocaol ddigwydd. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.20.4	Tabl 98, Rhif Effaith 10.8.7	Effeithiau ar dderbynnyddion tirwedd a gweledol o ganlyniad i gynnal a chadw'r cebbau tanddaear a'r is-orsaf ar y tir yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor yr effeithiau hyn o'r broses gwmpasu ar y sail bod gweithgareddau cynnal a chadw yn debygol o ddigwydd yn anaml ac am gyfnod byr. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol o ddigwydd ac y gellir hepgor y mater hwn o'r broses gwmpasu.
4.20.5	Tabl 98, Rhif Effaith 10.8.8	Effeithiau ar y dirwedd ac effeithiau gweledol yn y nos yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y materion hyn o'r broses gwmpasu ar y sail nad oes unrhyw oleuadau parhaol wedi'u cynnig wrth yr is-orsaf newydd nac ar hyd llwybr y cebi. Mae'r Arolygiaeth yn cytuno y gellir hepgor y materion hyn o'r broses gwmpasu gan na chynigir unrhyw oleuadau gweithredol yn ystod y nos.
4.20.6	Tabl 98, Rhif Effaith 10.8.9	Amwynder gweledol preswyl yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu oherwydd disgwylir i'r effeithiau posibl o lwybr y cebi ar y tir fod dros dro ac am gyfnod byr. Ni ddisgwylir i'r effeithiau o'r is-orsaf newydd fod yn ormesol nac yn llethol o ganlyniad i uchder cyfyngedig y strwythurau, er y bydd y posibilrwydd o effeithiau'n cael ei adolygu pan fydd lleoliad yr is-orsaf wedi cael ei gadarnhau. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.
4.20.7	Tabl 98, Rhif Effaith 10.8.10	Datgomisiynu	Mae'r Adroddiad Cwmpasu yn tybio bod yr effeithiau sy'n deillio o ddatgomisiynu yn debygol o fod o natur debyg, ond yn llai o ran graddfa a maint. Fodd bynnag, gan nad yw'r effeithiau yn ystod adeiladu wedi cael eu hasesu eto, mae'n ymddangos yn rhy gynnar i dybio na fyddai'r effeithiau datgomisiynu yn arwyddocaol. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Yn unol â hynny, dylai'r ES

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn Sylwadau'r Arolygiaeth cynnig y dylid eu hepgor o'r broses gwmpasu	
			gynnwys asesiad o'r materion hyn lle y gallai effaith arwyddocaol debygol ddigwydd.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.20.8	Paragraff 1192	Diffiniad o'r ardal astudio	Mae'r diffiniad o'r ardal astudio wedi'i seilio'n rhannol ar y dybiaeth y byddai strwythurau parhaol yr is-orsaf hyd at 15m uwchben lefel y tir. Fodd bynnag, mae Tabl 21 yr Adroddiad Cwmpasu yn cyfeirio at uchder mwyaf o 18m ar gyfer offer. Dylai'r asesiad yn yr ES esbonio sut mae'r ardal astudio wedi ystyried uchder yr offer.
4.20.9	Paragraff 1223	Defnydd o ffotograffiaeth	Nodir y bydd y golygfeydd presennol a rhagfynedig o'r Datblygiad Arfaethedig yn cael eu dangos gan ddefnyddio ffotograffiaeth, ac efallai y bydd angen dangos golygfeydd a welir mewn tymhorau gwahanol mewn rhai lleoliadau. Dylai'r ES sicrhau, er mwyn asesu'r senario achos gwaethaf, bod y ffotograffiaeth yn cynnwys golygfeydd a gipiwyd pan nad oes dail ar y coed i sgrinio.

4.21 Economaidd-gymdeithasol a thwristiaeth

(Adroddiad Cwmpasu; adran 10.9)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.21.1	Tabl 99, Rhif Effaith 10.9.3	Dadleoli ymwelwyr twristiaeth o fewn yr Ardal Astudio Leol (LSA)	Mae'r Adroddiad Cwmpasu yn datgan os yw'r data a gesglir ar gyfer yr asesiad yn dangos nad yw'r effeithiau'n arwyddocaol, y bydd y pwnc hwn yn cael ei hepgor o'r asesiad. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.21.2	Tabl 99, Rhif Effaith 10.9.4	Y galw am ofal iechyd yn yr LSA	Mae'r Adroddiad Cwmpasu yn datgan os yw'r data a gesglir ar gyfer yr asesiad yn dangos nad yw'r effeithiau'n arwyddocaol, y bydd y pwnc hwn yn cael ei hepgor o'r asesiad. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.21.3	Tabl 99, Rhif Effaith 10.9.6	Yr economi (marchnad lafur a Gwerth Ychwanegol Gros), gan gynnwys y gadwyn gyflenwi leol yn yr LSE	Mae'r Adroddiad Cwmpasu yn datgan os yw'r data a gesglir ar gyfer yr asesiad yn dangos nad yw'r effeithiau'n arwyddocaol, y bydd y pwnc hwn yn cael ei hepgor o'r asesiad. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.21.4	Tabl 100, Rhif Effaith 10.9.8	Effaith adeiladu ar y galw am dai ac ysgolion	<p>Mae'r Adroddiad Cwmpasu yn cynnig hepgor yr effaith hon o'r broses gwmpasu ar y sail bod y cam adeiladu yn debygol o bara am gyfnod byr, ac felly ei bod yn annhebygol y bydd gweithwyr yn adleoli i'r ardal. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol o ddigwydd ac y gellir hepgor y mater hwn o'r broses gwmpasu.</p>
4.21.5	Tabl 100, Rhif Effaith 10.9.9	Effaith ar Ardal Dylanwad Leol (LAI) o ganlyniad i bresenoldeb seilwaith ar y tir yn ystod gweithredu	<p>Prin yw'r dystiolaeth yn yr Adroddiad Cwmpasu i gefnogi'r datganiad y bydd gan seilwaith ar y tir gylch dylanwad gweledol cyfyngedig. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.</p>
4.21.6	Tabl 100, Rhif Effaith 10.9.10	Unrhyw effeithiau yn ystod datgomisiynu	<p>Mae'r Adroddiad Cwmpasu yn tybio bod yr effeithiau sy'n deillio o ddatgomisiynu yn debygol o fod o natur debyg, ond yn llai o ran graddfa a maint. Fodd bynnag, gan nad yw'r effeithiau yn ystod adeiladu wedi cael eu hasesu eto, mae'n ymddangos yn rhy gynnar i dybio na fyddai'r effeithiau datgomisiynu yn arwyddocaol. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.</p>

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.21.7	Paragraff 1266	Amlyu derbynnyddion	<p>Mae'r Adroddiad Cwmpasu yn datgan y bydd derbynnyddion yn cael eu hamlygu, ond nid yw'n esbonio sut y bydd hyn yn digwydd nac ystod debygol y derbynnyddion a ystyriwr. Dylai'r ES esbonio sut mae</p>

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
			derbynyddion wedi cael eu dewis a dylid gwneud ymdrech i gytuno ar yr ymagwedd gyda'r cyrff ymgynghori perthnasol.
4.21.8	-	Effeithiau ar weithrediadau amaethyddol	Mae'n ymddangos o'r ffigurau yn yr Adroddiad Cwmpasu bod llwybr y cebl yn debygol o effeithio ar dir amaethyddol, ond nid yw'r adroddiad yn cyfeirio at effeithiau tebygol ar ddaliadau amaethyddol nac effeithiau posibl ar hyfywedd gweithrediadau o'r fath. Dylai'r ES asesu unrhyw effeithiau arwyddocaol tebygol ar weithrediadau amaethyddol.

4.22 Iechyd Cyhoeddus

(Adroddiad Cwmpasu; adran 10.10)

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
4.22.1	Tabl 102, Rhif Effaith 10.10.16	Effaith ar iechyd o ganlyniad i allyriadau aer yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu ar y sail y byddai'r cam gweithredol yn arwain at symudiadau traffig cyfyngedig yn unig ac na fyddai'n cynnwys unrhyw weithgareddau a fyddai'n arwain at gynhyrchu llwch. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol ac y gellir hepgor y mater hwn o'r broses gwmpasu.
4.22.2	Tabl 102, Rhif Effaith 10.10.17	Effeithiau ar iechyd o ganlyniad i allyriadau dŵr yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu ar y sail na ddilsgwyllir unrhyw weithgareddau cynlluniedig a allai arwain at gynnydd 'nodedig' mewn dŵr ffo. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.22.3	Tabl 102, Rhif Effaith 10.10.18	Effeithiau ar iechyd o ganlyniad i allyriadau pridd (gan gynnwys gwastraff a sylweddau peryglus) yn ystod gweithredu	Mae'r Arolygiaeth yn cytuno ei bod yn annhebygol y byddai'r cam gweithredu yn arwain at unrhyw lwybrau effaith yn ychwanegol at y rhai hynny a amlygwyd yn yr asesiad o effeithiau adeiladu. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol ac y gellir hepgor y mater hwn o'r broses gwmpasu.
4.22.4	Tabl 102, Rhif Effaith 10.10.19	Amharu ar y rhwydwaith ffyrdd lleol, gan arwain at lai o fynediad at wasanaethau ac amwynderau yn ystod gweithredu	Mae'r Arolygiaeth yn cytuno bod swm y traffig sy'n debygol o fod yn gysylltiedig â'r cam gweithredu a chynnal a chadw yn annhebygol o amharu'n ddifrifol ar y rhwydwaith ffyrdd lleol. Mae'r Arolygiaeth yn

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn Sylwadau'r Arolygiaeth cynnig y dylid eu hepgor o'r broses gwmpasu	
			cytuno bod effeithiau arwyddocaol yn annhebygol ac y gellir hepgor y mater hwn o'r broses gwmpasu.
4.22.5	Tabl 102, Rhif Effaith 10.10.20	Effeithiau ar iechyd o ganlyniad i ymbelydredd electromagnetig yn ystod pob cam o'r Datblygiad Arfaethedig	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu gan y bydd rhaid i'r holl seilwaith trydanol gydymffurfio â chanllawiau'r Comisiwn Rhyngwladol ar Ddiogelu rhag Ymbelydredd nad yw'n īoneiddio (ICNIRP), ac felly byddai'r effeithiau'n ddibwys. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.22.6	Tabl 102, Rhif Effaith 10.10.21	Effeithiau o drychnebau mawr yn ystod pob cam o'r Datblygiad Arfaethedig	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu ar y sail bod perygl damweiniau mawr yn isel ar gyfer pob elfen o'r Datblygiad Arfaethedig a bod yr Ymgeisydd wedi ymrwymo i safonau iechyd a diogelwch uchel. Mae'r Arolygiaeth yn nodi nad oedd gan Wasanaeth Tân ac Achub Gogledd Cymru unrhyw sylwadau i'w gwneud ar yr Adroddiad Cwmpasu. Fodd bynnag, nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.22.7	Tabl 102, Rhifau Effaith 10.10.23 a 10.10.24	Plâu ac arogleuon yn ystod pob cam o'r Datblygiad Arfaethedig	Mae'r Adroddiad Cwmpasu yn datgan nad oes unrhyw lwybrau y disgwylir iddynt arwain at gynnydd mewn plâu ac arogleuon. Fodd bynnag, mae'r adran o'r Adroddiad Cwmpasu ar ddaeareg a chyflwr y tir yn cyfeirio at dri safle tirlenwi hanesyddol o fewn yr ECR ar y tir ac yn nodi y gallai cyfleusterau gwastraff gweithredol fod wedi'u lleoli o fewn yr ardal chwilio hefyd. Nodir y byddai llwybr y cebl ar y tir yn ceisio osgoi'r safleoedd a'r cyfleusterau hyn, ond nid oes sicrwydd y

Rhif	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig y dylid eu hepgor o'r broses gwmpasu	Sylwadau'r Arolygiaeth
			bydd hyn yn bosibl. Mae'r Arolygiaeth o'r farn y gallai fod llwybrau a allai arwain at gynnydd mewn plâu neu arogleuon. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.
4.22.8	Paragraff 1317	Effeithiau cronnol EMF yn ystod gweithredu	Mae'r Adroddiad Cwmpasu yn ceisio hepgor y mater hwn o'r broses gwmpasu ar y sail y byddai'n rhaid i holl seilwaith y prosiect gydymffurfio â'r canllawiau ICNIRP. Nid yw'r Arolygiaeth o'r farn bod digon o dystiolaeth wedi'i darparu i gefnogi hepgor y materion hyn o'r asesiad. Dylai'r Ymgeisydd wneud ymdrech i gytuno ar ddull asesu gyda'r cyrff ymgynghori perthnasol, gan sicrhau bod yr asesiad yn gymesur ac yn gadarn.

Rhif	Cyfeirnod	Pwyntiau eraill	Sylwadau'r Arolygiaeth
4.22.9	Tabl 101	Gwelliant mewn ansawdd aer o gymharu â ffynonellau tanwydd amgen fel Gorsafodd pŵer glo a nwy	Bwriedir cyflwyno dystiolaeth wedi'i seilio ar adolygiad o lenyddiaeth i amlygu effeithiau buddiol allweddol ffermydd gwynt ar y môr o gymharu â mathau amgen o gynhyrchu ynni. Er y gallai hyn ddarparu gwybodaeth, dylai'r ES fynd i'r afael ag effeithiau arwyddocaol y Datblygiad Arfaethedig. Os byddai'r Datblygiad Arfaethedig yn arwain at welliannau sylweddol i ansawdd aer, dylai'r gwelliannau hyn gael eu meintioli a'u hasesu.

5. FFYNONELLAU GWYBODAETH

- 5.0.1 Mae gwefan Cynllunio Seilwaith Cenedlaethol yr Arolygiaeth yn cynnwys dolenni i gyngor amrywiol ynglŷn â gwneud ceisiadau a gweithdrefnau amgylcheddol, gan gynnwys:
- Prospektws cyn-ymgeisio⁴
 - Nodiadau cyngor yr Arolygiaeth Gynllunio⁵:
 - Nodyn Cyngor Tri: Hysbysiad o AEA ac Ymgynghori;
 - Nodyn Cyngor Pedwar: Adran 52: Cael gwybodaeth am fuddiannau mewn tir (Deddf Cynllunio 2008);
 - Nodyn Cyngor Pump: Adran 53: Hawliau Mynediad (Deddf Cynllunio 2008);
 - Nodyn Cyngor Saith: Asesu Effeithiau Amgylcheddol: Y Broses, Gwybodaeth Amgylcheddol Ragarweiniol a Datganiadau Amgylcheddol;
 - Nodyn Cyngor Naw: Defnyddio ‘Amlen Rochdale’;
 - Nodyn Cyngor Deg: Asesiad Rheoliadau Cynefinoedd sy’n berthnasol i Brosiectau Seilwaith o Arwyddocâd Cenedlaethol (sy’n trafod y broses Cynllun Tystiolaeth);
 - Nodyn Cyngor Deuddeg: Effeithiau Trawsffiniol;
 - Nodyn Cyngor Dau ar Bymtheg: Asesu Effeithiau Cronol; a
 - Nodyn Cyngor Deunaw: Y Gyfarwyddeb **Fframwaith Dŵr**.
- 5.0.2 Cynghorir ymgeiswyr hefyd i adolygu'r rhestr o wybodaeth y mae'n ofynnol ei chyflwyno mewn cais am Ddatblygiad, fel y'i hamlinellir yn Rheoliadau Cynllunio Seilwaith (Ceisiadau: Ffurflenni a Gweithdrefn Ragnodedig) 2009.

⁴ Gwasanaethau cyn-ymgeisio'r Arolygiaeth Gynllunio ar gyfer ymgeiswyr. Ar gael yn: <https://infrastructure.planninginspectorate.gov.uk/cy/application-process/pre-application-service-for-applicants/>

⁵ Cyfres o nodiadau cyngor yr Arolygiaeth Gynllunio yn ymwneud â phroses Deddf Cynllunio 2008. Ar gael yn: <https://infrastructure.planninginspectorate.gov.uk/cy/legislation-and-advice/advice-notes/>

ATODI AD 1: CYRFF YMGYNGHORI YR YMGYNGHORWYD Â NHW YN FFURFIOL

TABL A1: CYRFF YMGYNGHORI RHAGNODEDI G⁶

DI SGRI FI AD ATODLEN 1	SEFYDLI AD
Gweinidogion Cymru	Llywodraeth Cymru
Yr Awdurdod Gweithredol Iechyd a Diogelwch	Yr Awdurdod Gweithredol Iechyd a Diogelwch
Yr awdurdod Tân ac Achub perthnasol	Gwasanaeth Tân ac Achub Gogledd Cymru
Y comisiynydd heddlu a throseddu perthnasol	Comisiynydd Heddlu a Throseddu Gogledd Cymru
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref Prestatyn
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Trefnant
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Cefn Meiriadog
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Tremeirchion, Cwm a Waen
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Dinas Llanelwy
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir	Cyngor Tref Rhuddlan

⁶ Atodlen 1 Rheoliadau Cynllunio Seilwaith (Ceisiadau: Ffurflenno a Gweithdrefn Ragnodedig) 2009 (y Rheoliadau APFP')

DI SGRI FI AD ATODLEN 1	SEFYDLI AD
yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Dyserth
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref Llandudno
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref Bae Colwyn
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref Abergele
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref Towyn a Bae Cinmel
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Llysfaen
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Llanddulas a Rhyd-y-Foel
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Betws-yn-Rhos a Llanellian-yn-Rhos
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Tref y Rhyl

DI SGRI FI AD ATODLEN 1	SEFYDLI AD
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Llanfair Talhaearn
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Llanefydd
Y cyngor/cynghorau plwyf perthnasol neu, lle mae'r cais yn ymwneud â thir yng Nghymru neu'r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Mochdre
Y Comisiwn Cydraddoldeb a Hawliau Dynol	Y Comisiwn Cydraddoldeb a Hawliau Dynol
Comisiwn Brenhinol Henebion Cymru	Comisiwn Brenhinol Henebion Cymru
Y corff adnoddau naturiol ar gyfer Cymru	Cyfoeth Naturiol Cymru
Yr Asiantaeth Cartrefi a Chymunedau	Homes England
Y Cyd-bwyllgor Cadwraeth Natur	Y Cyd-bwyllgor Cadwraeth Natur
Asiantaeth y Môr a Gwylwyr y Glannau	Asiantaeth y Môr a Gwylwyr y Glannau
Asiantaeth y Môr a Gwylwyr y Glannau – Swyddfa Ranbarthol	Asiantaeth y Môr a Gwylwyr y Glannau – Caergybi
Y Sefydliad Rheoli Morol	Y Sefydliad Rheoli Morol (MMO)
Y Sefydliad Rheoli Morol	Cyfoeth Naturiol Cymru
Asiantaeth Diogelu Pysgodfeydd yr Alban	Marine Scotland – Cadwraeth
Yr Awdurdod Hedfan Sifil	Yr Awdurdod Hedfan Sifil
Yr Awdurdod Priffyrrd perthnasol	Cyngor Bwrdeistref Sirol Conwy
Y Cyngor Teithwyr	Transport Focus
Y Pwyllgor Ymgynghorol ar Gludiant Pobl Anabl	Y Pwyllgor Ymgynghorol ar Gludiant Pobl Anabl
Yr Awdurdod Glo	Yr Awdurdod Glo
Y Swyddfa Rheilffyrrd a Ffyrd	Y Swyddfa Rheilffyrrd a Ffyrd

DI SGRI FI AD ATODLEN 1	SEFYDLIAD
Gweithredwr Cymeradwy	Network Rail Infrastructure Ltd
Gweithredwr Cymeradwy	Network Rail (High Speed) Ltd
Yr Awdurdod Marchnadoedd Nwy a Thrydan	Swyddfa'r Marchnadoedd Nwy a Thrydan (OFGEM)
Yr Awdurdod Rheoleiddio Gwasanaethau Dŵr	Ofwat
Comisiwn Diwydiant Dŵr yr Alban	Comisiwn Diwydiant Dŵr yr Alban
Yr awdurdod rheoleiddio gwastraff perthnasol	Cyfoeth Naturiol Cymru
Y bwrdd draenio mewnol perthnasol	Afon Ganol (Dwyrain a Gorllewin)
Tŷ'r Drindod	Tŷ'r Drindod
Y fforwm cydnerthedd lleol perthnasol	Fforwm Cymru Gydneth

TABL A2: YMGYMERWYR STATUDOL PERTHNASOL⁷

YMGYMERWR STATUDOL	SEFYDLIAD
Comisiynwyr Ystad y Goron	Ystad y Goron
Y corff adnoddau naturiol ar gyfer Cymru	Cyfoeth Naturiol Cymru
Y bwrdd iechyd lleol perthnasol	Bwrdd Iechyd Prifysgol Betsi Cadwaladr
Ymddiriedolaethau'r Gwasanaeth Iechyd Gwladol	Tîm Diogelu Iechyd Iechyd Cyhoeddus Cymru
Ymddiriedolaethau'r Gwasanaeth Iechyd Gwladol	Ymddiriedolaeth Gwasanaethau Ambiwlans Cymru
Ymddiriedolaethau'r Gwasanaeth Iechyd Gwladol	Ymddiriedolaeth GIG Felindre
Ymddiriedolaethau'r Gwasanaeth Iechyd Gwladol	Ymddiriedolaeth GIG Felindre

⁷ Mae'r diffiniad o 'Ymgymerwr Statudol' yn y Rheoliadau APFP yr un fath â hwnnw yn Adran 127 Deddf Cynllunio 2008 (PA2008)

YMGYMERWR STATUDOL	SEFYDLIAD
Yr Ysgrifennydd Gwladol dros Amddiffyn	Y Weinyyddiaeth Amddiffyn
Yr Ymddiriedolaeth GIG berthnasol	Tîm Diogelu Iechyd Iechyd Cyhoeddus Cymru
Yr Ymddiriedolaeth GIG berthnasol	Ymddiriedolaeth Gwasanaethau Ambiwlans Cymru
Yr Ymddiriedolaeth GIG berthnasol	Ymddiriedolaeth GIG Felindre
Y bwrdd iechyd lleol perthnasol	Bwrdd Iechyd Prifysgol Betsi Cadwaladr
Rheilffyrdd	Network Rail Infrastructure Ltd
Yr awdurdod dociau a harbyrau	Harbwr Amlwch – Cyngor Sir Ynys Môn
Yr awdurdod dociau a harbyrau	Conwy – Cyngor Bwrdeistref Sirol Conwy
Yr awdurdod dociau a harbyrau	Porth Penrhyn - Port Penrhyn Plant Ltd
Yr awdurdod dociau a harbyrau	Mostyn - Port of Mostyn Ltd
Yr awdurdod dociau a harbyrau	Lerpwl - Mersey Docks & Harbour Company Limited
Pier	Bae Colwyn – Victoria
Pier	Llandudno
Goleudy	Tŷ'r Drindod
Yr Awdurdod Hedfan Sifil	Yr Awdurdod Hedfan Sifil
Deiliad Trwydded (Pennod 1 Rhan 1 Deddf Trafnidiaeth 2000)	NATS Diogelu ar y Daith
Darparwr Gwasanaeth Cyffredinol	Royal Mail Group
Yr Asiantaeth yr Amgylchedd berthnasol	Cyfoeth Naturiol Cymru
Yr ymgymmerwr dŵr a charthffosiaeth perthnasol	Dŵr Cymru (Welsh Water)
Y cludwr nwy cyhoeddus perthnasol	Cadent Gas Limited
Y cludwr nwy cyhoeddus perthnasol	Energetics Gas Limited
Y cludwr nwy cyhoeddus perthnasol	Energy Assets Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	ES Pipelines Ltd

YMGYMERWR STATUDOL	SEFYDLIAD
Y cludwr nwy cyhoeddus perthnasol	ESP Connections Ltd
Y cludwr nwy cyhoeddus perthnasol	ESP Networks Ltd
Y cludwr nwy cyhoeddus perthnasol	ESP Pipelines Ltd
Y cludwr nwy cyhoeddus perthnasol	Fulcrum Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	Harlaxton Gas Networks Limited
Y cludwr nwy cyhoeddus perthnasol	GTC Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	Independent Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	Indigo Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	Murphy Gas Networks limited
Y cludwr nwy cyhoeddus perthnasol	Quadrant Pipelines Limited
Y cludwr nwy cyhoeddus perthnasol	National Grid Gas Plc
Y cludwr nwy cyhoeddus perthnasol	Scotland Gas Networks Plc
Y cludwr nwy cyhoeddus perthnasol	Southern Gas Networks Plc
Y cludwr nwy cyhoeddus perthnasol	Wales and West Utilities Ltd
Y cynhyrchydd trydan perthnasol sydd â Phwerau CPO	Gwynt y Môr
Y cynhyrchydd trydan perthnasol sydd â Phwerau CPO	North Hoyle Offshore Wind Farm Limited
Y cynhyrchydd trydan perthnasol sydd â Phwerau CPO	Gwastadeddau'r Rhyl
Y cynhyrchydd trydan perthnasol sydd â Phwerau CPO	Estyniad Burbo Bank
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Eclipse Power Network Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Energetics Electricity Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Energy Assets Networks Limited

YMGYMERWR STATUDOL	SEFYDLI AD
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	ESP Electricity Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Fulcrum Electricity Assets Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Harlaxton Energy Networks Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Independent Power Networks Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Leep Electricity Networks Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Murphy Power Distribution Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	The Electricity Network Company Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	UK Power Distribution Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Utility Assets Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	Vattenfall Networks Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	SP Distribution Plc
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	SP Manweb Plc
Y trosglwyddydd trydan perthnasol sydd â Phwerau CPO	Gwynt y Môr OFTO plc
Y trosglwyddydd trydan perthnasol sydd â Phwerau CPO	National Grid Electricity Transmission Plc
Y rhyng-gysylltydd trydan perthnasol sydd â Phwerau CPO	EirGrid Interconnector Designated Activity Company

TABL A3: YMGYNGOREION ADRAN 43 (AT DDI BENION ADRAN 42(1)(B))⁸

AWDURDOD LLEOL ⁹
Cyngor Bwrdeistref Sirol Conwy
Cyngor Sir Ddinbych
Parc Cenedlaethol Eryri
Cyngor Sir Powys
Cyngor Sir y Fflint
Cyngor Bwrdeistref Sirol Wrecsam
Cyngor Gwynedd

TABL A4: CYRFF YMGYNGHORI NAD YDYNT YN RHAGNODEDIG

SEFYDLI AD
Cadw
Comisiynydd y Gymraeg
Trafnidiaeth Canolbarth Cymru (TraCC)
Tîm Rheoli Trafnidiaeth – Cyfarwyddwyr yr Amgylchedd ac Adfywio De-ddwyrain Cymru (SewDER)
Y Weinyddiaeth Amddiffyn
Llywodraeth Ynys Manaw
Swyddfa Comisiynydd Heddlu a Throseddu Gogledd Cymru Pencadlys yr Heddlu
Gwasanaeth Tân ac Achub Gogledd Cymru
Ymddiriedolaeth Gwasanaethau Ambiwlans Cymru
Sefydliad Brenhinol Cenedlaethol y Badau Achub
Y Weinyddiaeth Amddiffyn

⁸ Adrannau 43 a 42(B) PA2008

⁹ Fel y'i diffinnir yn Adran 43(3) PA2008

Cyngor Sir Ynys Môn

Cyngor Wirral

ATODI AD 2: YMATEBWYR I'R YMGYNGHORIAID A CHOPÏAU O'R YMATEBION

CYRFF YMGYNGHORI A YMATEBODD ERBYN Y TERFYN AMSER STATUDOL:
Cyngor Tref Abergele
Cyngor Sir Ynys Môn
Cadent
Cyngor Bwrdeistref Sirol Conwy
Y Sefydliad Seilwaith Amddiffyn (DIO) – Diogelu
Yr Awdurdod Gweithredol Iechyd a Diogelwch (HSE)
Y Cyd-bwyllgor Cadwraeth Natur (JNCC)
Last Mile UK
Asiantaeth y Môr a Gwylwyr y Glannau (MCA)
Y Grid Cenedlaethol
Swyddfa Diogelu NATS
Cyfoeth Naturiol Cymru (CNC)
Gwasanaeth Tân ac Achub Gogledd Cymru
Iechyd Cyhoeddus Cymru
Cyngor Tref Rhuddlan
Y Port Brenhinol
Yr Awdurdod Glo
Cyngor Tref Towyn
Tŷ'r Drindod
Llywodraeth Cymru
Dŵr Cymru
Cyngor Bwrdeistref Sirol Wrecsam



SCOPING OPINION:

Proposed Awel y Môr Offshore Wind Farm

Case Reference: EN010112

Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

July 2020

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APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF
REPLIES

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1. INTRODUCTION

1.1 Background

- 1.1.1 On 11 June 2020, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Awel y Môr Offshore Wind Farm Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Awel y Môr Offshore Wind Farm (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion '*as to the scope, and level of detail, of the information to be provided in the environmental statement*'.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the **Applicant's report entitled Environmental Impacts Assessment Scoping Report** (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's **Scoping Report**.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
 - (b) *the specific characteristics of the development;*
 - (c) *the likely significant effects of the development on the environment; and*
 - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 **The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).**
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it

is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
 - (a) *a plan sufficient to identify the land;*
 - (b) *a description of the proposed development, including its location and technical capacity;*
 - (c) *an explanation of the likely significant effects of the development on the environment; and*
 - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 **The Inspectorate considers that this has been provided in the Applicant's Scoping Report.** The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on '*the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)*'.
- 1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 (the Habitats Regulations). This assessment must be co-ordinated with the EIA in accordance with Regulation 26 of the EIA Regulations. **The Applicant's ES should therefore be co-ordinated with any assessment made under the Habitats Regulations.**

1.2 The Planning Inspectorate's Consultation

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the

preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in preparing their ES.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will **be forwarded to the Applicant and will be made available on the Inspectorate's website**. The Applicant should also give due consideration to those comments in preparing their ES.

1.3 The European Union (Withdrawal Agreement) Act 2020

- 1.3.1 The UK left the European Union as a member state on 31 January 2020. The European Union (Withdrawal Agreement) Act 2020 gives effect to transition arrangements that last until the 31 December 2020. This provides for EU law to be retained as UK law and also brings into effect obligations which may come into force during the transition period.
- 1.3.2 This Scoping Opinion has been prepared on the basis of retained law and references within it to European terms have also been retained for consistency with other relevant documents including relevant legislation, guidance and advice notes.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/ resources.

2.2 Description of the Proposed Development

2.2.1 **The Applicant's description of the Proposed Development, its location and technical capacity** (where relevant) is provided in Chapter 1 and Chapter 3 of the Scoping Report. The final locations for the various project elements and cable routes have not been defined so the Scoping Report refers instead to the array area, the offshore export cable route (ECR) search area, the onshore ECR search area and the onshore substation search area.

2.2.2 The Proposed Development will consist of up to 107 Wind Turbine Generators (WTG). The WTG array will cover an area of approximately 106.4km² and is located 10.6km off the north coast of Wales (closest distance). The operational lifetime of the Proposed Development is 25 years. The Proposed Development will be comprised of the following (see Scoping Report, Chapter 3, Table 2-22 for parameters):

- Offshore Components:
 - WTG;
 - WTG foundations;
 - Met masts;
 - offshore substation platforms (OSP);
 - inter-array cables;
 - scour and cable protection; and
 - offshore export cables.
- Onshore Components:
 - onshore export cables;
 - landfall Transition Joint Bays (TJB);
 - onshore substation; and
 - extension to the National Grid GIS building and substation boundary at the existing Bodelwyddan substation.

2.2.3 The transmission technology chosen for the Proposed Development is High Voltage Alternating Current (HVAC).

Offshore Site and Surroundings

- 2.2.4 The offshore components of the proposed application site are located in the Irish Sea off the north east coast of Wales, west of the River Dee and east of Conwy. The Proposed Development site surrounds, but does not include, the existing Rhyl Flats Offshore Wind Farm (OWF) (see Scoping Report, Chapter 1, Figure 1 for the scoping boundary).
- 2.2.5 The Scoping Report lists five operational OWFs neighbouring the Proposed Development including; Gwynt y Mor, North Hoyle, Rhyl Flats and Burbo Bank and Extension (see Scoping Report, Chapter 9, Table 72). Awel y Môr OWF offshore ECR search area overlaps with export cables from existing OWF and is located adjacent to Eirgrid East-West Interconnector and multiple gas pipelines (see Scoping Report, Chapter 9, Paragraph 9.6.4).
- 2.2.6 The Scoping Report identifies a number of existing uses within the offshore area potentially affected by the Proposed Development. These include some commercial fisheries, mainly shell fishing. Marine aggregates dredging occurs in the vicinity of the Proposed Development and a BMAPA transit route intersects the proposed array area. British Marine Aggregate Producers Association (BMAPA) transit routes intersect the array area and the ECR search area. Shipping traffic in the vicinity of the site includes maintenance vessels for the Gwynt y Môr wind farm. Shipping passing to and from Liverpool Harbour mainly passes to the north of the Proposed Development, but some vessels are known to pass through the array and/or the ECR search area.
- 2.2.7 Seven internationally designated sites and nine nationally designated sites for nature conservation are located in close proximity to Awel y Môr OWF. Traeth Pensarn Site of Special Scientific Interest (SSSI) and Liverpool Bay Special Protection Area (SPA) coincide with the offshore ECR search area. Dee Estuary Special Area of Conservation (SAC)/SPA, Menai Strait and Conwy Bay SAC, Gronant Dunes and Talacre Warren SSSI and Little Ormes Head SSI are located immediately adjacent to the offshore ECR search area (see Scoping Report, Chapter 7, Table 27).

Onshore Site and Surroundings

- 2.2.8 The onshore components of the Proposed Development are located on the north east coast of wales, west of the River Dee and east of Conwy, and within the counties of Denbighshire and Conwy. Llandudno lies to the west, Talacre to the east, and Denbigh to the south. The location of the landfall has yet to be determined but the search area currently under consideration is the coast between Colwyn Bay and Prestatyn. The scoping boundary for the Proposed Development is provided in Chapter 1, Figure 2.
- 2.2.9 Tourism is a significant activity within the onshore ECR search area; the Scoping Report also identifies two potentially significant mineral safeguarding areas within the search area. The Scoping Report describes multiple road and rail links within the search area including the railway stations at Rhyl, Abergale and Prestatyn and the A55 North Wales expressway. The A55 North Wales expressway also intersects the onshore substation search area (see Scoping Report Chapter 10.4).

2.2.1 Environmental receptors within the onshore OCR search area include Coedydd ac Ogofau Elwy a Meirchion SSSI and 117 Local Wildlife Sites. The Scoping Report also identifies One international and 673 nationally designated historic assets within the onshore ECR search area. Of these, two nationally designated historic assets are located within the Awel y Môr OWF onshore substation search area (see Scoping Report, Chapter 10, Table 78).

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

2.3.1 The ES should include the following:

- a description of the Proposed Development comprising at least the information on the site, design, size and other relevant features of the development; and
- a description of the location of the development and description of the physical characteristics of the whole development, including any requisite demolition works and the land-use requirements during construction and operation phases

2.3.2 Upon submission of a draft DCO, the Applicant should clearly specify in the ES, which elements of the Proposed Development are integral to the NSIP, and **which constitutes 'associated development' as described under the Planning Act 2008** or can be considered as an ancillary matter. Any proposed works and/or infrastructure required as associated development or as an ancillary matter should be assessed as part of an integrated approach to EIA.

2.3.3 The Inspectorate notes that the Scoping Report does not provide a clear estimate of the individual or combined capacity of WTGs (MW) for the Proposed Development. For example, Chapter 1 of the Scoping Report states, '*a capacity greater than 100 MW*', whilst the Scoping Report Cover Letter states '*a capacity greater than 350 MW*'. The Applicant should provide a clear estimate of WTG output (individual and combined) and ensure this is consistent throughout the ES and supporting documentation.

2.3.4 Table 6 of the Scoping Report provides parameters for WTG monopile foundations including the maximum footprint per foundation (m^2). However, this excludes scour protection. Paragraph 3.4.6 of the Scoping Report states the maximum area of scour protection per foundation (including structure footprint area) (m^2) will be approximately 41,000 m^2 . The Applicant should justify in the ES why scour protection has been included or excluded in the estimation of maximum footprint diameter (m^2) for all foundation types being considered for the design of the Proposed Development.

2.3.5 The Inspectorate notes that paragraph 3.4.7 of the Scoping Report states both a met mast and floating LiDAR are being considered in the design of the Proposed Development. However, floating LiDAR is not described in Chapter 3, Table 2 and parameters have not been provided in this Scoping Report. The Applicant should provide a description, estimate of parameters and impact assessment of floating LiDAR in the ES.

- 2.3.6 The Scoping Report refers to export circuits in Table 19 and Table 20 but this component has not been described in the Scoping Report. The Applicant should provide a clear description of export circuits and how this component relates to other elements of the Proposed Development (e.g. number of cables) in the ES. **In addition, Table 20 estimates the parameter '*total onshore cabling length*' for only two cables. However, the design envelope for '*maximum number cables per circuit*' specifies up to seven cables.** The Applicant should clarify why only two cables were used in this parameter estimation in the ES.
- 2.3.7 Paragraph 95 of the Scoping Report states that alterations to the existing Bodelwyddan substation will be required and that if these alterations require planning consent this could be obtained either by National Grid or by the Applicant. The project description in the ES should explain whether this element of the Proposed Development is included in the DCO. If it is not included in the DCO then the cumulative assessments presented in the ES must assess any significant effects resulting from the alterations even if the alterations do not require planning consent.

Proposed Access

- 2.3.8 It is not apparent from the information provided in the Scoping Report how the applicant intends to access water/land required for pre-construction surveys and monitoring, construction and operation/maintenance of the Proposed Development. The Applicant should provide a description of proposed access routes, types of vehicle and numbers of personnel required for survey, construction and operation/maintenance of onshore and offshore sites. This will need to be considered and assessed as part of the ES.

Construction

- 2.3.9 The Inspectorate notes the Scoping Report does not provide information regarding the size and location of construction compounds. Whilst it is appreciated that this information may not be available at this stage in the NSIP application process, Applicants are reminded that this information will be required and should be incorporated into the DCO boundary.
- 2.3.10 The Inspectorate considers that information on construction including: phasing of programme; construction methods and activities associated with each phase; siting of construction compounds (including on and off site); lighting equipment/requirements; and number, movements and parking of construction vehicles (both HGVs and staff) should be clearly indicated in the ES.
- 2.3.11 Paragraph 126 **of the Scoping Report refers to a 'temporary working corridor'** in relation to construction of trenches for the onshore ECR. However, the extent, location and duration (for which access is required) of the temporary working corridor has not been described in the Scoping Report. The Applicant should provide a description, estimate of parameters and impact assessment of the temporary working corridor in the ES.
- 2.3.12 Paragraph 3.6.1 of the Scoping Report states the Applicant may implement a management plan for the removal and storage of soil within the temporary working corridor. It is considered that the handling, storage and reinstatement

of soil should be conducted in accordance with a Soil Management Plan (SMP) which sets out good practice mitigation to minimise adverse effects on the soil resource. The Applicant may wish to refer to guidance set out in the Department for Environment, Food and Rural Affairs (DEFRA) 'Construction Code of Practice for the Sustainable Use of Soils **on Construction Sites**'.

Operation and Maintenance

- 2.3.13 The ES should provide a description of the operation and maintenance of the Proposed Development including (but not limited to); the number of full/part-time jobs, the operational hours and shift patterns (if required), the number and types of vehicle movements generated during the operational stage.

Decommissioning

- 2.3.14 Paragraph 3.9 of the Scoping Report states the operational lifetime of the **Proposed Development** is '*in the order of 25 years*'. The Inspectorate recommends the maximum anticipated lifetime of the Proposed Development is clearly provided in the Project Description chapter of the ES so it is clear what parameters have been used in the assessment of effects.

- 2.3.15 The Scoping Report suggests that impacts from decommissioning will be managed through adherence to mitigation measures similar to those used applied during construction. The Applicant should ensure that mitigation measures relied on in the ES are appropriately defined and their delivery is secured.

- 2.3.16 The Inspectorate acknowledges that the further into the future any assessment is made, the less reliance may be placed on the outcome. However, the purpose of assessing the decommissioning stage, is to enable this development phase to be factored into the design process, reducing potential environmental impacts associated with the decommissioning of the Proposed Development. The process and methods of decommissioning should be considered, and options presented in the ES. Where the ES assumes that the effects would be similar to those of construction the ES should provide a clear justification to support this position.

Alternatives

- 2.3.17 **The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.**

- 2.3.18 **The Inspectorate acknowledges the Applicant's intention to consider alternatives** within the ES. The Inspectorate would expect to see a discrete section in the ES that provides details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

Flexibility

- 2.3.19 The Inspectorate **notes the Applicant's desire to incorporate flexibility** into their draft DCO (dDCO) and its intention to apply a Rochdale Envelope approach for this purpose. Where the details of the Proposed Development cannot be defined precisely, the Applicant will apply a worst-case scenario. The Inspectorate welcomes the reference to Planning Inspectorate Advice Note nine 'Using the 'Rochdale Envelope' in this regard.
- 2.3.20 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the dDCO and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.
- 2.3.21 It should be noted that if the Proposed Development materially changes prior to submission of the DCO application, the Applicant may wish to consider requesting a new scoping opinion.

3. ES APPROACH

3.1 Introduction

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements'¹ and associated appendices.
- 3.1.2 Aspects/ matters (as defined in Advice Note Seven) are not scoped out unless specifically addressed and justified by the Applicant and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the **Proposed Development described in the Applicant's Scoping Report**.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain matters on the basis of the information available at this time. There appear to be discrepancies between the matters that are shown as being scoped out of the assessment in the aspect chapters of the Scoping Report and those that are listed in Tables 103 – 106. The Inspectorate has considered only the matters which the Applicant seeks to scope out of the assessment in the aspect chapters since this is where the evidence supporting the **Applicant's** conclusions has been provided. For the avoidance of doubt, the only matters that the Inspectorate has agreed to scope out are those identified in the aspect Tables in section 4 of this report.
- 3.1.4 The Inspectorate is content that the receipt of a Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.5 The Inspectorate has made effort to ensure that this Scoping Opinion is informed through effective consultation with the relevant consultation bodies. Unfortunately, at this time the Inspectorate is unable to receive hard copy **consultation responses, and this may affect a consultation body's ability to** engage with the scoping process. The Inspectorate also appreciates that strict compliance with COVID-19 advice may affect a **consultation body's ability to** provide their consultation response. The Inspectorate considers that Applicants should make effort to ensure that they engage effectively with consultation bodies and where necessary further develop the scope of the ES to address their concerns and advice. The ES should include information to demonstrate how such further engagement has been undertaken and how it has influenced the scope of the assessments reported in the ES.

¹ Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from:
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

3.1.6 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.

3.2 Relevant National Policy Statements (NPSs)

3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the **Government's objectives for the development of NSIPs**. The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.

3.2.2 The designated NPS(s) relevant to the Proposed Development are:

- Overarching NPS For Energy (NPS EN-1);
- NPS on Renewable Energy Infrastructure (NPS EN-3) and
- NPS for Electricity Networks Infrastructure (NPS EN-5).

3.3 Scope of Assessment

General

3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:

- to demonstrate how the assessment has taken account of this Opinion;
- to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
- to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
- to describe any remedial measures that are identified as being necessary following monitoring; and
- to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

3.3.2 Several aspects in the Scoping Report propose to develop a study area for the assessment based on fixed (pre-determined) distances. The Scoping Report does not explain in any detail why this approach is appropriate with regard to the given aspect or matter considered. The Inspectorate considers that study areas for assessments should be determined based on the extent of the likely impact and the sensitivity of the relevant receptor. This should include the entirety of the Proposed Development, noting the lack of clarity in this regard

to the array and offshore ECR. The Applicant should make effort to agree study areas with relevant consultation bodies.

- 3.3.3 Several aspects within the Scoping Report request to scope out an assessment of cumulative impacts. The reasons supporting these requests relate to the '*short duration*', '*localised*' and '*temporary*' nature of the anticipated impacts. The information supporting these requests provides limited justification and there is inconsistency in the Scoping Report. For the avoidance of doubt and in absence of the information required to support the conclusion the Inspectorate does not agree to scope these matters out. The ES should include an assessment of cumulative effects for all aspects and matters where significant effects are likely to occur. The assessment of cumulative effects should not be limited to one particular development type and should instead focus on the potential for overlapping impacts and likely significant effects. The Applicant should make effort to agree the approach to the assessment of cumulative effects with relevant consultation bodies. The Inspectorate encourages the Applicant to make use of the advice contained in its Advice Note Seventeen regarding the approach to the assessment of cumulative effects.
- 3.3.4 The Scoping Report makes several references to the use of professional judgement in undertaking the assessment of effects. The ES should clearly explain where professional judgement has been applied the reasons for doing so and the justification for its use.
- 3.3.5 The figures provided in the Scoping Report do not have a reference number that corresponds with those presented in the list of figures provided in the Contents section (e.g. figure 1) of the Scoping Report. It would aid the Examining Authority (should the application be accepted for examination) if this could be addressed in the ES. The Applicant is reminded that the ES should be clear and accessible to readers.

Baseline Scenario

- 3.3.6 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
- 3.3.7 In light of the number of ongoing developments within the vicinity of the Proposed Development application site, the Applicant should clearly state which developments will be assumed to be under construction or operational as part of the future baseline.
- 3.3.8 In relation to a number of aspects the Scoping Report proposes to rely on information previously obtained to develop a baseline scenario and to inform subsequent modelling. The Inspectorate understands the potential benefits of this approach but advises that suitable care should be taken to ensure that the information in the ES remains representative and fit for purpose. This should include taking into account the impact of more recent developments that have occurred subsequent to when the data was collected. The Applicant should make effort to agree with relevant consultation bodies (eg NRW) the suitability of information used for the assessments in the ES.

Forecasting Methods or Evidence

- 3.3.9 The Scoping Report refers to '*site specific*' surveys as those which are produced specifically for the purposes of the Proposed Development as opposed to those which have been produced for other purposes, but which are applicable. The Inspectorate does not consider this distinction to be particularly useful or necessary. The ES should instead focus on the suitability of any information used to inform the assessment and ensure that it is relevant for that purpose.
- 3.3.10 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.
- 3.3.11 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.12 Responses from several consultees (see Appendix 2 of this report) refer to the need to consider the species and habitats covered by section 7 of the Environment (Wales) Act 2016. The ES should include an assessment of effects on these species and habitats where a likely significant effect (LSE) is likely to arise.
- 3.3.13 A number of aspects in the Scoping Report make limited reference to the actual methods and relevant guidance to be used to define and quantify potential significant effects. The ES should include sufficient detail in each aspect chapter to explain the assessment methods used and any assumptions and limitations, applied to **the assessment**. Where '**expert judgement**' is used to inform the assessment, this should be clearly reported and justified.
- 3.3.14 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and Emissions

- 3.3.15 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.

Mitigation and Monitoring

- 3.3.16 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific DCO requirements or other legally binding agreements.

- 3.3.17 The ES should identify and describe any proposed monitoring of significant adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.

Risks of Major Accidents and/or Disasters

- 3.3.18 The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note 11) to better understand the likelihood of an occurrence and the Proposed **Development's susceptibility to potential major accidents and hazards**. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed **Development's potential to cause an accident or disaster**. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.
- 3.3.19 Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Climate and Climate Change

- 3.3.20 The ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.

Transboundary Effects

- 3.3.21 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Scoping Report states that the Proposed Development is likely to have significant effects on another European Economic Area (EEA) State.
- 3.3.22 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.

- 3.3.23 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary effects and if so, what these are and which EEA States would be affected. The Scoping Report seeks to scope out transboundary impacts for some aspects of the environment. The Inspectorate has not yet conducted its own transboundary assessment and accordingly does not agree to scope these aspects out at this stage.

A Reference List

- 3.3.24 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Coronavirus (COVID-19) Environmental Information and Data Collection

- 3.4.1 The Inspectorate understands government enforced measures in response to COVID-19 may have consequences for an Applicant's ability to obtain relevant environmental information for the purposes of their ES. The Inspectorate understands that conducting specific surveys and obtaining representative data may be difficult in the current circumstance.
- 3.4.2 The Inspectorate has a duty to ensure that the environmental assessments necessary to inform a robust DCO application are supported by relevant and up to date information. Working closely with consultation bodies, the Inspectorate will seek to adopt a flexible approach, balancing the requirement for suitable rigour and scientific certainty in assessments with pragmatism in order to support the preparation and determination of applications in a timely fashion.
- 3.4.3 Applicants should make effort to agree their approach to the collection and presentation of information with relevant consultation bodies. In turn the Inspectorate expects that consultation bodies will work with Applicants to find suitable approaches and points of reference to allow preparation of applications at this time. The Inspectorate is required to take into account the advice it receives from the consultation bodies and will continue to do so in this regard.

3.5 Confidential and Sensitive Information

- 3.5.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to personal information specifying the names and qualifications of those undertaking the assessments and / or the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information.
- 3.5.2 Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title and watermarked as such on each page. The information should not be incorporated within other documents that are

intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2004.

- 3.5.3 The Inspectorate adheres to the data protection protocols set down by the Information Commissioners Office². **Please refer to the Inspectorate's National Infrastructure privacy notice³** for further information on how personal data is managed during the Planning Act 2008 process.

² <https://ico.org.uk>

³ <https://infrastructure.planninginspectorate.gov.uk/help/privacy-and-cookie>

4. ASPECT BASED SCOPING TABLES

4.1 Offshore environment – physical processes

(Scoping Report section 7.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	Paragraphs 333-336 Table 103	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraph 333-336 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3 of this Scoping Opinion.

ID	Ref	Other points	Inspectorate's comments
4.1.2	Table 28, Impact Number 7.1.1	Potential changes to suspended sediment concentrations, bed levels and sediment type resulting from construction and decommissioning of the Proposed Development.	The Scoping Report does not clearly explain how 'spreadsheet assessments' will utilise existing baseline data and site-specific surveys to assess impacts on suspended sediment concentrations, bed levels and sediment type. The ES should clearly describe this approach and provide a clear justification ensuring that evidence from previous assessments is relevant to the Proposed Development.
4.1.3	Table 28, Impact Number 7.1.6	Scour resulting from operation of the Proposed Development.	The Scoping Report does not clearly explain how the ' <i>conservative approach using standard relationships</i> ' will utilise existing baseline data to assess impacts resulting from scour. The ES should clearly describe this approach and provide a clear justification ensuring that evidence from previous assessments is relevant to the Proposed Development. The assessment should also take into account the impacts associated with the use of scour protection. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.

ID	Ref	Other points	Inspectorate's comments
4.1.4	Table 94	Consideration of interaction with onshore geology and ground conditions assessment.	The Inspectorate notes that the Scoping Report does not mention the potential interaction of effects between offshore physical processes and onshore geology and ground conditions. The ES should address the potential overlap between onshore geology and ground assessment in the ES and ensure that any significant effects on the intertidal area are assessed.
4.1.5	Paragraph 331	Mitigation measures.	The Inspectorate notes the Applicant intends to implement a Scour Protection Plan and Cable Specification and Installation Plan. The ES should describe the mitigation measures relied upon in the assessment and include a justification for the quantity of scour required and the area to be covered.
4.1.6	Paragraphs 325-328 Table 28	Designated sites.	The Scoping Report makes limited reference to the potential physical processes' effects of the Proposed Development on relevant designated sites (as identified in Table 27 of the Scoping Report). The Inspectorate considers, for the avoidance of doubt, the ES should include an assessment of the effects to relevant designated sites resulting from impacts (direct and indirect) to physical processes.
4.1.7	Table 28	Impacts of dredging and Horizontal Directional Drilling (HDD) on physical processes.	The Inspectorate notes that little consideration has been given to the potential impacts of dredging and Horizontal Directional Drilling (HDD) on physical processes. The ES should include an assessment of the impacts associated with dredging and HDD activities where significant effects are likely to occur. The Applicant should make effort to agree the approach with relevant consultation bodies including NRW.
4.1.8	Table 103	Changes to tidal, wave and sediment transport regime resulting from construction and	The Scoping Report does not address impacts on tidal, wave and sediment transport regime during construction and decommissioning of the Proposed Development. The ES should include an assessment of the impacts associated with changes to tidal, wave and the

ID	Ref	Other points	Inspectorate's comments
		decommissioning of the Proposed Development.	sediment transport regime where significant effects are likely to occur. The Applicant should make effort to agree the approach with relevant consultation bodies including NRW.

4.2 Marine water and sediment quality

(Scoping Report section 7.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.1	Table 32, Impact Number 7.2.8	Release of drilling mud from Horizontal Directional Drilling (HDD) at the landfall resulting from construction of the Proposed Development.	The Inspectorate notes that the information provided to support the request in the Scoping Report relates to offshore oil and gas developments. The Inspectorate does not consider that this information is representative and applicable to the Proposed Development. Accordingly, the Inspectorate does not agree to scope these matters out of the ES. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.
4.2.2	Table 32, Impact Number 7.2.9	Deterioration in water quality due to re-suspension of sediments and contaminants as a result of scour resulting from the operation of the Proposed Development.	The Scoping Report suggests that impacts on water quality during operation resulting from scour would be 'much lower than construction', 'highly localised' and 'within the range of natural variability' . However , very little evidence has been provided to substantiate these statements. The Inspectorate does not agree that potential impacts of scour on marine water and sediment quality, resulting from operation of the Proposed Development can be scoped out. The Inspectorate also notes that the anticipated impacts will be relevant to the foundation type and location of the offshore ECR, which have not been determined at this stage. As such, the assertion that marine water and sediment quality receptors are unlikely to be affected has not been fully justified in the Scoping Report. The Applicant should ensure that likely significant effects associated with scour during operation are assessed in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.3	Paragraphs 373-374 Table 103	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraph 373-374 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3 of this Scoping Opinion.

ID	Ref	Other points	Inspectorate's comments
4.2.4	Paragraph 346	Sediment sample analysis of contaminants.	The Applicant should ensure that sediment samples used for the analysis of contaminants (e.g. metals, polycyclic aromatic hydrocarbon (PAHs), and Polychlorinated biphenyls (PCBs)) are collected separately from faunal samples and utilise suitable collection techniques. The ES should include a detailed description of the survey methodology used. The Applicant should make effort to agree the approach with relevant consultation bodies including NRW.
4.2.5	Table 32, Impact Number 7.2.4	Accidental releases or spills of construction materials or chemicals – designated sites.	It is unclear based on the information presented in the Scoping Report why the operational impact description includes ' designated sites ' (Impact Number 7.2.4) and the impact description provided for construction (Impact Number 7.2.3) and decommissioning (Impact Number 7.2.7) does not. The ES should consider potential impacts of accidental release or spills of construction materials or chemicals on designated sites for all phases of the Proposed Development.
4.2.6	Paragraph 342	Water Framework Directive (WFD).	The Inspectorate considers that impacts on WFD water bodies should be considered at an early stage in the development process. This should include assessment of impacts to hydro-morphology and biological status of WFD water bodies in the Marine Water and Sediment Quality assessment. The assessment should make use of appropriate guidance including the NRW Advice Note on Water

ID	Ref	Other points	Inspectorate's comments
			Framework Directive, Water Watch WFD Classification Data, UKTAG 2008 and the Inspectorate's Advice Note 18 .
4.2.7	Table 32	Effects of the offshore ECR resulting from operation of the Proposed Development.	The Scoping Report does not address thermal impacts on Marine Water and Sediment Quality resulting from the operation of the offshore ECR. The Inspectorate considers that the ES should assess these impacts where significant effects are likely to occur. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.
4.2.8	Table 90, Impact Number 10.6.1	Turbid runoff from land.	The ES should assess the interrelationship between impacts including turbid runoff of water from land on marine water quality. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.

4.3 Benthic subtidal and intertidal ecology

(Scoping Report section 8.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	Table 36, Impact Number 8.1.9	Noise pollution on benthic ecology during foundation installation resulting from all construction of the Proposed Development.	The Scoping Report does not provide specific evidence to explain why noise during foundation installation is unlikely to result in significant effects on benthic ecology. The Inspectorate understands this is due to the relative distance from the impact source to the receptor location, however this information has not been provided. The Inspectorate does not agree that these matters can be scoped out from the assessment. The ES should include information to explain the extent of the likely impact and assess any likely significant effects. The ES should also assess impacts on benthic subtidal and intertidal ecology from noise produced during other construction activities, including installation of the offshore ECR.
4.3.2	Table 36, Impact Number 8.1.10	Accidental pollution resulting from construction of the Proposed Development.	The Scoping Report proposes to scope out accidental pollution resulting from construction of the Proposed Development. The Inspectorate agrees that this effect can be scoped out of the assessment. The ES should include details of the proposed mitigation measures to be included in the Project Environment Management Plan (PEMP) and constituent Marine Pollution Contingency Plan (MPCP) (as stated in paragraph 371 of the Scoping Report). The ES should also explain how such measures will be secured.
4.3.3	Table 36, Impact Number 8.1.11	Indirect disturbance of benthic species from EMF generated by inter-array and export cables resulting from operation of the Proposed Development.	The Inspectorate does not agree that impacts of electromagnetic fields (EMF) on benthic species can be scoped out, as insufficient justification has been provided at this time to support this approach. The Inspectorate notes that paragraph 255 of the Scoping Report suggests the cable would be buried. However, the report fails to specify the depth at which the offshore ECR would be buried. The ES

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			should assess impacts associated with EMF where significant effects are likely to occur. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.
4.3.4	Paragraph 424	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraph 424 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3 of this Scoping Opinion.

ID	Ref	Other points	Inspectorate's comments
4.3.5	Paragraphs 405-410 Paragraph 418	Habitat Directive Annex I Reef and Sandbank Habitat.	The ES should include an assessment of the impacts on Annex I reef and sandbank habitat (e.g. Constable Bank) during all phases of the Proposed Development. The Scoping Report refers to the use of route selection and micro-siting in order to avoid potential significant effects on 'ecologically important' reefs and sandbanks. The ES should describe how route selection and micro-siting has been used to address these impacts. Any significant effects to these habitats should be assessed in the ES.
4.3.6	Table 35, Impact Number 8.1.1	Impacts of jack-up vessels and anchoring.	The Scoping Report does not address the impact from jack-up vessels and anchoring during the construction phase on benthic subtidal and intertidal ecology. However, the cumulative impact of jack-up vessels and anchoring is listed under paragraph 424 of the Scoping Report. For the avoidance of doubt the ES should assess impacts from jack-up vessels and anchoring where significant effects are likely to occur.
4.3.7	Paragraph 380 Table 34	Designated sites relevant to the Benthic Subtidal and Intertidal Ecology assessment.	The ES should assess potential impacts from the Proposed Development on the benthic habitat at the Menai Strait and Conwy Bay (MS&CB) SAC. The Applicant's attention is drawn to advice from

ID	Ref	Other points	Inspectorate's comments
			<p>NRW, whereby MS&CB SAC may be subject to impacts of suspended sediment resulting from construction of the Proposed Development, as the SAC is located within the 11km buffer area (see Appendix 2 of this Scoping Opinion).</p> <p>The Inspectorate is content that impacts to benthic subtidal and intertidal ecological features at the North Anglesey Marine SAC do not need to be assessed in the ES.</p>

4.4 Fish and shellfish ecology

(Scoping Report section 8.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.1	Table 40, Impact Number 8.2.12	Direct damage (e.g. crushing) and disturbance to mobile demersal and pelagic fish and shellfish species resulting from construction and decommissioning of the Proposed Development.	The Scoping Report does not provide sufficient evidence to support the scoping out of direct damage and disturbance to fish and shellfish receptors during construction and decommissioning. Accordingly, the ES should include an assessment of these matters where likely significant effects would occur. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies including NRW.
4.4.2	Table 40, Impact Number 8.2.13.	Accidental pollution events resulting from construction and decommissioning of the Proposed Scheme.	The Scoping Report proposes to scope out accidental pollution resulting from construction and decommissioning of the Proposed Development. The Inspectorate agrees that this effect can be scoped out of the assessment. The ES should include details of the proposed mitigation measures to be included in the Project Environment Management Plan (PEMP) and constituent Marine Pollution Contingency Plan (MPCP) (as stated in paragraph 458 of the Scoping Report). The ES should also explain how such measures will be secured.
4.4.3	Table 40, Impact Number 8.2.14	EMF effects of cables resulting from operation of the Proposed Development.	The Inspectorate does not agree that impacts of electromagnetic fields (EMF) on fish and shellfish can be scoped out, as insufficient justification has been provided at this time to support this approach. The Inspectorate notes that paragraph 255 of the Scoping Report suggests the cable would be buried. However, the report does not specify the depth at which the offshore ECR would be buried. The ES should assess impacts associated with EMF where significant effects are likely to occur. The Applicant should make effort to agree the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			approach to the assessment with relevant consultation bodies including NRW.
4.4.4	Table 40, Impact Number 8.2.15	Direct disturbance caused by maintenance activities resulting from operation of the Proposed Development.	The Inspectorate does not agree that direct disturbance caused by operation and maintenance activities can be scoped out, as insufficient justification has been provided at this time to support this approach. Accordingly, the ES should include an assessment of these matters where significant effects are likely to occur.
4.4.5	Paragraph 466	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraph 446 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3.

ID	Ref	Other points	Inspectorate's comments
4.4.6	Table 39	Fish feeding grounds and overwintering areas for crustaceans.	The Scoping Report does not address potential impacts on fish feeding grounds or over-wintering areas for crustaceans. The ES should assess these impacts where significant effects are likely to occur.
4.4.7	Paragraph 450	Fish protected under Bern Convention, EC Habitats Directive, CITES, UK Biodiversity Plan (UKBAP) and UK Wildlife Countryside Act.	The Inspectorate notes migratory fish species listed under paragraph 450 are also protected under legislation specified in paragraph 449 of the Scoping Report (e.g. Bern Convention, Habitats Directive, CITES and UKBAP). The assessment in the ES should also address species designated under UKBAP (e.g. smelt/sparling), EC Habitats Directive (e.g. salmon, sea trout, European eel) which are known to spawn in the rivers of North Wales, and UK Wildlife Countryside Act (e.g. critically endangered Angel Shark). The Applicant should make efforts to agree the approach to the assessment with relevant consultation bodies including NRW.

4.5 Marine mammals

(Scoping Report section 8.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	Table 42, Impact Number 8.3.20.	Accidental pollution resulting from construction of the Proposed Development.	The Scoping Report proposes to scope out the assessment of impacts from accidental pollution during construction and decommissioning on the basis of mitigation proposed to ameliorate the risk of the accident occurring. The Inspectorate agrees that this effect can be scoped out of the assessment. The ES should describe the mitigation proposed, how it would be secured and when this would be delivered. The ES should include details of the proposed mitigation measures to be included in the Code of Construction Practice (CoCP), Project Environment Management Plan (PEMP) and constituent Marine Pollution Contingency Plan (MPCP).
4.5.2	Table 42, Impact Number 8.3.21.	Temporary Threshold Shift (TTS) resulting from construction and decommissioning of the Proposed Development.	The Scoping Report describe TTS impacts during construction and decommissioning as ' <i>temporary</i> ', that ' <i>onset is likely to be short</i> ' and ' <i>unlikely to cause major consequences for an animal</i> '. However, very little evidence has been provided to substantiate these statements. The Inspectorate does not agree that potential impacts from TTS can be scoped out. The Inspectorate also notes that the anticipated impacts will be relevant to the construction techniques which have not yet been determined at this stage. As such, the approach proposed in the Scoping Report has not been fully justified. The Applicant should ensure that likely significant effects resulting from TTS during construction and decommissioning are assessed in the ES. The ES should provide TTS ranges used for the purpose of assessing disturbance of the marine mammal species identified.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.3	Table 42, Impact Number 8.3.22	Noise pollution resulting from operation of the Proposed Development.	The Applicant intends to scope out underwater noise resulting from operation of the Proposed Development, on the basis of long-term monitoring data indicating marine mammals are not displaced from operational OWF (e.g. Horns Rev and Nysted). The Inspectorate agrees that significant effects are unlikely to occur, and this matter can be scoped out of the assessment.
4.5.4	Table 42, Impact Number 8.3.23	EMF resulting from operation of the Proposed Development.	The Applicant intends to scope out EMF resulting from operation of the Proposed Development, on the basis that there is no evidence (to date) to suggest EMF produced by 'marine renewable devices' will negatively affect the behaviour of marine mammals. Based on the information presented in the Scoping Report, the Inspectorate agrees that this matter can be scoped out of the assessment.
4.5.5	Paragraphs 521-523	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraph 523 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3.

ID	Ref	Other points	Inspectorate's comments
4.5.6	Paragraph 480	Marine mammal density estimates.	The Scoping Report proposes to use ' <i>alternative density estimates</i> ' to account for deficiencies in aerial survey. However, the assessment methodology has not been described. The proposed methodology including any assumptions made should be described in the ES. Where alternative density estimates are relied upon the ES should include a clear justification for doing so and demonstrate that assessments are fit for purpose. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies.

ID	Ref	Other points	Inspectorate's comments
4.5.7	Paragraph 480-484. Table 42	Proposed approach to assessment.	The Applicant has not yet completed two years of survey to inform the baseline assessment, which is the widely accepted duration of survey effort required. The Applicant should make efforts to agree the level of survey effort with relevant consultation bodies including NRW and JNCC. If the assessment of the ES is based on less than two years of survey data, a clear justification should be provided to demonstrate the robustness of the assessment in the ES.
4.5.8	Table 42, Impact Number 8.3.6, 8.3.7, 8.3.10, 8.3.11	Collision risk and disturbance (vessel) during operation construction and decommissioning of the Proposed Development.	The Applicant should ensure relevant aspects of the offshore human environment including Commercial Fisheries, Shipping and Navigation and Other Marine Users and Activities are addressed in the assessment of collision risk and disturbance on marine mammals as a result of increased vessel traffic in the ES.
4.5.9	Table 42	Physical barrier effects resulting from operation, construction and decommissioning of the Proposed Development.	The Inspectorate notes the Scoping Report does not mention physical barrier effects on marine mammals resulting from operation, construction and decommissioning of the Proposed Development. The ES should assess any impacts from physical barriers on marine mammals where significant effects are likely to occur.
4.5.10	Section 8.3.3	Baseline data.	The ES should assess impacts to likely feeding areas; known birthing areas/haul out sites; nursery grounds; and known migration or commuting routes where significant effects are likely to occur.
4.5.11	Section 8.3.3	Baseline data.	The ES should set out in full the potential risk to European Protected Species (EPS) and confirm if any EPS licences will be required (e.g. harbour porpoises and grey seals). The Applicant's attention is drawn to advice from JNCC for the need to acquire EPS license to conduct certain construction activities in the marine environment (e.g. piling

ID	Ref	Other points	Inspectorate's comments
			and unexploded ordinance (UXO) clearance) (see Appendix 2 of this Scoping Opinion).
4.5.12	Paragraph 481	Baseline data.	<p>The ES should make use of relevant data sources such as the Defra Marine Noise Registry and the National Oceanic and Atmospheric Administration (NOAA) as appropriate.</p> <p>The ES should use updated abundance estimates (SCANS III, Irish ObSERVE) for the Celtic & Irish Seas (CIS) Management Unit (MU) to establish a population estimate of harbour porpoise.</p>
4.5.13	Paragraph 500	SAC designated for Bottlenose Dolphin.	<p>The Inspectorate notes Pen Llŷn a'r Sarnau SAC is also designated for bottlenose dolphin and should be considered accordingly in the ES. The ES should also consider connectivity between the Pen Llŷn a'r Sarnau SAC and Cardigan Bay SAC within the wider management unit.</p>
4.5.14	Paragraphs 517-520	Disturbance to features of North Anglesey Marine SAC resulting from construction of the Proposed Development.	<p>The North Anglesey Marine SAC is located approximately 15km from the Proposed Development. Construction activities (e.g. pile driving) may cause disturbance to harbour porpoise and therefore conflict with North Anglesey Marine SAC conservation objectives. If noise modelling indicates an overlap of the disturbance footprint with North Anglesey Marine SAC, the ES should assess the impact of disturbance on this SAC. The ES should describe and proposed noise abatement mitigation where noise modelling estimates PTS impact ranges are large or if the disturbance footprint is anticipated to overlap with North Anglesey Marine SAC.</p>
4.5.15	Table 42	PTS, TTS and disturbance ranges.	<p>The ES should describe the PTS, TTS and disturbance ranges used for the purposes of noise modelling.</p> <p>The Inspectorate understands that the number, type and size of UXO devices is not known. However, the ES should assess the likely</p>

ID	Ref	Other points	Inspectorate's comments
			impacts from UXO and explain the assumptions applied to the assessment as necessary.
4.5.16	Paragraphs 517-520	Marine mammal mitigation.	The ES should explain the extent to which proposed marine mammal mitigation has been agreed with relevant consultation bodies including mitigation to enable the commencement of piling and UXO clearance.

4.6 Offshore ornithology

(Scoping Report section 8.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	Table 46, Impact Number 8.4.7	Indirect impacts through effects on prey species and habitats: Accidental pollution resulting from construction of the Proposed Development.	The Scoping Report proposes to scope out the assessment of indirect impacts on offshore ornithology from accidental pollution during construction on the basis of mitigation proposed to ameliorate the risk of the accident occurring. The Inspectorate agrees that this effect can be scoped out of the assessment. The ES should describe the mitigation proposed, how it would be secured and when this would be delivered. The ES should include details of the proposed mitigation measures to be included in the Code of Construction Practice (CoCP), Project Environment Management Plan (PEMP) and constituent Marine Pollution Contingency Plan (MPCP).
4.6.2	Table 46, Impact Number 8.4.8	Disturbance and displacement (offshore ECR corridor) resulting from operation of the Proposed Development.	The Inspectorate does not agree that operational disturbance can be scoped out, as insufficient justification has been provided at this time to support this approach. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not able to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of an LSE. The Applicant scoped out operational disturbance and displacement on the basis that potential impacts were 'highly localised and episodic' . However, little evidence has been provided to support these statements. Any such statements should be clarified within the ES, with reference to relevant guidance and/or research from which conclusions have been drawn.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The Applicant's attention is drawn to advice from NRW, on the need to consider operational impacts of the offshore ECR on features of Liverpool Bay SPA (see Appendix 2 of this Scoping Opinion).
4.6.3	Table 46, Impact Number 8.4.9	Barrier effects resulting from operation of the Proposed Development.	The Inspectorate does not agree that barrier effects caused by operation can be scoped out, as insufficient justification has been provided at this time to support this approach. Accordingly, the ES should include an assessment of these matters where significant effects are likely to occur. The Applicant should make effort to agree the approach with relevant consultation bodies including NRW.
4.6.4	Paragraph 559-566	Cumulative impacts.	The Inspectorate does not agree that cumulative impacts identified in paragraphs 559-566 of the Scoping Report can be scoped out for the reasons provided at paragraph 3.3.3 of this Scoping Opinion.

ID	Ref	Other points	Inspectorate's comments
4.6.5	Paragraph 535	Proposed approach to assessment.	The Applicant has not yet completed two years of survey information to inform the baseline assessment, which is the widely accepted duration of survey effort required. The Applicant should make an effort to agree the level of survey effort with relevant consultation bodies including NRW and JNCC. If the assessment of the ES is based on less than two years of survey data, a clear justification should be provided to demonstrate the robustness of the assessment in the ES.
4.6.6	Paragraph 552	Collision risk.	The ES should set out the Band model, avoidance rates, flight height variations and any other relevant information in the ES. The parameters used within the collision risk model should be detailed, justified and account for the flexibility applied for in the DCO. In addition, the collision risk assessment should explain the extent to

ID	Ref	Other points	Inspectorate's comments
			which existing monitoring and modelling data has informed the baseline assessment and assumptions made in this context.
4.6.7	Table 46, Impact Number 8.4.1	Direct temporary habitat loss/ disturbance due to construction.	It is unclear, based on the information provided in Table 46 of the Scoping Report, why habitat loss and disturbance are being evaluated together as a single impact. Based on the description provided in Table 46 of the Scoping Report increased vessel activity and underwater noise would lead to temporary habitat disturbance/displacement and not direct habitat loss. It is considered that temporary habitat disturbance/displacement and direct habitat loss should be described and assessed as two distinct impacts in the ES.
4.6.8	Table 46	Direct habitat loss resulting from construction and operation of the Proposed Development.	The ES should assess impacts on offshore ornithology through direct habitat loss during construction and operation of the Proposed Development where significant effects are likely to occur.
4.6.9	Table 46, Impact Number 8.4.3	Operational disturbance and displacement.	The Scoping Report refers to a 'matrix approach' to assess potential effects of disturbance/displacement on offshore ornithology receptors using predicted impact magnitudes. The ES should clearly set out the methodology and justification for values and outputs used in the assessment. The ES should make use of relevant tools such as the SeaORD and Offshore Renewables Joint Industry Programme (ORJIP) to inform the assessment.
4.6.10	Table 46	Aviation and navigation lighting.	The ES should assess the impacts of aviation and navigation lighting on offshore ornithological receptors in the ES.
4.6.11	Paragraph 535.	Seabird population estimates.	The ES should make use of relevant information sources such as the British Trust for Ornithology (BTO) Seabird Monitoring Programme (SMP) for estimating seabird populations.

ID	Ref	Other points	Inspectorate's comments
4.6.12	Paragraph 456	Birds of conservation value.	The ES should include a list specifying the birds of conservation value for the assessment. The Applicant should make effort to agree the approach to assigning conservation value to offshore ornithological receptors with relevant consultation bodies.

4.7 Commercial fisheries

(Scoping Report section 9.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	Table 50, Impact Number 9.1.12, 9.1.14, 9.1.16	Additional steaming to other fishing ground during construction, operation and decommissioning.	The Scoping Report proposes to scope this matter out of the ES on the basis that the impact will be localised and not significant due to the implementation of the mitigation measure to give adequate notification. However, the information provided in the Scoping Report lacks detail and fails to provide sufficient confidence to support a decision in this regard. Accordingly, the Inspectorate does not agree to scope this matter out of the ES. The ES should assess impacts from additional steaming where significant effects are likely to occur.
4.7.2	Table 50, Impact Number 9.1.13, 9.1.15, 9.1.16	Impacts to fishing activity from increased vessel traffic associated with construction, operation and decommissioning activities and works.	The Scoping Report proposes to scope this matter out of the ES as the increase in vessel traffic would be localised and not result in a significant effect with the implementation of the mitigation measures to provide adequate notification of vessel traffic and activities associated with the Proposed Development. However, the information provided in the Scoping Report lacks detail and fails to provide sufficient confidence to support a decision in this regard. Accordingly, the Inspectorate does not agree to scope this matter out of the ES. The ES should assess impacts from additional steaming where significant effects are likely to occur.

ID	Ref	Other points	Inspectorate's comments
4.7.3	Paragraphs 588-599	Shellfish water protected areas.	<p>The ES should describe the precise location of the shellfish water protected areas and depict their location on a figure(s). Furthermore, if the offshore ECR is to be located in proximity to the shellfish protected areas, a full assessment should be conducted to determine the resultant effects on the commercial shellfish trade.</p> <p>Moreover, paragraph 589 states that the shellfish water protected areas maintain good water quality, however, no mitigation measures have been proposed to ensure the water quality doesn't deteriorate to the detriment of commercial shellfish. Where significant effects are likely, the ES should include detailed mitigation measures to address effect on shellfish water protected areas.</p>

4.8 Shipping and navigation

(Scoping Report section 9.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	n/a	n/a	None of the identified matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Inspectorate's comments
4.8.2	Paragraphs 639 and 643	Navigational Risk Assessment (NRA).	The Inspectorate notes the intention to assess marine traffic within the refined offshore ECR search area using Automatic Identification Survey (AIS) only. Noting the statement in paragraph 639 about the use of AIS data and the likely under-representation of some types of vessel, the Inspectorate advises that the Applicant makes efforts to agree the approach to the NRA with relevant consultation bodies. The outcomes of the NRA and other relevant technical documents relied upon in the ES should be readily accessible with appropriate cross reference to supporting information/appendices.
4.8.3	Paragraphs 638 and 641 Table 54.	Operational effects.	The guidance and the methodology used in the ES should be clearly explained to support understanding as to how predictions have been made in the assessment. The Applicant should make use of information sources to establish future traffic baselines the assessment.
4.8.4	Paragraph 646	Project impacts.	The Applicant's attention is drawn to the advice from Trinity House (see Appendix 2 of this report) to ensure that any structures such as met masts which would be placed outside the array are included in the assessment of effects. If cable protection is likely to be required

			then the assessment should use a worst-case scenario based on the maximum extent of cable protection expected to be used.
4.85	Paragraph 648	Mitigation measures.	The advice from Trinity House (see Appendix 2 of this report) identifies a potential need for additional measures such as buoys. The ES should provide full details of the mitigation measures relied on in the assessment of effects and identify if/how these have been agreed with the relevant stakeholders.

4.9 Military and civil aviation

(Scoping Report section 9.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	Table 57, Impact Numbers 9.3.1, 9.3.4, 9.3.11	Impacts to Practice and Exercise Area (PEXA) during construction, operation and decommissioning.	The Scoping Report states that there are no PEXA within, or surrounding, the airspace of the Proposed Development, and therefore, it is unlikely for the Proposed Development during construction, operation and decommissioning to result in significant impacts to PEXA. The response from the Defence Infrastructure Organisation (DIO) also agrees that impacts to PEXA can be excluded (see Appendix 2 of this report). The Inspectorate agrees that impacts to PEXA can be scoped out of the assessment as significant effects are unlikely to occur.
4.9.2	Table 57, Impact Number 9.3.2, 9.3.5, 9.3.12	Impacts to the offshore ECR during construction, operation and decommissioning.	The Inspectorate agrees that this matter can be scoped out of the ES as the offshore ECR would be below the water surface making it unlikely to result in significant effects to military and civil aviation during the Proposed Development's construction, operation and decommissioning.
4.9.3	Table 57, Impact Number 9.3.3	Impacts to radar during construction.	The Inspectorate agrees that this matter can be scoped out of the ES as during construction, the turbines will be stationary and therefore unlikely to significantly impact radar. This agreement is based on the assumption that as soon as individual turbines become mobile the impact would be included in the assessment of operational effects, even if other parts of the array are still under construction.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.4	Table 57, Impact Number 9.3.6	Impacts to Secondary Surveillance Radar (SSR) during operation.	The Scoping Report proposes to scope this matter out of the ES on the basis that the Civil Aviation Authority (CAA) guidance ' <i>CAA Policy and Guidelines on Wind Turbines</i> ' which states wind turbines are only likely to effect SSR if they are located within 10km of the SSR source. As the proposed wind turbines associated with the Proposed Development are located over 10km from a radar source, the Inspectorate agrees that this matter can be scoped out of the ES.
4.9.5	Table 57, Impact Number 9.3.7	Impacts to Chester Airport Primary Surveillance Radar (PSR) during operation	The Scoping Report proposes to scope this matter out of the ES on the basis that the airspace in vicinity of the wind turbine array is not of operational significant to Chester Airport. However, the Scoping Report has not provided sufficient evidence that the airspace in vicinity of the wind turbine array is not of operational significance to Chester Airport, or that the Proposed Development would not result in significant effects to Chester Airport. As such, the Inspectorate does not agree this matter can be scoped out of the assessment. Accordingly, the ES should include an assessment of these matters where significant effects are likely to occur.
4.9.6	Table 57, Impact Number 9.3.8	Impact to Clee Hill PSR during operation	The Scoping Report proposes to scope this matter out of the ES on the basis that Clee Hill ' <i>will not theoretically detect the wind turbines</i> ' and that ' <i>NATS has stated that the Clee Hill PSR will not be impacted</i> '. The Inspectorate notes that the consultation response from the National Air Traffic Service (NATS) highlights potentially unacceptable impacts to the St Annes Radar and Great Dun Fell Radar but does not raise concerns about the Clee Hill Radar. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies. Any significant effects to Clee Hill during operation should be assessed in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.7	Table 57, Impact Number 9.3.9	Impact to Aberporth PSR during operation	The Scoping Report states that the operation radius of Aberporth PSR is 40 nautical miles (nm) and the proposed wind turbine array is over 80nm from Aberporth PSR. As such, the Inspectorate agrees with the Scoping Report that impacts to Aberporth PSR during the operation of the Proposed Development can be scoped out of the ES.
4.9.8	Table 57, Impact Number 9.3.10	Impact to meteorological radar during operation	The Scoping Report paragraph 673 states that an assessment on the impact of meteorological radar is only required if the meteorological radar is located within 20km of wind turbines, and as the proposed wind turbine array is located over 20km from the meteorological radar, the Scoping Report proposes to be scope this matter out of the ES. The Inspectorate agrees with the Scoping Report and this matter can be scoped out of the ES.

ID	Ref	Other points	Inspectorate's comments
4.9.9	Paragraph 693	Embedded mitigation measures	NATS have advised that they anticipate an unacceptable impact from the Proposed Development on St Annes Radar and the Great Dun Fell Radar but they expect that mitigation measures can be identified which would address their concerns. DIO advise that mitigation will be required for the effects on the PSR at RAF Valley and BAE Warton in addition to Great Dun Fell. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies. The ES should provide a detailed description of the relevant measures required to address significant effects. The ES should also explain how delivery of these measures has been secured in the DCO.

4.10 Seascape, landscape and visual impact assessment

(Scoping Report section 9.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	Table 61, Impact Number 9.4.14	Impacts relating to the offshore cable route construction, operation and decommissioning	The Scoping Report seeks to scope this matter out as the only likely impact would be the presence of a small number of vessels out at sea. The Inspectorate agree this matter can be scoped out as significant effects are unlikely to occur.
4.10.2	714	Impacts as a result of the Proposed Development during all phases of the development beyond 50km	The Scoping Report states that the Zone of Theoretical Visibility (ZTV) and field survey verification shows that the visibility of the Proposed Development will become restricted and dispersed at distances beyond 50km and will occupy a small portion of the view. The Inspectorate is content that at distances greater than 50km significant effects are unlikely and agrees that this matter can be scoped out.
4.10.3	Table 61, Impact Number 9.4.15	Impacts on seascape character within English Marine Plan Areas during operation	The Scoping Report seeks to scope out this matter on the grounds of the distance to the English coasts, the position of existing OWF between the English coast and the Proposed Development and the angle of the array to the English coast ensure that effects would not be significant. The Inspectorate notes however that the ZTV and the study area include English Marine Plan Areas. In the absence of evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope out this matter from the assessment. Accordingly, the ES should include an assessment of these matters or evidence demonstrating agreement with the relevant consultation bodies and the absence of an LSE.
4.10.4	Table 61, Impact	Impacts during operation on landscape character receptors in	The Scoping Report seeks to scope out this matter on the grounds of the distance to the English coasts, the position of existing OWF

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Number 9.4.16	Denbighshire, Flintshire and the English parts of the study area	between the coast and the Proposed Development and the angle of the array to the English coast ensure that effects would not be significant. The Inspectorate notes however that the ZTV and study area include parts of these areas. In the absence of evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope out this matter from the assessment. Accordingly, the ES should include an assessment of these matters or evidence demonstrating agreement with the relevant consultation bodies and the absence of an LSE.
4.10.5	Table 61, Impact Number 9.4.17	Impacts during operation on landscape character beyond coastal character types/areas except where they are also covered by National Park or Area of Outstanding National Beauty designations	The Scoping Report seeks to scope this matter out on the grounds that where landscape character areas are separated from the coast by another landscape character area they tend to have limited association with the sea so are less affected by changes occurring out at sea. In the absence of evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope out this matter from the assessment. Accordingly, the ES should include an assessment of these matters or evidence demonstrating agreement with the relevant consultation bodies and the absence of an LSE.
4.10.6	Table 61, Impact Number 9.4.18	Impacts during operation on receptors at night due to lighting of infrastructure within the array area where they are located east of Conwy or in England	It is noted that other wind farms would be closer to these areas, making their lighting more prominent in the views from the areas east of Conwy or England. The Inspectorate agrees that this impact can be scoped out of the assessment as significant effects are unlikely to occur.
4.10.7	Table 61, Impact Number 9.4.19	Cumulative impact during operation with other forms of development except for onshore wind farms with WTGs of greater	The Inspectorate does not agree that cumulative impacts should be limited to only other development in the form of offshore wind turbine development. The assessment of cumulative effects should be included in the ES for the reasons provided at paragraph 3.3.3.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		than 50m to tip and offshore renewables development.	

ID	Ref	Other points	Inspectorate's comments
4.10.8	Paragraph 710	Definition of the worst case scenario	It is noted that the Applicant intends to agree the worst case scenario for this aspect of the environment with consultees; the ZTV used in the Scoping Report is based on the maximum height to blade tip that would be allowed under the proposed DCO. The Applicant should consider if relying on one scenario will be sufficient to capture the full range of effects. Subject to agreement with other consultees, the ES should present assessments based on a scenario using the largest turbines allowed under the DCO and one where the maximum number of turbines is constructed.
4.10.9	Table 60, Impact Number 9.4.6	Visual receptors	The ES should contain an assessment of the sequential effects on users of roads and Public Rights of Way within the study area.

4.11 Marine archaeology

(Scoping Report section 9.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.11.1	Table 70, Impact Number 9.5.5	Removal of sediment containing undisturbed archaeological contexts which would lead to the total loss of the receptor during construction of the offshore project elements.	The Inspectorate has taken into account the response made by Isle of Anglesey County Council and Conwy Borough Council in relation to the proposed approach. The Inspectorate is not content that the proposed approach to the scope of the assessment would result in a robust assessment of the likely significant effects to marine archaeology. Accordingly, the Inspectorate does not agree to scope these matters out from the ES. The Applicant should make effort to agree the approach to the assessment including any relevant mitigation measures with relevant consultation bodies.
4.11.2	Table 70, Impact Number 9.5.6	Intrusion of piling disturbing archaeological contexts leading to partial or total loss of the receptor during construction.	
4.11.3	Table 70, Impact Number 9.5.7	Compression of stratigraphic contexts containing archaeological material from the combined weight of the WTG and foundations during construction.	
4.11.4	Table 70, Impact Number 9.5.8	Disturbance of sediment containing potential archaeological receptors during inter-array and export cable laying operations during construction	
4.11.5	Table 70, Impact	Penetration and compression effects of jack-up legs and anchoring of construction vessels	

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Number 9.5.9	during turbine, sub-station or cable installation leading to a total or partial loss of archaeological receptors during construction	

ID	Ref	Other points	Inspectorate's comments
4.11.6	Paragraph 783	Definition of the study area	The Scoping Report states that the initial study area encompasses the array area and the offshore ECR up to mean high water springs, although this will be subject to review. The Inspectorate notes that Table 69 of the Scoping Report identifies potential impacts from scour effects from WTG foundations, cables and cable protection. Given that the location of these structures is not yet known, it appears that there is a potential for scour effects to extend beyond the proposed study area. The ES should explain how the study area used in the assessments has been defined to capture the Proposed Development's full effects.
4.11.7	Paragraph 814	Mitigation	The mitigation measures proposed include an Outline Written Scheme of Investigation and a project-specific Protocol for Archaeological Discoveries. The Inspectorate notes the advice from the archaeological advisers for the Isle of Anglesey County Council and Conwy Borough Council that these are not mitigation measures but rather methods for assessing the effects of the Proposed Development which should inform the mitigation options. In addition, paragraph 793 of the Scoping Report states that a previous study has identified the array area and north-eastern part of the offshore ECR as being of very high archaeological and paleoenvironmental potential. The Applicant should make effort to agree necessary mitigation measures with relevant consultation bodies. Any measures

ID	Ref	Other points	Inspectorate's comments
			relied upon to inform the assessment should appropriately defined and secured.

4.12 Other marine users and activities

(Scoping Report section 9.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.12.1	Paragraph 885 Table 73, Impact Number 9.7.3	Potential impacts to carbon capture and storage infrastructure	Paragraph 885 states that this matter is proposed to be scoped out of further assessment, however, Table 73 states that direct effects on carbon capture proposed injection wells and connections at the Hamilton gas field, for which route is currently unknown, will be assessed. For clarity, the Inspectorate agrees that these matters should be included in the assessment presented in the ES where significant effects are likely to occur.
4.12.2	Table 74, Impact Number 9.7.9 Paragraph 889	Direct effects on other OWF from turbine and array infrastructure construction.	The Scoping Report demonstrates no spatial overlap between the array area and other OWF. However, the Proposed Development is immediately adjacent to Gwynt y Môr OWF. The Inspectorate notes paragraph 889 and the general assertions around the mitigation and avoidance measures to be implemented, however without information on specific measures at this stage it is not considered possible to exclude potential impacts during construction. The Inspectorate advises that the ES should assess construction impacts on other OWF where significant effects are likely and provide detailed information where relevant as to how impacts can be avoided or reduced. The Inspectorate notes that effects from export cable construction remain scoped in and agrees with this approach. The Inspectorate also notes that effects on navigational matters will be assessed separately.
4.12.3	Table 74, Impact Numbers	Direct impacts on oil and gas infrastructure from construction and operation activities such as	The Scoping Report demonstrates no spatial overlap between the array area and existing oil and gas infrastructure. It also states that increases in vessel traffic during construction and operation will be

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	9.7.10 & 9.7.17	increased vessel traffic or from physical disruption within the construction footprint	assessed in the ES chapter on shipping and navigation. The Inspectorate agrees that this matter can be scoped out of the assessment.
4.124	Table 74, Impact Number 9.7.11	Direct impacts (physical disruption or damage) on non OWF cables from construction activities in the array area	Given the information in the Scoping Report demonstrating the lack of spatial overlap with the array area, the Inspectorate agrees that significant effects are unlikely and that further assessment of direct construction effects on non OWF cables can be scoped out.
4.125	Table 74 Impact Numbers 9.7.12 & 9.7.19	Direct effects on nuclear cooling and intake systems from construction and operation	The Scoping Report provides information to establish that there is no spatial overlap between existing infrastructure or planned sites and the Proposed Development. The Inspectorate agrees that, provided this remains the case, significant effects are unlikely and agrees to scope out further assessment in the ES.
4.126	Table 74 Impact Numbers 9.7.13 & 9.7.21	Direct effects on aggregate sites from construction and operation	The Scoping Report provides information to establish that there is no spatial overlap between existing production or application areas and the Proposed Development. The Inspectorate agrees that, provided this remains the case, significant effects are unlikely and agrees to scope out further assessment in the ES.
4.127	Table 74 Impact Numbers 9.7.14 & 9.7.21	Direct impacts on offshore disposal areas from construction and operation	The Scoping Report provides information to establish that there is no spatial overlap between existing active sites and the Proposed Development. The Inspectorate agrees that, provided this remains the case, significant effects are unlikely and agrees to scope out further assessment in the ES.
4.128	Table 74 Impact Numbers	Direct effects on military infrastructure or areas during construction or operation	The Scoping Report provides information to establish that there is no spatial overlap between existing or planned sites and the Proposed Development. The Inspectorate agrees that, provided this remains

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	9.7.15 & 9.7.22		the case, significant effects are unlikely and agrees to scope out further assessment in the ES.
4.12.9	Table 74, Impact Number 9.7.16	Direct impacts on other OWF during operation	Noting that the Rhyl Flats OWF is surrounded by the ECR search area, the potential exists for maintenance activities to therefore be carried out within its vicinity. In the absence of further refinement of the ECR at this stage, the Inspectorate advises that the ES should include an assessment of operational impacts on this OWF and associated infrastructure where significant effects could occur.
4.12.10	Table 74, Impact Number 9.7.18	Direct impacts on cables during operation	Table 74 proposes to scope operational effects out based on lack of spatial overlap, however, Table 73 includes assessment of operational effects on cables (the type is not specified) due to maintenance activities. For clarity, the Inspectorate advises that the ES should include an assessment of operational impacts on cables where significant effects could occur.
4.12.11	Paragraph 893	Cumulative effects on other users	The paragraph indicates that 'other users' includes infrastructure and any other uses aside from offshore wind. It states that impacts would be dependent of physical overlap and are likely to be absent or possible to mitigate. The Inspectorate agrees that where no pathway for effect exists that cumulative effects can be scoped out, however, specific impacts and effects are not explored in this paragraph and the Inspectorate considers that where pathways do exist (as identified in Table 73 of the Scoping Report) the likelihood of significant cumulative effects should be assessed in the ES.

ID	Ref	Other points	Inspectorate's comments
4.12.12	Section 9.6.4 & Figure page 453	Figure titled 'Energy infrastructure within the Awel y Mor Study Area'	The text of the Scoping Report refers to Figure 67 in relation to existing energy infrastructure, however, the figure with the noted title is not numbered. The key is missing the ECR search area although this appears to be depicted on the Figure. If a corresponding figure is to be included in the ES these points should be addressed. The description of the baseline environment in the Scoping Report mentions a number of existing infrastructure assets and other activities by location and name and it would be useful for any updated figure included in the ES to label those which interact with the Proposed Development.

4.13 Terrestrial ecology and nature conservation

(Scoping Report section 10.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.13.1	Table 77, Impact Number 10.1.10	Impacts to fish at watercourse crossings during construction	The Scoping Report suggests that the use of Horizontal Direct Drilling (HDD) is expected avoid impacts on fish at major watercourse crossings. However, if the use of HDD is cannot be guaranteed then impacts to fish at watercourse crossings are proposed to be assessed where significant effects are likely to occur. The Inspectorate notes the advice from NRW that even if HDD is employed there could be effects on migrating and/or spawning fish; the ES should therefore include an assessment of this matter where significant effects are likely to occur.
4.13.2	Table 77, Impact Number 10.1.11	Impacts to certain designated sites where features are geological or over 200m from the onshore ECR and substation footprints and have no mobile qualifying features and/or hydrological connection during construction.	The Scoping Report provides limited evidence to support the statement that impacts on designated sites would not extend over 200m from the footprints of the ECR and substation. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.13.3	Table 77, Impact Number 10.1.12	Impacts to certain Local Wildlife Sites (LWS) over 200m from the ECR, with no mobile features and/or no hydrological connection to the ECR during construction	The Scoping Report provides limited evidence to support the statement that effects on designated sites would not extend over 200m from the footprint of the ECR and substation footprints. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.13.4	Table 77, Impact Number 10.1.13	Cable checks and maintenance during operation (except where required within designated sites or where other features of particular importance are present).	The Scoping Report provides limited evidence to support the statement that impacts from cable checks and maintenance would not significantly affect any important ecological features. It is not clear how important ecological features would be defined or who would be responsible for determining what constitutes an important feature. The Inspectorate does not agree to scope these matters out of the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.13.5	926	Transboundary effects on terrestrial ecology other than for the little tern feature of the Liverpool Bay and Dee Estuary SPAs.	The Inspectorate agrees that, on the basis of the sites and features identified in the Scoping Report, effects on ecological features in England and Scotland can be scoped out.

ID	Ref	Other points	Inspectorate's comments
4.13.6	Table 76, Impact Number 10.1.1	Preliminary ecological appraisal (PEA)	It is not clear if/how the set distances relied on to define the area covered by the PEA reflect the likely zone of influence of the Proposed Development. The ES should provide a justification for the extent of the area covered by the PEA and explain how it relates to the area likely to be affected by the Proposed Development.
4.13.7	Table 76, Impact Number 10.1.2	Surveys along the onshore ECR	The Scoping Report states that surveys along the ECR will be necessary to determine if protected and notable species could be affected from cable checks and maintenance. It is not clear if the surveys would be carried out as part of the ES or would be proposed

ID	Ref	Other points	Inspectorate's comments
			as future surveys that would be carried out as part of planned maintenance work. If the surveys are carried out as part of the ES it is not clear how useful they would be in determining significant environmental effects from work that could be carried out years into the future. If the use of surveys is proposed as a form of mitigation intended to avoid significant effects on protected/notable species then this should be made clear in the ES.
4.13.8	Table 76	Air quality effects	The Scoping Report does not refer to any potential air quality effects eg from dust or nitrogen deposition from construction vehicles. The Inspectorate expects the ES to include an assessment of these effects where significant effects are likely to occur.
4.13.9	-	Water Framework Directive	The comments from NRW (see Appendix 2 of this report) raise a number of concerns about the potential ecological effects on Water Framework Directive waterbodies in the vicinity of the Proposed Development, notable the Afon Elwy. Effects on this receptor should be assessed and reported either in the ES or in a separate Water Framework Directive assessment. Please see the Inspectorate's Advice Note 18 for further advice at https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2017/06/advice_note_18.pdf

4.14 Archaeology and cultural heritage

(Scoping Report section 10.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.14.1	Table 80, Impact Number 10.2.4	Indirect visual impact on historic assets without maritime associations	The Scoping Report proposes to scope out historic assets without meriting associations (even those of the highest significance) within the wider study area where the significance and outlooks of the setting are predominantly terrestrial. The Inspectorate notes the support from relevant consultation bodies (see responses in Appendix 2 of this report) in this regard and therefore agrees that this matter can be scoped out of the ES.
4.14.2	Table 80, Impact Number 10.2.5	Indirect visual impact on historic assets with no visibility of development	Historic assets within both study areas that are outside the Zone of Theoretical Visibility (ZTV) would be excluded from the assessment. The Inspectorate notes the support from relevant consultation bodies in this regard (see responses in Appendix 2 of this report) and therefore agrees that this matter can be scoped out of the ES.
4.14.3	Table 80, Impact Number 10.2.6	Indirect visual impact on non-designated historic assets	Within the inner study area, assessment of potential indirect impacts would focus on designated historic assets and other assets which are of ' demonstrably similar national importance '. The Inspectorate notes the support from relevant consultation bodies in this regard (see responses in Appendix 2 of this report) and therefore agrees that this matter can be scoped out of the ES.
4.14.4	Table 79, Impact Number 10.2.3	Visual impacts from the turbine array on Grade II listed buildings or Registered Parks and Gardens	The Scoping Report proposes to scope out these impacts as the likelihood of significant effects is greatly reduced due to their distance from the turbines. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			assessment of these matters where a likely significant effect may occur.
4.14.5	Table 79, Impact 10.2.3	Visual impacts from the turbine array on Historic Landscapes	The Scoping Report proposes to scope out any Historic Landscapes whose character areas do not have a particular affinity with a maritime setting. However, the report does not explain how it would be determined which historic landscapes have an affinity with a maritime setting. In addition, the responses from relevant consultation bodies (see Appendix 2 of this report) highlight specific Historic Landscapes which they wish to see included in the assessment. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.

ID	Ref	Other points	Inspectorate's comments
4.14.6	Paragraph 943	Extent of the inner study area	It is not clear from the Scoping Report if the extent of the inner study area will be sufficient to capture the visual impacts on historic features from project infrastructure, particularly the substation. The ES should explain how the study area has taken account of these visual impacts.
4.14.7	Table 78	Relevant historic designations	The responses from consultation bodies (see Appendix 2 of this report) identify a number of relevant designated historic assets which could be affected by the Proposed Development either directly or indirectly. The ES should include an assessment of the significant effects on these receptors.

ID	Ref	Other points	Inspectorate's comments
4.14.8	Table 79, Impact Number 10.2.1	Scope of archaeological assessment for direct impacts on archaeological remains	The wording of this section of Table 79 is ambiguous but it appears to suggest that following desk studies, further field work including walkover surveys, geophysical surveys and trial trenching would be carried out at specific sites within the onshore ECR. These sites would be identified through the desk study data and discussions with the relevant consultation bodies. The Inspectorate notes the response received from the Clwyd-Powys Archaeological Trust (see Appendix 2 of this report) regarding the scope of the geophysical survey within the intertidal zone. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies whilst ensuring that the effort required is proportionate and sufficient to inform a robust assessment of the likely significant effects.
4.14.9	Table 79, Impact Number 10.2.3	Designated assets within 500m of the substation during operation	The Scoping Report states that in relation to indirect impacts, only designated assets within 500m of the substation or those which have a maritime attribute would be considered in relation to indirect impacts. The report does not explain why a distance of 500m is considered sufficient to capture all the likely significant environmental effects. The ES should provide a justification of the distance applied and demonstrate the effort made to agree the approach with relevant consultation bodies.

4.15 Airborne noise and vibration

(Scoping Report section 10.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.15.1	Table 83, Impact Number 10.3.14	Vibration effects from the operation of the substation	The Scoping Report states that it is unlikely that the operation of the substation will lead to any significant vibration effects as it will include few moving parts. This effect would be scoped out subject to consultation with the local authority Environmental Health Officer and consultation responses to the Scoping Report. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.15.2	Table 83, Impact Number 10.3.15	Noise and vibration effects associated with the operation of the underground cable	The Scoping Report proposes to scope these effects on the grounds that the underground cable will have no moving parts. This effect would be scoped out subject to consultation with the local authority Environmental Health Officer and consultation responses to the Scoping Report. The Inspectorate agrees that it is unlikely that significant environmental effects would arise from the underground cable and therefore this effect can be scoped out of the assessment.

ID	Ref	Other points	Inspectorate's comments
4.15.3	Paragraphs 993 - 994	Cumulative impacts	Noise and vibration effects are considered by the Scoping Report to be localised within the study area; the cumulative assessment would be limited to other projects or activities that occur within the study area and the types of projects listed in paragraph 994. However, the

ID	Ref	Other points	Inspectorate's comments
			<p>Scoping Report does not provide a justification as to why noise and vibration effects would be limited to the study area or why the assessment should be restricted to the projects listed in paragraph 994. The ES should explain how the cumulative assessment has identified those projects or activities which overlap with the zone of influence of the Proposed Development and how all potential contributions have been considered.</p>

4.16 Traffic and transport

(Scoping Report section 10.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.16.1	Table 86, Impact Number 10.4.8	Noise	The Scoping Report scopes this out as noise from transport will be assessed in the Airborne Noise and Vibration section of the ES. Accordingly, the Inspectorate agrees that this matter can be scoped out of the traffic and transport section of the ES.
4.16.2	Table 86, Impact Number 10.4.9	Disruption to the railway	This would be scoped out of the ES on the grounds that the Applicant intends to use HDD to cross under the railway. The Inspectorate notes that relevant ground investigations have not been completed and relevant approvals from Network Rail have not yet been obtained. It is therefore uncertain if HDD under the railway can actually occur. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.16.3	Table 86, Impact Number 10.4.10	Any impacts during operation	The operation and maintenance requirements of the onshore part of the Proposed Development would be occasional and therefore there would only be a limited number of vehicle movements. The Inspectorate agrees that significant effects from these impacts are unlikely and can be scoped out of the ES.

ID	Ref	Other points	Inspectorate's comments
4.16.4	Paragraph 1002	Definition of the study area	The study area has been defined as a 1km buffer around the onshore ECR search area on the grounds that all potential traffic and transport impacts will either be at or near to the construction sites within this area. However, the Scoping Report has not provided any information on how key components such as the turbines and cables would be transported to site and what routes are expected to be used. The ES should identify the likely routes that would be used by construction traffic especially Abnormal Indivisible Loads and explain how this information has been used to define the affected transport network. The Applicant should make efforts to agree the extent of the study area with relevant consultation bodies.
4.16.5	Paragraphs 1021 - 1023	Indirect impacts on Public Rights of Way (PRoW) and Active Travel Routes (ATR)	The Scoping Report states that detailed studies of PRoW and ATR will be undertaken once the onshore ECR and substation locations have been defined. It does not explain the criteria that would be used to decide which PRoW and ATR are likely to be indirectly affected by the Proposed Development. The ES should explain how the PRoW and ATRs that would be indirectly impacted have been identified and assess any likely significant effects.
4.16.6	Table 85, Impact Number 10.4.1	Driver severance and delay	The table states that the assessment will be informed by a range of assumptions such as timing, frequency and distribution of movements. The ES must explain how these assumptions have been taken into account in the definition of the worst-case scenario.
4.16.7	Table 85, Impact Number 10.4.1	Driver severance and delay worst case scenario	When the worst case scenario is defined the ES should address whether traffic is noticeably heavier during the peak holiday period. If it is then the worst case scenario used in the assessment should reflect these peak traffic flows. A similar approach should be used for the assessment of all the matters assessed in this section of the ES.

4.17 Air quality

(Scoping Report section 10.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.17.1	Table 88, Impact Number 10.5.5	Construction traffic effects	Paragraph 1047 states that receptors within 200m of the road network utilised during construction are to be included in the study area. However, Table 88 states that this matter will possibly be scoped out as further information becomes available. For clarity, the Inspectorate considers that construction traffic effects cannot be scoped out of the ES. The ES should include an assessment of construction traffic impacts in terms of dust generation and traffic emissions on human health, ecologically sensitive receptors, and any other receptors where a potential for significant effects exists.
4.17.2	Section 10.5.5 Paragraph 1063 & Table 88	Operational traffic effects and other works	Table 88 proposes to scope out operational traffic effects and other works, stating traffic movements and other activity will be limited and would result in negligible air quality effects. Limited information is provided to support this statement, for example predicted traffic movements or details of the frequency and nature of other activities. However, the Inspectorate recognises that the level of traffic movements associated with operation and maintenance on land are unlikely to be sufficient to affect air quality. The Inspectorate agrees that this matter can be scoped out of the assessment.

ID	Ref	Other points	Inspectorate's comments
4.17.3	10.5.3 Paragraphs	Baseline data	Paragraph 1049 does not indicate any intention to gather any project specific air quality data to support the understanding of the existing baseline. Paragraph 1073 states the intention to identify sensitive receptors. The Inspectorate considers that should sensitive receptors

ID	Ref	Other points	Inspectorate's comments
	1049 & 1073		be identified, there may be a need to gather project specific air quality data and that this should be discussed with the local planning authorities and other relevant consultees. The ES should present the rationale behind the assessment methodology, including consultation undertaken on data sources and data gathering.
4.17.4	Table 22	Construction traffic assumptions and supporting data	<p>Table 22 in Chapter 3 of the Scoping Report provides indicative figures for construction movements. Section 10.4 Traffic and Transport, describes baseline traffic conditions and the identified data requirements for the ES. The Air Quality chapter does not refer to any of this information or describe how information on vehicle numbers and traffic flows might inform the assessment of air quality effects.</p> <p>The Inspectorate expects to see this information included in the ES. The information on which the air quality assessment of traffic impacts has been based must be explained clearly in the ES with cross reference to the Traffic and Transport assessment where appropriate.</p>
4.17.5	Paragraphs 10.5.2 & 10.5.5	Road traffic effects on ecologically sensitive receptors	In the description of the baseline environment, Paragraph 1052 identifies the presence of ecological receptors sensitive to dust (although limited information is provided on these receptors) but does not identify sensitivity to nitrogen deposition. However, Paragraph 1060 does identify the effects of nitrogen deposition from road traffic emissions as a potential impact. The ES should assess this matter for both construction and operation, where significant effects could occur. The ES must provide evidence supporting the assessment including information on the sensitive receptors identified, the anticipated scale and geographical extent of traffic impacts, and the outcomes of any relevant consultation. Cross reference to information within the remainder of the ES (eg the

ID	Ref	Other points	Inspectorate's comments
			Terrestrial Ecology and Nature Conservation assessment) should be made where used to support the assessment.
4.17.6	Section 10.5.5	Approach to assessment -	Paragraph 1057 refers to the use of Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Dusts from Demolition and Construction' (2014) to identify receptors, and the use of the screening criteria in IAQM & Environmental Protection UK 'Planning for Air Quality' guidance (2015) to determine where detailed assessment of road traffic required. DEFRA's guidance (2016b) 'Local Air Quality Management Technical Guidance' for the approach to the air quality assessment. No reference is made to the use of specific guidance to assess nitrogen deposition impacts from road traffic emissions and resulting effects on ecological receptors. The ES should include references to guidance used and clearly set out where information has been used from other assessments within the ES, eg the assessment of ecological effects.
4.17.7	Paragraphs 1064 - 1068	Mitigation	The Scoping Report states the intention to produce an Air Quality Management Plan as part of a Code of Construction Practice (CoCP) and that these are 'designed in' measures. No specific mitigation measures are described although it is stated that mitigation will be based on IAQM 2014 guidance. The guidance referred to relates to dust impacts and, while it is understood that at this stage much is unknown, no guidance or specific measures needed to address other air quality effects are outlined. Paragraph 1068 states any additional measures would be determined via consultation. The Inspectorate refers the Applicant to paragraphs 3.11 to 3.12 of this Scoping Opinion with regards to the description of mitigation in the ES and its relation to the DCO.
4.17.8	Paragraphs 1069 - 1071	Cumulative impacts	The study area of 550m stated in paragraph 1071 is not explained or justified in the Scoping Report. While noting the information in

ID	Ref	Other points	Inspectorate's comments
			Chapter 4, the Scoping Report does not explain whether the air quality cumulative effects assessment would be restricted to other ' <i>major infrastructure projects</i> ' and what projects this term applies to. The approach to the assessment of cumulative effects should be in accordance with the advice contained at paragraph 3.3.3 above.
4.17.9	Paragraph 1073	Further assessment	This section does not mention further consideration of traffic assessment outputs, which are not specified but have been assumed to form part of the further information identified in Table 88. As stated in the comments about Table 88 above, the Inspectorate considers this assessment to be required in order to establish the extent of air quality effects from construction and operation phase traffic and to determine the likelihood of significant effects. The ES should ensure that the assessment of air quality effects is supported robustly by other relevant assessment work, including the traffic assessment, and appropriately presented with cross references to supporting evidence where necessary.

4.18 Hydrology, hydrogeology and flood risk

(Scoping Report section 10.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.18.1	Table 91, Impact Number 10.6.7	Impacts on Water Framework Directive status during operation for assessed surface water or groundwater bodies.	The Scoping Report suggest that impacts within the onshore ECR would be fully reinstated with no significant changes to surface land use, run-off, hydrological recharge and no potential for entrainment of pollutants to the water environment. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.18.2	Table 91, 10.6.8	All phases – accidental spillages and leakages of pollutants	The Inspectorate notes the advice from NRW that it is not appropriate to scope out construction impacts from accidental pollution because of the potential to affect Water Framework Directive status of water bodies and the need for more information on this matter. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.

ID	Ref	Other points	Inspectorate's comments
4.18.3	Paragraphs 1086 & 1087	Groundwater figures	To aid the readers understanding of the baseline environment, the ES should include figure(s) which depict the locations of the aquifers discussed in paragraph 1086 and the Special Protection Zone referenced in paragraph 1087.

ID	Ref	Other points	Inspectorate's comments
4.18.4	Paragraph 1089 and Table 89	Designated sites in hydraulic connectivity with the study area	The Scoping Report states that the designated sites listed in Table 89 are in hydraulic connectivity to the study area depicted on Figure 74. The Inspectorate notes that Table 89 does not detail how these sites are hydraulically connected to the study area and are not depicted on Figure 74. The ES should include further details including such as the designated sites sensitivity to changes in the hydraulic and/ or water environment.
4.18.5	Paragraph 1093	Mitigation	Where site specific mitigation measures are to be implemented, the ES should describe the mitigation measure in sufficient detail to provide the reader an understanding of how the mitigation measure will be constructed, mitigate risk, and include a residual impact post implementation of the mitigation measure. The ES should also outline how the mitigation measures will be secured through the DCO or other legal mechanism.
4.18.6	Table 90, Impact Number 10.6.1	Construction impacts	The ES should include a figure(s) that depict the locations of: <ul style="list-style-type: none"> • horizontal directional drilling; • excavation trenches; • dewatering; and • piling.
4.18.7	Table 90, Impact Number 10.6.5	Surface water drainage	The Inspectorate notes that the ES will include an assessment on the impact to surface water drainage at the substation location during the operation phase of the Proposed Development. In addition to this, the ES should include an assessment on how existing drainage infrastructure, such as extant field drainage regimes, will be affected by the construction of the Proposed Development.

ID	Ref	Other points	Inspectorate's comments
4.188	N/A	Sustainable drainage system (SuDS)	If the Proposed Development is to implement SuDS during the construction, operation or decommissioning phase, the location and dimensions of the SuDS should be stated in the ES and included on a figure(s).

4.19 Geology and ground conditions

(Scoping Report section 10.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.19.1	Table 95 Impact Number 10.7.13	Operational impacts on geology and ground conditions and associated impacts to human and environmental receptors	The inspectorate agrees that this matter can be scoped out of the ES, as the Scoping Report states, ' <i>significant ground disturbance is considered relatively unlikely during the operation phase</i> ' and therefore, it is unlikely for significant effects to human and environmental receptors to arise from ground/ earthworks during the operation of the Proposed Development.
4.19.2	Table 95 Impact Number 10.7.14	Loss of agricultural land from operation of underground cables	The Inspectorate agrees that this matter can be scoped out of the ES as it is unlikely that the underground cables during the operation of the Proposed Development to result in significant effects to agricultural land.
4.19.3	Table 95 point 10.7.15	Maintenance effects on sterilisation of minerals and loss of agricultural land	<p>The Inspectorate notes the concerns of Conwy Borough Council in relation to the potential for the Proposed Development to continue to sterilise mineral deposits during the operation phase (see Appendix 2 of this report). The Inspectorate does not agree to scope this matter out. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant consultation bodies and the absence of an LSE.</p> <p>The Inspectorate agrees that the loss of agricultural land matter can be scoped out of the ES as the Scoping Report states, '<i>large scale works maintenance works are judged to be relatively unlikely during the operation phase</i>'. As such, it is unlikely for maintenance works during operation to result in significant effects from the further loss of agricultural land.</p>

ID	Ref	Other points	Inspectorate's comments
4.19.4	Paragraph 1119	Study area	The Scoping Report states that within the Preliminary Environmental Information Report (PEIR) and the ES, the study area for geology and ground conditions will be refined to more closely follow the proposed onshore cable route and the substation location. The ES should include a figure(s) depicting the refined study area in relation to any environmental constraints and baseline data, that could impact or be impacted by the construction, operation and decommissioning of the proposed onshore cable route and substation. It should also explain how the study area selected captures the zone of influence of the Proposed Development for construction, operation and decommissioning.
4.19.5	Paragraphs 1130 - 1131	Mineral safeguarding areas	The Applicant should make effort to consult with the relevant consultation bodies regarding mineral safeguarding areas to determine whether there is planning permission sought or granted to extract the minerals and how best to avoid mineral sterilisation.
4.19.6	Paragraph 1136 - 1137	Mining areas	The Scoping Report includes information regarding coal mining within the onshore search area but makes no reference to other types of mining (such as metal mining). The ES should include pertinent information on all old mining infrastructure that have potential to cause geo-environmental hazards to the Proposed Development.
4.19.7	Paragraph 1158	Methodology – Land Quality Assessment	The Scoping Report states, ' <i>the methods to be following in the assessment of land quality are detailed in various guidance documents</i> ' but does not state the documents to be used other than <i>Contaminated Land Report 11 (CLR11)</i> . The ES should state all the guidance documents used to inform the methodology and assessment and clearly set out which sections of the methodology or assessment
4.19.8	Table 94, Impact	Decommissioning	The Scoping Report states that ' <i>It is considered that there is a negligible risk of activities during the operation phase significantly</i>

ID	Ref	Other points	Inspectorate's comments
	Numbers 10.7.10 & 10.7.11		<i>impacting soil and groundwater quality, and as such the risks identified during construction are likely to be exacerbated during the operation phase'.</i> This text is difficult to understand – if the risk of construction is negligible, how would the effects be exacerbated during the operation phase? This implies that they would become of greater significance, but the Scoping Report does not indicate how these effects would be assessed. The ES must clearly set out which effects have been considered and how they have been assessed.

4.20 Onshore landscape and visual impact assessment

(Scoping Report section 10.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.20.1	Table 98, Impact Number 10.8.5	Landscape and visual impacts resulting from construction traffic	The Scoping Report provides limited evidence on the likely volume of construction traffic in the context of local traffic movements or the likely extent of the haul routes. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.20.2	Table 98, Impact Number 10.8.8	Night-time landscape and visual effects during construction	The Scoping Report provides limited evidence to support the conclusion that effects from construction lighting would not be significant. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.20.3	Table 98, Impact Number 10.8.6	Effects on landscape and visual receptors resulting from the underground cables during operation	The Scoping Report assumes that any effects from underground cables would not be significant once the land has been restored. However, as it is not clear how long it would take for land restoration to be achieved after cables have been installed the Inspectorate is concerned that there is potential for significant effects to occur. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.20.4	Table 98, Impact Number 10.8.7	Effects on landscape and visual receptors from maintenance during operation on the underground cables and onshore substation	The Scoping Report seeks to scope these effects out on the grounds that maintenance activities are likely to be of short duration and infrequent. The Inspectorate agrees that significant effects are unlikely to occur and this matter can be scoped out.
4.20.5	Table 98, Impact Number 10.8.8	Night-time landscape and visual effects during operation	The Scoping Report seeks to scope these matters out on the grounds that no permanent lighting is proposed at the new substation or along the cable route. The Inspectorate agrees that these matters can be scoped out since no night time operational lighting is proposed.
4.20.6	Table 98, Impact Number 10.8.9	Residential visual amenity during operation	The Scoping Report seeks to scope out this matter out as the potential effects from the onshore cable route are expected to be temporary and short-term. Effects from the new substation are not expected to be overbearing or overwhelming due to the limited height of the structures although the potential for effects will be reviewed once the location of the substation has been confirmed. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.
4.20.7	Table 98, Impact Number 10.8.10	Decommissioning	The Scoping Report assumes that effects arising from decommissioning are likely to be of a similar nature but smaller in scale and extent. However, since the impacts during construction have yet to be assessed it seems premature to assume that the decommissioning effects would not be significant. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. Accordingly, the ES should include an assessment of these matters where a likely significant effect may occur.

ID	Ref	Other points	Inspectorate's comments
4.20.8	Paragraph 1192	Definition of the study area	The definition of the study area is partly based on the assumption that the permanent substation structures would be up to 15m above ground level. However, Table 21 of the Scoping Report refers to a maximum height for equipment of 18m. The assessment in the ES should explain how the study area has taken the height of the equipment into account.
4.20.9	Paragraph 1223	Use of photography	It is noted that the existing and predicted views of the Proposed Development will be illustrated using photography and that it may be necessary to reflect views seen in different seasons at certain locations. The ES should ensure that, in order to assess the worst-case scenario, the photography should include views taken when there are no leaves on the trees to provide screening.

4.21 Socio-economic and tourism

(Scoping Report section 10.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.21.1	Table 99, Impact Number 10.9.3	Displacement of tourism visitors within the Local Study Area (LSA)	The Scoping Report states that if the data gathered for the assessment shows that the effects are not significant then this topic will be scoped out of the assessment. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.21.2	Table 99, Impact Number 10.9.4	Demand for healthcare within the LSA	The Scoping Report states that if the data gathered for the assessment shows that the effects are not significant then this topic will be scoped out of the assessment. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.21.3	Table 99, Impact Number 10.9.6	Economy (labour market and Gross Value Added) including local supply chain within the LSE	The Scoping Report states that if the data gathered for the assessment shows that the effects are not significant then this topic will be scoped out of the assessment. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.21.4	Table 100, Impact Number 10.9.8	Impact of construction on demand for housing and schools	The Scoping Report proposes to scope out this effect on the grounds that the construction phase is likely to be of fairly short duration and therefore it is unlikely that workers will relocate to the area. The Inspectorate agrees that significant effects are unlikely to occur and this matter can be scoped out.
4.21.5	Table 100, Impact Number 10.9.9	Impact on Local Area of Influence (LAI) due to presence of onshore infrastructure during operation	The Scoping Report includes limited evidence to support the statement that onshore infrastructure will have a limited sphere of visual influence. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make efforts to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.21.6	Table 100, Impact Number 10.9.10	Any impacts during decommissioning	The Scoping Report assumes that effects arising from decommissioning are likely to be of a similar nature but smaller in scale and extent. However, since the impacts during construction have yet to be assessed it seems premature to assume that the decommissioning effects would not be significant. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make efforts to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.

ID	Ref	Other points	Inspectorate's comments
4.21.7	Paragraph 1266	Identification of receptors	The Scoping Report states that receptors will be identified but does not explain how this will happen or the likely range of receptors under consideration. The ES should explain how receptors have been

ID	Ref	Other points	Inspectorate's comments
			selected and effort should be made to agree the approach with relevant consultation bodies.
4.21.8	-	Effects on agricultural operations	It appears from the figures in the Scoping Report that the cable route is likely to affect agricultural land but there is no reference in the report to likely effects on agricultural holdings and potential effects on the viability of such operations. The ES should assess any likely significant effects to agricultural operations.

4.22 Public health

(Scoping Report section 10.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.22.1	Table 102, Impact Number 10.10.16	Impact on health due to air emissions during operation	The Scoping Report seeks to scope out this matter on the grounds that the operational phase would only lead to limited traffic movements and would not include any activities which would lead to dust generation. The Inspectorate agrees that significant effects are unlikely and that this matter can be scoped out.
4.22.2	Table 102, Impact Number 10.10.17	Impacts on health due to water emissions during operation	The Scoping Report proposes to scope this matter out on the grounds that no planned activities are anticipated which could lead to 'notable' increases in run-off. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.22.3	Table 102, Impact Number 10.10.18	Impacts on health due to soil emissions (including hazardous waste and substances) during operation	The Inspectorate agrees that it is unlikely that the operation phase would give rise to any pathways of effect in addition to those identified in the assessment of construction effects. The Inspectorate agrees that significant effects are unlikely and this matter can be scoped out.
4.22.4	Table 102, Impact Number 10.10.19	Disruption to local road network leading to reduced access to services and amenities during operation	The Inspectorate agrees that the volume of traffic likely to be associated with the operation and maintenance phase is unlikely to lead to serious disruption of the local road network. The Inspectorate agrees that significant effects are unlikely and this matter can be scoped out.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.22.5	Table 102, Impact Number 10.10.20	Impacts on health due to electromagnetic radiation during all phases of the Proposed Development	The Scoping Report seeks to scope this matter out as all electrical infrastructure will have to comply with the guidelines from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) so impacts would be negligible. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make efforts to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.22.6	Table 102, Impact Number 10.10.21	Impacts from major disasters during all phases of the Proposed Development	The Scoping Report seeks to scope this matter out on the grounds that the risk of major accidents is low for all elements of the Proposed Development and the Applicant's commitment to high health and safety standards . The Inspectorate notes that the North Wales Fire and Rescue Service had no comments to make on the Scoping Report. However, the Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make efforts to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.22.7	Table 102, Impact Numbers 10.10.23 & 10.10.24	Pests and odours during all phases of the Proposed Development	The Scoping Report states that there are no pathways anticipated to lead to an increase in pests or odours. However, the Scoping Report section on geology and ground conditions refers to three historical landfill sites within the onshore ECR and notes that active waste facilities may also be located within the search area. It is noted that the onshore cable route would seek to avoid these sites and facilities but there is guarantee that this will be possible . In the Inspectorate's view there could be pathways which could lead to increases in pests or odours. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.
4.22.8	Paragraph 1317	EMF cumulative effects during operation	The Scoping Report seeks to scope this matter out on the grounds that all the project infrastructure would have to comply with the ICNIRP guidelines. The Inspectorate does not consider that sufficient evidence has been provided to support scoping these matters out from the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies ensuring that the assessment is both proportionate and robust.

ID	Ref	Other points	Inspectorate's comments
4.22.9	Table 101	Improvement of air quality relative to alternative fuel sources such as coal and gas power stations	The intention to present evidence based on a literature review to identify key beneficial effects from offshore wind farms compared to alternative forms of energy generation. While this may be informative, the ES should be addressing the significant effects of the Proposed Development. If the Proposed Development would result in significant improvements to air quality then these improvements should be quantified and assessed.

5. INFORMATION SOURCES

- 5.0.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:
- Pre-application prospectus⁴
 - Planning Inspectorate advice notes⁵:
 - Advice Note Three: EIA Notification and Consultation;
 - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
 - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
 - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
 - Advice Note Nine: **Using the 'Rochdale Envelope'**;
 - Advice Note Ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
 - Advice Note Twelve: Transboundary Impacts;
 - Advice Note Seventeen: Cumulative Effects Assessment; and
 - Advice Note Eighteen: The Water Framework Directive.
- 5.0.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

⁴ The Planning Inspectorate's pre-application services for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

⁵ The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES⁶

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Welsh Ministers	Welsh Government
The Health and Safety Executive	Health and Safety Executive
The relevant fire and rescue authority	North Wales Fire and Rescue Service
The relevant police and crime commissioner	North Wales Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Prestatyn Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Trefnant Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Cefn meiriadog Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Tremerichion, Cwm and Waen Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	St. Asaph City Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Rhuddlan Town Council

⁶ Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Dyserth Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Llandudno Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Bay of Colwyn Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Abergele Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Towyn and Kinmel Bay Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Llysfaen Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Llanddulas and Rhyd-y-Foel Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Betws Yn Rhos & Llanelian-yn-Rhos Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Rhyl Town Council
The relevant parish council(s) or, where the application relates to land [in] Wales	Llanfairtalhaiarn Community Council

SCHEDULE 1 DESCRIPTION	ORGANISATION
or Scotland, the relevant community council	
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Llannefydd Community Council
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Mochdre Community Council
The Equality and Human Rights Commission	Equality and Human Rights Commission
Royal Commission On Ancient and Historical Monuments Of Wales	Royal Commission On Ancient and Historical Monuments Of Wales
The Natural Resources Body for Wales	Natural Resources Wales
The Homes and Communities Agency	Homes England
The Joint Nature Conservation Committee	Joint Nature Conservation Committee
The Maritime and Coastguard Agency	Maritime & Coastguard Agency
The Maritime and Coastguard Agency - Regional Office	The Maritime and Coastguard Agency - Holyhead
The Marine Management Organisation	Marine Management Organisation (MMO)
The Marine Management Organisation	Natural Resources Wales
The Scottish Fisheries Protection Agency	Marine Scotland Conservation
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Conwy County Borough Council
The Passengers Council	Transport Focus
The Disabled Persons Transport Advisory Committee	Disabled Persons Transport Advisory Committee
The Coal Authority	The Coal Authority
Office of Rail and Road	Office of Rail and Road

SCHEDULE 1 DESCRIPTION	ORGANISATION
Approved Operator	Network Rail Infrastructure Ltd
Approved Operator	Network Rail (High Speed) Ltd
The Gas and Electricity Markets Authority	Office of Gas and Electricity Markets (OFGEM)
The Water Services Regulation Authority	Ofwat
The Water Industry Commission Of Scotland	The Water Industry Commission for Scotland
The relevant waste regulation authority	Natural Resources Wales
The relevant internal drainage board	Afon Ganol (East & West)
Trinity House	Trinity House
The relevant local resilience forum	Wales Resilience Forum

TABLE A2: RELEVANT STATUTORY UNDERTAKERS⁷

STATUTORY UNDERTAKER	ORGANISATION
The Crown Estate Commissioners	The Crown Estate
The Natural Resources Body for Wales	Natural Resources Wales
The relevant local heath board	Betsi Cadwaladr University Health Board
The National Health Service Trusts	Health Protection Team Public Health Wales
The National Health Service Trusts	Welsh Ambulance Services Trust
The National Health Service Trusts	Velindre NHS Trust
The National Health Service Trusts	Velindre NHS Trust
The Secretary of State for Defence	Ministry of Defence
The relevant NHS Trust	Health Protection Team Public Health Wales

⁷ 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant NHS Trust	Welsh Ambulance Services Trust
The relevant NHS Trust	Velindre NHS Trust
The relevant local health board	Betsi Cadwaladr University Health Board
Railways	Network Rail Infrastructure Ltd
Dock and Harbour authority	Amlwch Harbour - Isle of Anglesey County Council
Dock and Harbour authority	Conwy - Conwy County Borough Council
Dock and Harbour authority	Port Penrhyn - Port Penrhyn Plant Ltd
Dock and Harbour authority	Mostyn - Port of Mostyn Ltd
Dock and Harbour authority	Liverpool - Mersey Docks & Harbour Company Limited
Pier	Colwyn Bay Victoria
Pier	Llandudno
Lighthouse	Trinity House
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
The relevant Environment Agency	Natural Resources Wales
The relevant water and sewage undertaker	Dwr Cymru (Welsh Water)
The relevant public gas transporter	Cadent Gas Limited
The relevant public gas transporter	Energetics Gas Limited
The relevant public gas transporter	Energy Assets Pipelines Limited
The relevant public gas transporter	ES Pipelines Ltd
The relevant public gas transporter	ESP Connections Ltd
The relevant public gas transporter	ESP Networks Ltd
The relevant public gas transporter	ESP Pipelines Ltd

STATUTORY UNDERTAKER	ORGANISATION
The relevant public gas transporter	Fulcrum Pipelines Limited
The relevant public gas transporter	Harlaxton Gas Networks Limited
The relevant public gas transporter	GTC Pipelines Limited
The relevant public gas transporter	Independent Pipelines Limited
The relevant public gas transporter	Indigo Pipelines Limited
The relevant public gas transporter	Murphy Gas Networks limited
The relevant public gas transporter	Quadrant Pipelines Limited
The relevant public gas transporter	National Grid Gas Plc
The relevant public gas transporter	Scotland Gas Networks Plc
The relevant public gas transporter	Southern Gas Networks Plc
The relevant public gas transporter	Wales and West Utilities Ltd
The relevant electricity generator with CPO Powers	Gwynt Y Mor
The relevant electricity generator with CPO Powers	North Hoyle Offshore Wind Farm Limited
The relevant electricity generator with CPO Powers	Rhyl Flats
The relevant electricity generator with CPO Powers	Burbo Bank Extension
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
The relevant electricity distributor with CPO Powers	Energetics Electricity Limited
The relevant electricity distributor with CPO Powers	Energy Assets Networks Limited
The relevant electricity distributor with CPO Powers	ESP Electricity Limited
The relevant electricity distributor with CPO Powers	Fulcrum Electricity Assets Limited

STATUTORY UNDERTAKER	ORGANISATION
The relevant electricity distributor with CPO Powers	Harlaxton Energy Networks Limited
The relevant electricity distributor with CPO Powers	Independent Power Networks Limited
The relevant electricity distributor with CPO Powers	Leep Electricity Networks Limited
The relevant electricity distributor with CPO Powers	Murphy Power Distribution Limited
The relevant electricity distributor with CPO Powers	The Electricity Network Company Limited
The relevant electricity distributor with CPO Powers	UK Power Distribution Limited
The relevant electricity distributor with CPO Powers	Utility Assets Limited
The relevant electricity distributor with CPO Powers	Vattenfall Networks Limited
The relevant electricity distributor with CPO Powers	SP Distribution Plc
The relevant electricity distributor with CPO Powers	SP Manweb Plc
The relevant electricity transmitter with CPO Powers	Gwynt y Mor OFTO plc
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc
The relevant electricity interconnector with CPO Powers	EirGrid Interconnector Designated Activity Company

TABLE A3: SECTION 43 CONSULTEES (FOR THE PURPOSES OF SECTION 42(1)(B))⁸

⁸ Sections 43 and 42(B) of the PA2008

LOCAL AUTHORITY⁹

Conwy County Borough Council
Denbighshire County Council
Snowdonia National Park
Powys County Council
Flintshire County Council
Wrexham County Borough Council
Cyngor Gwynedd Council

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION

Cadw
Welsh Language Commissioner
Trafnidiaeth Canolbarth Cymru (TraCC)
Transport Management Team - South East Wales Directors of Environment and Regeneration (SewDER)
Ministry of Defence
Isle of Man Government
Office of the Police and Crime Commissioner North Wales Police Headquarters
North Wales Fire and Rescue Service
Welsh Ambulance Services Trust
Royal National Lifeboat Institution
Ministry of Defence
Isle of Anglesey County Council
Wirral Council

⁹ As defined in Section 43(3) of the PA2008

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:
Abergele Town Council
Anglesey County Council
Cadent
Conwy County Borough Council
Defence Infrastructure Organisation (DIO) – Safeguarding
Health and Safety Executive (HSE)
Joint Nature Conservation Committee (JNCC)
Last Mile UK
Maritime and Coastguard Agency (MCA)
National Grid
NATS Safeguarding Office
Natural Resources Wales (NRW)
North Wales Fire and Rescue Service
Public Health Wales
Rhuddlan Town Council
Royal Mail
The Coal Authority
Towyn Town Council
Trinity House
Welsh Government
Welsh Water
Wrexham County Borough Council

From: [REDACTED]
To: [AwelyMor](#)
Subject: Awel y Mor
Date: 23 June 2020 16:33:10

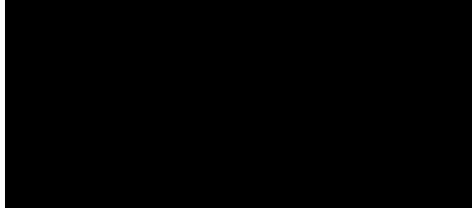
Good afternoon

Ref: EN010122–00023 EN010122–00020

I can confirm that Abergale Town Council has no comment to make at this stage.

Kind regards
Lorraine

Lorraine Whalley
Deputy Clerk/Dirprwy Clerc
Cyngor Tref Abergale Town Council



From: [REDACTED]
To: AwelyMor
Cc: [REDACTED]
Subject: RE: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Date: 12 June 2020 13:29:54
Attachments: ~WRD000.jpg
Image001.png

Good afternoon Ben

Thank you for this information but this falls outside of our distribution network so we will have no interaction with the project.

Regards

Tom Bowling MRICS
Senior Land Officer – North London
[REDACTED]

Cadent

Brunel House
Uxbridge Road, Slough
Berkshire, SL2 5NA

Enabling the here and now for our customers, whilst shaping future commitments

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 13:18
To: Bowling, Tom [REDACTED] >
[REDACTED]
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Tom Bowling,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

<https://www.gov.uk/government/organisations/planning-inspectorate>
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The Coal Authority

Resolving the **impacts** of mining

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG
T: 01623 637 119
E: planningconsultation@coal.gov.uk
www.gov.uk/coalauthority

For the attention of Ms Helen Lancaster - Senior EIA Advisor
on behalf of the Secretary of State

[By email: AwelyMor@planninginspectorate.gov.uk]

23 June 2020

Dear Ms Lancaster

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Awel y Môr Offshore Wind Farm Limited (the Applicant) for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for your notification of 12 June 2020 on what relevant matters should be 'Scoped In' to any forthcoming Environmental Statement for the above site.

I have reviewed the area of development against our coal mining information and can confirm that, whilst the Array Area /Offshore Export Cable Route Search Area fall within the coalfield, these areas are located outside the defined Development High Risk Area; meaning that there are no recorded coal mining legacy hazards at shallow depth that could pose a risk to land stability.

Therefore, there is no requirement for the applicant to consider coal mining legacy as part of their Environmental Impact Assessment. In addition, there is no requirement to consult us on any subsequent application for this site.

Please do not hesitate to contact me if you require any further assistance with this matter.

Yours sincerely



Deb Roberts M.Sc. MRTPI
Planning & Development Manager

Disclaimer

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available data on the date of the response, and electronic consultation records held by The Coal Authority since 1 April 2013. The comments made are also based upon only the information provided to The Coal Authority by the Local Planning Authority and/or has been published on the Council's website for consultation purposes in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by The Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the Applicant for consultation purposes.

Email: ben.jenkinson@planninginspectorate.gov.uk

Telephone: +44 (0) 303 444 3403



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Cadent Gas Limited is a limited liability company, registered in England and Wales (registered no. 10080864) with its registered office at Ashbrook Court, Prologis Park, Central Boulevard, Coventry CV7 8PE.

Helen K Thomas
Stakeholder and Renewables Manager
Innogy Renewables UK Ltd

Helen Lancaster
Senior EIA Advisor
The Planning Inspectorate
AwelyMor@planninginspectorate.gov.uk

Gofynnwch am / Please ask for: **Ceri Thomas**

 **01492575391**



ceri.thomas@conwy.gov.uk

Ein Cyf / Our Ref: **DC/ENQ/29160**

Eich Cyf / Your Ref:

Dyddiad / Date: **09/07/2020**

Dear Madam

The Planning Act 2008 and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

The Conservation of Habitats and Species Regulations 2010

Application by Awel y Môr Offshore Wind Farm Ltd for a Development Consent Order for the Awel y Môr Offshore Wind Farm

Conwy County Borough Council (the Council) has been received a consultation on the 11th May 2020 from Innogy Renewables UK Ltd on an Environmental Impact Assessment (EIA) Scoping Report and a Habitat Regulations Assessment (HRA) Screening Report in relation to the above project (the Project). On 12th June 2020, it received a further consultation from the Planning Inspectorate on the EIA Scoping Report for in the same project. I am now in a position to respond on behalf of the Council to both consultation documents.

The Habitats Regulations Screening Report

The Council does not have any adverse observations on the Screening Report or the conclusion that HRA is required.

The EIA Scoping Report

Ecology

The Council's Ecologist makes the following comments:

- i) The scope of consideration of species and habitats listed under Section 7 of the Environment (Wales) Act 2016 (commonly referred to by the sector as *priority species* and *priority habitats*) is unclear. While *priority habitats* are referred to in par. 908, these *priority habitats* and *priority species* have not been specifically scoped in. In the text and tables, *habitats* are scoped in if they are *important* (but *important* is undefined), and *species* are scoped in if they are *protected* or *rare/notable* (but *rare/notable* is undefined). There are discrepancies between the definition of

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We will respond to any correspondence in Welsh which will not lead to a delay.



- impact, which is narrowly defined, e.g. no.10.1.2, and subsequent descriptions and the proposed approach which are broader. For clarity I recommend that in keeping with the requirements of the Environment (Wales) Act 2016 placed on Welsh Ministers and public bodies, all *priority species* and *priority habitats* listed under Section 7 of that Act are specifically **scoped in**.
- ii) Perhaps more surprisingly, it is unclear, so far as I can see, that designated on-shore sites such as SSSIs are scoped in. Since failure to include them would clearly be unacceptable, I can only assume that this is a lack of clarity, rather than a lack of intent. All terrestrial SSSIs within 200m of the ECR and substation footprints or having a hydrological connection with them should clearly be **scoped in**.
 - iii) Paragraph 919 discusses embedded mitigation and states that embedded mitigation will seek to avoid *designated sites or areas of important habitat, woodland areas, water bodies and streams as far as possible, where practicable*. Since the degree to which this will be able to be achieved (note: this will only apply *where practicable*) is currently unknown, this intention cannot be used as a basis to scope out any of the receptors, as paragraph 918 proposes. Insofar as areas of designated or priority habitats *can* be avoided, such embedded mitigation *is* a suitable mitigation strategy.
 - iv) While somewhat outside my remit, I noted an apparent discrepancy between impact no. 10.7.5 in table 94 which states that the impact upon sensitive geological designations such as SSSIs is **scoped in**, and impact no. 10.1.11 in table 77 which states that it is proposed to **scope out** impacts to geological sites.

Marine mineral reserves

The EIA should acknowledge the sterilisation of marine sediment which may potentially be marine dredged for sale as aggregate (sand, shingle or gravel). In particular, it should identify whether any sediments that would be sterilised by the development lie outside of any marine dredging licensing areas.

Terrestrial mineral reserves

Landfall and cable routing over the flatland coastal strip, even where there may be superficial sand and gravel deposits, does not present a mineral safeguarding issue. Few of the deposits are of any economic consequence and are highly unlikely to be exploited on account of other constraints such as the presence of housing, hospitals, sensitive businesses, recreation and tourism leisure development where the buffer zone policy would effectively sterilise the mineral in any event, or where extraction would give rise to flooding due to lowering of the land, or removal of subjacent support.

The cable routing over the elevated land a few kilometres to the south of the coastline, however, does raise some concerns about mineral safeguarding. Limestone is an important economic commodity and has and continues to be actively worked in a number of quarries over a long period of time, and Welsh Government Policy is to safeguard mineral for use by future generations unless the need for the sterilising development outweighs the need to safeguard the mineral in question. Of particular concern is the proximity of area of search routing 3a,3c, 4a and 3c “alternative” route as illustrated on Drawing Number PB9596-R HD-Z Z -ON-DR -YE-0026 in the areas to the south of the A55(T) highway, and the location of the onshore substation.

Whilst it is accepted that the corridor and associated easement designed to protect the cable from disturbance and encroachment is not significantly wide in its own, the siting/routing must not unreasonably sterilise mineral deposits, and in particular any which might reasonably be the subject of a future extension of quarrying activities around the St George limestone quarry in particular. Careful routing is required so that the spatial distribution of pre-existing features and development, which already acts as a constraint or minerals sterilisation agent should be taken advantage of so that the extent of mineral sterilisation is not unnecessarily increased. For example a substation located on the edge of fields and in proximity to highways or residential development would be better than locating it in the middle of a cluster of fields where the entire mineral deposit in the given landholding would be sterilised.

Table 103 proposes to address the sterilisation of mineral deposits during the construction phase of the project only. However, the presence of the cable could potentially continue to sterilise these deposits

following the construction phase, and the Council therefore requests that such impacts are **scoped in** for both the construction and operational phases.

Landfill sites

Please note that Llanddulas/Llysfaen landfill site referred to on Table 93 of the scoping report in Chapter 10 is listed as operating from 1974 to 1975. There are in fact a number of planning permissions, licenses and permits issued over time at this site which is in fact a major regional landfill accepting a range of household and industrial wastes and remains active and is operated by FCC Environment Ltd. A former landfill site is also located at Gofer near Abergel which is not listed. It is understood that the Council's Principal Environment Officer has advised the applicant on the presence of historic landfill sites, and it is recommended that Natural Resources Wales is also contacted on this matter.

Coastal protection

The Council intends to undertake coastal protection works in the Abergel area. The EIA should **scope in** the potential for the Project to impact on the coastal protection works and also for the potential

for the coastal protection works to impact on the Project. For further information about the coastal protection works, please contact the Interim Flood Risk and Infrastructure Manager (contact:

Archaeology

The Council has received representations from Gwynedd Archaeological Trust and Clwyd Powys Archaeological Trust, which are attached to this response. The Council requests that consideration is given to those representations in determining the Scoping Direction.

Yn ddiffuant / Yours sincerely



ppPaula Jones
Rheolwr Rheoli Datblygu ac Adeiladu / Development and Building Control Manager

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1st June 2020

Our Ref: 0601je/D3444.01

Helen Thomas/Alex Herbert
Innogy Renewables UK Limited
Baglan Bay Innovation Centre
Central Avenue
Baglan Energy Park
Port Talbot
SA12 7AX

Dear Helen and Alex,

Awel y Môr Offshore Wind Farm
Scoping Consultation: Development Consent Order and Marine Licence

Thank you for the opportunity to respond to the above scoping consultation, as a member of the Expert Topic Groups and as a consultee of Natural Resources Wales for marine licensing. I have read through the chapters and appendices relevant to the historic environment, namely chapters 9.4: Seascapes, Landscape and Visual Impact Assessment (Offshore Environment); 9.5: Marine Archaeology; and 10.2: Archaeology and Cultural Heritage (Onshore Environment). While the scope and methodology of assessment generally appears appropriate, I would make some observations, as below. Please note that these comments pertain only to the region of GAPS' curatorial responsibility, that is, north-west Wales, and should therefore be regarded as complementary to any comments that Cadw and Clwyd-Powys Archaeological Trust may wish to make.

9.4.7: Seascapes, Landscape and Visual Impact Assessment

i. Do you agree with the proposed 50km radius Study Area?

Yes

ii. Do you agree with the preliminary viewpoint list or have any proposed additions or alternatives?

Yes, these all seem appropriate. In addition, I would suggest the following locations, which are relevant for both SLVIA and archaeological setting assessment (see also response to 10.2.8.ii below):

- *Bodafon Mountain, Anglesey*
This is a notable high point on the island with significant archaeology and far coastal views.
- *Uplands above Llanfairfechan and Penmaenmawr*
This area is an extremely rich archaeological landscape including several scheduled monuments and is very popular with walkers.
- *Bangor Pier (if not already the chosen location for Bangor)*
A Grade II* listed structure with an obvious coastal connection which is popular as a recreational amenity when open.



• *Menai Suspension Bridge*

The Menai Bridge may be beyond the distance at which the wind farm would be clearly visible but as a Grade I listed structure and an iconic landmark, it merits consideration.

iii. Do you agree that the data sources identified are sufficient to inform the baseline for the Awel y Môr OWF PEIR and ES?

No comment, other than to note that there is an existing Register of Historic Parks and Gardens compiled by Cadw; it has recently been reviewed and it is merely the publication of the updated Register, including making information available via *Cof Cymru*, that is pending. In the meantime information about Registered Historic Parks and Gardens within the study area can be obtained from Cadw.

iv. Do you agree with the proposed methodologies for the assessment, cumulative assessment and presentation of visualisations for those impacts that are scoped in to the SLVIA (Table 60)?

No comment

v. Do you agree that the impacts described in Table 61 can be scoped out?

Yes, this seems sensible.

9.5.8: Marine Archaeology

i. Do you agree that all of the known marine archaeological receptors within the zone of influence have been identified and considered?

Yes, although NB response to (iv) below.

ii. Do you agree that all relevant sources of secondary data have been accessed for scoping and identified for use in the EIA?

Yes

iii. Do you agree that the designed-in mitigation commitments to undertake all necessary archaeological assessments reduces the impact on archaeological receptors which can therefore be scoped out ahead of the EIA?

No. Details about both the marine archaeological resource and the proposed designed-in mitigation are incomplete and we are therefore not in a position to make this judgement. Of the mitigation measures outlined in Table 70 and paragraph 814, review of geophysical and geotechnical data will form part of the assessment stage (as well as continuing throughout the project); the definition of Archaeological Exclusion Zones and avoidance by design alterations are a possible response to the assessment that has yet to be undertaken; while the Written Scheme of Investigations (WSI) and Protocol for Archaeological Discoveries (PAD) do not constitute mitigation ends in themselves, rather they provide the framework for implementing mitigation actions. The potential impacts proposed to be scoped out can all be considered reasonable risks to archaeology from the proposed development. Whether information from assessment enables design solutions to be adopted and whether this eliminates impact or reduces it to a less than significant level, the evidence and decision making process leading to this conclusion needs to be set out in the EIA.



iiv. Is there any other baseline information that you feel should be considered?

The part of the study area west of Penrhyn Bay (including Little Orme) is within the area covered by the regional Historic Environment Record (HER) maintained by Gwynedd Archaeological Trust (GAT). Data should be obtained from the GAT HER to provide complete coverage and to accord with the integrated approach to the onshore and offshore environments described in Chapter 10.2 (paragraphs 931 and 936).

10.2.8: Archaeology and Cultural Heritage

i. Do you agree that the data sources identified are sufficient to inform the onshore Archaeology and Cultural Heritage baseline for the Awel y Môr OWF PEIR and ES?

Yes; though NB a correction to 10.2.1, Table 79, in that the appropriate regional curator for the inner study area and onshore scheme elements (landfall, cable and substation) should read Clwyd-Powys Archaeological Trust (CPAT), not GAT.

ii. Which specific designated historic assets should be assessed (if any) for the potential indirect visual impact from the offshore turbines? Note that ZTVs and wirelines will help in filtering down the potential assets that might be affected, and representative viewpoints for asset groups (such as coastal conservation areas and listed buildings) will need to be agreed.

It will certainly be important to assess a representative range of viewpoints across the ZTV, including both coastal and upland monuments with coastal views. The proposed viewpoints for chapter 9.4 include several key locations for the historic environment (see response to 9.4.7.ii above). In addition, I would suggest the following, which are relevant to both SLVIA and archaeological setting assessment:

- *Scheduled Monuments AN039 & AN040, Bodafon Mountain, Anglesey*
- *Selected sites with coastal views in the uplands above Llanfairfechan and Penmaenmawr, e.g. CN283 Hut circle settlement at Clip yr Orsedd, CN185 Garreg Fawr Hut Groups, Ancient Fields and Cairns*
- *Bangor Pier (Grade II* listed building ref. 3987)*
- *Menai Suspension Bridge (Grade I listed building 4049 & 18572)*

Regarding the assessment of visual impacts on Registered Historic Landscapes, we would advise that the Registered Historic Landscapes of Penmon, North Arllechwedd and Dyffryn Ogwen should be part of the initial review stage.

iii. Do you agree that all the protected areas within the Study Area have been identified?

Yes

iv. Have all potential impacts resulting from Awel y Môr OWF been identified for archaeology and cultural heritage receptors?

Yes.

v. Do you agree that the impacts described in Table 80 can be scoped out?

Yes, this is reasonable.



vi. For those impacts scoped in (Table 79), do you agree that the methods described are sufficient to inform a robust impact assessment?

Yes.

vii. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on Archaeology and Cultural Heritage receptors?

No comment (since this is concerned with terrestrial works outside GAPS's area)

viii. Do you have any specific requirements for the Archaeology and Cultural Heritage methodology?

No comment

I trust the above is helpful, but please do not hesitate to be in touch with any queries. Please note these comments are provided without prejudice to any comments GAPS may wish to make in respect of any future planning submission and do not imply the acceptance or otherwise of any proposed scheme.

Yours sincerely

Jenny Emmett
Senior Planning Archaeologist

cc N Maylan, Cadw
M Walters, Clwyd-Powys Archaeological Trust
A Crump, Isle of Anglesey County Council
C Owen, Gwynedd County Council
P Jones, Conwy County Borough Council
N Jones, Snowdonia National Park Authority
Marine licensing team, Natural Resources Wales
J Bullen/R Sumner, Natural Resources Wales

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2 June 2020

Helen Thomas/Alex Herbert
Innogy Renewables UK Limited
Baglan Bay Innovation Centre
Central Avenue
Baglan Energy Park
Port Talbot
SA12 7AX

Dear Helen and Alex

Awel y Môr Offshore Wind Farm Scoping Consultation: Development Consent Order and Marine Licence

Thank you for the consultation on the Awel Y Mor scoping consultation. Our remit is limited to the onshore elements of the scheme including the landfall, cable route and substation sites and our comments will concentrate on those aspects although we have looked at other relevant historic environment chapters that will be commented on by Cadw, RCAHMW and GAT. In general we find the scope of the assessment to be fit for purpose with some specific comments added below based on the chapter questionnaires.

9.4 Seascapes, Landscape and Visual Impact Assessment

i. Do you agree with the proposed 50km radius Study Area?

Yes

ii. Do you agree with the preliminary viewpoint list or have any proposed additions or alternatives?

These seem reasonable and target the most significant visual impact locations on the coastline.

You could possibly add the Grade I listed Gwrych Castle (SH9286177475) and its Grade II * registered park and garden (GD58) to the north, although the views from here are already compromised by the intervening Rhyl Flats and existing Gwynt y Mor windfarm.

Cadw will advise on any additional designated sites that may be required viewpoints.

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There are no viewpoints from the highest peaks at the northern end the Clwydian Range AONB and this might be useful if only to prove that the distant views are already compromised by the existing offshore windfarms and that there are unlikely to be any significant cumulative impacts.

iii. Do you agree that the data sources identified are sufficient to inform the baseline for the Awel y Môr OWF PEIR and ES?

Yes

iv. Do you agree with the proposed methodologies for the assessment, cumulative assessment and presentation of visualisations for those impacts that are scoped in to the SLVIA (Table 60)?

Yes

v. Do you agree that the impacts described in Table 61 can be scoped out?

Yes

9.5 Marine Archaeology

i. Do you agree that all of the known marine archaeological receptors within the zone of influence have been identified and considered?

Yes

ii. Do you agree that all relevant sources of secondary data have been accessed for scoping and identified for use in the EIA?

Yes

iii. Do you agree that the designed-in mitigation commitments to undertake all necessary archaeological assessments reduces the impact on archaeological receptors which can therefore be scoped out ahead of the EIA?

No – the process needs to be iterative with the geophysical and geotechnical surveys informing the assessment at the data gathering stage. This is not a mitigation process but

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leads to the development of mitigation options. Possible mitigation options will change as a result of the information gathered at the assessment stage. Similarly, the WSI is not mitigation in itself, but instead drives the assessment process. The Protocol for Archaeological Discoveries should be informed by the prior assessment and would drive the mitigation options, but is not mitigation in itself.

iv. Is there any other baseline information that you feel should be considered?
No – we note that HER data has been included.

10.2 Archaeology and Cultural Heritage

i. Do you agree that the data sources identified are sufficient to inform the onshore Archaeology and Cultural Heritage baseline for the Awel y Môr OWF PEIR and ES?

Yes in general, but note that CPAT and not GAT are the primary curator for the onshore elements of the scheme.

It would be worth including the onshore cable and substation assessment elements of the Burbo Bank offshore windfarm as Oxford Archaeology North carried out extensive geophysical surveys and evaluation/mitigation along the cable route between Rhyl and St Asaph in 2013-15. Some of this cable route may include the locality of eastern cable route options appraisals for AyM and the data could help to inform the assessment. The reports can be obtained from the CPAT HER.

ii. Which specific designated historic assets should be assessed (if any) for the potential indirect visual impact from the offshore turbines? Note that ZTVs and wirelines will help in filtering down the potential assets that might be affected, and representative viewpoints for asset groups (such as coastal conservation areas and listed buildings) will need to be agreed.

Cadw and the Built Heritage Conservation Officers for Denbighshire and Conwy CBC will need to advise. This seems to relate to 10.2.6 (945) and should include registered parks and gardens also. The Grade I Gwrych Castle and its associated Grade II* registered park and garden would certainly need to be included due to the designed sea views. Those DHAs listed in 10.2.6 (947) also seem reasonable.

iii. Do you agree that all the protected areas within the Study Area have been identified?

Yes

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iv. Have all potential impacts resulting from Awel y Môr OWF been identified for archaeology and cultural heritage receptors?

Yes

v. Do you agree that the impacts described in Table 80 can be scoped out?

Yes

vi. For those impacts scoped in (Table 79), do you agree that the methods described are sufficient to inform a robust impact assessment?

An intertidal assessment of the potential for impacts to palaeo-environmental deposits on the beach will be required. We have already informed you of appropriate specialists and they should be contacted to provide a scope for the assessment based on an initial appraisal. Typically the assessment will include a walkover survey and potentially some geophysics, borehole or test pit transects down the beach. This will only be possible when the preferred cable route is known along with the location of any works compounds and access tracks.

The geophysical survey will normally cover the whole of the cable route corridor length and width when the preferred route is known. It should also include works compounds and access roads for construction and the new substation footprint. Clearly there will be some areas that it is not possible to test with geophysics due to access issues and these will need to be identified for further mitigation when access is available.

There may be additional palaeo-environmental potential inland eg. former dunes, palaeo-channels, buried peat deposits in wetland or former marsh areas, river channels crossed by the cable route. The potential for these should be described and mapped as part of the preferred cable corridor and substation assessments. Normally a palaeo-environmental specialist associated with the archaeological contractor completing the main corridor and substation assessments would be engaged to do this.

Loss of landscape features such as stone field boundaries and well established hedgerows should be included in the walkover assessment of the preferred cable route, substation

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footprint, works compound locations and access routes with these features mapped and described.

vii. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on Archaeology and Cultural Heritage receptors?

These seem reasonable but will need to be refined and potentially added to as the results of various stages of assessment are fed into the project design. They should not be seen as a fixed set of mitigation options at this stage.

viii. Do you have any specific requirements for the Archaeology and Cultural Heritage methodology?

See vi. above

10.8 Onshore LVIA

i. Do you agree that the data sources identified are sufficient to inform the onshore LVIA baseline for the Awel y Môr OWF PEIR and ES?

Yes

ii. Do you agree that all the relevant designated sites and areas have been identified?

Yes, but consult Cadw also

iii. Have the key potential impacts resulting from the onshore components of Awel y Môr OWF been identified for landscape and visual receptors?

Yes

iv. Do you agree that the impacts described in Table 98 can be scoped out?

Yes, this seems reasonable

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v. For those impacts scoped in (Table 97), do you agree that the method outlined in Section 10.8.5 are sufficient to inform a robust impact assessment?

Yes

vi. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of the onshore components of Awel y Môr OWF on landscape and visual receptors?

Yes but the mitigation may need to be adapted as assessment results are fed into the iterative design process.

I hope these comments prove useful in the next steps.

Yours sincerely

Mark Walters
Development Control Archaeologist



Ministry
of Defence

Defence Infrastructure Organisation

Safeguarding Department

The Planning Inspectorate
Major Casework Directorate
Temple Quay House
2 The Square
Bristol
BS1 6PN

Defence Infrastructure Organisation
Kingston Road
Sutton Coldfield
West Midlands
B75 7RL

[REDACTED]
[REDACTED]

www.mod.uk/DIO

11 July 2020

Your Reference: EN010112-00023/20

Our reference: 10047225

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11 Application by Awel y Môr

Offshore Wind Farm Limited (the Applicant) for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for consulting the Ministry of Defence (MOD) on the above Scoping Opinion request in respect of the Awel y Mor Offshore Wind Farm proposal received by this office on 12th June 2020. I write to confirm the safeguarding position of the MOD on the information that should be provided in the Environmental Statement to support any application.

The applicant has prepared a Scoping Report. This recognises the principal defence issues that will be of relevance to the progression of the proposed development.

The use of airspace for defence purposes in the vicinity of the proposed development have been appropriately identified and considered. The Scoping Report considers aviation and radar systems that may be affected by the proposed wind farm. The MOD is correctly identified as a relevant receptor in section 9.3 Military & Civil Aviation of the Scoping Report.

The report identifies that the turbines have the potential to affect and be detectable to, the Primary Surveillance Radars (PSR) at RAF Valley and BAE Warton. The impact on these radars will need to be taken into account in the progression of any application for this scheme. It also identifies that the turbines will also be detectable to the NATS Great Dunfell PSR and the impact on this radar will be considered in the EIA. The MOD agrees with this. The impact on these radars will need to be mitigated and it will be for the applicant to provide appropriate technical mitigation(s).

Impact on military training has been scoped out. The proposed extension areas do not overlap with any military danger areas or Practice and Exercise Areas (PEXA). We therefore do not anticipate there to be any concerns relating to military maritime activities.

The potential presence of unexploded ordnance (UXO) has been identified as a relevant consideration. The potential presence of UXO and disposal sites is also a relevant consideration to the installation of cables and other intrusive works that may be undertaken in the maritime environment.

Impact on military low flying has been scoped in and the applicant states in the Scoping Report that they are committed to lighting and charting the turbines. In the interests of air safety, the MOD would request that the development be fitted with MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016.

In relation to the onshore element of the proposed development, a map of the corridor which will contain the onshore cable route is included in the Scoping Report (Array, Offshore and Onshore Export Cable Route Search Areas and Onshore Substation Search Area Drawing). The corridor proposed does not occupy any MOD statutory safeguarding zones however the Kinmel Park Training Camp at Bodelwyddan falls within the corridor. This should be taken into account when deciding on the final cable route. The MOD would need to be consulted should the applicant decide to route the cable across or go near this MOD land parcel.

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours faithfully



Laura Nokes
Senior Safeguarding Manager

From: [REDACTED]
To: AwelyMor
Subject: RE: EN010112 - Awel y Môr Offshore Wind Farm - EIA Scoping Notification and Consultation
Date: 02 July 2020 15:17:17
Attachments: [image003.png](#)
[image004.png](#)

Hello,

Thank you for the below e-mail, together with attached pdf letter.

The Dyserth Community Council make the following observations:

'Whilst the Community Council appreciate the need for sustainable energy resources, the visual impact on both the coastal and inland areas is a concern, together with the aftereffects following the 25 year lifespan of the equipment'.

Thank you.

Regards.

Phillip.

R. Phillip Parry
Clerk to Dyserth Community Council
01352 720547

Please note the new e-mail address for Dyserth Community Council: Clerk@dyserthcouncil.wales

Dyserth Community Council's policies under the General Data Protection Regulation - sets out how the Council uses your personal data. [Please click this link to view the Councils 'Privacy and Information Data Protection Policies'](#)

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEMM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

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Coronavirus advice image with text saying stay alert, control the virus and save lives



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DPC:76616c646f72



CEMHD Policy - Land Use Planning
NSIP Consultations
Building 1.2, Redgrave Court
Merton Road, Bootle
Merseyside, L20 7HS

Your ref: EN010122
Our ref: 4.2.1.6711

HSE email: NSIP.applications@hse.gov.uk

FAO Ms Helen Lancaster
The Planning Inspectorate
Temple Quay House
Bristol, BS1 6PN
(By email)

Dear Helen Lancaster

7th July 2020

**Proposed Awel Y Môr Offshore Wind Farm (the project)
Proposal by Awel Y Môr Offshore Wind Farm Ltd (the applicant)
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as amended) – Regulations 10 and 11**

Thank you for your letter of 12th June 2020 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's land use planning advice

Will the proposed development fall within any of HSE's consultation distances?

With reference to the drawing titled 'Onshore Export Cable Route Search Area and Onshore Substation Search Area (Dwg No. none issued, Rev 01)' on page 39 of 'Innogy' document ['Environmental Impact Assessment, Scoping Report, dated March 2020, Revision A'], there are two areas shown: Onshore Export Cable Route Search Area (green) and Substation Search Area (purple).

HSE's consultation response encompasses both areas, since the Substation Search Area is entirely subsumed by the Onshore Export Cable Route Search Area.

Within the encompassing larger Onshore Export Cable Route Search Area (green) there are several Major Accident Hazard Pipelines operated by Wales and West Utilities, which include:

- a. Bodelwyddan Branch (HN016) [Transco ref: 1896, HSE ref 7645]
- b. St.Asaph / Denbigh (HN015) [Transco ref: 1992, HSE ref 7740]
- c. Pen-y-Bryn Farm (HN015) [Transco ref: 1993, HSE ref 7741]
- d. Bodfari / Rhosgoch (VN082) [Transco ref: 1862, HSE ref 7610]
- e. Maelor / Y Waen (VN080) [Transco ref: 1860, HSE ref 7608]
- f. Rhuallt / Brookes Farm (HN001 Part 1) [Transco ref: 1885, HSE ref 7634]
- g. Rhuallt / Brookes Farm (HN001 Part 2) [Transco ref: 1886, HSE ref 7635]
- h. Brookes Farm / Llanelian Road (HN009 Part 1) [Transco ref: 1894, HSE ref 7643]
- i. Brookes Farm / Llanelian Road (HN009 Part 2a) [Transco ref: 1895, HSE ref 4130012]
- j. Dolwen Road / Pentir (VN050) [Transco ref: 2043, HSE ref 7786]
- k. Llandulas Branch (HN010 Part 1) [Transco ref: 1902, HSE ref 7651]
- l. Pabo Lane / Colwyn Bay (HN021) [Transco ref: 1904, HSE ref 7653]

Please note the Major Accident Hazard Pipelines listed above should not be assumed to be an exhaustive listing. For the avoidance of doubt the pipeline operator, Wales and West Utilities, should be contacted directly.

In addition, there are currently two Major Hazard Installations that fall with the footprint of the proposed project:

- m. H3668 – Pilkington Special Glass Ltd, Glascoed Road, St Asaph, North Wales, LL17 0LL.
- n. H4220 – North Wales Calor Centre, Royal Welch Avenue, Bodelwyddan, Denbighshire, LL18 5TQ.

At this stage of the project, it is not possible to provide an indication of HSE's overall Land Use Planning advice. There is currently insufficient information to determine whether the proposed development will or will not introduce populations (permanent or temporary) into any of HSE's public safety consultation zones which are assigned to individual Major Accident Hazard Pipelines or Major Hazard Installations.

Please note if at any time a new Major Accident Hazard Pipeline is introduced or an existing Pipeline modified prior to the determination of a future application, then HSE reserves the right to revise its advice. If, prior to the determination of a future application, a Hazardous Substances Consent is granted for a new Major Hazard Installation or a Hazardous Substances Consent is varied for an existing Major Hazard Installation in the vicinity of the proposed project, then HSE also reserves the right to revise its advice.

Hazardous Substance Consent

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended.

The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015 as amended.

HSC would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the Controlled Quantities set out in Schedule 1 of these Regulations. Further information on HSC should be sought from the relevant Hazardous Substances Authority.

Consideration of risk assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 An Annex on the Planning Inspectorate's website - [Annex G – The Health and Safety Executive](#). This document includes consideration of risk assessments on page 3. Please see the lockdown comments below.

Explosives sites

HSE has no comment to make in this regard, as there are no licensed explosive sites showing in the area of the proposed development.

Electrical Safety

No comment, from a planning perspective.

During lockdown, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at nsip.applications@hse.gov.uk. We are currently unable to accept hard copies, as our offices are closed.

Yours sincerely,

[REDACTED]
CEMHD4 Policy



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CHRISTIAN BRANCH B.Sc., P.G. Dip
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ISLE OF ANGLESEY COUNTY COUNCIL
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E-bost / Email: pmo@ynysmon.gov.uk

Dyddiad / Date: 08.07.2020

Trwy e-bost:
NIEquiries@planninginspectorate.gov.uk

Annwyl Ms. Lancaster,

Ymateb Cyngor Sir Ynys Môn (Gorffennaf 2020) i Adroddiad Cwmpasu ar Asesiad o Effaith Amgylcheddol Fferm Wynt Ar y Môr Awel y Môr (Mawrth 2020) Innogy Renewables UK Ltd

Mae Cyngor Sir Ynys Môn (y Cyngor) yn croesawu'r cyfle i ymateb i gais Innogy Renewables UK Ltd am sylwadau ar yr Adroddiad Cwmpasu ar Asesiad o'r Effaith Amgylcheddol a baratowyd ar gyfer Fferm Wynt Ar y Môr Awel y Môr (Fferm Wynt Awel y Môr), estyniad arfaethedig (uchafswm o 107 o gynhyrchwyr tyrbinau gwynt gydag uchder blaen y llafnau yn ddim mwy na 332m uwchlwm penllanw cymedrig y gorllanw) i'r gorllewin o'r Fferm Wynt weithredol, Gwynt y Môr. Mae'r Cyngor yn cydnabod bod yr Adroddiad Cwmpasu'n cyflwyno adolygiad cychwynnol o'r materion posibl sy'n gysylltiedig ag adeiladu, gweithredu, cynnal a chadw, a chyfnodau digomisiynu Fferm Wynt Awel y Môr.

Noda'r Cyngor fod yr Arolygiaeth Gynllunio ac Adnoddau Naturiol Cymru wedi gofyn am Farn Cwmpasu ar Asesiad o'r Effaith Amgylcheddol ar gyfer Fferm Wynt Awel y Môr. Mae'r Cyngor hefyd yn nodi'r cadarnhad bod yr Adroddiad Cwmpasu ar yr Asesiad wedi'i baratoi yn unol â Rheoliad 10 Rheoliadau Cynllunio Seilwaith (Asesiad o'r Effaith Amgylcheddol) 2017 a Rheoliad 6 Rheoliadau Gwaith Morol (Asesiad o'r Effaith Amgylcheddol) 2007.

Mae'r Cyngor yn cydnabod bod Fferm Wynt Awel y Môr yn Brosiect Seilwaith o Bwysigrwydd Cenedlaethol ac y caiff Asesiad o'r Effaith Amgylcheddol ei ddarparu fel rhan o gais Gorchymyn Caniatâd Datblygu dan Ddeddf Cynllunio 2008 a hefyd fel rhan o Gais am Drwydded Forol dan Ddeddf y Môr a Mynediad i'r Arfordir 2009.

Nodir yn y cadarnhad bod astudiaeth dichonoldeb ar Fferm Wynt Awel y Môr ar y gweill adeg ysgrifennu'r Adroddiad Cwmpasu ac, felly, mae rhai manylion prosiect nad ydynt wedi'u cadarnhau eto. Caiff ymateb y Cyngor i'r Farn Cwmpasu ei wneud heb ragfarnu unrhyw sylwadau y gallai'r Cyngor ddymuno eu gwneud wedi hynny, gan gynnwys ar ôl derbyn gwybodaeth bellach neu fanylach.

O ran y prosiect, mae'r Cyngor yn cadarnhau bod ei sylwadau'n berthnasol gan mwyaf i faterion yn ymwneud â'r Asesiad o'r Effaith ar y Morwedd, ar y Dirwedd ac o'r Effaith Weledol, ac ag Archeoleg a Threftadaeth Ddiwylliannol.

Mewn perthynas ag archeoleg, Gwasanaeth Cynllunio Archeolegol Gwynedd yw'r curadur rhanbarthol sydd â swyddogaethau rheoleiddio ac ymgynghorol ac ef yw cynghorydd y Cyngor mewn perthynas â materion sy'n ymwneud ag archeoleg. Mae'r Cyngor yn ymwybodol bod y Gwasanaeth Cynllunio hwn wedi cyflwyno sylwadau i chi'n uniongyrchol (llythyr dyddiedig 01 Mehefin 2020) ac, felly, ni fydd y Cyngor yn ailadrodd y sylwadau hynny yn yr ymateb hwn.

O ran asedau hanesyddol dynodedig a chofrestredig, mae'r Cyngor yn cadarnhau y dylid ymgynghori ac ymgysylltu'n uniongyrchol â CADW.

Mae'r Cyngor hefyd yn cadarnhau ei fod yn ildio i arbenigedd Adnoddau Naturiol Cymru mewn perthynas â materion sy'n ymwneud ag Asesu Rheoliadau Cynefinoedd.

Noda'r Cyngor bod y Fferm Wynt weithredol, Gwynt y Môr, yn cynnwys 160 o gynhyrchwyr tyrbinau gwynt ac yn cyflenwi trydan i oddeutu 400,000 o aelwydydd yn flynyddol. Nodir bod disgwyl i'r prosiect ymestyn arfaethedig fod yn gyfraniad sylweddol pellach i dargedau ynni Llywodraeth Cymru (sef bod 70% o drydan yn cael ei gynhyrchu o ffynonellau adnewyddadwy erbyn 2030 a bod yn "sero-net" erbyn 2050).

Noda'r Cyngor y bu ymgysylltu ac ymgynghori cynnar â rhanddeiliaid allweddol trwy gynnal cyfarfodydd grwpiau pwnc arbenigol er mwyn llywio gwaith dylunio manwl y prosiect ac mae'n croesawu'r cadarnhad y bydd hyn yn parhau trwy'r prosesau ymgeisio am Orchymyn Caniatâd Datblygu a Thrwydded Forol. Nodir hefyd y cynhelir ymgynghoriad cyhoeddus fydd yn helpu i lywio gwaith datblygu'r prosiect, yn ogystal â'r Asesiad o'r Effaith Amgylcheddol.

1. Asesiad o'r Effaith ar y Morwedd, y Dirwedd ac o'r Effaith Weledol Adran 9.4

Mae'r Cyngor wedi cael cyfle i adolygu adran 9.4 o'r Adroddiad Cwmpasu, sy'n amlinellu'r Asesiad o'r Effaith ar y Morwedd, y Dirwedd ac o'r Effaith Weledol.

Noder, wrth adolygu Adran 9.4 yr Adroddiad Cwmpasu, nid yw swyddogion y Cyngor wedi gallu ymweld ag unrhyw un o'r golygfannau arfaethedig mewn cysylltiad â'r datblygiad arfaethedig oherwydd cyfyngiadau teithio cyfredol Covid-19.

i. A ydych yn cytuno gyda'r radiws arfaethedig o 50km ar gyfer Ardal Astudio?

Mae'r Cyngor yn cadarnhau ei fod yn cytuno â'r Ardal Astudio arfaethedig o 50km gan fod yr ardal yn cynnwys Ynys Môn bron i gyd, gan gynnwys golygfannau uchel posib i'r gogledd.

i A ydych chi'n cytuno â'r rhestr o olygfannau rhagarweiniol neu a oes gennych unrhyw ychwanegiadau neu ddewisiadau amgen arfaethedig?

Mewn egwyddor, cred y Cyngor bod yr Asesiad wedi dosbarthu'r golygfannau dda ar draws yr Ynys ac mae'n cydnabod bod un ar ddeg o olygfannau rhagarweiniol ar Ynys Môn. Fodd bynnag, Mae'r Cyngor yn cynnig newidiadau amgen i rai o'r golygfannau presennol ac mae'n dymuno cynnig rhai ychwanegol i'w hystyried, fel y manylir isod.

Mae'r delweddau a gyflwynir yn cyfeirio at osodiadau amgen ac amrywiol feintiau a niferoedd tyrbinau. Mae'r Adroddiad Cwmpasu ym mharagraff 1223 (elfennau ar y tir) yn cyfeirio at ganllawiau arfer gorau ar gyfer delweddu ac y bydd pob golyfan yn cynnwys fframiau gwifren a ffotogefysodiadau gydag ystyriaethau tymhorol lle bo hynny'n briodol. Mae'r Cyngor yn cytuno â'r dull hwn ac yn gofyn am i'r gwaith dadansoddi dilynianol o'r effaith ar olygfeydd y Morwedd o Lwybr Arfordir Cymru fod yn rhan o'r asesiad hefyd. Dymuna'r Cyngor nodi nad oes delweddau o'r golygfannau yn rhan o'r gwaith Cwmpasu ac eithrio'r llinellau gwifren ar gyfer dau olyfan (4 ac 8) (ac nad ydyw wedi gweld yr asesiad o'r golygfannau a ddaeth gyda chynnig Gwynt y Môr). Rydym wedi nodi cyfeiriadau'r Arolwg Ordnans ar ein System Gwybodaeth Ddaearyddol (GIS) ac wedi cymharu'r rhain â delweddau Google Streetview lle oedd ynt ar gael.

Mae'r Cyngor yn awyddus i dderbyn delweddau o'r fath cyn gynted ag y byddant ar gael er mwyn gwneud sylwadau gwybodus a gofynna am gael bod yn rhan o waith mireinio'r golygfannau rhagarweiniol hyn wrth i'r datblygiad fynd yn ei flaen.

Wrth eu chwyddo, nid yw ffigurau 56 a 57 yn Adran 9.4 yn rhoi darlun clir o'r hyn sydd i'w weld. Mae'r Cyngor yn dymuno parhau i fod yn rhan o waith mireinio'r golygfannau rhagarweiniol hyn pan godir cyfyngiadau teithio ac unwaith y bydd delweddau ar gael.

Er bod y golygfannau wedi'u dosbarthu'n dda, Mae'r Cyngor o'r farn y gallai rhai ohonynt gael eu newid i fod yn olygfeydd pwysig gwell na'r rhai sydd eisoes yno a'r rhai o'r llwybr cenedlaethol. Rydym hefyd wedi awgrymu tri golyfan ychwanegol.

Mae'r golygfannau ychwanegol fel yr awgrymwyd gan y Cyngor i'w hystyried ymhellach fel a ganlyn:

- i. O Lwybr Arfordir Cymru i'r dwyrain o Ros Mynach Fawr 248804 391231
- ii. O Fynydd Bodafon 247243 385419 yn y pwynt Triongli neu'n agos ato.
- iii. O Fynydd y Garn 231503 390689 tuag at arfordir gogledd-orllewin Môn

Yn ogystal, gweler isod awgrymiadau ar gyfer newid rhai o'r golygfannau presennol, yn sgil gwybodaeth leol, i fod yn olygfannau arwyddocaol pwysig gwell na'r rhai o'r llwybr cenedlaethol:

- *Golygfan 1: Mae'r Cyngor o'r farn y byddai'n well cael lleoliad i'r gogledd o Borth Llechog, hefyd ar Lwybr Arfordir Cymru, (yng nghyffiniau 242576 394538).*
- *Golygfan 2: Mae hwn yn dir mynediad agored gyda Hawl Tramwy Cyhoeddus i'r gogledd o'r goleudy. Mae'r Cyngor yn awgrymu newid bach i hyn i 247989 393535.*
- *Golygfan 3: Dylai lleoliadau'r golygfannau fod ar y pwynt Triongli neu'n agos ato. Nid yw cyfeirnod yr Arolwg Ordnans yn nodi mai dyma yw'r achos.*
- *Golygfan 4: Rydym o'r farn y byddai'n well cael golygfeydd o'r gogledd yng nghyffiniau 251517 386798*
- *Golygfan 5: Cytuno.*
- *Golygfan 6: Byddai'n briodol wneud y llun yn y pwynt Triongli neu'n agos ato.*
- *Golygfan 7: Ni ddylid medru gweld ceir wedi'u parcio wrth wneud llun o'r olygfan ond dylid ystyried lleoliad Goleudy'r Trwyn Du*
- *Golygfan 8: Dylid gwneud y delweddu o Lwybr Arfordir Cymru neu'n agos iddo, ychydig i'r dwyrain neu, fel arall, dylid ystyried Pier Biwmares. Cyfeiria paragraff 947 at Castell Biwmares fel rhan o'r Asesiad o'r Dreftadaeth Ddiwylliannol - nid yw'r Castell yn weladwy o'r pier ac, efallai, bod y pier yn anaddas am y rheswm hwnnw.*
- *Golygfan 14: Golygfeydd o Lwybr Arfordir Cymru yn Nhraeth yr Ora. Cytuno.*
- *Golygfan 16: Cytuno*
- *Golygfan 28: Cytuno*

A ydych chi'n cytuno bod y ffynonellau data a nodwyd yn ddigonol i lywio'r sylfaen ar gyfer Adroddiad Gwybodaeth Amgylcheddol Rhagarweiniol (PEIR) a Datganiad Amgylcheddol Fferm Wynt Awel y Môr?

Mae'r Cyngor yn cytuno fod y ffynonellau data a nodwyd ar gyfer Ynys Môn yn gywir. O ran Cynllun Rheoli AHNE (paragraff 730), bydd angen i hyn ystyried unrhyw wybodaeth sydd ar gael ar ddechrau Cynllun Rheoli AHNE Ynys Môn am y cyfnod 2020-2025.

- i **A ydych chi'n cytuno â'r methodolegau arfaethedig ar gyfer asesu, asesu cronus a chyflwyno delweddu o'r effeithiau hynny sy'n cael eu cynnwys yn yr Asesiad o'r Effaith ar y Morwedd, y Dirwedd ac o'r Effaith Weledol (Tabl 60)?**

Mae'r Cyngor yn cytuno â methodolegau arfaethedig ond cred y bydd angen i'r asesiad cronus (9.4.9) ystyried datblygiadau eraill sy'n gysylltiedig ag ynni – y rhai sy'n bodoli eisoes, y rhai sydd wedi'u caniatáu a'r rhai sy'n rhesymol ragweladwy, oddi ar y tir ac ar y tir, lle maent yn yr ardal astudio h.y. gogledd Ynys Môn. Cyfeiria'r delweddau a gyflwynir at osodiadau amgen ac amrywiol feintiau a niferoedd tyrbinau. Mae'r Adroddiad Cwmpasu ym mharagraff 1223 (elfennau ar y tir) yn cyfeirio at ganllawiau arfer gorau ar gyfer delweddu ac y bydd pob golygfان yn cynnwys fframiau gwifren a ffotogfosodiadau gydag ystyriaethau tymhorol lle bo hynny'n briodol. Rydym yn cytuno â'r dull hwn. Dylai gwaith dadansoddi dilynianol o'r effaith ar olygfeydd y Morwedd o Lwybr Arfordir Cymru fod yn rhan o'r asesiad.

ii. A ydych yn cytuno y gellir dileu'r effeithiau a ddisgrifir yn Nhabl 61?

Mae'r Cyngor o'r farn y dylid cynnwys yn yr asesiad effeithiau fydd yn debygol ar Gymeriad Tirwedd gogledd Ynys Môn (9.4.17) y tu allan i'r AHNE (9.4.19 / paragraff 772) a Chynhyrchwyr Tyrbinau Gwynt (dau neu fwy) gyda thyrbinau ag uchder brig sy'n fwy na 40m.

2. Archeoleg a Threftadaeth Ddiwylliannol

Yn dilyn adolygu'r Adroddiad Cwmpasu, ymhlið yr asedau treftadaeth dynodedig ar Ynys Môn, y gallai'r datblygiad arfaethedig gael effaith arnynt o bosibl, mae Castell Biwmares a Goleudy'r Trwyn Du, Penmon (adeilad rhesteddig Gradd II, Cyf Cadw 21615).

Mae'r Cyngor yn gofyn am i Olygfان 7 ystyried lleoliad Goleudy'r Trwyn Du a'r adeiladau rhesteddig gradd II eraill sydd gerllaw; Bwthyn y Peilot (gynt) Rhif 1 a Bwthyn y Peilot (gynt) Rhif 2 yn ogystal â'r waliau o amgylch bythynnod y peilotiaid ar gyfer Goleudy'r Trwyn Du.

Hefyd, mae'r isod ar Ynys Seiriol ac mae angen eu hystyried gyda'r asesiad

1. Gweddillion anheddiad mynachaidd gan gynnwys tŵr a waliau - Heneb Restredig yw hon yn ogystal ag adeilad rhesteddig gradd I. Mae'r Cyngor yn ildio i CADW ynghylch effaith y datblygiad ar y wefan hon.
2. Adeilad rhesteddig Gradd II yr Orsaf Delegraff (gynt)

Heneb Gofrestredig yw Castell Biwmares yn ogystal â Safle Treftadaeth y Byd dynodedig. Mae'r Cyngor yn ildio i CADW fel yr arweinydd ar roi arweiniad ar ddatblygiadau a allai gael effaith ar leoliad y Castell. Tybia'r Cyngor bod y datblygwr eisoes yn ymgysylltu ac yn ymgynghori â CADW ar y mater a bydd yn cadw sylwadau pellach yn ôl nes bydd yn derbyn sylw CADW ar leoliad y Castell.

Mae'r Cyngor yn cydnabod bod Gwasanaeth Cynllunio Archeolegol Gwynedd wedi ymateb i'r Farn Gwmpasu i chi'n uniongyrchol (gohebiaeth, dyddiedig 1 Mehefin

2020). Dylai'r sylwadau hynny gael eu darllen ar y cyd â'r ymateb hwn oddi wrth y Cyngor.

3. Yr Adran Economaidd-Gymdeithasol (Adran 10.9)

Mae sylwadau'r Cyngor yn canolbwytio ar yr ardal astudio ehangach (byffer 50km estyniad yr aerae) y mae'r Ynys yn rhan ohoni.

Mae'r Cyngor yn cytuno â'r effeithiau posibl a nodwyd a'r asesiad arfaethedig. Nodir, mewn perthynas ag effeithiau posibl ar dderbynyddion twristiaeth, bod angen i'r asesiad ystyried canfyddiadau'r Asesiad o'r Effaith ar y Tirlun ac o'r Effaith Weledol o ran yr effaith ar dderbynyddion twristiaeth allweddol.

O safbwyt Economaidd-gymdeithasol, byddai'r Cyngor yn chwilio am y Datganiad Amgylcheddol i nodi'r cyfleoedd Economaidd-gymdeithasol fydd ar gael ar gyfer yr ardal astudio ehangach ac ar gyfer nodi mesurau fydd yn gwneud y mwyaf o gyfleoedd, gan gynnwys y cyfleoedd hynny sy'n gysylltiedig â chyflogaeth, sgiliau a'r gadwyn gyflenwi.

Byddai CSYM hefyd yn awyddus i ddeall sut y byddai'r datblygiad arfaethedig yn cyfrannu at adfer economaidd y rhanbarth yn dilyn effeithiau pandemig Covid-19.

4. Effeithiau Cronnus

Mae'r Cyngor yn cytuno â'r fethodoleg arfaethedig am asesiad cronus ond yn credu bod angen i'r asesiad cronus (9.4.9) ystyried datblygiadau eraill sy'n bodoli eisoes ac sy'n gysylltiedig ag ynni, y rhai sydd wedi'u caniatáu a'r rhai sy'n rhesymol ragweladwy, oddi ar y tir ac ar y tir lle maent yn yr ardal astudio ac yn rhanbarth ehangach gogledd Ynys Môn. Mae nifer o ddatblygiadau mawr eraill yn cael eu cynnig yn ardal Gogledd Cymru y mae angen eu hystyried yn yr asesiad o'r effeithiau cronus. Mae'r rhain yn cynnwys y prosiectau a ganlyn ond nad ydynt wedi'u cyfyngu iddynt; Wylfa Newydd, Morlais, Minesto, Ehangu Porthladd Caergybi.

Dylai'r ymgeisydd geisio cadarnhad gan y Cyngor (ac awdurdodau perthnasol eraill) ynghylch pa ddatblygiadau / prosiectau / datblygiadau arfaethedig y dylid eu cynnwys yn yr Asesiad o Effeithiau Cronnus y prosiect. Byddai'r Cyngor yn disgwyl i'r Asesiad hwn gael ei gynnal yn unol â'r canllawiau mwyaf diweddar.

Mae angen mwy o fanylion am yr effeithiau cronus gyda phrosiectau arfaethedig eraill yn yr ardal. Mae hyn yn hanfodol er mwyn i'r Cyngor ddeall effeithiau posibl y prosiect, yn ystod ei holl gamau, ar y farchnad lafur leol (gan gynnwys, o bosib, pobl yn symud), y Gadwyn Gyflenwi, Twristiaeth ac o safbwyt Amgylcheddol / Tirwedd.

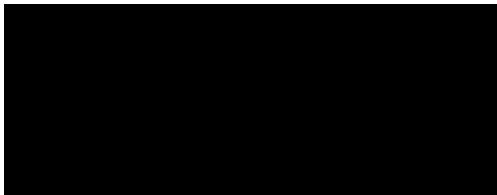
5. Sylwadau Cloi

Mae'r Cyngor wedi ymrwymo i weithio ar y cyd â'r datblygwr a rhanddeiliaid eraill i fireinio'r gwaith datblygu arfaethedig ymhellach er mwyn sicrhau bod Ynys Môn a Gogledd Cymru yn elwa'n llawn o'r cyfleoedd sy'n gysylltiedig ag Awel y Môr a sicrhau y caiff effeithiau sylweddol eu hosgoi.

Mae'r Cyngor yn ddiolchgar am y cyfleoedd sy'n gysylltiedig ag Awel y Môr a sicrhau y caiff effeithiau sylweddol eu hosgoi.

Pe byddech yn dymuno trafod mwy ar ein sylwadau, mae croeso i chi gysylltu â ni.

Yn gywir,



Pennaeth Gwasanaeth Dros Dro – Rheoleiddio a Datblygu Economaidd



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ISLE OF ANGLESEY COUNTY COUNCIL
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Dyddiad / Date: 08.07.2020

By email:

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Dear Ms. Lancaster,

Isle of Anglesey County Council's response (July 2020) to Innogy Renewables UK Ltd Awel y Môr Offshore Wind Farm Environmental Impact Assessment Scoping Report (March 2020)

The Isle of Anglesey County Council (IACC) welcomes the opportunity to respond to the request by Innogy Renewables UK Ltd for comment on the Environmental Impact Assessment Scoping Report prepared for the Awel y Mor Offshore Wind Farm (OWF), a proposed extension (a maximum of 107 wind turbine generators (WTG) with maximum blade tip height above MHWS of 332m) situated to the west of the operational Gwynt y Môr OWF. The IACC acknowledges that the Scoping Report presents an initial review of the potential issues associated with the construction, operation and maintenance, and decommissioning phases of the Awel y Môr OWF.

The IACC notes that the Planning Inspectorate (PINS) and Natural Resources Wales (NRW) requested an EIA Scoping Opinion for the Awel y Mor OWF. The IACC also notes the confirmation that the EIA Scoping Report has been prepared in accordance with Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and Regulation 6 of the Marine Works (Environmental Impact Assessment) Regulations 2007.

The IACC acknowledges that the Awel y Môr OWF is a Nationally Significant Infrastructure Project (NSIP) and that an EIA will be provided as part of a Development Consent Order (DCO) application under the Planning Act 2008 and also as part of a Marine Licence (ML) application under the Marine and Coastal Access Act 2009.

The confirmation is noted that a feasibility for Awel y Môr OWF is underway at the time of writing the Scoping Report and therefore some project details are yet to be confirmed. The IACC's response to the Scoping Opinion is made without prejudice to any comments the Council may subsequently wish to make, including upon receipt of further or more detailed information.

In terms of the project, the IACC confirms that its comments are mainly in relation to matters concerning the Seascape, Landscape and Visual Impact Assessment (SLVIA) and Archaeology and Cultural Heritage.

In relation to archaeology, Gwynedd Archaeological Planning Service (GAPS) is the regional curator with regulatory and advisory functions and is the Council's advisor with regards to matters concerning archaeology. The Council is aware that GAPS has provided comments directly to you (letter dated 01st June 2020) and therefore the IACC will not be repeating those comments in this response.

With regards to designated and registered historic assets, the Council confirms that consultation and engagement should take place directly with CADW.

The Council also confirms that it is deferring to the expertise of NRW in relation to matters concerning Habitats Regulation Assessment (HRA).

The IACC notes that the operational Gwynt y Môr OWF consists of 160 wind turbine generators (WTGs) and supplies electricity to approximately 400,000 households annually. It is noted that the proposed extension project is expected to provide a further significant contribution to Welsh Government's energy targets (which are for 70% of electricity to be generated from renewables by 2030 and to be "net-zero" by 2050).

The IACC notes that early engagement and consultation with key stakeholders has taken place in the form of expert topic group meetings in order to inform the detailed project design and welcomes the confirmation that this will continue through the Development Consent Order and Marine Licence application processes. It is also noted that public consultation will also be undertaken which will help inform the development of the project, as well as the EIA.

1. Seascape, Landscape and Visual Assessment (SVLIA) Section 9.4

The IACC has had the opportunity to review section 9.4 of the Scoping Report, which outlines the Seascape, Landscape and Visual Impact Assessment.

Please note that in reviewing Section 9.4 of the Scoping Report, IACC officers have not been able to undertake site-visits to any of the proposed viewpoints in connection with the proposed development due to the current Covid-19 travel restrictions.

i. Do you agree with the proposed 50km radius Study Area?

The IACC confirms that it is in agreement with the proposed Study Area of 50km as the area captures virtually all of the Isle of Anglesey including elevated potential viewpoints to the north.

i. Do you agree with the preliminary viewpoint list or have any proposed additions or alternatives?

In principle, the IACC believes that the Assessment identifies a good distribution of viewpoints across the Island and acknowledge there are eleven preliminary viewpoints on Anglesey. However, the IACC proposes alternative amendments to some of the existing viewpoints and wishes to propose additional viewpoints for consideration as detailed below.

The presentation of visualisations refers to alternative layouts, various turbine sizes and numbers. The Scoping Report in para 1223 (onshore elements) refers to best practice guidance for visualisations and that each viewpoint will include wireframes and photomontages with seasonal considerations where appropriate. The IACC are in agreement with this approach and requests that the sequential analysis of the effect on views of the seascape from the Wales Coast Path should form part of the assessment as well. The IACC wishes to state that no visual representation for the viewpoints are part of the Scoping other than the wirelines for two viewpoints (4 and 8) (or seen the viewpoint assessment that accompanied the Gwynt y Môr proposal). We have entered the OS references onto our GIS and compared these with Google Streetview images where available.

The IACC is eager to receive such visual representations as soon as they are available in order to make informed comments and requests to be involved in the refinement of these preliminary viewpoints as the development progresses.

Figures 56 and 57 within Section 9.4 do not on magnification give a clear picture of localised theoretical visibility. The IACC wishes to remain involved in the refinement of these preliminary viewpoints when travel restrictions are lifted, and indicative images are available.

While there is a good distribution of viewpoints, the IACC considers that some of the viewpoints could be amended locally to better represent important local views and those from the national trail. We have also suggested three additional viewpoints.

The additional viewpoints as suggested by the IACC for further consideration are:

- i. From the Wales Coast Path east of Rhôs Mynach Fawr 248804 391231*
- ii. From Mynydd Bodafon 247243 385419 at or near the Trig point.*
- iii. From Mynydd y Garn 231503 390689 towards Anglesey's north west coast*

Additionally, please find below suggestions for amendments to some of the existing viewpoints due to local knowledge that would better represent important significant views and those from the national trail:

- *VP 1: The IACC considers that a location north of Bull Bay also on the Wales Coast Path would be preferable (in the vicinity of 242576 394538).*

- VP 2 : This is open access land with a PRoW to the north of the lighthouse. The IACC suggests a slight amendment to this to 247989 393535.
- VP 3: The viewpoint locations should be at or near the Trig point. The OS reference does not indicate that this is the case.
- VP 4: We consider that views from the north in the vicinity of 251517 386798 would be preferable
- VP 5: Agree.
- VP 6: It would be appropriate to take the photo at or close to the Trig point.
- VP 7: Appropriate micro-siting of the viewpoint photo should exclude views of parked cars but consider the setting of Trwyn Du Lighthouse
- VP 8: The images should be micro-sited to the Wales Coast Path slightly to the east or alternatively consider Beaumaris Pier. Paragraph 947 refers to Beaumaris Castle as part of the Cultural Heritage Assessment – the Castle is not visible from the pier, and the pier may be unsuitable for that reason.
- VP 14: Represents views from the Wales Coast Path at Traeth y Ora. Agree.
- VP 16: Agree
- VP 28: Agree

Do you agree that the data sources identified are sufficient to inform the baseline for the Awel y Môr OWF PEIR and ES?

The IACC agrees that the data sources identified for Anglesey are correct. With regard to the AONB Management Plan (paragraph 730), this will need to take account of any information available on the commencement of the Isle of Anglesey AONB Management Plan for the period 2020-2025.

i. Do you agree with the proposed methodologies for the assessment, cumulative assessment and presentation of visualisations for those impacts that are scoped in to the SLVIA (Table 60)?

The IACC agree with proposed methodologies but consider that the cumulative assessment (9.4.9) will need to consider other energy related developments - existing, consented and reasonably foreseeable both off and onshore where they are within the study area i.e. north Anglesey. The presentation of visualisations refers to alternative layouts, various turbine sizes and numbers. The Scoping Report in para 1223 (onshore elements) refers to best practice guidance for visualisations and that each viewpoint will include wireframes and photomontages with seasonal considerations where appropriate. We agree with this approach. Sequential analysis of the effect on views of the seascape from the Wales Coast Path should form part of the assessment.

ii. Do you agree that the impacts described in Table 61 can be scoped out?

The IACC consider that the assessment should include likely impacts on the Landscape Character of northern Anglesey (9.4.17) outside of the AONB (9.4.19/paragraph 772) and WTG (two or more) with turbines of tip heights greater than 40m.

2. Archaeology and Cultural Heritage

Following review of the Scoping Report, designated heritage assets on Anglesey that may possibly be impacted by the proposed development include Beaumaris Castle and Trwyn Du Lighthouse, Penmon (Grade II listed building, Cadw Ref. 21615).

The IACC requests that Viewpoint 7 considers the setting of the Trwyn Du Lighthouse and the other nearby grade II listed buildings Pilot's Cottage (former) No 1 and Pilot's Cottage (former) No 2 as well as the enclosure walls at former pilots' cottages for Trwyn Du, or Black Point, Lighthouse.

Additionally, the following are located on Puffin Island and require consideration with the assessment

1. Remains of monastic settlement including tower and walls – this is a Scheduled Ancient Monument as well as a grade I LB. The IACC defers to CADW as to the affect of the development on this site.
2. Telegraph Station (former) Grade II listed building

Beaumaris Castle is a Scheduled Ancient Monument as well as a designated World Heritage Site. The IACC is deferring to CADW as the lead on providing guidance on developments that may affect the Castle's setting. The IACC assumes that the developer is already engaging and consulting with CADW on the matter and will reserve further comment until receipt of CADW's comment on the Castle's setting.

The IACC acknowledge that GAPS have responded to the Scoping Opinion directly to you (correspondence dated 1st June 2020). Those comments should be read in conjunction to this response by the IACC.

3. Socio Economics Section 10.9

The IACC comments' focuses on the wider study area (array extension area 50km buffer) which the Island forms part of.

The IACC agrees with the potential impacts identified and proposed assessment. It is noted that in relation to potential impacts on tourism receptors this includes the need for the assessment to take into account the findings from the LVIA with regard to impact on key tourism receptors.

From a Socio-Economic perspective, the IACC would be looking for the ES to identify the Socio-Economic opportunities that will be available for the wider study area and for the identification of measures that will maximise opportunities including those opportunities related to employment, skills and supply chain.

The IACC would also seek to understand how the proposed development would contribute towards the economic recovery of the region following the impacts of Covid-19 pandemic.

4. Cumulative Impacts

The IACC are in agreement with the proposed methodology for cumulative assessment but consider that the cumulative assessment (9.4.9) needs to consider other existing, consented and reasonably foreseeable energy related developments, both off and onshore where they are within the study area and the wider North Wales region. There are a number of other major developments proposed in the North Wales area that need consideration in the cumulative impacts assessment and include but are not limited to the following projects Wylfa Newydd, Morlais, Minesto, Holyhead Port Expansion.

The applicant should seek confirmation from the IACC (and other relevant authorities) as to which developments / projects / proposed developments should be included in the projects Cumulative Impact Assessment. The IACC would expect the CIA to be undertaken in accordance with the most up-to-date guidance.

Further detail is required on the cumulative impacts with other proposed projects in the area. This is critical for the IACC to understand the potential impacts of the project during all of its stages on the local labour market (including potential displacement), Supply Chain, Tourism and from an Environmental / Landscape perspective.

5. Concluding Comments

The IACC is committed to working collaboratively with the developer and other stakeholders to further refine the proposed development to ensure that Anglesey and North Wales fully benefit from the opportunities associated with Awel y Môr and to ensure that significant effects are avoided.

The IACC is grateful of the opportunity to provide comments on the Scoping Report and trusts that the comments will be taken into consideration in progressing ES and refining the proposals.

Should you wish to discuss our comments any further please do not hesitate to contact us.

Yours sincerely,



Interim Head of Service - Regulation and Economic Development



Isle of Man
Government

Reillys Ellen Vannin

Office of the Minister
and Chief Executive

Via email: AwelyMor@planninginspectorate.gov.uk

Contact: Hannah Griffiths
Telephone: (01624) 686756
Email: hannah.griffiths@gov.im
Date: 15th July 2020

Dear Ms Lancaster,

Re: Awel y Môr Offshore Wind Farm EN010122-00023; EN010122-00020

Thank you for your letter dated 12th June 2020, received 10th July 2020 regarding the proposed extension to the Gwynt y Môr Offshore Wind Farm, and providing the Isle of Man Government (as a non prescribed consultation body) with the opportunity to review and comment on the related documents. This letter is a response from the Territorial Seas Committee (TSC) which is made up of representatives of a number of Departments and Statutory Boards of the Isle of Man Government.

The TSC found it a useful and interesting document and await the associated outcomes. The TSC is of the opinion that the Isle of Man should be identified as one of the main stakeholders given the proximity to the Manx territorial limits. Thank you for affording us with the opportunity to consider, and provide comments on the above.

The EIA Scoping Report and the HRA Screening Report provides a good overview of what will be undertaken as part of the early stages of this project. The TSC is satisfied from the information in these documents that all international environmental standards and best practice will be adhered to when undertaking the collection and analysis of the data obtained from within the proposed development area, and will ensure appropriate mitigation measures are in place to address any concerns identified throughout the Environmental Assessments process.

Whilst the Isle of Man is not a member of the EU and is therefore not directly covered by most European directives, the Isle of Man still follows relevant European environmental safeguards and similarly expects best practice to be followed.

It is noted that the cumulative effects will be thoroughly investigated. However, of particular importance and concern would be the habitats and species found within Isle of Man waters, particularly those protected under Manx law¹ or identified as threatened or declining by the OSPAR Convention, and which may be affected by the proposed developments. Comments included below request the inclusion of relevant, island-based conservation organisations which may also have relevant information and data of interest to the project. Any marine developments within or adjacent to the Isle of Man territorial waters could potentially impact commercial fisheries in Manx waters so it would be appreciated if the relevant fishing organisations on the island were included as consultees via the appointed Fisheries Liaison Officer.

The above proposal also has the possibility for potential trans-boundary impacts on Manx land/seascapes and the TSC would particularly like to ensure that the impacts on wildlife/habitat conservation and fisheries in Manx waters are fully considered within the scope of this assessment developments. We would request that the impact on infrastructure and transport activities, including but not limited to, Manx navigation and aviation interests, including airport radar issues are also fully considered.

¹ Wildlife Act 1990 (http://www.legislation.gov.im/cms/images/LEGISLATION/PRINCIPAL/1990/1990-0002/WildlifeAct1990_2.pdf)

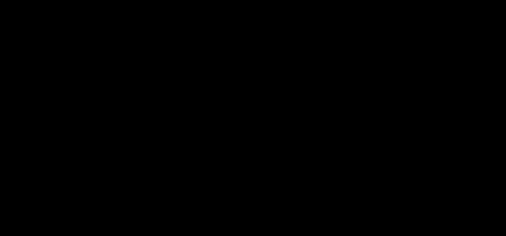
Marine Navigation

As an island nation, any significant risk of interference with marine navigation is of concern to the TSC as a good safety record is essential with regard to transport to and from the island and as the shipping lanes in our territorial waters are used to connect the UK, Ireland and the Isle of Man.

In addition to this broad statement, the TSC has provided specific comments, over subsequent pages, in relation to the individual chapters of the Scoping Report, and collated on behalf of various contributors within the responsible Departments of the Isle of Man Government.

The TSC would welcome the opportunity for continued involvement in the process.

Should you require any further information or clarification on any of the contents of this response, then please do not hesitate to contact myself, and I can raise any items with the members of the TSC.



N J Black
Chair, Territorial Seas Committee

Chapter Specific Comments on *Awel Y Mor* Scoping Report

As a neighbouring jurisdiction, it may be useful to draw attention to the Manx Marine Environmental Assessment¹, which is a reference report, specifically developed for marine planning and development processes. This report comprises a series of individual chapters, including a comprehensive summary of the Manx legislative system; <https://www.gov.im/media/1363391/ch-12-legislative-system.pdf> and would assist with some of the transboundary issues to be considered. This reference has been omitted from the list given at the back of the Scoping Report.

The areas of particular interest and relevance to the Isle of Man are expanded upon below.

Chapter 7.1 Physical Processes

7.1.7 ii Have all potential impacts resulting from Awel y Môr OWF been identified for the physical processes receptor?

- To what extent has hydrological modelling been conducted to better understand the potential impacts and effects of construction and operation of the wind farm array in relation to changes to current flow, wave action, sediment and larval transport? Such changes have the potential to alter marine invasive, non-native species (MINNS) dispersion patterns, and also important commercial shellfish recruitment areas.
- Since Trans-boundary effects have been nominally scoped out 337 (pg161) the committee seeks reassurance that changes in larval dispersion patterns have been adequately considered in the assessment (see also Commercial Fisheries section (9.1)).

Chapter 7.2 Water and Sediment Quality

- The responsible Departments of the Isle of Man Government note the inclusion of water quality deterioration, release and potential transport of contaminants from disturbed sediments, and highlights the relevance of these issues in relation to nearby **sessile commercial fishery species grounds** (notably scallop and queen scallop)(ie. seafood quality and regional spawning importance), and to higher trophic-levels such as marine mammals.

Chapter 8 Offshore Environment- Biological Environment

- The following comments relate broadly to Chapter 8, but are also relevant to Chapters 8.1-8.4 inclusive.

¹ <https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/territorial-seas/manx-marine-environmental-assessment/>

Biodiversity

The responsible Departments of the Isle of Man Government support the assessment aims in relation to biodiversity, recognising the trans-boundary distribution of conservation features and the ecological interconnections between sea areas.

Screening Report 3.5:48 Links (theoretical connectivity) to European sites for mobile species that use or traverse the Project's direct sphere of influence (direct-effect footprint) are typically defined by species' foraging ranges, distribution or migratory corridors. For marine mammals, species management units (MU) define the spatial extent over which effects are considered.

Existing marine protected areas, and the presence of threatened and/or declining species and habitats, as listed by OSPAR, are relevant in marine planning and development processes. The Isle of Man, as a signatory (extended via the UK) to the following international conservation conventions and treaties is committed to protecting biodiversity within its jurisdiction;

- UN Convention on Biological Diversity (CBD);
- OSPAR Convention;
- Convention on Migratory Species (Bonn Convention), including ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas);
- Bern Convention; and,
- RAMSAR Convention.

Further details of the island's biodiversity strategy can be found here²; <https://www.gov.im/media/1346374/biodiversity-strategy-2015-final-version.pdf>

Additional marine biodiversity information for the territorial sea may be found in the Manx Marine Environmental Assessment³

Marine Protected Areas

The TSC acknowledges the developer's legal requirements under EU Directives, and the status of European Marine Sites, but also highlights the Isle of Man as a separate jurisdiction where EU directives are not applicable, while also recognising the trans-boundary distribution of conservation features and the interconnections between sea areas. The Isle of Man seeks to protect habitats and species via its own legislation⁴ including, but not limited to the Wildlife Act 1990, Fisheries Act 2012 etc. which should be acknowledged and considered within the report.

The Isle of Man has an internationally-recognised network of Marine Protected Areas (MPAs)(OSPAR⁵, JNCC⁶ and WDPA⁷ (UN and IUCN). Although these are all situated within the 0-3 M zone of the territorial sea, hydrological connectivities mean that these may be relevant in relation to trans-boundary issues.

² <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/ecosystem-policy-and-energy/wildlife-biodiversity-and-protected-sites/biodiversity-strategy-and-delivery-plan/>

³ <https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/territorial-seas/manx-marine-environmental-assessment/>

⁴ <https://www.gov.im/media/1363391/ch-12-legislative-system.pdf>

⁵ http://mpa.ospar.org/home_ospar/mpa_datasheets?recherche=1

⁶ <https://jncc.gov.uk/mpa-mapper>

⁷ <https://www.iucn.org/theme/protected-areas/our-work/quality-and-effectiveness/world-database-protected-areas-wdpa>

These MPAs also form the core marine areas of **Biosphere Isle of Man**, a UNESCO-designated programme which encompasses the entire island and territorial sea of the Isle of Man⁸. This is considered to be an important international achievement for the island, and its principles and objectives are incorporated within a wide range of Government and community policies and initiatives. It is therefore important that trans-boundary developments and activities do not adversely impact upon the island's biosphere status and objectives. Further information on this programme can be obtained from members of the TSC.

The project Screening Report conducted in relation to European Sites, the Committee notes that;

3.2: 42 Definition of European Sites (It is also Government's policy ^{vii} to regard draft and possible SACs, potential SPAs and listed or proposed Ramsar wetland sites within the definition. The wider definition is applied in this Screening.

It appears appropriate that formally-designated sites in Manx territorial waters should also be considered within this definition.

As such, strict application of European Site definition/criteria may not adequately consider trans-boundary effects in relation to a non-EU jurisdiction, and the Committee request assurance that sufficient consideration will be given to the potential trans-boundary effects in relation to protected species and sites under a non-EU jurisdiction, specifically the Isle of Man.

Invasive Non-Native Species (INNS)

The relevant Departments of the Isle of Man Government notes reference to INNS at section 8.1.4, 8.1.8 pgs. 208, 210) and acknowledges the assessment aims in relation to this issue, but further emphasises the particular importance of INNS to the island.

Several significant marine INNS are present in several UK ports and coastal infrastructure, including around north Wales, eg carpet seasquirt (*Didemnum vexillum*). The Isle of Man is anxious to prevent the introduction of such species, particularly those which may already be established within the proposed development area. As such, the TSC requests significant consideration of this issue in relation to adjacent and trans-boundary developments and activities, and timely engagement with the responsible Departments of the Isle of Man Government. The Isle of Man is an active participant in the GB Non-Native Species Secretariat and the British Irish Council.

Chapter 8.1 Benthic and Intertidal Ecology

Page 215 8.1.7: 429 Scoping questions in relation to benthic subtidal and intertidal ecology include:

ii. Have all potential impacts resulting from Awel y Môr OWF been identified for benthic subtidal and intertidal receptors?

- Have studies been conducted or considered on the potential effects, e.g. on spawning and recruitment processes, on commercially-important benthic invertebrates, such as scallops, in relation to electro-magnetic fields (EMF)? If not, how might such effects be determined to enable out-scoping?
- In relation to EMF and benthic elasmobranch species, including angel shark (*Squatina squatina*) (which is of particular relevance to coastal areas of Wales); to what extent

have benthic elasmobranchs been considered in relation to EMF and cable network introduction? Are they adequately covered elsewhere, e.g. in Chapter 8.2?

- **Trans-boundary effects in relation to this indicator have been scoped out of the assessment, and the committee seeks reassurance that sufficient consideration of the potential impacts on sessile, commercially important fishery species have been adequately considered.** Specifically, studies have indicated that, within the Irish Sea, south-north connectivity of scallop and queen scallop grounds may be important in relation to recruitment patterns further north. This may also be true of other species with plankton-dispersed larvae. The following should be considered to inform the EIA Scoping.
 - Neill, S.P. & Kaiser, M.J. (2008) Sources and sinks of scallops (*Pecten maximus*) in the waters of the Isle of Man as predicted from particle tracking models. Fisheries & Conservation report No. 3, Bangor University. Pp. 25 (<http://fisheries-conservation.bangor.ac.uk/iom/documents/3.pdf>); and,
 - Close H. (2014) Connectivity between Populations of the Scallop *Pecten maximus* in the Irish Sea and the Implications for Fisheries Management. MSc thesis, Bangor University, pp 82.

iv. Do you agree that, considering the embedded mitigation in place, the assessment of benthic subtidal and intertidal ecology impacts as detailed above (Table 36) can be scoped out of the Awel y Môr OWF EIA?

- Not necessarily. See points above in relation to potential EMF and other impacts/effects on commercially and ecologically-important species.

Chapter 8.2 Fish and Shellfish Ecology

The Isle of Man is an internationally relevant area for basking sharks and the Manx Basking Shark Watch provides an active research, tagging and public-sightings recording programme which has highlighted the importance of the Irish Sea for this species. This is now an area of international conservation concern, and they are listed by OSPAR as a threatened/declining species. Sharks may be impacted by physical barriers created by offshore development and by electromagnetic fields from cables and other energy infrastructure. Other important migratory fish of conservation and economic concern include salmon, sea trout and European eel, all of which are present in Manx waters.

Manx-relevant shellfish are further noted below and in Section 9.1 (Commercial Fisheries)

8.2.2: 431 For the purposes of this fish and shellfish ecology scoping assessment, the Awel y Môr Study Area is defined as the area encompassing the array area, the offshore ECR corridor search area and the ICES rectangles 35E5, 35E6, 36E5 and 36E6.

- The committee notes that ICES rectangle 36E5 is partially within Manx territorial waters.
- Table 38 does not contain relevant Manx marine nature conservation designations (Marine Nature Reserves) or the seasonal (21 September to 15 November) Douglas Bank herring (spawning) closure (as originally defined by Council Regulation (EC) No

850/98, amended by EC 2723/1999, and current within *Sea-Fisheries (Technical measures) Bye-Laws 2000*). <https://www.gov.im/media/1363405/ch-41-fisheries.pdf>

445 (pg. 222) *Therefore, in a broader context, the Study Area only interacts with a very small portion of the high intensity nursery grounds for these species.*

- This statement should be considered in relation to the relative ecological importance of specific areas, particularly their regional relevance (see earlier comments about connectivity), and not in relation to their size. As such, the areas of spawning and nursery importance should be determined before being scoped in or out (see **connectivity** comments in Benthic and Intertidal Ecology section).

4.7.3 *Trans boundary: In conclusion, it is proposed that impacts on fish and shellfish ecology and their nature conservation interests, in so far as they are scoped into the main EIA process, will also be included within the transboundary assessment and are not screened out at this time.*

- The Committee notes this inclusion.

477 *Scoping questions for consultees in relation to fish and shellfish ecology include:*

i. *Are you satisfied that the baseline data referenced above is valid for the purposes of the scoping assessment?*

- The annual **AFBI herring acoustic survey** appears not to have been included, nor have the annual **AFBI scallop survey** or annual **Bangor University (on behalf of Isle of Man Government) scallop survey** (noting the latter is referred to in Chapter 9.1. However, in consideration of spawning/nursery grounds, these surveys should be taken into account from both ecological and commercial fisheries perspectives.
- Based on the sources indicated, it may not be possible to approach a comprehensive baseline for fish/shellfish/fisheries. The general data collection referred to is not specific enough for spatial accuracy, and many vessels do not operate VMS or equivalent systems, e.g. under 12m scallopers or pot-fishery vessels. Without an appropriate baseline, including fine-scale spatial effort data, it would not be possible to properly assess fishery displacement effects. To approach a comprehensive baseline there would be a requirement to engage with local Producer Organisations, Local Fishery Groups etc., via a specialist FLO, at the earliest opportunity.

iv. *Do you agree that the impacts described in Table 40 can be scoped out?*

8.2.12 *Direct damage (e.g. crushing) and disturbance to mobile demersal and pelagic fish and shellfish species arising from construction activities*

- The justification assumes species motility, which is not the case for scallops and queen scallops, for example. As such, appropriate spatial assessment of non-motile species within the project area, and their relative importance should be made before scoping out.

8.2.14 *EMF effects arising from cables during operational phase*

vi. *Do you agree that the cumulative effects on Fish and Shellfish receptors (other than those related to subsea noise effects during construction) should be scoped out of the EIA for the Awel y Môr OWF based on the assumptions detailed in this Scoping Report?*

- Not necessarily, EMF has been scoped out based on the absence of evidence for effects, which is not the same as evidence of absence. There are several noted species of regional and international conservation importance, including basking shark and other benthic elasmobranchs. The effects, long-term or otherwise, on benthic invertebrates have had received limited investigation, and therefore it is suggested that empirical studies are conducted that advance the understanding of such developments on the marine environment, and that will contribute to similar processes in future.

Chapter 8.3 Marine Mammals

Migratory mammal species using Manx waters that may be affected by marine developments and activities, include Risso's dolphins, bottlenose dolphins, harbour porpoise, the short-beaked common dolphin and Minke whales. Grey and harbour seals are regularly present in Manx waters and there is a large pupping colony on the Calf of Man as well as other smaller coastal sites around the island. The Manx Whale and Dolphin Watch conduct research and collate a public-sightings programme on Manx cetaceans and the Manx Wildlife Trust also collates data on marine mammals and marine strandings. The responsible Departments of the Isle of Man Government are committed to the protection of these species in Manx waters, via domestic legislation and various international treaties to which the island is a signatory.

For further information on Isle of Man marine mammals see relevant chapters of the Manx Marine Environmental Assessment 3.4a⁹ and 3.4b¹⁰.

3.5 48 Links (theoretical connectivity) to European sites for mobile species that use or traverse the Project's direct sphere of influence (direct-effect footprint) are typically defined by species' foraging ranges, distribution or migratory corridors. For marine mammals, species management units (MU) define the spatial extent over which effects are considered.

Management Units for cetaceans in UK waters (January 2015) JNCC

- Harbour Porpoise: 3. Celtic and Irish Seas (CIS) (comprising ICES area VI and VII, except VIIId);
- Common dolphin Celtic and greater north sea;
- Bottlenose dolphin 6. Irish Sea (IS) (ICES Division VIIa);
- Risso's dolphin All UK waters (which by omission should also include the Manx Territorial sea; and,
- Minke Whale: single European waters management unit.

The Committee notes that the **Management Units for these cetaceans include Isle of Man territorial waters** and, as such, consider it appropriate that this area is included within the assessment for these species. The Committee further notes the intention:

528 It is proposed that impacts upon marine mammals and their nature conservation interests, in so far as they are scoped into the main EIA process will also be subject to transboundary assessment and are not screened out at this time. Likely significant effects upon European Sites with marine mammals as qualifying features, will be assessed within the HRA.

524 There is the potential for transboundary impacts upon marine mammals due to the mobile nature of marine mammal species and the proximity of Awel y Môr OWF to the borders of surrounding EEA States, such as Ireland, which are within the ranges of certain species.

⁹ <https://www.gov.im/media/1363399/ch-34a-cetaceans.pdf>

¹⁰ <https://www.gov.im/media/1363400/ch-34b-seals.pdf>

- The committee requests that the **Isle of Man is also afforded this consideration** due to the Management Unit definition noted above.

527 HRA screening will be conducted to identify all possible transboundary effects relating to marine mammals. The transboundary SACs likely to be included for consideration include:

- The Committee notes that this list, also reflected in table 41, **omits Manx Marine Nature Reserves (MNRs)**, several of which specifically include cetaceans in their designation features, including presumed feeding grounds for Cardigan Bay Bottlenose Dolphins, regionally-important populations of Risso's dolphins and wide-ranging populations of grey seals.
- The Manx MNRs are available on OSPAR, JNCC, Protected Planet (United Nations Environment World Conservation Monitoring Centre) mapping tools.
- The Committee therefore requests that trans-boundary marine protected areas include these reserves as relevant considerations (**see attachment 'Guidance Notes for Marine Nature Reserves' and relevant shape files**).

837 (pg 280)

- i. *Do you agree that the data sources identified are sufficient to inform the marine mammal baseline chapter for the Awel y Môr OWF PEIR and ES?*
 - The TSC recommends contacting the Manx Wildlife Trust (MWT)¹¹(seals) and Manx Whale and Dolphin Watch (MWDW¹²)(cetaceans) for further input on this question, and access to local data sources.
- ii. *Do you agree that all the protected areas within the zone of influence have been identified?*
 - No, see comments on Manx MNRs and attachments.
- iii. *For those impacts scoped in (Table 2), do you agree that the methods described are sufficient to inform a robust impact assessment?*
 - Not currently, due to omissions outlined.

vii. Do you have any specific requirements for the underwater noise modelling and assessment methodology?

- That noise modelling extends to Isle of Man territorial waters.

Chapter 8.4 Ornithology

Manx Bird Populations

The Isle of Man hosts seabird populations exceeding 1% of the British populations, for cormorant, shag, herring gull, great black-backed gull, little tern and guillemot. Of particular

¹¹ MWT Phone: 01624 844432 Email: enquiries@manxwt.org.uk

¹² MWDW Office: 01624 610 131, Email: info@mwdw.net

note is the seabird recovery project on the Calf of Man and the recovering Manx shearwater colony. Other important resident birds include; red-throated, black-throated, and great northern divers, and an increasing population of breeding Peregrine falcons on the island. Trans-boundary impacts on such species should also be considered as part of any proposed development.

Noting Table 44.

- The IUCN red listing status is not necessarily indicative of local situations, in particular seabirds around the Isle of Man (See <http://manxbirdlife.im/seabirdcensus2017-18/>), e.g. all tern species & Manx shearwater are **Manx Wildlife Act** Schedule 1 bird species and therefore are of local conservation concern, even if not red listed by the IUCN.

In relation to transboundary impacts:

567 There is a potential for collisions and displacement of IOFs at wind farms outside UK territorial waters, and for international seabird populations being affected by Awel y Môr OWF. This includes, in particular, Irish OWF projects located within the Irish Sea, such as Arklow Bank, Dublin Array and Codling Bank, and Irish seabird populations. Potential impacts relating to OWFs and seabird populations from other countries are considered less likely due to larger distances involved.

- Due to shared regional bird populations and close proximity, **the Committee request the inclusion of the Isle of Man**, despite being outside UK territorial waters.

568 A quantitative/qualitative assessment will be undertaken depending on the level of data availability. As the spatial scale of assessment would be increased, the inclusion of non-UK seabird populations for a transboundary assessment would also increase the reference population sizes.

- As noted above, the Committee requests that the Isle of Man, with significant regional, non-UK seabird populations should be included in the assessment. See <http://manxbirdlife.im/seabirdcensus2017-18/>

8.4.7

- i. *Do you agree that the data sources identified are sufficient to inform the offshore ornithological baseline for the Awel y Môr OWF PEIR and ES?*
 - No. The Committee recommends inclusion of bird data from Manx Birdlife (<http://manxbirdlife.im/seabirdcensus2017-18/>), and inclusion of non-marine, migratory or nomadic species, in particular birds of prey, which are recognised as being vulnerable to OWF collision.
- ii. *Have all potential impacts resulting from Awel y Môr OWF been identified for offshore IOFs?*
 - No, due to omissions noted.
- iii. *For those impacts scoped in (Table 46), do you agree that the analysis and assessment methods described are appropriate and sufficient to inform a robust impact assessment?*

- No, due to omissions noted.
- iv. *Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on offshore ornithology IOFs?*
- No, due to omissions noted.
- v. *Do you have any specific requirements for the CRM methodology?*
- The Committee recommends consultation with Manx Birdlife¹³ for more comprehensive consideration of this issue.

Chapter 9.1 Commercial Fisheries

The Isle of Man has regionally and economically-important fishery stocks within its territorial sea and works closely and effectively with the UK and devolved Governments in relation to shared access and sustainable fisheries management, including with the MMO, and this cooperative approach is expected to continue.

Further details on the island's fisheries and its fisheries development strategy can be found here;

- in the Manx Marine Environmental Assessment¹⁴
(<https://www.gov.im/media/1363405/ch-41-fisheries.pdf>)
- <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/fisheries-division/future-fisheries-strategy/>

The responsible Departments of the Isle of Man Government adopt a science-informed, ecosystem-based strategy, and is supportive of similar approaches. Various marine development activities surrounding the Isle of Man have the potential to affect economically-important fisheries within Manx waters, and this is particularly relevant in relation to trans-boundary stocks, or to reproductive connectivities between stocks in different jurisdictional areas. Examples of relevant species in this regard include; herring, scallop and queen scallop, whelk and *Nephrops* (langoustine).

Various fisheries stock assessments are carried out in Manx and in UK waters, by both Manx-based and UK research organisations (e.g. Bangor University, AFBI), frequently using the same annual comparative stations¹⁵. It is recommended that impact assessments and associated fisheries liaisons officers (FLOs) contact these organisations for further details. The TSC is supportive of collaborative research and cooperation in relation to fisheries science and management.

Temporal and spatial fisheries closed areas are also present in Manx waters, and their positions may vary depending on annual stock assessment surveys. The latest versions may be found on the DEFA fisheries website¹⁶ (under commercial fishing licence conditions), but may change from year to year.

¹³ www.manxbirdlife.im, phone: 01624 861130

¹⁴ <https://www.gov.im/media/1363405/ch-41-fisheries.pdf>

¹⁵ http://fisheries-conservation.bangor.ac.uk/iom/documents/IOM_QSC_SAResort_2019_final.pdf

¹⁶ <https://www.gov.im/media/1367938/iomfl-schedule-h10-020120.pdf>

*574 The Awel y Môr OWF array area and offshore ECR search area are entirely located within ICES rectangle 35E6, which represents the study area for this scoping exercise. The study area is shown in Figure 43; note that Awel y Môr OWF occupies only a portion of the ICES rectangle. In order to understand fishing activity in waters adjacent to the Awel y Môr OWF, baseline data has also been gathered and analysed for surrounding ICES rectangles 36E6, **36E5** and 35E5, which are also shown in Figure 43.*

- The committee notes that ICES rectangle 36E5 is partially within Manx territorial waters, and so the assessment is expected to include appropriate consideration of Manx fisheries interests.

576 It should be noted that the quantitative datasets identified in Table 48 may not capture all fishing activity in the commercial fisheries study area. For instance, the VMS datasets only covers vessels $\geq 12\text{ m}$ (ICES data) or $\geq 15\text{ m}$ (MMO data) in length.

- As such, Table 48 is incomplete and does not provide sufficient data for an accurate baseline of all fisheries sectors, e.g. $<12\text{m}$ potters, including estimates of commercial value.
- As indicated in earlier comments under Chapter 8.2 it seems unlikely that a comprehensive picture of all relevant fisheries sectors can be obtained in this way. Data collection is not specific enough for fine-scale spatial accuracy, and many vessels do not operate VMS or equivalent systems, e.g. under 12m scallopers or pot-fishery vessels. Without an appropriate baseline, including fine-scale spatial effort data for all sectors, it would not be possible to properly assess relative importance of areas, fishery displacement effects, compensation etc. As such there would be a requirement to engage with local Producer Organisations, Local Fishery Groups etc., via a specialist FLO, at the earliest opportunity.
- The report should clearly and consistently differentiate between scallops and queen scallops, as their biology, fisheries and management may be significant different, and regionally more or less important.

Assessment will be informed by the outcomes of the Fish and Shellfish Ecology impact assessment and it will be assumed that commercial fisheries will be affected as a result of any loss of resources. The conclusions presented in the Fish and Shellfish Ecology impact assessment regarding impact significance will be taken into account in determining the magnitude of impact on commercial fisheries.

- The committee notes this statement, and supports a comprehensive Fish and Shellfish Impact Assessment.

Appropriate liaison with relevant fishing interests to ensure that they are fully informed of development planning and any offshore activities and works;

- The Committee recommends inclusion of the Manx Fish Producers' Association (MFPO) as a relevant stakeholder.

Transboundary

605: Due to the localised nature of any potential impacts and the absence of foreign fishing fleet activity, transboundary impacts are unlikely to occur and therefore it is suggested that their consideration be scoped out from further consideration within the EIA.

- The Committee notes this statement, but disagrees with its out-scoping from the EIA, on the basis of the details presented above. The Isle of Man has shared fishing areas, and the area of scope falls within the Manx territorial sea. Further, reproductive connectivity between stocks is indicated between north Wales and Manx waters, and so trans-boundary impacts are considered relevant.

9.1.6 608:

i. *Do you agree that the data sources identified are sufficient to inform the commercial fisheries baseline for the Awel y Môr OWF PEIR and ES?*

- No, research reports, survey data and stock assessments from Bangor University and relevant documents produced by the responsible Departments of the Isle of Man Government should be included in the baseline. In addition AFBI NI should be contacted in relation to scallops, queen scallops and herring survey data.
- Further, as noted, reliance on MMO data is insufficient for a complete baseline as it does not include comprehensive data on <12m vessels, lacks detail on particular sector landings and effort data, or appropriately-fine spatial scale activity and effort data.

ii. *Have all potential impacts on commercial fisheries resulting from Awel y Môr OWF been identified within this Scoping Report?*

- No. It is not apparent that herring spawning areas to the north have been sufficiently considered (consult with AFBI in relation to this issue), nor have potential spawning/recruitment/connectivity effects on locally-important scallop and queen scallop grounds been considered. The studies outlined below should be considered as part of this EIA Scoping report process.

- Neill, S.P. & Kaiser, M.J. (2008) Sources and sinks of scallops (*Pecten maximus*) in the waters of the Isle of Man as predicted from particle tracking models. Fisheries & Conservation report No. 3, Bangor University. Pp. 25 (<http://fisheries-conservation.bangor.ac.uk/iom/documents/3.pdf>)
- Close H. (2014) Connectivity between Populations of the Scallop *Pecten maximus* in the Irish Sea and the Implications for Fisheries Management. MSc thesis, Bangor University, pp 82.

iii. *Do you agree that the impacts described in Table 50 can be scoped out?*

- Not necessarily. If the baseline is not comprehensive for all fishing sectors, then additional steaming and interference issues cannot be accurately assessed or discounted until appropriate to do so.

iv. *For those impacts scoped in (Table 49), do you agree that the methods described are sufficient to inform a robust impact assessment?*

- No, see above. Displacement and access issues cannot be accurately determined unless a comprehensive baseline of current activity is available, which is not apparent.
- v. *Do you agree that all relevant stakeholders with which consultation should be undertaken have been identified?*
- No. As noted, the Manx Fish Producers' Organisation (MFPO), AFBI (Northern Ireland)(for herring and scallop/queen scallop surveys), and Bangor University (scallop and queen scallop surveys and relevant research) should all be consulted and involved in this process.

Chapter 9.2 Shipping¹⁷ and Navigation

Noting point 630 (pg 336) *The following commercial passenger ferry routes were recorded within the data studied: Liverpool / Douglas (Isle of Man Steam Packet operated);*

Any significant risk of interference with navigation is of concern to the TSC as the island is heavily reliant on a high quality marine transport system for goods, services and passengers.

The proposed extension is in close proximity to the bad weather route used by the Isle of Man Steam Packet which operates a fast craft on this route from Douglas to Liverpool and at the height of the season, it operates a twice daily return service. This may not have been picked up as part of your data collection in July unless bad weather forced the use of this route, and again in December, the fast craft does not operate.

It is acknowledged that it is difficult to accurately plot such routes and given the requirements to alter course given bad weather conditions, it would be appreciated if such requirements could be considered as to the placement of the turbines to allow sufficient distance between to safely permit ships in bad weather conditions.

The TSC seeks confirmation that the Isle of Man Steam Packet Company has been engaged and identified as a commercial ferry operator as per para 645? They should be able to provide further details of the bad weather routes as required.

Chapter 9.3 Aviation

It is understood that the Civil Aviation Authority (CAA), Civil Aviation Publication (CAP) 764 Policy and Guidelines on Wind Turbines (CAA, 2016), has been used and its criteria applied to identify Primary Radar Surveillance within the area. The Scoping Report also states that it is not definitive.

It is acknowledged that the Primary Radar Surveillance at Ronaldsway, the Island's main airport has not been included in Figure 52 and sits outside the 30km radius used to scope out Radars. However, given the importance of the airport to an Island community, it would be appreciated if the Primary Radar Surveillance at Ronaldsway could be taken into account as part of this development to ensure there will be no detrimental impact to the radar from the proposed development and operation of the turbines.

Manx Marine Accreditations

¹⁷ <https://www.gov.im/media/1363408/ch-62-shipping-navigation.pdf>

The Isle of Man is signatory, via the UK, to the UN Convention on Biological Diversity, OSPAR Convention, the Convention on Migratory Species, ASCOBANS and several other international conservation conventions.

"The Manx Marine Environmental Assessment" provides a comprehensive source of information on the Manx marine environment with reference to baseline data that may be useful to consider in relation to future work.

<https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/territorial-seas/manx-marine-environmental-assessment/>

It may also be of particular interest to note that the whole of the Isle of Man and its territorial waters has been designated as a biosphere reserve; UNESCO Biosphere Isle of Man [REDACTED], within which the network of Marine Nature Reserves constitute the marine core areas. The TSC therefore requests your support in seeking to ensure the future environmental sustainability of this unique area.

Other Miscellaneous points;

- Table 6 does not include the Manx Windfarm lease, but it does appear in scoping report Table 55 pg. 350.

DESIGNATION OF MARINE NATURE RESERVES GUIDANCE NOTES

The following notes outline the rationale for the Order designating the Manx Marine Nature Reserves (SD 2018/0185) and the basis for the protection measures to be implemented by the accompanying Byelaws (SD 2018/0186).

Marine nature reserves (MNRs) may be designated under the Wildlife Act 1990 (section 32(1)), for the purposes of conserving marine flora, fauna, geological or physical features of special interest, or providing opportunities to study or research such features.

Ramsey Bay Marine Nature Reserve was the Isle of Man's first MNR, designated in 2011.

Marine Conservation

These new designations (2018) (Appendix 1) are the culmination of the Manx Marine Nature Reserve Project which began in 2008 with the objective of identifying the most important habitats and species in Manx waters and their protection via inclusion within MNRs.

This process is consistent with the obligations under several international nature conservation agreements to which the Isle of Man is signatory (see Appendix 2). These agreements are legally binding on contracting parties and therefore progress towards the agreements' objectives is a responsibility of signatories.

Examples of MNR-related objectives within these agreements include the following:

- UN Convention on Biological Diversity, or CBD, (Aichi Protocol Target 11): parties must aim for at least 10% of coastal and marine areas to be conserved via protected areas¹.
- This 10% target is therefore included in the Manx Biodiversity Strategy ('*Managing our Natural Wealth*')², which is the instrument for delivering CBD objectives, and more specifically in the DEFA Fisheries Service Delivery Plan (Programme for Government) by increasing the proportion of the territorial sea as marine nature reserves to 6% by 2020.
- Under the Bern Convention, ASCOBANS³ and OSPAR⁴, threatened and endangered species and habitats should be protected from damage or loss. Examples of these in Manx waters are included in Appendix 2.
- OSPAR also aims to reduce the release of hazardous substances into the marine environment, including priority action chemicals⁵, and other contaminants and nutrients.

¹ 'By 2020, at least 10 % of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.'

² <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/biodiversity-strategy-and-delivery-plan/>

³ Agreement on the Conservation of Small Cetaceans of the Baltic, North-East Atlantic, Irish and North Seas

⁴ Convention for the Protection of the Marine Environment of the North-East Atlantic

⁵ <https://www.ospar.org/work-areas/hasec/chemicals/priority-action>

A more complete list of the conservation features (habitats and species) which form the basis of each individual MNR designation is provided in Appendix 3. Please note that this list of features is indicative and should not be considered comprehensive or definitive, since future surveys and research may expand the range of these features, and new features may be discovered.

Sustainable Marine Fisheries Management

Several of the MNRs have been previously designated as closed or restricted areas for fisheries management purposes, although they also contained important conservation features.

Experience with Ramsey Bay Marine Nature Reserve since 2011 has shown that an MNR can accommodate both conservation and sustainable fisheries objectives, and can also provide opportunities for novel and innovative fisheries management.

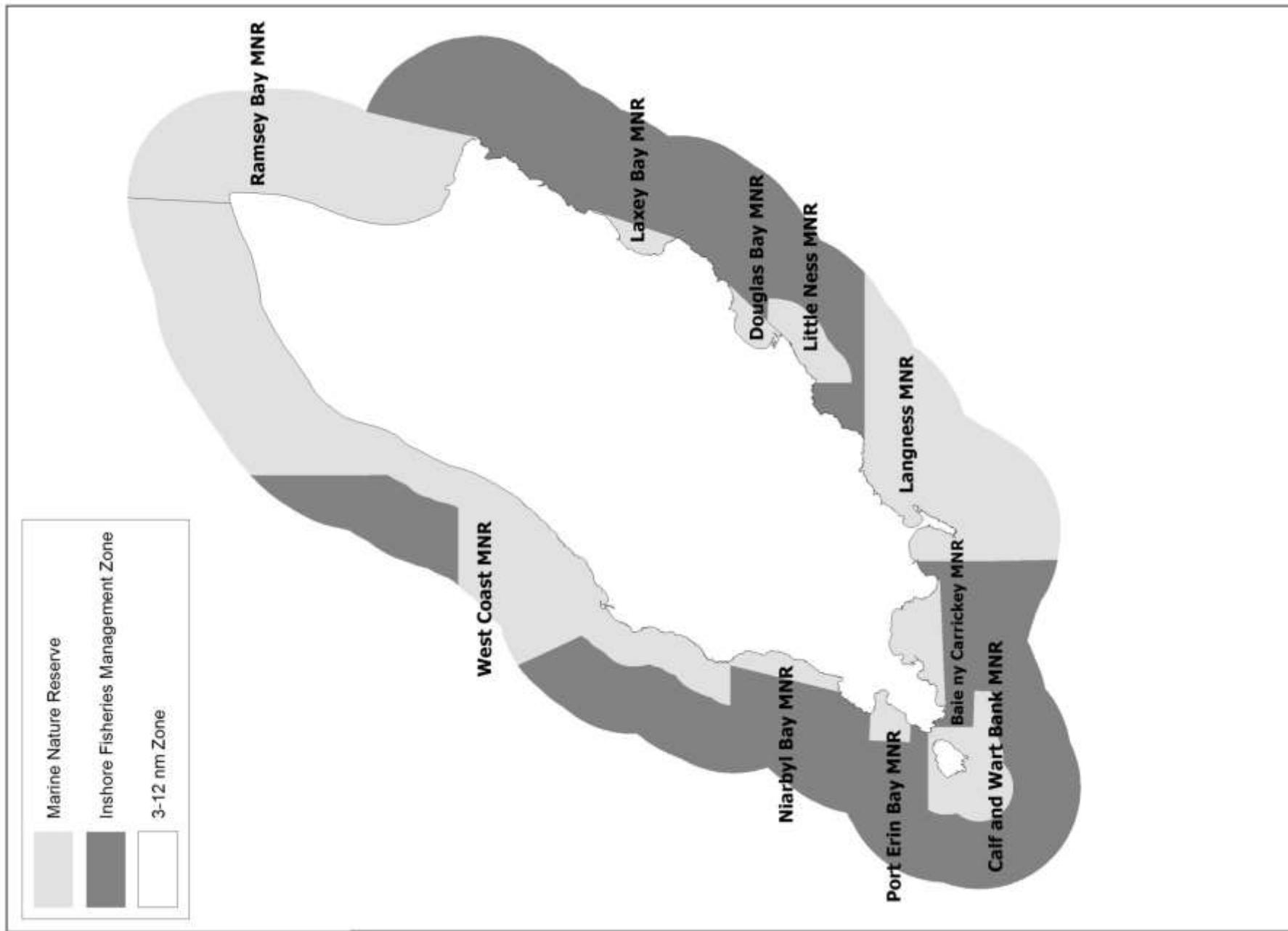
It is expected that the new MNRs will provide similar opportunities, as and where appropriate.

This balanced approach to conservation and sustainable exploitation is consistent with the Isle of Man Government's '*Future Fisheries*' strategy⁶ and the core, care and sustainable development zones of the Biosphere Isle of Man project⁷.

⁶ <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/fisheries-directorate/future-fisheries-strategy/>

⁷ <https://www.biosphere.im/cmsAdmin/uploads/Biosphere-Isle-of-Man-nomination-papers-Part-I-and-II.pdf>

Appendix 1 Manx Marine Nature Reserves



Appendix 2 International Marine Protection and Conservation Agreements Extended to the Isle of Man

The principal agreements relating to marine environment protection and conservation to which the Isle of Man is signatory are as follows:

- **Bonn Convention** (Convention on the Conservation of Migratory Species of Wild Animals, or CMS) is an international treaty under the UN Environment Programme (UNEP) acting as a framework convention for other agreements and instruments, e.g. ASCOBANS.
- **Bern Convention** (The Convention on the Conservation of European Wildlife and Natural Habitats). The Bern Convention is implemented via the EU Birds and Habitats Directives, and the obligations it imposes are the basis of the various UK nature conservation Acts of Parliament. Bern Convention examples relevant to Manx waters and coastal areas include:

Appendix II – Strictly Protected Fauna Species⁸

- *Delphinus delphis* (common dolphin)
- *Grampus griseus* (Risso's dolphin)
- *Tursiops truncatus* (bottlenose dolphin)
- *Phocoena phocoena* (harbour porpoise)
- *Puffinus puffinus* (Manx shearwater)
- *Falco peregrinus* (peregrine falcon)
- *Pyrrhocorax pyrrhocorax* (red-billed chough)

Appendix III – Protected Fauna Species⁹

- *Phoca vitulina* (common seal)
- All cetaceans (whales and dolphins) not included in Appendix II
- All birds not included in Appendix II (with some exceptions)

- **OSPAR** (Convention for the Protection of the Marine Environment of the North-East Atlantic). The OSPAR Convention now regulates European standards (the mechanism for implementing the EU Marine Strategy Framework Directive (MSFD)¹⁰ and achieving Good Environmental Status¹¹ by 2020). Its scope includes marine biodiversity, eutrophication, the release of hazardous and radioactive substances into the seas, the offshore oil and gas industry and baseline monitoring of environmental conditions. Priority habitats and species¹² for conservation action in our region, including incorporation into marine protected areas, are: intertidal blue mussel (*Mytilus edulis*) beds, intertidal mudflats, maerl beds, horse mussel (*Modiolus modiolus*) beds, eelgrass (*Zostera*) beds, Iceland clam (*Arctica*

⁸ <https://rm.coe.int/1680304355>

⁹ <https://rm.coe.int/1680304356>

¹⁰ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF>

¹¹ http://ec.europa.eu/environment/marine/good-environmental-status/index_en.htm

¹² <https://www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats>

islandica), lesser black-backed gull (*Larus fuscus*), European eel (*Anguilla anguilla*), basking shark (*Cetorhinus maximus*), salmon (*Salmo salar*), cod (*Gadus morhua*), harbour porpoise (*Phocoena phocoena*), various rays (*Raja* spp.).

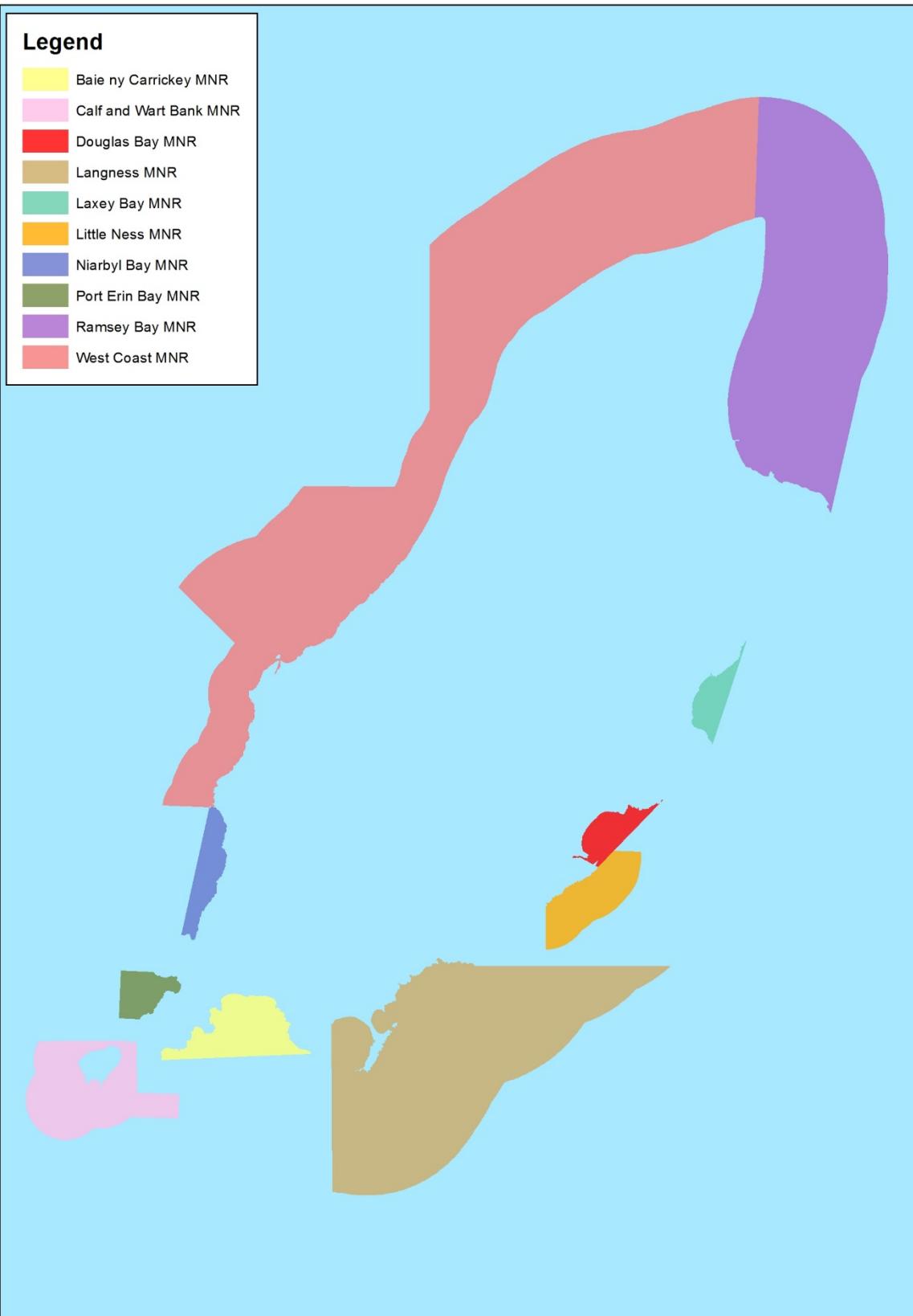
In relation to the release of hazardous substances into the marine environment, parties should monitor and report on concentrations of various compounds including: cadmium, lead, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs), and implement measures to reduce their release (e.g. reduce dumping of contaminated dredged materials at sea).

- **ASCOBANS** (Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas) is an agreement under the auspices of the Bonn Convention (CMS). It aims to achieve favourable conservation status for small cetaceans (whales and dolphins) via habitat conservation and management, research and data collection. At least four cetacean species commonly occur in Manx waters, as well as other occasional visitors.
- **CBD** (Convention on Biological Diversity) relates to the conservation of all ecosystems, species, and genetic resources while acknowledging the sustainable use of biological resources. Article 6 requires parties to prepare a national biodiversity strategy to enable implementation of the convention (i.e. ‘*Managing our Natural Wealth*’), and to ensure that the strategy is mainstreamed into the planning and activities of all sectors whose activities can have an impact (positive and negative) on biodiversity.

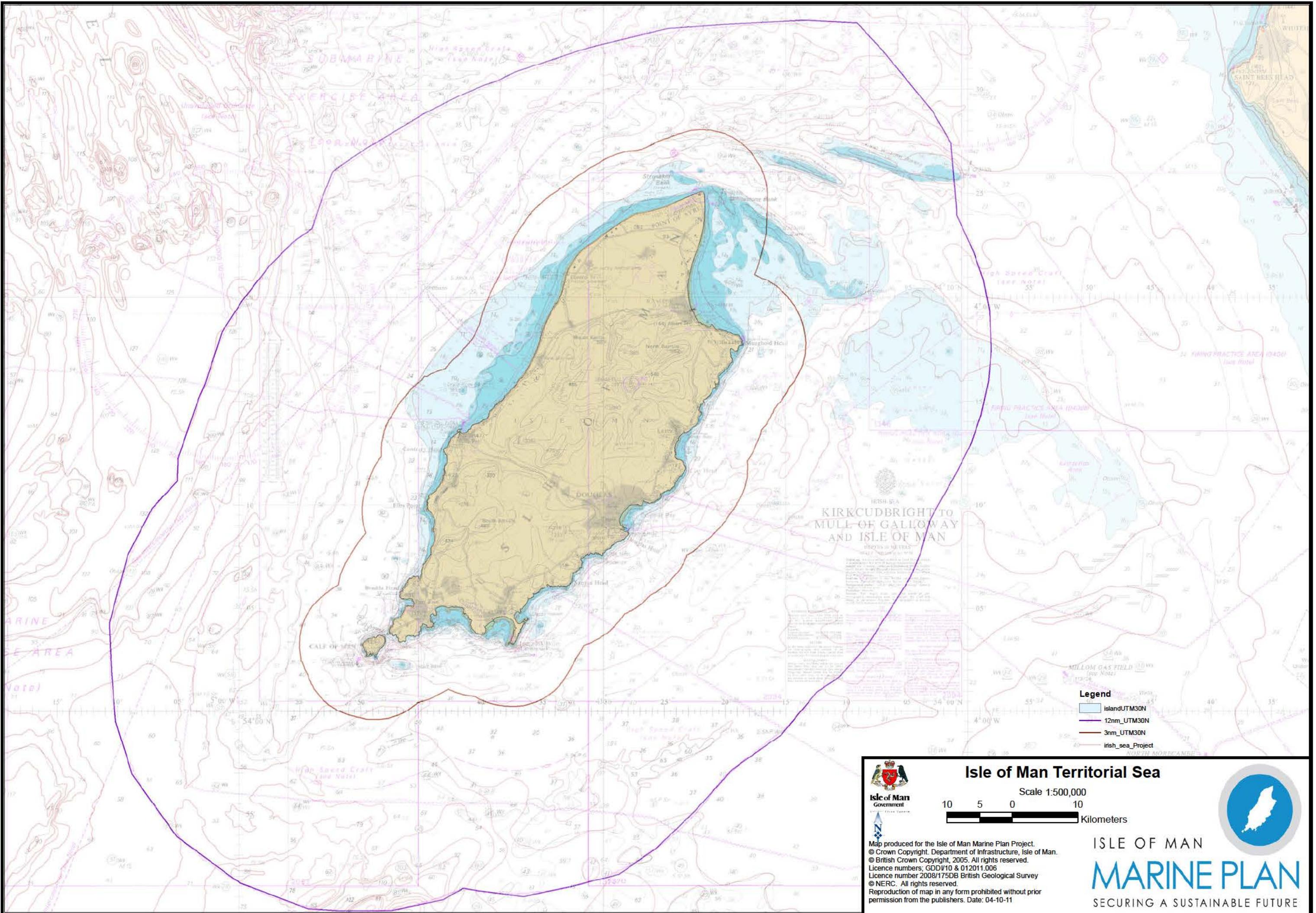
Appendix 3 Marine Nature Reserve and Designation Features¹³

Calf & Wart Bank	Baie ny Carrickey	Douglas	Langness	Laxey	Little Ness	Niarbyl	Port Erin	Ramsey	West Coast
maerl	maerl	maerl	maerl	maerl	maerl	maerl	kelp forest	maerl	maerl
rocky reef	rocky reef	rocky reef	rocky reef	kelp forest	horse mussel	kelp forest	rocky reef	kelp forest	horse mussel
kelp forest	kelp forest	kelp forest	eelgrass beds	rocky reef	Iceland clam	rocky reef	brittlestar bed	horse mussel	rocky reef
sea caves	eelgrass beds	European eel	horse mussel	eelgrass beds	European eel	sea caves	flame shell	rocky reef	intertidal blue mussel
sub-tidal sandbank	sea caves	<i>Cumanotus beaumonti</i> (nudibranch)	intertidal mud habitat	harbour porpoise	sea anemone	intertidal blue mussel	stalked jellyfish	brittlestar bed	European eel
sea anemone	European eel	Risso's dolphin	kelp forest	bottlenose dolphin		stalked jellyfish	Iceland clam	intertidal blue mussel	common and grey seal
spiny lobster	Risso's dolphin	bottlenose dolphin	sea anemone	minke whale		Iceland clam	basking shark	Iceland clam	basking shark
flame shell	harbour porpoise	cormorant, shag	Iceland clam	Iceland clam		European eel	harbour porpoise	European eel	harbour porpoise
common & grey seals	bottlenose dolphin		European eel	shag, fulmar, black guillemot, lesser black-backed gull		grey seal	shag, fulmar, gannet, gulls	sea anemone	plaice (spawning/nursery)
basking shark	basking shark		common and grey seal	basking shark		plaice (spawning/nursery)	common skate	puffin, kittiwake, shag, fulmar, black guillemot, gannet, lesser black-backed gull, Manx shearwater, little tern, Arctic tern, <i>Gavia</i> spp. (divers)	
harbour porpoise	spiny lobster		basking shark	harbour porpoise		cod (spawning/nursery)			
Risso's dolphin	razorbill, kittiwake, fulmar, lesser black-backed gull, Manx shearwater, purple sandpiper, peregrine falcon, chough		harbour porpoise	shag, fulmar, black guillemot, lesser black-backed gull		common and grey seal			
sand eel	puffin, kittiwake, fulmar, lesser black-backed gull, Manx shearwater, purple sandpiper, peregrine falcon, chough		Risso's dolphin	kittiwake, fulmar, gannet, goldeneye duck, cormorant, puffin, little tern, Arctic tern, gulls					
			fulmar, lesser black-backed gull					sand eel	sand eel
			cod (spawning/nursery)					seabass nursery	

¹³ See Manx Marine Nature Reserve Byelaws (SD 2018/0186) and consultation hub (<https://consult.gov.im/environment-food-and-agriculture/designation-of-inshore-marine-nature-reserves/>) for species names and further details.







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JNCC Reference: OIA 7341
Awel y Môr Offshore Wind Farm
Date: 10 July 2020

Dear Helen,

Awel y Môr Offshore Wind Farm EIA Scoping Report and HRA Screening Report

Thank you for requesting our advice on the Innogy Renewables UK Ltd, Awel y Môr Offshore Wind Farm (OWF) EIA Scoping Report and HRA Screening Report.

The proposed Awel y Môr OWF development is an extension of the Gwynt y Môr OWF situated in Welsh inshore waters. The development seeks to add a maximum of 107 turbines, inter-array cables, up to 2 export cables and up to 2 offshore substation platforms. A Site Selection Study is currently underway to determine the preferred cable route and substation location. In addition, options for the landfall and onshore cable route are still being explored.

As part of this scoping process, it is noted that there are still uncertainties associated with the final project description and parameters that could have potential environmental impacts.

The advice contained within this minute is provided by JNCC as part of our statutory advisory role to the UK Government and devolved administrations on issues relating to nature conservation in UK offshore waters (beyond the territorial limit). We have subsequently concentrated our comments on aspects of the project that we believe relate to offshore waters and defer to comments provided by Natural Resources Wales (NRW) for aspects relating to inshore waters. Our detailed receptor specific comments can be found in Annex 1 (marine mammals) and Annex 2 (ornithology).

Please contact me with any questions.

Yours sincerely,

Jillian Whyte

Offshore Industries Adviser

Email: jillian.whyte@jncc.gov.uk

Annex 1: Marine Mammals

i. Do you agree that the data sources identified are sufficient to inform the marine mammal baseline chapter for the Awel y Môr OWF PEIR and ES?

We agree that the key data sources have been identified, however we note the scoping reports have been prepared in the absence of a full two years of baseline survey data. Consequently, JNCC is offering advice at this stage as interim advice on pre-application surveys carried out so far; our comments at this stage should be considered without prejudice to our final advice to be given once pre-application survey is completed.

Paragraph 480, ongoing aerial surveys: The report states that surveys to date have only recorded a low number of sightings and there has been limited ability to identify small cetaceans to the species level; subsequently it is unlikely these surveys will be sufficient to provide species specific densities. We refer back to comments provided by NRW in December 2019 regarding our concerns with identification of species from these surveys and the possible need for alternative densities for EIA purposes. We agree that species specific density estimates for use in the impact assessment will need to be agreed with the SNCBs prior to the assessment being undertaken.

Paragraph 487, JCP Phase III report: We highlight a new project is now underway¹ which aims to work with data providers to find solutions to collating and storing data long-term for continued use to improve the UK capacity for analysing and understanding cetaceans using our waters. Data is not yet available, however Phase I of the project is now complete. We recommend progress on the project is checked when producing the ES in case data is available to inform the marine mammal assessment baseline.

ii. Do you agree that all the protected areas within the zone of influence have been identified?

No ‘zones of influence’, appear to be defined within Chapter 8.3 of the scoping report other than in the considerations for consultees (Section 8.3.7) or in the HRA screening report. The marine mammal baseline study area, however, has been defined at two spatial scales: a regional scale providing a wider geographic context, defined by species specific management units; and the Awel y Môr study area which includes that currently being surveyed. The regional study areas presented have been identified as the population scales at which potential impacts will be assessed (paragraph 479). We highlight that it is unlikely that there is an impact pathway to some of the sites identified this way, mainly due to the distance between the sites and the proposed activities. North Anglesey Marine SAC for harbour porpoise is the key site of concern for HRA.

iii. Have all potential impacts resulting from Awel y Môr OWF been identified for marine mammal receptors?

¹ <https://jncc.gov.uk/our-work/joint-cetacean-data-programme/>

Yes, we believe all potential impacts have been identified for this receptor. We also highlight that potential offences to European Protected Species will need to be assessed, and highlight an EPS licence may be required for some activities i.e. piling and UXO clearance.

iv. Do you agree that the impacts described in Table 3 can be scoped out?

Accidental pollution, temporary threshold shift (TTS) during construction and decommissioning, operational noise and electromagnetic fields have been scoped out of the assessment for marine mammals. With regard TTS, including ranges within which TTS onset is predicted to occur can be useful for context, however we would not expect to see a full assessment based on this threshold e.g. we would not expect to see reference to wider population estimates or predicted numbers of animals within these zones. We agree with the remaining impacts being scoped out of the assessment.

v. For those impacts scoped in (Table 2), do you agree that the methods described are sufficient to inform a robust impact assessment?

Injury: We agree noise modelling will be required to assess potential injury from piling and we also agree that thresholds published by Southall et al (2019) should be used in the assessment, applying both the SPL_{peak} and SEL_{cum} criteria.

With regard noise modelling for UXO clearance, we are aware that available information regarding the likelihood of this being needed, the types/size of device that may be present in the area and whether or not they will need clearing will be limited at this stage of the project. We would, however, expect a full assessment to be undertaken at the marine licence stage, should the ES be approved and depending on the potential risk, this will likely need project specific noise modelling.

Disturbance: We consider disturbance as a key consideration for marine mammals for the ES and under HRA, given the standard conservation objective for Natura 2000 sites with species as qualifying features: to avoid, in the special areas of conservation, disturbance of the species. For example, as a result of disturbance harbour porpoise density is significantly reduced for several km away from seismic surveys and impact pile driving (e.g. Thompson et al., 2013, Brandt et al. 2011, Dahne et al. 2013). JNCC, Natural England and DAERA have published guidance on how to assess and manage noise disturbance within porpoise SACs which will need included in the HRA².

JNCC agree with the principle of applying best practice at the time of assessment. The Southall et al 2019 authors are currently working on a paper with recommendations for how to assess disturbance. However, it is unclear what this will look like once complete and may include a combination of approaches depending on the available evidence. JNCC currently advise the use of fixed disturbance ranges based on empirical evidence as opposed to disturbance ranges estimated from noise modelling. The latter carries considerable uncertainty, in particular:

² <https://hub.jncc.gov.uk/assets/2e60a9a0-4366-4971-9327-2bc409e09784>

- there are no agreed quantitative thresholds for disturbance as there are for auditory injury;
- depending on the choice of numerical models to estimate sound source and propagation, one can end up with several orders of magnitude different predictions for disturbance ranges;
- received sound levels are not the single most influencing factor in triggering disturbance, other characteristics of sound and how they propagate with distance will influence how an animal perceives the noise;
- behavioural context, individual animal motivation and previous exposure will also play a role in determining response.

In terms of assessing the impacts of disturbance, population consequence models such as iPCoD can be very useful in understanding the mechanisms and magnitude of effects of disturbance, and to compare different disturbance scenarios. They may also help, together with other available evidence, inform wider scale population level assessments. However, the use of these models in the context of assessing disturbance effects on harbour porpoise SAC site integrity is not considered appropriate.

One issue is that the number of animals affected (even if it could be robustly determined) would need to be assessed against a “site population”. The variability in numbers within a site at any one time varies given the wide ranging and mobile nature of the species and so there is no such thing as ‘site population’.

In addition, EC Guidance³ states: ‘The expression ‘integrity of the site’ shows that the focus is here on the specific site. Thus, it is not allowed to destroy a site or part of it on the basis that the conservation status of the habitat types and species it hosts will anyway remain favourable within the European territory of the Member State.’ In this case we are not faced with destruction of a site but with temporary habitat loss, nonetheless the principle is the same - model predictions on the potential effects on the Favourable Conservation Status (FCS) of the species in UK waters, whilst useful context under Environmental Impact Assessment (EIA)/ European Protected Species (EPS) assessments in particular, do not provide the robust evidence that would allow us to conclude no ‘significant disturbance’ of the species within the site. The key here is to devise an approach to assess whether the site is contributing in the ‘best possible way to achieving FCS’.

Section 8.3.6 Next Steps: The applicant commits to developing an approach incorporating range dependent characteristics of impulsive sound into the assessment of underwater noise on marine mammals, building upon work conducted by Hastie *et al.* 2019. We highlight the caveats included in this paper, in particular that considering individual characteristics of noise signals in isolation is misleading and there is likely a complex interaction between those discussed and many other unrelated parameters. We also highlight Martin *et al* (2020), which claims the distance at which impulsive sounds change to non-impulsive is not relevant for assessing auditory impairment or injury because sounds retain their impulsive character when

³https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_6_nov_2018_en.pdf

sound pressure levels are above the effect quiet threshold. It may, however, be a consideration when assessing disturbance or masking of biologically important sounds.

vi. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on marine mammal receptors?

We agree with the embedded mitigation measures described in paragraph 519, however we highlight that marine mammal mitigation protocols should not be considered when determining which potential impacts can be scoped out of the assessment (as described in paragraph 518). In addition, such mitigation should not inform the conclusion when assessing potential impacts. Rather, the assessment informs the need for mitigation and residual effects should then be considered.

We also recommend that all marine mammal mitigation plans be agreed with the licensing body and SNCBs (JNCC and NRW) prior to piling and UXO clearance work commencing. We suggest this is included as a condition of consent if the ES is approved.

vii. Do you have any specific requirements for the underwater noise modelling and assessment methodology?

Please refer to previous comments on noise assessments.

Annex 2: Ornithology

Our response to the ornithological aspects of the Awel y Môr Offshore Wind Farm EIA Scoping Report and HRA Screening Report do not follow the questions provided for consideration as we had wider ranging and general comments that we wished to capture.

Headline Comments

JNCC would like to point out the vicinity of Awel y Môr OWF to Liverpool Bay Special Protection Area (SPA). In JNCC's comments on the Crown Estates renewables extensions plan HRA last year, we disagreed with the RIAA conclusion that the extensions plan would have no adverse effect on integrity of Liverpool Bay SPA. Given the evidence of extensive displacement distances observed by red-throated divers in response to windfarms, we think that 4km represents a minimum displacement distance and not a precautionary estimate. Displacement due to related vessel activity through Liverpool Bay SPA would also need to be considered. It should also be noted that an in-combination assessment should consider impacts from other sectors (such as oil & gas, shipping, aggregates, telecoms etc) and that these may also be exerting displacement effects to red-throated divers within Liverpool SPA, compounding the cumulative displacement concerns.

Liverpool Bay SPA and its relevant features are scoped in at this stage and so the conclusions of the scoping do not need to be altered in response to this comment. However, we felt this is an important point of clarity to note.

We agree that Woodward et al (2019) is the appropriate source of evidence when establishing connectivity during the breeding season between breeding seabird colony SPAs and planned developments. We note the use of Mean Max foraging range from Woodward et al (2019) in Table 8 of the HRA screening report. The SNCBs are recommending use of species-specific mean maximum foraging range + 1 standard deviation (Mean Max +1SD), as presented in Woodward et al. (2019).

We note that these reports have been prepared in the absence of a full two years of baseline ornithological survey data. Given that both NRW and JNCC have advised that a minimum of two years of baseline ornithological data for the windfarm array footprint plus appropriate buffer is required, we note the need for further consultation once the full two years of survey data is available. Consequently, JNCC is offering advice at this stage as interim advice on pre-application survey carried out so far; our comments at this stage should be considered without prejudice to our final advice to be given once pre-application survey is completed.

EIA scoping report part 1

P282, 534. It would be helpful to see maps of the survey area for the Gwynt y Môr boat and aerial surveys that are being considered as part of the Awel y Môr assessment, in order to understand the extent of overlap. These surveys will not cover a sufficient extent of the proposed Awel y Môr footprint (plus buffer) and cannot replace the second year of aerial surveys that are planned for the Awel y Môr footprint (plus buffer) (as per previous advice by JNCC and NRW that a minimum of two years of baseline survey is required).

P286, 546. “*Species likely to be taken forward to impact assessment as IOFs will be those which are recorded during surveys within the Study Area and which are considered to be at potential risk either due to their abundance, potential sensitivity to wind farm impacts or due to biological characteristics (e.g. commonly fly at rotor heights) which make them potentially susceptible. Prior to the completion of ongoing site-based aerial surveys, a list of species most likely to be considered IOFs is presented in Table 44, as determined from available information outlined in Section 8.4.3, in particular the Gwynt y Môr OWF survey results and EIA. This species list may be subject to change based on the results of ongoing aerial surveys and stakeholder consultation.*”

Further detail is required on how the list of species to be considered will be updated, including an obligation for statutory consultees to have an opportunity to comment on the final list, once the full two years of baseline survey data is available.

HRA screening report

P12, 4. “*With reference to mitigation measures identified therein, the plan-level HRA concluded that while Likely Significant Effects (LSE) could not be discounted, an extension of GyM OWF would not adversely affect European site integrity.*” JNCC disagreed with the plan-level HRA conclusion that the plan will have no adverse effect on the integrity of Liverpool Bay SPA. Work across Europe has demonstrated that red-throated divers can be displaced by much higher distances than 4km (e.g. HiDEF (2017) up to 9km, Mendel et al (2019) up to 16km, Heinanen et al (2020) found a strong displacement effect out to 5km and some effect up to 10-15 km away from OWF), and so we do not feel in any way that the estimates of displacement are precautionary, but rather are likely to represent a MINIMUM level of displacement. NE, NRW and RSPB had previously advised that an adverse effect on site integrity could not be ruled out for red-throated divers at Liverpool SPA as a result of the proposed Burbo Bank Extension project. Despite this, the Burbo Bank project was consented and has subsequently been developed. In the absence of new evidence, it is highly likely that the relevant SNCBs would conclude that any projects likely to cause additional displacement to red-throated divers within Liverpool Bay SPA could constitute an adverse effect on site integrity, in combination with existing plans and projects.

P42, 79. It would be helpful to see maps of the survey area for the Gwynt y Mor boat and aerial surveys that are being considered as part of the Awel y Mor assessment, in order to understand the extent of overlap. These surveys will not cover a sufficient extent of the proposed Awel y Mor footprint (plus buffer). In addition, we would need to understand the timelines for such data; when was it collected? These data cannot replace the second year of aerial surveys that are being collected for the Awel y Môr footprint (plus buffer). It is stated that “*These surveys will provide distribution and density/abundance data for all observed species*”, but it is not clear what the process for this will be: will the screening be repeated after March 2021, using the full two years of baseline survey data?

P42, 80. In addition to the movement of breeding seabirds, the effect of stressors acting beyond the source location needs to be considered. This is particularly pertinent to Liverpool Bay SPA which directly abuts the array area. Pressures such as visual disturbance (including navigational lighting) and above-water noise can be perceived by marine birds over many kms,

and thus the array could potentially have direct effects on birds within nearby SPAs such as Liverpool Bay SPA, even if we are not considering the movements of those birds outside of the SPA.

Table 8. Receptor ranges applied to identify sites for consideration at screening. We agree that Woodward et al (2019) is the appropriate source of evidence when establishing connectivity during the breeding season between breeding seabird colony SPAs and planned developments. The SNCBs are working through the evidence presented in Woodward et al. (2019) to formulate our position, but in the interim, until these investigations are completed, use of species-specific mean maximum foraging range + 1 standard deviation (Mean Max +1SD), as presented in Woodward et al. (2019), is advised. The SNCBs may wish to flag specific colonies/features, outside of Mean Max +1SD from development areas of interest that should nonetheless be screened in; for example if colony-specific information suggests foraging ranges of birds from that colony routinely exceed Mean Max +1SD.

We note that application of foraging ranges in this way may screen in breeding seabird colony SPAs outside of the immediate vicinity of the proposed array footprint. We suggest that all SNCBs across the UK should therefore be consulted, as well as potentially other European countries for which sites may be within foraging range and therefore may be affected.

P43, 84. “*Prior to the completion of the ongoing site-specific aerial surveys, a list of species most likely to be considered has been determined from the data sources as outlined in the EIA Scoping Report.*”

P89, 113. “*a precautionary approach has been adopted to identify potential impacts to seabirds likely to be present at Awel y Môr OWF during the non-breeding season in consideration of an absence of recent Project specific ornithological survey data.*”

P89 114. “*Recent survey data have been collected as part of the GyM OWF ornithological monitoring commitment. Although the focus of these surveys has been on the GyM OWF site, they have also included wider regional coverage across Colwyn Bay and can therefore act as a proxy for what is likely to be present and have thus been used for Criterion 4 of this assessment.*”

Given that these surveys do not cover the full Awel y Môr footprint plus buffer, they cannot act as a replacement for the full two years of baseline survey which is required. Further detail is required on how the list of species to be considered will be updated, including an obligation for statutory consultees to have an opportunity to comment on the final list, once the full two years of baseline survey data is available.

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- Woodward, I., Thaxter, C. B., Owen, E., Cook, A. S. C. P. 2019. Desk-based revision of seabird foraging ranges used for HRA screening. BTO Research Report No. 724. ISBN 978-1-912642

From: [Plant Enquiries](#)
To: AwelyMor
Subject: RE: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Date: 12 June 2020 13:28:21
Attachments: [image02.png](#)
[image05.png](#)
[image06.png](#)
[image07.png](#)
[image03.jpg](#)
[image04.png](#)
[image012.png](#)
[image013.jpg](#)
[image014.jpg](#)

Dear Sir/Madam,

Thank you for submitting your recent plant enquiry.

Based on the information provided, I can confirm that Last Mile **does not** have any plant within the area(s) specified in your request.

If you require further assistance with outstanding enquiries, please call 03300 587 443.

Please ensure all plant enquiries are sent to plantenquiries@lastmile-uk.com

Regards

From: Hello <hello@energetics-uk.com>
Sent: 12 June 2020 12:50
To: Plant Enquiries <plantenquiries@lastmile-uk.com>
Cc: Kimberley Russel [REDACTED]
Subject: FW: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

[REDACTED]

t: 03300 587 400
e: hello@energetics-uk.com | w: www.energetics-uk.com
a: Fenick House, Lister Way, Hamilton International Technology Park, Glasgow, G72 0FT

[REDACTED]

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

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Maritime &
Coastguard
Agency

Bay 2/24
Spring Place
105 Commercial Road
Southampton
SO15 1EG
UK

Your ref: EN010122-00023
EN010122-00020

Helen Lancaster
Senior EIA Advisor
The Planning Inspectorate
Major Casework Directorate
Temple Quay House
2 The Square
Bristol, BS1 6PN

10 July 2020

Dear Ms Lancaster,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Awel y Môr Offshore Wind Farm Limited (the Applicant) for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

The MCA has reviewed the scoping report provided by Innogy Renewables UK Ltd (now RWE Renewables), as detailed in your letter of 12th June 2020 and would comment as follows:

The EIA Report should supply detail on the possible impact on navigational issues for both commercial and recreational craft, specifically:

- Collision Risk
- Navigational Safety
- Visual intrusion and noise
- Risk Management and Emergency response
- Marking and lighting of site and information to mariners
- Effect on small craft navigational and communication equipment
- The risk to drifting recreational craft in adverse weather or tidal conditions
- The likely squeeze of small craft into the routes of larger commercial vessels.

A Navigational Risk Assessment will need to be submitted in accordance with MGN 543 and the MCA's Methodology for Assessing the Marine Navigation Safety & Emergency Response Risks of Offshore Renewable Energy Installations (OREI). Both documents are currently being reviewed and have already been through a consultation period with stakeholders. It is intended to carry out a second consultation within the next month and whilst the main themes of the guidance remain the same, we would advise the applicant to make themselves aware of the amendments. It is intended to publish new versions later this year and all advice provided to the applicant will be consistent with the new guidance documents. The NRA should be accompanied by a detailed MGN Checklist which can be



HM Coastguard



found at <https://www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping>

I note, in paragraph 642, that a vessel traffic survey will be undertaken to the standard of MGN 543 i.e. at least 28 days which is to include seasonal data (two x 14-day surveys) collected from a vessel-based survey using AIS, radar and visual observations to capture all vessels navigating in the study area.

The development area is located adjacent to a significant amount of traffic to major ports, with a Traffic Separation Scheme in close proximity, and attention needs to be paid to routing, particularly for pilotage operations where there is a pilot boarding station to the west of the site. The likely cumulative and in combination effects on shipping routes should also be considered, the impact on navigable sea room and include an appropriate assessment of the distances between wind farm boundaries and shipping routes as per MGN 543.

The turbine layout design will require MCA approval prior to construction to minimise the risks to surface vessels, including rescue boats, and Search and Rescue aircraft operating within the site. Any additional navigation safety and/or Search and Rescue requirements, as per MGN 543 Annex 5, will be agreed at the approval stage. MCA would also welcome early discussion on the lighting and marking arrangements.

Attention should be paid to cabling routes and where appropriate burial depth for which a Burial Protection Index study should be completed and, subject to the traffic volumes, an anchor penetration study may be necessary. If cable protection measures are required e.g. rock bags or concrete mattresses, the MCA would be willing to accept a 5% reduction in surrounding depths referenced to Chart Datum. This will be particularly relevant where depths are decreasing towards shore and potential impacts on navigable water increase, such as at the HDD location.

Consideration will need to be given to the implications of the site size and location on SAR resources and Emergency Response Co-operation Plans (ERCoP). Attention should be paid to the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm sites and their surrounding areas. A SAR checklist will also need to be completed in consultation with MCA.

MGN 543 Annex 2 requires that hydrographic surveys should fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard, with the final data supplied as a digital full density data set, and survey report to the MCA Hydrography Manager. Failure to report the survey or conduct it to Order 1a might invalidate the Navigational Risk Assessment if it was deemed not fit for purpose.

On the understanding that the Shipping and Navigation aspects are undertaken in accordance with MGN 543 and its annexes, along with a completed MGN checklist, MCA are likely to be content with the approach.

Yours sincerely,

Nick Salter

Navigation Safety Policy Advisor
Navigation Safety Branch

Land and Acquisitions

Anne Holdsworth
DCO Liaison Officer
Land and Property
anne.holdsworth@nationalgrid.com

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
AwelyMor@planninginspectorate.gov.uk

07 July 2020

Dear Sir/Madam

**APPLICATION BY AWEL Y MÔR OFFSHORE WIND FARM LIMITED (THE APPLICANT) FOR
AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE AWEL Y MÔR OFFSHORE
WIND FARM (THE PROPOSED DEVELOPMENT)**

SCOPING CONSULTATION RESPONSE

This is a response on behalf of National Grid Electricity Transmission PLC (NGET) and National Grid Gas PLC (NGG). I refer to your letter dated 12th June 2020 in relation to the above proposed application. Having reviewed the scoping report, I would like to make the following comments:

National Grid infrastructure within / in close proximity to the order boundary

Electricity Transmission

National Grid Electricity Transmission has high voltage electricity overhead transmission lines, underground cables and a high voltage substation within the scoping area. The overhead lines and substation forms an essential part of the electricity transmission network in England and Wales.

Substation

- Bodelwyddan 400kV Sub Station
 - Associated overhead and underground apparatus including cables

Overhead Lines

4ZB 400kV OHL -	Bodelwyddan - Deeside - Pentir 1
	Bodelwyddan - Deeside - Pentir 2
GM Route 400kV OHL	Bodelwyddan - Deeside - Pentir 2

Cable Apparatus

- Pentre-Mawr Cable Compound
 - Deeside - Pentir 1 Cable
 - Bodelwyddan4 St Asaph 132kv Cable Sections 01 And 02

I enclose a plan showing the location of National Grid's apparatus in the Bodelwyddan area as follows:

- overhead lines;
- the substation; and
- underground cables.

Gas Transmission Infrastructure:

National Grid Gas Transmission has no assets within the scoping area.

Specific Comments – Electricity Infrastructure:

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 3 (2004)”.
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 “Avoidance of Danger from Overhead Electric Lines” and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum “sag” and “swing” and overhead line profile (maximum “sag” and “swing”) drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- National Grid Electricity Transmission high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide National Grid full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary

structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with National Grid prior to any works taking place.

- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Further Advice

We would request that the potential impact of the proposed scheme on National Grid's existing assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, National Grid is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by National Grid. Further information relating to this can be obtained by contacting the email address below.

Where the promoter intends to acquire land, extinguish rights, or interfere with any of National Grid apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

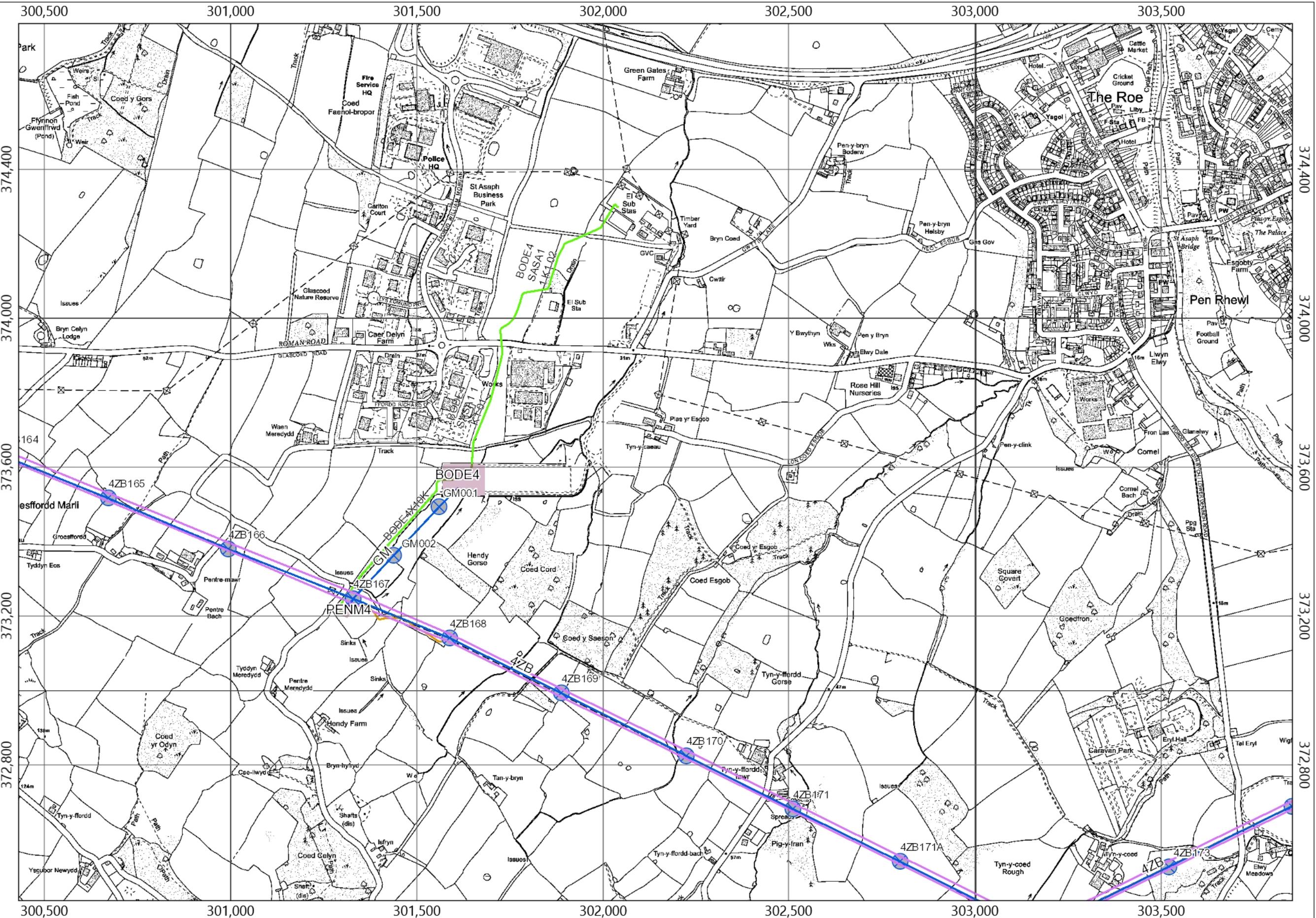
National Grid requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: box.landandacquisitions@nationalgrid.com

I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully

**Anne Holdsworth
DCO Liaison Officer, Land and Acquisitions**

**Legend:**

- Substations Commissioned Circuits
 - Commissioned
 - Decommissioned Group
 - Planned and Spares
- OHL 400kV Commissioned
- OHL 275kV Commissioned
- OHL 132kV & Below Commissioned
- Towers Commissioned
- Buried Cable Commissioned
- Fibre Cable Commissioned
- Pilot Cable
- Pillar
- Oil Tank
- Link Box
- Gauge
- Joint Bay
- Cable Joint
- Oil Pipe
- Cooling Pipe
- Cooling Station
- RAMM
- Cable Tunnel
- Gas Operational Boundary
- Gas Site Boundary
- Trial Hole
- Vantage Point
- Aerial Marker Post
- Pipe Crossing Point
- ▲ CP Test Post
- Transformer Rectifier
- Pipeline Crossing Sleeve
- Nitrogen Sleeve
- Other Sleeves
- Pipe Line Control Point
- Named Pipeline Section
- River Crossings

Notes:

Awel y Môr NG Asset Plan 1

From: [REDACTED]
To: AwelyMor
Cc: NATS Safeguarding; alex.herbert@innogy.com; anne.westwood@innogy.com; Jenkinson, Ben
Subject: RE: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation (SG29065)
Date: 19 June 2020 13:16:42
Attachments: [image014.png](#)
[image021.png](#)
[image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[SG29065 TOPA Issue 2_final.pdf](#)

Dear Sirs,

NATS acknowledges receipt of the Awel y Môr Scoping Opinion and can advise that it anticipates a unacceptable impact from the proposed development. We attach a technical report setting out the NATS position of objecting to the proposal.

Notwithstanding this position, NATS remains engaged and is working well with the Applicant around the identification of mitigation measures. It is NATS's expectation that mitigation measures can be identified and that the required commercial framework can be put in place with the Applicant, thus leading to the agreement of Planning Conditions. NATS will keep the Inspectorate appraised of progress and will respond to any further consultation it receives.

I trust this clarifies our position and is acceptable to the Inspectorate.

Regards
S. Rossi
NATS Safeguarding Office

cc: Innogy



Sacha Rossi
ATC Systems Safeguarding Engineer



4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk



From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation (SG29065)

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEMM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

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inPrepared by:
NATS Safeguarding Office
Unmarked



Technical and Operational Assessment (TOPA)

For
Awel y Môr Offshore
Wind Farm Development

NATS ref: SG29065

PINS ref: EN010112

Issue 2

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Publication History

Issue	Month/Year	Change Requests and summary
1	May 2020	Pre-planning application from Innogy Renewables UK Limited
2	June 2020	Scoping request from The Planning Inspectorate.

Document Use

External use: Yes

Referenced Documents

1. Background

1.1. En-route Consultation

NATS en-route plc is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK. To undertake this responsibility it has a comprehensive infrastructure of radar's, communication systems and navigational aids throughout the UK, all of which could be compromised by the establishment of a wind farm.

In this respect NATS is responsible for safeguarding this infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC).

In order to discharge this responsibility NATS is a statutory consultee for all wind farm applications, and as such assesses the potential impact of every proposed development in the UK.

The technical assessment sections of this document define the assessments carried out against the development proposed in section 3.

2. Scope

This report provides NATS En-Route plc's view on the proposed application in respect of the impact upon its own operations and in respect of the application details contained within this report.

Where an impact is also anticipated on users of a shared asset (e.g. a NATS radar used by airports or other customers), additional relevant information may be included for information only. While an endeavour is made to give an insight in respect of any impact on other aviation stakeholders, it should be noted that this is outside of NATS' statutory obligations and that any engagement in respect of planning objections or mitigation should be had with the relevant stakeholder, although NATS as the asset owner may assist where possible.

3. Application Details

The Planning Inspectorate submitted a request for a NATS technical and operational assessment (TOPA) for the development at Awel y Môr Offshore Wind Farm. It will comprise turbines with a maximum tip height of 332m contained within an area as detailed in table 1 and as shown in the diagrams contained in Appendix B.

Boundary	Lat	Long	East	North	Hub (m)	Tip (m)
A	53.4863	-4.0003	267375	400703	182	332
B	53.4907	-3.6105	293249	400544	-	-
C	53.4853	-3.6269	292148	399964	-	-
D	53.4783	-3.6467	290815	399216	-	-
E	53.4754	-3.6550	290257	398903	-	-
F	53.4681	-3.6756	288866	398121	-	-
G	53.4505	-3.6921	287726	396195	-	-
H	53.4460	-3.6874	288029	395681	-	-
I	53.4217	-3.7459	284073	393074	-	-
J	53.4326	-3.7983	280627	394372	-	-
K	53.4743	-4.0001	267352	399370	-	-
L	53.4863	-4.0003	267375	400703	-	-

Table 1 – Turbine Details

4. Assessments Required

The proposed development falls within the assessment area of the following systems:

RADAR	Lat	Long	nm	km	Az (deg)	Type
Burrington Radar (cmb)	50.9343	-3.9854	149.7	277.2	93.0	CMB
Claxby Radar	53.4501	-0.3083	118.4	219.3	271.8	CMB
Clee Hill Radar	52.3983	-2.5975	74.3	137.6	327.2	CMB
Great Dun Fell Radar	54.6841	-2.4509	82.6	153.0	212.8	CMB
Lowther Hill Radar	55.3778	-3.7530	113.5	210.3	180.2	CMB
St Annes Radar	53.7684	-2.9908	27.7	51.3	236.3	CMB
Manchester Radar	53.3407	-2.2827	48.5	89.8	278.7	CMB
Nav	Lat	Long	nm	km	Az (deg)	Type
None						
AGA	Lat	Long	nm	km	Az (deg)	Type
None						

Table 2 – Impacted Infrastructure

4.1. En-route radar Technical Assessment

4.1.1. Predicted Impact on St Annes Radar

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the radar's probability of detection, for real aircraft, is also anticipated.

4.1.2. Predicted Impact on Great Dun Fell Radar

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the radar's probability of detection, for real aircraft, is also anticipated.

4.1.3. En-route operational assessment of radar impact

Where an assessment reveals a technical impact on a specific NATS radar, the users of that radar are consulted to ascertain whether the anticipated impact is acceptable to their operations or not.

Unit or role	Comment
Engineering	Unacceptable
PC ATC	Unacceptable

Note: The technical impact, as detailed above, has also been passed to non-NATS users of the affected radar, this may have included other planning consultees such as the MOD or other airports. Should these users consider the impact to be unacceptable it is expected that they will contact the planning authority directly to raise their concerns.

4.2. En-route Navigational Aid Assessment

4.2.1. Predicted Impact on Navigation Aids

No impact is anticipated on NATS' navigation aids.

4.3. En-route Radio Communication Assessment

4.3.1. Predicted Impact on the Radio Communications Infrastructure

No impact is anticipated on NATS' radio communications infrastructure.

5. Conclusions

5.1. En-route Consultation

The proposed development has been examined by technical and operational safeguarding teams. A technical impact is anticipated, this has been deemed to be unacceptable.

Appendix A – Background radar Theory

Primary radar False Plots

When radar transmits a pulse of energy with a power of P_t the power density, P , at a range of r is given by the equation:

$$P = \frac{G_t P_t}{4\pi r^2}$$

Where G_t is the gain of the radar's antenna in the direction in question.

If an object at this point in space has a radar cross section of σ , this can be treated as if the object re-radiates the pulse with a gain of σ and therefore the power density of the reflected signal at the radar is given by the equation:

$$P_a = \frac{\sigma P}{4\pi r^2} = \frac{\sigma G_t P_t}{(4\pi)^2 r^4}$$

The radar's ability to collect this power and feed it to its receiver is a function of its antenna's effective area, A_e , and is given by the equation:

$$P_r = P_a A_e = \frac{P G_r \lambda^2}{4\pi} = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4}$$

Where G_t is the radar antenna's receive gain in the direction of the object and λ is the radar's wavelength.

In a real world environment this equation must be augmented to include losses due to a variety of factors both internal to the radar system as well as external losses due to terrain and atmospheric absorption.

For simplicity these losses are generally combined in a single variable L .

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4 L}$$

Secondary radar Reflections

When modelling the impact on SSR the probability that an indirect signal reflected from a wind turbine has the signal strength to be confused for a real interrogation or reply can be determined from a similar equation:

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r_t^2 r_r^2 L}$$

Where r_t and r_r are the range from radar-to-turbine and turbine-to-aircraft respectively. This equation can be rearranged to give the radius from the turbine within which an aircraft must be for reflections to become a problem.

$$r_r = \sqrt{\frac{\lambda^2}{(4\pi)^3}} \sqrt{\frac{\sigma G_t G_r P_t}{r_t^2 P L}}$$

Shadowing

When turbines lie directly between a radar and an aircraft not only do they have the potential to absorb or deflect enough power such that the signal is of insufficient level to be detected on arrival.

It is also possible that azimuth determination, whether this done via sliding window or monopulse, can be distorted giving rise to inaccurate position reporting.

Terrain and Propagation Modelling

All terrain and propagation modelling is carried out by a software tool called ICS Telecom (version 11.1.7). All calculations of propagation losses are carried out with ICS Telecom configured to use the ITU-R 526 propagation model.

Appendix B – Diagrams

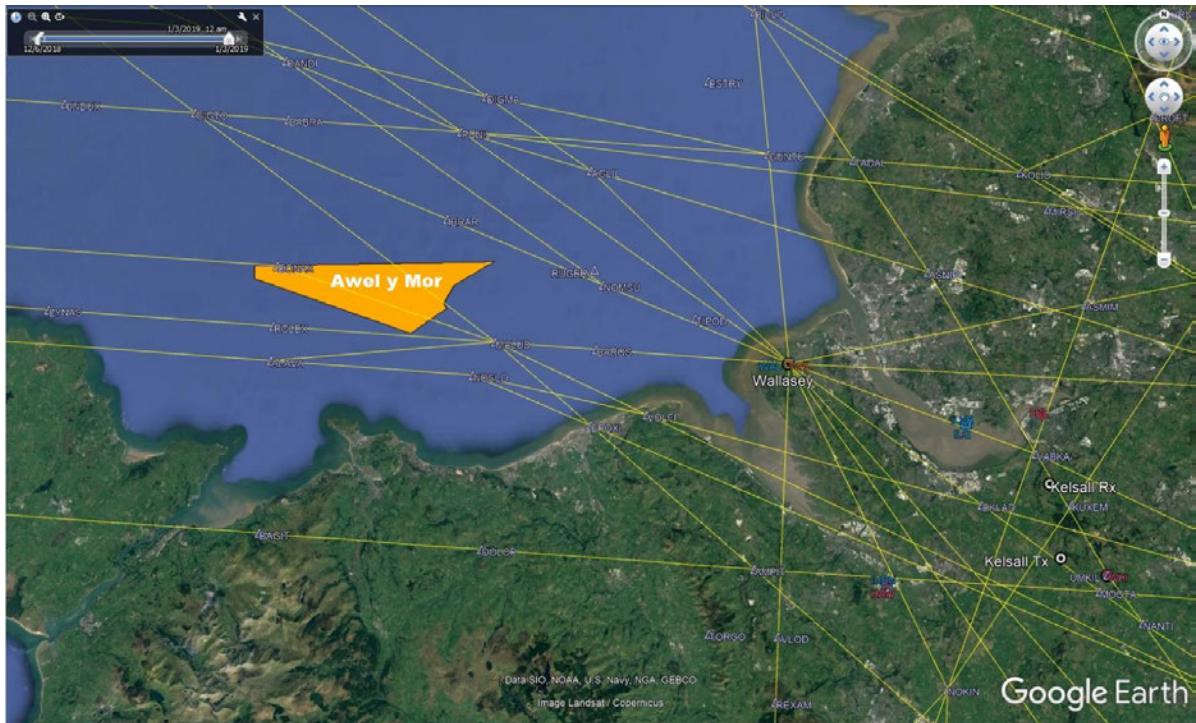


Figure 1: Proposed development location shown on an airways chart



Figure 2: Proposed development shown alongside other recently assessed applications

	consented/built		impact -accepted		impact -objection		mitigated
	mitigation -proposed		no impact		refused/withdrawn		

From: [REDACTED]
To: AwelyMor
Subject: RE: awelymor wind farm north wales
Date: 08 July 2020 12:10:41
Attachments: [image006.png](#)
[image007.jpg](#)
[image008.png](#)
[image001.jpg](#)
[image002.png](#)

Hi
The planning inspectorate.

Bob Mason

***Dirprwy Bennaeth Diogelwch Tân Busnes
Gwasanaeth Tân ac Achub Gogledd Cymru***

***Deputy Head of Business Fire Safety.
North Wales Fire and Rescue Service.***



Rydym yn croesawu gohebiaeth yn y Gymraeg a'r Saesneg - byddwn yn ymateb yn gyfartal i'r ddwy ac yn ateb yn eich dewis iaith heb oedi.

We welcome correspondence in Welsh and English - we will respond equally to both and will reply in your language of choice without delay.



Gwnewch yn siŵr eich bod yn profi'ch larwm mwg yn rheolaidd. Os nad oes gennych larwm, neu os ydy'ch larwm wedi torri, ffoniwch **0800 169 1234, anfonwch e-bost [REDACTED] [REDACTED] am gyngor ynglŷn â beth i'w wneud nesaf.**

Please make sure that you regularly check your smoke alarm. If you do not have one, or find that the one that you do have is not working, call **0800 169 1234, e-mail cfs@nwales-fireservice.org.uk or visit www.nwales-fireservice.org.uk for advice on what to do next.**

Wythnos Ymwybyddiaeth Ar Alwad – 07/01/2019 – On-Call Awareness Week [REDACTED]

cid:image005.png@01D4A457.1DA8D1A0



From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 26 June 2020 09:06
To: Bob Mason <bob.mason@nwales-fireservice.org.uk>

Subject: FW: awelymor wind farm north wales

Dear Mr Mason,

Could I check whether this is a response to a letter from the Planning Inspectorate or the Applicant for Awel y Mor?

Kind regards

Karl-Jonas Johansson
Swyddog Achos/ Case officer
Llinell Uniongyrchol/ Direct Line: 0303 444 5658
Llinell Gymorth/ Helpline: 0303 444 5000
E-Bost/ Email: kj.johansson@planninginspectorate.gov.uk

Wê/ Web: <https://infrastructure.planninginspectorate.gov.uk> (Cynllunio Seilwaith Cenedlaethol/ National Infrastructure Planning)

Wê/ Web: www.gov.uk/government/organisations/planning-inspectorate (Gwaith achos ac apeliadau/ Casework and appeals)

Twitter: [@PINSgov](https://twitter.com/PINSgov)

Nid yw'r cyfartheriad hwn yn gyfystyr â chyngor cyfreithiol/ This communication does not constitute legal advice.

Edrychwrh ar ein [Hysbysiad Preifatrwydd](#) cyn anfon gwybodaeth at yr Arolygiaeth Gynllunio/ Please view our [Privacy Notice](#) before sending information to the Planning Inspectorate.



From: Bob Mason [REDACTED]

Sent: 24 June 2020 16:37

To: NI Enquiries <NIEnquiries@planninginspectorate.gov.uk>

Subject: awelymor wind farm north wales

Hi

I received a notice today asking for comments on an Environmental Statement for Awel Y Mor wind farm, North Wales.

The North Wales Fire & Rescue Service have no comments to make on the statement.

I'm sorry if this is the wrong email address but it was the only one I could find.

Bob Mason

**Dirprwy Bennaeth Diogelwch Tân Busnes
Gwasanaeth Tân ac Achub Gogledd Cymru**

Deputy Head of Business Fire Safety.

North Wales Fire and Rescue Service.

Rydym yn croesawu gohebiaeth yn y Gymraeg a'r Saesneg - byddwn yn ymateb yn gyfartal i'r ddwy ac yn ateb yn eich dewis iaith heb oedi.

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Gwnewch yn siŵr eich bod yn profi'ch larwm mwg yn rheolaidd. Os nad oes gennych larwm, neu os ydy'ch larwm wedi torri, ffoniwch **0800 169 1234**, anfonwch e-bost i dtc@gwastan-gogcymru.org.uk neu ewch i www.gwastan-gogcymru.org.uk am gyngor ynglŷn â beth i'w wneud nesaf.

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Wythnos Ymwybyddiaeth Ar Alwad – 07/01/2019 – On-Call Awareness Week www.oncallfire.uk



Cyfrinachedd: Mae'r neges e-bost hon ac unrhyw ffeiliau a drosglwyddir gyda hi, yn breifat ac fe allent fod yn cynnwys gwybodaeth sy'n gyfrinachol neu'n gyfreithiol-freintiedig. Os byddwch yn derbyn y neges hon trwy gamgymeriad, a fyddch mor garedig â rhoi gwybod inni a chael gwared arni o'ch system ar unwaith.

Ymwadiad: Fe allai e-bostio trwy'r We fod yn agored i oedi, rhng-gipio, peidio â chyrraedd, neu newidiadau heb eu hawdurdodi. Felly, nid yw'r wybodaeth a fynegir yn y neges hon yn cael cefnogaeth GTAGC oni bai fod cynrychiolydd awdurdodedig, yn annibynnol ar yr e-bost hwn, yn hysbysu yngylch hynny. Ni ddylid gweithredu o ddibynnu ar gynnwys yr e-bost hwn yn unig.

Monitro: Bydd GTAGC yn monitro cynnwys e-byst at ddiben atal neu ddarganfod troseddau, a hynny er mwyn sicrhau diogelwch ein systemau cyfrifiadurol a gwirio cydymffurfiad â'n polisiau.

Gwasanaeth Tân ac Achub Gogledd Cymru
Parc Busnes Llanelwy, Sir Ddinbych. LL17 0JJ

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North Wales Fire and Rescue Service
St Asaph Business Park, Denbighshire. LL17 0JJ



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DPC:76616c646f72



Annwyl / Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

EIA Scoping Opinion consultation regarding application by Awel y Môr Offshore Wind Farm Limited for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm

Thank you for consulting Cyfoeth Naturiol Cymru/ Natural Resources Wales (NRW) on the scoping opinion for the above proposal, received on 12/07/2020. NRW has reviewed the information provided in the "*Environmental Impact Assessment - Scoping Report – March 2020 – Revision A Parts 1 and 2*".

Please note that the comments provided herein are made without prejudice to any (further) advice NRW may need to give, or decisions NRW may need to take, in a project specific context should different circumstances or new information emerge that NRW will need to take into account.

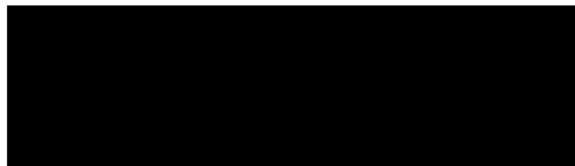
The comments provided in Annex I include those matters NRW consider will need to be taken into account and applied to the Environment Impact Assessment (EIA) and the resulting Environmental Statement (ES). In order to aid review, where possible our comments are provided under the chapter headings from the Scoping Report.

The comments provided relate only to matters that are listed in our 'Consultation Topics' document (September 2018) which can be found [here](#). NRW has not considered potential effects on other matters and does not rule out the potential for the proposed development to affect other interests, including environmental interests of local importance.

The applicant should be advised that, in addition to planning permission, it is their responsibility to ensure that they secure all other permits/consents relevant to their development.

Please do not hesitate to contact us if you require further information or clarification on any of the above.

Yn gywir / Yours sincerely,



Adam Cooper

Uwch Gynghorydd Morol (Rhaglen Ynni Adnewyddadwy ar y Môr)/ Senior Marine Advisor
(Offshore Renewable Energy Programme)
Cyfoeth Naturiol Cymru / Natural Resources Wales

ANNEX 1:

NRW ADVICE AND COMMENTS ON “*Environmental Impact Assessment - Scoping Report – March 2020 – Revision A Parts 1 and 2*”

Offshore Physical Processes

Key Comments

NRW is not able to rule out the potential need for further modelling to inform the impact assessment for Awel Y Mor Offshore Windfarm. NRW advises that the applicant work with us to develop a conceptual understanding of the physical processes (hydrodynamics and sediment transport) and work to agree how the development proposals will interact and impact on the physical processes and features - such as Constable Bank, (an active sand bank bordering the southern end of the site and a potential feeder of sediment to the coastal beaches) - using the evidence and methods proposed. Once agreement is reached on the sufficiency of the information provided, the applicant should produce a robust impact assessment minimising the need for further modelling, particularly in context to the assessment of cumulative impacts in-combination with the other wind farms in the area. If it is decided that further modelling is required, NRW will work with the applicant to agree the appropriate scope/approach and type of modelling to be conducted.

Detailed Comments

i) Do you agree that the data sources identified are sufficient to inform the physical process baseline for the Awel y Môr OWF PEIR and Environmental Statement?

Yes, in principle. The first stage of any project should be to review historical/ existing data to develop understanding and knowledge of data gaps and to understand whether existing data is sufficient (i.e. representative of present-day conditions and of key processes).

NRW advises that the applicant explores the data available through the iMARDIS SEACAMS data portals (<https://www.imardis.org/>) and data stored on the Colwyn Bay Coastal Observatory which collects localised hydrodynamic data and characterisation data for Constable Bank.

NRW recommends that NRW's guidance note 41 is followed, paying specific attention to Chapter 6 Data Requirements for EIA Baseline Characterisation (Guidance on Best Practice for Marine and Coastal Physical Processes Baseline Survey and Monitoring Requirements to Inform EIA of Major Development Projects, NRW Evidence Report 243, Brooks et al., 2018 available [here](#)). The applicant will need to clearly demonstrate that the sourced data is fit for purpose and remains valid to characterise present day conditions (particularly given that some of the data sources are pre 2005). NRW advise that any data used to inform the baseline understanding must have been collected and analysed in accordance with recognised data quality standards. The sourced data will need to provide the appropriate temporal and spatial coverage and resolution which will adequately describe the present-day conditions within the study area as well as longer-term historical change, both of which are essential to establishing a full conceptual understanding of the natural physical environment baseline of the site and surrounding area. The data sourced should be fit for purpose to sufficiently address the key themes of baseline understanding as described in Brooks et al, 2018. Key applicable considerations from this work include, but are not limited to

- Identification of the processes maintaining the system, the reasons for any past changes, and sensitivity of the system to changes in the controlling processes.

- Identification and quantification of the relative importance of high-energy, low frequency (“episodic” events), versus low-energy, high frequency processes.
- Identification of the processes controlling temporal and spatial morphological change (e.g. longevity and stability of bedforms; cliff recession; loss of beach volume; or bank and channel migration; inter-tidal accretion/ erosion), which may require a review of bathymetric and topographic data.
- The identification of sediment sources, pathways and sinks, and quantification of transport fluxes.
- The identification of the inherited geological, geophysical and geotechnical properties of the sediments at the site, and the depth of any sediment strata.
- Interaction of waves and tides and the subsequent quantification of the extent to which seabed sediment is mobilised.
- The assessment of the scales and magnitudes of processes controlling sediment transport rates and pathways.

ii. Have all potential impacts resulting from Awel y Môr OWF been identified for the physical processes receptor?

No. NRW advises that the following impacts are scoped into the assessment of Physical Processes Construction

1. NRW advises that information is presented that allows us to further understand the nature and extent of the ground preparation works that may be required to install the Wind Turbine Generating foundations. Such information includes, for example, knowing how much sediment would be excavated and displaced or disposed of for the whole footprint of the OWF. In addition, the impact from dredging and disposal at an appointed dredge disposal site will need to be factored into the assessment for physical processes, if required. Impacts to consider include:
 - Will dredge material disposal alter the sedimentary character of the sea bed at and around the disposal site?
 - Removal of sediment through dredging will constitute a permanent loss of sediment from the system which could alter the local sediment budget and reduce the amount of sediment available for sediment transport. What would be the impact on the morphological features such as sand banks (in particular Constable Bank) and beaches along the North Wales coastline which provide protection to the coast by absorbing wave energy if there is a reduced supply of sediment to these features.
 - Sediment disturbance, alteration to sediment type due to sediment resettling elsewhere and percentage of fines elevated in suspension. These impacts have been considered in Table 28 under point 7.1.1 but not specifically referenced to dredge activity.
 - Increased morphological alteration to a seabed feature arising from the combined influence of sediment removal via dredging. I.e. sand wave clearance for cable installation. Sand wave clearance has not been ruled out of the cable route site selection process. Modification/ removal of sandwaves could influence patterns of sediment transport resulting in morphological change. Consideration should be given to the impacts on Constable Bank system which is an Annex 1 habitat feature.

- Associated changes in seabed level (decrease due to dredging, increase due to dredge material disposal) may give rise to secondary effects and changes to the current/flow regime, wave regime and sediment transport regime.
- 2. Blockage related changes to the current/flow regime, wave regime and sediment transport regime associated with the installed infrastructure are present throughout the operational lifetime of the development as detailed in table 28 (7.1.3, 7.1.4, 7.1.5) but can also be present at an intermediate level during construction and decommissioning.
- 3. Could seabed excavation within shallow nearshore areas (e.g. for Horizontal Directional Drill (HDD) exit pits or cable laying vessel floatation pits) modify hydrodynamic conditions, giving rise to morphological change? This impact needs consideration if HDD is being considered currently it is not mentioned apart from briefly in relation to impact to disturbance and disrupt the landfall morphology.

Operation

1. With reference to Table 28 (7.1.6). Consideration must also be given to the potential for scour to occur around the scour protection structures (rock placement, concrete mattresses) used for the WTG foundations and cable protection in the subtidal, nearshore and intertidal.
2. Cable protection (rock placement, concrete mattresses) may be required for example, where bedrock is exposed at or very close to the surface or where there is a high risk of exposure or damage and is particularly used at cable crossings. Cable protection on the seabed will reduce the water depth locally. If located in the nearshore environment, which may be highly dynamic, these protection measures can alter the hydrodynamics and sediment transport, with potential for associated morphological impacts.
3. Cable protection across the intertidal will cause a direct physical barrier to longshore sediment transport and will alter the hydrodynamics which can cause changes to the beach morphodynamics locally as well as causing changes to the regional coastal morphology through sediment starvation to downstream locations.

iii. For those impacts scoped in (Table 28), do you agree that the methods described are sufficient to inform a robust impact assessment?

NRW is not able to rule out the potential need for further modelling to inform the impact assessment for Awel Y Mor Offshore Windfarm. NRW advises that the applicant work with us to develop a conceptual understanding of the physical processes (hydrodynamics and sediment transport) and work to agree how the development proposals will interact and impact on the physical processes and features - such as Constable Bank, (an active sand bank bordering the southern end of the site and a potential feeder of sediment to the coastal beaches) - using the evidence and methods proposed. Once agreement is reached on the sufficiency of the information provided, the applicant should produce a robust impact assessment minimising the need for further modelling, particularly in context to the assessment of cumulative impacts in-combination with the other wind farms (Gwynt y Mor, Rhyl Flats and North Hoyle). If it is decided that further modelling is required, NRW will work with the applicant to agree the appropriate scope/approach and type of modelling to be conducted.

iv. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on the physical process receptors and pathways?

Yes. NRW welcomes the inclusion that “*The requirement and feasibility of any mitigation measures will be consulted upon with statutory consultees throughout the EIA process*”.

Marine Water and Sediment Quality (Including Water Framework Directive Water Quality Elements)

Key Comments

NRW disagrees that the release of bentonite via Horizontal Directional Drilling (HDD) can be scoped out of the assessment.

NRW disagree that accidental spills on land can be scoped out of the assessment.

Further information should be provided to inform the suspended particulate matter baseline in order to aid assessment of impacts.

Impacts on the saline/thermal structure of Liverpool Bay have not been considered and should be.

The risk of works on the beach to Bathing Waters has not been considered and should be.

Detailed comments

EIA scoping report

While HRA is included under the Legislative context section (1.4.6), Water Framework Directive (WFD) compliance assessments are not. NRW strongly advises that the WFD be considered at an early stage to assess whether any deterioration will occur in WFD water bodies.

Section 7.1.3 discusses the frontal systems in Liverpool Bay and the wider Irish Sea. Much work has been done on this area by researchers at the National Oceanography Centre, Liverpool (e.g. John Howarth, Mathew Palmer, Jeff Polton) and at Bangor University (e.g. John Simpson and Tom Rippeth). The seasonal western Irish Sea gyre is driven by temperature, not salinity. The frontal system in Liverpool Bay, termed a Region of Freshwater Influence, varies daily with tide and wind mixing and is driven by freshwater inputs from the Dee, Mersey and Ribble; temperature is of secondary influence. There does not appear to be any assessment of the influence of the structures of the wind farm on the frontal structure of the Bay; NRW recommend this is considered in order to understand any repercussions to other receptors.

Please note that chemical status extends to 12 nm while ecological status extends to 1 nm (Section 7.2.1 para 342).

Section 7.2.3 para 346 states a selection of samples will be collected for contaminants and PSA as part of the benthic ecology survey. NRW recommend the applicant liaises with NRW on the strategy and location of these sample sites.

In terms of the baseline water quality environment, NRW recommend obtaining Environment Agency and Natural Resources Wales data which is used to support the Water Framework Directive. This data will give an indication of trends within water bodies (such as the Dee and Mersey) and can be used to support Section 7.2.4 paragraph 350 as it will be more recent in nature than the 1970's and 1980's references provided in the text. Furthermore, WFD information can be found to support the information in Section 7.2.4 paragraph 354. It would also be useful to present any information indicating a failure i.e. any element below Good status as this will give us an indication of what the issues are within the water body. NRW recommend the applicant use Water Watch Wales (<https://waterwatchwales.naturalresourceswales.gov.uk/en/>) to find information on elemental failures within water bodies.

Further information should be provided to examine the baseline turbidity in the water column (i.e. suspended particulate matter). The applicant has provided one map (figure 22) of an annual average and one of a monthly average (December; figure 23). NRW advise that other data from the same source indicates higher SPM concentrations between January and March compared to December. Furthermore, the monthly averages do not indicate highs in concentration (spring tides, near-bed, storms); this information should be presented to aid the understanding of elevated SPM via works being within the natural variability. Finally, the legends on the two plots range from 0 to 50 and 0 to 120 (no units given); NRW recommend these legends are stretched with further axis divides to provide detail relating to the contouring and that units are added so that the numbers correspond with those provided in the text.

To our knowledge there is no designated shellfish water at Llanddulas (Table 30). It is not included in any NRW datasets, it is not on the CEFAS shellfish webpages and it is not included in NRW's list of shellfish water protected areas (<https://cdn.naturalresources.wales/media/676244/shellfish-water-protected-areas-wales-2016-8-feb-002.pdf?mode=pad&rnd=13159636941000000>). The applicant should clarify this with NRW.

Regarding Table 31, NRW agrees that resuspension of sediments should be screened in (row 7.2.1). NRW welcome the approach to examine suspended sediments and their longevity in the water column (information provided in Table 28, rather than Table 31). In relation to row 7.2.2, NRW advise that typically data should be a maximum of 3 years old. Contaminant levels should also be compared to CEFAS action levels, where available; if these are not available, then PELs and TELs can be used. Row 7.2.3 includes spills which NRW welcome. NRW note that a Project Environment Management Plan (PEMP) will be generated. We advise on the use of Guidance for Pollution Prevention (GPP) note 5 (GPP5) Works and Maintenance In or Near Water to inform safe working via land-based activities (see <https://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/>). NRW recommend the PEMP include terrestrial-based activities (such as where landfall installation may require some form of beach access for construction vehicles, section 3.5, paragraph 122) and their impacts on the water environment. NRW note that activities at sea will be covered by a Marine pollution Contingency Plan (Section 7.2.5 paragraph 371). NRW also advise that spills should be included in the WFD compliance assessment and should be scoped into the assessment, as per the HRA; mitigation via a PEMP should not be considered until a later stage (i.e. detailed assessment stage 3).

From the information provided, NRW understand that works may take place on the beach and, as such, the risk to Bathing Waters via suspension of sediments and potential release of bacteria should be considered.

NRW disagree that bentonite from HDD should be scoped out of the EIA (Table 32). The reason for this is the designated Bathing Waters which are classified, to protect human health, based on their bacterial counts in the water column; shellfish waters can also be disturbed by suspended sediment, via bacteria in shellfish flesh and hindered feeding. Bacterial die off can be slowed by increased turbidity due to blocking of harmful UV radiation. Also, bacteria are thought to survive for longer in flocculated material, which would predominantly occur for fine muds. Therefore, due to the broad search area and the sensitivity of the Bathing Waters to elevated suspended sediment, NRW believe this activity should be screened into the assessment. Generally, it is unclear whether this topic has been screened in or out. The title of the table suggests it is screened out as does some of the text within row 7.2.8, but other text suggests it will be further assessed i.e. "*An assessment of the increases of SSC will be undertaken as part of the assessment for marine water and sediment quality (and the other relevant receptors) for all realistic worst case of all proposed activities*". The applicant should please clarify. NRW do not believe bentonite plumes created via oil and gas platforms can be compared to drilling at the coast – these are two very different environments in terms of depth, wave action and currents. While NRW agree waves and currents should add to the mixing component, NRW consider it should be given further thought. Finally, the "*range of natural variability*" has not been quantified as only a monthly average (December) and an annual average have been presented.

In response to questions in Section 7.2.7:

i. Do you agree that the data sources identified are sufficient to inform the marine water and sediment quality baseline for the Awel y Môr OWF PEIR and ES?

NRW recommend quantifying the near-bed, springs and storm concentrations of SPM in order to appropriately assess conclusions reached.

ii. Are you aware of any point sources of contaminants within the Study Area which may be of concern? If so, are any data available for these?

The Kinmel Bay discharge pipeline which was identified in earlier maps with an end point in the centre of the diamond shaped shellfish area. NRW recommend discussing data opportunities with Dwr Cymru/Welsh Water (DCWW).

iii. Have all potential impacts resulting from Awel y Môr OWF been identified for marine water quality receptors?

NRW queries what the cables are made of and, should cables break (see section 3.7.1., paragraph 137), whether there is a risk to marine water quality? NRW also query the impact of heating via the cables on the marine environment in terms of increased water temperatures and enhanced bacterial growth. Furthermore, NRW believe the impact of nearshore SPM on bacterial counts has been neglected and as such NRW disagree with 7.2.8 Table 32 being scoped out. The potential release of sediment and bacteria due to work on the beach has not been accounted for. Any impacts on the frontal system in Liverpool Bay have not been considered. The applicant should provide further information with regard each of these points.

iv. Have all potential impacts resulting from Awel y Môr OWF been identified for marine sediment quality receptors?

Yes.

v. Do you agree that the most appropriate guidance is Clearing the Waters for all, NRW's Updated Local Authority services and the water environment - Advice note on the Water Framework Directive, and PINS Advice Note 18?

NRW's OGN72 should also be considered in this list.

vi. Do you agree that the impacts described in Table 32 can be scoped out?

NRW do not agree that bentonite can be scoped out (Table 32). NRW do not agree that accidental spills on land can be scoped out (Table 91).

vii. For those impacts scoped in (see Table 31), do you agree that the methods described are sufficient to inform a robust impact assessment?

An early indication of how suspended sediment (presumably for offshore works) will be assessed has been provided in the Water and Sediment Quality section, though there is little detail. However, NRW note further information is provided in Table 28 row 7.1.1. under the Physical Processes section and within paragraphs 322-323 of Section 7.1.5. From a water quality perspective, NRW have no issue with the methodology (provided bentonite drilling is considered) and welcome that "the assessment will be discussed and confirmed with relevant stakeholders as part of the development of the PEIR".

There is no information provided to state how turbid runoff to coastal waters will be assessed.

viii. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on marine water and sediment quality receptors?

If land-based activities are also included in the PEMP, NRW will be content that mitigation measures are sufficient for mitigating potential impacts of spills.

Table 90 row 10.6.1 discusses the potential for turbid runoff from land. There is no information provided to state how this risk will be assessed for Marine Water Quality.

NRW note that measures described in NRW Guidance for Pollution Prevention will be formalised in the draft CoCP (Code of Construction Practice). NRW advise that accidental spills at sea and on land both be included in the PEMP.

The applicant wishes to scope out accidental spills on land (Table 91 row 10.6.8). Spills at sea (Table 31 row 7.2.3) have been scoped in to the assessment. NRW advise accidental spills on land should also be scoped in for the reasons given in Table 31.

Water Frame Work Directive Hydromorphological and Biological Elements

These comments are provided in reference to transitional and coastal aspects of WFD and relate to the hydromorphological and biological elements. WFD water quality in transitional and coastal waters comments are provided in the section above. These comments therefore relate to the offshore components of the scheme only and any potential interactions between these and WFD water bodies

Key Comments

The requirement for a Water Framework Directive (WFD) compliance assessment has been omitted from the legislative context section; 1.4.6. This is a major omission and NRW advise that WFD is considered at an early stage in the EIA process in order to assess whether there may be deterioration in WFD water bodies as a result of the project, or whether the project may jeopardise the attainment of the WFD objectives.

It appears there has been an oversight as to how the potential effects of the scheme will be assessed in the context of WFD. Only marine water quality appears to have been considered with regards to the assessment of offshore components of the scheme; WFD hydromorphological and biological elements have been erroneously omitted from the scoping report. NRW advise that it is critical that the project adequately considers all relevant aspects of WFD as part of its assessment; and this process should run in parallel with the wider EIA process.

Scoping is a key stage of the WFD Assessment process and will need to be carried out for all WFD parameters, including hydromorphology, biological elements and water quality aspects. Please refer to Clearing the Waters for All and OGN72 for further information in this regard.

Detailed Comments

In relation to paragraph 342; the WFD assessment should draw upon information gathered as part of the EIA process and can be provided either as a chapter of the EIA or as a separate document to be submitted as part of the EIA package. The assessment must align with the chapters of the EIA where there are synergies with WFD – these include, but are not limited to, physical processes, benthic invertebrates, water quality and migratory fish. NRW expect the WFD assessment to draw upon information gathered as part of the wider EIA, unless data or information gaps identify the requirement to gather data or information specifically for WFD Assessment purposes.

In reference to Table 29; there is likely to be WFD data available for the biological and hydromorphological elements in addition to the water quality data for WFD water bodies within the search area, this will be available from NRW or the Environment Agency. WFD classification data at element level will also be required where available. This should be available from Water Watch Wales (<https://waterwatchwales.naturalresourceswales.gov.uk/en/>).

In relation to Paragraph 354; As the North Wales water body is designated as Heavily Modified, it would be classified according to its potential, rather than its status and is therefore currently at overall moderate potential, as opposed to moderate status. Please refer to “*Guidance on the Classification of Ecological Potential for Heavily Modified Water Bodies and Artificial Water Bodies*”, UKTAG, 2008 for further information regarding the classification of heavily modified water bodies. Please refer to Section 4.4 of OGN72 or the section entitled “*Jeopardising Mitigation Measures*” in “*Clearing the Waters for All*” for information on how to consider heavily modified water bodies in an assessment.

It is not possible at this stage in the assessment process to determine which WFD water bodies will need to be considered in the WFD assessment; this will be based on the conclusions of the assessment of hydromorphological changes, water quality and potential effects on benthic habitats and migratory species as a result of the scheme, which will underpin the WFD assessment. Where a water body is designated as heavily modified, the assessment will need to consider whether there is a potential conflict with the components of the project and the **water body** mitigation

measures (please refer to Section 4.4 of OGN72 or the section entitled “Jeopardising Mitigation Measures” in “Clearing the Waters for All” for guidance on this matter).

Table 30 should be updated to reflect heavily modified water bodies being assessed in accordance with potential rather than status – please refer to the earlier comment on this topic.

NRW ask the Applicant to consider how they intend to provide the WFD Assessment, it can be carried out and submitted as a chapter of the EIA, or as a separate document and provided as an Annex.

Hydromorphology

The WFD hydromorphological element has not been considered within the scoping report.

NRW advise that any effects identified as part of the assessment of physical processes, including both direct and indirect effects e.g. cable protection and sediment transport, must be transposed into the WFD assessment of hydromorphological elements where there is potential to impact on a WFD water body/ies. These include, but are not limited to the following components:

- Construction phase– morphological changes including impacts to the nearshore area up to 1nm from removal of sediment from the system by dredging; seabed excavation in shallow nearshore associated with cable burial;
- Operational phase– effects on hydrodynamics and sediment transport arising from scour protection of cables inshore to 1nm.

As set out in comments made in relation to physical processes, NRW does not agree with the proposal to rule out the potential need for further modelling to inform the impact assessment. This information will also be relevant to the assessment of the WFD hydromorphological element.

The assessment of the WFD hydromorphological element underpins the assessment of the biological elements.

Biology

The WFD biological elements have not been considered within the scoping report.

Habitats

- In relation to paragraph 366 – OGN72 should also be included in the list of guidance documents of relevance. The Applicant was made aware of this guidance in an Expert Topic Group Meeting dated 10th March 2020 and was provided with this guidance document on 19th March 2020. While OGN72 was initially written as an internal NRW document, it is provided to Applicants to assist with carrying out a WFD Assessment.
- Any effects arising from the scheme with the potential to impact upon benthic habitats in WFD water bodies will need to be adequately assessed under the provisions of the WFD. These may be direct – i.e. cable protection in inshore waters; or indirect i.e. changes to the sediment transport regime that may impact upon coastal areas and inshore waters out to 1nm.

Fish

- There is no consideration as to how migratory fish will be assessed under the requirements of WFD within the scoping report
- Any effects arising from the scheme which may impact upon migratory fish must be adequately considered under the provisions of WFD. It is important to ensure all hydrologically connected

transitional water bodies with potential migratory routes for fish species that may be impacted by the scheme are scoped in

As previously stated, the biological elements are a key aspect of the WFD assessment process, and they should draw upon evidence provided as part of the wider EIA where there are synergies.

Further Considerations for Consultees (as set out in Section 7.2.7 of the EIA Scoping Report)

i. Do you agree that the data sources identified are sufficient to inform the marine water and sediment quality baseline for the Awel y Môr OWF PEIR and ES?

NRW advise that OGN72 is also considered

ii. Are you aware of any point sources of contaminants within the Study Area which may be of concern? If so, are any data available for these?

N/A – see water quality comments

iii. Have all potential impacts resulting from Awel y Môr OWF been identified for marine water quality receptors?

N/A – see water quality comments

iv. Have all potential impacts resulting from Awel y Môr OWF been identified for marine sediment quality receptors?

N/A – see water quality comments

v. Do you agree that the most appropriate guidance is Clearing the Waters for all, NRW's Updated Local Authority services and the water environment - Advice note on the Water Framework Directive, and PINS Advice Note 18?

NRW's OGN72 should also be considered in this list.

vi. Do you agree that the impacts described in Table 32 can be scoped out?

N/A – see water quality comments

vii. For those impacts scoped in (see Table 31), do you agree that the methods described are sufficient to inform a robust impact assessment?

N/A – see water quality comments

viii. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on marine water and sediment quality receptors?

N/A – see water quality comments

Benthic Subtidal and Intertidal Ecology

Key Issues

- Habitats Directive Annex 1 features should be acknowledged and incorporated accordingly into the assessment of potential effects e.g. Constable Bank – Annex 1 sandbank feature
- The applicant has not included an assessment of Environment (Wales) Act 2016 Section 7 habitats and species and as well as SSSIs designations in the scoping assessment.
- Review of receptors and clarification over terminology in the impact tables (Table 35 & 36) is suggested.
- A significant proportion of the Array Area and wider Study Area has not been characterised. NRW welcome the proposal for additional survey fully understand the scale of potential impacts in relation to the proposed development and suggest early engagement with NRW over further survey design and methodology.

Detailed comments

Page 188, Section 8.1.2 - NRW note the inclusion of a 11km buffer area surrounding the array area which incorporates the potential maximum distance suspended sediments may be distributed (and travel) as a result of construction (or decommissioning) activities. It appears from Figure 26 that the 11km buffer falls short on the south-western edge precluding part of the Menai Strait and Conwy bay (MS&CB) SAC and associated features. The distance from the southernmost point of the ‘Array Area’ to the edge of the Menai Strait & Conwy Bay SAC appears to be ca. 6km. NRW note from section 381 that the Study Area will be reviewed during subsequent stages of the EIA process and refined as necessary, therefore NRW suggest that the potential impact on MS&CB SAC and associated benthic habitat features be incorporated into this assessment with noting any advice from the relevant NRW physical processes specialist.

Page 192, paragraph 385 – NRW welcome the proposal to undertake site specific surveys to supplement the existing data sources available. There is however no mention of undertaking a geophysical survey in the benthic subtidal section. NRW would expect geophysical data to be used to provide up to date information on the subtidal habitats within the zone of influence. We would then expect the geophysical data to be ground-truthed using other survey methods such as the ones described in the paragraph e.g. grab sampling and drop-down camera surveys to confirm the habitats or biotopes that are present and their extent and distribution. NRW refer the applicant to the relevant sections of the NRW guidance for undertaking benthic marine habitat survey and monitoring (insert link).

Page 197, paragraph 392 states the following “*However, it is considered that it is the shallow Venus community which dominates areas around the Irish Sea coastline, including much of Liverpool Bay.*” NRW recommend the applicant includes a reference for this statement.

Page 197, paragraph 396 – The applicant states “*The results of the surveys across the Gwynt y Môr OWF site, which included grab, DDV and trawl data from pre- and post-construction surveys, were used to describe the following biotopes (JNCC Marine Habitat Classification) that have been identified within the Awel y Môr benthic ecology Study Area.*” It should be noted that significant sections of the study area, most notably the area to the west of the Array Area, wider Study Area and the western export cable route have not yet been characterised (as presented in Figure 29). NRW recommend the applicant revises this statement to account for the data gaps. NRW would also like to highlight that the Gwynt y Mor characterisation data is 15 years old and a distinction between what is valid of this data in terms of characterisation and what is not needs to be made.

NRW would be happy to engage in a discussion with the applicant to develop a survey design fit for purpose that takes into account the issues raised here.

Page 202, paragraph 407 – The applicant says “*Constable Bank is a sandbank feature which crosses the Awel y Môr Study Area within the offshore ECR search area, although this feature does not form part of the Menai Strait and Conwy Bay SAC*”, NRW advise the applicant recognises the Constable Bank sandbank as a Habitats Directive Annex I habitat feature “Sandbanks which are slightly covered by sea water all the time” although not part of a designated site. Furthermore, NRW advise the applicant that the export cable route should avoid the feature.

Page 203, paragraph 409- NRW would like to bring to the attention of the applicant records of the honeycomb worm *Sabellaria alveolata*, “reef points” on the shore between Tan y Lan and Llandulas and an identified reef on the beach near Llandulas, as well as reef points on the shore near Rhyl. *Sabellaria alveolata* reef is a Section 7 habitat (Environment Wales Act, 2016) and should be considered in the assessment of effects accordingly. These records along with any additional records will need to be examined further as a result of the Intertidal Phase I habitat surveys.

Page 202, paragraph 410- NRW welcomes the proposal to undertake site specific surveys to identify the extent of other Annex I habitats as well as other habitat and species of conservation importance (e.g. Habitats Regulations, Environment Wales Act, W&CA) across the Awel y Mor study area. NRW would like to bring to the attention of the applicant an area of potential Annex I reef habitat, described as an area of “unclassified stoney ground” on the Eastern cable route corridors, identified as part of the Gwynt y Mor year 1 post-construction monitoring survey. NRW would ask the applicant to consider this habitat accordingly. It is also worth noting that as a result of the recommended geophysical and further characterisation studies, other habitats and species of conservation importance may be identified (e.g. Annex I Habs regs, Section 7, SSSI, W&CA Schedule 5). These should be reviewed and where necessary assessed as part of the EIA process.

Page 204, Table 34 – The applicant notes that there is no overlap with the Menai Strait and Conwy Bay (MS&CB) SAC, however, it has been noted that the distance from the MS&CB SAC boundary and the Array Area is ca. 6km, which is well within the 11km buffer area allocated as the potential zone of influence (please also refer to our comments above with regards to the 11km buffer area, section 8.1.2). Any potential effects on the benthic features of the MS&CB SAC should be assessed accordingly and in line any physical process modelling outputs, as agreed by the NRW physical process specialist.

NRW also advise the applicant to remove the “North Anglesey Marine SAC” entry from the Table 34 as this is not relevant to benthic subtidal and intertidal ecology chapter.

Page 205, Map on this page – NRW recommend this map is revised and that all information not relevant to benthic subtidal and intertidal ecology is removed. It would also be useful if the applicant includes the relevant feature layers e.g. SAC sandbank and reef features as well as any SSSIs present in the study area e.g. Traeth Pensarn and Creigiau Rhiwledyn/Little Ormes Head. Layers are available on Lle the Welsh Government geo data portal (LLe.gov.wales/).

Page 207, Table 35 – Some of the impacts in particular those in relation to Habitat loss are currently not well defined. NRW propose inclusion of the following:

Construction

- Habitat loss – under infrastructure footprint – foundations, scour protection, cable laying. **This should be included in the construction phase**
- Habitat alteration - adjacent habitats indirectly affected by infrastructure e.g. scour, change hydrodynamics, increased sedimentation/smothering, introduction of INNS. **This should be included in the construction phase**
- Habitat disturbance – adjacent habitats likely to recover after a certain amount of time e.g. impact jack up rigs. **This should be included in the construction phase**
- Temporary increase in suspended sediments and sediment deposition. **This should be included in the construction phase**

Operation and maintenance

- Habitat loss – additional secondary cable protection e.g. mattressing. **This element should be reworded as it is currently not clear**
- Habitat alteration- adjacent habitats – additional ongoing scour, change in hydrodynamics **This should be included in the operation and maintenance phase**
- Habitat disturbance – planned maintenance, cable failure and excavation. **This should be included in the operation and maintenance phase**
- Colonisation of hard substrates – This is not an impact. NRW advise the applicant that the impact to consider here are “**Changes in local biodiversity**” due to the introduction of man-made structures. Furthermore, the current description gives the perception of this impact being beneficial. NRW agree that the introduction of hard substratum it may increase the diversity of certain species but it should also be noted that the alteration of a habitat, from a soft sediment to a hard bottom environment may not always be desirable. This should be assessed accordingly as part of the Environmental Statement.
- Increased risk of introduction of spread of marine INNS – The applicant should indicate the intention to undertake a biosecurity risk assessment for all stages of marine development and incorporate them into the PEMP.
- Change in Physical processes – This is not an impact, NRW advise the applicant that the impact to consider here is “Loss/alteration of benthic communities from scour, sediment transport, wave regime etc”. Potential impacts should be derived from the outputs of the physical process modelling, which will highlight what the impacts on the benthic habitats are likely to be.

Page 211, Table 36: While NRW welcome the relevant mitigation strategy and associated documentation in the MPCP and PEMP in relation to the management of Accidental Pollution management, NRW feel that this element should not be scoped out of the assessment as NRW have not had the opportunity to review and assess these documents as part of the scoping review, therefore this element should be included in Table 35.

EMFs – there is some evidence that EMFs affect crustacea behavioural patterns which would potentially include certain species under Section 7 (Environment Wales Act 2016) e.g. Crawfish *Palinurus elephas*. As Section 7 habitats and species have not been incorporated into the current scoping document it is not possible to scope out these elements without further assessment. These should be reviewed and assessed (where appropriate) as part of the Environmental Statement.

Page 212, paragraph 418 – NRW welcomes the approach to avoid significant impacts to ecologically important sandbanks and potential reefs as far as possible through route selection and micro-siting. The Constable Bank sandbank should be identified as Habitats Directive Annex I habitat in the study area but there may be other Annex I habitats as well as other habitat and species of conservation importance (e.g. Habitats Regulations, Environment Wales Act, W&CA) that are not yet known and NRW welcome this approach to avoid impacts on these

habitats. NRW also welcomes the approach of “Cable burial risk assessments to inform front end engineering works” although it is not clear what the rationale for determining whether cables will be buried or overlaid with potential mattress protection is or what proportion of cables will be buried or overlaid.

Page 213, paragraph 424 – NRW disagree with the applicant scoping out Invasive Non Native Species (INNS) from the cumulative impact assessment. This should be assessed as part of the cumulative impact assessment as the introduction of artificial structures may result in a potential stepping-stone effect in relation to the introduction and spread of marine INNS.

Page 213, paragraph 421 – The applicant should ensure that a robust CEA is undertaken with a comprehensive list of relevant projects and plans alongside and appropriate baseline assessment.

Scoping questions in relation to benthic subtidal and intertidal ecology include:

- i. Are you satisfied that the baseline data referenced above is valid for the purposes of the scoping assessment?

NRW are generally satisfied that the baseline data referenced is valid for the purposes of the scoping assessment. However, it would be beneficial if the applicant had also incorporated the data from the Gwynt y Mor year 2 post-construction monitoring survey (now available). This should be used to inform the additional site characterisation work and supplement any addition surveys to inform the Environmental Statement. NRW would welcome early discussion with the applicant to develop a survey design fit for purpose.

- ii. Have all potential impacts resulting from Awel y Môr OWF been identified for benthic subtidal and intertidal receptors?

Yes, however see main comments above.

- iii. For those impacts scoped in (Table 35), do you agree that the methods described are sufficient to inform a robust impact assessment?

NRW cannot agree with the methods being sufficient to inform a robust impact assessment before the interactions and impacts on the physical processes and features are understood and agreed upon with the Physical Process Specialist at NRW. Only then will NRW be able to understand what the changes in physical process during the operation are likely to be and how these will impact benthic habitats.

- iv. Do you agree that, considering the embedded mitigation in place, the assessment of benthic subtidal and intertidal ecology impacts as detailed above (Table 36) can be scoped out of the Awel y Môr OWF EIA?

There are elements of Table 36 that should be reviewed and incorporated as per comments in the main body of text.

NRW welcome the inclusion that “*The requirement and feasibility of any mitigation measures will be dependent on the significant of the effects on benthic subtidal and intertidal ecology and will be consulted upon with statutory consultees throughout the EIA process*”.

Additional comments

- Page 45, Figure 3 – This figure is not clear, NRW recommend this figure is re-exported or redrawn.
- Page 97, Figure 13 - This figure is not clear, NRW recommend this figure is re-exported or redrawn.
- Page 116, Figure 15 - This figure is not clear, NRW recommend this figure is re-exported or redrawn.
- Page 197, paragraph 394, alternating abbreviation of species “spp” and “sp”- NRW recommend that the applicant is consistent with the abbreviation used for “species”. In Page 197, paragraph 394 the applicant uses the “spp” abbreviation e.g. “Phoronis spp” whilst in paragraph 395 the applicant uses the “sp” abbreviation e.g. “Setularia sp”. These abbreviations “spp” and “sp” are alternated throughout the document and NRW recommend the applicant uses only one of them, either “sp” or “spp” consistently throughout the document.
- Page 201, paragraph 401, spelling mistake - “**Elminium** modestus”, the correct spelling is “Elminius modestus”
- Page 202, paragraph 404, spelling mistake- “**Ammophilia** arenaria”, the correct spelling is “Ammophila arenaria”
- Page 202, paragraph 404- “Elymus arenarius” is no longer acceptable, the new name is “Leymus arenarius”

Fish and Shellfish Ecology

Key Comments

- It is unclear from the text whether the listed data sources will be used to compile a list for species to be scoped into the assessment or considered as Valued Ecological Receptors.
- NRW do not consider the maps of marine fish spawning and nursery habitat sufficiently fine-scale or current to enable qualitative assessment of the special overlap with the development.
- The applicant is advised to that the protected species list needs amending to include, amongst others, S7 marine species.
- NRW require further justification for screening out impacts due to EMF.

Detailed Comments

Awel Y Mor EIA Scoping report

Scoping questions for consultees in relation to fish and shellfish ecology include:

- i. **Are you satisfied that the baseline data referenced above is valid for the purposes of the scoping assessment?**

Section 8.2.2. p.216 identified the study area for fish and shellfish receptors. With subsequent sections 8.2.3 and 8.2.4. describing existing surveys, maps of spawning and nursery habitat and species and site of conservation relevance. However, it is not clear from this to what extend these sources will be used to compile a list for species are proposed to be scoped into the assessment or considered as Valued Ecological Receptors. No data is presented for shellfish receptors.

To ensure a complete list of potential receptors for the baseline NRW advise that the applicant requests data records from academic institutions, such as Bangor University which regularly undertake surveys in the Area as well as commercial charter boats which may target sensitive species such as sharks, skates and rays.

NRW note that the applicant is not intending to carry out any further survey work for fish receptors and intends to use a combination of the baseline data listed to inform the assessment and has assessed the spatial overlap of the study area with spawning and nursery habitats maps taken from Coull, *et al* (1998) and Ellis *et al* (2010). This data is in some cases more than 20 years old and NRW therefore do not consider the data sufficiently accurate to allow for a quantitative assessment of potential overlap with the development site/footprint without further ground truthing or assessment of habitat preference.

Sections 449-451 describes the conservation sites, species and diadromous fish species identified as relevant to the area. However, the sections lack clarity and there appears to be some inconsistency in the species discussed under the various headings;

In 449, Species of Conservation relevant legislation, such as the Bern Convention, Habitats Directive, CITES and UK Biodiversity Species is listed. However, the only species listed in the section are Allis shad, twaite shad, sea lamprey, river lamprey and basking shark. All the migratory fish listed in the subsequent section 450 are highly protected under the mentioned legislation, and none of the marine fish species listed under Section 7 Environment (Wales) Act (2016) are included, even though these are potentially amongst the most affected, e.g. sandeel or herring.

In Section 450, it should be noted that smelt/ sparling is a UK BAP species and are known to spawn in some North Wales rivers, such as the Dee and the Conwy. Also, both the Dee, Conwy and Clwyd rivers support populations of salmon, sea trout and eels. Please also note that NRW has records of Angel sharks a critically endangered species.

Salmon and sea trout population data is available for the rivers Dee, Conwy and Clwyd.

In Section 451, Table 38 list protected sites, and this should include both the Afon Gwyrfai a Llyn Cwellyn and Afon Eden - Cors Goch Trawsfynydd both of which have Atlantic salmon as a species of primary selection.

- ii. **Have all potential impacts resulting from the Awel y Môr OWF been identified for fish and shellfish receptors?**

Yes, NRW agrees with the potential impact identified.

- iii. **For those impacts scoped in (Table 39), do you agree that the methods described are sufficient to inform a robust impact assessment?**

NRW mostly agree, however further survey work may be required to inform the decommissioning phase of the project. This is due to the likely habitat changes for fish and shellfish receptors, and the historic nature of the spawning and nursery data.

- iv. **Do you agree that the impacts described in Table 40 can be scoped out?**

NRW consider that further details and referencing should be made available on the reasons for scoping out impacts due to EMF. This could include industry standard practise such as burial depth of the cable, shielding by scour protection where physical burial is not feasible, predicted strength of the electromagnetic field etc.

- v. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of the Awel y Môr OWF on fish and shellfish receptors?

See above on potential effects of EMF.

- vi. Do you agree that the cumulative effects on Fish and Shellfish receptors (other than those related to subsea noise effects during construction) should be scoped out of the EIA for the Awel y Môr OWF based on the assumptions detailed in this Scoping Report?

NRW agrees.

Marine Mammals

Key Issues

- NRW advise that the most recent harbour porpoise abundance estimate for Celtic & Irish Seas Management Unit be used when it is available.
- The potential for noise disturbance impact ranges to overlap with North Anglesey Marine SAC should be considered.
- NRW advise that the applicant should consider noise abatement mitigation.

Detailed Comments

Paragraph 485 correctly identifies that the population estimate for harbour porpoise in the Celtic & Irish Seas Management Unit (CIS MU) was 104,695 (95% CI: 56,774 – 193,065) based on data from SCANS I and II surveys (Macleod et al. 2009, Hammond et al. 2013). It correctly states that an updated estimate combining SCANS III with ObSERVE data is yet to be published.

However NRW are aware that an updated abundance estimate has been made of harbour porpoise in the CIS MU from 2016 as 62,506 (95% CI 48,316 – 80,864, CV=0.13). Calculations are made from SCANS III (Hammond et al 2017) and the Irish ObSERVE (Rogan et al 2018) surveys undertaken in 2016 (IAMMWG 2020 in prep). This represents an apparently significant decline in abundance in this management unit. NRW therefore recommend the applicant seek to use the updated abundance estimate in the Environmental Statement.

Paragraph 500 states that there are two SACs designated for bottlenose dolphins in UK waters, - Cardigan Bay in Wales and the Moray Firth in Scotland. Please note that bottlenose dolphin is also a feature of Pen Llŷn a'r Sarnau SAC, and NRW consider the site to have strong connectivity with Cardigan Bay SAC and the wider management unit. NRW note that paragraph 511 does list Pen Llŷn a'r Sarnau as one of the SACs with bottlenose dolphin as a feature.

Note that the map on p 264 'Marine Mammal Special Areas of Conservation' has some errors in that it does not show Pen Llŷn a'r Sarnau or Pembrokeshire Marine SACs.

Table 42 – Impacts proposed to be scoped in to the assessment for marine mammals

When considering the various impacts from noise disturbance, it is important to note that as North Anglesey Marine SAC boundary is ~15km from the boundary of the Awel y Mor development area, there is a potential for the disturbance impact footprints to overlap with the boundary of the SAC. For example, for large diameter monopiles, deterrence ranges between 18 and 34 km have been reported for pile driving without noise abatement (Tougaard et al. 2009, Brandt et al. 2011, 2012, 2018, Dahne et al. 2013). If noise modelling does show such an overlap, the area and duration of such disturbance will need to be assessed against the SAC conservation objectives which state that there should be no significant disturbance of harbour porpoise. The conservation objective defines significant disturbance as that which excludes harbour porpoises from more than 20% of the relevant area of the site in any given day, and an average of 10% of the relevant area of the site over a season¹.

Table 43 - Impact 8.3.21 Temporary Threshold Shift (TTS). NRW understand the reasoning given for scoping out TTS, and agree that it is difficult to assess the magnitude or significance of the likely consequences of TTS. While it is possible that the effects of TTS are likely to be included in the assessment of disturbance, the effects of TTS vary by species hearing group (as with Permanent Threshold Shift (PTS)) and as such the impacts may not be the same across all species.

At this stage it is undetermined what threshold will be used for disturbance in the assessment. NRW therefore advise that TTS ranges are presented to provide context for the disturbance range assessment.

Page 277 - Mitigation measures. NRW advise that the applicant should consider noise abatement mitigation - if the PTS impact ranges are large, or if the disturbance footprint is likely to overlap with North Anglesey Marine SAC, it may be necessary to reduce the noise at source to avoid adverse effect on site integrity.

8.3.7 Further considerations for consultees

i. Do you agree that the data sources identified are sufficient to inform the marine mammal baseline chapter for the Awel y Môr OWF PEIR and ES?

Yes although see point above with reference to Paragraph 485

ii. Do you agree that all the protected areas within the zone of influence have been identified?

Yes - although see points above regarding omission errors on paragraph 500 and map on page 264

iii. Have all potential impacts resulting from Awel y Môr OWF been identified for marine mammal receptors?

Yes

iv. Do you agree that the impacts described in Table 3 can be scoped out?

Yes, however see point above regarding Impact 8.3.21 Temporary Threshold Shift. Note error – this should refer to '*Table 43*'.

v. For those impacts scoped in (Table 2), do you agree that the methods described are sufficient to inform a robust impact assessment?

Yes. Note error – this should refer to '*Table 42*'.

vi. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on marine mammal receptors?

No - see point above regarding potential need for noise abatement.

vii. Do you have any specific requirements for the underwater noise modelling and assessment methodology?

NRW recommend that PTS, TTS and disturbance ranges are displayed and assessed accordingly.
No other specific requirements.

Offshore Ornithology

Key Issues

NRW advise that flexibility should be retained to use the most appropriate assessment tools once the baseline ornithological surveys are completed.

Detailed Comments

Page 281; 531: The applicant refers to a 4km buffer. As stated in paragraph 533 the buffer is larger than 4km south of the site due to potential displacement to red-throated divers.

Page 284; 535: Most up to date data on seabird population estimates can be found in the BTO's Seabird Monitoring Programme (SMP). In "Seabird counts" the most recent census, the vast majority of the Welsh coast has been covered by recent counts within the last 5 years.

Page 284; 537: There is information on Welsh statutory sites on the NRW web page <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en>
And also, potentially useful information on the Lle portal hosted by Welsh government.
<http://lle.gov.wales/home>

Page 287; Table 44: Some latin names are in italics and some are not

Page 291; 552: Here the applicant states "Flight height data will be reported, however owing to the technical difficulties in estimating flight height from aerial imagery it is anticipated that generic flight data (Johnston et al., 2014a, 2014b) will be used in the collision risk model (subject to discussion with stakeholders)." In the initial document APEM shared with NRW during pre-application discussions (IR0485 GyM Extension Aerial Baseline Surveys) they stated that "Following various

trials to better understand the accuracy and precision of bird flight heights generated from high resolution aerial digital imagery, APEM has developed a new robust approach to generating confidence intervals for bird flight heights." If it is the case that, owing to technical difficulties, generic flight heights need to be used then NRW agrees that these can be used in conjunction with the appropriate collision risk model.

Page 293; Table 46; 8.4.1: The applicant states that "Any species recorded in very small numbers within the Study Area will be screened out of further assessment". The applicant does not supply a definition of what would be considered "very small numbers" here. In addition to this and more importantly, both the screening and the scoping for Awel y Mor are being done without the full two years' worth of agreed aerial surveys. Therefore, there isn't the adequate survey data to screen or scope out sites and/or species at this stage.

Page 295; Table 46; 8.4.3: Here the applicant states "A matrix approach (see JNCC/SNCBs, 2017) will be used to calculate a range of predicted impact magnitudes." At the present time the matrix can be used but NRW advise that the applicant should also consider the potential use of the SeabORD tool. There are also other tools under development by the Offshore Renewables Joint Industry Programme (ORJIP) which may be able to help with this assessment if completed in time.

Page 298; Table 47; 8.4.8: NRW do not agree that disturbance and displacement by maintenance and repair of offshore cables can be scoped out. These could potentially be done in the winter months and could cause significant or additive displacement and disturbance on the features of Liverpool Bay SPA.

Page 299; Table 47; 8.4.9: Here the applicant wants to scope out barrier effects during operation. Barrier effects on both foraging breeding birds and on migratory birds should be left in at this stage. For example, there are species such as Greenland white fronted geese at the Dyfi SPA which may be impacted by a barrier effect during migration to and from the SPA.

Regarding requirements for CRM methodologies: the UK Statutory Nature Conservation Bodies (SNCBs) are currently working on a joint advice note on bird collision risk modelling. This will provide guidance on methodologies and provide continuity between SNCB's.

Seascape, Landscape and Visual Impact Assessment

NRW's landscape planning interests relate to the potential effects of the offshore array upon the Snowdonia National Park, Isle of Anglesey Area of Outstanding Natural Beauty (AONB) and the Clwydian Range and Dee Valley AONB. For the landfall, onshore components and local landscape/visual considerations NRW advise that you liaise with the relevant Local Planning Authority.

Our responses to the specified questions in Section 9.4.7 are as follows:

1) Do you agree with the proposed 50km radius Study Area?

Yes.

2) Do you agree with the preliminary viewpoint list or have any proposed additions or alternatives?

The Zone of Theoretical Visibility (ZTV) shows that the extent of potential development visibility within Snowdonia National Park extends inland. The elevated landform of the Carneddau and hills closer

to the coast give panoramic views of foreground land backdropped by coastline, open seascape and open horizons. This area of the Snowdonia National Park has remote, wild and tranquil perceptual qualities. NRW recommend that the following viewpoints within and very close to the boundary of the National Park be assessed:

- Tal y Fan (SH732728, approx. 22km to the edge of the array site). This hill is between the coast and the Carneddau. The eastern extent of summit rock outcrops gives fine views of the coastline.
- Cefn Coch Stone Circle (SH721746, approx. 20km to the edge of the array site). It may already be included in the Archaeology and Cultural Heritage chapter, but this viewpoint should also be assessed regarding visual impacts upon public perceptions of the locality's landscape character and qualities.

Whilst this area lies just outside the Snowdonia National Park, it shares the same remote, wild, tranquil qualities of the designated area, but with the added strong influence of cultural heritage. The designated landscape boundary appears to have been drawn for practical reasons to exclude Penmaenmawr quarry. However, the Guidelines for Landscape and Visual Impact Assessment give such areas similar weight as designated landscapes even though they may lie just outside the boundary.

- Foel Fras (SH697682, approx. 27km to the edge of the array site). This is a remote peak along the ridgeline of the Carneddau. It is the last peak in the Welsh 3,000ers marked by a trig point. Walkers heading north towards Drum and its descending track are exposed to coastal views for a long period. The array would be seen within the view.
- The North Wales Path at Garreg Fawr (SH687733, approx. 22km to the edge of the array site). This is a small hill above Llanfairfechan, on the lower slopes below the Carneddau. Walkers descending this promoted route in a northerly direction will have views of the proposed array.

For views from the Isle of Anglesey AONB, NRW defer comment to the Isle of Anglesey AONB officer and landscape advisor due to their local knowledge.

For the Clwydian Range and Dee Valley AONB, NRW cannot currently discount the potential of the proposed indicative scheme at 332m high, set behind operational wind farms half that height, creating a confusing perspective effect – a reverse of distant features normally appearing smaller than those closer to the viewer. There is also the potential that the scheme would fill in what is left of open seascape.

A wireframe image for VP24 Graig Fawr (approx. 24km to the edge of the array site) is required to help clarify whether the visual effects on the Clwydian Range and Dee Valley AONB need to be scoped in to the assessment. This scenario could require a cumulative effects assessment to explain the impact of the combined offshore wind farm development, which has implications for the assessment's scope (see our response to Question 4 below).

3) Do you agree that the data sources identified are sufficient to inform the baseline for the Awel y Môr OWF PEIR and ES?

Yes. The perceptual qualities assessed by LANDMAP visual and sensory aspects can be used to highlight local variations in the designated landscapes' Special Qualities. Site evaluation during the taking of viewpoint photographs is also recommended.

4) Do you agree with the proposed methodologies for the assessment, cumulative assessment and presentation of visualisations for those impacts that are scoped in to the SLVIA (Table 60)?

Methodologies

The assessment should reference and apply NRW's seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance Stage 1, 2 and 3 reports (available [here](#)). These are the most recent guidance papers for offshore wind farm planning in the UK to date. The review of previous planning decisions provides evidence of visual effects thresholds at which significant effects have been previously assessed.

NRW agree with the use of Met Office definitions for the different ranges of visibility. NRW recommended that 10 years' Met Office data be reviewed to gain an understanding of the regional and seasonal variations in visibility. To help in scaling the magnitude of change NRW recommend correlating visibility with the time of year, to understand for example how spring and summer and autumn visitors to the area might perceive the wind farm.

Options, alternatives and mitigation

Views from the Snowdonia National Park, Isle of Anglesey AONB and the Clwydian Range and Dee Valley AONB lie within 20km to 24km of the array site. NRW note that no mitigation is being proposed. Options available to reduce the visual effects of offshore wind development are set out in NRW's seascape and visual sensitivity to offshore wind farms in Wales reports; including specifying smaller turbines and/or increasing the distance between the development and the visual receptors.

With regard to our Stage 1 report: Ready reckoner of visual effects related to turbine size (Table 16: Summary of distances at which low and medium magnitude of effect occur) and Stage 2 report: Guidance on siting offshore windfarms (Table 4.1: Guidance on siting offshore windfarms), where the scheme conflicts with these guidelines and principles NRW would expect amendments to be proposed to mitigate the effects on designated landscapes. NRW therefore advise the application of iterative assessment and design given the proximity of several valued national and regionally important designated landscapes that are sensitive to the visual intrusion of development.

NRW advise that the ES should explain the options and alternatives considered for the array and how the visual impacts on designated sensitive landscapes and visual receptors within the study area informed the proposed development.

Visualisations

Paper copies of the visualisation pack will be required to be able to view these in the correct format. These should comprise high quality visual imagery capturing the worst-case visual effect conditions, in paper form that can be viewed comfortably at arms-length on site. For cumulative visualisations and panoramic views, NRW anticipate images being wider than A3.

Cumulative effects

If VP24 (Graig Fawr) is scoped into the assessment (see our comments on Question 2 above) the cumulative effects assessment should assess the baseline visual effect of operational offshore wind development on the view from this location before considering the additional effect of the proposed scheme.

5) Do you agree that the impacts described in Table 61 can be scoped out?

Except for our comments about the cumulative assessment above, NRW agree with the other impacts scoped out of the assessment.

Terrestrial Ecology and Nature Conservation

Our responses to the specified questions in Section 10.1.7 are as follows:

i. Do you agree that the list of existing data sources identified in Table 75 is comprehensive or are there other data sources which should be considered?

Further information is available on water quality and biology (macrophytes, phytobenthos and fish) for Water Framework Directive (WFD) river waterbodies in the study area. This is available from Water Watch Wales at the following link and can inform WFD compliance assessment:

<https://waterwatchwales.naturalresourceswales.gov.uk/en/>

Monitoring data from which WFD classifications are derived can be requested from NRW.

Our Area Statements provide information on the key challenges facing each of the seven identified areas of Wales, what NRW can all do to meet those challenges, and how NRW can better manage our natural resources for the benefit of future generations. The north-east Wales, north-west Wales and Welsh marine Area Statements are available on our website at the following link:
<https://naturalresources.wales/about-us/area-statements/?lang=en>

ii. Do you agree that all the statutory and non-statutory designated sites that could potentially be affected by the onshore aspects of Awel y Môr OWF have been correctly identified?

The Afon Elwy is a sensitive WFD receptor and sediment pollution from the substation construction could have an adverse effect on the catchment, as well as affecting migratory fish such as sea trout and salmon. Depending on the area chosen for the substation, mitigation measures may be required to protect the water quality.

There is also little mention of aquatic macrophytes and phytobenthos (diatoms); these are WFD classification elements and it is currently unclear how they will be considered within the project's environmental assessment.

iii. Have all potential impacts resulting from Awel y Môr OWF been identified for important onshore ecological features in Table 76?

Yes, in principle at this early stage.

iv. Do you agree that the impacts escribed in Table 77 can be scoped out?

NRW note that the applicant proposes to scope out impacts to fish at watercourse crossings unless the HDD method is no longer proposed, in which case the impact would be scoped back in. NRW advise that impacts to fish are not scoped out at this stage, even with HDD, until the route is known as timings of the HDD work could potentially disturb migration or spawning (noise/vibration) if carried out for a prolonged period during the certain times of year. NRW also advise that fish are a classified

element under the WFD, and NRW would expect to see more detailed assessment regarding impacts to fish from watercourse crossings in relation to individual named waterbodies in the WFD compliance assessment.

v. For those impacts scoped in Table 76, do you agree that the methods described are sufficient to inform a robust impact assessment (insofar as it is possible to identify detailed survey requirements at this early stage)?

Yes, in principle at this early stage.

vi. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on important onshore ecological features (insofar as it is possible to identify relevant mitigation requirements at this early stage)?

Yes, in principle at this early stage.

Air Quality

Our responses to the specified questions in Section 10.5.7 are as follows:

i. Do you agree that the data sources identified are sufficient to inform the air quality baseline for the Awel y Môr OWF PEIR and ES?

Regarding section 10.5.5, proposed approach to EIA NRW advise that more recent guidance is available on the Institute of Air Quality Management (IAQM) website, which may be of assistance.

ii. Have all potential air quality impacts resulting from Awel y Môr OWF been identified for the relevant receptors?

Regarding section 10.5.4, Baseline Environment, para. 1055 clarity is required as to why only "*limestone woodland SSSI*" has been identified as potentially sensitive to traffic pollution and dusts. Other habitats are also sensitive and should be considered.

iii. Do you agree that the impacts described in Table 88 can be scoped out?

Regarding Table 88 NRW advise that it is too early to scope construction traffic out. NRW acknowledge that scoped-out topics will be reviewed pending further information, but as that suggests uncertainty this topic should only be scoped out once the data have been reviewed. NRW advise that the likely operational and decommissioning phase traffic volumes should be indicated so that these can be scoped out with greater certainty.

iv. For those impacts scoped in (Table 87), do you agree that the methods described are sufficient to inform a robust impact assessment?

Regarding Table 87, NRW advise that construction dust impacts on ecological sites are included.

v. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential onshore effects of Awel y Môr OWF on air quality receptors?

NRW advise that Habitats Regulations Assessment (HRA) mitigation measures should not be considered in the test of likely significant effects phase.

vi. Do you have any specific requirements for the assessment methodology?

Regarding potential cumulative impacts (para. 1071), there are likely to be other developments contributing to the traffic volume on the potentially affected roads that would need to be considered. Table 84 provides estimated traffic volumes on some main roads potentially affected by this proposal. There may be developments in the planning system that could contribute to the traffic which will need to be considered in the cumulative / in-combination assessment. Consideration should be given to the Wealden Judgement regarding what should be addressed in an Air Quality in-combination assessment.

Hydrology, Hydrogeology and Flood Risk

Hydrology

Our responses to the specified questions in Section 10.6.7 regarding hydrology are as follows:

i. Do you agree that the data sources identified (Section 10.6.3) are sufficient to inform the onshore hydrology and hydrogeology baseline for the Awel y Môr OWF PEIR and ES?

The data sources appear largely sufficient. However, the report does not mention obtaining any flow data from NRW gauging stations. In the area identified for the onshore developments the data available may be of limited benefit but could be requested if required. The scoping report refers to a review of public or private water supply abstraction sources, but there is no reference to contacting Dŵr Cymru / Welsh Water (DC/WW) for any data. It would be advisable to contact DC/WW to ensure that none of their assets related to water supply or waste water treatment would be affected.

With regards to the Water Framework Directive (WFD) NRW would advise that:

- OGN72 NRW internal guidance on WFD compliance should also be included in the list of guidance documents of relevance;
- WFD water body and classification data are available from Water Watch Wales <https://waterwatchwales.naturalresourceswales.gov.uk/en/>;
- Monitoring data from which WFD classifications are derived can be requested from NRW.

ii. Have all potential impacts resulting from Awel y Môr OWF been identified for water environment receptors?

The main impacts have been identified, although the information is currently very generalised. NRW would expect to see more detail in the EIA once the location of the onshore cable route and substation have been decided.

Regarding the statement in Section 10.6.4, para. 1085 that “*None of the surface watercourses are linked to environmentally designated areas*”, NRW advise that some surface waters in the study area

drain to and have potential to impact on designated Bathing Waters. These bathing waters are Protected Areas under the WFD and activities onshore can have a significant impact on bathing water quality (sediment and bacterial impact). NRW therefore advise that construction impact 10.6.1 (Generation of turbid runoff which could enter the water environment) has the potential to impact on Bathing Water quality - bacterial die-off can be slowed by increased turbidity due to blocking of harmful UV radiation.

iii. Do you agree that the impacts described in Table 91 can be scoped out?

NRW do not agree with the scoping out of operational phase impacts on the WFD and would expect more detailed assessment to support the reasoning behind this. WFD should be scoped into the EIA, or as a separate WDF compliance assessment, with more detail provided including information on the waterbodies involved and how impact on WFD status will be avoided.

NRW advise that it is too early to scope out construction impacts due to accidental pollution as this has the potential to affect WFD status and should be further justified and considered for individual WFD waterbodies when the cable route is known, as part of the WFD compliance assessment. This is also at odds with the approach taken for "*accidental pollution*" within the terrestrial ecology chapter (Table 76, item 10.1.5), which is scoped in.

iv. For those impacts scoped in (Table 90), do you agree that the methods described are sufficient to inform a robust impact assessment?

Yes, in principle at this early stage.

v. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on Hydrology and Hydrogeology receptors?

The mitigation measures appear reasonable although further information about potential WFD impacts is required, as advised above.

Hydrogeology

Our responses to the specified questions in Section 10.6.7 regarding hydrogeology are as follows:

i. Do you agree that the data sources identified (Section 10.6.3) are sufficient to inform the onshore hydrology and hydrogeology baseline for the Awel y Môr OWF PEIR and ES?

The sources of data for the investigation cover the relevant areas of work for the protection of groundwater resources and quality receptors.

ii. Have all potential impacts resulting from Awel y Môr OWF been identified for water environment receptors?

NRW note that the cables connecting the offshore wind turbines to the substation on land will not be fluid-filled and will be installed within cable trenching from landfall to the substation. The cable trenches will be a maximum depth of 2m below ground level and may require dewatering. Our advice on dewatering for engineering available at the following link should be considered: <https://naturalresourceswales.gov.uk/permits-and-permissions/water-abstraction-and-impoundment/?lang=en>

The depth of onshore cable burial beneath the beds of watercourses does not appear to be specified so has been assumed to be the same as that elsewhere on land i.e. >2m; clarification is required about this. If this approach is deviated from (e.g. above ground crossings, crossings <2m deep below the bed of a watercourse) or should a watercourse that is proposed to be crossed display considerable scouring of its bed, alternative arrangements should be sought in consultation with a geomorphologist; this may result in the need for further assessment.

iii. Do you agree that the impacts described in Table 91 can be scoped out?

Yes.

iv. For those impacts scoped in (Table 90), do you agree that the methods described are sufficient to inform a robust impact assessment?

Provided that the Construction Environmental Management Plan considers the pollution prevention measures, NRW are content for the impacts in Table 91 to be scoped out.

v. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on Hydrology and Hydrogeology receptors?

Please see our response to Question 4 above.

Flood risk

Our general comments regarding flood risk are as follows:

Chapter 3.6, Key Project Parameters: Onshore (para. 125): NRW support the proposal for the cable installation to use non-trenching techniques (such as HDD) where trenching is not possible due to significant obstructions such as a watercourse. However, clarification is required on what defines a watercourse as being 'significant'. Any trench crossing of watercourses will likely have some degree of both flood and environmental risk and as such NRW would wish to see as many crossings as possible being trenchless and avoidance of routes which would have the most watercourse crossings.

Chapter 5.7, Landfall options (para. 246) & Chapter 5.9, Onshore export cable: whilst it is noted that the landfall search area has specifically avoided two SACs and an AONB, NRW would advise that TAN15: Development and Flood Risk advises the following: "*6.2 New development should be directed away from zone C and towards suitable land in zone A, otherwise to zone B, where river or coastal flooding will be less of an issue..*". Paragraph 259 does not consider avoidance of flood zones, although it is noted that the route aims to minimise complex crossings such as rivers.

Chapter 5.11, Next steps (para. 263): NRW note that further design refinement will be undertaken with more detailed constraint mapping and would advise that Development Advice Map Zone C/Flood Zone 2 be included in this.

Our comments on Chapter 10.6 regarding flood risk are as follows:

Paragraph 1078: NRW advise that a vast area of the low-lying land associated with the Clwyd estuary, including the lower reaches of the Afon Gele catchment and land to the east of Abergele

and south of Rhyl, has flooded historically - notably the 1990 flood event. The Historic Flood Outlines can be obtained from <https://lle.gov.wales>

Section 10.6.3, Baseline data:

Paragraph 1080: NRW advise that the Shoreline Management Plan 2 for the area should also be used as a source of baseline data (*i.e.* SMP 22 - Great Ormes Head to Scotland).

Paragraph 1083: there are additional NRW land drainage pumping stations to those in the Afon Gele catchment within the study area. NRW would also advise that the additional information requested from Conwy County Borough Council and Denbighshire County Council should include details of the coastal defences.

Paragraph 1088: whilst it is agreed that large parts of this floodplain are defined as benefitting from flood defences, which means that these areas should not flood during a 1% Annual Exceedance Probability (AEP) fluvial or 0.5% AEP tidal event, there is no account for the impact of climate change nor failures in defences/systems in the maps. As such the area is at risk of flooding.

Table 90, Impact number 10.6.3: as above for para. 1083, details of existing coastal flood defences can also be sought from both Conwy CBC and Denbighshire CC as asset owners and maintainers of the sea defences along the frontage. NRW maintains the river Clwyd (earthen) defences.

Paragraph 1106: the main river crossings would be subject to a Flood Risk Activity Permit under the Environmental Permitting Regulations 2016, as would works within 8m of a main river and an activity on a floodplain which may be likely to divert or obstruct floodwaters, damage any river control works or affect drainage (apart from 'allowed activities' under the Regulations).

Section 10.6.6, Summary of next steps (para. 1116): NRW agree that further information and data will be required to identify impacts in terms of flood risk. NRW would expect this to result in the production of a Flood Consequences Assessment (FCA) for the landfall/onshore element of the proposal and form part of the final PEIR/ES.

Section 10.6.7, Further considerations for Consultees:

Our responses to the specified questions in Section 10.6.7 regarding flood risk are as follows:

i. **Do you agree that the data sources identified (Section 10.6.3) are sufficient to inform the onshore hydrology and hydrogeology baseline for the Awel y Môr OWF PEIR and ES?**

Additional data sources, as advised above and as part of the targeted data requests and consultation with a number of stakeholders and regulatory bodies (para. 1083), will be needed to inform the FCA (OWF PEIR and ES).

ii. **Have all potential impacts resulting from Awel y Môr OWF been identified for water environment receptors?**

Shoreline management plans will need to be identified and assurances given that the cables/landfall will not impact on coastal defences/watercourse sea outfalls by impinging on existing erosion/deposition rates.

iii. **Do you agree that the impacts described in Table 91 can be scoped out?**

Not applicable to flood risk.

iv. For those impacts scoped in (Table 90), do you agree that the methods described are sufficient to inform a robust impact assessment?

Yes. NRW recommend that the NRW guidance document: 'GN008 Flood Estimation Technical Guidance' available at the following link is used in the preparation of an FCA: <https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/development-and-flood-risk/?lang=en>

v. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the potential effects of Awel y Môr OWF on Hydrology and Hydrogeology receptors?

Yes, in principle at this early stage.

Geology and Ground Conditions

Our responses to the specified questions in Section 10.7.8 regarding ground contamination are as follows:

i. Do you agree that the risks and impacts associated with contaminated land are unlikely to be significant across the large majority of any ECR, and that any subsequent, more detailed assessments are most likely to target localised impacts?

NRW note the use of targeted investigations, which will be in line with current guidance and best practice for land contamination investigations.

ii. Do you agree that the proposed phased approach to the assessment of risk and associated impacts are sufficient to inform the onshore baseline ground conditions for the Awel y Môr OWF PEIR and ES?

Please see our response to Question 1 above.

iii. Are there any potentially significant sources of ground contamination/contaminative activities within the search area that have not been identified by the initial data review?

NRW note that piling may be required. If this applies to any onshore works, NRW advise consideration of the latest guidance and risk assessments for piling in areas of potential for land contamination from previous historical land uses.

iv. Have all potentially sensitive receptors within the wider search area been identified?

Yes.

v. Do you agree that the impacts described in Table 95 can be scoped out?

Yes, in principle at this early stage.

vi. For those impacts scoped in (Table 94), do you agree that the methods described are sufficient to inform a robust impact assessment?

Yes, in principle at this early stage.

Water Framework Directive

NRW note that the Water Framework Directive (WFD) is not mentioned in Section 1.4 (policy and legislative context), although it is mentioned elsewhere in the EIA scoping report. NRW advise that it is best practice to provide a WFD compliance assessment for projects where the activities could prevent the objectives of the WFD being met.

NRW advise that the WFD compliance assessment should align with the EIA where there are synergies with WFD – these include, but are not limited to, physical processes (geomorphology), benthic invertebrates, water quality and migratory fish, and with consideration to surface waters and groundwater. NRW expect the WFD compliance assessment to draw upon information gathered as part of the wider EIA, unless data or information gaps identify the requirement to gather data or information specifically for WFD compliance assessment purposes.

NRW internal guidance OGN 72 has already been shared with the applicant. The OGN was initially written as an internal NRW document but is provided to assist applicants with carrying out a WFD compliance assessment. Please note that the OGN is currently undergoing revision and may be updated prior to the completion of the project's environmental assessment.

Please also note our further detailed comments on WFD elsewhere in this response.

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Marine Physical Processes Guidance to inform Environmental Impact Assessment (EIA)

Physical processes guidance to inform EIA baseline survey, monitoring and numerical modelling requirements for major development projects with respect to marine, coastal and estuarine environments.

Guidance note: GN041

Document Owner: Marine Programme Planning and delivery Group

What is this document about?

The purpose of this guidance note is to provide advice to developers to inform Environmental Impact Assessment (EIA) of marine, coastal and estuarine projects with respect to physical processes. The Guidance Note refers to two Natural Resource Wales' (NRW) evidence reports. The first provides guidance on best practice for physical processes baseline survey and monitoring, and the second provides advice on numerical modelling assessments. The evidence reports are linked below, respectively.

Evidence Report No: 243 Guidance on Best Practice for Marine and Coastal Physical Processes Baseline Survey and Monitoring Requirements to inform EIA of Major Development Projects.

Evidence Report No: 208 Advice to Inform Development of Guidance on Marine, Coastal and Estuarine Physical Processes Numerical Modelling Assessments.

The content of this guidance is a synopsis of the extensive technical information contained within the evidence reports which is aimed at informing the design of survey and monitoring strategies in relation to marine, coastal and estuarine major development projects and the application of numerical modelling where appropriate.

We have prepared this guidance as part of our role as environmental advisor. In this role NRW Advisory provide advice to developers, our staff in the regulatory arm of the

organisation (NRW Permitting Service) and other regulatory organisations on likely environmental effects from marine development proposals and activities.

This guidance note does not comprise legal advice and should not be interpreted as such. Project proposers should seek their own independent legal advice on any matters arising in connection with this note in respect of a specific activity or development project.

This guidance does not prejudice any advice that NRW might provide as part of any application for a specific activity or development project.

Who is this document for?

This guidance is for anyone seeking to undertake environmental or ecological impact assessments for a proposed marine development or activity, and NRW staff. The guidance is principally aimed at major development projects but should be seen as scalable in this respect.

Contact for queries and feedback:

marine.advice@cyfoethnaturiolcymru.gov.uk

Review

This document will be reviewed at regular intervals following publication. Subsequent reviews will take account of any relevant changes arising from new legislation relevant to Wales.

Version History		
Document Version	Date Published	Summary of Changes
1.0	30 April 2020	Document published
Review Date: 30 April 2021		

Spotted a problem? Let us know at
guidance.development@cyfoethnaturiolcymru.gov.uk

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1.1 General Introduction

The guidance presents a summary of the two detailed reports on physical processes, highlighting methods and approaches that are considered by NRW Advisory to constitute best practice. We advise you to follow them if you are preparing and carrying out an EIA associated with a major development project in the marine, coastal or estuarine environment.

This guidance also provides advice on the detail that NRW Advisory would expect to see when presented with either proposals for, or reports on physical process baseline survey and modelling as part of either pre-application advice (if sought) or, the application process. Providing the required information at the appropriate level of detail will assist your application.

This guidance also provides links to other NRW Guidance relevant to assessment of major projects in the marine, coastal and estuarine environment. For example, GN013 Scoping an Environmental Impact Assessment for Marine Development and GN030 Benthic habitat assessment guidance for marine developments and activities.

This guidance is not intended to cover water quality or contaminated sediments, although there is information contained within the evidence reports which may help to inform such assessments.

2.1 Survey and Monitoring

Evidence Report No: 243 [Guidance on Best Practice for Marine and Coastal Physical Processes Baseline Survey and Monitoring Requirements to inform EIA of Major Development Projects.](#)

The purpose of this evidence report is to provide guidance on best practice for physical processes baseline survey to inform EIA and post consent monitoring requirements of major development projects; see section 1 of the report, namely:

- Port and harbour developments,
- Aggregate extraction,
- Power stations (including nuclear),
- Offshore wind,
- Other renewable energy developments including:
 - tidal range,
 - tidal stream,

- wave,
- Sub-sea cables (especially where they make landfall),

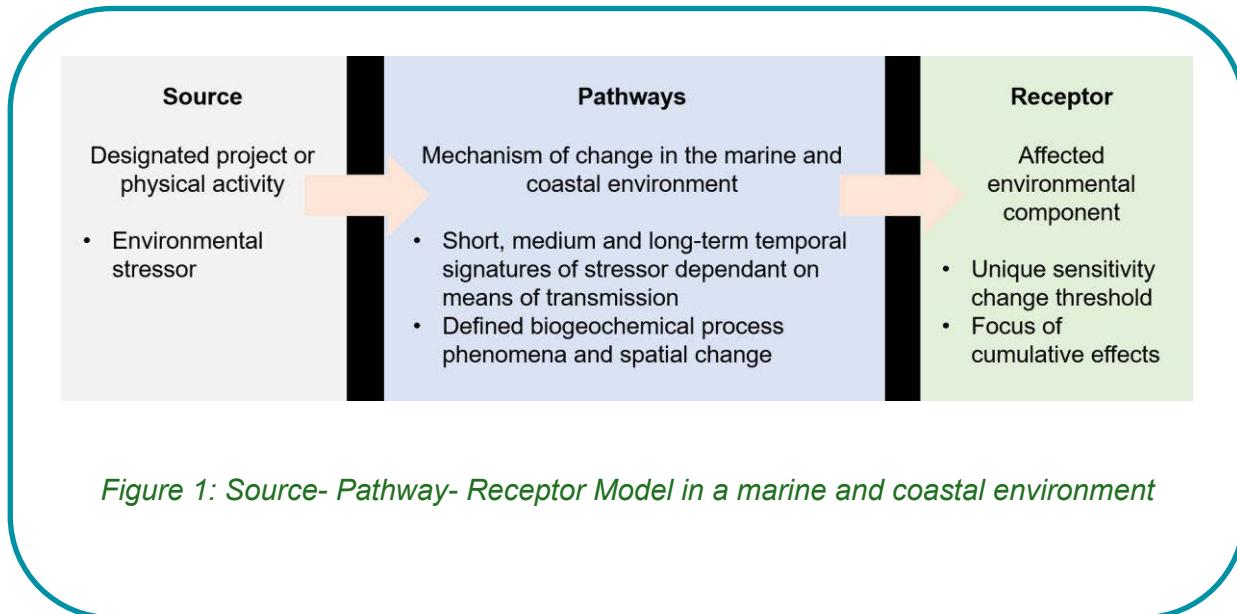
In addition, the advice contained within the evidence report can be used to inform other types of development.

2.1.1 Overview

Major developments within the marine environment have the potential to cause physical changes to water column properties as well as morphological change to the sub-tidal, inter-tidal and supra-tidal environment. In order to provide robust estimates of the temporal and spatial scale of these changes in advance of project construction and operation, it is essential that marine and coastal physical processes in the vicinity of the development are well understood. This understanding is typically achieved through the analysis of new and existing field data along with existing studies, complemented (where necessary) through numerical modelling. The evidence report was produced taking into account all relevant EIA guidance pertinent to marine and coastal physical processes; see Table 2 and Appendix A of the report. This literature review was then expanded upon by employing the authors' assessment of impacts observed at specific major development projects in a series of case studies; see Table 4 of the report.

The evidence report identifies the sources, pathways and receptors relevant to a given project throughout its development stages; construction, operation, decommissioning, see Figure 2 of the report, which has been summarised in figure 1 of this GN. It also provides advice on establishing characterisation and baseline survey, data collection requirements, and subsequent advice on monitoring strategy. The key sections of the evidence report are:

- Section 2 Background: Marine and Coastal Physical Processes
- Section 3 Literature Review of EIA Baseline Survey and Monitoring Requirements
- Section 4 Review of EIA Project Information: 'Lessons Learnt' from extant projects
- Section 5 Potential Impacts of Major Developments
- Section 6 Data Requirements for EIA Baseline Characterisation (Survey)
- Section 7 Good Practice for Marine and Coastal Physical Process Monitoring
- Section 8 Survey Techniques



2.1.2 Development of project conceptual understanding

The term marine and coastal physical processes is generally used as a collective for the following themes:

- Hydrodynamics (waves, tidal currents and water levels);
- Sediments, sediment transport and geology; and
- Topography/ morphology.

Combined knowledge of these parameters is central to developing ‘conceptual understanding’ of a system, which describes how the processes of a system link together and evolve in response to applied forces. Survey data (both new and existing) as well as outputs from numerical models (e.g. considering waves, tides, salinity and sediment transport) can be used to support the development, quantification and testing of the conceptual understanding although any numerical modelling should be viewed as a supporting tool, rather than as a substitute. Development of a conceptual understanding is considered critical to inform data requirements and review of existing data, gap analysis and then survey design. Table 1 presents a summary of baseline data requirements; see section 2 and 6 of the report for further detail.

Theme	Parameter
Hydrodynamics	<ul style="list-style-type: none"> • Tidal regime (water level range, current speed and direction) • Wind wave and swell wave conditions (wave height, period and direction) • Residual water movement • Surge water levels and currents • Temperature, salinity and stratification
Sediments and Geology	<ul style="list-style-type: none"> • Characteristics of seabed sediments • Particle size and density • Lithology (origin, composition) • Thickness of sediment units (including consolidation and change over time) • Suspended sediment concentrations • Seabed mobility • Sediment transport pathways and rates
Topography/ morphology	<ul style="list-style-type: none"> • Bathymetry • Bedforms and notable seabed features • Coastal topography, configuration and notable features

Table 1: Data requirements for EIA baseline characterisation

The development of a conceptual understanding will determine the adequacy of existing data, highlight data gaps, and therefore the requirement to conduct further surveys and collect new data; see Table 5 of the report with respect to data suitability, and section 8 with respect to survey techniques.

The baseline survey should ensure sufficient temporal and spatial resolution to adequately characterise the physical environment under consideration and be suitable to fulfil the requirements of numerical modelling boundary conditions.

2.1.3 Required data collection principles

We recommend that the following data collection principles should be applied at all project sites:

Principles of data collection

- The data should provide appropriate temporal and spatial coverage and resolution,
- The data should be collected and analysed in accordance with recognised standards (See Section 8 and Appendix B of the report),
- The type of data collected should be appropriate for EIA and for the objectives of data requirements set out in Section 6.2 of the report,
- The data should be accompanied by sufficient metadata (descriptions of the data source, location, date, time, time-step, instrument used, etc.) such that their context and limitations are understood. These requirements are set out in MEDIN (2019).
- Quality Control procedures should be undertaken on any data used (an assessment of the data quality, checking whether the data conform to the expected ranges of values; non-conforming data are flagged or excluded) to reduce uncertainty,
- Data must also be of sufficiently high accuracy that potential inherent error in the field data is small in comparison to the absolute values (e.g. the tidal range) and the natural range of the parameter in question (e.g. spring-neap variability in tidal range),
- The distance between the location(s) of the measurement(s) and the location(s) of interest should be minimized: the greater the offset distance and the greater the spatial complexity, the less representative the data will be of the key site of interest.

2.1.4 Survey and Monitoring strategy and implementation

We recommend an approach to survey which will provide flexibility in design options where details of the whole project are not available. This will ensure that the impacts of the final development are fully assessed by the EIA. See section 6.7 of the report for detail and below for a synopsis of NRW survey strategy design principles and technical specification requirements.

We recommend the following survey design principles, noting that we define the Zone of Influence as the area of the seabed or foreshore that could be affected by the proposed development or activity, during both construction and/or operation.

Survey design principles

- Understanding of the approximate geographical scale of the development and realistic worst-case aspects of the design,
- Anticipated maximum zone of influence of the development, utilising:
 - Spring tidal excursion ellipses,
 - Numerical modelling and field evidence from analogous developments,
 - Littoral sub-cell boundaries,
- A high-level conceptual understanding of the system,
- A source-pathway-receptor map,
- A list of the key relevant questions which require consideration,
- A map showing the geographical locations of existing, and accessible, data holdings as well as key metrics, for example:
 - Bathymetry
 - Wave field

Survey design technical specifications

- Spatial and temporal coverage,
- Sampling density,
- Data collection techniques; see section 8 of the report,
- Data standards; these requirements are set out in MEDIN (2019),
- Analytical techniques,
- Statistical techniques,
- Quality control.

Prediction of future hydrodynamic or morphological change can be uncertain and therefore adaptive management may be required. Monitoring schemes can be adopted via regulatory processes, which ensure effective adaptation to receptor response by enabling identification of the pathway from the source. Mitigation or design change measures can then be employed actively as the project develops to ensure receptor sensitivity tipping points are not exceeded. The evidence report discusses good monitoring practice; see section 7 of the report.

We encourage development of a monitoring strategy which will address the following design principles:

Monitoring design principles

- What are the monitoring objectives/ hypotheses?
- Likely trend of change of a pathway or receptor, and how is that likely to change both naturally and anthropogenically in the future,
- What is the likely future impact of different management interventions on the site and adjacent features?
- What is the likely impact of climate- related changes on the site in the future?
- What are the likely future short-term impacts on the site due to short term events i.e. storms?
- What is the site's ability to recover/ site resilience?
- Which parameters should be investigated,
- How should the parameters of interest be measured?
- The time of year/ frequency with which the parameter will be measured,
- The establishment of review periods providing the ability to stop or modify the monitoring exercise if the measurements suggest no change,
- The identification of appropriate thresholds of change,
- Identification of remedial action.

3.1 Modelling

Evidence Report No: 208 [Advice to Inform Development of Guidance on Marine, Coastal and Estuarine Physical Processes Numerical Modelling Assessments.](#)

The purpose of this report is to inform organisations of best practice when considering the use of numerical modelling to support an Environmental Impact Assessment, Habitats Regulations Assessment or Water Framework Directive assessment related to a development within the marine, coastal or estuarine environment. The report considers:

- establishment of a physical processes baseline to support modelling assessments
- choice of model scenarios for assessment
- model design, set-up and calibration procedures
- model validation procedures
- how the results of numerical modelling should be interpreted and used in conjunction with information from other methods as part of an overall Integrated Assessment process

Models vary greatly in type and complexity and it is essential that the model chosen is (a) appropriate to the environment and situation to which it is being applied, and (b) capable of reproducing the range of processes identified as important to the study, both in terms of the baseline environment and the potential impacts of a scheme.

3.1.1 Overview

The evidence report is based on a review of available modelling methods, a review of the types of numerical models currently available and most commonly used in the UK to investigate hydrodynamics, sediment transport and water quality, and a review of relevant published literature. Based on these reviews, the report makes a number of recommendations relating to the requirements for modelling-supported assessments of potential development impacts in the coastal /and marine environments.

Numerical modelling should not necessarily be viewed as an essential requirement in potential impact assessments, especially in the case of smaller schemes where the time and cost requirement may not be justified. Assessments should never be based on numerical modelling alone, and any numerical model results should be compared with results from data analysis and other forms of investigation such as physical modelling. The quality and relevance of numerical modelling results is heavily dependent on the quality of the data used to construct and validate the model, and all modelling should be accompanied by a programme of data collection and/ or collation (See section 2 above). Key issues to be addressed at this early stage are the required spatial and temporal scales of any modelling which may be required, the best type of model(s) to use in order to identify potential impact pathways between sources and receptors, the scenarios which need to be modelled, and the requirements for data collection both to allow model development and validation, and to provide independent evidence to be used in the overall process of integrated assessment. The key sections of the evidence report are:

- Section 2 Review of existing coastal numerical modelling guidance
- Section 3 Types of models
- Section 4 Best practice in numerical modelling of coastal areas in support of EIA studies
- Section 5 Establishing a physical processes baseline to support modelling
- Section 6 Error, uncertainty and confidence in model results
- Section 7 Combining numerical modelling results with other methods of assessment

3.1.2 Suggested requirements with respect to numerical modelling

When consulted, ideally at pre-application stage, we would like to see the following submissions each of which is expanded upon in the report:

Numerical modelling requirements

You should include first and foremost:

- A definition of the problem being addressed, and the study objectives;
 - Likely trend of change of a pathway or receptor, and how is that likely to change both naturally and anthropogenically in the future,
 - What is the likely future impact of different management interventions on the site and adjacent features?
 - What is the likely impact of climate- related changes on the site in the future?
 - What are the likely future short-term impacts on the site due to short term events i.e. storms?
 - What is the sites ability to recover/ site resilience?

Then go on to provide:

- A Definition of a relevant source – pathway- receptor framework for investigation; see Figure 1,
- A review of the available evidence base; see section 2, 3 and Appendix B of the report,
- Justification for the decision whether or not to use modelling; see Figure 2 of the report,
- Justification for the choice of any model used (1D, 2D, 3D etc.); see section 4 of the report,
- Technical description of the model(s), including development history, examples of previous applications and experience of the model users; see section 4 of the report,
- The basis for the definition of the model domain; see section 4 of the report,
- The basis for the type of mesh chosen; see section 4 of the report,
- The basis for selection of model boundary conditions; see section 4 of the report,

- The nature of any existing data used (bathymetry, water levels, currents, waves, sea bed characterization, sediment concentrations and particle size, water salinity, temperature and concentration of any other relevant features (phytoplankton, coliforms etc.), including their currency, spatial and temporal resolution, and procedures used to check data quality; see section 5 of the report,
- The nature of any new data collected, including measurement methods and procedures for data quality control; see section 5 of the report,
- The nature of any sensitivity tests to undertake; see section 4 of the report,
- The basis for selection of critical model parameter values (e.g. bed roughness, bed sediment size), and method of representation in the model; see section 4 of the report,
- The methods used for model calibration; see section 4 of the report,
- The methods used for model validation and assessment of ‘performance’ of the model; see section 4 and 6 of the report,
- The magnitude of possible errors / bias in the modelling results and the potential implications for the conclusions reached; see section 6 of the report,
- Full reference to data and metadata archiving methods, including full descriptions of the modelling procedures which can be audited by the regulator or other bodies if required.

You should be conscious of whether value will be added in making your decision to implement a numerical modelling strategy, (see figure 2 of this GN). For example, will value be added by understanding the effects at different phases of development: construction, operation and decommissioning, on the physical processes of the particular environment, associated with the project.

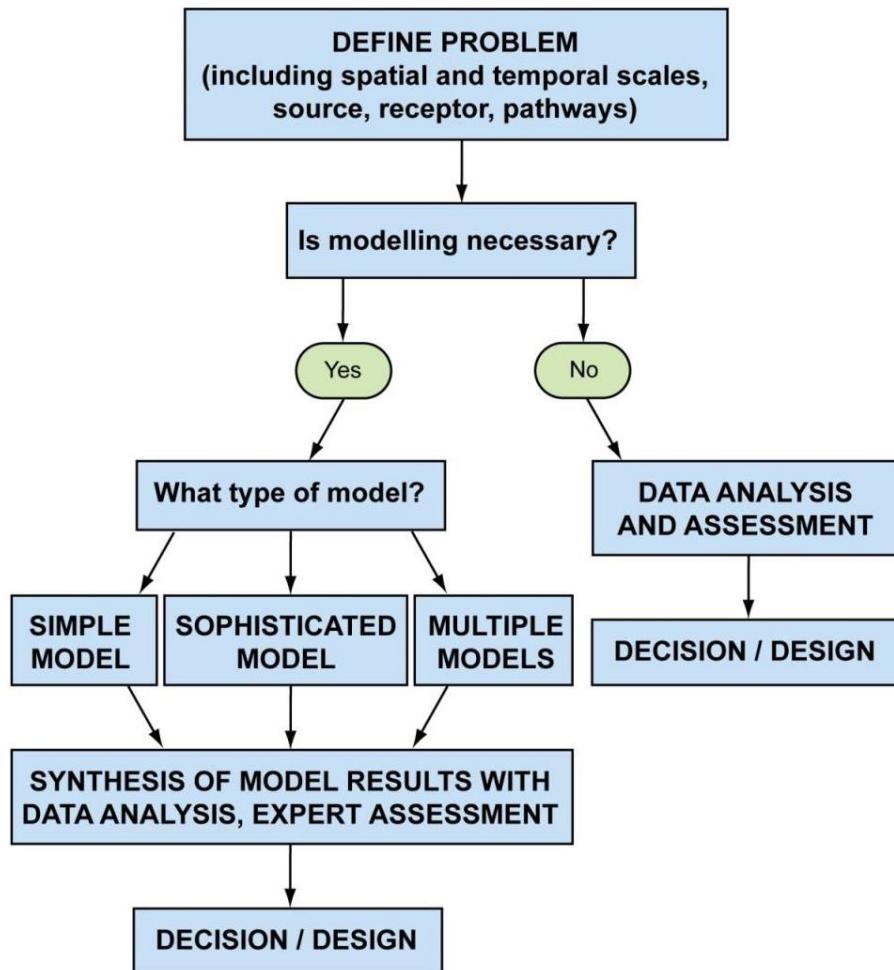


Figure 2: EIA strategy and numerical modelling decision tree

The schematic below (Figure 3; see section 7 of the evidence report) portrays a development ‘cradle to grave’ phased assessment, and the complementarity of data analysis and numerical modelling approaches. Data and survey requirements to support any such analysis and modelling is discussed in section 2 above in relation to Evidence Report 243.

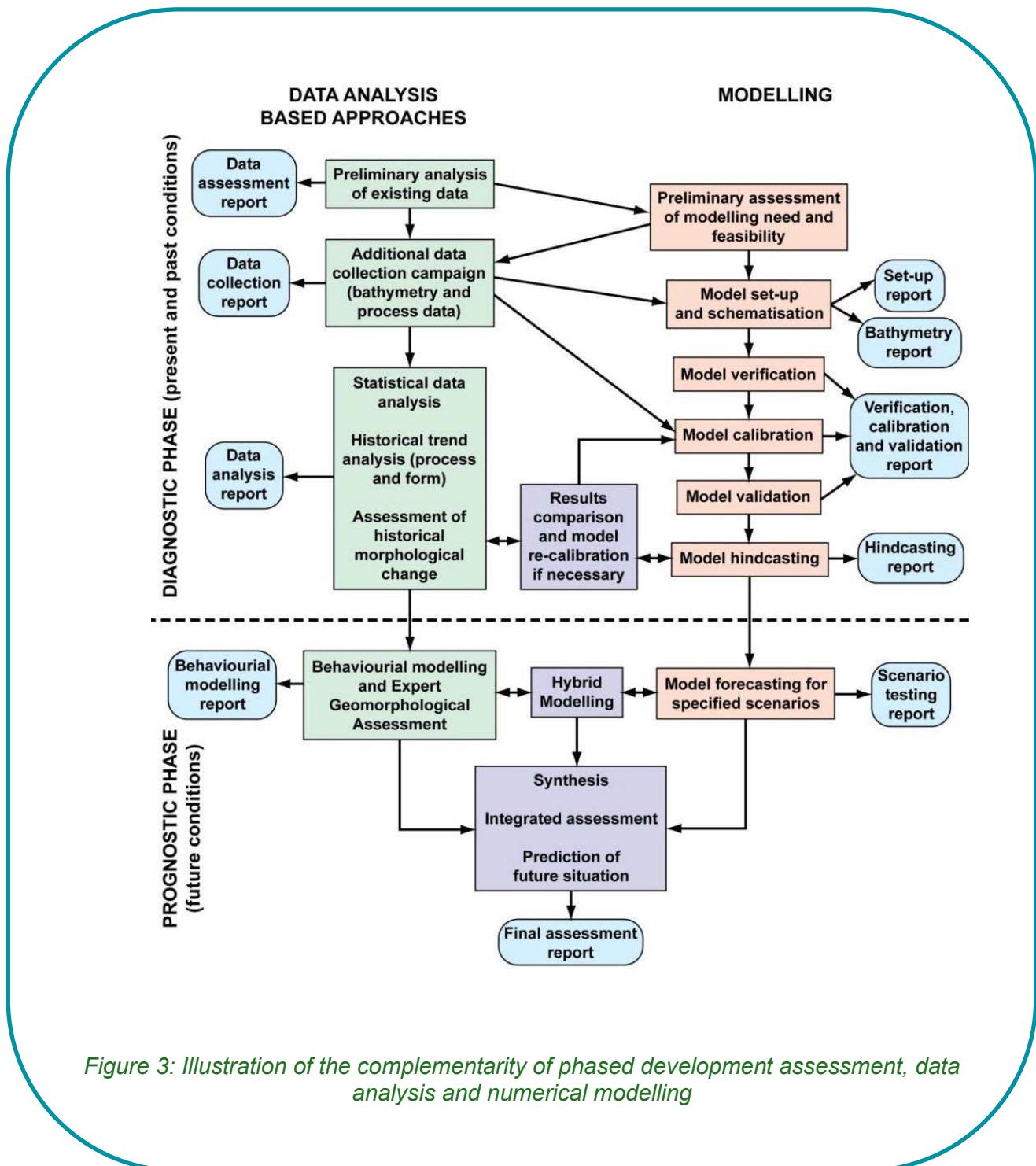


Figure 3: Illustration of the complementarity of phased development assessment, data analysis and numerical modelling

4.1 Further guidance

4.1.1 Marine and Coastal Guidance

Here you will find guidance, links and relevant downloads to enable sustainable marine and coastal project development and activities. Of particular significance are the following:

EIA: Information on EIA and how it applies to marine licensing

NRW portal with sections providing detail on:

- Section 1 Background Information
- Section 2 EIA screening and scoping
- Section 3 What types of project require an EIA
- Section 4 What information should be included in an ES
- Section 5 2017 Amendment to the Marine Works (EIA) Regulations
- Section 6 Previous EIA consent decisions issued by NRW

GN006 Marine ecology datasets for marine developments and activities

Marine ecology data owned or recommended by NRW and how to access it.

GN013 Scoping an EIA for marine developments

This document sets out NRW guidance on how to identify the key impacts of marine development projects in Wales that require assessment under the EIA directive.

GN030 Assessment guidance for developments and activities

Guidance for undertaking benthic marine habitat survey and monitoring. This GN recommends you include a benthic characterisation survey to increase the resolution of the baseline survey and subsequent delivery of a robust EIA. A characterisation survey is conducted to contribute to the overall site characterisation where existing information is insufficient to meet the specified start point to undertake a baseline survey

The Estuary Guide

The Estuary Guide aims to provide an overview of how to identify and predict geomorphological change within estuaries, as a basis for sound management. It supplements the report on numerical modelling provided here by including other techniques such as historical trends analysis and expert geomorphological assessment. NRW supports consideration of these conceptual techniques where appropriate.

5.1 References

MEDIN (2019) Brief guidance notes for the production of discovery metadata for the Marine Environmental Data and Information Network (MEDIN).

https://www.oceannet.org/medin/sites/medin/files/documents/MEDIN_Schema_Documentation3_0_brief.pdf

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Guidance for assessing activities and projects for compliance with the Water Framework Directive¹

OGN 72

Document Owner: WFD Team

Version History:

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1.0	September 2016	Document created
1.1	May 2017	Final draft agreed
1.2	Nov 2017	Typos removed and small non reportable WB text updated
1.3	Feb 2018	Minor edits following consultation with Water Technical Group
Review Date: Summer 2018		

¹ Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

What is this document about?

Natural Resources Wales (NRW) must ensure compliance with the requirements of the WFD, and other obligations; when undertaking its own operational activities, issuing consents or licences for activities, or when advising other decision makers. Meeting the objectives of the WFD to enhance and protect the aquatic environment also complies with the principles of sustainable management of natural resources.

This document outlines the procedure that we must follow when assessing (including screening) or reviewing an assessment on the potential impacts of an activity or project in the aquatic environment in accordance with the requirements of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

Wider environmental legislation will also apply where appropriate such as the Environmental Impact Assessment Directive and the Habitats Directive; these are covered under separate guidance documents – see related guidance documents list below.

What does this OGN replace?

This OGN replaces the EA legacy guidance 488_10 assessing new modifications for WFD compliance (2010) and Clearing the Waters Guidance on dredging and disposal activity in estuarine and coastal environments. The NRW website will continue to signpost applicants to the Environment Agency website until we are able to provide our own external version of the guidance.

If there are any conflicts between this OGN and any legacy body guidance relevant to WFD that has not yet been reviewed or withdrawn, this OGN should take precedence. For cross border catchments in the Dee or Severn RBD guidance provided by the Environment Agency should also be referred to.

Who is this document for?

This document is for NRW staff involved in:

- **Internal NRW activities and projects.**
Decisions by NRW on whether to undertake, as part of any operational activities, projects/schemes/activities with the potential to affect the aquatic environment and riparian zones including ongoing maintenance activities.
- **External activities and projects that require consent from NRW**
Determination of applications with the potential to affect the aquatic environment and riparian zones such as a flood risk activity permit or a marine licence.
- **External activities and projects where NRW is an advisor (statutory or non-statutory consultee)**
Provision of advice to external bodies, on the potential implications of activities that have the potential to impact upon the aquatic environment and riparian zones including WFD protected areas.

Further information on roles and responsibilities for each of the above is included in Section 5

Related NRW Operational Guidance

- [OGN 73 No deterioration guidance](#)
- OGN 200 Habitats Regulations Assessment of Projects
- [OGN 77 Derogation Determination for Water Framework Directive Article 4\(7\)](#)
- Environmental screening of Internal Projects (under development)

Visit the intranet for all [published guidance](#)

Contact for queries and feedback

Water Framework Directive Team, Evidence, Policy and Permitting Directorate
Feedback and comments on this OGN or accompanying forms should be emailed to:
Jill.howells@cyfoethnaturiolcymru.gov.uk

Explanation of terms (a full glossary is available in the [River Basin Management Plan Overview Annex](#)).

- Activities and projects includes anything that can have an impact on the aquatic environment both directly and indirectly.
- Direct impacts could include changes to flow or physical modifications for example from dredging, hydroelectric schemes.
- Indirect impacts can include changes to quality and quantity of water or impacts to transitory species in hydrologically connected water bodies.

Protected Areas

The WFD is a ‘framework’ Directive that aims to integrate the objectives of all EU water related legislation as well as having its own core objectives. WFD Protected areas are those designated under other EU directives: Habitats and Birds, Bathing Waters, Drinking Water, Nitrates, Urban Waste Water, including the Freshwater Fish and Shellfish Waters directives, that have been repealed and the duties now transposed to the main WFD legislation. These designated sites have specific standards/objectives they must reach and these are included on the [Protected Area Register](#).

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1. Introduction

The Water Framework Directive 2000/60/EC (WFD)² was transposed into United Kingdom (UK) law by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003³ (as amended)⁴. These Regulations were revoked in April 2017 by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The legislative framework sets out the legal requirements to protect and improve the water environment and sets out environmental objectives that must be met for all water bodies. The foundation of this is an ecosystem-based approach that requires measures to be taken to encourage the sustainable use of water and to protect and improve surface waters (including rivers, lakes, transitional and coastal waters), and groundwater bodies, with the aim of achieving good status.

NRW has a statutory duty to secure compliance with the WFD

It is essential that we have a robust, consistent, transparent and proportionate approach to WFD as properly conducted WFD Assessments support legally robust decision making.

In Wales, we must also have regard to the Environment (Wales) Act 2016 and the Well-being of Future Generations (Wales) Act 2015. The overarching aims of the Environment Act (2016) is to enable Wales' resources to be managed in a more proactive, sustainable and in a joined up way. The Well-being of Future Generations Act asks 44 Public Bodies in Wales to work in a sustainable way, and consider the impact our work can have for people living in Wales, now and in the future.

Prior to receiving consent, activities or projects that have the potential to affect water bodies (or schemes which lead to modifications of water bodies) should be assessed against the Directive's environmental objectives to determine whether they have the potential to prevent these objectives from being met which includes whether they may cause deterioration. **Further information on water body types and WFD objectives etc. can be found in [Appendix 1](#), and additional detailed information and a glossary is available in the [River Basin Management Plan Overview Annex](#) on our website.**

This guidance only covers WFD assessments, but you should bear in mind that we must comply with all our legislative duties, which are not covered in this guidance.

² Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (the 'Water Framework Directive').

³ SI 2003/3242.

⁴ The Water Environment (Water Framework Directive) (England and Wales) Amendment Regulations 2015, SI 2015/1623; and The Water Environment (Water Framework Directive) (England and Wales) Amendment Regulations 2016, SI 2016/138.

1.1 Stages of the Compliance Assessment

WFD should be considered at an early stage in project planning and included in pre-application discussions to ensure avoidance, mitigation and/or improvement measures are built in to the project where appropriate to minimise costs for the applicant and to provide the best environmental outcome.

The Directive does not specify the format or process to follow for WFD assessments. This allows a flexible and proportionate approach to be undertaken. To aid in the decision making process it is recommended that the appraisal of an activity or project is conducted in 3 stages – as illustrated in Figure 1:

- **Screening:** exclude any activities that do not need to go through the scoping or detailed assessment stages
- **Scoping** – identify the quality elements that are potentially at risk from the proposed activity and need further detailed assessment
- **Detailed assessment** – consider the potential impacts of an activity on bodies of surface and ground water, identify ways to avoid or minimise impacts, and identify if an activity may prevent the water body achieving good status or cause deterioration.

In the event that an activity may prevent the water body achieving good status or cause deterioration then it may be allowed to proceed if it meets the requirements of Article 4.7 ([see section 4.7](#)).

The WFD assessment must consider:

- all activities carried out; and,
- each stage of the activity, for example construction, operation, maintenance and decommissioning.

We must determine an authorisation so as to **prevent the deterioration** of the surface water status or groundwater status of a body of water and otherwise **support the achievement of the environmental objectives** set for a body of water.

If the WFD assessment demonstrates that the project:

- May cause deterioration of the status of a water body
- Jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive.

A derogation under Art4(7) must be granted for consent to be given for the project.

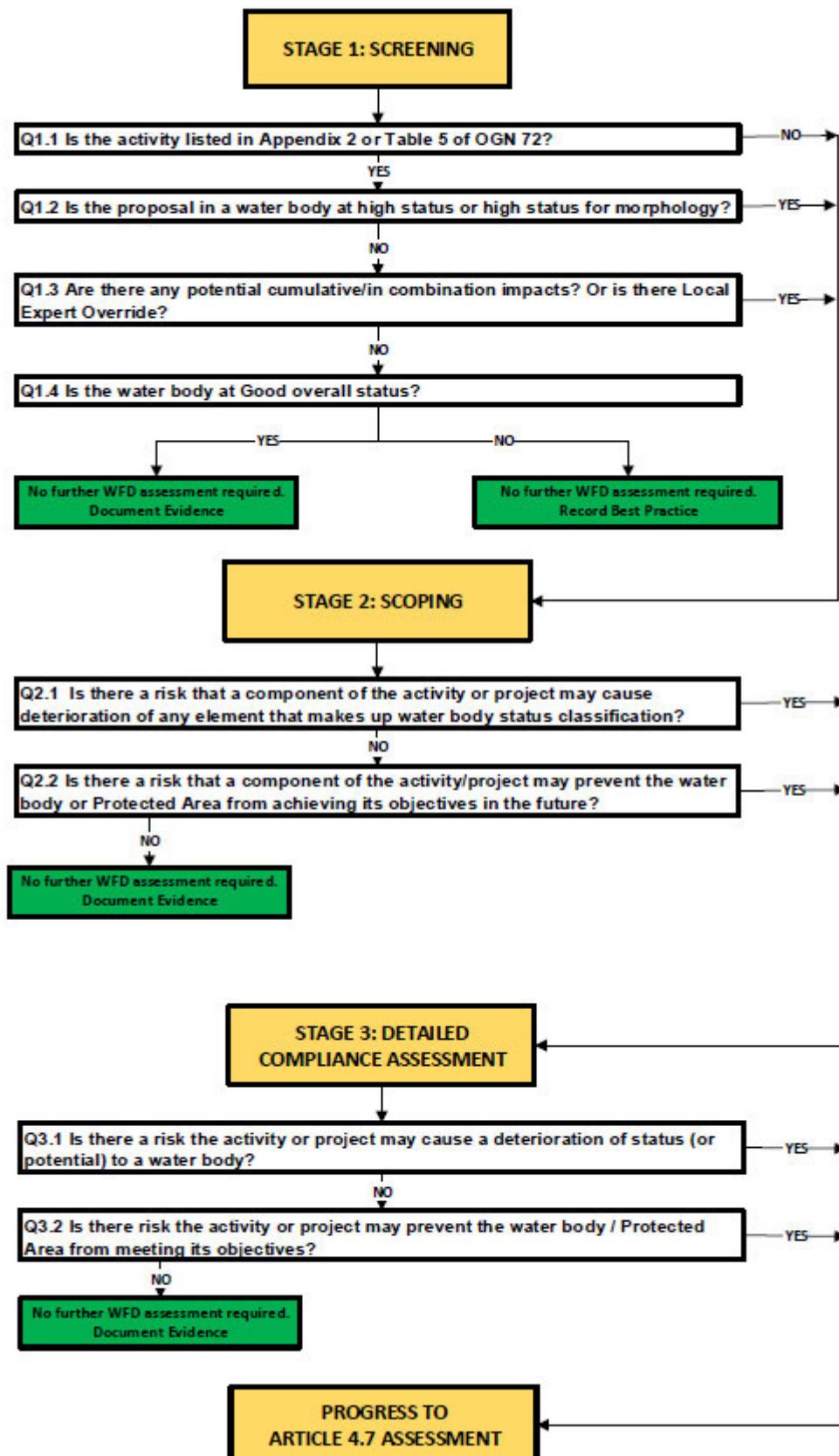
Internal NRW activities and projects.

We must ensure that any projects and activities we carry out **prevent deterioration** and **protects and enhances** the status of aquatic ecosystems and terrestrial ecosystems directly depending on the aquatic ecosystem.

Key points

- Activities which are screened out for WFD will still require screening under other legislation to ensure they comply with wider NRW duties.
- Regardless of the outcome, all decisions must be recorded as part of the audit trail.
- The earlier WFD is considered in the project timeline, i.e. at the design options appraisal phase, the greater the likelihood that impacts on the water environment can be avoided or minimised.
- The recent Court of Justice (CJEU) ruling (Weser judgment/Bund case) highlighted the importance of completing a WFD assessment at the **planning stage**.

Figure 1: WFD Compliance Assessment Process Flowchart



2. Stage 1 Screening: exclude any activities that do not need to progress to the scoping or detailed assessment stages

The aim of the screening stage is to ensure that only those activities that may cause deterioration or prevent a water body from meeting its objectives are assessed further.

There are certain activities that NRW considers not at risk of causing deterioration or preventing a water body from achieving its objective when all criteria set out in stage 1 screening are met. This step includes screening for the low number of water bodies at high status or with high status morphology. A list of activities which don't require a detailed WFD assessment in the majority of instances can be found in [Appendix 2 or table 5](#).

These activities can be screened out as not requiring further assessment in the majority of cases. However there may be instances where expert judgement is required i.e. for complex or cumulative interactions; or a particularly sensitive site/activity. In this instance, consideration should be given to past or ongoing activities, other projects which are currently under consideration and how these could potentially act in combination with the proposed activity. It is important to note the screening thresholds are for guidance only, and expert judgement and local knowledge needs to be used when applying the thresholds. [Section 3.5](#) sets out information on cumulative and in combination impacts.

Maintenance, repair, and changes to the operation of existing structures still in use for their original design purpose, where the design and the footprint of the structure remain the same, and the same or equivalent materials are used, can in most cases be screened out. However further advice should be sought from NRW Geomorphologists and Marine Specialists in complex cases of necessary repair to redundant structures. This includes works to maintain and repair the banks of canals, and the maintenance or repair of flood defence and retaining walls.

High status

Due to their scarce pristine or near-pristine physical habitat, water bodies with high status or high status for morphology **are most at risk of deterioration, any proposed project or activity in a water body at high status or high status for morphology will require detailed assessment.**

A water body may be classified at high morphological status but not classified as high status overall. [Appendix 4](#) lists the water bodies at high status morphology.

Key points

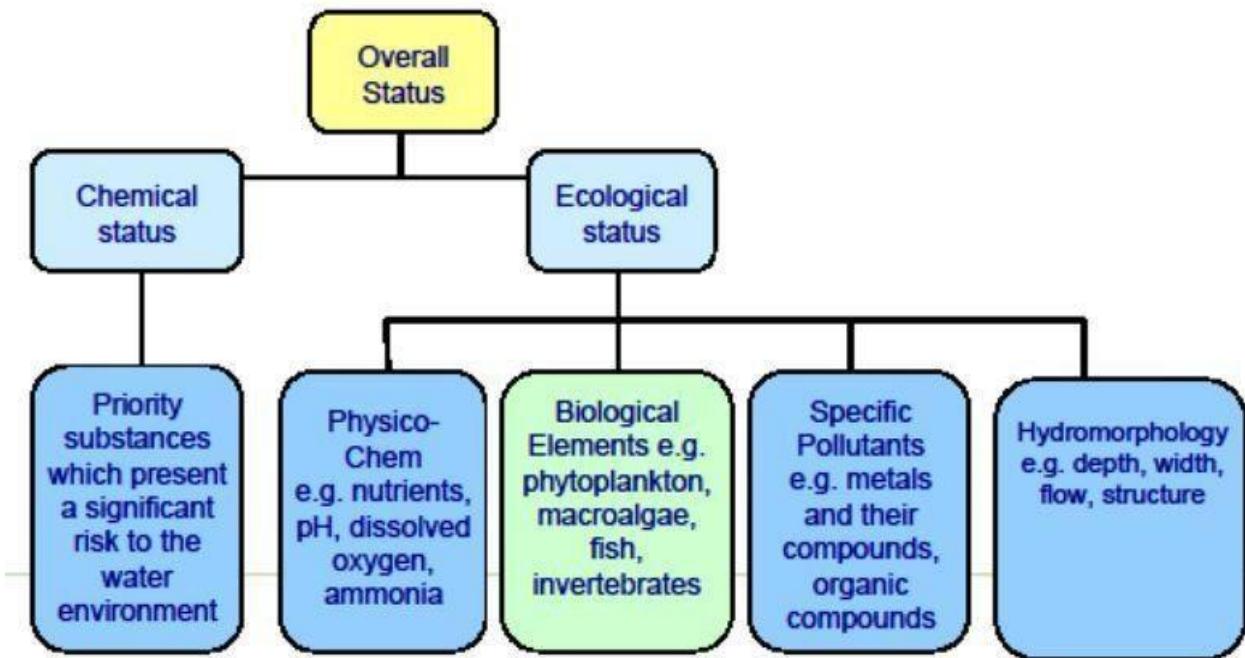
- A record of all decisions must be included for the audit trail - even when the activity presents no further risk and no further assessment is required. The [WFD Assessment Form \(Excel spreadsheet\)](#) is provided as a record template. For Flood Risk Analysis Permits record screening on the [FRAP consultation form](#).
- Where activities have been screened out, or the replacement of structures present an opportunity to further the aims of WFD objectives, opportunities should be sought to implement improvement measures.
- [The role of wetlands in the Water Framework Directive](#)
Pressures on wetlands (for example physical modification or pollution) can result in impacts on the ecological status of water bodies. In appropriate circumstances wetland creation and enhancement can offer sustainable, cost-effective and socially acceptable mechanisms for helping to achieve the environmental objectives of the Directive. In particular, wetlands can help to: abate pollution impacts; contribute to mitigating the effects of droughts and floods; help to achieve sustainable coastal management and to promote groundwater re-charge.¹
- Some stretches of water are too small to be a formal WFD water body. These are still legally protected from pollution, modification and abstraction and where an environmental issue is identified, it can still be improved where local actions and assessments deem it a priority. See [section 3.1](#) for further details.

3. Stage 2 Scoping: identify water bodies and elements that are at risk from the proposed activity and require further assessment

The aim of this stage is to identify elements within water bodies which may be impacted as a result of the activity, these will then progress to detailed compliance assessment. As part of scoping, the focus is on identifying components of the activity or project that have the potential to cause an impact and the quality elements potentially impacted. A scoping assessment should be undertaken for each water body potentially affected by the project. Water bodies can be scoped out at this stage if it can be robustly demonstrated that there will be no impacts.

Overall water body status is assessed against elements grouped into ecological status and chemical status, as illustrated in Figure 2. Where there is uncertainty in identifying the potential risks from the activity or project then further assistance should be sought from colleagues in the relevant fields, for example fisheries, biodiversity, geomorphology, water quality, who have knowledge of WFD and the elements that may be impacted. See [A.1.7](#) for additional sources of information.

Figure 2: Water body status classification



To achieve good status every single element assessed must be at good status or better. If one quality element falls below its threshold for good status, then the whole water body's status is classed as less than good ('one out, all out' principle). There are five different categories of status (or class) of high, good, moderate, poor or bad.

For groundwater bodies elements are combined to produce a quantitative and qualitative status which can be classed as good or poor.

Water bodies that are artificial or classed as heavily modified have the objective of Good Ecological Potential. Further information can be found in [Appendix 1.4](#) and [Section 4.4](#).

3.1 Collate baseline information on water bodies

- Identify relevant water bodies in the project area using the following criteria:
 - All surface water bodies that could potentially be directly impacted by the activity;
 - Any surface water bodies that have indirect connectivity (e.g. upstream and downstream) that could potentially be affected by the activity (e.g. sediment transport, fish)
 - Any groundwater bodies that underlie the proposed project area.
- Identify any risk posed by the works to Protected Areas⁵

⁵ Definition of Protected Areas included on page 3 of this OGN.

See [Appendix 1.6](#) for information on where to obtain this data, and [Appendix 3](#) for guidance on how to record the information.

Small non reportable water bodies

Some stretches of water are too small to be a formal WFD water body, or are too small to show up on a map of the water body such as reens, ditches, streams or brackish lagoons. These are still legally protected from pollution, modification and abstraction and where an environmental issue is identified, it can still be improved where local actions and assessments deem it a priority. Where a new activity or project is planned then assessment and licensing should be made to protect, and where necessary improve them to the extent needed to achieve the Directive's objectives for water bodies to which they are directly or indirectly connected.

It is likely that these stretches of water are not monitored by NRW and their status will not be reported. In the absence of any classification it should be assumed that they are at 'good' status and any deterioration from 'good status' be assessed as a result of an new activity. Some of the published WFD assessment tools may not be appropriate for these stretches of water due to their unique nature and you should contact the NRW UK Technical Advisory Group ([WFD team](#)) to discuss appropriate standards and tools. In the absence of any monitoring or classification data, or for more complex situations, an expert judgement assessment of the potential impact of an proposed activity against the normative definitions of status in Annex V of the [WFD](#) would be appropriate.

3.2 Collate information on the proposed development

All stages of the activity including construction, operation, maintenance and decommissioning should be considered. For external activities and projects that require consent from NRW, the applicant must assemble all relevant information on the proposed activity or project, to be provided in sufficient detail so that each component of the activity/project can be considered in the assessment. Where possible this should be discussed at pre-application stage.

For internal activities and projects the **operational team** proposing the works should provide a breakdown of the components of the activity/project into the individual physical alterations involved.

For further information on roles and responsibilities see [section 5](#).

3.3 Relate activity to water body quality elements

- Successful WFD scoping requires the consideration of links between: hydromorphology and ecology (in terms of direct/indirect and cumulative impacts);
- the sensitivity of the element/s in question; and,
- the magnitude of the impact with regard to whether an effect will be seen at the water body level on a non-temporary (See [section 4.1.1](#)) basis.

Where a water body could be negatively impacted by the activity or project then it will be scoped in and progress to detailed assessment. Where there is a lack of confidence on whether there is potential risk to an element then these should be scoped in for further assessment.

3.3.1 Hydromorphology

Hydromorphology constitutes both ‘hydrology’ and ‘geomorphology’ and describes the physical characteristics and processes of a water body.

Where an activity or project involves changes to flows or involves abstraction of water, then these hydrological impacts will need to be considered. Where a scheme changes the physical form or alters the process of sediment transport (erosion, deposition or transfer) then these morphological impacts need to be considered.

Expert judgement will be required to consider whether any hydromorphological alterations brought about by the project will potentially impact upon the biological quality elements and may cause deterioration in status. If the activity includes physical modifications to rivers then please refer to [Appendix 4](#) for technical guidance on the assessment.

Transitional and coastal waters should proceed to Stage 3 detailed assessment if the activity will have a significant impact on the hydromorphology. Hydromorphology includes the size, shape and structure of the water body, and the flow and quantity of water and sediment. Impacts on hydromorphology include changes to:

- morphological conditions, for example depth variation, the seabed and intertidal zone structure,
- tidal patterns, for example dominant currents, freshwater flow and wave exposure.

If the physical footprint of the activity is greater than 1% of the area of a surface water body or greater than 0.5km², then it should be scoped in for hydromorphology and sensitive habitats and progress to the detailed compliance assessment. The physical footprint of activities carried out with transitional and coastal water bodies - including dredge related activities; is calculated as 1.5x the dredged area.

Also include hydromorphology in the detailed assessment if the water body is heavily modified.

3.3.2 Biology

Annex V of the Directive sets out Biological Quality Elements (BQEs) which are used to classify ecological status using five classes from high to bad including elements such as fish, invertebrates or algae.

Potential pressures indicated by quality elements are included within the [Method statement for the classification of surface water bodies \(April 2011\)](#) and have been replicated here for information in Table 1. The following report also includes potential impacts to biology: [WFD Expert Assessment of Flood Management Impacts, R&D Technical Report FD2609/TR \(May 2009\)](#).

Table 1: Pressures indicated by biological quality elements

Surface water Category	Quality element	Pressure description
Rivers	Macrophytes and phytobenthos – diatoms	Primarily nutrient enrichment
	Macrophytes and phytobenthos - macrophytes	Sensitive to nutrient enrichment, pollution by toxic chemicals, acidification, abstraction of water
	Fish	Primarily sensitive to abstraction of water and morphological alterations
Lakes	Phytoplankton	Nutrient enrichment
	Macrophytes and phytobenthos – diatoms	
	Macrophytes and phytobenthos - macrophytes	
	Macroinvertebrates	Nutrient enrichment Acidification (Wales only)
Transitional and Coastal waters	Phytoplankton	Nutrient enrichment
	Macroalgae	Nutrient enrichment, hazardous chemicals
	Angiosperms	Nutrient enrichment, morphological alterations
	Benthic invertebrates	Organic pollution, hazardous chemicals and some morphological alterations
	Fish (transitional only)	Organic enrichment (dissolved oxygen) habitat destruction

3.3.3. Biology – fish

Fish should be included in to the compliance assessment if the activity could impact on normal fish behaviour like movement, migration, spawning; or species composition and abundance. The presence of type specific or disturbance sensitive species and the age structure of fish communities should also be considered. For example, if the activity will lead to:

- a physical barrier like a barrage or weir
- noise or vibration
- a chemical change e.g. low dissolved oxygen across part or all of a water body
- a change in habitat e.g. changes to fish spawning/feeding/nursery areas or refuge/predation areas.
- a significant change to the water quality, quantity, depth or flow of the water body.

Fish should also be included in the compliance assessment if the activity could cause mechanical injury or death to fish through:

- entrainment, e.g. fish being drawn into cooling water systems or turbines
- impingement, e.g. fish trapped against debris screens

For estuarine and coastal waters include fish in the scoping assessment if the activity:

- is in a transitional water body and could affect fish
- is outside of the transitional water body but could impact upon migratory fish

3.3.4 Water quality

3.3.4.1 Physio-chemical and specific pollutants

Include water quality in the detailed assessment if the activity has the potential to impact on physio-chemical and specific pollutants.

For estuarine and coastal waters include water quality in the detailed assessment if the activity:

- could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)
- is in a water body with a phytoplankton or opportunistic macroalgae status of moderate, poor or bad
- is in a water body with a history of harmful algae

Refer to the [Environmental Agency's surface water pollution risk assessment guidance](#) for further information.

3.3.4.2 Chemical status

Include water quality in the detailed assessment if the activity uses or releases chemicals, for example through sediment disturbance or building works. This is necessary when either the:

- chemicals are on the [Environmental Quality Standards Directive \(EQSD\) list](#),
- activity disturbs estuarine and coastal sediment with contaminants above [Cefas Action Level 1](#)
- If the activity releases chemicals on the [EQSD list](#) and has a mixing zone, like a discharge pipeline or outfall, follow the Environment Agency's [surface water pollution risk assessment guidance](#). This is part of the [Environmental Permitting Regulations guidance](#).

3.3.5 Protected areas

If the activity is in or within **2km of any WFD protected area** boundary, include each identified area in your detailed assessment.

WFD protected areas:

- Natura 2000 sites (Special Areas of Conservation (SAC) Special Protection Areas (SPA), Ramsar sites)
- Shellfish waters
- Bathing waters
- Nutrient sensitive areas
- Nitrate Vulnerable Zones (NVZ) – polluted or sensitive (Urban Waste Water Treatment Directive)
- Drinking Water Protected Areas (Surface and Ground)

Use [MyMap or Water Watch Wales \(WWW\) maps](#) for information on the location of protected areas within 2km of the activity.

It may be necessary to extend the assessment boundary for protected areas within the vicinity of the project to beyond 2km in some situations. This may be the case if the activity/project is considered to have a potentially wide-ranging impact.

Where a Habitats Regulations Assessment has been completed then this should be clearly signposted within the Protected Areas assessment section.

3.4 Priority habitats and species

Under Section 6 of the Environment (Wales) Act 2016, all public authorities including NRW⁶ must 'seek to maintain and enhance biodiversity'. Included in the legislation is a requirement that Welsh Government publish list of priority **habitats** and **species** of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Conservation of Habitats and Species Regulations 2010 offers similar protection and lists the fully protected European species of flora and fauna in Great Britain. For further information contact Protected Species Licencing as European Protected Species are assessed separately.

Although the extent or physical impact of a scheme may be minimal it may directly impact upon priority habitats or species in the water body. If the proposed project/activity directly impacts habitats that are critical to the individual biological quality elements or on a particularly sensitive habitat then further assessment is required. Critical habitats could be those of unique importance or offering a rare combination of features that are critical to the ecological health of the water body. Sensitive habitats are those which are sensitive to change, sensitive species are those which are dependent on the aquatic environment.

If there is a risk that the activity/project could impact on a priority habitat and/or species which are either critical to the ecological health of the water body or sensitive to changes proposed on the water body then identify these during scoping. See [Appendix 1.6](#) for further information.

3.5 Invasive non-native species (INNS)

Include INNS in the detailed assessment if the activity could introduce or spread INNS to a water body. Risks of introducing or spreading INNS include:

- materials or equipment that have come from, had use in or travelled through other water bodies
- activities that help spread existing INNS, either within the immediate water body or to other water bodies

Refer to the [Check Clean Dry](#) campaign to help prevent the spread of invasive plants and animals in British waters. You can find out more about INNS on [the GB Non-native Species Secretariat website](#).

⁶ Wildlife and Countryside Act (as amended) 1981 & The Environment (Wales) Act 2016

3.6 In combination and cumulative impacts

3.6.1. In combination assessment

The other activities that should be considered for potential in-combination effects with the proposal under consideration are any of the following whose effects could interact with the residual (i.e. insignificant when considered alone) effects of the activity or project being considered, for example by adding to or magnifying its effects, or by increasing the risk of deterioration of a quality element:

- Activities started but not yet completed
- Activities consented but not started
- ongoing activities subject to repeated authorisations (e.g. annual licences)
- applications submitted but not yet determined
- refusals subject to appeals procedures not yet determined
- activities not requiring consent but which have been approved by the competent authority concerned

Do not include activities which have not yet been applied for, unless the activity is well defined and there are solid reasons for believing that it will be taken forward. Consult with technical advisors as required.

3.6.2. Cumulative impacts

Consideration must be given to the potential for cumulative impacts within a water body. Although individually an activity may not have a significant impact on the WFD status, the additive effect of several small-scale schemes or existing/historical pressures/modifications, within a water body may cause deterioration. It is important to consider the cumulative effects of existing pressures in a water body and the combined impacts of the proposed activity.

4. Stage 3 Detailed Compliance Assessment

This stage considers the potential impacts of an activity, identifies ways to avoid or minimise impacts, and concludes if the activity may prevent any quality element within any water body achieving good status/potential or may cause deterioration. A detailed assessment should be carried out for each quality element if it has been identified during the scoping stage that the activity may cause deterioration.

The assessment should be tailored to the activity, location and the potential risk to the quality element. Higher risk, more complex activities with multiple impacts will require a more detailed assessment. It is impossible to provide detailed guidance on this assessment step due to the unique nature of all developments and the environment in which they are proposed. However a good understanding of the WFD elements and how they are classified and their response to anthropogenic pressures should be sought.

4.1 Assessing for deterioration

Deterioration in the context of WFD is defined in OGN 73. In summary, deterioration is when the status of at least one quality element reduces by one class or more, even if that fall does not result in the classification of the body of surface water as a whole. If a quality element is already at the lowest status class then a measurable

and meaningful within-class deterioration counts as deterioration. Use the sources of information outlined in [Appendix 1.6](#) to find the status of quality elements in a water body. A list of technical experts to support this process is outlined in [Appendix 1.5](#).

Evidence and justification must be provided where the activity may cause deterioration, either of the quality element or supporting habitat. Consider if the impact is:

- direct and immediate – it will happen at the same time and place as the activity
- indirect – it will happen later or further away, including in other hydrologically connected water bodies e.g. potential changes to physical processes, potential impacts to migratory fish

Record if the activity is the sole cause of the deterioration, or whether it may act in combination with other activities to cause the deterioration.

If the activity can create pressures on the marine environment, [you can use this pressures-activities matrix](#) to help identify ways that the activity could affect the quality element/s.

This stage of assessment will result in a list of which quality elements, in which water bodies, **may** deteriorate as a result of the activity being assessed. Any impact monitoring planned should be considered at this stage and should be robust and proportionate to the scale and nature of the impact.

Key point

Identify water bodies which may deteriorate – i.e. water bodies where deterioration cannot be ruled out. This is a more precautionary approach than prior to 2016 as a result of EU case law ('Weser-judgment' (C-461/13)).

4.1.1 Temporary Works

WFD is primarily concerned with non-temporary deterioration. If the water body:

- is only impacted for a short period of time;
 - recovers within a short period of time;
 - recovers without the need for any restoration measures,
- this will not constitute deterioration of status under WFD.

Even where works are temporary in nature the impacts to the ecology of a water course may be longer lasting.

Many activities involve 'temporary' works, which can include construction and decommissioning activities. Consent applications for such activities normally have a defined end date, beyond which the works should be fully removed from the water body/ies. Any impacts arising from these works are not considered to cause deterioration if it can be demonstrated that the water body would recover in a short period of time. For example, temporary impacts due to the establishment of the modification during the building phase are not required to be addressed if no

deterioration of status or potential could be expected thereafter in the water body or parts of the water body.

However, even where works are temporary in nature the impacts to the ecology of a water course may be longer lasting. To qualify as a temporary activity, the water body should recover within a short amount of time and without the need for restoration measures (i) in the water body where the activity is taking place and (ii) in any hydrologically connected water bodies, once the temporary works are removed. If the water body does not recover to the same status as before the activity started then the activity should **not** be treated as temporary. In such cases, the operational or regulatory team should assess the physical works against the risk screening thresholds in [Appendix 4](#).

The release of fine sediment and modification to the bed structure during temporary works is often of particular concern; significant impacts can be experienced in other water bodies e.g. downstream water bodies for a considerable distance and for considerable time after the works have been completed. Where such risks exist, best practice should be followed to avoid or minimise unnecessary bed disturbance and the release of fine sediments into the water course. [Sediment Matters](#) includes good practice advice on minimising the risk of silt pollution.

The temporary works listed in [Appendix 4](#) are activities that will not cause deterioration when all criteria set out in stage 1 screening are met (Table 5). In the vast majority of cases they are unlikely to have any impact to WFD objectives. However, where these temporary works are related to the construction/operation/maintenance/decommissioning phase of particularly large, lengthy in duration and / or high impact scheme, operational teams or external applicants may be required to undertake further WFD assessment on particular aspects of the scheme or the combination of different temporary works.

4.2 Mitigating for potential impacts.

The detailed compliance assessment will identify which quality elements in which water body/bodies are at risk of deterioration. Now it must consider how any identified impacts will be mitigated. Mitigation includes avoiding or minimising impacts.

It is important that at the **design options appraisal phase** of the project, mitigation should be considered to remove or minimise any potential impacts. Considering mitigation for WFD impacts at an **early stage** means mitigation can be inbuilt into the project design and may avoid the need to change the design to incorporate mitigation at a later stage.

If the activity may cause deterioration, then the assessment must consider ways of reducing the impact as far as possible. This could include:

- the size or scale of the activity
- location and duration of activity
- ways of working
- the materials or substances used
- inbuilt mitigation, for example a fish pass.

4.3 Preventing the achievement of good status/potential

Every water body has an objective (water body status/ potential) that it's expected to achieve by a set date (2021 or 2027). The assessment must consider if the activity will compromise the water body achieving its objectives.

Use the links in [Appendix 1.6](#) to identify a water body's objective. Where this is less than good, the assessment must consider if the activity will compromise the water body achieving good status in the future.

Water body objectives can be compromised by activities that:

- prevent improvement activities taking place in the future.

Example A new impoundment structure is proposed in a catchment where sediment deprivation has been highlighted as an issue and a weir removal programme is planned or underway. The weir removal programme, or similar proactive work is needed for the water body to achieve good status. Building a new impoundment would be in direct conflict with this highlighted issue as well as any proactive measures planned or underway, as a result, the scheme could prevent the achievement of good status in the water body.

- reduce the effectiveness of improvement measures already in place.

Example Past improvements to water quality are showing improvement to biological elements but they have not fully recovered to good status and are unlikely to recover if a new discharge or activity is authorised.

In summary, where a water body has improvement measures in place or identified, the assessment must demonstrate that the activity will not compromise these measures now or in the future.

Measures are listed in the updated River Basin Management Plan and on Water Watch Wales (see [Appendix 1.6](#) for links).

4.4 Compromising mitigation measures in an Artificial or Heavily Modified Water Body (A/HMWB)

If the activity is in a water body that is heavily modified for the same human use as the proposed activity, it must be demonstrated that the activity will not compromise the mitigation measures in place or planned for the future.

If the mitigation measure is 'not in place' and is not yet identified as technically feasible or disproportionately costly, the mitigation measure should be considered to be active. You should then consider if the activity would compromise the effectiveness of those mitigation measures. If the activity renders these proposed improvement/mitigation measures ineffective this could prevent the water body from meeting its ecological objective. List of mitigation measures available on [WWW](#).

4.5 Protected Areas

Further information on Protected Areas can be found in the [RBMP Overview Annex](#).

Key point The WFD requires that an activity will not prevent achievement of protected area objectives.

Objectives for Natura 2000 sites (N2K) (SACs and SPAs) are to maintain or restore designated features to favourable conservation status. As a ‘framework’ directive the objectives of protected areas must not be compromised if the overarching objective of the WFD is also to be maintained.

In most circumstances the assessment of protected areas will take place alongside a WFD assessment. Activities which have the potential to impact on N2K sites will require a Habitats Risk Assessment⁷ (HRA). However, it is also necessary to record the outcome of the assessment of protected areas in the WFD assessment.

4.6 WFD Compliance Assessments authorisation

The Project Manager or the Permitting Officer will own and authorise the completed WFD assessment, however the assessment will require consultation with the relevant technical expert – [see Section 5 for further information on roles and responsibilities](#). The final assessment must have regard to the advice from the technical expert; where there is a dispute on the conclusion the decision should be taken at the next management tier.

For assessments that progress to stages 2 and 3; information will need to be recorded on the [WFD audit trail spreadsheet](#).

Recording schemes even if they do not require Article 4.7 will help with assessing the cumulative impacts of modifications in the future.

Key point It is the responsibility of the Project Manager/Permitting Officer to ensure that the activity or project is recorded in the WFD audit spreadsheet and where applicable is signed off appropriately.

4.7 Application of Article 4.7

Activities that may either cause deterioration in water body status or prevent the water body from meeting its objectives cannot be licensed unless the requirements of Article 4.7 are met and a derogation from the WFD objectives is allowable.

In this instance contact the EPP WFD team for advice and follow the '[Derogation Determination for Water Framework Directive Article 4\(7\)](#)' (OGN: 77).

⁷ OGN 200 - Habitats Regulations Assessment of Projects

5. Further information on roles and responsibilities

5.1 Internal NRW activities and projects

In many cases, NRW also needs to apply internally for one or more types of permission; examples include:

- Operations on the WG Woodland Estate
- NNR management works
- Flood defence/coast protection works
- Habitat restoration or enhancement works (including for example fish passes)
- Metal mine remediation works
- Hydrometry or telemetry improvement projects

Roles and responsibilities

The WFD Assessment (screening/scoping/detailed assessment) can be completed by either the project manager (PM) or the environmental assessment advisor for high environmental risk projects. **Where the PM undertakes the WFD assessment they must seek an independent review of the output by an environmental advisor.**

Environmental advisors can include (but are not limited to) relevant local Natural Resources Management Team (Biodiversity Officers), Technical Fisheries and Conservation, Environmental Assessment Team, or the Natural Resources Planning team colleagues.

For internal capital projects that are identified as being of high environmental risk, the [Environmental Assessment Team](#) will manage WFD compliance assessment on behalf of the PM. Further guidance will be available in **OGN_217 Environmental Screening of Internal Projects (for internal use only)** which is currently in development.

Where NRW's proposed project/activity also requires NRW permissions the relevant permitting team will also need to carry out its own WFD assessment. Duplicated or unnecessary work can be avoided in most cases as the WFD assessment completed by or on behalf of the project manager should provide much of the information needed by the permitting team. The permitting team must either satisfy itself that the WFD assessment carried out by or on behalf of the project manager is sufficiently robust to inform the permitting decision, or it must conduct a new WFD assessment before determining the internal permit application. **The outcome reached by or on behalf of the project manager does not pre-judge the outcome of the WFD assessment conducted by the permitting team.**

Ongoing maintenance works/activities

It is not just new physical works that need to be considered, ongoing maintenance works/activities could also pose a risk. For example, sediment and vegetation management works that form part of a long term maintenance programme should comply with legal requirements to protect and improve the water environment.

Some ongoing maintenance activities in Artificial and Heavily Modified water bodies (AWB/HMWBs) have already been taken account of in the most recent River Basin Management Plans (RBMP)⁸.

Where ongoing maintenance activities:

- are related to the reason for AWB/HMWB designation **and**;
- incorporate mitigation measures identified in the RBMP **and**;
- **do not change** in geographical location, extent, technique or frequency from that included in the AWB/HMWB designation then, they should not lead to water body deterioration as they have already been accounted for in the RBMP. It is important to note that this only applies to ongoing maintenance works in artificial and heavily modified water bodies which meet the criteria cited in the bullet points above.

Emergency works

In some situations, works may need to be undertaken immediately to address imminent threats to life or property.

When undertaking such emergency works, Natural Resources Wales' operational teams should ensure that:

- they take all reasonable steps to avoid negative impacts to the water environment through emergency consultation with relevant technical advisors;
- where negative impacts are unavoidable, then successfully minimise the impacts to the water environment;
- they address impacts to the water environment, if they do occur, retrospectively via remediation or restoration activity once the emergency is over or sooner if the emergency works are to be in place for some time; and,
- they inform Conservation staff (and/or Natural England for cross border sites) where the works affect a site with statutory nature conservation protection, for example a SAC, SPA or SSSI and speak to area Biodiversity colleagues.

Where time and/or resource constraints do not make it possible to undertake WFD risk screening in advance of the commencement of works, it should be done retrospectively once the emergency is over or sooner if the emergency works are to be in place for some time.

When do routine maintenance activities need to be assessed?

Where a water body is designated as artificial or heavily modified (A_HMWB), and the ongoing maintenance was a factor in the **reason for designation**, then the impacts of the ongoing maintenance are already considered as part of the water body's ecological potential objective. In these cases, the ongoing maintenance activities **do not** need further consideration.

Any ongoing activity that has not been considered as part of the reason for A_HMWB designation will need to be considered as a 'new' activity. Further advice should be sought from the WFD Coordinators in the Natural Resources Planning

⁸ new RBMPs will set the legal baseline for water body status from which deterioration will be assessed.

Team. Possible improvements to ongoing activities which help achieve good overall status /potential should also be considered.

5.2 External activities and projects that require consent from NRW

We have a duty to exercise our ‘relevant functions’ to secure compliance with the WFD (Reg. 3 of WFD Regulations 2017). These relevant function include determining applications made to NRW for many different forms of consent, permission or authorisation.

A full list of these is available on the NRW intranet (Ourwork>Corporate>Permitting), but they include:

- Permits under the Environmental Permitting (England and Wales) Regulations 2016;
- SSSI consents;
- Section15 / section 16 management agreements;
- Water abstraction & impoundment licences;
- Felling licences;
- Marine licences;
- Coast Protection Act consents;
- Fish stocking licences;
- Flood Risk Activity Permits (FRAPs) ;
- Herbicide consents;
- Plant Health Notices.

Roles and responsibilities

The applicant should provide a completed WFD assessment when applying for a licence, consent or permit. Where possible this should be discussed at the pre-application stage to ensure the correct information is submitted. The Permitting Officer/Authorising Officer will then complete the NRW WFD assessment (screening/scoping/detailed assessment) on behalf of the applicant but the applicant must provide the full information to allow assessment to be completed. Where an activity cannot be screened out then further advice should be sought from the relevant [technical expert](#).

Permitting officers should bear in mind that:

- Where no WFD information is provided then screening should be undertaken prior to the application being accepted as valid where appropriate.
- For Flood Risk Permits the only way to ensure the WFD assessment outcomes are enforceable is to ensure any mitigation measures are included in the plans from the applicant.

[FRAP consultation sheet](#) includes WFD compliance assessment screening.

Please note that further guidance is being prepared for our Permitting Service, which will assist permitting officers in managing the process as part of permit application determination.

5.3 External activities and projects where we are an advisor (statutory or non-statutory consultee)

This section refers to our advisory role for activities where another decision maker/competent authority is determining an application from a third party for a statutory permission or where that authority is deciding whether to undertake a project itself. This section also refers to plans, programmes and strategies prepared by other appropriate bodies.

Plan, programmes and strategies

It is important to consider the WFD compliance of better environmental options through early engagement which may inform scoping options for sustainability appraisal (SA) or strategic environmental assessment (SEA). Plans that propose projects that may cause deterioration or compromise a water body from meeting its target status should be identified early in the plan-making process and alternative options or mitigation should be considered early in the process to avoid adverse impacts to WFD objectives.

Project Level

Other public bodies with operational and/or regulatory responsibilities, such as Lead Local Flood Authorities and Local Planning Authorities, must have regard to the River Basin Management Plans when undertaking works and issuing consents to others. At the project level approvals, which may be sought include:

- Development consents issued for Nationally Significant Infrastructure Projects (NSIPs) decided by the Planning Inspectorate. Projects include the construction or expansion of harbour facilities, the storage, generation or transfer of electricity, oil and gas.
- Planning permissions decided by Local Planning Authorities (including National Park Authorities), the Planning Inspectorate and/or Welsh Ministers, which include Developments of National Significance, planning appeals, called-in applications and notification development.
- Permissions required for transport schemes and works in accordance with the Highways Act 1980 (as amended); or Town and Country Planning Act 1990 and related Development Management Orders.

Roles and responsibilities

It is not the responsibility of Natural Resources Wales to undertake a WFD compliance assessment for other public bodies. The decision maker should ensure that due regard is given to the RBMP and may ask an applicant to undertake a WFD assessment and confirm whether the objectives of WFD are likely to be compromised.

In our advisory role, NRW has a general duty to secure compliance with the Directive when exercising our relevant functions (Regulation 3 of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017). We will engage with our partners, providing information and advice, for example on the level of assessment required, influencing a developments location and design or mitigation requirements.

NRW will provide advice to the decision making body e.g. local planning authority on what is required to ensure compliance with the WFD. We may

advise on WFD aspects separately or as part of a wider EIA, including the EIA screening and scoping stages, for example where measures may fall within the scope of the EIA. NRW project leads and Development Planning Case Managers should refer to NRW technical experts for advice on WFD, which is set out in Section 1.5 and 1.6 of this OGN (screening, scoping and detailed assessment stages).

The Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016 requires the local planning authority to consult NRW, as a statutory consultee, before the grant of permission for types of development specified in Schedule 4 of the Order. Development proposals have the potential to cause deterioration to a water body or compromise the achievement of its objectives. For example, development on land designated to be of high flood risk hazard has the potential to impact on the hydromorphology (functionality) and quality of a water body

Links between planning and permitting

NRW makes regulatory decisions to determine and issue environmental permits and to take any necessary action where the environment has been harmed. These permits are separate from the planning system, however we need to communicate with planning decision makers so that the regulatory and planning regimes are effective and efficient for customers.

Article 4(7) Derogation

In the event that a risk of deterioration to waterbody status is identified, justification for this derogation under Article 4(7) will be required. The decision on how to apply Article 4(7) rests with the decision maker.

The decision maker must also be satisfied that when assessing a 4(7) derogation that the project or activity is consistent with the implementation of and to guarantee the same level of protection set by other environmental legislation (Article 4(8) and 4(9)). For example, the Habitats Directive.

! Important for external schemes that are not consented by NRW, we are responsible for reporting any use of the Article 4.7 defence to Europe in the next updated RBMP. NRW ([WFD team](#)) will collect relevant information about schemes to inform the Article 4.7 list.

Further information on Article 4.7 can be found in [OGN 77 Derogation Determination for Water Framework Directive Article 4\(7\)](#)

Further Guidance and information

NRW is continually developing its own guidance for NRW staff involved in NSIPs, DNS and development management consultations, which is intended to explain our approach and response to these development consultations. This guidance will be readily available from the Development Planning pages of the NRW intranet.

Please note. Further NRW guidance is being prepared outside of this OGN for NRW's Development Planning Service, which will assist Case Managers in managing the process and responding to consultations.

Links

[Local Authority services and the water environment - Advice note on the Water Framework Directive](#)

The second cycle RBMPs link takes you to the main NRW RBMP page which includes a link to all associated documents including a useful signposting document '[Finding your way around the River Basin Management Plans 2015-21](#)'

Appendix 1. Further information on the WFD

The aim of the WFD is to maintain and improve the aquatic environment.

A1.1 Surface Waters and Water Bodies

The WFD Regulations require NRW to exercise its relevant functions so as to secure compliance with the requirements of WFD. The WFD applies to:

- all inland surface freshwaters – including lakes, streams, canals and rivers
- all groundwater bodies
- all transitional waters (estuaries)
- all coastal waters – out to one nautical mile from the low-tide mark (although projects based >1nm offshore may still impact on waterbodies within 1nm) and 12nm for chemical status

For the purposes of the WFD, waters are divided into discrete management units called water bodies. A water body is part, or the whole, of a river, lake, groundwater or coastal water, out to 1 nautical mile offshore. Each water body is classified in terms of its condition or 'status'. A range of biological and supporting elements are sampled to determine the current status of the water body. Objectives are set for each water body, based on the status we expect the elements to achieve by a particular deadline.

A1.2 River Basin Management Plans

Natural Resources Wales is the appropriate agency for producing and updating RBMPs in Wales - working in partnership with a wide range of public, private and voluntary organisations (including water companies, local authorities, eNGOs, business and industry). For further information please refer to the [Second cycle RBMPs](#)

RBMPs are a statutory tool for reporting actions required to achieve WFD objectives. They are strategic documents that provide a summary of the main risks and pressures for the water environment, and how we aim to protect and improve its overall status. They have been developed in consultation with a wide group of organisations and individuals. The RBMPs are reviewed and updated for each River Basin District, every six years; and are approved by the relevant environment minister(s). In Wales there are three River Basin Districts – hence three plans – Western Wales, Dee and Severn , NRW has responsibility to produce and update the Western Wales and Dee; the Environment Agency leads on the Severn.

A1.3 Environmental objectives

Article 4 of the Directive sets out the environmental objectives of the WFD to ensure the continued protection of the status or potential of all water bodies, and the development of plans to deliver measures to improve failing water bodies to a good status (or better).

The objectives of the WFD are to:

- prevent deterioration in the status of aquatic ecosystems

- aim to achieve at least good ecological status/potential for all water bodies by 2015 (or 2021/2027 depending on the agreed water body objective).
- meet the requirements of Water Framework Directive Protected Areas;
- promote sustainable use of water as a natural resource;
- conserve habitats and species that depend directly on water;
- progressively reduce or phase out the release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment;
- progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants;
- contribute to mitigating the effects of floods and droughts.

These objectives are further complimented by the most recent legislation published in Wales: the *Environment (Wales) Act 2016* and *Well-being of Future Generations (Wales) Act 2015*. NRW's new duty (Under Section 5 of the Environment (Wales) Act 2016) to "pursue sustainable management of natural resources" is a duty to pursue the following objective - "*to maintain and enhance the resilience of ecosystems*" and their benefits, and in doing so, meet the needs of present generations without compromising the ability of future generations to do the same, and contribute to the achievement of the seven statutory well-being "goals" under the Well-being Act.

Appendix 1 provides further information on the Environment Act and the relationship between WFD and the *Well-being of Future Generations (Wales) Act 2015* seven well-being goals.

A1.4 Artificial and heavily modified water bodies (A_HMWBs)

An artificial water body is one created by human activity. A heavily modified water body is one that as a result of physical alterations by human activity is substantially changed in character, for example, flood protection, weirs, navigation etc. The human activity or use for A_HMWBs results in 1 or more WFD elements being unable to achieve 'good status' however the activity is allowed to continue as a result of overriding public interest. The objective for the elements that respond to the human activity is to get them to as close to 'good' as possible by identifying and implementing mitigation measures. Once all mitigation measures that are technically feasible and not disproportionately costly are in place, those elements are deemed to be achieving 'good ecological potential'. For those elements that do not respond to the human activity the objective is as in any other water body – to achieve good and no deterioration. The overall objective for a A_HMWB overall is 'Good Ecological Potential'.

When assessing new modifications,

- Any new 'pressure or activity for which a water body was not originally designated (not listed as a reason for designation) should be treated as a new modification – it is not covered by the A_HMWB designation.
- Any change to ongoing activities (e.g. extension, change in frequency etc.) should be treated as a new modification – it is not covered by the A_HMWB designation.

A1.5 Technical expertise to support these processes

Table 2: Technical expertise

Information required	Contact details	Team
General WFD advice. Advice regarding Article 4.7	<ul style="list-style-type: none"> • Ceri Jones (Programme Manager for RBMP) • Mark Charlesworth (Marine Senior Advisor, chemicals advice) • Jill Howells (Catchment summaries, RBMP Progress report, compliance guidance) • Lynda Gray (WWW, CPS replacement/WEMS, investigations, no deterioration guidance) • Jill Brown (WFD Communications) 	WFD Team
Legal advice regarding WFD	<ul style="list-style-type: none"> • Kath Morris • Emrys Gwyn 	
Fisheries information	<ul style="list-style-type: none"> • Jason Jones (Mid) • Ida Tavner (SW) • Mike Clyde (SE) • Katrina Marshall North 	Technical Fisheries and Conservation
Fluvial Geomorphology advice	<ul style="list-style-type: none"> • Anne Lewis (South) • Oliver Lowe (North) 	
Coastal Geomorphology advice	<ul style="list-style-type: none"> • Nicola Rimington – Senior Marine and Coastal Physical Scientist 	Evidence and Analysis
Local WFD information(including Mitigation Measures)	<ul style="list-style-type: none"> • Trevor West (South West) • Jeremy Tannery (South East) • Helen Millband (North) 	Natural Resources Planning Team
Biodiversity Advice	<p>For general advice on aquatic habitats and species including WFD assessments contact Biodiversity officers directly</p> <p>Technical specialist support from Dave Thorpe.</p>	Natural Resources Management Team
Conservation protected area advice - SACSPA, Ramsar and SSSI sites	Conservation officers - Advice on SAC, SPA, Ramsar and SSSI sites and features	
Transitional and Coastal specialist advice	<p>Marine National leads:</p> <ul style="list-style-type: none"> • Lucie Haines • Maggie Hatton-Ellis • Mark Charlesworth 	

Information required	Contact details	Team
EIA & ES advice	<ul style="list-style-type: none"> Vicky Schlottmann (Environmental Assessment Team Leader) Heilyn Williams (Principle Environmental Project Manager) 	Environmental Assessment Team
Water Quality	<ul style="list-style-type: none"> Chris Hall 	Water Policy & Directives Implementation
Water Resources	<ul style="list-style-type: none"> Gideon Carpenter (HEP) Helen Tidridge (WR Planning) Katherine Mainwaring (WR Policy) 	WR Strategy and Planning
Planning & WFD	<ul style="list-style-type: none"> Jackie Walters (Policy Advisor – Planning) 	Planning Liaison/PACS
Invasive Non Native Species	<ul style="list-style-type: none"> Jennie Jones (INNS Advisor) Biodiversity Officers 	INNS
Permits	<ul style="list-style-type: none"> Eleanor Ellick (Marine), Emma Allcorn (WR), Terry Gulliford (WQ) Gary Purnell (FRAPs) Beverly Fitzsimmons (Forestry) 	Permitting & Flood Risk Analysis
Wetlands	<ul style="list-style-type: none"> Pete Jones 	Evidence & Analysis
Lakes	<ul style="list-style-type: none"> Tristan Hatton-Ellis 	
Rivers ecology	<ul style="list-style-type: none"> Sue Hearn 	
Groundwater	<ul style="list-style-type: none"> Trystan James (Technical Team Leader Geoscience) 	Geoscience

A1.6 Where to find the relevant information

Table 3: Details of other relevant information

System	Information available	Link / contact
<u>Water Watch Wales</u> <u>(external)</u>	<p>The following data for every water body in Wales is available on Water Watch Wales:</p> <ul style="list-style-type: none"> Classification results Reasons for not achieving good status Water body objectives Reasons for alternative status objectives Monitoring networks Measures required to improve water bodies to good status Protected Areas Mitigation measures spreadsheet 	<u>Water Watch Wales</u>

System	Information available	Link / contact
CPS replacement tool (internal)	WFD WB Information Water Environment Management System (WEMS)	Due to be available from early 2018. Contact Lynda Gray for queries
Area Delivery Plan (internal)	list of wider additional measures for each water body	<ul style="list-style-type: none"> • Severn RBD – Jeremy Tanner, • South Western Wales RBD - Trevor West (Year 1 2016/17 plan available here) • North part of Western Wales RBD and the Dee RBD - Helen Millband
River Basin Management Plan (external)	Summary of the main risks and pressures for each River Basin District (RBD), along with a Programme of Measures.	second cycle RBMPs
My Map (internal)	<ul style="list-style-type: none"> • WFD Classification results (use cycle 2 information) • Invasive species • Phase 1&2 habitat mapping • Protected Area information 	
ArcGIS (internal)	Detailed info about N2K and SSSI features & habitats WFD classification information	
Lle (external)	Conservation area boundaries, biodiversity and habitat networks information including: <ul style="list-style-type: none"> • Terrestrial / Intertidal Phase 1 habitat survey • Biodiversity Action Reporting System • WFD Classification results (use cycle 2 information) • Areas affecting Bathing Waters 	http://lle.gov.wales/home
NBN Gateway (external)	Information about protected habitats and species	https://data.nbn.org.uk/
Catchment Data Explorer . (external)	Classification information for water bodies in England	http://environment.data.gov.uk/catchment-planning/
Protected Area Register (external)	Objectives for each protected area	Protected Area Register

A1.7 Other useful information

River Habitat Surveys (RHS) include useful information that can be used to assess whether are carried out across waterbodies under the WFD with additional sites surveyed under the Habitats Directive. Prior to the formation of NRW, data was stored in the Environment Agency database, Ecosys. In the future, all Welsh RHS data will be stored in KieCo.

The '[Sediment Matters](#)' handbook has been designed to give guidance on identifying potential sediment related problems. This handbook will be useful where a scheme is likely to impact on sediment dynamics. It should be used to help define the problem and how the scheme will affect the sediment regime and the biological quality elements. The Sediment Matters handbook explains the links between sediments and biological quality elements and identifies datasets, tools and contacts that may be helpful in diagnosing if there will be an impact and if sediment is an issue with the scheme.

The CIRIA document C763 "[River Weirs – Design, Maintenance, Modification and Removal](#)" is a comprehensive and holistic approach to weir management – from concept, through construction and operation to decommissioning and provides invaluable guidance for all staff and applicants involved with weirs and impounding structures. https://www.ciria.org/Resources/Free_publications/River_weirs.aspx

Appendix 2. Activities that can be screened out from further assessment in the majority of cases

A2.1. Activities in the freshwater environment that can be screened out

- Activities that will not cause deterioration when all criteria set out in stage 1 screening are met (table 5).
- Or any water discharge activity and groundwater activity that meets the qualifying criteria for an EPR registered exemption or standard rules permit

A2.2. Activities in the estuarine/coastal environment that can be screened out.

Minor construction & repairs

- Scaffolding/access towers to facilitate the maintenance of existing structures
- Minor maintenance including repairing, replacing or reasonably improving within the original design envelope, bolts, flaps, valves, cathodic protection, access covers, grills, joints, decking on a pier or pontoon, health and safety equipment or other ancillary equipment attached to existing structures.
- Replacement of single pile of the same diameter or less, using non-percussive piling methodology.
- Replacing render or concrete, including resurfacing slipways;
- Sand or grit blasting;
- Removal of marine growth and/or guano from structures and assets other than vessels;
- Installation of ladders.

Deposit Activities

- Deposit and subsequent removal of posts for the purpose of marking channels, shallow water areas, the end of outfalls, groynes and similar.
- Deposit and subsequent removal of marker buoys

Removal Activities

- The removal of discrete minor objects from the surface of the intertidal or seabed using vehicles or vessels. ‘Minor objects’ may include poles, girders, discrete pieces of debris from recently completed construction or demolition, or the degradation of a structure.
- The removal of litter using a vehicle or vessel, including litter collected by hand but subsequently stored on the beach for removal by a vehicle or vessel.
- Boreholes
- Trial pits no larger than 1 m x 4 m, and 2 m in depth in intertidal areas; or 2 m x 4 m, and 2 m in depth in subtidal areas. Each trial pit must be located at least 100 m from any other trial pit in the same application in the subtidal environment, or at least 10 m from any other trial pit in the intertidal environment.
- Sediment (grab) samples where the total sample volume across all samples in the total application is no more than 4 cubic metres. The density of grab samples should not exceed 50 samples within any one hectare.

Beach Management Activities

- Beach re-profiling - the movement of beach material cross-shore up or down the beach
- Beach recycling – the movement of beach material along the beach from areas of accretion to areas of erosion within the beach or associated sediment system
- Replacing or returning wind-blown sand to the beach, where that sand originated on the beach.
- Clearance/removal of beach material in and around outfalls to facilitate drainage.

Appendix 3. Suggested template for recording a WFD Compliance Assessment

[WFD Assessment Form \(Excel spreadsheet\)](#) [or WFD Compliance Assessment Consultation Form \(Word doc\)](#)

[Flood Risk Analysis Permits consultation form](#)

Water Resources Permitting consultation form (word doc)

Appendix 4 Technical Appendix for Physical Modifications in Rivers.

Contact for queries and feedback on this appendix:

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Contents:

- Section 1: High Status Morphology
- Section 2: 'Activities that will not cause deterioration when all criteria set out in stage 1 screening are met.'
- Section 3: Screening Thresholds
- Section 4: Definitions

Section 1: High Status Morphology

Position Statement: Of the 717 riverine waterbodies in Wales, only 4 (<1%) riverine waterbodies remain designated at "high status" for morphology with pristine physical habitat unaltered by human intervention. All 4 waterbodies are at the top of their catchments in remote upland locations and none of them are designated as main rivers. These water bodies act as reference conditions and are sensitive to new developments and therefore more likely to deteriorate. New developments in these water bodies require a higher level of scrutiny.

Action: During the screening process all waterbodies must be checked to determine whether they are high status for the morphological element (Please Note: None of the high status morphology waterbodies are classified as high status overall). **Any proposals within a high status morphology waterbody should be sent for geomorphological expert comment.**

Table 4: High status morphology waterbodies

Water Body ID	Name	RBD	Catchment
GB109055041870	Afon Gwesyn - source to conf R Irfon	Severn	Wye MC
GB109055042210	Rhiwnant - source to conf Afon Claerwen	Severn	Wye MC
GB109055042240	Afon Arban - source to conf Afon Claerwen	Severn	Wye MC
GB110066054780	Caletwr (Conwy)	Western Wales	Conwy

Section 2: Activities that will not cause deterioration when all criteria set out in stage 1 screening are met.

Certain types of activities will not cause deterioration when all criteria set out in stage 1 screening are met. These activities are listed in Table 5.

Works to maintain or repair a structure should only be considered to be on this list if the existing structure is still functioning in the manner it was intended. If a structure has decayed to the extent that it is no longer functioning as it was intended, then the works should be treated as a new activity. For example reinstating the historic or decayed remains of a collapsed weir structure should be considered as a new impoundment structure, not a repair. Replacing an individual brick or re-pointing a wall would count as repair.

Several of the activities listed in Table 5 involve “temporary” works. Such works are normally not in place for more than 6 months. Any applications greater than this time period, or that may be greater than this time period (e.g. works that may overrun due to the bad weather), should no longer be considered as an activity that will not cause deterioration. Even where works are temporary in nature the impacts to the ecology of a water course may be longer lasting. To qualify as a temporary activity on Table 5, there should be no residual impact in the waterbody where the activity is taking place and in hydrologically connected waterbodies, once the temporary works are removed (e.g. silt release may extend and remain downstream for some distance and time). If residual impacts are unavoidable then the activity should not be treated as temporary or one that will not cause deterioration. For further information on temporary deterioration see [section 4.1.1](#).

It is important to note the activities and criteria are for guidance only, expert judgement and local knowledge needs to be used when applying the thresholds.

Table 5: Activities that will not cause deterioration when all criteria set out in stage 1 screening are met

Type of activity	Activity definition	Qualifying criteria
<p>Please note you should still consider (i) whether the works are proposed in or near a high status water body or a water body with high status morphology and (ii) protected and priority sites, species and habitats when planning these works.</p>		
Maintenance of existing structures	Re-pointing of a brick work/block work structure	To enhance or replace the cement bonding between different elements in a block work structure
	Void filling	To fill unwanted gaps that have opened in solid structures
	Re-positioning rock, rubble or block work on an existing structure	To reposition dislodged elements of a structure
	Replacing elements of an existing structure for example: replacement of damaged bricks or replacement of a weak element of a functioning weir. (Note that this does not apply when greater than 10% of the structural length is being replaced, nor the iterative replacement of the whole structure)	To remove failed elements (for example, bricks that have cracked due to weathering) and replace them with new elements
	Re-facing, skimming or covering an existing structure	To build a protective layer over the surface of an existing structure to cover moderate defects and prevent them from becoming accentuated
		This table only applies where the maintenance activity uses like-for-like materials as used on the existing structure and does not change or extend the footprint of the structure, reduce the cross-section of the river, reduce conveyance or reduce natural features surrounding the structure. Works only count as maintenance / repair where the existing structure is still functioning in the manner for which it was originally intended. If the structure has decayed to the extent that it is no longer fulfilling its originally intended use (even if being informally used for another use), then the works should be treated as a new activity. For example reinstating the historic or decayed remains of a weir structure should be considered as a new structure, not a repair. Where works are proposed to maintain a structure the NRW operational team should consider whether the structure is still in fact needed and whether there are alternative ways for delivering the function that the structure provides that would be better for the environment. Repairs to structures can have impacts on certain protected species. Be aware of the need to

	<p>Repair works to a structure including: brickwork repair, joint repair, sealant replacement, corrosion removal/protection, repair of fencing, replacement of signs, repair of concrete, clearance of weep holes, surface damage repair, fixing point repair, headwall repair,</p>	<p>A variety of works to repair an existing structure</p>	<p>undertake a risk assessment and, if appropriate, surveys for protected species.</p>
	<p>Maintenance, repair or replacement of:</p> <p>Fences, gates, posts, steps, handrails, signs, trash screens, manhole covers, gaugeboards, doors, mesh walkways, telemetry or gauging sensors, stilling wells, boreholes and all associated equipment and infrastructure such as cabling, kiosks and cabinets.</p>	<p>A variety of works to repair, maintain or replace components of an existing structure</p>	
	<p>Cleaning and/or painting of a structure and graffiti removal</p>		

	Maintenance of pumps at pumping station (including pumps that operate outside of 'normal' parameters)		Be aware that prolonged periods of pumping station inactivity can cause poor water quality through excessive weed growth. Reactivating pumps can cause significant silt mobilisation and reduce dissolved oxygen levels in the water. Reducing the flow (particularly in summer months) can reduce oxygen levels in the water with potentially harmful consequences to fish and other aquatic life. Talk to your local fisheries, biodiversity and geomorphology experts to establish the best method and timing for this work to avoid such consequences.
	Blockage / obstruction removal at a structure (or within 10m upstream or downstream of a structure)	Removal of accumulated debris such as urban trash from the structure, particularly at culverts/screens etc. to maintain through-flow	This does not include the removal of any material that falls outside of the 10m upstream/downstream buffer zone.
	Removal of young trees, shrubs and grass that may affect the structural stability/integrity of the structure (including the use of herbicides where permission has been obtained)		This only applies to very localised vegetation growing directly on or immediately adjacent (for example 10 m) to a structure that risks impacting structural integrity. This does not cover the removal of fringing marginal vegetation growing in the vicinity of a structure. This does not cover the removal of woody debris or mature vegetation.
	Vermin control	To eradicate vermin that can cause voids in structures	
Temporary works (that normally have a defined end	Temporary flood defences	To prevent / reduce the inflow of river water to an area of low lying land in flooding situations. Such defences are only employed in times of flood.	Where permanent infrastructure is required for the use of temporary defences then this may require an initial assessment at the time of construction.

date, and are normally operational for less than 6 months in one continuous period)	Temporary scaffolding to enable bridge re-pointing		
	Temporary clear span bridge with abutments set-back from bank top	Temporary clear span bridge where no part of the structure disturbs the bed or banks of the river (e.g. no in-stream piers) Abutments must be set-back into the floodplain far enough so as to not interfere with relatively frequent overbank flood flows. If there is uncertainty as to whether flood flows are likely to be impacted then NRW area flood risk and geomorphology experts should be consulted.	To qualify as a temporary activity then there should be no residual impact to the river or surrounding landscape, at, upstream or downstream of the site once the activity is complete. If such impacts are unavoidable, the activity should not be treated as temporary.. Be particularly aware when there is a potential to release fine sediments into the river during construction works, this can have widespread and significant long lasting effects.
	Temporary coffer dam (if eel/fish passage not impeded)	Temporary structures to dam off a part of the channel to allow maintenance or building works to take place. The whole structure is removed once the works are complete.	Timing of temporary works can be an issue for protected species such as crayfish. Remember you should still consider protected and priority sites, species and habitats when planning work.
	Temporary flow diversion (if fish/eel passage not impeded) such as flumes and porta-dams, over-pumping, etc.	A borehole is a hole drilled into the ground for collecting water contained below the surface, measuring water levels and investigating the ground. A trial pit is a small excavation into the ground to establish or	

		sample the composition of the subsurface.	
	Temporary structural investigation works such as intrusive tests and non-intrusive surveys		
	Temporary abstraction		The abstraction should not exceed 28 days duration or be part of a longer operation in the water body and there should be no physical works within, or alterations to, a water course as part of the abstraction.
Bridges and Crossings (including service crossings)	Permanent clear span bridge, with abutments set-back from bank top	To qualify as a clear span bridge the works must involve no bed or bank reinforcement and no in-stream pier/support.	Abutments must be set-back into the floodplain far enough so as to not interfere with the majority of flood flows. If there is uncertainty as to whether flood flows are unlikely to be impacted then flood risk and geomorphology experts should be consulted.
	Bridge deck/parapet replacement/repair works	Replacing or repairing the materials comprising the upper surface of the bridge (not in contact with the water), parapets, walls or railings.	This should involve no disturbance of the bed or banks of the river.
	Replacing road, rail, footpath, or other surface on a bridge		This should involve no disturbance of the bed or banks of the river

	<p>Installing a service crossing over a river.</p>	<p>Services that are attached directly to an existing bridge structure (where above current flood levels), to its parapets or encapsulated within the bridge's footpath or road</p>	<p>This does not include crossings that require the installation of in-channel supports, building a new in-channel structure to support the crossing or any new bed or bank reinforcement. If any of these aspects are included as part of the proposed scheme then they should be screened using the risk screening thresholds and be treated as a 'crossing' or bed/bank reinforcement as appropriate.</p> <p>Such works can be an issue for protected species. Remember you should still consider protected and priority sites, species and habitats when planning work.</p> <p>All service crossings under the river require screening for WFD risk using the 'bridges and crossings' screening thresholds in Table 6.</p>
	<p>Replacement or dismantling of any pipes, cables or service crossings over a water course.</p>	<p>Where above current flood levels</p>	<p>This does not include crossings that require the installation of in-channel supports, building a new in-channel structure to support the crossing or any new bed or bank reinforcement. If any of these aspects are included as part of the proposed scheme then they should be screened using the risk screening thresholds and be treated as a 'crossing' or bed/bank reinforcement as appropriate.</p> <p>Such works can be an issue for protected species. Remember you should still consider protected and priority sites, species and habitats when planning work.</p> <p>All service crossings under the river require screening for WFD risk using the 'bridges and crossings' screening thresholds in Table 6.</p>

Other structures	Fishing platforms	A structure positioned on the bank of the river often supported by pillars, intended to provide a safe place for anglers to fish from. Depending upon the type of angling, this may or may not protrude over the water surface. Usually taking the form of equally-spaced permanent wooden 'jetties', platforms should not extend over the river more than 2m.	There is a risk that a large number of fishing platforms could lead to cumulative impact risk of deterioration within a water body. If a large number of fishing platforms or structures occupying long lengths of bank are proposed then regulatory and operational teams should consider sending the proposal to geomorphology, fisheries and biodiversity experts for WFD consideration. Impacts could be very site specific and localised. If there is a known problem with fishing platforms in the area then consult fisheries experts in your area. Consideration needs to be made to address whether fishing platforms constitute bank reinforcement. If this is the case, they need to be screened for WFD risk using the 'bank reinforcement' screening threshold. In such cases, these works would not be classified as low-risk activities. Such works can be an issue for protected species such as water voles. Remember you should still consider protected and priority sites, species and habitats when planning, locating and designing work.
	Fish/eel pass on an existing (non-natural) structure	A device to permit fish and/or eels to transverse structures within a river	This does not include fish / eel passes that extend a significant distance upstream or downstream beyond the extent of the structure (for example. rock ramp or 'nature like' fish ways). If the proposed fish / eel pass does extend a significant distance up or downstream then the works should be considered as bed or bank reinforcement or a bypass channel. In such cases, the works should be screened using the WFD risk screening

			thresholds for bank / bed reinforcement or by pass channel as appropriate.
	Cattle drinks	Drinking bays created within riparian fencing to allow stock to access the river. Cattle drinks can be an effective method to reduce the overall level of bank damage caused by stock.	This does not include fencing across the river. Such works can be an issue for protected species such as water voles. Remember you should still consider protected and priority sites, species and habitats when planning, locating and designing work.
	Mink rafts	A small floating device lined with clay or similar material to monitor the presence of mink.	
	Fencing (if has an open structure e.g. post and rail or stock facing with parallel high tensile wire) in byelaw margin parallel to the river	Fencing with an open structure that runs parallel to the river. This is usually to prevent access or prevent stock entering a water course or other land.	This category only includes fencing that is unlikely to impede the flow of flood water. It does not include fencing across the river nor closed board fences running perpendicular to the channel.
Trash removal	Removal of urban trash from channel and banks. This does not include the removal of gravel or woody material	Examples include the removal of shopping trolleys, tyres.	This does not include the removal of gravel or woody material. Urban trash can provide valuable habitat in modified urban channels. If regulatory or operational teams are uncertain as to the biodiversity value of urban trash in the river then please consult with fisheries and biodiversity experts before it is removed

Section 3: Screening Thresholds

If the proposed physical works are not listed in table 5 as an activity that will not cause deterioration when all criteria set out in stage 1 screening are met; then they need to be screened against the WFD risk screening thresholds below. These thresholds help to determine if the activity poses a risk to the delivery of WFD objectives, risk to geomorphological equilibrium, and indicates whether further (additional) assessment is needed beyond the screening stage.

The risk screening thresholds look at the type of physical works that are being proposed and the length of river that they affect. The combination of these two factors provides a red, amber or green 'traffic light' that indicates the level of potential WFD risk.

Where an activity is given a green light it is deemed to pose no risk to the delivery of WFD no deterioration and status objectives and therefore, no further (additional) assessment is required.

Where an activity is given an 'amber' or a 'red' light then it could pose a risk to the delivery of WFD objectives. Amber and red light schemes need to be reviewed by area geomorphology, fisheries and biodiversity experts to further evaluate the likely risk to the delivery of WFD objectives posed by the proposed works.

Key points

The same risk screening thresholds should be used for:

- new structures/activities
- alterations to existing structures/activities
- maintenance activities, unless the works are taken account of in River Basin Management Plans

The regulatory or operational team should check that all aspects of the scheme are covered in the screening

Each individual component of the scheme needs to be screened against the risk screening thresholds. For example a proposed water abstraction scheme may involve:

- raising the height of a weir (to be screened using the impoundments threshold)
- decreasing flow permanently or via a depleted reach (to be screened using the abstraction/flow regulation threshold)
- bank reinforcement works (to be screened using the bank reinforcement threshold)
- vegetation removal on and around the bank that is being reinforced (to be screened using the riparian vegetation management threshold)
- sediment removal from the river bed adjacent to the intake device to facilitate viable abstraction of water (to be screened using the sediment management threshold)

Where different components of the same scheme/project are given different traffic light colours then this should be communicated to the area geomorphology, fisheries and biodiversity experts.

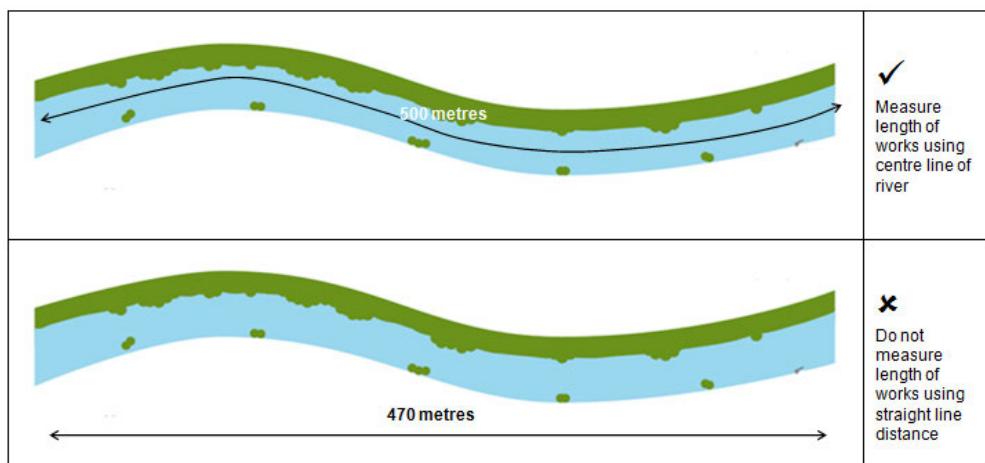
Important things to consider:

- Where works are proposed on both banks of the river (for example bank reinforcement on both the left and right bank) then the total length of both banks being modified should be included in screening. For example, if 55 m of bank reinforcement is proposed on both banks then 110m of bank reinforcement are proposed in total. This 110m would receive a red traffic light. For in-stream works only one river length should be included.
- Screening must be undertaken on proposed works that are as close to 'as-built' designs as practicable. Re-screening may therefore be required if designs change either before or during construction.
- It is important to note the screening thresholds are for guidance only, expert judgement and local knowledge needs to be used when applying the thresholds.
- When using the risk screening thresholds for woody material/riparian/in-stream vegetation management or flow deflectors then consider the full length of river over which the works are proposed to take place (from start to finish). The length of river should be measured following the centre line of the river not the straight line distance. This is demonstrated in the diagram below:
- Where works are proposed on both banks of the river (for example bank reinforcement on both the left and right bank) then the total length of both banks being modified should be included in screening. For example, if 55 m of bank reinforcement is proposed on both banks then 110m of bank reinforcement are proposed in total. This 110m would receive a red traffic light. For in-stream works (e.g. bed reinforcement) only one river length should be included.
- Many activities involved in a project may not be explicitly stated by some less experienced applicants, for example the management of vegetation and/or sediment within the abstraction example above. If in doubt check with the applicant and ensure that they are aware that they will only obtain a permit/licence/consent for the works that they explicitly tell us about.

Risk screen thresholds

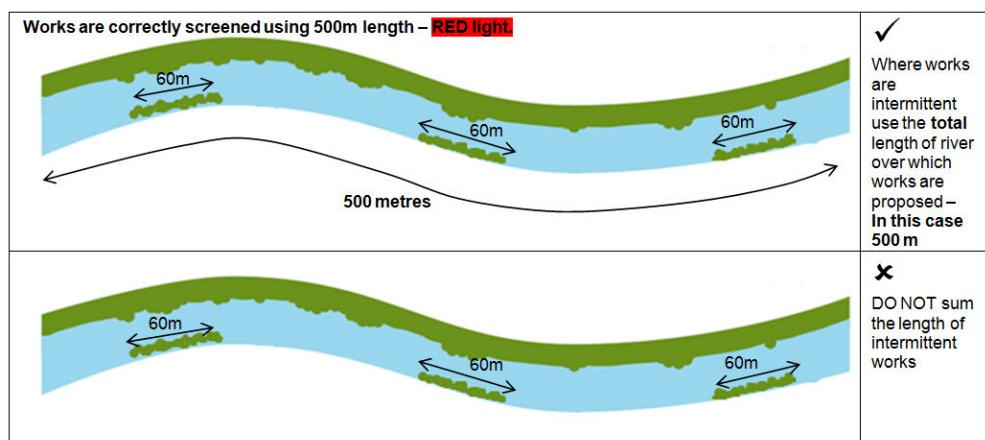
When using the risk screening thresholds for woody debris/riparian/in-stream vegetation management or flow deflectors then consider the full length of river over which the works are proposed to take place (from start to finish). The length of river should be measured following the centre line of the river not the straight line distance. This is demonstrated in Figure 3.

Figure 3: How to measure using centre line:



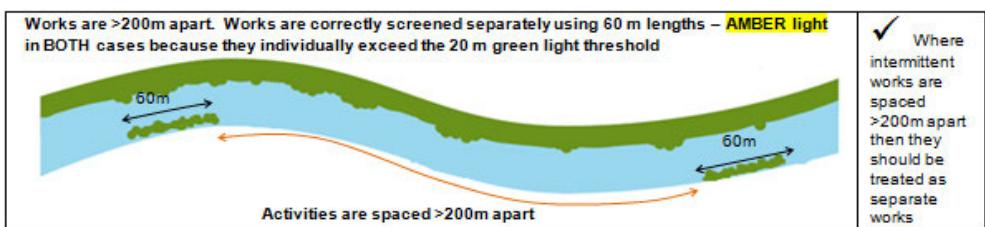
The full length of river over which works are undertaken should be measured, even if those works are intermittent. For example, woody material management that takes place intermittently over a 500 m stretch of river should be screened using the 500 m length value even though the work may only directly affect 180 m of river within the 500 m stretch. This would be screened as a red light activity (see Figure 4).

Figure 4: How to measure intermittent works A



Where elements of an intermittent activity are spaced more than 200 m apart then each component should be screened as separate works using the appropriate river length affected. This example is illustrated in Figure 5.

Figure 5: How to measure intermittent works B



Traffic Light Interpretation (table 6)

All activities may also offer opportunities for delivering water body actions to improve the WFD status of the water body, or to improve the scheme design and mitigate or reduce its environmental impact.

Green traffic light activities pose no risk to the delivery of WFD objectives. No further WFD assessment is required for these activities. However staff should still remain mindful of the potential for cumulative impacts.

Key point

- Green light activities still need to be screened for high status, designations and wider environment.
- Green light activities must still be undertaken in line with pollution prevention and invasive species best practice guidance.

Amber traffic light activities pose a medium risk to the delivery of WFD objectives. However, in certain sensitive or critical locations, they could pose a potentially higher risk. This risk may also result from cumulative impact of the proposed works in combination with existing river modifications.

Amber light activities should be sent for review by area geomorphology, fisheries and biodiversity experts. This expert review may reclassify it as a red light activity.

Red traffic light activities could pose a risk to the delivery of WFD objectives. Red light activities should be sent for review by area geomorphology, fisheries and biodiversity experts to determine the need for, and scope of, any further (additional) assessment.

Where the WQ flag is given, the proposed works should be sent for review by local water quality experts to determine the risks to physico-chemical WFD objectives posed by the scheme, and any further assessment needs. Note that the works still also need to be reviewed by geomorphology, fisheries and biodiversity experts to determine impacts and risks to hydromorphology and ecology.

The list of physical works in Table 6 is comprehensive but not exhaustive. If physical works are proposed that are not listed then the operational or regulatory team should discuss the application with the geomorphology advisor to determine the correct risk screening threshold to apply.

The risk screening thresholds should be applied in the same manner for heavily modified and non-heavily modified water bodies.

The only exception is where proposed works have already been taken account of, on the River Basin Management Plan.

In some situations, works may need to be undertaken immediately to address imminent threats to life or property. When undertaking such emergency works, operational teams should ensure that:

- they take all reasonable steps to avoid negative impacts to the water environment
- where negative impacts are unavoidable, then successfully minimise the impacts to the water environment
- they address impacts to the water environment, if they do occur, retrospectively via remediation or restoration activity as advised by the relevant technical expert once the emergency is over or sooner if the emergency works are to be in place for some time
- Inform relevant staff where the works affect a site with statutory nature conservation protection, for example a. SAC, SSSI

Consultation with geomorphology, fisheries and biodiversity experts in advance of the works being undertaken is recommended. Where time and/or resource constraints do not make it possible to undertake WFD risk screening in advance of the commencement of works, it should be done retrospectively once the emergency is over or sooner if the emergency works are to be in place for some time.

Table 6: Risk Screening for physical modifications in rivers

Key – WFD risk screening	
Opportunities for delivery of water body improvements and improvements to scheme design should be sought throughout.	
●	Risk to WFD objectives For NRW works or consents: works require review by Fisheries, Biodiversity and Geomorphology colleagues
● +WQ	Risk to WFD objectives including risk to surface water quality For NRW works or consents: works require review by Fisheries, Biodiversity, Geomorphology and Water Quality colleagues
●	Potential risk for WFD objectives and/or geomorphological stability. Risk of local and cumulative impact. For NRW works or consents: works require review by Fisheries, Biodiversity and Geomorphology colleagues
●	No risk to WFD objectives – no further WFD assessment required. Provided all other considerations noted above are also acceptable. Where meets criteria of <u>Flood Risk Activity Permit (FRAP) exemption or exclusion</u> - no further WFD assessment required.

Risk category	Type of activity	Traffic light	Risk screening threshold for rivers
5	Culvert	●	Whatever the length or extent
5	Flow abstraction, modification or discharge (Above HGN2 standards for micro hydro schemes)	● +WQ	Whatever the length or extent

Risk category	Type of activity (trigger levels to be derived)	Traffic light	Risk screening threshold for rivers
5	Channel widening, deepening, straightening or realigning	●	Whatever the length or extent
5	Impounding structure	● +WQ ●	All impoundments Where covered by Low Risk impoundments regulatory position statement
4	Bed reinforcement	●	Whatever the length or extent
4	Sediment management	● +WQ ●	Where >100m and/or >15T Where <=100m and/or <=15T
4	Bank reinforcement	● ● ●	Where >100m Where <=100m Where meets criteria of Flood Risk Activity Permit (FRAP) exemption or exclusion for soft bioengineering repairs for short lengths of banks
4	Modification or removal of natural falls, obstacles or barriers	● ●	All physical, permanent and/or irreversible changes “Nature-like” reversible modifications e.g. boulder or large woody material placement
4	Large scale forestry activities	● ●	All planned forestry planting over 1ha in size and/or within the floodplain, or 10m, of a watercourse All clear fell harvesting activities over 1ha in size and/or within the floodplain, or 10m, of a watercourse
	Forestry infrastructure	●	Any new access tracks > 200m Any new access tracks under 200m in length, complete with sustainable

Risk category	Type of activity	Traffic light	Risk screening threshold for rivers
		●	<p>drainage systems (i.e. not positively drained).</p> <p>Any new drainage ditches that flow into a sustainable drainage system and are >10m from a watercourse</p> <p>(Culverts, bridges & erosion repairs are covered separately in this table)</p>
3	Embankment	● ○ ●	<p>Where >100m</p> <p>Where >10m but <=100m</p> <p>Where <=10m</p>
3	By pass channel	● +WQ ○	<p>Where >100m</p> <p>Where <=100m</p>
3	Bank re-profiling	● ○ ●	<p>Where >100m</p> <p>Where >10m but <=100m</p> <p>Where <=10m</p>
2	Riparian vegetation management	● ○ ●	<p>Where undertaken >200m length of river</p> <p>Where undertaken >20m but <=200m length of river</p> <p>Where undertaken <=20m length of river</p>
2	In-stream vegetation management	● ○ ●	<p>Where undertaken >200m length of river</p> <p>Where undertaken >20m but <=200m length of river</p> <p>Where undertaken <=20m length of river</p>
2	Large woody material management	●	Where undertaken >200m length of river

Risk category	Type of activity	Traffic light	Risk screening threshold for rivers
		●	Where undertaken >20m but <=200m length of river
		●	Where undertaken <=20m length of river
2	Flow deflector	● ● ●	Where installed >200m length of river Where installed <=200m length of river Where installed <=100m length of river and constructed of unprocessed (natural) woody material
2	Set-back embankment	● ● ●	Where >200m Where >20m but <=200m Where <=20m
1	Bridges & crossings	● ●	All bridges and crossings unless it meets FRAP criteria exemption or exclusion Where meets criteria of FRAP exemption or exclusion
1	Outfall	● ●	All outfalls unless it meets FRAP criteria for exemption or exclusion Where meets criteria of Flood Risk Activity Permit (FRAP) exemption or exclusion

Section 4: Definitions

Below are definitions of the activities and modifications discussed above. Please note that this list, or examples provided, is non-exhaustive and if doubt then advice should be taken from the local geomorphology expert.

Table 7: Definitions

Type of activity or modification	Definition	Examples (non-exhaustive)
Culvert	Includes any enclosed pipe and box culverts whereby artificial sides, bed and walls are present, whether or not sediment forms a bed within it.	<ul style="list-style-type: none"> Construction of a culvert Removal or replacement of existing culverting, including 'daylighting' culverts
Abstraction / Flow regulation	<p>Any activity or structure that has potential to modify the discharge regime of the channel.</p> <p>Includes major abstractions and significant on-line structures.</p>	<ul style="list-style-type: none"> Water abstraction Construction of a water supply reservoir Construction of a flood storage area that restricts the passage of flow above a set discharge Change to the operation of an existing impoundment that has the effect of altering the flow regime downstream Installation of one-way flaps on channels Discharge of abstracted water

Type of activity or modification	Definition	Examples (non-exhaustive)
Channel widening, deepening, straightening or realigning	Changes to the shape (planform) or dimensions (cross-sectional form) of a channel resulting from the movement or removal of sediment. Realigning means a wholesale change in the location of the channel.	<ul style="list-style-type: none"> • Channel dredging (deepening, possibly also widening) • Engineered cut off of a meander (straightening) • Excavation of a new channel that carries the whole flow of the river (realigning) • Reopening a historic channel to carry the whole flow of the river (realigning) • Widening the river channel to allow boat passage, etc. • Infilling of channels (old and active)
Impounding structure	Any structure that has the effect of impeding flow across the full width of the channel. Applies to new structures and changes to existing structures (such as raising the height) that modify the dynamics of flowing water. Includes weir, sluice, dam, barrage, lock, and any other structure that has a similar effect. If the impoundment is large enough to modify downstream discharge regime also use the Abstraction / Flow regulation category.	<ul style="list-style-type: none"> • Construction of any new structure that impounds water and spans the whole width of the channel, regardless of materials used • Raising the height of an existing weir or otherwise changing the management regime such that water levels are raised, regardless of the purpose • Partial or complete removal of a weir or any other impounding structure • Changes to sluice operations that have otherwise remained unchanged for >5 years
Bed reinforcement	Activities that modify / strengthen the channel bed, whether above or below the waterline.	<ul style="list-style-type: none"> • Placement or injection of concrete onto/into the channel bed • Construction of a rock ramp associated with a weir or other structure • Lining a channel with clay or other material to reduce permeability • Removal of existing bed reinforcements • Reno mattresses
Sediment management	Includes the introduction, removal, redistribution or manipulation of sediment within a channel.	<ul style="list-style-type: none"> • Dredging, for any reason • Introduction of gravel to create riffles • Movement of sediment from one location in the channel to another, even if no net loss occurs

Type of activity or modification	Definition	Examples (non-exhaustive)
		<ul style="list-style-type: none"> • Jet washing gravels • Gravel extraction
Bank reinforcement	Activities that modify / strengthen the channel bank between the level of the bed and level of the floodplain or bank top, regardless of the materials used or the purpose for which the works are done.	<ul style="list-style-type: none"> • Use of concrete, brick, gabion baskets, geotextiles or any other hard engineering technique • Use of faggots, coir rolls, etc. • Removal of existing bank reinforcements
Embankment	Any activity adjacent to the channel that serves to disconnect the river from its floodplain, regardless of materials used or the purpose for which the works are done. Does not necessarily involve any direct modification to the channel bank. The activity is likely to increase the quantity and dynamics of flow in the river. Includes any embankment within 10 metres or 2x channel width of the river bank top at any point along its length – whichever is less.	<ul style="list-style-type: none"> • All flood defence structures adjacent to the channel designed to reduce occurrence of floodplain inundation. Includes earth embankment, flood walls, etc. • Any permanent structure adjacent to the channel that serves to reduce occurrence of floodplain inundation, even if unintended. Includes walls, properties, etc. • Removal or breach of any of the above structures
By pass channel	A secondary channel that takes a portion of flow (even if only during flood flow), for any purpose.	<ul style="list-style-type: none"> • Constructing a flood bypass channel to increase channel capacity at high flows • Reopening a historic meander (oxbow) to provide refugia or on-line habitat
Bank reprofiling	Changes to the shape or angle of the channel bank.	<ul style="list-style-type: none"> • Lowering (or raising) the angle of the channel bank, by any means • Constructing in-channel berms • Constructing a 2-stage channel (to carry low flows) • Smoothing the bank to create a uniform bank profile

Type of activity or modification	Definition	Examples (non-exhaustive)
Riparian vegetation management	Any activity that changes vegetation structure within the riparian zone. Excludes weed control measures within the channel itself.	<ul style="list-style-type: none"> • Felling or pollarding trees, whether on the channel bank or adjacent to the bank top • Brush clearance or mowing the channel bank • Removal of vegetation at the wetted edges of the channel
In-stream vegetation management	The removal, control or addition of vegetation on the bed of the channel, whether above or below the waterline. Includes removal of vegetation from channel bars.	<ul style="list-style-type: none"> • Weed cut, whether by machine, hand or chemical treatment • Removal of trees, bushes or shrub from vegetated islands • Planting vegetation within the channel
Woody material management	Includes the introduction, removal or redistribution of wood within the channel. Includes branches, large limbs, root boles and entire trees but excludes weed control measures.	<ul style="list-style-type: none"> • Removal of naturally occurring woody material within channels • Placement of woody material for erosion control, habitat creation or any other purpose
Flow deflector	Includes all in-channel structures that are specifically designed to change the dynamics of flow. Excludes weirs.	<ul style="list-style-type: none"> • Low flow deflectors constructed of wood or any material • Faggot or rock groynes • Placement of rock or wooden cascades
Set-back embankment	Any activity that serves to disconnect the river from its floodplain, regardless of materials used or the purpose for which the works are done. Includes any embankment set back at least 10 metres or 2x channel width from the river bank top – whichever is less. If there is significant potential for the set-back embankment to increase the quantity and dynamics of flow in the river then the Embankment category should be used.	<ul style="list-style-type: none"> • Construction of a flood embankment or wall or other impermeable structure set back from the top of the channel bank • Removal or breach of a flood embankment or wall or other impermeable structure set back from the top of the channel bank

Type of activity or modification	Definition	Examples (non-exhaustive)
Bridges & crossings	The construction of bridges and service crossings over, in or under the channel.	<ul style="list-style-type: none"> Construction of a bridge or pipeline with or without mid channel support Construction of a pipeline across a channel that would affect flow conveyance under normal or flood flow conditions Directional drilling for sewerage or other utility crossing beneath the channel bed Placement of a pipeline across the surface of the channel bed
Outfall	Any pipe, outlet, headwall, sluice, drain, pumping station, etc. discharging water or wastewater into a channel. Activity may include local bank reinforcement as part of the works.	<ul style="list-style-type: none"> A pipe outfall from a combined sewer overflow
Other	Any activity that cannot be broken down into the component parts described above. Seek advice from geomorphology, fisheries and biodiversity colleagues on which category most closely describes the activity in terms of its impacts.	<ul style="list-style-type: none"> Placement of stepping stones across a channel Floating pontoons, jetties or open flow hydropower turbines

From: [REDACTED]
To: AwelyMor
Subject: Application by Awel y Môr Offshore Wind Farm Limited
Date: 07 July 2020 16:49:50

FAO: Helen Lancaster

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11
Application by Awel y Môr Offshore Wind Farm Limited (the Applicant) for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm (the Proposed Development)
The Applicant has asked the Planning Inspectorate on behalf of the Secretary of State for its opinion (a Scoping Opinion) as to the information to be provided in an Environmental Statement (ES) relating to the Proposed Development.

I can advise that we have no adverse comments upon the Environmental Impact Assessment Scoping Report
Date: March 2020 Revision: A

Kristian

Kristian James CEnvH MPH
Prif Arbenigwr Iechyd Cyhoeddus Amgylcheddol
Principal Environmental Public Health Specialist

Adran Amddiffyn Iechyd, Iechyd Cyhoeddus Cymru, Llawr 4, Rhif 2 Capital Quarter, Tyndall Street, Caerdydd CF10 4BZ
Health Protection Division, Public Health Wales, Floor 4, Number 2 Capital Quarter, Tyndall Street, Cardiff CF10 4BZ

Tel/Ffon: 0300 00 300 32

[REDACTED]
Internet/Rhyngwyr: www.publichealthwales.org

From: [REDACTED]
Subject: RE: EN010112 - Awel y Môr Offshore Wind Farm - EIA Scoping Notification and Consultation
Date: 11 July 2020 13:40:31
Attachments: [image002.png](#)
[image004.png](#)

Dear Ben

Thanks you for the opportunity to comments on the proposed Awel y Mor Offshore Windfarm.

Rhuddlan Town Council have no comments

Kind regards

[REDACTED]

Clerc Dref Rhuddlan Town Clerk
[REDACTED]

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

<https://www.gov.uk/government/organisations/planning-inspectorate>
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Coronavirus advice image with text saying stay alert, control the virus and save lives



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DPC:76616c646f72

Awel y Môr Offshore Wind Farm – proposed development by Awel y Môr Offshore Wind Farm Limited

Royal Mail Group Limited comments on information to be provided in applicant's Environmental Statement

Introduction

Reference the letter from PINS to Royal Mail dated 12 June 2020 requesting Royal Mail's comments on information that should be provided Awel y Môr Offshore Wind Farm Limited Environmental Statement.

Royal Mail's consultants BNP Paribas Real Estate have reviewed the applicant's Scoping Report dated March 2020.

Statutory and operational information about Royal Mail

Under section 35 of the Postal Services Act 2011 (the "Act"), Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom.

The Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

The Act includes a set of minimum standards for Universal Service Providers, which Ofcom must secure. The conditions imposed by Ofcom reflect those standards.

Royal Mail is under some of the highest specification performance obligations for quality of service in Europe. Its performance of the Universal Service Provider obligations is in the public interest and this should not be affected detrimentally by any statutorily authorised project.

By sections, 30 and 31 of the Act (read with sections 32 and 33) there is a set of minimum standards for Universal Service Providers, which Ofcom must secure. The conditions imposed by Ofcom reflect those standards. There is, in effect, a statutory obligation on Royal Mail to provide at least one collection from letterboxes and post offices six days a week and one delivery of letters to all 29 million homes and businesses in the UK six days a week (five days a week for parcels). Royal Mail must also provide a range of "end to end" services meeting users' needs, e.g. First Class, Second Class, Special Delivery by 1 pm, International and Redirections services.

The Government imposes financial penalties on Royal Mail if its Universal Service Obligation service delivery targets are not met. These penalties relate to time targets for:

- collections,
- clearance through plant, and
- delivery.

Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service

Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Royal Mail has two properties in the search area and a further two within 10 miles:

BE	Business Entry Name	Address	Distance
2455	Rhyl DO	2 Vale Road, Rhyl, LL18 1AA	0 miles
2458	Colwyn Bay DO/OFF/ST	46 Princes Drive, Colwyn Bay, LL29 8HY	0 miles
2477	Llandudno DO	Maesdu Road, Llandudno, LL30 1QX	3 miles
2456	Denbigh DO/FPO/PAR	Bull Lane, Denbigh, LL16 3SA	4.6 miles



Royal Mail's comments on information that should be provided in Awel y Môr Offshore Wind Farm Limited Environmental Statement

Within the Environmental Statement there is no information regarding construction traffic routes and management for the Scheme. Royal Mail has the following comments / requests:

1. Royal Mail requests that the Traffic and Transportation section of the ES includes information on the needs of major road users (such as Royal Mail) and acknowledges the requirement to ensure that major road users are not disrupted through full consultation at the appropriate time in the DCO and development process.
2. Royal Mail requests that it be fully pre-consulted by the applicant and its contractors on any proposed road closures / diversions / alternative access arrangements, hours of working and

the content of any Construction Traffic Management Plan. The ES should acknowledge the need for this consultation with Royal Mail and other relevant local businesses / occupiers.

Royal Mail is able to supply the applicant with information on its road usage / trips if required.

Should PINS or Awel y Môr Offshore Wind Farm Limited have any queries in relation to the above then in the first instance please contact Denise Stephenson (denise.stephenson@royalmail.com) of Royal Mail's Legal Services Team or Alice Stephens (alice.stephens@realestate.bnpparibas) of BNP Paribas Real Estate.

From: [REDACTED]
To: AwelyMor
Subject: RE: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Date: 06 July 2020 18:59:12
Attachments: [image002.png](#)
[image003.png](#)

Thank you for consulting SP Energy Networks on the below Scoping Report.

I have reviewed the Scoping Report and can provide comments for SP Energy Networks who operate and manage the electricity network up to 132kV on behalf of the licenced network operator, SP Manweb. In general, SP Energy Networks is supportive of the proposed renewable energy development and of the approach set out by the applicant as to how it proposes to assess the environmental impacts of the proposals. There are a few specific comments raised on behalf of SP Energy Networks which have been noted during the review of the comprehensive Scoping Report and these are as follows:

Site Selection

Reference should be made (in para 243) to also taking account of existing electricity network apparatus within the area of search for the new substation extension as well as the area for the landfall cable options.

Consultation

SP Energy Networks welcomes early engagement regarding the proposed development and how this may impact on its own assets in the respective search areas for the onshore cables and substation.

Onshore Environment

Following reference to avoiding existing services as a key principle in Chapter 5 (para 259), this principle should be included in Chapter 10 to ensure the onshore parts of the proposed development avoid impacts on crossing existing services such as electricity networks in the area.

Other observations

The Scoping Report does not appear to address in an obvious way the possible impacts of the onshore element options so it is suggested that the assessment should review this aspect.

Similarly, the Scoping Report does not seem to set out impacts on climate change and net zero objectives so it is suggested that the assessment addresses this aspect more clearly as well.

I hope the above comments are helpful and please let me know if you would like to discuss them at any time. Further engagement with the applicant would be welcomed.

Thanks

Steve

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EXTERNAL: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)

EIA and Land Rights Advisor

The Planning Inspectorate

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DPC:76616c646f72



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From: [REDACTED]
To: AwelyMor
Subject: EN010122-00023
Date: 25 June 2020 12:50:07
Attachments: [image003.jpg](#)

Dear Helen Lancaster

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Awel y Môr Offshore Wind Farm Limited (the Applicant) for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm (the Proposed Development)

The Town Council has no comment to make regarding what information we consider should be provided in the Environmental Statement.

Kind Regards
Diane Donaghy

Assistant
Towyn & Kinmel Bay Town Council,
Community Resource Centre
The Square
Off Foryd Road
Kinmel Bay
Conwy
LL18 5BT
Tel: 01745 355899



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From: [REDACTED]
Subject: AwelyMor
Date: FW: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Attachments: 10 July 2020 11:27:31
-WRD000.jpg
image003.jpg
image004.png
AYMO - Statutory consultation letter.pdf

Good morning Ben/Helen,

With reference to the attached letter, Trinity House would expect the following to form part of the Environmental Statement:

Navigation Risk Assessment

- Comprehensive vessel traffic analysis in accordance with MGN 543.
- The possible cumulative and in-combination effects on shipping routes and patterns should be adequately assessed.
- Proposed layouts should conform to MGN 543 and consideration should be given to the layout of the current Gwynt y Mor Offshore Wind Farm in this regard. The Awel y Mor project layout should align with the current operational site.
- If any structures, such as met masts, offshore platforms, accommodation platforms or other transmission assets, lie outwith the actual wind farm turbine layout, then additional risk assessment should be undertaken.

Risk Mitigation Measures

- We consider that this development will need to be marked with marine aids to navigation by the developer/operator in accordance with the general principles outlined in IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Recommendation O-139 on the Marking of Man-Made Offshore Structures as a risk mitigation measure. In addition to the marking of the structures themselves, it should be borne in mind that additional aids to navigation such as buoys may be necessary to mitigate the risk posed to the mariner, particularly during the construction phase. All marine navigational marking, which will be required to be provided and thereafter maintained by the developer, will need to be addressed and agreed with Trinity House. This will include the necessity for the aids to navigation to meet the internationally recognised standards of availability and the reporting thereof.
- Any monitoring equipment, including met masts and LIDAR or wave buoys must also be marked as required by Trinity House.
- A decommissioning plan, which includes a scenario where on decommissioning and on completion of removal operations an obstruction is left on site (attributable to the wind farm) which is considered to be a danger to navigation and which it has not proved possible to remove, should be considered. Such an obstruction may require to be marked until such time as it is either removed or no longer considered a danger to navigation, the continuing cost of which would need to be met by the developer/operator.
- The possible requirement for navigational marking of the export cables and the vessels laying them. If it is necessary for the cables to be protected by rock armour, concrete mattresses or similar protection which lies clear of the surrounding seabed, the impact on navigation and the requirement for appropriate risk mitigation measures needs to be assessed.

Kind regards,

Stephen Vanstone

Navigation Services Officer | Navigation Directorate | Trinity House



From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>

Sent: 12 June 2020 13:10

To: Navigation <navigation@trinityhouse.co.uk>

Cc: Thomas Arculus [REDACTED]

Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)

EIA and Land Rights Advisor

The Planning Inspectorate

Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

<https://www.gov.uk/government/organisations/planning-inspectorate>

Twitter: [@PINSgov](#)

Email: ben.jenkinson@planninginspectorate.gov.uk

Telephone: +44 (0) 303 444 3403



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DPC:76616c646f72

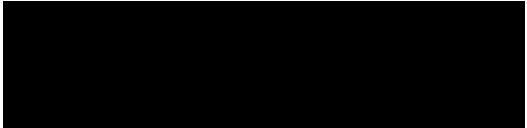


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Yr Is-adran Datgarboneiddio ac Ynni Division for Decarbonisation and Energy



Eich cyf/ Your ref: EN010122-00023
EN010122-00020

Llywodraeth Cymru
Welsh Government

Major Casework Directorate
Temple Quay House
2 The Square
Bristol
BS1 6PN

AwelyMor@planninginspectorate.gov.uk

10 July 2020

Welsh Government's response on the application by Awel y Môr Offshore Wind Farm Limited for an Order granting Development Consent for the Awel y Môr Offshore Wind Farm

Welsh Government wishes to highlight the following aspects to be considered in the Planning Inspectorate's Scoping Opinion on the information to be provided in an Environmental Statement (ES) relating to the proposed development.

The Welsh Government appreciates this is a long term project and the benefits and impacts need to be carefully considered over the whole of this timescale. The project must be delivered in a manner which avoids significantly damaging the environment and social cohesion. It could, however, create significant opportunities to secure long lasting social and economic benefits for Wales.

The Welsh Government's aspirations for any significant infrastructure project in Wales is to ensure it will deliver significant economic and social benefit, perhaps through employment, supply chain and inward investment opportunities whilst being designed and delivered in a way that minimises the impacts onto the environment and cultural aspects of Wales.

The Welsh Government also recognises that delivering a lasting and positive legacy from this project will require coordinated action by all key stakeholders.

The Welsh Government has a distinctive statutory duty in relation to sustainable development. The Well-being of Future Generations (Wales) Act 2015 (WFG) established seven wellbeing goals to ensure that public bodies (including local

Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and responding in Welsh will not lead to a delay in responding.

Llywodraeth Cymru | Welsh Government
Sarn Mynach
Cyffordd Llandudno Junction
LL31 9RZ

Canolfan CyswIlt Cyntaf / First Point of
Contact Centre 0300 0604400

planning authorities) are all working towards the same vision of a sustainable Wales. The WFG Act should provide the basis on which all aspects of the project should be assessed and an integrated view developed of its impact.

We refer the Planning Inspectorate and the developer to the Welsh National Marine Plan for Welsh Government policies on the Sustainable Development of the Welsh marine plan area and supporting Implementation Guidance, which provides information on how Welsh Government policies should be taken into consideration: <https://gov.wales/marine-planning>

We defer to Natural Resources Wales and the Joint Nature Conservation Committee, as the Welsh Government's Statutory Nature Conservation Advisors for Welsh inshore and offshore waters respectively, for any technical comments on the proposal, specifically in relation to marine biodiversity and fisheries matters.

We would encourage the developer to engage early with key stakeholders, including those with a fisheries interest, at the early planning stages of the project.

In relation to other key policies, we would highlight the need to consider Planning Policy Wales for the onshore elements of the proposal, the emerging National Development Framework and our policy on local ownership of energy generation.

Yours sincerely,

Heledd Cressey
Energy Policy Branch
Division for Decarbonisation and Energy

From: [REDACTED]
To: AwelyMor
Subject: FW: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Date: 18 June 2020 15:33:31
Attachments:
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image001.png
image003.png
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image006.png
image007.png
image008.png
AYMO - Statutory consultation letter.pdf

Hi Ben,

Thank you for the opportunity to review the above information.

Although we have no comments to make in relation to the Scoping Opinion report, we would welcome the opportunity to review plans of the preferred cable route (connecting the landfall station to the grid connection) later in the process to establish whether there will be any interaction with our assets.

Kind regards,
Dafydd



Dafydd Bailey

Development Control Officer | Developer Services
Dŵr Cymru Welsh Water



T: 0800 917 2652 | [REDACTED] | [REDACTED]
A: Kinmel Park, Royal Welch Avenue, Bodelwyddan, LL18 5TQ



W: dwrcymru.com
E: developer.services@dwrcymru.com

From: AwelyMor <AwelyMor@planninginspectorate.gov.uk>
Sent: 12 June 2020 11:52
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

***** External Mail *****

Dear Sir/Madam,

Please see attached Statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

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From: [REDACTED]
To: AwelyMor
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation
Date: 12 June 2020 14:21:59
Attachments: [image001.png](#)
[image002.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image010.png](#)

Hello Ben,

I can confirm that Wrexham County Borough Council has no comments to make on the EIA scoping request as an adjoining Local Planning Authority.

Kind regards

Simon Greenland
Swyddog Gorfodi a Cynllunio/Planning and Enforcement Officer
Cynllunio a Rheoleiddio/Planning and Regulatory

- [?] 01978 298783 [REDACTED]
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From: AwelyMor [mailto:AwelyMor@planninginspectorate.gov.uk]
Sent: 12 June 2020 13:31
Subject: EN010112 – Awel y Môr Offshore Wind Farm – EIA Scoping Notification and Consultation

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Dear Sir/Madam,

Please see attached Non-statutory Consultation Letter on the proposed Awel y Môr Offshore Wind Farm.

Please note the deadline for consultation responses is 12 July 2020, and is a statutory requirement that cannot be extended.

Kind regards,

Ben Jenkinson (AIEMA, ACIEEM, MSc, BSc)
EIA and Land Rights Advisor
The Planning Inspectorate
Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

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