Rhaglen Monitro a Modelu'r Amgylchedd a Materion Gwledig (ERAMMP)

ERAMMP Adroddiad-29:

Gweithgareddau Monitro Wedi'u Hadrodd mewn Tirweddau Dynodedig yng Nghymru

Nuttall, E.Ll.[1], Bell, C.[2], Williams, B.[2], Shorrock, S.[2] & Emmett, B.A.[2]

[1] Awdurdod Parc Cenedlaethol Eryri, [2] Canolfan Ecoleg & Hydroleg y DU

Wedi'i Ariannu gan:

Llywodraeth Cymru
Welsh Government

Canolfan Ecoleg a Hydroleg y DU
UK Centre for Ecology & Hydrology

Hanes Fersiwn

Fersiwn	Diweddarwyd Gan	Dyddiad	Newidiadau
0.0	GMTD	14/3/2019	GMTD cyfarfod 1
0.0	CG	Ebr2019	Cynhaliwyd y 6 chyfweliad cychwynnol
0.0	CG	Ebr2019	Dadansoddi drafft
0.0	EN	Meh2019	Cynhaliwyd y 2 gyfweliad eraill
0.1	EN	Rhag2019	Ysgrifennu cychwynnol
0.2	LIC	Ion2020	Adolygiad LIC
0.3	EN	21/2/2020	Drafft i'r TDau i'w adolygu
0.3	GMTD	25/2/2020	GMTD cyfarfod 2
0.31	EN	Ebr2020	Derbyn sylwadau ac ymatebion
0.4-0.6	Awduron	27/11/2020	Symleiddio sylweddol/ail-ysgrifennu
0.6	LIC	1/2/2021	Adolygiad LIC
0.7	Awduron	16/3/2021	Ychwanegwyd data cyfweld ychwanegol
0.8	Awduron	Ebr2021	Adolygiad LIC/UKCEH terfynol
0.8	GMTD	25/5/2021	GMTD cyfarfod 3
0.9	Awduron	Ebr2021	Prawfddarllen a chyfieithu
1.0	Awduron	Meh2021	Cyhoeddi

Mae'r adroddiad hwn ar gael yn electronig yn: **www.erammp.wales/29**

Neu drwy sganio'r cod QR a ddangosir.

Mae'r ddogfen hon hefyd ar gael yn Saesneg

Cyfres	Rhaglen Monitro a Modelu'r Amgylchedd a Materion Gwledig (ERAMMP)
Teitl	ERAMMP Adroddiad-29: Gweithgareddau Monitro Wedi'u Hadrodd mewn Tirweddau Dynodedig yng Nghymru
Cleient	Llywodraeth Cymru
Cyfeirnod Cleient	C210/2016/2017
Cyfrinachedd, hawlfraint ac atgynhyrchu	© Hawlfraint y Goron 2021. Mae'r adroddiad hwn wedi ei drwyddedu o dan y Drwydded Llywodraeth Agored 3.0.
Manylion cyswllt UKCEH	Bronwen Williams Canolfan Ecoleg a Hydroleg y DU (UKCEH) Canolfan Amgylchedd Cymru, Ffordd Deiniol, Bangor, Gwynedd, LL57 2UW 01248 374500 erammp@ceh.ac.uk
Awdur gohebol	Bridget Emmett, UKCEH bae@ceh.ac.uk
Awduron	Nuttall, E.Ll. [1]** , Bell, C. [2] , Williams, B. [2] , Shorrock, S. [2] & Emmett, B.A. [2] [1] Awdurdod Parc Cenedlaethol Eryri, [2] Canolfan Ecoleg a Hydroleg y DU ** Awdur Nuttall i f0.3 - tua Chwefror 2020
Awduron ac adolygwyr cyfrannol	Gyda diolch i'r staff a'r cyfranwyr o'r Awdurdodau Tirwedd Dynodedig a gafodd eu cyfweld a'r rhai a ddarparodd wybodaeth arall a sylwadau adolygu.
Sut i ddyfynnui (hir)	Nuttall, E.Ll., Bell, C., Williams, B., Shorrock, S. & Emmett, BA (2021) *Rhaglen Fodelu a Monitro'r Amgylchedd a Materion Gwledig* (ERAMMP) . ERAMMP Adroddiad-29: Gweithgareddau Monitro Wedi'u Hadrodd mewn Tirweddau Dynodedig yng Nghymru. Adroddiad i Lywodraeth Cymru (Contract C210/2016/2017) (Canolfan Prosiectau Ecoleg a Hydroleg y DU 06297 a 06810)
Sut i ddyfynnui (byr)	Nuttall, E.Ll et al. (2021). ERAMMP Adroddiad-29: Gweithgareddau Monitro Wedi'u Hadrodd mewn Tirweddau Dynodedig yng Nghymru. Adroddiad i Lywodraeth Cymru (Contract C210/2016/2017) (UKCEH 06297/06810)
Cymeradwywyd gan	Daniel Jones Bridget Emmett

Byrfoddau a Ddefnyddir yn yr Adroddiad hwn

ACA	Ardaloedd Cadwraeth Arbennig	SAC	Special Areas of Conservation
AHNE	Ardal o Harddwch Naturiol Eithriadol	AONB	Area of Outstanding Natural Beauty
APC	Awdurdod Parc Cenedlaethol	NPA	National Park Authority
APCAP	Awdurdod Parc Cenedlaethol Arfordir Penfro	PCNPA	Pembrokeshire Coast National Park Authority
APCBB	Awdurdod Parc Cenedlaethol Bannau Brycheiniog	BBNPA	Brecon Beacons National Park Authority
APCE	Awdurdod Parc Cenedlaethol Eryri	SNPA	Snowdonia National Park Authority
ARhTD	Awdurdodau Rheoli Tirweddau Dynodedig (gweler hefyd 'Cyrff DL')	DLMA	Designated Landscape Managing Authorities (see also 'DL Bodies')
CNC	Cyfoeth Naturiol Cymru	NRW	Natural Resources Wales
CSYM	Cyngor Sir Ynys Môn	IACC	Isle of Anglesey County Council
Cyrff TD	Yr awdurdod rheoli sydd â'r dasg o reoli'r ardal ddaearyddol ddynodedig honno	DL Bodies	The managing authority tasked with managing that designated geographic area
ERAMMP	Rhaglen Monitro a Modelu'r Amgylchedd a Materion Gwledig	ERAMMP	Environment and Rural Affairs Monitoring & Modelling Programme
GGB	Gwasanaeth Gwybodaeth Bioamrywiaeth (un o bedair Canolfan Cofnodion Amgylcheddol Lleol yng Nghymru)	BIS	Biodiversity Information Service (one of four Local Environmental Record Centres in Wales)
GMEP	Rhaglen Monitro a Gwerthuso Glastir	GMEP	Glastir Monitoring and Evaluation Programme
GMTD	Grŵp Monitro Tirweddau Dynodedig	DLMG	Designated Landscapes Monitoring Group
NAH	Nodweddion Amgylcheddol Hanesyddol	HEF	Historic Environmental Features
PC	Parc Cenedlaethol	NP	National Park
SDdGA	Safle o Ddiddordeb Gwyddonol Arbennig	SSSI	Site of Special Scientific Interest
TD	Tirweddau Dynodedig (yr ardal ddaearyddol sydd wedi'i dynodi)	DL	Designated Landscape
UKCEH	Canolfan Ecoleg a Hydroleg y DU	UKCEH	UK Centre for Ecology & Hydrology

Ymhelaethir ar fyrfoddau a rhai o'r termau technegol a ddefnyddir yn yr adroddiad hwn yng ngeirfaoedd y rhaglen: https://erammp.wales/en/glossary (Saesneg) a https://erammp.cymru/geirfa (Cymraeg)

CYNNWYS

1 CYFLWYNIAD A CHEFNDIR

1.1 Amcan a Chefndir

Cynhaliwyd yr adolygiad hwn er mwyn dogfennu peth o'r dystiolaeth a gesglir ar hyn o bryd o fewn Tirweddau Dynodedig (TDau) yng Nghymru. Yr amcan yw nodi meysydd cyffredinrwydd a gwahaniaethau neu fylchau mewn monitro, ac annog dull cydweithredol o fonitro parhaus ac yn y dyfodol trwy nodi data a modelu allbynnau o'r Rhaglen Monitro a Modelu'r Amgylchedd a Materion Gwledig[1] (ERAMMP) a'r Rhaglen Monitro a Gwerthuso Glastir[2] (GMEP) sydd o'r diddordeb a'r effaith fwyaf i'r awdurdodau rheoli Tirwedd Dynodedig ('Cyrff TD'). Dylid nodi nad yw'r adroddiad yn darparu rhestr gyflawn o'r holl weithgareddau monitro ond dim ond y rhai a adroddwyd gan yr unigolion a enwebwyd i'w cyfweld gan y Cyrff TD ar y pryd.

1.2 Strwythur a Dull

Cynhaliodd Swyddog Monitro a Chyswllt TD ERAMMP gyfweliadau strwythuredig gyda'r wyth Corff TD yn 2019.

Pwrpas y cyfweliadau hyn oedd nodi gwahanol agweddau ar y daliadau data a chasglu data gan gynnwys: beth, pam, sut, pryd a phwy a gasglodd y data, pwy yw deiliad y data, ei argaeledd ac unrhyw adroddiadau hysbys.

Hefyd, gofynnwyd i'r Cyrff TD lenwi dau dabl ychwanegol.

- Blaenoriaethau ar gyfer echdynnu a dadansoddi data GMEP yn y dyfodol

- Blaenoriaethau ar gyfer senarios modelu ERAMMP i lywio gwaith modelu ERAMMP posibl yn y dyfodol.

Gweler Atodiad 6.3 am y *pro forma* holiadur a ddefnyddiwyd ar gyfer yr holl gyfweliadau ac Atodiadau 6.4 a 6.7 ar gyfer ymatebion Cyrff TD a thabl cryno o 'Pam, Beth, Pryd a Sut'. Mae'r ymatebion o'r wyth Corff TD yn crynhoi'r gwaith monitro cyfredol, hunan-gofnodedig sy'n mynd rhagddo yn y TDau, ac yna ymarfer mapio i fapio gweithgareddau cyfredol ar gynlluniau rheoli TD cyfredol - a thrwy hynny nodi bylchau tystiolaeth posibl.

Mae'r adolygiad hefyd yn crynhoi'r blaenoriaethau yn unigol ac ar y cyd ar gyfer y Cyrff TD ar gyfer gwaith cydweithredol posibl yn y dyfodol mewn perthynas â monitro a modelu allbynnau gan GMEP/ERAMMP.

[1] https://www.erammp.wales/cy

[2] https://www.gmep.wales/cy

2 GWEITHGAREDDAU MONITRO YN Y TDAU

2.1 Trosolwg o Fonitro

Fel rhan o'r cyfweliadau strwythuredig a gynhaliwyd gyda'r Cyrff TD, gofynnwyd i bob un roi crynodeb byr o'r nifer a'r math o raglenni monitro yr oeddent yn ymwybodol ohonynt a oedd wedi digwydd yn eu dynodiadau priodol. Gofynnwyd i gynrychiolwyr roi gwybodaeth hyd yn oed os oeddent yn ansicr o'r union fanylion, cyfnod, dull neu argaeledd unrhyw ddata a gasglwyd. Y pwrpas oedd datblygu dealltwriaeth gyffredinol o'r mathau o weithgareddau monitro sydd wedi digwydd a pha ymchwil y canolbwyntiwyd arni.

> **Sylwch fod yr adroddiad hwn ond yn cynnwys monitro a nodwyd fel rhan o'r cyfweliadau strwythuredig a gynhaliwyd gan Swyddogion Monitro a Chyswllt TDau â'r Cyrff TD; ni chynhwysir unrhyw weithgaredd monitro na ddaeth i sylw Swyddogion Monitro a Chyswllt TDau yn yr adroddiad hwn.**

Adroddwyd ar ystod eang o ddangosyddion monitro, felly cafodd y rhain eu categoreiddio yn 10 grŵp monitro gydag is-gategorïau pellach i ddelweddu a dehongli'r canlyniadau yn haws (gweler Atodiad 7.1). Gellir gweld canlyniadau'r casgliad data hwn yn Ffigur 2-1.
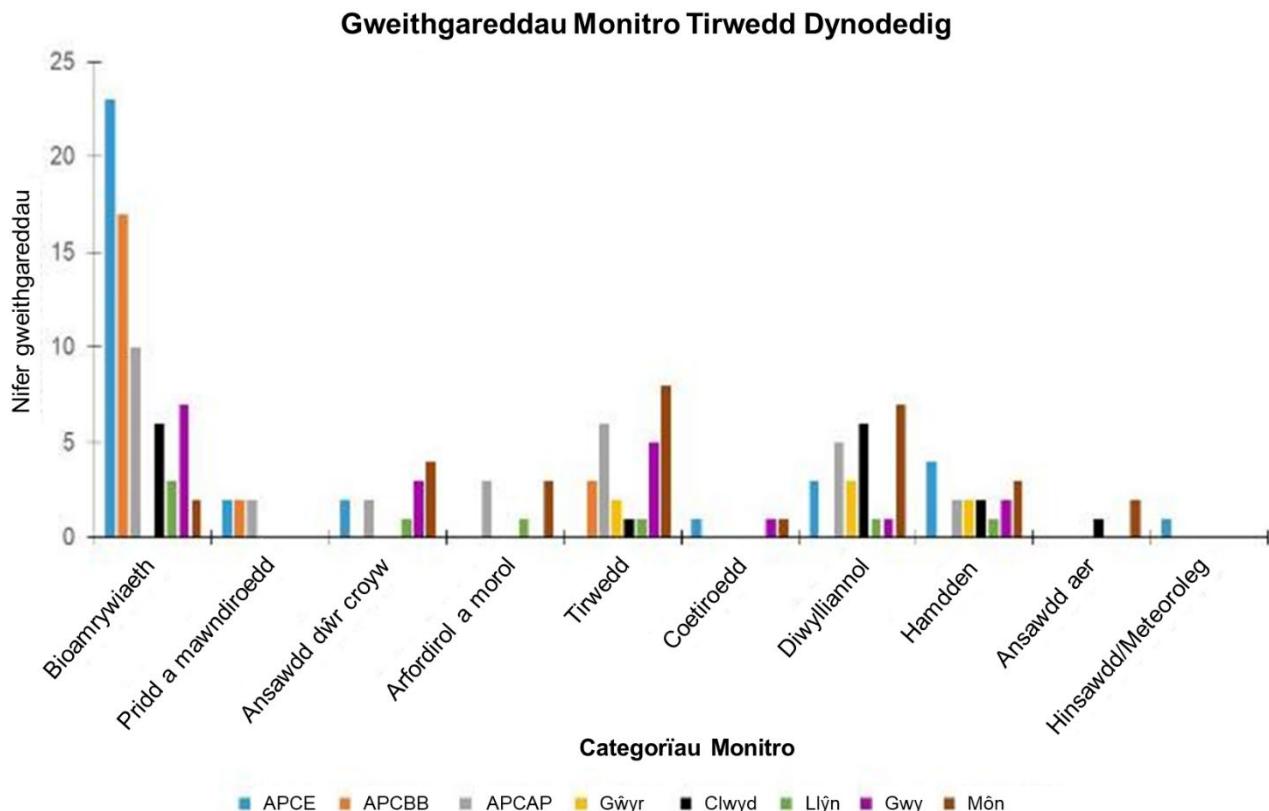
Ffigur 2-1: Nifer y gweithgareddau monitro yn ôl categori lefel uchaf a adroddwyd gan y Cyrff DL.

2.2 Tueddiadau a Arsylwyd

Mae arsylwadau cychwynnol yn amlygu pedwar prif faes monitro sy'n fwy amlwg nag eraill;

1. Bioamrywiaeth
2. Tirwedd
3. Diwylliannol
4. Hamdden

Mae mwyafrif y Cyrff TD yn monitro pob un o'r meysydd hyn i raddau neu'n ymwybodol o fonitro gan sefydliadau eraill yn eu dynodiadau. Gweler Ffigur 2-2 i 2-5. Archwilir pob un yn fanylach isod.

Mae Atodiad 7.2 yn dangos crynodeb o gasglwyr data, deiliaid data, adroddwyr data a dyddiad casglu data gweithgareddau monitro datganedig yr awdurdodau TD.

2.2.1 Bioamrywiaeth

Mae Ffigur 2-1 yn nodi bioamrywiaeth fel y categori amlaf o fonitro cyfredol a hanesyddol ym mwyafrif y Cyrff TD, yn enwedig categori'r Parciau Cenedlaethol (PCau). Mae mwyafrif y cynlluniau monitro bioamrywiaeth yn canolbwyntio ar famaliaid, llystyfiant, adar, peillwyr a rhywogaethau goresgynnol.

Mae gweithgarwch monitro bioamrywiaeth yn gyffredinol uwch yn y PCau na'r AHNE gyda monitro mamaliaid a llystyfiant yn digwydd yn amlach.

Mae gan gyrff TD sydd â pharthau arfordirol sylweddol h.y. APCAP, AHNE Llŷn ac AHNE Ynys Môn, fonitro arfordirol a morol nad yw'n bresennol mewn dynodiadau mewndirol.
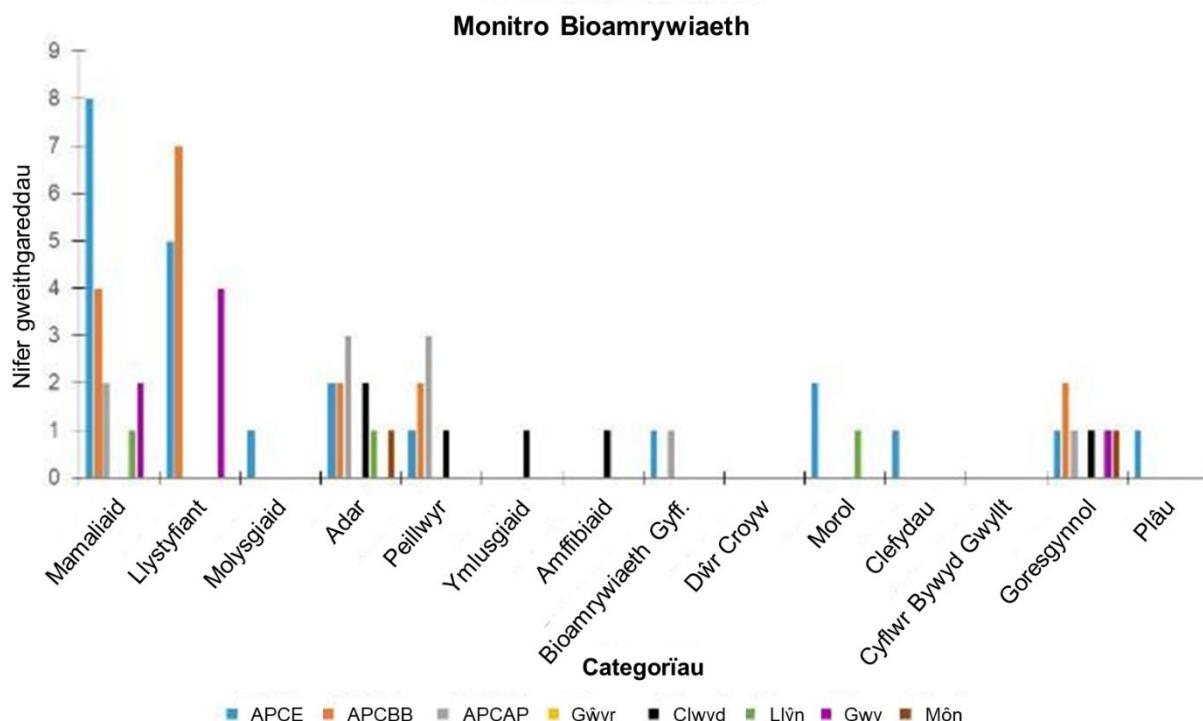
Ffigur 2-2: Nifer y gweithgareddau monitro bioamrywiaeth a adroddwyd gan y Cyrff DL

2.2.2 Tirwedd

Mae monitro dull monitro nodweddion tirwedd yn fwy cyffredin yn yr AHNE o gymharu â PCau o ran nifer y categorïau. Mae hyn yn canolbwyntio'n bennaf ar Safle o Ddiddordeb Gwyddonol Arbennig/Ardaloedd Cadwraeth Arbennig (SDdGA/ACA) gyda 5 o'r 8 Corff TD ag o leiaf un cynllun monitro sy'n gysylltiedig â'r math hwn o dirwedd. Mae asesiad o gyflwr llwybr troed hefyd yn weithgaredd a adroddir yn aml; gyda phedwar cynllun monitro ar draws y TDau. Adroddwyd monitro cyflwr cyffredinol y TD ar gyfer Ynys Môn a Gŵyr.
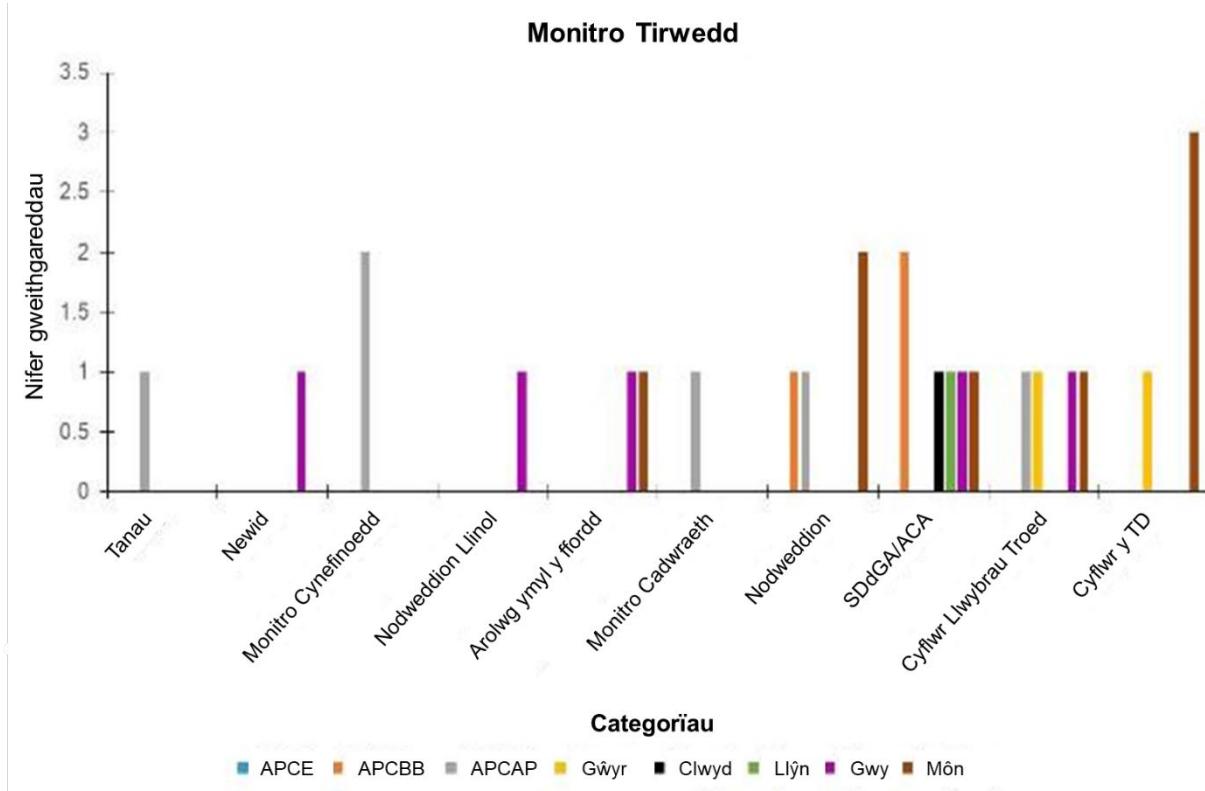
Ffigur 2-3: Nifer y gweithgareddau monitro tirwedd a adroddwyd gan y Cyrff DL.

2.2.3 Diwylliannol

Gellir ystyried bod monitro diwylliannol yn cael ei fonitro'n gyfartal o fewn PCau ac AHNE.

Mae ansawdd yr awyr Dywyll/Nos yn ymddangos yn flaenoriaeth i 6 o'r 8 Corff TD. Cyflawnwyd achrediad y Gymdeithas Awyr Dywyll Ryngwladol, achrediad y Gronfa Awyr Dywyll Ryngwladol gan APCBB (yn 2013) ac APCE (yn 2015). Mae monitro nodweddion amgylchedd hanesyddol (NAH) ar waith ar gyfer dros hanner y Cyrff TD.
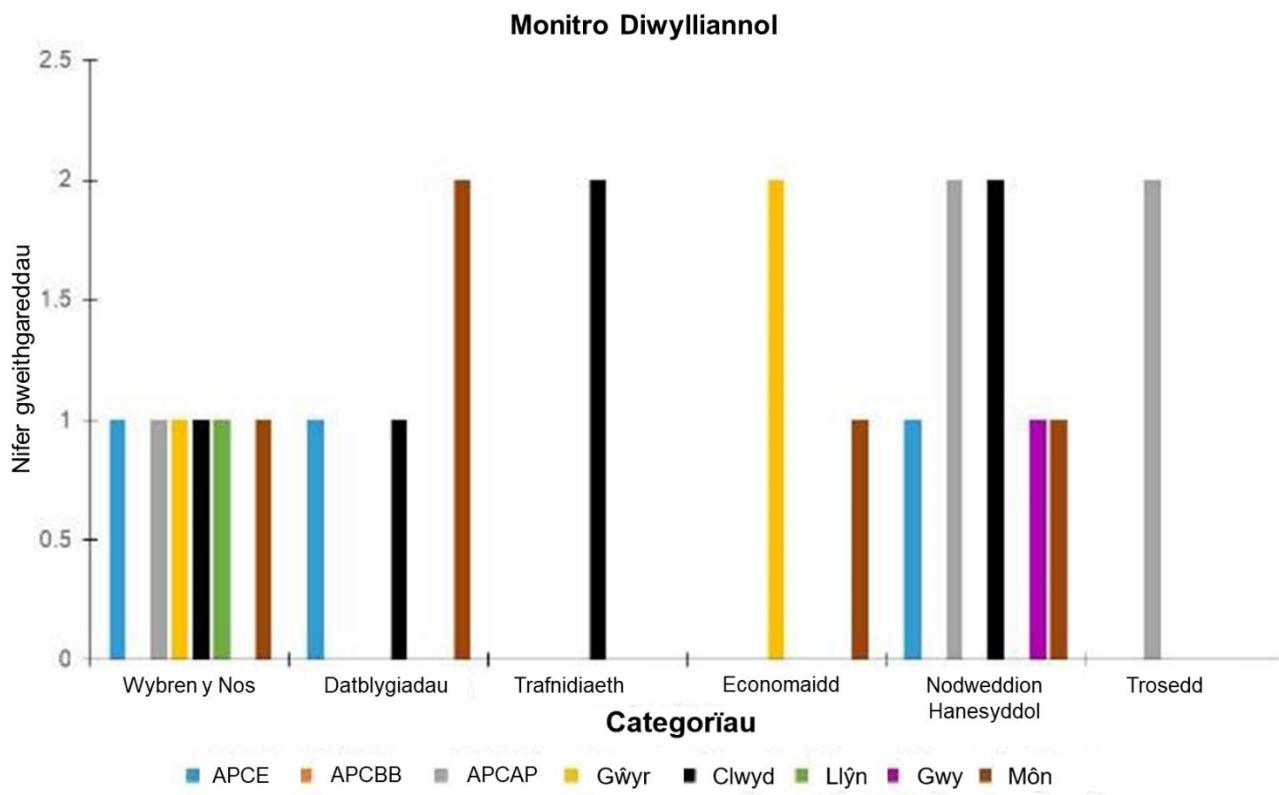
Ffigur 2-4: Nifer y gweithgareddau monitro diwylliannol a adroddwyd gan y Cyrff DL.

2.2.4 Hamdden

Mae cofnodion niferoedd ymwelwyr a defnyddwyr llwybrau'n cael lle blaenllaw ym maes monitro hamdden ac mae'n bresennol mewn 7 o'r 8 TD. Mae rhai Cyrff TD wedi monitro gweithgareddau manwerthu, arolygon ymwelwyr a thrigolion hefyd.
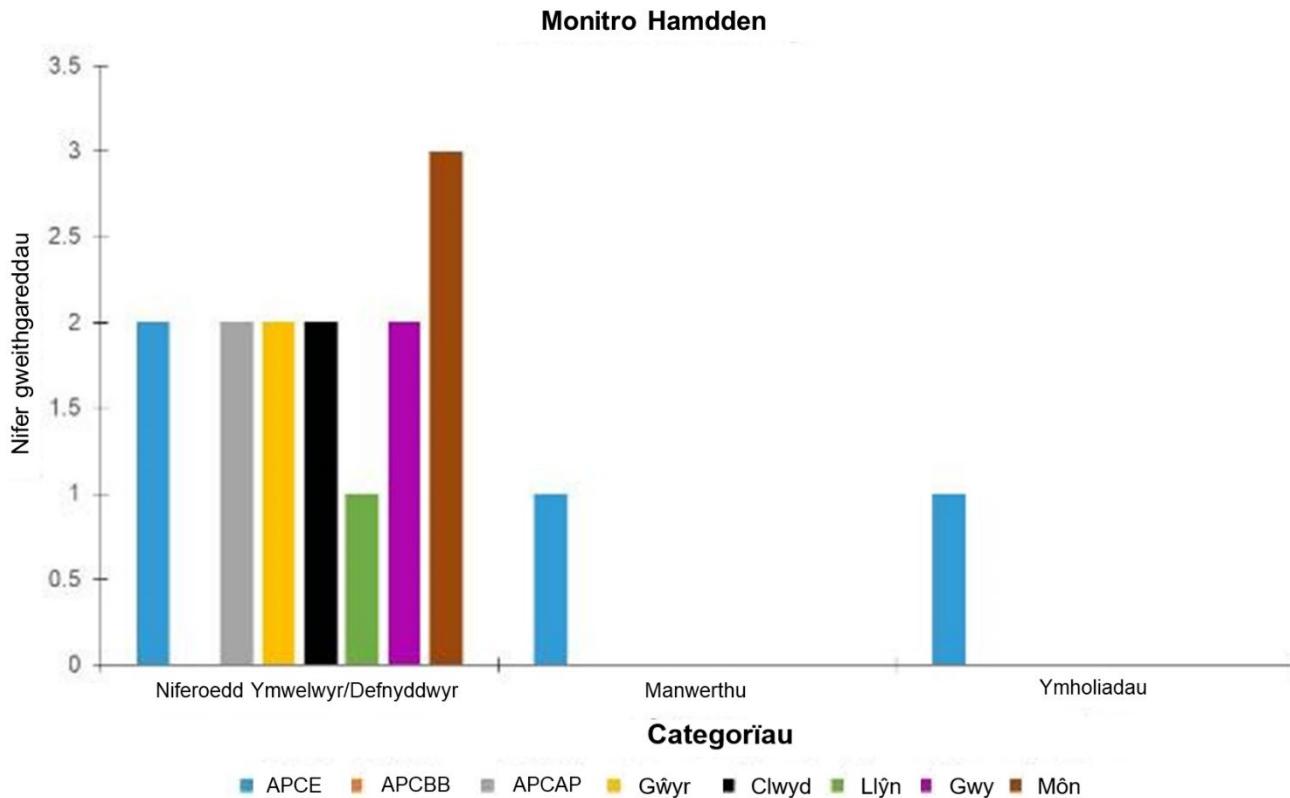
Monitro Hamdden

Ffigur 2-5: Nifer y gweithgareddau monitro hamdden a adroddwyd gan y Cyrff DL.

2.2.5 Gweithgareddau Monitro Eraill

Rhaglenni monitro eraill yr adroddwyd arnynt:

- **Pridd a mawndiroedd:** Dim ond yn nodi ei fod yn digwydd yn y PCau.

- **Ansawdd Dŵr Croyw:** Mae gweithgarwch monitro yn gymharol uchel mewn Cyrff TD lle mae'n cael ei fonitro ond wedi'i gyfyngu i ddim ond 5 Corff TD yn gyffredinol.

- **Arfordir a morol:** Dim ond yn amlwg mewn 3 Chorff TD sydd â pharthau arfordirol sylweddol.

- **Coetiroedd:** Mae'r monitro'n isel gyda dim ond 3 chynllun monitro wedi'u nodi ar draws yr 8 Corff TD.

- **Ansawdd aer:** Monitro isel gyda dim ond 3 chynllun mewn 2 Gorff TD. Mae'r rhai hynny sy'n adrodd gweithgarwch wedi'u hymgorffori mewn rhwydweithiau cenedlaethol lle mae'r gwaith yn cael ei gyflawni gan sefydliadau arbenigol.

- **Hinsawdd/Meteoroleg:** Un cynllun o fewn PCE sydd â Gorsaf Feteorolegol bwrpasol.

Nododd sawl adroddwr hefyd fod prifysgolion a chyrff anllywodraethol yn gwneud llawer o waith monitro yn yr ardaloedd TD. Er enghraifft, ansawdd dŵr croyw, tagio adar, arolygon ystlumod ac arolygon blynyddol eraill.

2.3 Sylwadau Allweddol

Yr arsylwadau allweddol a aseswyd gan Swyddogion Monitro a Chyswllt TD ERAMMP o'r wybodaeth a ddarparwyd yn y cyfweliadau yw:

KO1 - Gweithgaredd monitro bioamrywiaeth yw'r gweithgaredd monitro mwyaf cyffredin a adroddir gan Gyrff TD. Y dangosyddion bioamrywiaeth sy'n cael eu monitro amlaf yw llystyfiant, mamaliaid (gyda'r adar yn cael eu mesur fwyaf yn y categori hwn), peillwyr a rhywogaethau goresgynnol.

KO2 - Y tu hwnt i weithgareddau monitro bioamrywiaeth, adroddir am sylw lefel isel amrywiadwy ar gyfer categorïau monitro eraill ar draws PCau ac AHNE.

KO3 - Mae riportio monitro paramedrau sy'n gofyn am fwy o fuddsoddiad mewn methodolegau offerynnau a dadansoddol (e.e. ansawdd aer) yn sylweddol is na'r hyn sy'n gofyn am sgiliau tacsonomig ac arolwg arbenigol yn unig (e.e. nodweddion bioamrywiaeth a thirwedd).

3 CAM 2 - CANLYNIADAU GLASTIR A DATA GMEP

3.1 Trosolwg o Ddata GMEP

Ail gam y cyfweliadau strwythuredig oedd cael mewnwelediad i hoffterau echdynnu a dadansoddi data pob corff TD o archif data GMEP a diddordeb tebygol mewn data arolwg ERAMMP.

Gwnaethpwyd hyn i flaenoriaethu a lledaenu data lle bo hynny'n briodol. Mae'r data GMEP sydd ar gael i'w echdynnu a'i ddadansoddi (Tabl 3-1) yn ymwneud â phrif ganlyniadau cynllun rheoli tir cynaliadwy Glastir:

- Bioamrywiaeth
- Lliniaru Newid yn yr Hinsawdd
- Rheoli Pridd a Dŵr
- Tirwedd, yr Amgylchedd Hanesyddol a Mynediad
- Creu a rheoli coetiroedd

Tabl 3-1: Mapio data GMEP sydd ar gael i ganlyniad Glastir

Canlyniad Glastir	Data a gasglwyd yn GMEP
Bioamrywiaeth	Amrywiaeth planhigion
	Adar
	Peillwyr
	Digonedd o flodau
	Cyflwr nodweddion llinellol
Lliniaru Newid yn yr Hinsawdd	Carbon pridd
Rheoli Pridd a Dŵr	Ansawdd cynefin nentydd blaenddwr (Arolwg Cynefinoedd Afonydd)
	Cymuned macroinfertebratau nentydd blaenddwr
	Ansawdd pyllau
Tirwedd, yr Amgylchedd Hanesyddol a Mynediad	Asesiad o gyflwr Nodweddion yr Amgylchedd Hanesyddol
	Mynegai Ansawdd Gweledol
	Presenoldeb a hyd Hawliau Tramwy Cyhoeddus, gan gynnwys ardaloedd mynediad agored a thraethau.
Creu a rheoli coetiroedd	Bioamrywiaeth fflora tir coetiroedd

Nodir bod gan lawer o'r canlyniadau hyn is-adrannau yn seiliedig ar yr archif ddata. Fodd bynnag, penderfynwyd y byddai gan gorff TD sydd â diddordeb mewn amrywiaeth planhigion (er enghraifft) ddiddordeb mewn data ar gyfer bioamrywiaeth yn ei gyfanrwydd gan ei fod yn israniad o'r canlyniad.

Yn anffodus mae hyn wedi achosi rhyw faint o ddryswch wrth ddyrannu dewisiadau [yn ystod y cyfweliadau], gyda rhai cynrychiolwyr corff TD yn seilio penderfyniadau ar y canlyniadau (fel y bwriadwyd) a rhai'n seilio penderfyniadau ar y data a gasglwyd yn unigol. Er hynny, cymerwyd gofal mawr i gynrychioli dewisiadau pob corff TD yn deg yn yr adroddiad hwn. Lluniwyd y rhain ac fe'u cyflwynir yn Ffigur 3-2 a Ffigur 3-3.

3.2 Sylw i TDau gan Arolwg GMEP/ERAMMP

Dewiswyd lleoliadau arolwg ar gyfer GMEP ac ERAMMP gan ddefnyddio dull a oedd yn sicrhau sylw da i'r holl brif ddosbarthiadau tir sy'n cael eu diffinio gan nodweddion fel hinsawdd, daeareg a thopograffi. Fe wnaeth y dull hwn sicrhau bod yr arolwg yn cipio set

gynrychioliadol o'r prif ffermydd, coetir a thir a reolir ar gyfer y cynefin yng Nghymru, gan fod y defnyddiau tir hyn wedi'u cysylltu'n agos â'r nodweddion tirwedd sylfaenol hyn.

Fel rhan o Arolwg Maes Cenedlaethol ERAMMP, bydd nifer sylweddol o'r 300 sgwâr 1km GMEP gwreiddiol (Ffigur 3-1) yn cael eu harolygu, o fewn a thu allan i TDau, yn 2021 a 2022.
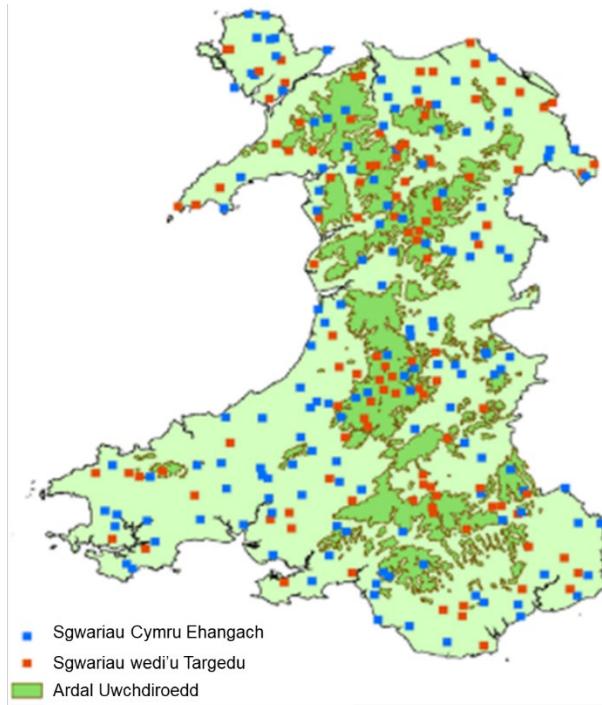
Ffigur 3-1: Lleoliad bras pob Sgwâr Arolwg GMEP.

Gellir gweld nifer y sgwariau a'r arwynebedd yn yr arolwg GMEP gwreiddiol ym mhob corff TD yn Nhabl 3-1a. Mae tua 38% o'r sgwariau yn arolwg GMEP o fewn TDau a 47% o'r arolwg ERAMMP gostyngedig wedi'i gynllunio fel y dangosir yn Nhabl 3-1b.

Tabl 3-2a: Nifer ac arwynebedd sgwariau 1km yr Arolwg GMEP o fewn, neu'n rhannol o fewn, pob Tirwedd Dynodedig o 2013-2016 ac arwynebedd a chanran y Dirwedd Dynodedig yn arolwg GMEP.

Tirwedd Dynodedig	Math y TD	Nifer y sgwariau yn y TD	% o sgwariau yn y TD	Ardal y TD yn yr arolwg (ha)	% o'r TD yn yr arolwg
Eryri	PC	57	19.00	5349	2.50
Bannau Brycheiniog	PC	26	8.67	2411	1.79
Arfordir Sir Benfro	PC	8	2.67	727	1.18
Ynys Môn	AHNE	11	3.67	851	4.51
Llŷn	AHNE	6	2.00	411	2.67
Bryniau Clwyd a Dyffryn Dyfrdwy	AHNE	4	1.33	328	0.84
Gŵyr	AHNE	2	0.67	200	1.33
Dyffryn Gwy	AHNE	2	0.67	167	1.44

Tabl 3-3b: Nifer ac arwynebedd sgwariau 1km Arolwg ERAMMP a gynlluniwyd ar gyfer 2021-2022 o fewn, neu'n rhannol o fewn, pob Tirwedd Dynodedig ac arwynebedd a chanran y Dirwedd Dynodedig yn arolwg ERAMMP.

Tirwedd Dynodedig	Math y TD	Nifer y sgwariau yn y TD	% o sgwariau yn y TD	Ardal y TD yn yr arolwg (ha)	% o'r TD yn yr arolwg
Eryri	PC	34	26.15	3184	1.49
Bannau Brycheiniog	PC	12	9.23	1127	0.84
Arfordir Sir Benfro	PC	5	3.85	484	0.79
Ynys Môn	AHNE	6	4.62	411	2.67
Llŷn	AHNE	4	3.08	328	0.84
Bryniau Clwyd a Dyffryn Dyfrdwy	AHNE	4	3.08	350	1.85
Gŵyr	AHNE	1	0.77	100	0.66
Dyffryn Gwy	AHNE	0	0	0	0.00

3.3 Dull Cyfrifo - Dewis ar y Cyd

Cyfrifwyd y dewis ar y cyd a adroddwyd gan yr holl Gyrff TD gan ddefnyddio system bwysoli er mwyn cynrychioli'n deg y pum categori data GMEP a ffefrir gan bob corff. Mae'r pwysiadau wedi'u dyrannu ar raddfa gyda'r dewis 1af yn cael pwysoliad o 50 gan ostwng i bwysoliad o 10 am y 5ed dewis.

Cafodd y pwysoliadau hyn eu cyfrif a dynodwyd y dewis gyda'r nifer uchaf fel dewis ar y cyd y Cyrff TD. Gellir gweld enghraifft o hyn yn Atodiad 6.5.
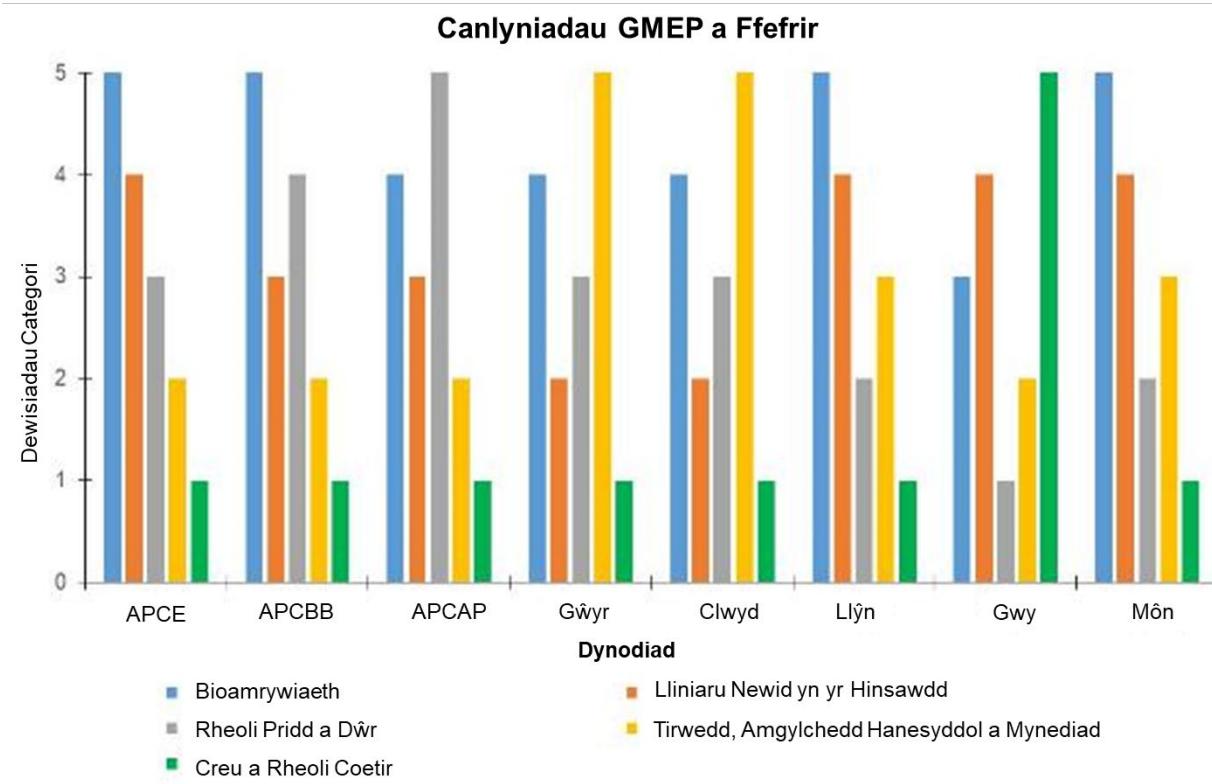
Ffigur 3-2: GEMP data category preferences reported by the 8 Designated Landscape bodies
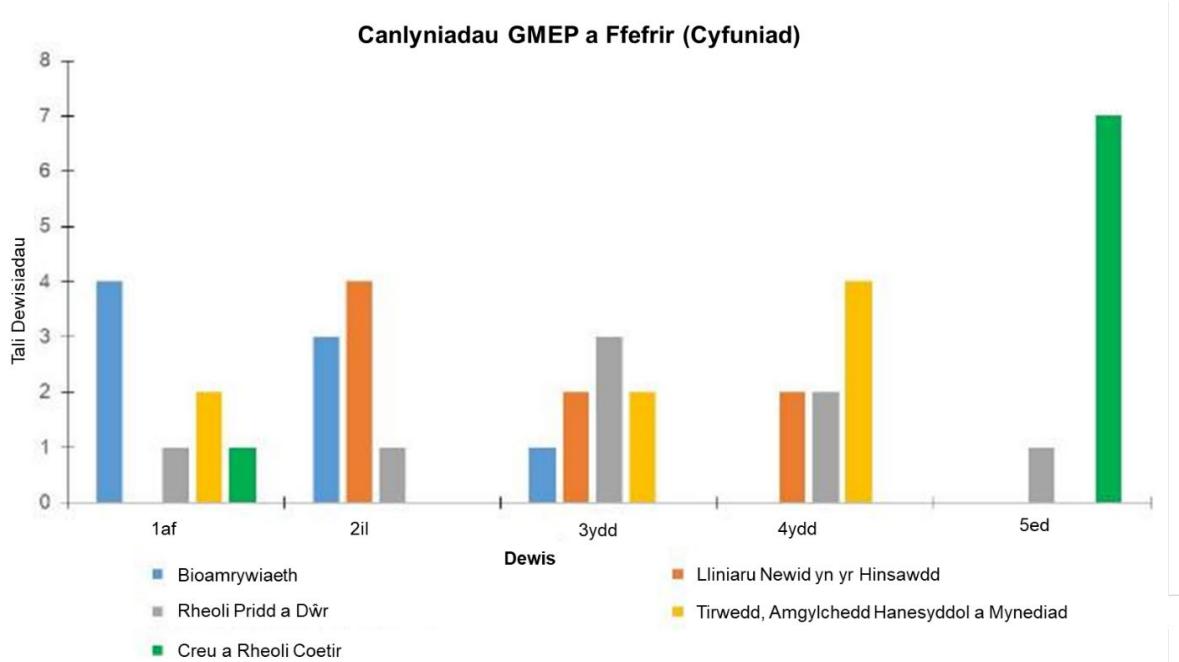
Ffigur 3-3: Weighted and combined GMEP data category preferences reported by the Designated Landscape bodies

Dewiswyd y dull hwn er mwyn rhoi cynrychiolaeth gyfartal i ddewisiadau amrywiol y Cyrff TD yn eu cyfanrwydd, er enghraifft mae'n rhoi ystyriaeth i'r ffordd y gall y dewis cyntaf ar gyfer pob Corff TD amrywio, er y gall yr ail ddewis fod yn gyson drwyddi draw ac felly mae'n cael ei gynrychioli'n deg yn y canlyniad terfynol.

3.4 Tueddiadau a Arsylwyd

Cyfrifwyd dewis cyfunol y Cyrff TD o echdynnu a dadansoddi data mewn perthynas â chategorïau data GMEP ac fe'i cyflwynir yn Ffigur 3-3 ac mae fel a ganlyn:

1af   Bioamrywiaeth

2il   Lliniaru Newid yn yr Hinsawdd

3ydd   Tirwedd, Amgylchedd Hanesyddol a Mynediad

4eg   Rheoli Pridd a Dŵr

5ed   Creu a Rheoli Coetir

Dyfarnwyd Bioamrywiaeth fel y categori data mwyaf pwysig yn gyson, gan ei fod naill ai'n flaenoriaeth gyntaf neu'n ail flaenoriaeth i bob un ond un o'r Cyrff TD (lle y cafodd ei osod yn 3ydd).
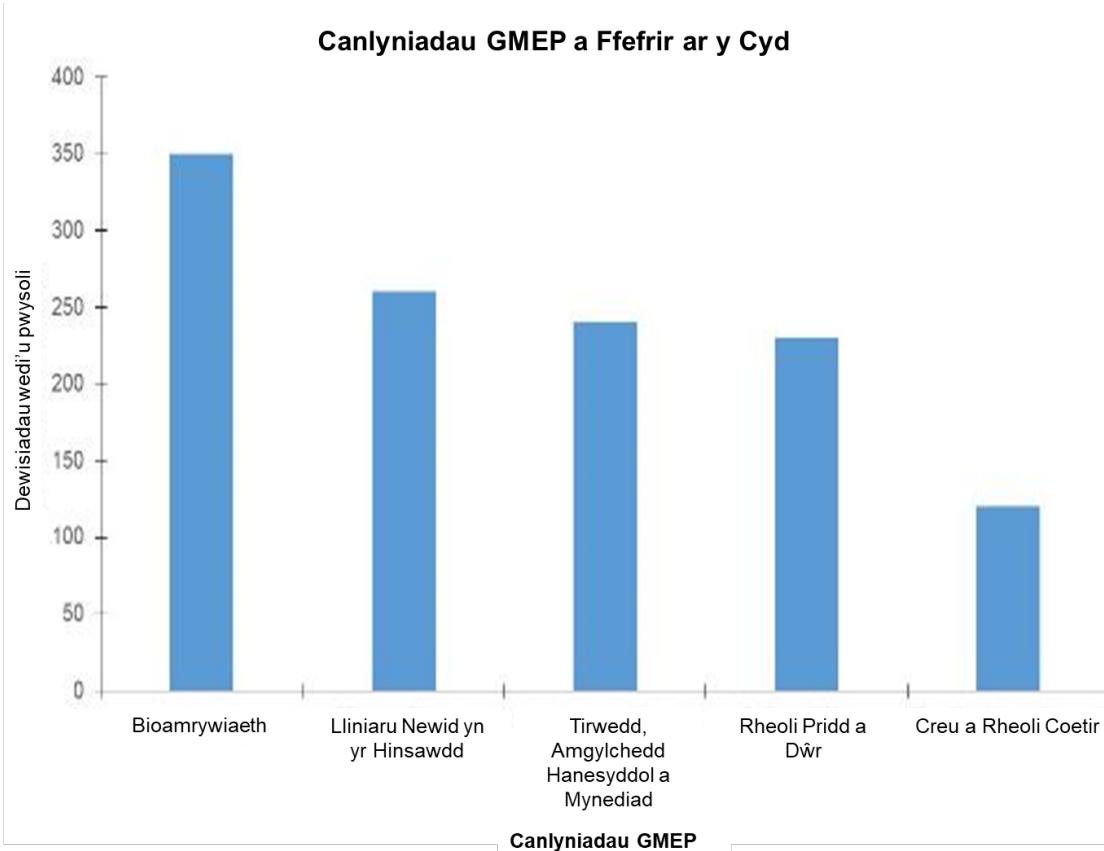
Ffigur 3-4: Hoffterau ar y cyd a adroddwyd gan 8 corff tirwedd Dynodedig Cymru ar gyfer echdynnu a dadansoddi data mewn perthynas â'r pum categori data GMEP.

Er bod Lliniaru Newid yn yr Hinsawdd, Tirwedd, Amgylchedd Hanesyddol a Mynediad a Rheoli Pridd a Dŵr i gyd yn agos o ran blaenoriaeth ar y cyd, roedd ffafriaeth bendant ar gyfer Lliniaru Newid yn yr Hinsawdd gan ei fod wedi'i roi fel 2il ddewis gan hanner y Cyrff TD a naill ai'n 3ydd neu 4ydd gan y gweddill.

Mae lledaeniad y pleidleisiau dewis ar gyfer Tirwedd, yr Amgylchedd Hanesyddol a Mynediad a Rheoli Pridd a Dŵr yn fwy amrywiol. Er bod Tirwedd, Amgylchedd Hanesyddol a Mynediad wedi'i osod fel y 4ydd dewis drwy hanner y Cyrff TD, mae ei gynnwys fel y dewis 1af gan ddau arall yn golygu ei fod yn cael ei osod yn gyfunol dim ond ychydig o flaen Rheoli Dŵr a Phridd.

Mae'n amlwg mai Creu a Rheoli Coetiroedd yw'r canlyniad blaenoriaeth isaf yn gyfunol ganei fod wedi'i nodi fel y canlyniad lleiaf dewisol gan 7 o'r 8 Corff TD.

3.5 Arsylwi Allweddol

Mae'r blaenoriaethau a adroddwyd gan y Cyrff TD ar gyfer echdynnu a dadansoddi data o archif GMEP fel a ganlyn:

KO4 - Data sy'n ymwneud â chategori data bioamrywiaeth GMEP yw'r hoff ddewis cyfunol ar gyfer echdynnu a dadansoddi data wedi'i dargedu. Data yn ymwneud â Chreu a Rheoli Coetiroedd yw'r flaenoriaeth leiaf pwysig ar y cyd ar gyfer y Cyrff TD a adroddwyd.

Ni nodwyd bod y canlyniadau blaenoriaeth is a nodwyd gan y Cyrff TD yn ddibwys, ond yr hyn y mae pob dynodiad yn ei ystyried yw ei flaenoriaeth echdynnu a dadansoddi data cyfredol isaf.

4 CAM 3 - SENARIOS MODELU

4.1 Trosolwg o Senarios Modelu

Meintioli'r pedwar senario a ffefrir o'r modelu sydd ar ddod o dan ERAMMP oedd cam olaf y cyfweliadau strwythuredig. Roedd hyn er mwyn llywio'r wybodaeth fodelu fwyaf poblogaidd yn y dyfodol agos yn ymwneud ag:

- Opsiynau ar gyfer plannu coetiroedd yn y dyfodol a'u heffeithiau

- Opsiynau rheoli ar gyfer gwella ansawdd dŵr

- Opsiynau rheoli yn y parth arfordirol

- Profi cynllun amaethyddol newydd

Mae manylion y senarios modelu posibl fel y'u cyflwynwyd yn ystod y cyfweliadau yn Nhabl 4-1.

Tabl 4-1: Senarios modelu posibl yn y dyfodol fel y'u cyflwynwyd yn ystod y cyfweliadau

Senario Modelu	Manylion
Coetiroedd (gwahanol opsiynau arbennig, buddion)	Archwilio pa rywogaethau coed fyddai fwyaf addas ar gyfer y gwahanol fathau o bridd ac amodau hinsawdd o fewn yr PC a'r AHNE. Yna gellir echdynnu'r lliniaru carbon a hinsawdd posibl a allai deillio o hynny a thrwy gysylltu â'r Mynegai Ansawdd Gweledol GMEP fel y gellid archwilio'r effaith ar estheteg tirwedd hefyd.
Ansawdd dŵr (modelu Brexit ar gyfer ansawdd dŵr)	Deall yn well canlyniadau posibl gwahanol fargeinion Brexit ac/neu reolaeth wahanol sy'n cael eu hystyried i'w cynnwys yn y Cynllun Cynaliadwyedd Ffermydd newydd mewn cysylltiad ag ansawdd dŵr ar draws y PC a'r AHNE.
Rheoli arfordirol (llwybrau/bioamrywiaeth)	Archwilio canlyniadau posibl naill ai bargeinion masnach Brexit ac/neu ymyriadau rheoli gwahanol sy'n cael eu hystyried i'w cynnwys yn y Cynllun Ffermio Cynaliadwy newydd ar systemau arfordirol gan gynnwys ansawdd gweledol, hamdden a throsglwyddo halogion o'r tir i'r môr e.e. maetholion a phathogenau i ddyfroedd ymdrochi.
Canlyniadau posib y cynllun amaeth newydd	Archwilio canlyniadau posibl yr ymyriadau rheoli sy'n cael eu hystyried i'w cynnwys yn y Cynllun Ffermio Cynaliadwy newydd mewn cysylltiad â materion o ddiddordeb e.e. ansawdd dŵr, lliniaru hinsawdd, iechyd y cyhoedd/ansawdd aer, hamdden, amrywiaeth a digonedd adar ac ati.

4.2 Dull Cyfrifo - Dewis ar y Cyd

Mae'r dull a ddefnyddir yma yr un fath â'r dull a ddefnyddir ar gyfer y cyfrifiad yn Adran 3.2 (t.15). Mae'r rhesymeg hefyd yn gyson, fodd bynnag yma roedd pwysoliadau ar raddfa o ddewis 1af y rhoddwyd pwysoliad o 40 iddo i bwysoliad o 10 am y 4ydd dewis.

Gellir gweld enghraifft o hyn yn Atodiad 6.6.

4.3 Tueddiadau a Arsylwyd
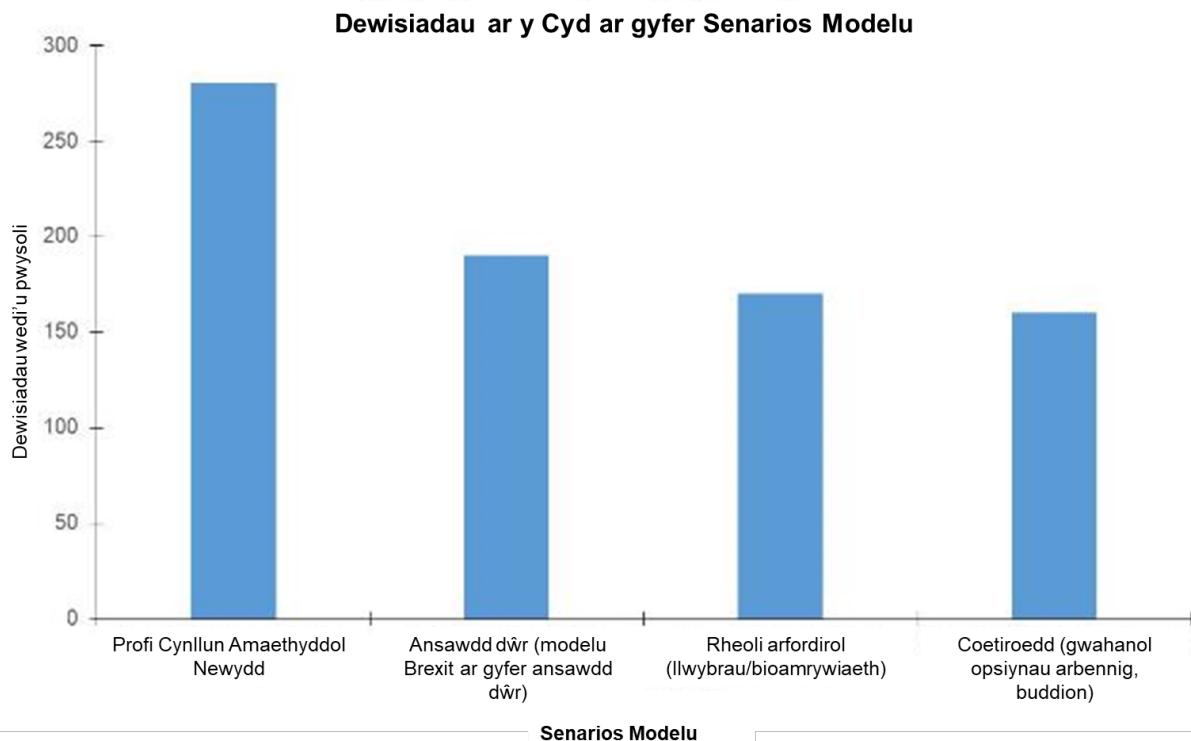
Ffigur 4-1: Dewisiadau ar y Cyd ar gyfer Senarios Modelu a adroddwyd gan 8 corff tirwedd Dynodedig Cymru.

Cyfrifwyd y dewis a adroddwyd ar y cyd gan Gyrff TD o Senarios Modelu yn y Dyfodol ac fe'i cyflwynir yn Ffigur 4-1.
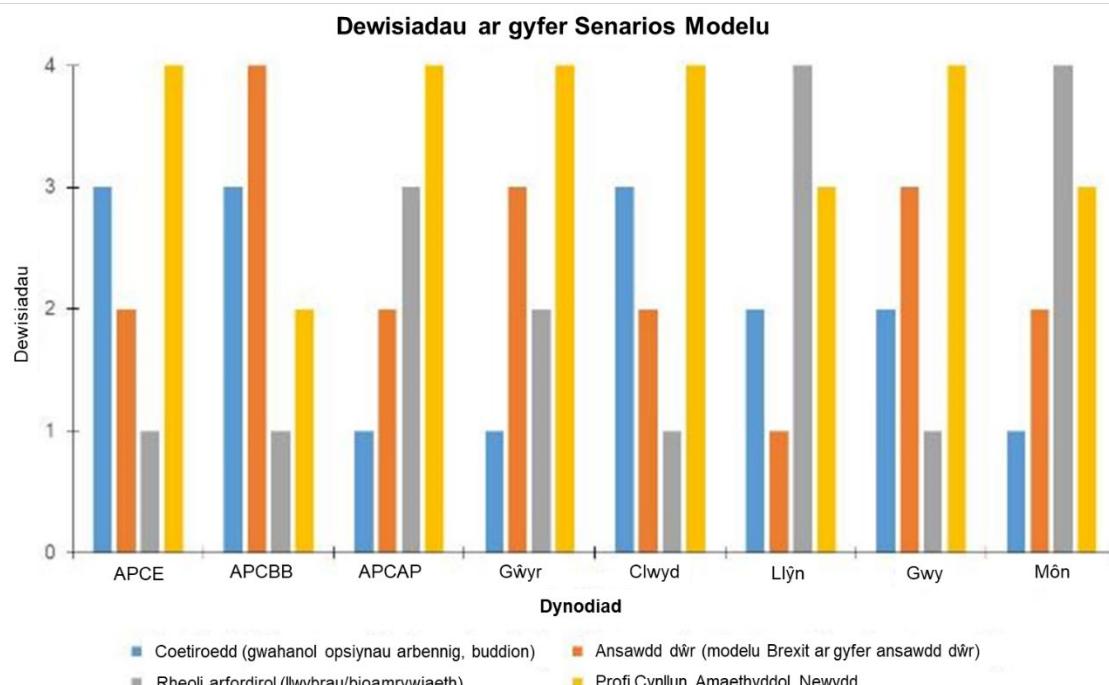
Ffigur 4-2: Modelu dewisiadau senarios a adroddwyd gan 8 corff tirwedd Dynodedig Cymru.
(4 yn ddewis cyntaf, 1 yn ddewis olaf).

Gellir gweld dadansoddiad o ddewisiadau senario modelu unigol pob Corff a adroddwyd yn Ffigur 4-2 a Ffigur 4-3.
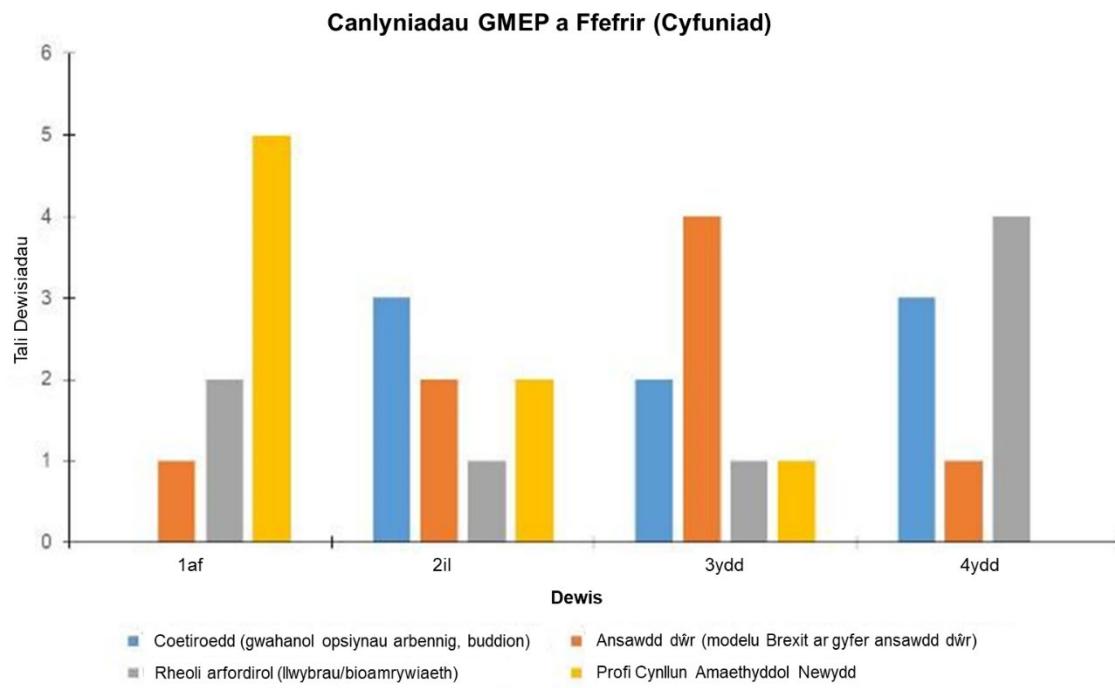
Ffigur 4-3: Modelu dewisiadau Senarios a adroddwyd gan 8 corff tirwedd Dynodedig Cymru.

Mae profi cynllun amaethyddol newydd wedi dod i'r amlwg fel yr hoff ddewis llethol ar gyfer senario modelu, yn derbyn 5 pleidlais dewis 1af, 2 bleidlais 2il ddewis, ac 1 pleidlais 3ydd dewis.

Unwaith eto, mae coetiroedd wedi cael y flaenoriaeth isaf. Fodd bynnag, mae ei safle dim ond ychydig yn is na safle rheoli arfordirol, ond mae hon yn nodwedd y mae dim ond 3 o'r Cyrff TD wedi'i nodi fel blaenoriaeth allweddol. Mae ansawdd dŵr yn mwynhau safle gyfforddus uwchlaw'r ddau senario modelu dewis isaf er ei fod ymhell y tu ôl i 'brofi'r cynllun amaeth'.

4.4 Sylwadau Allweddol

Prif arsylwadau dewisiadau senario modelu Cyrff TD Cymru yw:

KO5 - Allbynnau modelu wedi'u targedu sy'n cefnogi 'profi cynllun amaeth' (h.y., canlyniadau/effeithiau posibl) yw'r dewis ar y cyd, a ddilynir fel ail ddewis gan fodelu effeithiau ansawdd dŵr. Mae coetiroedd a materion arfordirol yn ddewisiadau llai.

5 CRYNODEB

Mae'r adroddiad hwn wedi nodi bod monitro nifer o baramedrau wedi bod ac yn parhau i fod o fewn yr wyth Tirwedd Dynodedig yng Nghymru.

Yn gyffredinol, mae gweithgareddau monitro bioamrywiaeth yn uwch o fewn y PC na'r AHNE gyda lledaeniad gweithgareddau monitro mewn categorïau eraill yn gymharol gyfartal rhwng PC ac AHNE.

Mae monitro paramedrau sy'n gofyn am fethodoleg fwy technegol yn sylweddol is na'r hyn nad yw'n galw am unrhyw offeryniaeth na chymorth dadansoddol arbenigol.

O ran data GMEP sy'n gysylltiedig â gwahanol ganlyniadau amgylcheddol, tirwedd a diwylliannol, mynediad ac adrodd ar ddata Bioamrywiaeth yw'r dewis cyntaf llethol, gyda Chreu a Rheoli Coetiroedd yn flaenoriaeth leiaf pwysig y Cyrff TD ar y cyd.

O ran Senarios Modelu ERAMMP, mae'r dewisiadau'n dangos mai opsiynau cynllun amaeth yw'r dewis cyntaf. Mae coetiroedd a materion arfordirol yn isel o ran eu dewis ond maent yn dynodi arbenigedd o fewn gwahanol Gyrff TD.

Y prif arsylwadau yw:

KO1 - Gweithgaredd monitro bioamrywiaeth yw'r gweithgaredd monitro mwyaf cyffredin a adroddir gan Gyrff TD. Y dangosyddion bioamrywiaeth sy'n cael eu monitro amlaf yw llystyfiant, mamaliaid (gyda'r adar yn cael eu mesur fwyaf yn y categori hwn), peillwyr a rhywogaethau goresgynnol.

KO2 - Y tu hwnt i weithgareddau monitro bioamrywiaeth, adroddir am sylw lefel isel amrywiol ar gyfer categorïau monitro eraill ar draws PC ac AHNE.

KO3 - Mae riportio monitro paramedrau sy'n galw am fwy o fuddsoddiad mewn methodolegau offerynnau a dadansoddol (e.e. ansawdd aer) yn sylweddol is na'r hyn sy'n galw am sgiliau tacsonomig ac arolwg arbenigol yn unig (e.e. nodweddion bioamrywiaeth a thirwedd).

KO4 - Data sy'n ymwneud â chategori data bioamrywiaeth GMEP yw'r hoff ddewis ar y cyd a adroddir ar gyfer echdynnu a dadansoddi data wedi'i dargedu. Data yn ymwneud â Chreu a Rheoli Coetiroedd yw'r flaenoriaeth leiaf pwysig ar y cyd a adroddwyd ar gyfer y Cyrff TD.

KO5 - Allbynnau modelu wedi'u targedu sy'n cefnogi 'profi cynllun amaeth' (h.y. canlyniadau/effeithiau posibl) yw'r dewis ar y cyd, ac yna'r ail ddewis gan fodelu effeithiau ansawdd dŵr. Mae coetiroedd a materion arfordirol yn ddewisiadau llai.

6 ATODIADAU

6.1 Categorïau ac Is-gategorïau Monitro

Categori Monitro	Is-gategori
Bioamrywiaeth	Mamaliaid Llystyfiant Molysgiaid Adar Peillwyr Ymlusgiaid Amffibiaid Bioamrywiaeth Gyffredinol Dŵr croyw Morol Clefydau Cyflwr Bywyd Gwyllt Goresgynnol Plâu
Pridd a Mawndiroedd	Pridd Mawn Erydiad
Ansawdd Dŵr Croyw	Ansawdd Dŵr Croyw
Arfordir a Morol	Arfordir a Morol
Tirwedd	Tanau Newid Monitro Cynefinoedd Nodweddion Llinol Arolwg ymyl y ffordd Monitro Cadwraeth Nodweddion SSSI/SAC Cyflwr Llwybrau Troed Cyflwr y TD
Coetiroedd	Coetiroedd
Diwylliannol	Wybren y Nos Datblygiadau Trafnidiaeth Economaidd Nodweddion Hanesyddol Yr Iaith Gymraeg Troseddu
Hamdden	Niferoedd Ymwelwyr/Defnyddwyr Llwybrau Manwerthu Ymholiadau
Ansawdd aer	Ansawdd aer
Yr Hinsawdd/Meteoroleg	Yr Hinsawdd/Meteoroleg

6.2 Crynodebau Data

Crynodeb o gasglwyr data, deiliaid data, adroddwyr data a dyddiad gweithgareddau casglu data'r gweithgareddau monitro a adroddwyd gan y TDau.

Adroddwr Data

Anhysbys: 73.62%
CSYM: 4.91%
PCNPA: 3.38%
CNC: 3.07%
Llwybr Arfordir Cymru: 24.56%
Arall: 12.88%

Argaeledd Data

Anhysbys: 44.05%
AHNE Ynys Môn: 8.93%
BIS: 7.14%
Cofnod: 6.55%
SNPA: 5.95%
Arall: 27.38%

Gweithgareddau Monitro fesul Blwyddyn
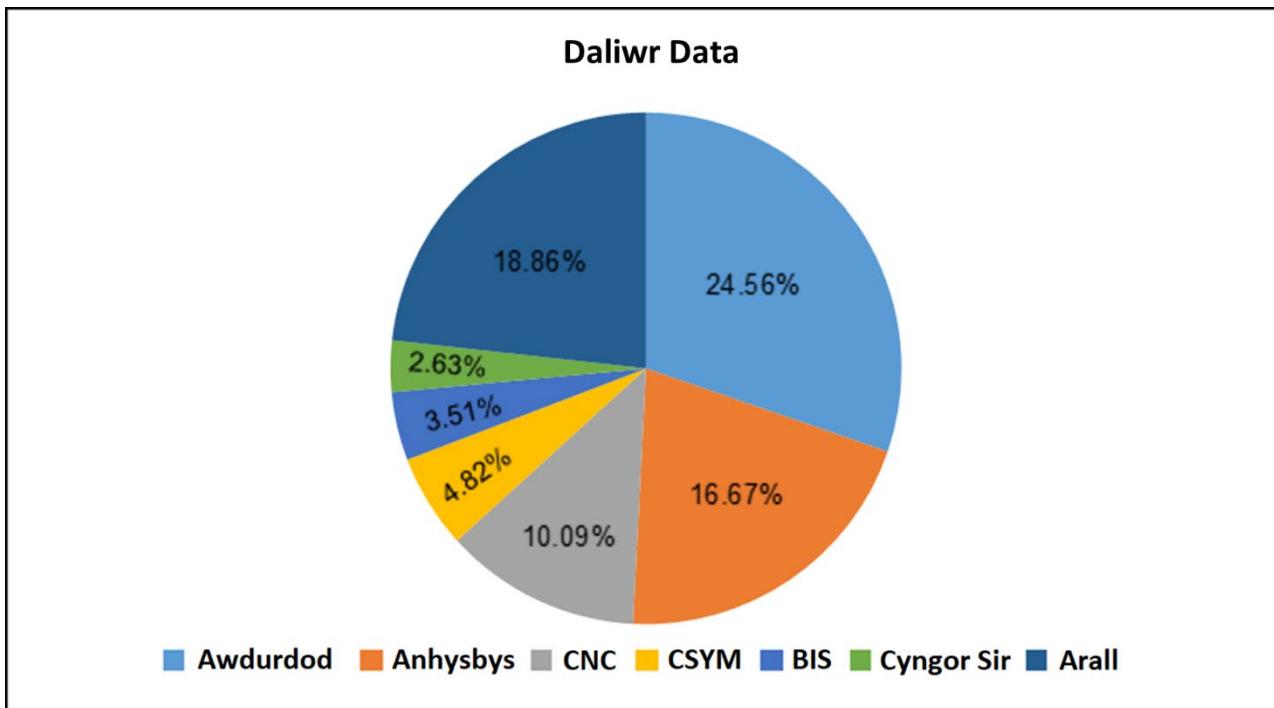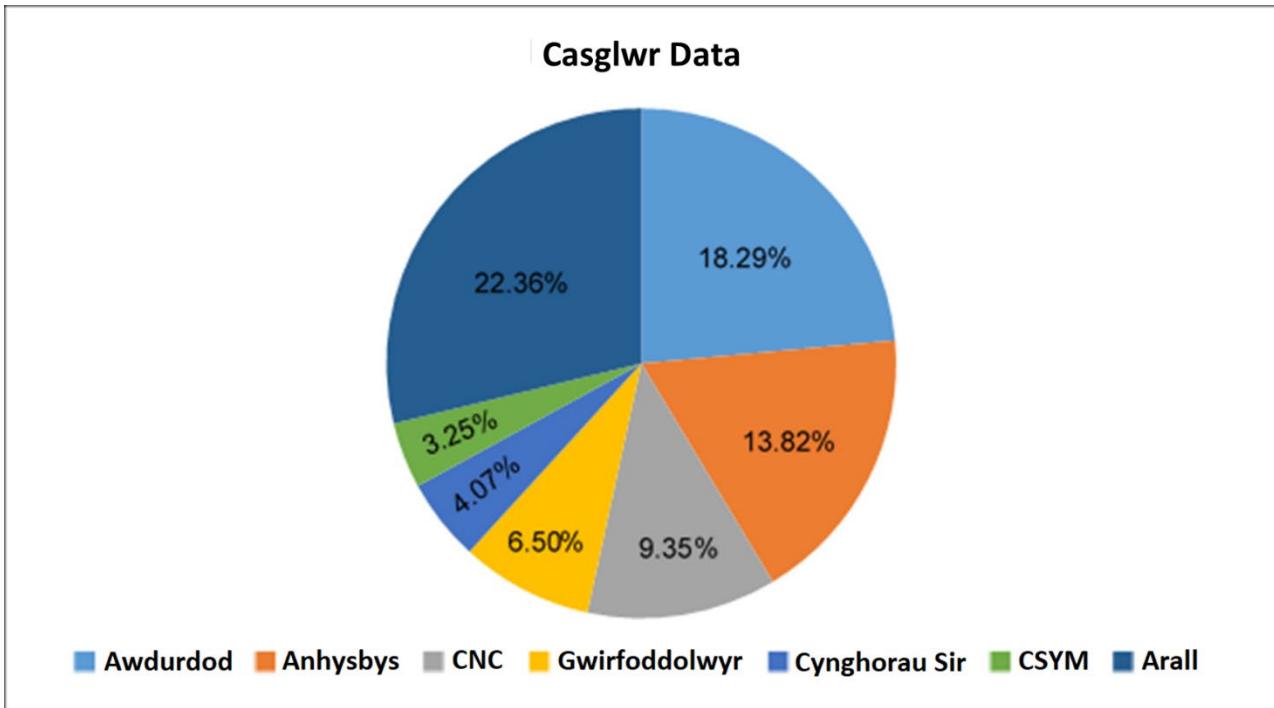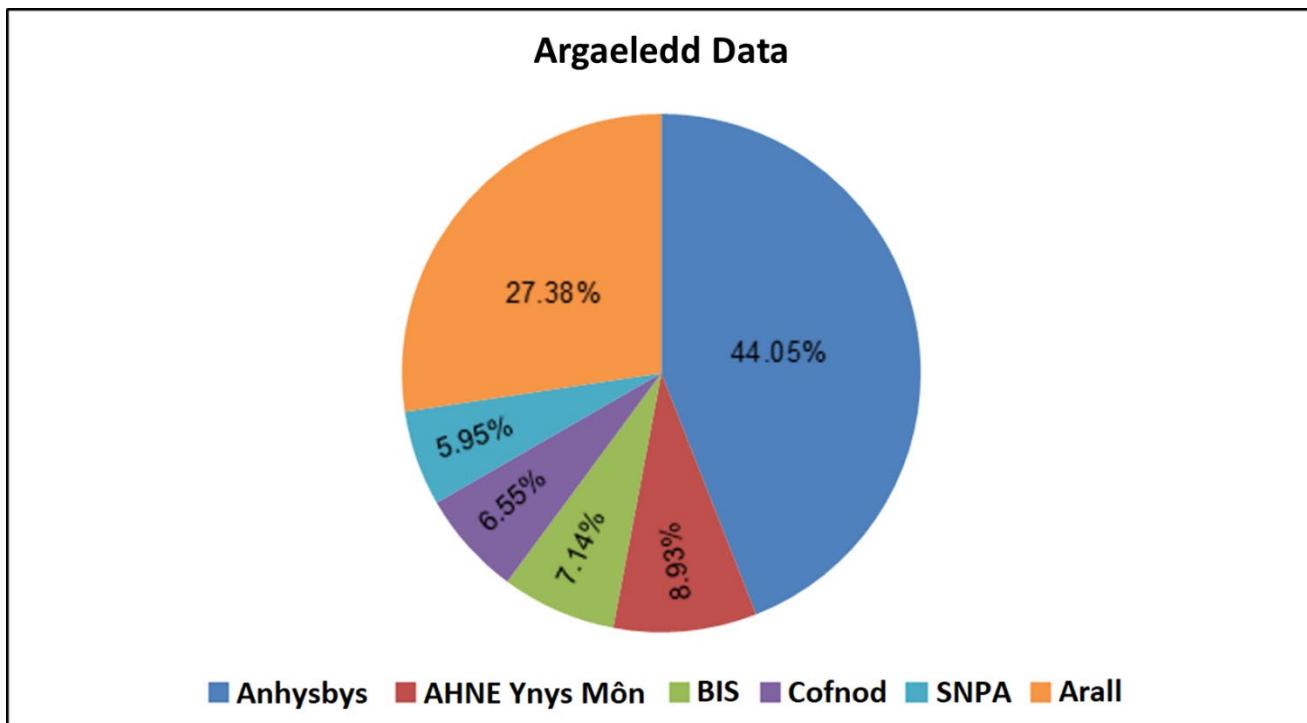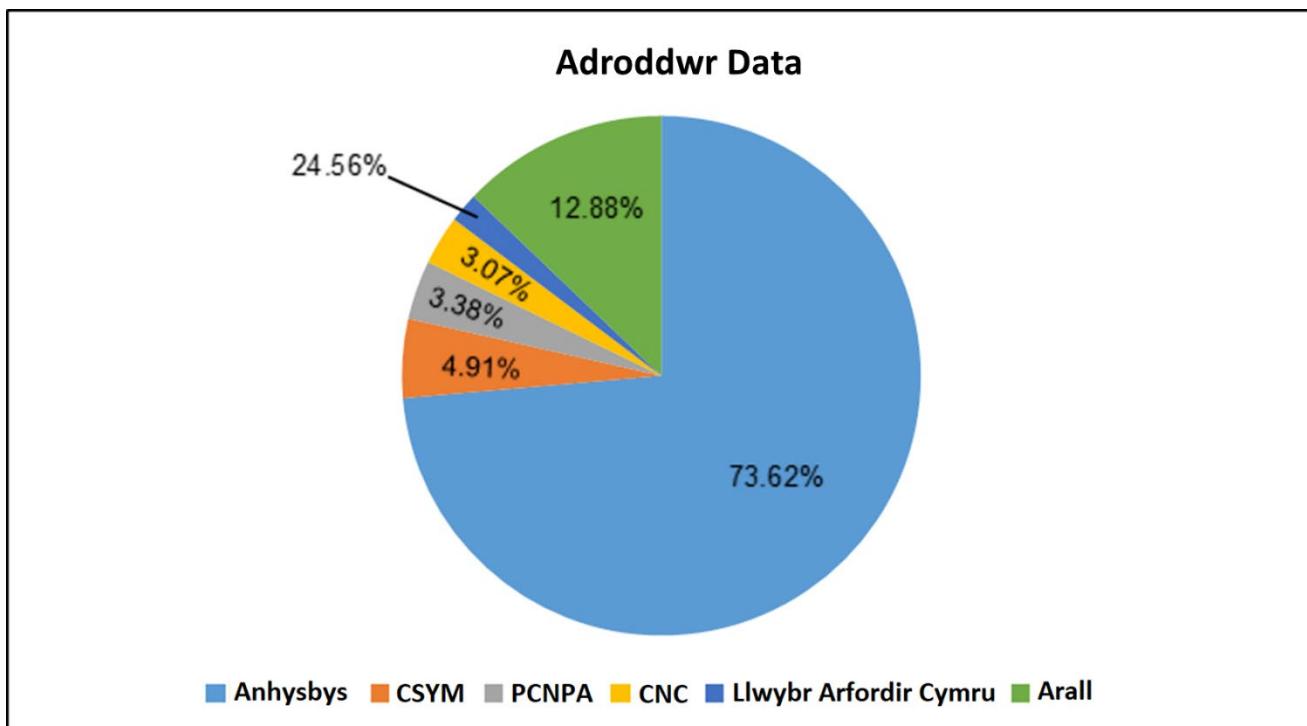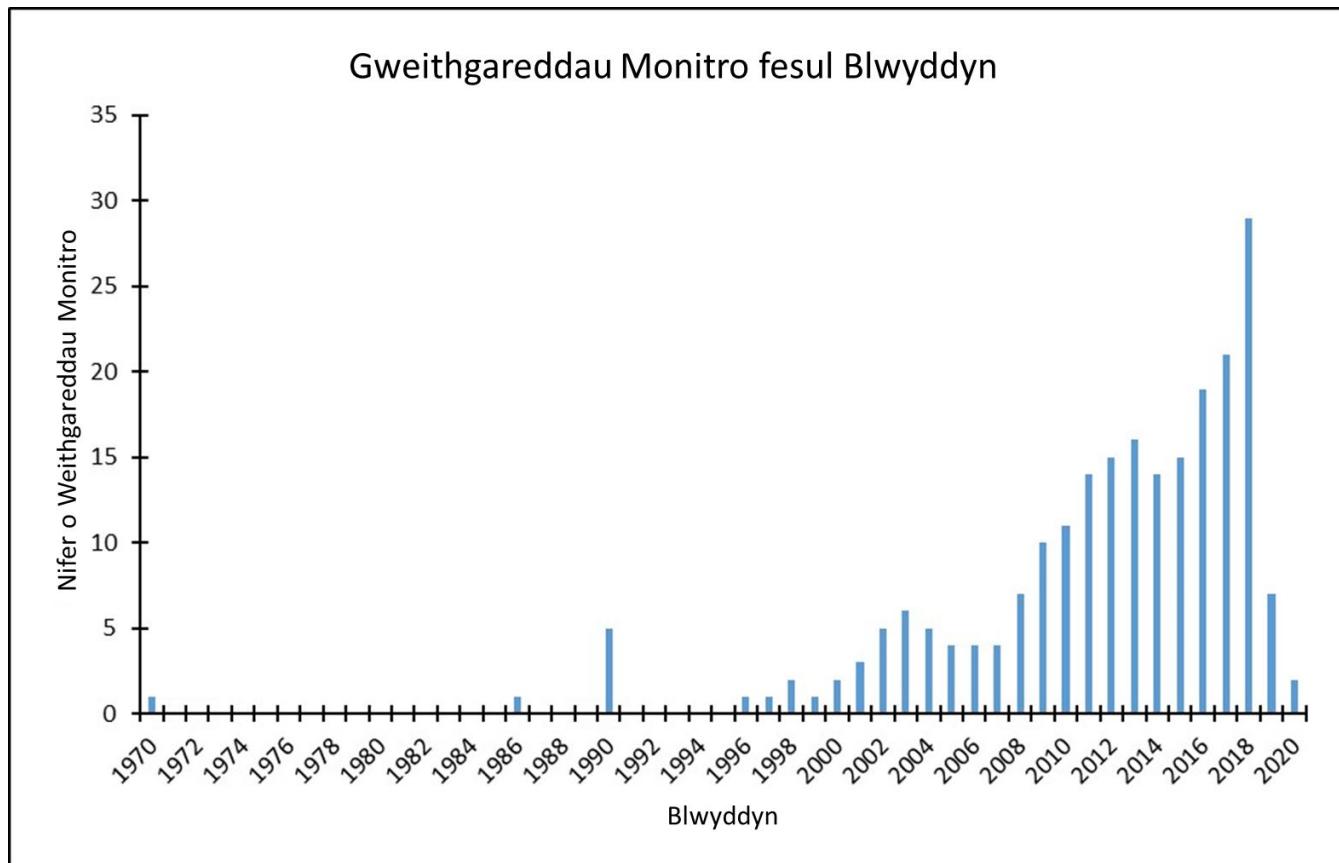
6.3 Holiadur *Pro Forma* Gwag

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review

Intro 1:

My name is _____ and I'm the ERAMMP Designated Landscape Monitoring and Liaison Officer, based at the Snowdonia National Park Authority. This roll aims to secure a coherent approach to monitoring and liaison with ERAMMP partners and landowners throughout the Welsh National Parks and Areas of Outstanding Natural Beauty.

Intro 2: Background

The objective of forming the DLMG is to explore possible collaborative working opportunities involving monitoring and modelling across the DLs (NP & AONBs) and has come as a request from the Minister for the Environment. The Minister has requested that this review is carried out in order to establish what evidence is collected within DLs in Wales, with relation to the ERAMMP programme, and if it's done in a collaborative and joined up manner.

These interviews demonstrates that the ERAMMP programme is invested in this review and is eager for this collaboration to be successful.

Intro 3: Interview content

This interview will take approximately 2 hours to complete and will involve 3 sections;

Monitoring activities: Why, what, when, how table

Prioritising GMEP data extraction for AONB and National Parks

Prioritise Modelling Scenarios for AONB and National Parks

Intro 4: Outputs

The responses from the 8 DLs will feed into a report reviewing monitoring across the designations. The review will be used to recognise evidence gaps within DLs and to prioritise possible future collaborative work. This review will be presented to Welsh Government.

Questionnaire

Question 1: What is the Name of your designation?

Question 2: What is your role and responsibilities?

Question 3: Fill in why, what, when, how table with questioner.

Question 4: In the table of GMEP outcomes and collected data, prioritise your preferred data extraction for DLs in the third column.

GMEP Outcome	Data collected	Priority Score
Biodiversity	Plant diversity	
Biodiversity	Birds	
Biodiversity	Pollinators	
Biodiversity	Habitat areas, linear features and point features; diversity and stock	
Biodiversity	Soil biodiversity	
Climate Change mitigation	Change in soil carbon	
Soil and Water Management	Soil status as indicated by soil physical and chemical properties	
Soil and Water Management	Soil status as indicated by biological measurements	
Soil and Water Management	Stream water and pond water quality as indicated by conductivity and pH, alkalinity, soluble reactive phosphorus and total oxidisable nitrogen	
Soil and Water Management	River Habitat Survey- assessing habitat character and quality of rivers based on physical characteristics	
Soil and Water Management	Pond quality assessment as indicated by water quality, pond characteristics, macroinvertebrate community, macrophyte cover and abundance	
Landscape, Historic Environment and Access	Condition assessment of Historic Environment Features	
Landscape, Historic Environment and Access	Range of habitat and structural data built in to detailed 3D viewsheds for 1km sites and surrounding 3 x 3km	
Landscape, Historic Environment and Access	Presence and length of Public Rights of Way (PROW), including open access areas and beaches.	
Woodland creation and management	Woodland mapping	
Woodland creation and management	Woodland ground flora	

Question 5: Prioritise your top four modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	

Question 6: Is there anything else you would like to add?

6.4 Y Tabl Beth, Pam, Sut, Pryd, Pwy

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Snowdonia National NPA	Number of footpath users	Unknown	People counters	Unknown	SNPA staff	SNPA	Unknown	Unknown	Unknown
2	Snowdonia National NPA	Dark sky quality	Reporting requirement of the IDA Dark Skies Reserve designation	Dark skies measurements taken in survey locations across the Park	2017, 2018, 2019	Dark Skies Officer and SNPA staff	SNPA	SNPA	Unknown	SNPA has an in-house Dark Skies Officer
3	Snowdonia National NPA	Enquiries to Information Centres (Aberdyfi, Beddgelert, Betws y Coed)	STEAM reports (Gwynedd & Conwy) and for monitoring patterns for forward planning	People counter on entrances, daily log of enquiries by post, e-mail, phone calls	Collected Daily - Weekly figures back to 2001	Information Centre Staff - Collated by Engagement Department Admin	SNPA	Yes	Unknown	Historically data was kept for Visit Wales TIC Network. This has now disbanded but data still collected.
4	Snowdonia National NPA	Peat depth	National soil carbon stocks; National unified peat map	Actual peat depth measurements (Welsh Peatlands standardised monitoring protocol)	Spring/Summer 2018, 2019, 2020	Welsh Peatlands Sustainable Management Scheme Project Officer (North Wales) & partners	SNPA	Data management plan in development	Welsh Peatlands portal in development	Part of Welsh Peatlands Sustainable Management Scheme (Wales-wide partnership project led by SNPA)
5	Snowdonia National NPA	Peatland condition	To enable national reporting of state of Welsh peatlands; UK emissions inventory	Welsh Peatlands standardised monitoring protocol	Spring/Summer 2018, 2019, 2020	Welsh Peatlands Sustainable Management Scheme Project Officer (North Wales) & partners	SNPA	Data management plan in development	Welsh Peatlands portal in development	Part of Welsh Peatlands Sustainable Management Scheme (Wales-wide partnership project led by SNPA)
6	Snowdonia National NPA	Water quality	Unknown	Unknown	Unknown	SNPA	SNPA	Cofnod	Unknown	Historical data on water quality of lakes done in-house
7	Snowdonia National NPA	At minute time-scales, meteorological conditions,	Freshwaters are extremely vulnerable to a wide range of stressors including climate	Buoy at Llyn Tegid taking measurements	Unknown	UKLEON	UKLEON	ECN data are available in two main forms: summary	Unknown	Unknown
8	Snowdonia National NPA	Glutinous snail	SSSI monitoring	Standardise methodology	Unknown	NRW	NRW	Unknown	Unknown	Unknown
9	Snowdonia National NPA	Butterflies	National schemes	Standardise methodology	Unknown	Butterfly Conservation	Butterfly	Unknown	Unknown	Unknown
10	Snowdonia National NPA	Water Vole	National Water Vole Monitoring Programme	Standardise methodology	Unknown	SNPA staff and volunteers	Peoples Trust for Endangered Spices	Unknown	Unknown	Done at the Mignaint
11	Snowdonia National NPA	Goats counts	Monitor impact on vegetation and to control measures	Unknown	1980s, 1990s, 2000s, 2010s	SNPA staff and volunteers	Grwp Geifr	Cofnod	Unknown	Started in the 1980s in an ad-hock manner and became more recent in the 1990s.
12	Snowdonia National NPA	Ticks	Tick surveillance scheme. To monitor how many of the species carry the bacteria that causes Lyme disease	Species collected and sent to Public Health England	2012	SNPA staff	SNPA	https://nbnatlas.org/	Unknown	PHE national TRS and TSS data which dates from 2005 to 2015. Biological Records Centre (BRC) tick distribution data which dates from early 1890's to
13	Snowdonia National NPA	Invasive species: Rhododendron, Japanese knotweed, Himalayan balsam, giant hogweed. Targeted	Habitat management – via current SNPA LIFE project	Sites surveys	1986	SNPA staff	SNPA	Cofnod	Unknown	Historic data
14	Snowdonia National NPA	Woodland and woody linear	Monitor capital works	Sites surveys	Unknown	SNPA staff	SNPA	SNPA	Unknown	Unknown
15	Snowdonia National NPA	Retail Report	Unknown	Unknown	2016	SNPA staff	SNPA	SNPA	http://www.snowdonia.gov.wales/__data/assets/pdf_file/0005/975479/Retail-Background-Paper-2017-	This review was done in conjunction with the SNPA Local Development Plan and focused on the towns of Harlech, Betws y Coed, Dolgellau, Y Bala ag Aberdyfi.
16	Snowdonia National NPA	Condition of traditional buildings	Unknown	Unknown	Unknown	Unknown	SNPA	SNPA	Unknown	Unknown
17	Snowdonia National NPA	Birds	National schemes	Scarab surveys	Unknown	SNPA staff and volunteers	Unknown	Cofnod	Unknown	The SNPA ecologists contributes towards
18	Snowdonia National NPA	River quality	Unknown	Unknown	2013	SNPA staff and volunteers	SNPA	Unknown	Unknown	River Prysor
19	Snowdonia National NPA	Planning Developments Monitoring Report	To monitor how many renewable energy (hydro, solar, wind) developments occurred in the NP	Unknown	2011	SNPA staff	SNPA	Available	Unknown	Unknown
20	Snowdonia National NPA	Ancient and veteran trees	Unknown	Unknown	Unknown	Unknown	Woodland Trust	Unknown	Unknown	Unknown
21	Snowdonia National NPA	Semi-natural vegetation and other wildlife habitats	Unknown	Phase 1 and 2 survey	Unknown	NRW	NRW	Unknown	Unknown	Unknown
22	Snowdonia National NPA	American Mink	To monitor and control numbers	Unknown	2008,	Unknown	Unknown	Unknown	Unknown	This was done annually but unaware of when it
23	Snowdonia National NPA	Junipers	Rare species	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
24	Snowdonia National NPA	Bats	Protects spices	Standardised counts	1900s	SNPA staff and volunteers	Bat Conservation	Unknown	Unknown	Unknown
25	Snowdonia National NPA	Vegetation	Unknown	Unknown	Unknown	National Trust staff	National Trust	Unknown	Unknown	Extensive monitoring done at Cwm Eidda
26	Snowdonia National NPA	Bats	To comply with planning conditions	Unknown	Every 3 yrs. after planning permission granted	Unknown	Unknown	Unknown	Unknown	There is a planning condition on relevant applications that a bat monitoring survey should
27	Snowdonia National NPA	Biodiversity, sulphur	Environment Change Network	Unknown	Unknown	NRW	NRW	Unknown	Unknown	Unknown
28	Snowdonia National NPA	Plant health	Unknown	Unknown	Unknown	FERAC	FERAC	Unknown	Unknown	Unknown
29	Snowdonia National NPA	TB	Roadside badger corpse surveys	Unknown	2015	Welsh Government	Welsh	Unknown	Unknown	Unknown
30	Snowdonia National NPA	Otters	National survey	Unknown	1970s	Unknown	Unknown	Unknown	Unknown	Unknown
31	Snowdonia National NPA	Red squirrels	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Briach Melyn is a monitoring sites which sits in
32	Snowdonia National NPA	Predatory Bird	National scheme	Unknown	Unknown	Unknown	Welsh	Unknown	Unknown	Unknown
33	Snowdonia National NPA	Carneddau Ponies numbers	Unknown	Unknown	Unknown	NRW	NRW	Unknown	Unknown	Unknown
34	Snowdonia National NPA	Aurelia aurita	Unknown	Unknown	Unknown	Swansea University	Swansea	Unknown	Unknown	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
35	Snowdonia National NPA	Dermochelys coriacea	National scheme	Public recordings	Unknown	Cetacean Standings Investigation Programme	Unknown	Unknown	Unknown	NRW supports the Cetacean Standings Investigation Programme in Wales by recording turtle sightings and strandings on the Welsh
36	Snowdonia National NPA	Number of people engaged with projects	To report back on individual projects within the NP	People counts	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Brecon Beacons NPA	Red grouse counts	Indicator of SSSI condition	Walk up counts	2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018	Volunteers with BBNPA ecologist (Bradley Welch)	BBNPA and Biodiversity Information Services (BIS)	Data will be available from BIS	Unknown	Done annually on two sites (Hetterral Hill and Mynydd Isaf) usually in September. There are historical data sets prior to 2008 which were surveyed using a different methodology (birds shot counts). BBNPA are aware that there are others (e.g. NT) doing similar surveys, but don't hold any more information.
2	Brecon Beacons NPA	Vegetation survey	Condition monitoring, designation reporting	Phase 1 survey	1998	BBNPA and NRW	NRW	Data presumably available from NRW	Unknown	BBNPA aim to survey every 20 years. The data will eventually go to BIS (in the proses of doing it
3	Brecon Beacons NPA	Peatland assessment	Done in conjunction with the all Wales peatland assessment	ICN peatlands survey	(some data collected but more to come)	BBNPA	SNPA	Partners of the project have an agreement to share data for the purposes of the project.	Unknown	This work is ongoing and involves assessing if a site can be accredited for the peatlands code. BBNPA may also use this methodology on other sites on the Park.
4	Brecon Beacons NPA	Dwarf shrub condition	Indicator or SSSI condition	Common standard method	2003, 2013	BBNPA	BBNPA and BIS	Data available from BIS	Unknown	The first done on the whole of Mynyddoedd
5	Brecon Beacons NPA	Mammal trapping	Education purposes. School groups	Common mammal traps	Several times a year, 20+	(with school groups). Educational officer	BBNPA and BIS	Data available from BIS	Unknown	This is done at Dan y Wenallt visitor centre
6	Brecon Beacons NPA	Butterfly Monitoring Scheme	Indicator or SSSI condition	Common butterfly monitoring survey	May - September (at least 10 years)	Volunteer	BIS and the Butterfly Conservation	Data available from BIS	Unknown	The volunteer is the vice county bird recorder. This is one example of one survey done by an individual. There are probably others that the BBNPA are unaware of. Going to all the Local
7	Brecon Beacons NPA	Bees	National monitoring	Bumble bee conservation standard survey method	Unknown	Bumble Bee Conservation Trust	Bumble Bee Conservation	Unknown	Unknown	Unknown
8	Brecon Beacons NPA	Plants	National plant monitoring scheme	Unknown	Unknown	Plant Life	Plant Life	Unknown	Unknown	Unknown
9	Brecon Beacons NPA	Bracken treatment efficacy	To evaluate a bracken management project funded by the SMS partnership project.	Using transect plant survey within the treated sites	2018	BBNPA Senior Ecologist	BBNPA and BIS	(will be available through BIS)	Unknown	Should continue annually for at least 5 years, maybe more. Mynyddoedd Duon.
10	Brecon Beacons NPA	Peatland restoration efficacy	Evaluate a peatlands management project funded through the SMS partnership project.	Site specific plant surveys	2018	BBNPA Senior Ecologist	BBNPA and BIS	(will be available through BIS)	Unknown	Should continue annually for at least 5 years, maybe more. Mynyddoedd Duon.
11	Brecon Beacons NPA	Condition assessments	Grassland condition assessment for SSSI reporting	Common standard methodology	2015	BBNPA and NRW	Unknown	Some data available from BIS	Unknown	BBNPA is leading on this with NRW joining up in the past. BBNPA aim to survey Llangasty and
12	Brecon Beacons NPA	Bird monitoring	Understand trends	Constant effort monitoring scheme	...annually but dates unknown	The Llangors ringing group	The Llangors	BTO	Unknown	Data might go to BIS but not sure
13	Brecon Beacons NPA	Bats	Protected species	Standardise count	Unknown	Bat Conservation	Bat Conservation	BBNPA	Unknown	Not sure if BIS have the data.
14	Brecon Beacons NPA	Bats	Protected species and SSSI and SAC feature	Standardise Count	1980s, 1900s	Vincent Wildlife Trust (VWT)	Vincent Wildlife Trust (VWT)	(will be available through BIS)	Unknown	Done at Buckland Coach House (mainly lesser horseshoe bat, maternity roost).
15	Brecon Beacons NPA	Water vole	SAC protected species	Standard Field Signs Survey	Unknown	BBNPA and NRW	BBNPA and NRW	BBNPA and NRW	Unknown	Monitoring has taken place in an ad-hock manner since the reintroduction in 2005. Led by NRW and
16	Brecon Beacons NPA	3 aquatic invasive species: Japanese knotweed, Himalayan balsam, giant hogweed. Targeted	Habitat management – via current BBNPA INNS project	Sites surveys	Started 2018 as a 2 year project, and using existing data in BIS	Bev Louise (INNS officer for the BBNPA)	BBNPA and BIS	Data available from BIS	Unknown	Wysg & Tawe catchments
17	Brecon Beacons NPA	Crassula helmsii	Habitat/species management	Sites surveys	2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015,	Internal staff: wardens, ecologist	BBNPA	Data available from BIS	Unknown	Mynydd Illtyd
18	Brecon Beacons NPA	Lower Plants	SAC monitoring	Common standard	2017?	Contractor	BBNPA and BIS	Data available from BIS	Unknown	This has been done at least twice but dates
19	Brecon Beacons NPA	Colchicum & bracken	SSSI condition monitoring	Common standard	Unknown	Conservation officer	NRW	Unknown	Unknown	This is done annually but date of initial survey's
20	Brecon Beacons NPA	Biodiversity audits of key settlements	Planning requirements for planning policy Wales	Phase 1 survey	2012 (original)	Commissioned under the previous planning grant	BBPA and BIS	Data available from BIS	Unknown	Phase 1 with some aspects of phase 2 (trees). This led to the supplementary planning guidance
21	Brecon Beacons NPA	Landscape Character Assessment	Assessing Landscape features	Standard LCA methodology	2012	Was done externally	BBNPA	BBNPA	https://www.beacons-npa.gov.uk/planning/draft-strategy-and-	Unknown
22	Brecon Beacons NPA									In planning, we don't actually monitor any environmental change directly. We have access to a large number of 'ecological survey information' provided by applicants for planning permission on individual sites, from which I don't think we undertaken any meta-analysis e.g. on INNS / protected species.

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Pembrokeshire Coasts NPA	Habitat condition monitoring	Measure conservation land management program	Professional judgment	2012, 2013, 2014, 2015, 2016, 2017, 2018,	PCNPA staff	PCNPA	Available	http://www.pembrokeshire.gov.uk/ObjView.asp?Object_ID=13028&language=	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
2	Pembrokeshire Coats NPA	Habitat and species condition monitoring of owned estate	Measure conservation land management program	Professional judgment	2012, 2013, 2014, 2015, 2016, 2017, 2018,	PCNPA staff	PCNPA	Available	http://www.pembrokeshire.gov.uk/ObjView.asp?Object_ID=130	Bats monitored at Cherry Castle and skylarks monitored at st David's air field
3	Pembrokeshire Coats NPA	Chough	Key species	Scarab	1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011,	PCNPA staff and volunteers	PCNPA	Available on requests	Presented annually in the land management report	There is historical data that dates back to the 1970s. PCNPA are hoping to allays this historical data an compare it with recent data.
4	Pembrokeshire Coats NPA	Marsh Fritillary	Unknown	Site visits	Unknown	Unknown	Unknown	Unknown	Unknown	PCNPA is aware that it's happening but haven't
5	Pembrokeshire Coats NPA	Barn Owl Box	Monitor scheme compliance	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	From initially monitoring compliance to scheme, it is hoped that this will be developed to monitor
6	Pembrokeshire Coats NPA	State of Wildlife In Pembrokeshire	To support the nature recovery plan	Various	2011, 2016	Pembrokeshire nature partnership co-ordinate it but has multiple contributes	Local Nature partn	PCC county council	http://www.pembrokeshire.gov.uk/ObjView.asp?Object_ID=130	Methodologies varies e.g. bird monitoring is done following the BTO methodologies, while other surveys don't follow a standardise methodology
7	Pembrokeshire Coats NPA	3 aquatic invasive species: Japanese knotweed, Himalayan balsam, giant hogweed. Targeted	Habitat management – via current BBNPA INNS project	Sites surveys	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
8	Pembrokeshire Coats NPA	Listed buildings at risk	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Building conservation officer
9	Pembrokeshire Coats NPA	Conservation area monitoring	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
10	Pembrokeshire Coats NPA	Scheduled ancient	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
11	Pembrokeshire Coats NPA	Wales coast path	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
12	Pembrokeshire Coats NPA	Wales coast path users	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
13	Pembrokeshire Coats NPA	Inland path users	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
14	Pembrokeshire Coats NPA	Wildlife crime	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
15	Pembrokeshire Coats NPA	Foreshore coastal	Unknown	Unknown	Unknown	Unknown	MC	Unknown	Unknown	Unknown
16	Pembrokeshire Coats NPA	Landscape characterisation	To forms supplementary guidance for planning purposes	Landscape visual index handbook	2011	Commissioned out	PCNP	Available on website	recoast.wales/default.asp?PiD=249	Cosied with the local development plan
17	Pembrokeshire Coats NPA	Coast erosion	To monitor change in key coastal sites and to encourage and public engagement	Citizen Science	Ongoing	Public	PCNPA	Available	https://www.pembrokeshirecoast.wales/default.asp?	Changing coast project
18	Pembrokeshire Coats NPA	Dark sky quality	To test if area would qualify as a dark sky designation	Sky quality meter	2015	Consultancy	PCNP	Available	Unknown	Unknown
19	Pembrokeshire Coats NPA	Bats	Unknown	Unknown	Unknown	Bat Conservation Trust	Unknown	Unknown	Unknown	Unknown
20	Pembrokeshire Coats NPA	Bees	National monitoring	Bumble bee conservation standard survey method	Unknown	Bumble Bee Conservation Trust	Bumble Bee Conservation	Unknown	Unknown	Unknown
21	Pembrokeshire Coats NPA	Butterfly	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
22	Pembrokeshire Coats NPA	Wild fires	Unknown	Unknown	Unknown	West Wales Fire Service	Unknown	Unknown	Unknown	Unknown
23	Pembrokeshire Coats NPA	Heritage crime	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
24	Pembrokeshire Coats NPA	MCA – Marine incidents	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
25	Pembrokeshire Coats NPA	Rivers	Unknown	Unknown	Unknown	West Wales Rivers trust	Unknown	Unknown	Unknown	Unknown
26	Pembrokeshire Coats NPA	Designated sites, water quality, nitrogen deposition	Unknown	Unknown	Unknown	NRW	Unknown	Unknown	Unknown	Unknown
27	Pembrokeshire Coats NPA	Seabirds	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Other long standing datasets collected by third	Unknown
28	Pembrokeshire Coats NPA	Seals	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Other long standing datasets collected by third	Unknown

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1	Gower AONB	State of the AONB	Relying on external monitoring to be carried out	Unknown	Unknown	Unknown	Unknown	Unknown	https://www.swansea.gov.uk/gowermanagement	The plan is heavily dependent on external monitoring, sum of witch is not monitored at present e.g. Natura 2000 sites monitoring by NRW
2	Gower AONB	Dark sky quality	To support application to the IDA to become a Dark Sky Community	42 locations measured with SQM s	Dec 2017, Feb 2019	AONB staff and volunteers	AONB	Available	Unknown	This will be getting done annually as a condition of the Dark Skies Community designation.
3	Gower AONB	Condition of paths	PI survey	10% of Swansea county paths monitored using CAMs.	Annually	Highway authority	Swansea County C	Available	Unknown	As most of Swansea paths are in the Gower AONB, this is easily extracted for the designation.
4	Gower AONB	Path users	To monitor number of users on paths	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
5	Gower AONB	The Economic Impact of Coastal Walking in Wales	Unknown	Unknown	2014	NRW	NRW	Available	https://walescoastpathcdn-01.azureedge.net/media/1322/wcp-visitor-survey-2014-2015-final-report-for-	Unknown
6	Gower AONB	The benefits to business of the Wales Coast Path	Unknown	Unknown	2013	NRW	NRW	Available	https://walescoastpathcdn-01.azureedge.net/media/1325/evaluating-the-benefits-to-business-of-the	Unknown
7	Gower AONB	Visitor Profile	Unknown	Visitor interviews	2015	NRW	NRW	Available	https://walescoastpathcdn-01.azureedge.net/media/1322/wcp-visitor-survey-2014-2015-final-report-for-	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Clwydian Range and Dee Valley AONB	Black Grouse	Indicator of SSSI and heathland quality and species in decline	Walk up counts and counts with dogs	2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014,2015, 2016, 2017,	AONB	AONB	Available through Cofnod	Unknown	Unknown
2	Clwydian Range and Dee Valley AONB	Great crested newts	Internationally scares species	Field counts	2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012,	AONB	AONB	Available through Cofnod	Unknown	Unknown
3	Clwydian Range and Dee Valley AONB	Curlew	Species in decline	walk up counts, public consultation survey, citi	2018,	AONB	AONB	Available through Cofnod	Unknown	Unknown
4	Clwydian Range and Dee Valley AONB	Himalayan	In order to direct management of INNS and to target activity	River walks and boat survey	2014	AONB and volunteers	AONB	Available through Cofnod	Unknown	Dee and the Alyn
5	Clwydian Range and Dee Valley AONB	Dark sky quality	To support application for a dark sky community designation	SQM	2016, 2017, 2018	AONB	AONB	Available	Unknown	Unknown
6	Clwydian Range and Dee Valley AONB	Planning Applications	To monitor alinement of AONB planning comments with granted/non-granted developments	Keep records of applications and records of response and analyse the date end of year	2009, 2010, 2011, 2012, 2013, 2014,2015, 2016, 2017, 2018	AONB	AONB	Available on requests	Reported to the AONB's joint committee	Unknown
7	Clwydian Range and Dee Valley AONB	Butterflies	Indicator of grassland quality	Field survey	2016, 2017, 2018	Volunteers	AONB	Available through Cofnod	Unknown	Unknown
8	Clwydian Range and Dee Valley AONB	Adder	Species in decline	Field survey	2009, 2010, 2011, 2012, 2013, 2014,2015, 2016, 2017,	County recorder, and staff	AONB	Available through Cofnod	Unknown	Unknown
9	Clwydian Range and Dee Valley AONB	Buildings at risk and conservation a	Features of the AONB	Field survey	2011	Flintshire, Denbighshire and Wrexham county councils	Flintshire, Denbighshire and	Available on requests	Unknown	Unknown
10	Clwydian Range and Dee Valley AONB	Monitor world heritage site	To comply with the designation of the sites	Field survey	2009, 2013, 2018	Partnership between Denbighshire and Wrexham county councils	Denbighshire and Wrexham county councils	World heritage management plan available publicly.	Unknown	Unknown
11	Clwydian Range and Dee Valley AONB	Visitor numbers at key sites	Monitor visitor profile and numbers	People counters	Constant	AONB	AONB	Available on requests	Unknown	Unknown
12	Clwydian Range and Dee Valley AONB	SSSI and SAC monitoring	Unknown	Unknown	Unknown	NRW	NRW	Available	Unknown	Unknown
13	Clwydian Range and Dee Valley AONB	Public transport numbers	Unknown	Unkown	Unknown	Transport Wales	Transport Wales	Unknown	Unknown	Unknown
14	Clwydian Range and Dee Valley AONB	Transport Counts	Unknown	Unkown	Unknown	Flintshire, Denbighshire and Wrexham county Councils	Flintshire, Denbighshire and	Unknown	Unknown	Unknown
15	Clwydian Range and Dee Valley AONB	Air quality	Unknown	Unkown	Unknown	Denbighshire county council	Unknown	Unknown	Unknown	Unknown
16	Clwydian Range and Dee Valley AONB	STEEM visitor numbers	Unknown	Unkown	Annually	Unknown	Unknown	Unknown	Unknown	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Llŷn AONB	Birds	To contribute towards various national birds surveys	Standardised methodology	Unknown	Gwynedd Council biodiversity team, volunteers, RSPB	BTO, RSPB	Unknown	Rhys Jones, the biodiversity Officer from Gwynedd Council does various bird counts solely and with v	Unknown
2	Llŷn AONB	Path users	To monitor user numbers on the Wales Coast Path	People Counters	2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018	Gwynedd Council country side and access department staff	Gwynedd Council	Available	Unknown	Unknown
3	Llŷn AONB	Dark sky quality	As part of a collaborative project between Llŷn AONB, SNPA and Anglesey Clwydian Range and Dee Valley AONB.	SQM	2018	SNPA Dark Skies Officer	SNPA, AONB	Available	Unknown	Unknown
4	Llŷn AONB	Marine Code Compliance	To monitor code complience in the Pen Llŷn a'r Sarnau SAC	Dolphin Watch methodology	2016	Ceredigion and Gwynedd Council (PLAS SAC) staff and volunteers	Ceredigion and Gwynedd Council (PLAS SAC)	Available	Gwynedd Council adopted Ceredigio's barine code of conduce for boats users in the county, and expanded into Anglesey and Gwynedd. Ceredigion and Gwynedd (in the Llŷn AONB) carry out	Unknown
5	Llŷn AONB	River quality	To monitor river quality as part of the Llŷn Land and Sea SMS project focusing on agriculture run offs.	River walks	2018	NRW staff	NRW	Unknown	Unknown	Unknown
6	Llŷn AONB	SSSI condition	To monitor condition of designations	Standardise methodology	Unknown	NRW staff	NRW	Unknown	Unknown	Unknown

7	Llŷn AONB	Cetaceans	Collate, analyse and report data for all cetacean standings around the coast of the UK. Determine the causes of death in stranded cetaceans, including by-catch and physical trauma. Undertake surveillance on the incidence of disease in stranded cetaceans in order to identify any substantial new threats to their conservation status. Maintain a national cetacean tissue archive.	Public Reporting	1990	Citizen Science	UK Cetaceans Stranding Programme	http://ukstrandings.org/csip-publications/	Unknown	Unknown

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Wye Valley AONB	Landscape change	Monitor landscape change/no change over time	41 random fixed point sites photographed	2018	AONB	AONB	Available	Unknown	The sites were across the whole of the AOHB. This is not reported yet but will contribute towards the state of the AONB report.
2	Wye Valley AONB	Vegetation survey	Establish baseline data and to assess trends. This was done as comparison to the all Wales phase 1 survey done by CCW in the 1990s (?).	Phase 1 survey	(1990s?), 2009 – 2017	AONB and local Wild Life Trusts	AONB	Data will be available for the Welsh section of the AONB (north side of the AONB will have landowner consensual issues).	Not reported, might have been passed to the record centre)	Finding of the survey were that a high proportion of is was not comparable. The whole of the AONB in Monmouthshire and Gloucestershire is complete, although Herefordshire is incomplete. Millennium map in England more recent than
3	Wye Valley AONB	Veteran tree survey	Feature of the AONB therefor to assess the condition of the resource.	Standardise methodology	2005	AONB and volunteers	AONB	Available	Not reported	Not repeated as such, but if veteran trees were picked up in the phase 1 survey (mentioned
4	Wye Valley AONB	Path users	Monitor user numbers on the Wye Valley walk	People counters	Annual	AONB	AONB	Available	Reported to partners and st	England and Wales. Annually.
5	Wye Valley AONB	Condition of features on Offa's Dyke National Trail	To assess condition of trail	Walkover survey?	Unknown	Powys County Counsel Officer for Offa's Dyke	Offa's Dyke Path o	Unknown	Unknown	Officer's name is Rob Dingle, Powys County Counsel.
6	Wye Valley AONB	Path users on Offa's Dyke National Trail	To establish user numbers	People counters	Unknown	Powys County Counsel Officer for Offa's Dyke	Offa's Dyke Path o	Unknown	Unknown	Officer's name is Rob Dingle, Powys County Counsel.
7	Wye Valley AONB	The Offa's Dyke monument	Assess condition, threats and recommendations for management	walkover and assessment	2017 – 19	Cadw / Offa's Dyke Association	Cadw / Offa's Dyke	Unknown	Unknown	All of the monument it's self is located in England.
8	Wye Valley AONB	Japanese Knotweed	To establish location in preparation for treatment as part of a specific SDF project.	River walk survey	Aug/Sep 2018	AONB	AONB	Available	Unknown	The project was reported to the SDF, but not the actual survey. Knotweed was treated so no plans
9	Wye Valley AONB	Trunk road verge survey	Funding opportunity for road side management. This was done to gather baseline data and to establish suitable sites for restoration.	Walk over surveys	2017	AONB	AOND	Available in non digital format	Unknown	All in the English section of the AONB. A49 and A40 road.
10	Wye Valley AONB	Plants	National plant monitoring scheme	Unknown	Unknown	Plantlife / volunteers	Plantlife	Unknown	Unknown	Unknown
11	Wye Valley AONB	Dry stone wall condition survey	Assess the condition of the resoource	Sample survey	2002-04	AONB / Volunteers	AONB	Available	Unknown	Unknown
12	Wye Valley AONB	Dear population	Monitor dear numbers	Infrared surveys from aeroplane and camera traps. Site specific surveys looking for damage	Unknown / recent	Dear Initiative	Dear Initiative	Unknown	Unknown	Unknown
13	Wye Valley AONB	Deer population	monitor deer numbers	visual counts	annual 2002 – 14	AONB	AONB	Available	Unknown	Unknown
14	Wye Valley AONB	River users	To monitor usage across the navigable length of the Wye River	visual counts	annual	Wye Navigation Authority/Environment Agency	Wye Navigation Authority/Environment Agency	Unknown	Unknown	Annually?
15	Wye Valley AONB	Water quality	Quality monitored for drinking water quality and habitat	Abstraction points?	unknown / regularly	Natural Recourses Wales, Environment Agency, Welsh Water	Natural Recourses Wales, Environment	Unknown	Unknown	
16	Wye Valley AONB	Water level monitoring on the River Wye	As am indictor of flood monitoring. Droit monitoring. Habitat condition	Automated Gauges	Continuous	NRW and Environment Agency	NRW and Environment	NRW and Environment Agency	es.wales/ViewDetails?station=4028	NRW and Environment Agency
17	Wye Valley AONB	SAC AND SSSI condition	Reporting requirement	Unknown	unknown	Natural England / NRW	Natural England /	Unknown	Unknown	England for SSSI condition cut to the AONB.
18	Wye Valley AONB	Species Rich Grasslands / Meadows groups	Record of group members	meadow group members / numbers.	Continuous	Monmouthshire Meadows	Monmouthshire M	Unknown	Not reported	meadows grooups in the AONB. They will each know who their members are - this would show us the level of interst in meadow management.

Number	Designation	What?	Why?	How?	When?	Who?	Data Holder	Data Availability	Reporting	Notes
1	Anglesey AONB	Coastal Path Users	Usage, Frequency	Electronic Counters	Quarterly / Annually	IACC	IACC	Available	IACC	
2	Anglesey AONB	Himalayan Balsam	Invasive.	Mapping	Seasonal	AONB, RSPB, NRW, KWT, NWWT	AONB	Available	Himalayan Balsam Partnership	
3	Anglesey AONB	Dark Skies	Support application for IDA status	SQM	2016, 2017, 2018	Dark Sky Wales	AONB	Available	Joint Advisory Committee	
4	Anglesey AONB	SAC, SPAs, NNRs, SSSI	Condition. Management requirements	Unknown	Unknown	NRW	NRW	Unknown	Unknown	
5	Anglesey AONB	Visitor Numbers	As part of WG settlement to IACC	STEAM	Annually	Tourism Officer - IACC	Officer - IACCC	Available	IACC / WG	
6	Anglesey AONB	Blue Flag Beaches	Water quality, engvironmental standards, services	Visits. Reports	Annually	KWT	KWT / IACC	Available	KWT	
7	Anglesey AONB	Coastal Path	Condition, accessibilty, maintenance	Visual surveys. Reporting / Mapping	Annual	IACC - Highways	IACC - Highwa	Available		

8	Anglesey AONB	LANDMAP	Landscape Quality	Standardised methodology	Unknown	NRW	NRW	Available	NRW	
9	Anglesey AONB	Birds	Key Species	Standardised methodology	Unknown	RSPB / BTO	RSPB / BTO	Unknown	RSPB / BTO	
10	Anglesey AONB	Rivers	Condition survey	Visual. Reports	2018	North Wales Rivers Trust	Rivers Trust. AONB	Available		
11	Anglesey AONB	Planning Applications	Planning Policy	IT System	To be set up	IACC - Planning	IACC - Planning	Available	IACC - Planning	Requires setting up to disaggregate to within AONB bopundary
12	Anglesey AONB	Welsh Language	Legislation. Special quality of AONB	Welsh Language Strategy	2016/2021. Annual rep	Anglesey Welsh Language Strategic Forum	IACC	Available	IACC	
13	Anglesey AONB	Soil, air and water quality	Special quality of AONB	Air and Water Quality Assessments	Annual	IACC / NRW	IACC / NRW	Available	Unknown	
14	Anglesey AONB	Expansive views / seascape	Special quality of AONB	LANDMAP. Seascape Assessment	Unknown	Unknown	Unknown	Unknown	Unknown	
15	Anglesey AONB	Peace and tranquillity	Special quality of AONB	Tranquillity Maps	Unknown	NRW?	NRW?	Available	Unknown	
16	Anglesey AONB	Islands around Anglesey	Special quality of AONB	Unknown	Unknown	NRW?	NRW?	Unknown	Unknown	
17	Anglesey AONB	Broadleaved woodlands	Special quality of AONB	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
18	Anglesey AONB	Lowland Coastal Heath	Special quality of AONB	Unknown	Unknown	Unknown	NRW? Cofnod?	NRW? Cofnod?	NRW?	
19	Anglesey AONB	Species Rich Roadside Verges	Special quality of AONB	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
20	Anglesey AONB	Ecologically important coastal and wetland habitats	Special quality of AONB	Unknown	Unknown	NRW and relevant partners	NRW and relevant	Unknown	Unknown	
21	Anglesey AONB	Built Environment including Conservation Areas and	Special quality of AONB	Sporadic	Sporadic	Cadw / IACC	Cadw / IACC	Parially available	IACC	
22	Anglesey AONB	Archaeoology and Ancient Monuments / Historic Landscpaes, Parks and	Special quality of AONB	Unknown	Unknown	Cadw, GAT	Cadw / IACC	Parially available	Cadw, GAT	
23	Anglesey AONB	Rural Agricultural / Coastal Communities	Special quality of AONB	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	
24	Anglesey AONB	Welsh Language	Special quality of AONB. Legislation	Welsh Language Strategy	2016/2021. Annual	Anglesey Welsh Language Strategic Forum	IACC	Available	Annual	
25	Anglesey AONB	Soil, Air and Water Quality	Special quality of AONB	Sampling - Air and Water	Unknown	IACC, NRW	IACC, NRW	IACC, NRW	IACC, NRW	
25	Anglesey AONB	PROW network	Special quality of AONB	Surveys. Reporting / Mapping	Annual	IACC - Highways	IACC - Highways	IACC - Highways	IACC - Highways	
26	Anglesey AONB	Accessible Land and Water.	Special quality of AONB	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	

6.5 Cyfrifiad Dewis ar y Cyd Canlyniadau Glastir

Canlyniad Glastir	Adroddwyd ar Ddewisiadau Unigol							
	APCE	APCBB	APCAP	Gŵyr	Clwyd/Dyfrdwy	Llŷn	Gwy	Ynys Môn
Bioamrywiaeth	1	1	2	2	2	1	3	1
Lliniaru Newid yn yr Hinsawdd	2	3	3	4	4	2	2	2
Rheoli Pridd a Dŵr	3	2	1	3	3	4	5	4
Tirwedd, yr Amgylchedd Hanesyddol a Mynediad	4	4	4	1	1	3	4	3
Creu a rheoli coetiroedd	5	5	5	5	5	5	1	5

Canlyniad Glastir	Dewis ar y Cyd Wedi'i Adrodd				
	1af	2il	3ydd	4ydd	5ed
Bioamrywiaeth	4	3	1	0	0
Lliniaru Newid yn yr Hinsawdd	0	4	2	2	0
Rheoli Pridd a Dŵr	1	1	3	2	1
Tirwedd, yr Amgylchedd Hanesyddol a Mynediad	2	0	2	4	0
Creu a rheoli coetiroedd	1	0	0	0	7

Canlyniad Glastir	Dewis ar y Cyd Wed'i Gyfrifo
Bioamrywiaeth	350
Lliniaru Newid yn yr Hinsawdd	260
Tirwedd, yr Amgylchedd Hanesyddol a Mynediad	240
Rheoli Pridd a Dŵr	230
Creu a rheoli coetiroedd	120

6.6 Cyfrifiad Modelu Dewis ar y Cyd y Senario Modelu

Senario Modelu	Ddewisiadau Unigol Wedi'u Hadrodd							
	APCE	APCBB	APCAP	Gŵyr	Clwyd/Dyfrdwy	Llŷn	Gwy	Ynys Môn
Coetiroedd (gwahanol opsiynau arbennig, buddion)	2	2	4	4	2	3	3	4
Ansawdd dŵr (modelu Brexit ar gyfer ansawdd dŵr)	3	1	3	2	3	4	2	3
Rheoli arfordirol (llwybrau/bioamrywiaeth)	4	4	2	3	4	1	4	1
Profi cynllun amaethyddol newydd	1	3	1	1	1	2	1	2

Senario Modelu	Dewis ar y Cyd Wedi'i Adrodd			
	1af	2il	3ydd	4ydd
Coetiroedd (gwahanol opsiynau arbennig, buddion)	0	3	2	3
Ansawdd dŵr (modelu Brexit ar gyfer ansawdd dŵr)	1	2	4	1
Rheoli arfordirol (llwybrau/bioamrywiaeth)	2	1	1	4
Profi cynllun amaethyddol newydd	5	2	1	0

Senario Modelu	Cyfrif Dewis ar y Cyd
Profi cynllun amaethyddol newydd	280
Ansawdd dŵr (modelu Brexit ar gyfer ansawdd dŵr)	190
Rheoli arfordirol (llwybrau/bioamrywiaeth)	170
Coetiroedd (gwahanol opsiynau arbennig, buddion)	160

6.7 Cofnodion Cyfweliad

Mae'r adran ganlynol yn cynnwys cofnodion prosiect a gafodd eu creu a'u defnyddio yn y dasg hon fel y'u cyflwynwyd ac sydd ar gael yn Saesneg yn unig.

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Brecon Beacons National Park Authority

Question 2:

What is your role and responsibilities?

Paul Sinnadurai
Natural Resources Manager for the Brecon Beacons National Park Authority. He line manages the leads for Rights of Way, Countryside Access, Ecology and Biodiversity, and Warden Service.

Bradley Welch
Senior Ecologist and Climate Adaptation Officer

Rebecca Price
Ecologist and leading on developing a Nature Recovery Action Plan for the BBNPA.

Bridget Schofield
BBNPA Planning Officer

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Prior Score
1	Biodiversity	Plant diversity	1
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	2
5	Climate Change mitigation	Soil carbon	4
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	3
6	Soil and Water Management	Headwater stream macroinvertebrate community	
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environmen Features	
9	Landscape, Historic Environment and Access	Visual Quality Index	5

| 10 | Landscape, Historic Environment and Access | Presence and length of Public Rights of Way, including open access areas and beaches. | |
| 12 | Woodland creation and management | Woodland ground flora biodiversity | |

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	2
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	1
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	4
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	3

Question 6: Is there anything else you would like to add?

Monitoring in DLs

- There is a lot happening but BBNPA are not in a position to know where all this information is. Saying that, a **new Evidence Officer** will be appointed in May which could contribute towards this work. The new officer will be leading on the: NP Management Plan, Sate of the Park Report, Sustainability Assessment, Strategic Evidence Assessment and the HR Assessment.
- It might be worth liaising with Professor Mike Bruford FLSW (Co-director Sustainable Places Research Institute, Cardiff University's School of Biosciences) on the work of the **Wales Biodiversity Partnership**, as they have carried out similar work.
- It would be valuable to initially liaise with all **vice county record centres** (Cofnod, BIS) to establish all the evidence they hold for DLs. BBNPA gives all data to BIS.

GMEP data extraction

- BBNPA would be interested in all GMEP for the Park. They found it challenging to prioritise without knowing the extent of the information available.
- Even though it wasn't on the list given, BBNPA would be very much interested in soil indicated by biological measurements.

Modelling

- BBNPA would be very interested in modelling looking at accessible green spaces for people within National Parks compared to other areas in Wales (e.g. urban)

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Clwydian Range and Dee Valley AONB

Question 2:

Howard Sutcliff
AONB Officer

David Shiel
Assistant AONB Officer

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Priority Score
1	Biodiversity	Plant diversity	2
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	5
5	Climate Change mitigation	Soil carbon	3
6	Soil and Water Management	Headwater stream habitat quality (River Habitat Survey)	4
6	Soil and Water Management	Headwater stream macroinvertebrate community	
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environment Features	5*
9	Landscape, Historic Environment and Access	Visual Quality Index	1
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	
12	Woodland creation and management	Woodland ground flora biodiversity	

* Would be interested if no data was available for linear features in square

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	2
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	3
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	4
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	1

Question 6: Is there anything else you would like to add?

What will happen to agriculture post Brexit regarding designated landscapes. Public goods should be targeted to special qualities of designation.

What we would like:

- Data cut for AONB
- Fixed points photography along Offa's Dyke National Trail
- Noise pollution/tranquillity data
- Visual intrusion

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Snowdonia National Park Authority

Question 2:

Rhys Owen
Head of Conservation, Woodlands & Agriculture

Dafydd Roberts
Senior Ecologist

Marian Pye
Welsh Peatlands Sustainable Management Scheme Project Manager

Gethin Davies
LIFE Celtic Rainforests Senior Project Manager

Geraint Williams
LIFE Celtic Rainforests Project Officer

Elen Hughes
Research/Planning Assistant (Policy)

Dani Robertson
Dark Skies Project Officer

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Priority Score
1	Biodiversity	Plant diversity	1
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	2
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	
5	Climate Change mitigation	Soil carbon	3
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	4*
6	Soil and Water Management	Headwater stream macroinvertebrate community	4*
7	Soil and Water Management	Pond quality	

8	Landscape, Historic Environment and Access	Condition assessment of Historic Environment Features	
9	Landscape, Historic Environment and Access	Visual Quality Index	5
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	
12	Woodland creation and management	Woodland ground flora biodiversity	

4* - Would it be possible to combine the two under one vote, as they're combined in the explanation table?

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	2
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	2
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	3
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	1

Questions 6: Is there anything else you would like to add?

Filling in the table

Other organisations carrying out monitoring work within the NP:
- Mammals in a Sustainable Environment
- Welsh Raised Bogs – NRW
- North Wales Mammal Group
- Environment Change Network
- Fishing Clubs

- Snowdonia Society
- Whale and Dolphin Conservation

Other data sources within the NP – Officers not present at meeting:
- Cynllun Eryri – Helen Pye
- Thomas Jones - Cultural Heritage Project Officer
- Bethan Jones – Snowdon Warden
- John Roberts – Carneddau Partnership Officer
- Recreation and Access

Modelling

Would be interested in modelling work involving:

- INNS
- Soil and land-use emissions under Brexit scenarios
- Groundwater sustainability under Brexit and climate change scenarios
- Human effects on erosion linked with land use such as woodland, dairy farming

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Gower Area of Outstanding Natural Beauty

Question 2:

Chris Lindley
AONB Team Leader

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Prior Score
1	Biodiversity	Plant diversity	
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	2
5	Climate Change mitigation	Soil carbon	
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	3
6	Soil and Water Management	Headwater stream macroinvertebrate community	5
7	Soil and Water Management	Pond quality	4
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environmen Features	1
9	Landscape, Historic Environment and Access	Visual Quality Index	
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	
12	Woodland creation and management	Woodland ground flora biodiversity	

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	4
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	2
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New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	1

Question 6: Is there anything else you would like to add?

GMEP data extraction

Gower AONB ruled out **Presence and length of Public Rights of Way** and **Woodland ground flora biodiversity.** The AONB has access to data on length and condition of paths through the Swansea highway authority. As the Gower isn't very woody, the amount of woodland is highly designated and they have access to the data.

Number 1 priority is Condition of HEFs as there isn't any data available on these in the AONB. No work of its kind has been done in the Gower before. Definitely have an interest in hedgerows as all the hedgerows are mapped in the Gower as they are a feature of the AONB, therefor having information on the condition would be of interest.

Modelling

From Bridget's modelling presentation on Brexit scenarios, an increase in dairy in places like Pembrokeshire would have potential impact on water quality on the Gower Peninsula, therefor new agriculture scheme testing and water quality are Gower AONB's modelling priorities.

Woodland again was lower in priority.

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Llŷn Area of Outstanding Natural Beauty

Question 2:

Bleddyn Jones
AONB Manager

Elin Wyn Hughes
Project Officer

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Prior Score
1	Biodiversity	Plant diversity	2
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	1
5	Climate Change mitigation	Soil carbon	3
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	
6	Soil and Water Management	Headwater stream macroinvertebrate community	5
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environmer Features	
9	Landscape, Historic Environment and Access	Visual Quality Index	
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	4
12	Woodland creation and management	Woodland ground flora biodiversity	

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	3
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Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	1
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	2

Question 6: Is there anything else you would like to add?

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Pembrokeshire Coats National Park Authority

Question 2:

Sarah Mellor
Biodiversity Officer

Mair Thomas
Performance and Compliance Coordinator

Phill Barlow
Research and Sustainability Appraisal Officer

Michel Regelous
Conservation and Policy Officer

Geraint Jones
Farm Conservation Officer

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Prior Score
1	Biodiversity	Plant diversity	4
2	Biodiversity	Birds	
3	Biodiversity	Pollinators	5
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	2
5	Climate Change mitigation	Soil carbon	
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	3
6	Soil and Water Management	Headwater stream macroinvertebrate community	1
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environmen Features	
9	Landscape, Historic Environment and Access	Visual Quality Index	
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	
12	Woodland creation and management	Woodland ground flora biodiversity	

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	4
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	3
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	2
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	1

Question 6: Is there anything else you would like to add?

Monitoring

Unclear as to how valuable the cookie cutting will be. PCNPA would be interested in getting all the available data for the Park as prioritising without knowing full extent of data for designation proves to be challenging.

Finds the Glastir Outcome and the resilient figures on the GMEP at a glance document really interesting and effective and would be very interested in getting the same figures for the NP if possible. Would also be interested in finding ways to improve our state of the park and make it more robust.

Modelling

Getting the landchange data done by farm returns from Welsh Government wold be extremely valuable for PCNPA as there is 2/3's of data in NP inaccessible.

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Anglesey AONB

A fully completed questionnaire was not recorded for this DL Body – the entries in the What/Why/Who table (Appendix 6.4) were recorded and are shown in that table. Preferences were recorded (below).

Question 2:

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Priority Score
1	Biodiversity	Plant diversity	
2	Biodiversity	Birds	1
3	Biodiversity	Pollinators	2
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	
5	Climate Change mitigation	Soil carbon	3
6	Soil and Water Management	Headwater stream habitat quality (River Habitat Survey)	
6	Soil and Water Management	Headwater stream macroinvertebrate community	
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environment Features	
9	Landscape, Historic Environment and Access	Visual Quality Index	5
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	4
12	Woodland creation and management	Woodland ground flora biodiversity	

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	4
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New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	2

Question 6: Is there anything else you would like to add?

Areas of Outstanding Natural Beauty and National Parks of Wales Monitoring Review Questionnaire

Question 1:

Wye Valley AONB

Question 2:

Nick Critchley – AONB Development Officer

(A prior meeting had taken place between Nick Critchley and the AONB Manager, Andrew Blake)

Question 3:

Fill in why, what, when, how table with questioner.

Question 4:

In the table of GMEP outcomes and collected data, prioritise your **top five** preferred data extraction for designated landscapes in the fourth column.

Ref	GMEP Outcome	Data collected	Designation Priority Score
1	Biodiversity	Plant diversity	
2	Biodiversity	Birds	5
3	Biodiversity	Pollinators	3
4	Biodiversity	Floral abundance	
4	Biodiversity	Linear features condition	
5	Climate Change mitigation	Soil carbon	2
6	Soil and Water Management	Headwater stream habitat quality (River Hab Survey)	
6	Soil and Water Management	Headwater stream macroinvertebrate community	5*
7	Soil and Water Management	Pond quality	
8	Landscape, Historic Environment and Access	Condition assessment of Historic Environmer Features	4
9	Landscape, Historic Environment and Access	Visual Quality Index	
10	Landscape, Historic Environment and Access	Presence and length of Public Rights of Way, including open access areas and beaches.	
12	Woodland creation and management	Woodland ground flora biodiversity	1

5* - Headwater stream would be more of an interest than birds, if there was a square in the AONB with headwater stream data.

Question 5: Prioritise your **top four** modelling scenarios for AONB and National Parks

Modelling Scenario	Details	Designation Priority Score
Woodland (different special options, benefits)	To explore which tree species would be best suited for the different soil types and climate conditions within the NPs and AONBs. The potential carbon and climate mitigation that could result can then be extracted and by linking to the GMEP Visual Quality Index such that the impact on landscape aesthetics could also be explored.	3
Water quality (Brexit modelling for water quality)	To better understand the potential outcomes of different Brexit deals and / or different management being considered for inclusion in the new Farm Sustainability Scheme with respect to water quality across the NPs and AONBs.	2
Coastal management (paths/biodiversity)	To explore the potential outcomes of either Brexit trade deals and / or different management interventions being considered for inclusion in the new Farm Sustainability Scheme on coastal systems including visual quality, recreation and land-sea transfers of contaminants e.g. nutrients and pathogens to bathing waters.	4
New agriculture scheme testing	To explore the potential outcomes of the management interventions being considered for inclusion in the new Farm Sustainability Scheme with respect to issues of interest e.g. water quality, climate mitigation, public health/air quality, recreation, bird diversity and abundance etc.	1

Question 6: Is there anything else you would like to add?

Monitoring in the AONB

Monitoring by the AONB is very much project driven and done either to report back on individual project or to gather evidence to demonstrate the need for a specific project e.g. the river walk monitoring Japanese knotweed; carried out for practical purposes. Monitoring is therefore done in short term manner, as and when it's required.

The AONB is aware of other monitoring taken place but not in the position to know details. Cross county and national border also proves to be challenging in getting comparable data, and data for the designation as a whole.

Recording bodies for the Wye AONB:

- South East Wales Biodiversity Record Centre
- Gloucestershire Wild Life Trust Centre for Environment Records
- Hereford Biological Record Centre

There are groups which would have information about volunteer numbers such as the Monmouth Meadows volunteer group. They would hold information on who are actively managing meadows and engaged and interested, which could be an indicator of where the meadows are. Other groups are Hereford Meadows Network Group and Parish Grasslands Gloucestershire.

The AONB (together with all English AONB and NP) is provided with a Monitoring Environmental Outcomes in Protected Landscapes (MEOPL) Framework statistics from Natural England annually. Data included SSSI condition, agriculture scheme, priority habitats, and historical environmental features.

Prioritised data extraction

The AONB would be interested in whatever ERAMMP has for the designation. Prioritising proved to be difficult without knowing the extent of the available data. The AONB would be flexible with priorities depending on data available.

Modelling

Coastal modelling is not a priority for obvious reasons, neither is woodland as the designation is so heavily wooded already.

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