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Ffyrdd newydd o weithio
ar gyfer heriau newydd

New Ways of Working to
Tackle new Challenges

Ffyrdd newydd o weithio ar gyfer heriau newydd

- Beth yw BRM?

New Ways of Working to Tackle new Challenges

- What are NMBs?

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New Ways of Working to Tackle new Challenges

- What are NMBs?
- Primary objectives of the NMBs

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New Ways of Working to Tackle new Challenges

- What are NMBs?
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- Pwy sy'n cymryd rhan?
- Dangosyddion llwyddiant

New Ways of Working to Tackle new Challenges

- What are NMBs?
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- Pwy sy'n cymryd rhan?
- Dangosyddion llwyddiant
- Gwaith sydd wedi'i wneud hyd yn hyn

New Ways of Working to Tackle new Challenges

- What are NMBs?
- Primary objectives of the NMBs
- Who is involved?
- What does success look like?
- Work undertaken so far

Ffyrdd newydd o weithio ar gyfer heriau newydd

- Beth yw BRM?
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- Pwy sy'n cymryd rhan?
- Dangosyddion llwyddiant
- Gwaith sydd wedi'i wneud hyd yn hyn
- Rhwystrau i gynnydd yn y dyfodol

New Ways of Working to Tackle new Challenges

- What are NMBs?
- Primary objectives of the NMBs
- Who is involved?
- What does success look like
- Work undertaken so far
- Obstacles to Future Progress

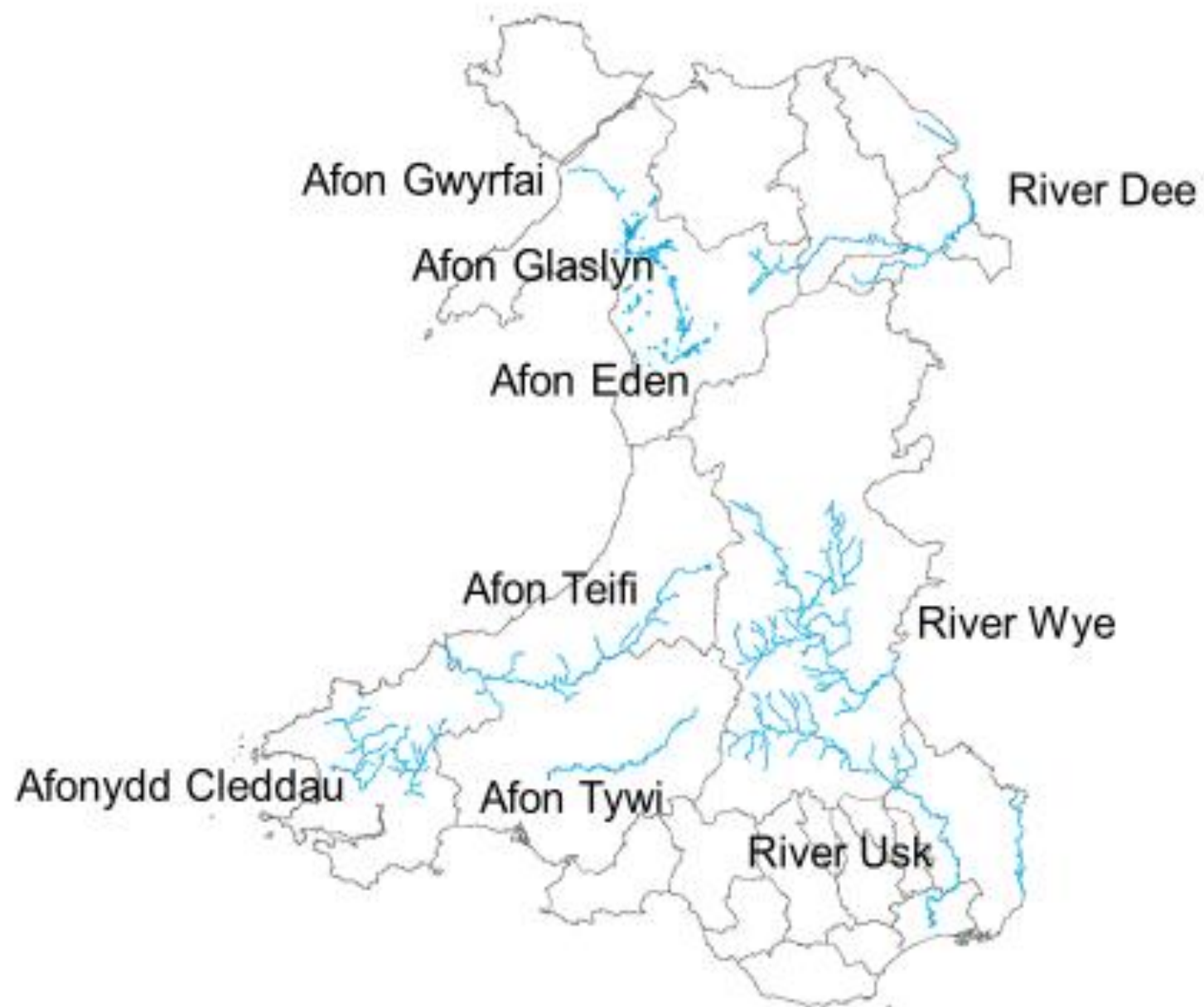
Ffyrdd newydd o weithio ar gyfer heriau newydd

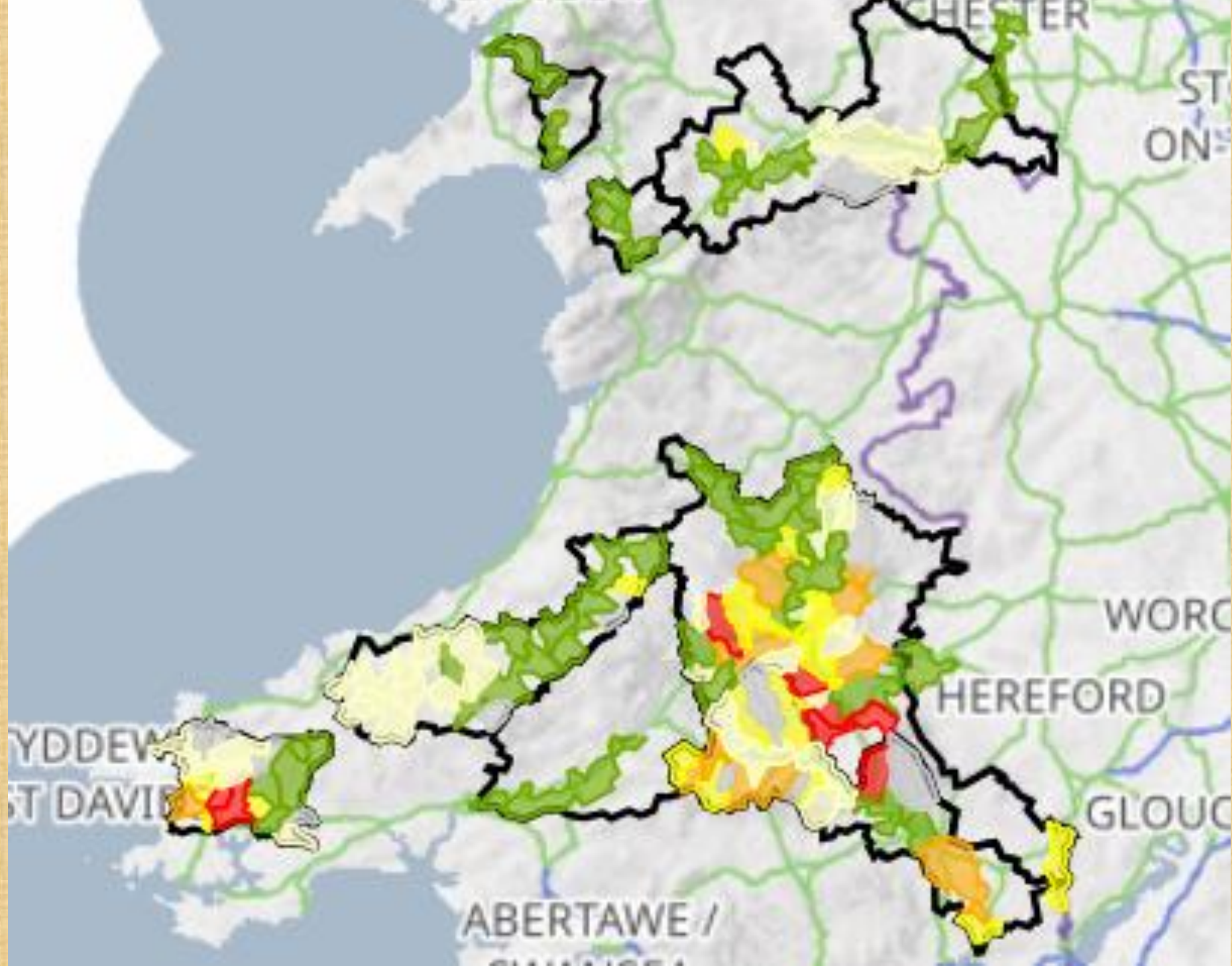
- Beth yw BRM?
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- Pwy sy'n cymryd rhan?
- Dangosyddion llwyddiant
- Gwaith sydd wedi'i wneud hyd yn hyn
- Rhwystrau i gynnydd yn y dyfodol
- Ble gall ymchwil academaidd chwarae rhan

New Ways of Working to Tackle new Challenges

- What are NMBs?
- Primary objectives of the NMBs
- Who is involved?
- What does success look like
- Work undertaken so far
- Obstacles to Future Progress
- Where academic research play a part

SAC rivers in Wales

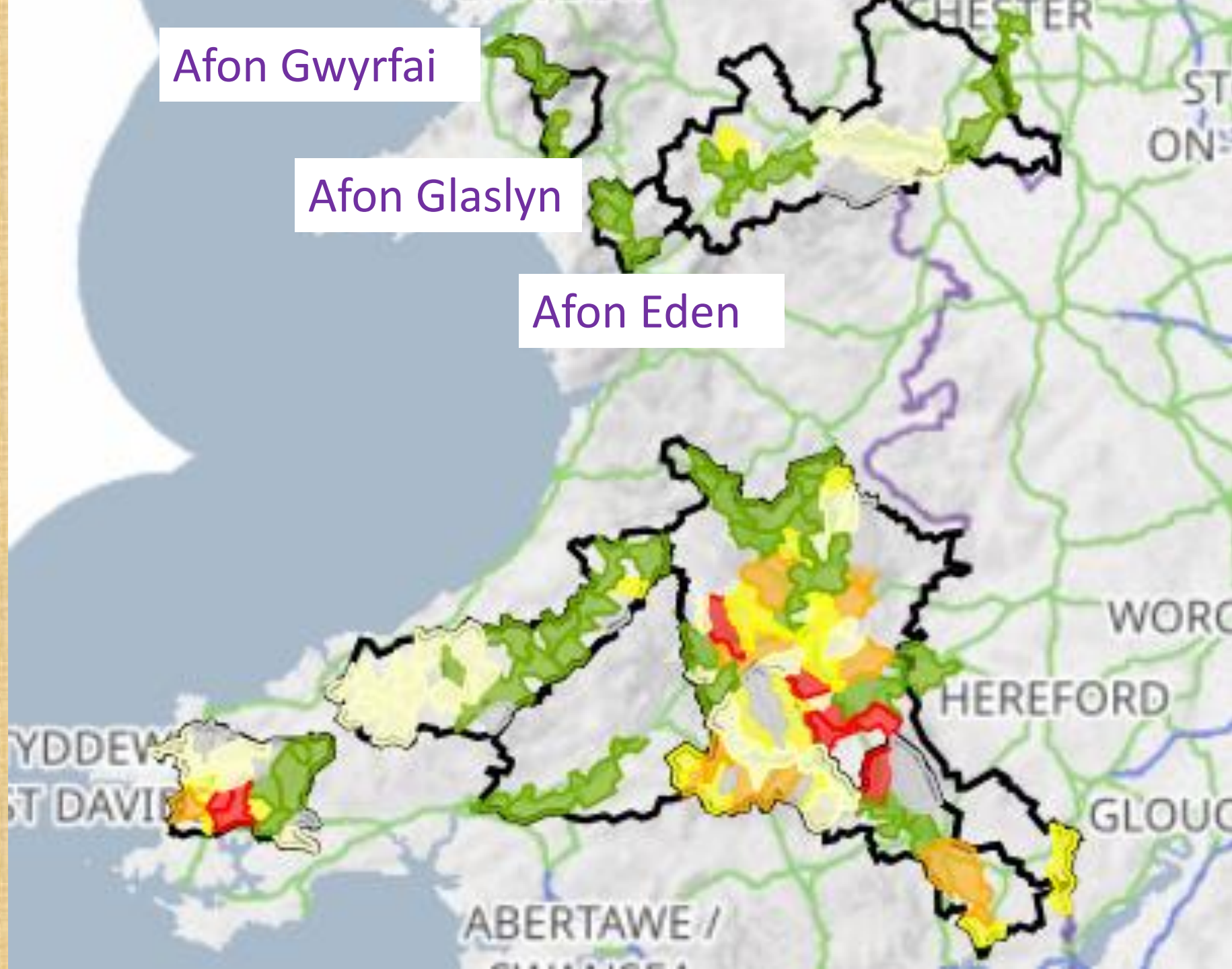




Afon Gwyrfai

Afon Glaslyn

Afon Eden

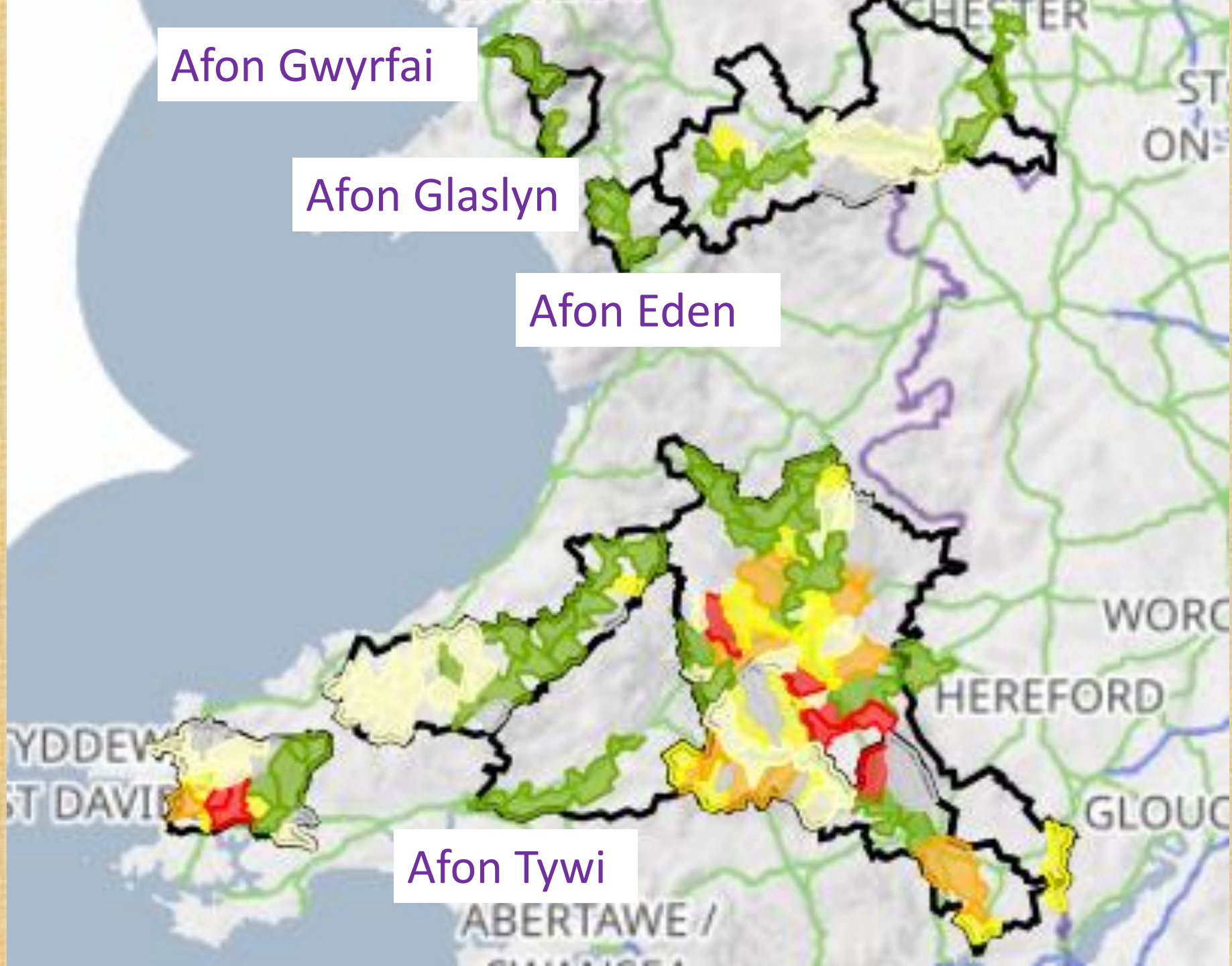


Afon Gwyrfai

Afon Glaslyn

Afon Eden

Afon Tywi



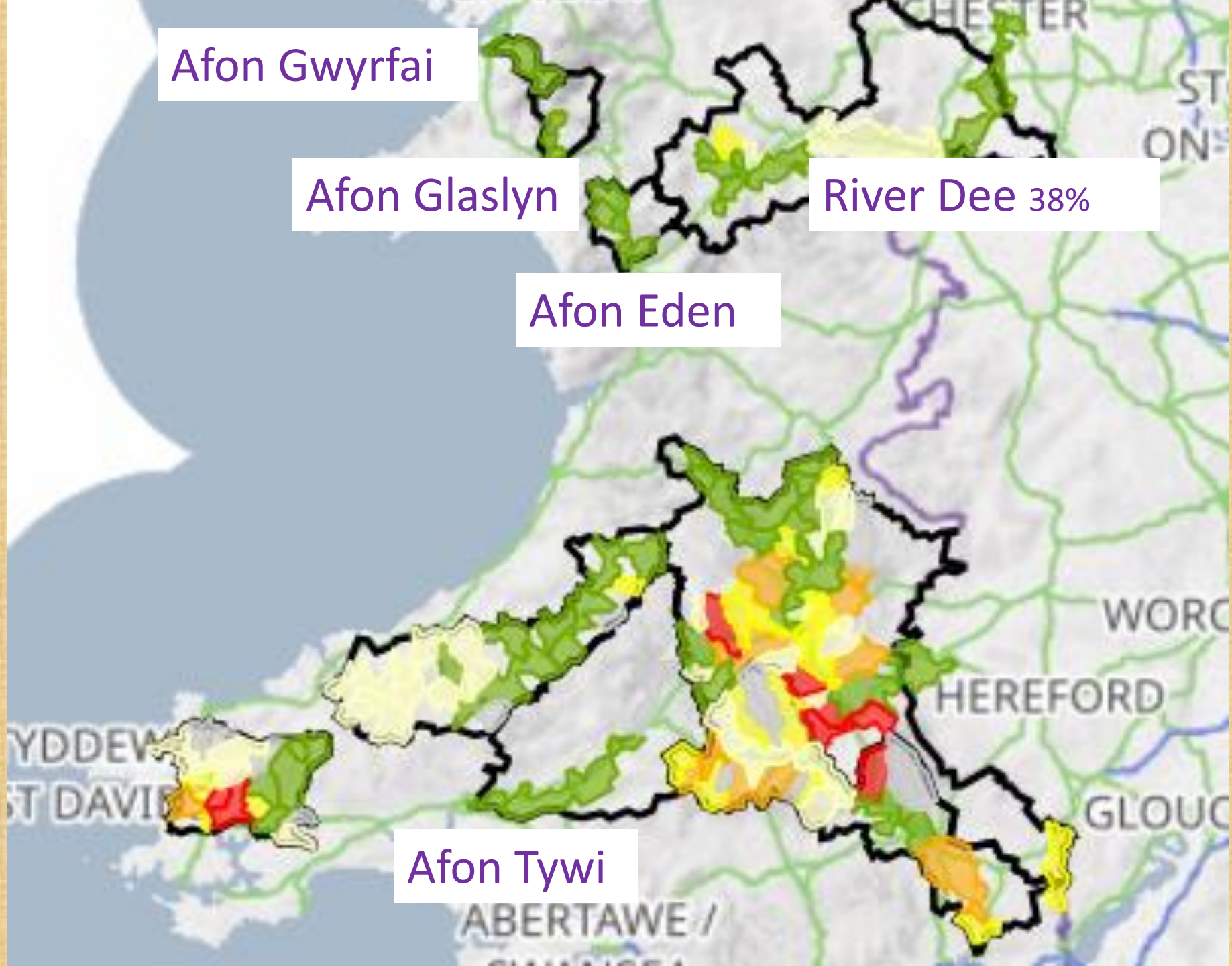
Afon Gwyrfai

Afon Glaslyn

River Dee 38%

Afon Eden

Afon Tywi



Afon Gwyrfai

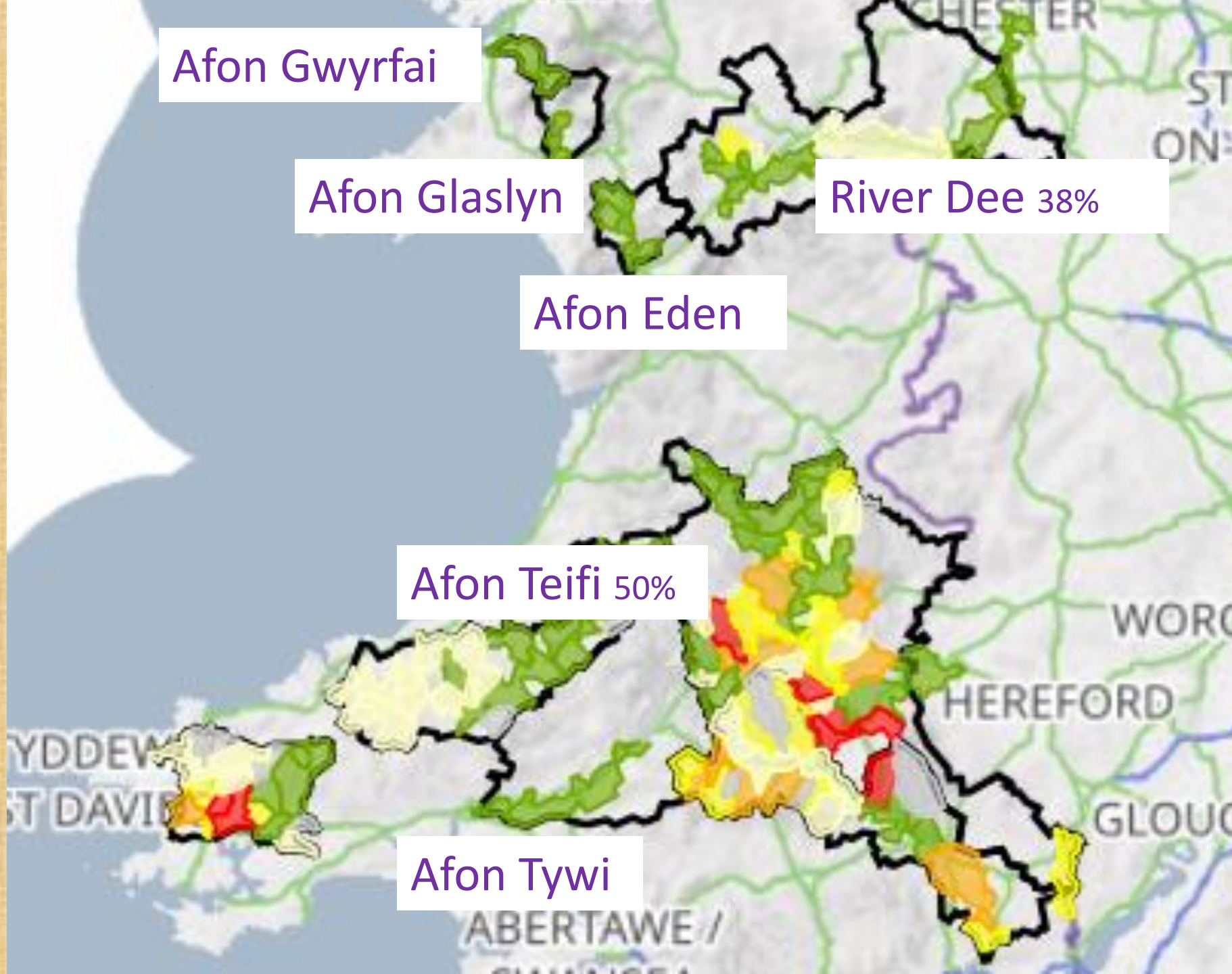
Afon Glaslyn

River Dee 38%

Afon Eden

Afon Teifi 50%

Afon Tywi



Afon Gwyrfai

Afon Glaslyn

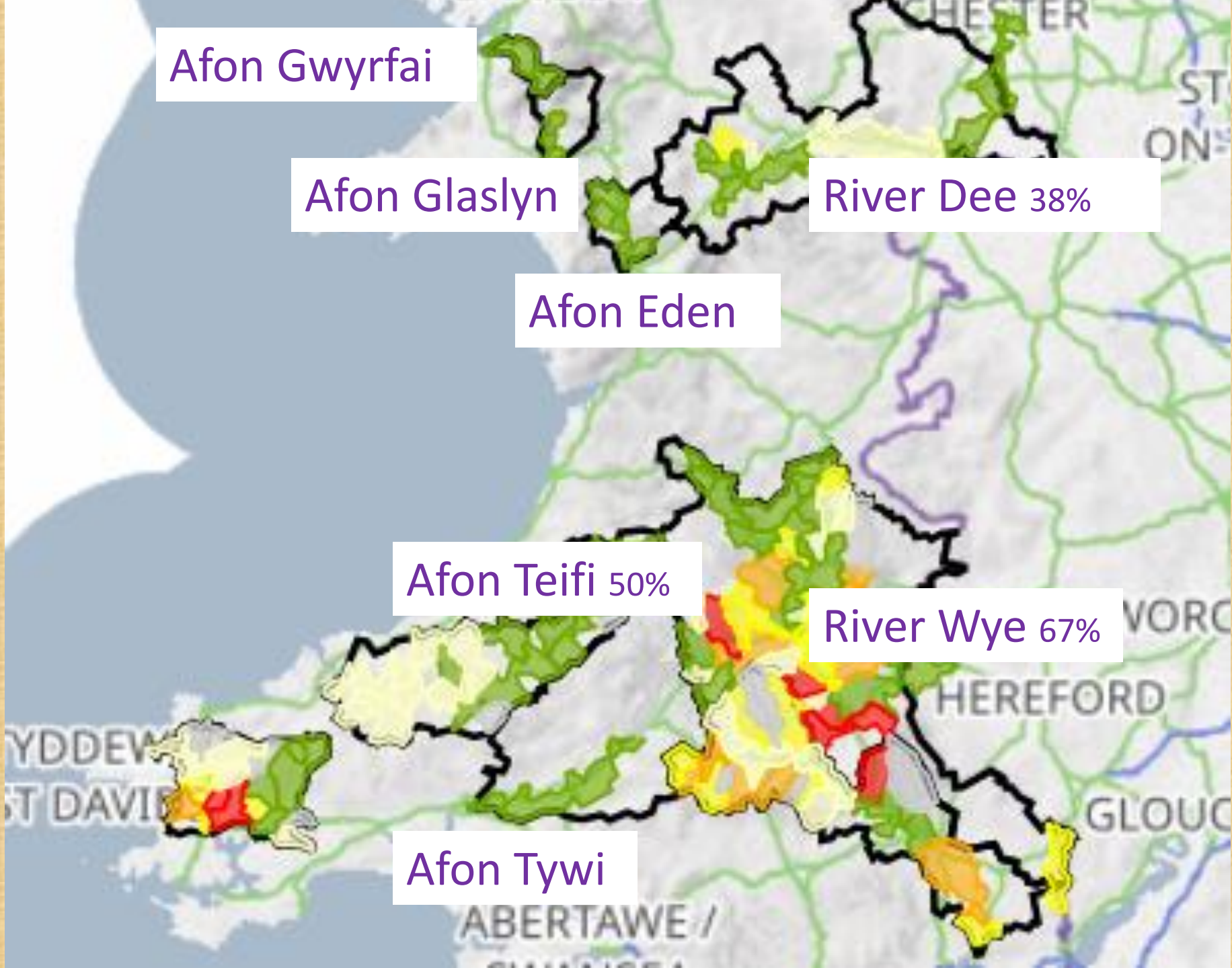
River Dee 38%

Afon Eden

Afon Teifi 50%

River Wye 67%

Afon Tywi



Afon Gwyrfai

Afon Glaslyn

River Dee 38%

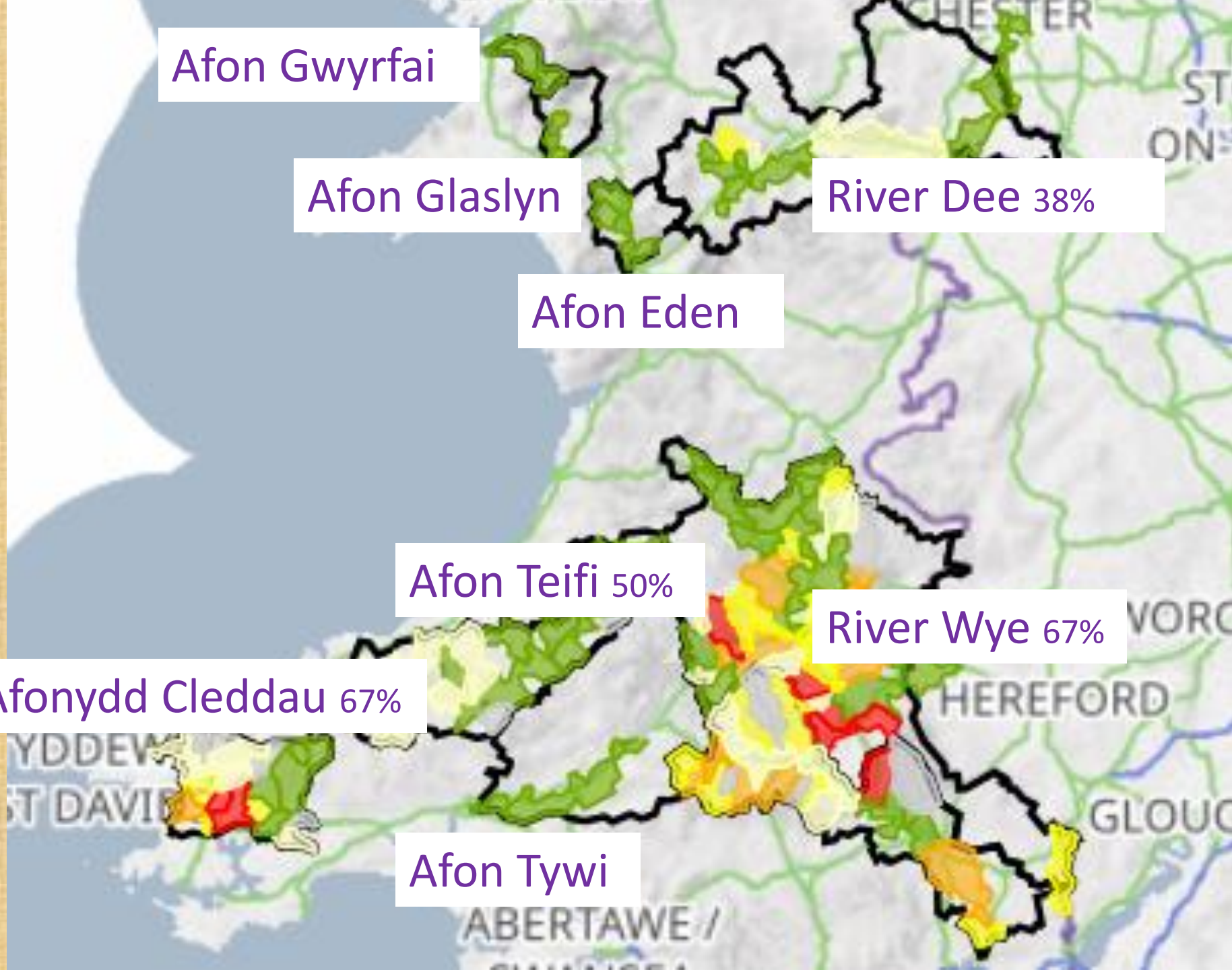
Afon Eden

Afon Teifi 50%

River Wye 67%

Afonydd Cleddau 67%

Afon Tywi



Afon Gwyrfai

Afon Glaslyn

River Dee 38%

Afon Eden

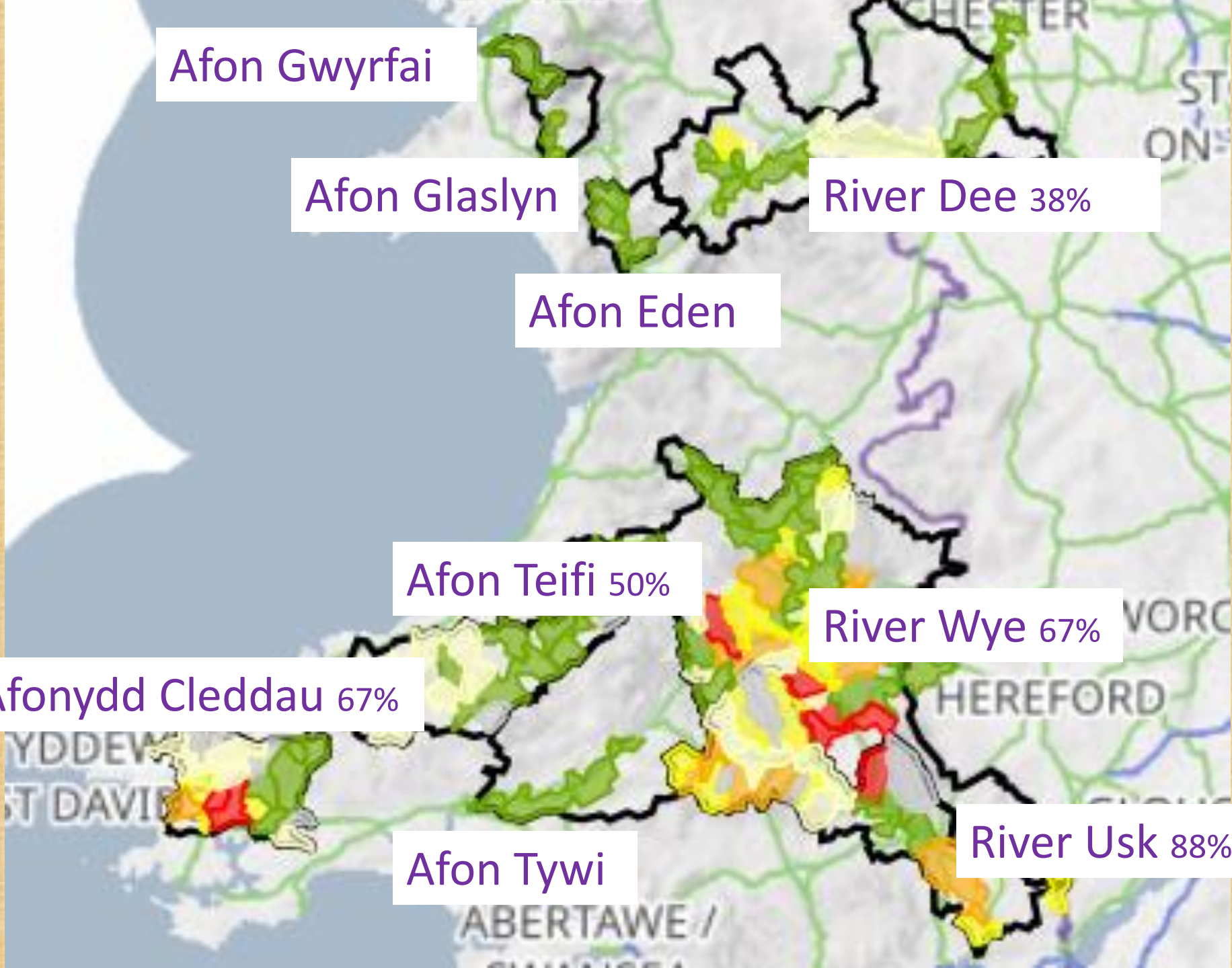
Afon Teifi 50%

River Wye 67%

Afonydd Cleddau 67%

Afon Tywi

River Usk 88%



Bwrdd Rheoli
Maetholion

Nutrient Management
Board

Bwrdd Rheoli Maetholion

- Yn seiliedig ar y dalgyrch

Nutrient Management Board

- Catchment Based

Bwrdd Rheoli Maetholion

- Yn seiliedig ar y dalgyllch
- Cael eu harwain gan dystiolaeth

Nutrient Management Board

- Catchment Based
- Evidence Led

Bwrdd Rheoli Maetholion

- Yn seiliedig ar y dalgyllch
- Cael eu harwain gan dystiolaeth
- Aelodau

Nutrient Management Board

- Catchment Based
- Evidence Led
- Members

Bwrdd Rheoli Maetholion

- Yn seiliedig ar y dalgyllch
- Cael eu harwain gan dystiolaeth
- Aelodau:
 - Cyfoeth Naturiol Cymru (CNC)

Nutrient Management Board

- Catchment Based
- Evidence Led
- Members:
 - Natural Resources Wales (NRW)

Bwrdd Rheoli Maetholion

- Yn seiliedig ar y dalgyllch
- Cael eu harwain gan dystiolaeth
- Aelodau:
 - Cyfoeth Naturiol Cymru (CNC)
 - Awdurdodau Lleol

Nutrient Management Board

- Catchment Based
- Evidence Led
- Members:
 - Natural Resources Wales (NRW)
 - Local Authorities

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Nutrient Management Board

- Catchment Based
- Evidence Led
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 - Awdurdodau Lleol
 - Dŵr Cymru Welsh Water (DCWW)
- Grŵp Cyngor Technegol (TAG)

Nutrient Management Board

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 - Local Authorities
 - Dŵr Cymru Welsh Water (DCWW)
- Technical Advice Group (TAG)

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- Grŵp Rhanddeiliaid

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 - Dŵr Cymru Welsh Water (DCWW)
- Technical Advice Group (TAG)
- Stakeholder Group

Bwrdd Rheoli Maetholion

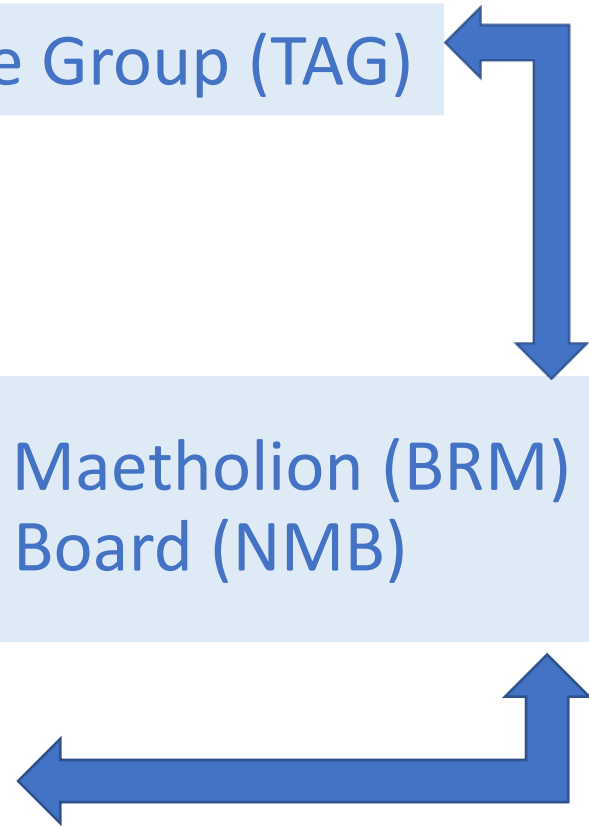
Nutrient Management Board

Grŵp Cyngor Technegol (GCT) Technical Advice Group (TAG)



Bwrdd Rheoli Maetholion (BRM) Nutrient
Management Board (NMB)

Grŵp Rhanddeiliaid Stakeholder Group



Bwrdd Rheoli
Maetholion

Nutrient
Management Board

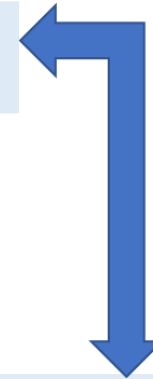
Bwrdd Rheoli Maetholion (BRM) Nutrient
Management Board (NMB)

Bwrdd Rheoli Maetholion

Nutrient Management Board

Grŵp Cyngor Technegol (GCT) Technical Advice Group (TAG)

Bwrdd Rheoli Maetholion (BRM) Nutrient
Management Board (NMB)



Bwrdd Rheoli Maetholion

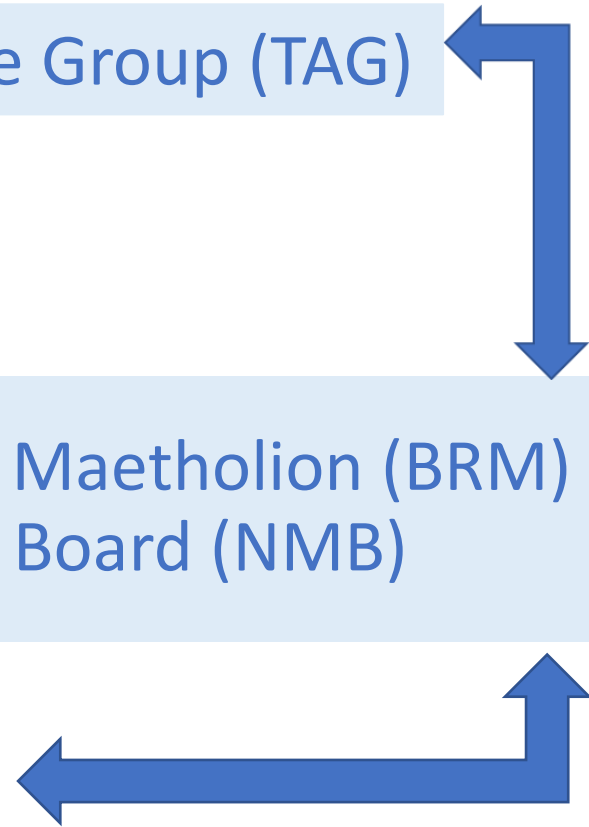
Nutrient Management Board

Grŵp Cyngor Technegol (GCT) Technical Advice Group (TAG)



Bwrdd Rheoli Maetholion (BRM) Nutrient
Management Board (NMB)

Grŵp Rhanddeiliaid Stakeholder Group



Prif Amcanion

Primary Objectives

Prif Amcanion

- Cuomo ar Gynllun Rheoli Maetholion

Primary Objectives

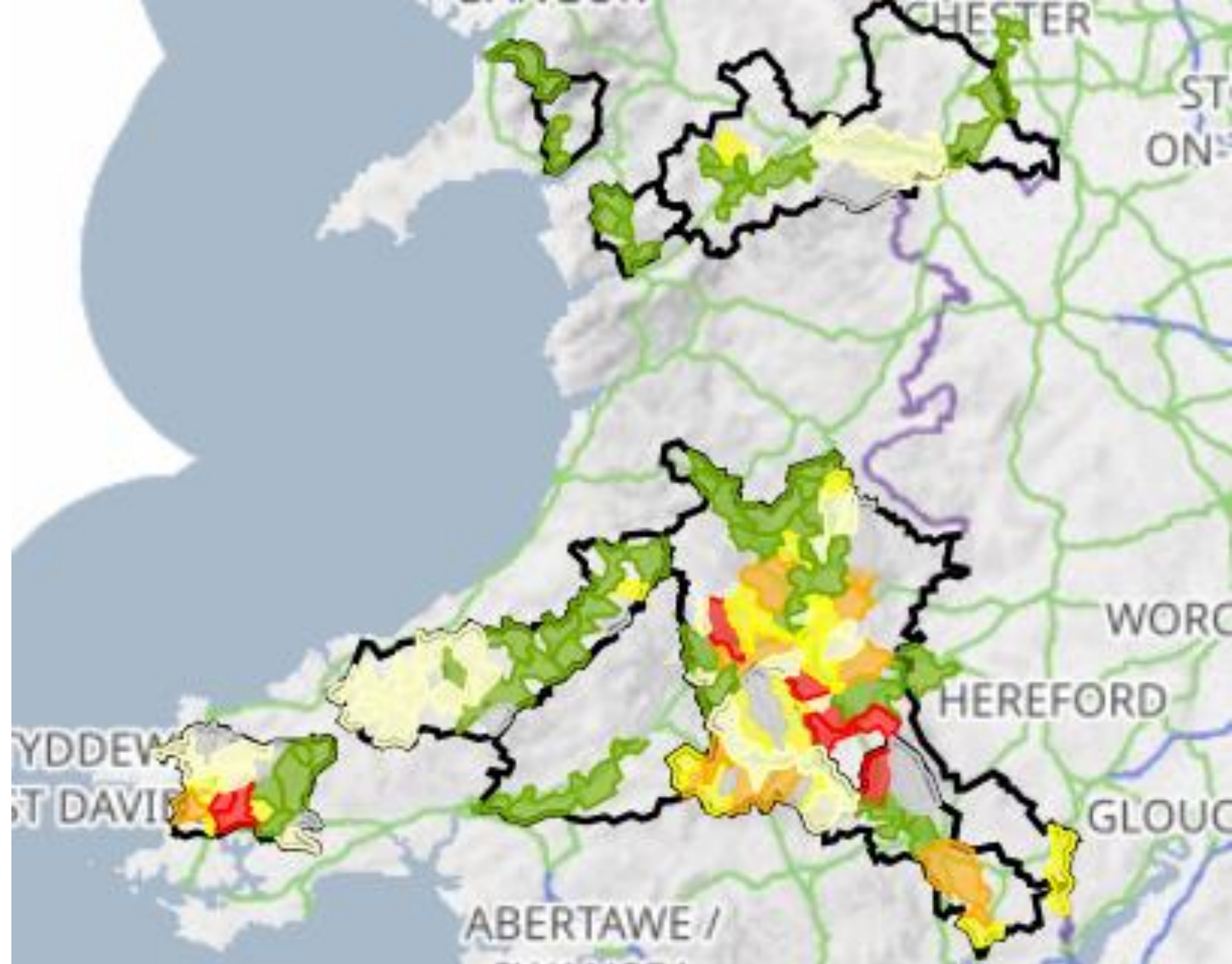
- Agree a Nutrient Management Plan

Prif Amcanion

- Cuomo ar Gynllun Rheoli Maetholion
 - Datblygiad niwtral maetholion

Primary Objectives

- Agree a Nutrient Management Plan
 - Nutrient Neutral development

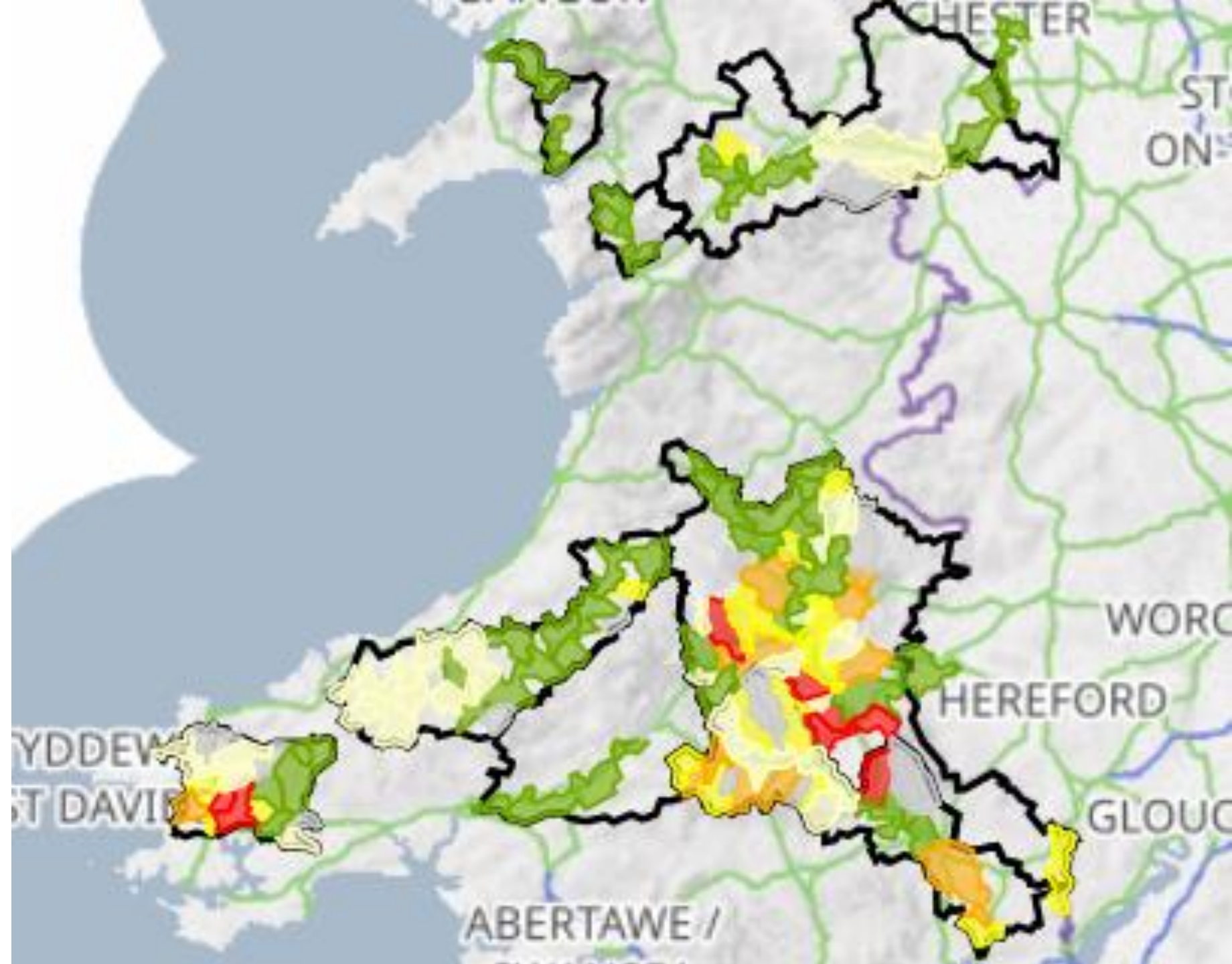


Prif Amcanion

- Cuomo ar Gynllun Rheoli Maetholion
 - Datblygiad niwtral maetholion
 - Sicrhau cydymffurfiaeth â'r afon

Primary Objectives

- Agree a Nutrient Management Plan
 - Nutrient Neutral development
 - Ensure compliance of the river



Prif Amcanion

- Cuomo ar Gynllun Rheoli Maetholion
 - Datblygiad niwtral maetholion
 - Sicrhau cydymffurfiaeth â'r afon
- Gweithredu'r Cynllun

Primary Objectives

- Agree a Nutrient Management Plan
 - Nutrient Neutral development
 - Ensure compliance of the river
- Implement the Plan

Prif Amcanion

- Cuomo ar Gynllun Rheoli Maetholion
 - Datblygiad niwtral maetholion
 - Sicrhau cydymffurfiaeth â'r afon
- Gweithredu'r Cynllun
- Adolygu ac Addasu

Primary Objectives

- Agree a Nutrient Management Plan
 - Nutrient Neutral development
 - Ensure compliance of the river
- Implement the Plan
- Review and Adapt

Dangosyddion llwyddiant

What does success
look like?

Dangosyddion llwyddiant

- Cytunir ar y cynllun, a'i weithredu

What does success look like?

- Plan is agreed, measures are implemented

Dangosyddion llwyddiant

- Cytunir ar y cynllun, a'i weithredu
- Atebolrwydd am weithredoedd o dan 'gyfran deg'

What does success look like?

- Plan is agreed, measures are implemented
- Accountability for actions under 'fair share'

Dangosyddion llwyddiant

- Cytunir ar y cynllun, a'i weithredu
- Atebolrwydd am weithredoedd o dan 'gyfran deg'
- Mesurau yn cael eu gweithredu'n effeithlon ac mewn fordd economaidd

What does success look like?

- Plan is agreed, measures are implemented
- Accountability for actions under 'fair share'
- Measures are implemented efficiently and economically

Dangosyddion llwyddiant

- Cytunir ar y cynllun, a'i weithredu
- Atebolrwydd am weithredoedd o dan 'gyfran deg'
- Mesurau yn cael eu gweithredu'n effeithlon ac mewn fordd economaidd
- Mesurau ataliol yn cael eu gweithredu

What does success look like?

- Plan is agreed, measures are implemented
- Accountability for actions under 'fair share'
- Measures are implemented Efficiently and economically
- Preventative measures implemented

Dangosyddion llwyddiant

- Cytunir ar y cynllun, a'i weithredu
- Atebolrwydd am weithredoedd o dan 'gyfran deg'
- Mesurau yn cael eu gweithredu'n effeithlon ac mewn fordd economaidd
- Mesurau ataliol yn cael eu gweithredu
- Afonydd iach

What does success look like?

- Plan is agreed, measures are implemented
- Accountability for actions under 'fair share'
- Measures are implemented Efficiently and economically
- Preventative measures implemented
- Healthy rivers

Pa waith sydd wedi'i
wneud?

What work has been done?

Pa waith sydd wedi'i wneud?

- Dealltwriaeth ddeddfwriaethol
- Dadansoddi tystiolaeth amgylcheddol
- CNC
 - Adroddiadau cydymffurfio
 - Tudalen we
- Awdurdodau Lleol
 - Ffurio'r Bwrdd, cyfarfodydd GCT, Grŵp Rhanddeiliaid
 - Dyraniadau tai, digwyddiadau ymwybyddiaeth
 - Opsiynau lliniaru
 - Adnoddau gwefan: Cyfrifiannell Gorllewin Cymru, dogfennau cyfarwyddyd
 - Templed CRhM, CG
- Llywodraeth Cymru
 - Copaon Ff Cynllun Gweithredu ar yr Afon
 - Strwythur llywodraethu, rolau newydd
 - Cyllid
 - Cyfrifiannell Cymru Gyfan
 - Uniondeb Uchel Masnachu Maetholion
- DCWW
 - Dosraniad ffynhonnellau
 - Buddsoddi Asedau
- Amaethyddiaeth

What work has been done?

- Legislative understanding
- Environmental evidence analysis
- NRW
 - Compliance reports
 - Webpage
- Local Authorities
 - Board formation, TAG meetings, Stakeholder Group
 - Housing allocations, awareness events
 - Mitigation options
 - Website resources: West Wales calculator, guidance documents
 - NMP template, ToR
- Welsh Government
 - P Summits, River Action Plan
 - Governance structure, new roles
 - Funding
 - All-Wales Calculator
 - High integrity Nutrient Trading
- DCWW
 - Source apportionment
 - Asset Investment
- Agriculture

Pa waith sydd wedi'i wneud? What work has been done?



Cyfoeth Naturiol Cymru
Natural Resources Wales

Haflon > Tystiolaeth a data > Ymchwil ac adroddiadau > Adroddiadau Dŵr

Asesiad Cydymffurfiaeth Ardaloedd Cadwraeth Arbennig Afonydd Cymru yn erbyn Targedau Ffosfforws

Mae newidiadau i ganllawiau'r Cyd-bwyllgor Cadwraeth Natur wedi golygu ein bod yn adolygu'r amcanion cadwraeth ar gyfer Ardaloedd Cadwraeth Arbennig (ACAu) afonol yng Nghymru.

Mae targedau ffosfforws wedi cael eu tynhau yn sylweddol. Rydym wrthi'n diwygio Cynlluniau Rheoli Craidd ein ACAu dŵr croys fel eu bod yn ymgorffori targedau newydd.

Mae'r adroddiad hwn yn asesu cydymffurfiaeth ô'r targedau ffosfforws diwygiedig ar gyfer ACAu afonol Cymru.

Cafoedd data crynodiadau ffosfforws eu tynnu o gronfa ddata ansawdd dŵr CNC am gyfnod o dair blynedd, o fis Ionawr 2017 i fis Rhagfyr 2019 ar gyfer pob pwynt sampl o fewn cyrff dŵr yn y naw ACA a ddynodwyd ar gyfer un neu fwy o nodweddion afonydd. Y rhain oedd:

- Afon Eden – Cors Goch Trawsfynydd
- Afon Gwyrfai a Llyn Cwellyn
- Afon Teifi
- Afon Tywi
- Afonydd Cleddau
- Coetiroedd derw Meirionnydd a Safleoedd Ystlumod (Afon Glaslyn)
- Afon Dyfrdwy a Llyn Bala
- Afon Wysg
- Afon Gwy

Cafoedd pob afon ei rhannu'n gyrrff dŵr (rhannau o afonydd). Roedd 125 corff dŵr i gyd o fewn y cwmpas. Cynhaliwyd proses sicrhau ansawdd drwyddi ar y data.

Cafoedd 107 o gyrrff dŵr eu hasesu a phasiodd 39% ohonynt y targedau newydd a methodd 61% ohonynt. Roedd y rhan fwyaf o'r gyrrff dŵr a fethodd â chyrraedd y targedau yng Nghanolbarth a De Cymru.

Dod o hyd i dargedau ffosfforws wedi'u diweddarau ar gyfer 2022

Argymhellion

Mae'r adroddiad yn nodi nifer o atebion ac argymhellion i fynd i'r afael â methiannau ffosfforws yn ein hafonydd gwarchoddedig. Drwy weithio gyda Llywodraeth Cymru a rhanddeiliaid, byddwn yn ceisio mynd i'r afael â'r rhain er mwyn gwella ansawdd ein hafonydd.

Lawrwythiadau dogfennau cysylltiedig



Compliance Assessment Of Welsh
SACs Against Phosphorus Targets PDF
[3.6 MB]



SAC Phosphorus Assessment Data
EXCEL [138.4 KB]

Home > Evidence and data > Research and reports > Water reports

Compliance Assessment of Welsh River SACs Against Phosphorus Targets

Changes to guidance from the Joint Nature Conservation Committee have led us to review the conservation objectives for river Special Areas of Conservation (SACs) in Wales.

Phosphorus targets have been substantially tightened. We are in the process of amending our freshwater SAC Core Management Plans to incorporate the new targets.

This report assesses compliance with the revised phosphorus targets for Welsh river SACs.

Phosphorus concentration data were extracted from the NRW water quality database for a three-year period from January 2017 to December 2019 for all sample points within water bodies in the nine SACs designated for one or more river features. These were:

- Afon Eden – Cors Goch Trawsfynydd
- Afon Gwyrfai a Llyn Cwellyn
- Afon Teifi
- Afon Tywi
- Afonydd Cleddau
- Meirionnydd Oakwoods and Bat Sites (the Afon Glaslyn)
- River Dee & Bala Lake
- River Usk
- River Wye

Each river was divided into water bodies (river sections). In total, 125 water bodies were in scope. A thorough quality assurance process was carried out on the data.

107 water bodies were assessed, 39% passed the new targets and 61% failed. Most failing water bodies were in mid and south Wales.

Find updated phosphorus targets for 2022

Recommendations

The report identifies a number of responses and recommendations to tackle phosphorus failures in our protected rivers. Working with Welsh Government and stakeholders, we will seek to address these to improve the quality of our rivers.

Related document downloads



Compliance Assessment Of Welsh
SACs Against Phosphorus Targets PDF
[3.6 MB]



SAC Phosphorus Assessment Data
EXCEL [138.4 KB]

Explore more

Also in this section

River basin management plans

Annual performance report for Dŵr Cymru
(Welsh Water)

Annual performance reports for Haflon Dyfrdwy

[More](#)

Pa waith sydd wedi'i wneud?

- **Awdurdodau Lleol**
 - Ffurio'r Bwrdd, cyfarfodydd GCT, Grŵp Rhanddeiliaid
 - Dyraniadau tai, digwyddiadau ymwybyddiaeth
 - Opsiynau lliniaru
 - Adnoddau gwefan: Cyfrifiannell Gorllewin Cymru, dogfennau cyfarwyddyd
 - Templed CRhM, CG

What work has been done?

- **Local Authorities**
 - Board formation, TAG meetings, Stakeholder Group
 - Housing allocations awareness events
 - Mitigation options
 - Website resources: West Wales calculator, guidance documents
 - NMP template, ToR

Pa waith sydd wedi'i
wneud?

What work has been
done?



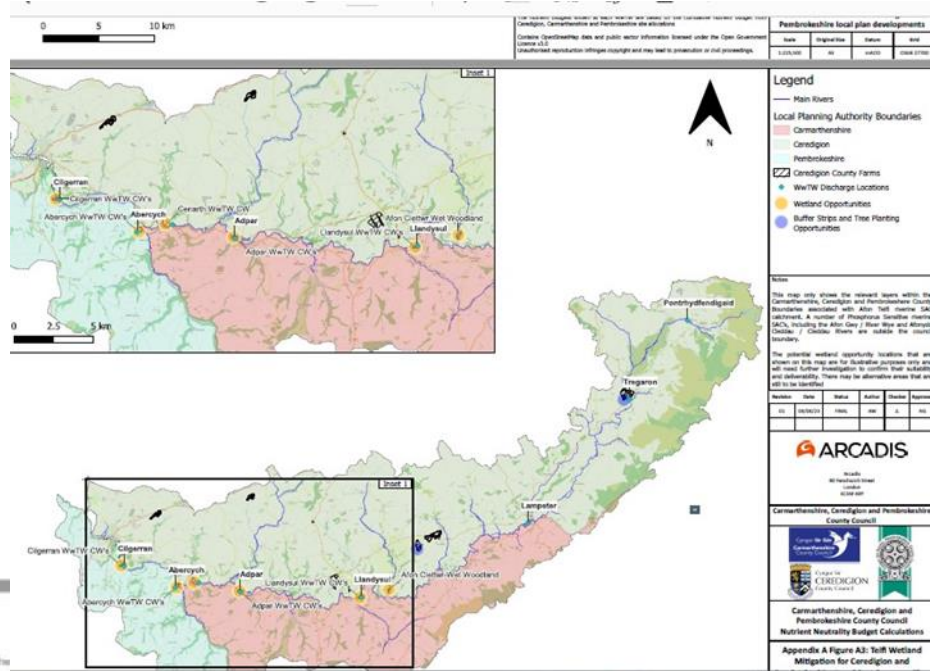
Cyngor Sir
CEREDIGION
County Council

West Wales Nutrient Budget Calculator

a tool for assessing the nutrient loading from a
development to a European designated site.

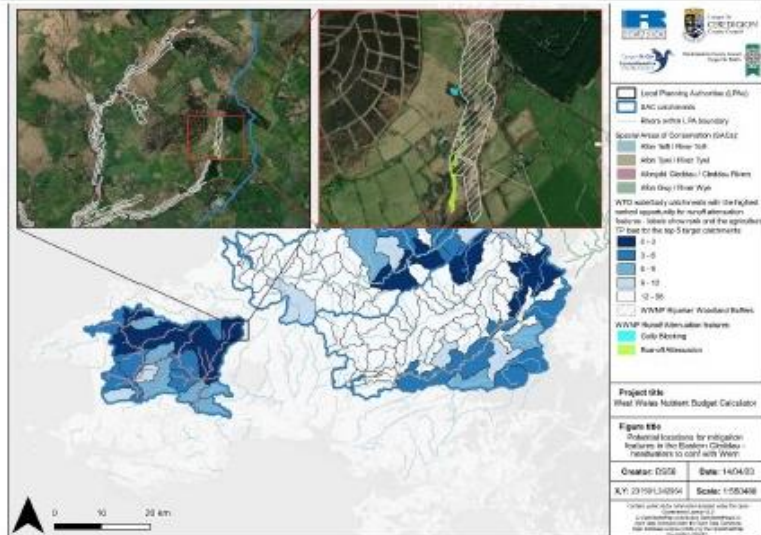


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Nutrient Budget Calculator Guidance | Report for Carmarthenshire

Figure 5-9 Potential locations of mitigation features within the Eastern Cleddau target catchment



ADOLYGIAD TECHNEGOL Y CYFRIFIANNELL CYFRIFO MAETHOLION

Adolygiad o'r dull o gyfrifo symiau ffosfforws yn Sir Gaerfyrddin
 Adroddiad ar gyfer: Cyngor Sir Gaerfyrddin
 Cyf. 7719844

ADOLY OPSIYN MAETHOLION

Arweiniad i'r ddatblygiad i'w defnyddio

Adroddiad i: Gyngor Sir Gaerfyrddin
 Cyf. 7719844

Ricardo ref. ED15472100 Issue: 1 27/06/2022

ARWEINIAD CYFRIFO

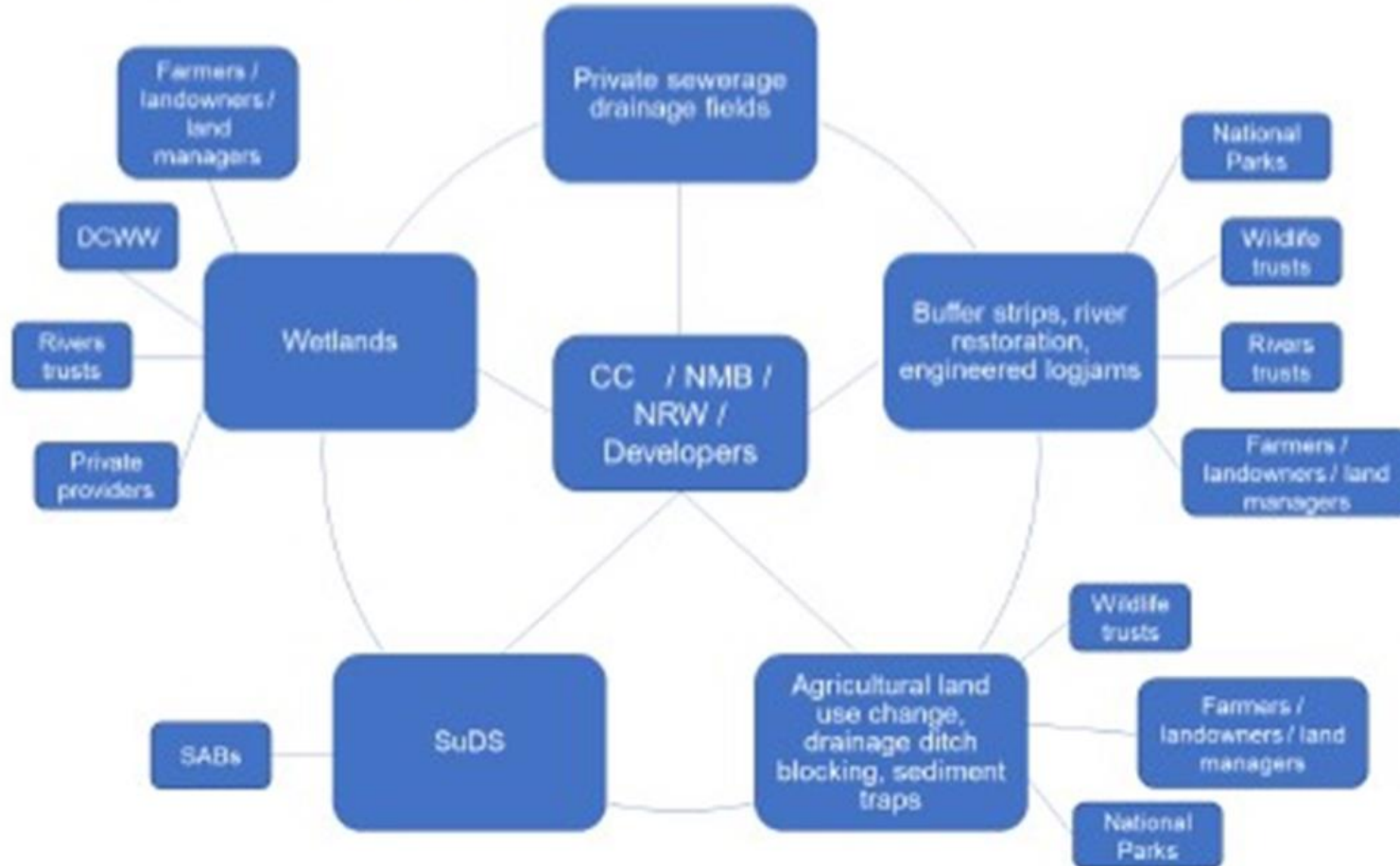
Arweiniad ar ddatblygiad

Adroddiad i: Gyngor Sir Gaerfyrddin
 Cyf. 7719844

Ricardo cyf. ED15472100 Rhifyn: 1 23/06/2022

Pa waith sydd wedi'i wneud?

What work has been done?



Pa waith sydd wedi'i wneud?

What work has been done?

| New development options | | | | | | | | | | | | | | |
|-------------------------|-------------------------------------|-----------------|-----------------------------|---------------------|-----------------------------|-------------------------------------|-----------------------|----------------------|--------------------|--------------------|---------------|-------------|--------------------------|--|
| Planning Application No | Development Contribution to Failure | Mitigation Type | Catchment Solution or Site | Location (NGR) | P removal potential (kg/yr) | Enhancement (kg/yr) | Lead Delivery Partner | Indicative cost (£k) | Funding Mechanism | Duration timescale | Delivery Date | Constraints | Maintenance requirements | Additional benefits (i.e. biodiversity, carbon credits etc.) |
| New development options | | | | | | | | | | | | | | |
| Mitigation Type | Catchment Solution or Site | Location (NGR) | P removal potential (kg/yr) | Enhancement (kg/yr) | Planning Application No | Development Contribution to Failure | Lead Delivery Partner | Indicative cost (£k) | Funding Mechanism | Duration timescale | Delivery Date | Constraints | Maintenance requirements | Additional benefits (i.e. biodiversity, carbon credits etc.) |
| Wetland | Catchment | NGR | 100 | 20 | x2345 | 5 | CCC | 250 | Infrastructure Lev | 18months | 2028 | | | |
| | | | 95 | | x2346 | | 20 | | | | | | | |

| Sector Contribution to Failure (kg/yr) | Mitigation Type | Description of Solution | Location - individual sites to be given NGR, catchment approaches to be given relevant waterbodies benefitting | P removal potential (kg/yr) | Lead Delivery Partner | Indicative cost (£k) | Funding Mechanism | Delivery Duration | Delivery Date | Constraints | Maintenance requirements | Additional benefits (i.e. biodiversity, carbon credits etc.) |
|--|------------------|-------------------------|--|-----------------------------|-----------------------|----------------------|-------------------|-------------------|---------------|-------------|--------------------------|--|
| 50 | WWTW Improvement | Site Name WWTW | | 2 | DCWW | (from NEP) | NEP | 2 years | 2027 | | Funded through DCWW BP | |

| SAC Compliance by Sector | | | | | | | | | | | | | | |
|----------------------------|--|----------------------|---------------------------------------|--|-----------------------------|-----------------------|----------------------|-------------------|-------------------|---------------|-------------|--------------------------|--|--|
| Sector | Sector Contribution to Failure (kg/yr) | Mitigation Type | Description of Solution | Location - individual sites to be given NGR, catchment approaches to be given relevant waterbodies benefitting | P removal potential (kg/yr) | Lead Delivery Partner | Indicative cost (£k) | Funding Mechanism | Delivery Duration | Delivery Date | Constraints | Maintenance requirements | Additional benefits (i.e. biodiversity, carbon credits etc.) | |
| e.g. Rural Land Management | 50 | Farm Management Plan | Implementation of farm visit, farm ma | Implement by WB, aiming to deliver across | 2 | NRW LIFE | (to be include LIFE | | 2 years | 2027 | | | | |

Pa waith sydd wedi'i wneud?

What work has been done?



Llywodraeth Cymru
Welsh Government

Llywodraeth Cymru

- Copaon P, Cynllun Gweithredu ar yr Afon
- Strwythur llywodraethu, rolau newydd
- Cyllid
- Cyfrifiannell Cymru Gyfan
- Uniondeb Uchel Masnachu Nutrient

Welsh Government

- P Summits, River Action Plan
- Governance structure, new roles
- Funding
- All-Wales Calculator
- High integrity Nutrient Trading

Pa waith sydd wedi'i
wneud?

What work has been done?



Dŵr Cymru
Welsh Water

Dŵr Cymru Welsh Water

- Dealltwriaeth ddeddfwriaethol (SAGIS)
- Dadansoddi tystiolaeth amgylcheddol

Dŵr Cymru Welsh Water

- Source apportionment (SAGIS)
- Asset Investment

Ffynonellau ormodedd o Ffosfforws - Source of excess Phosphorus

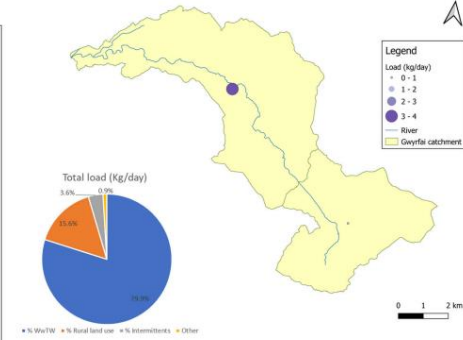
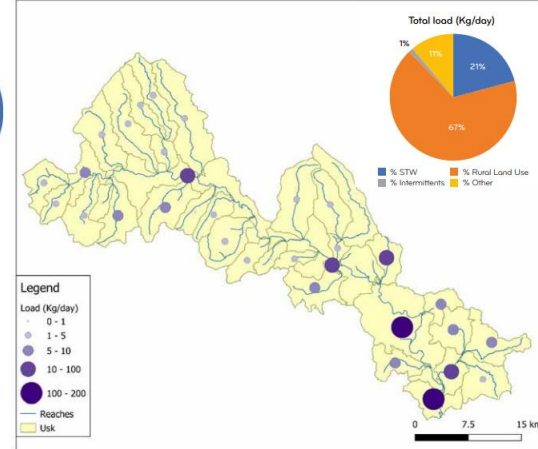
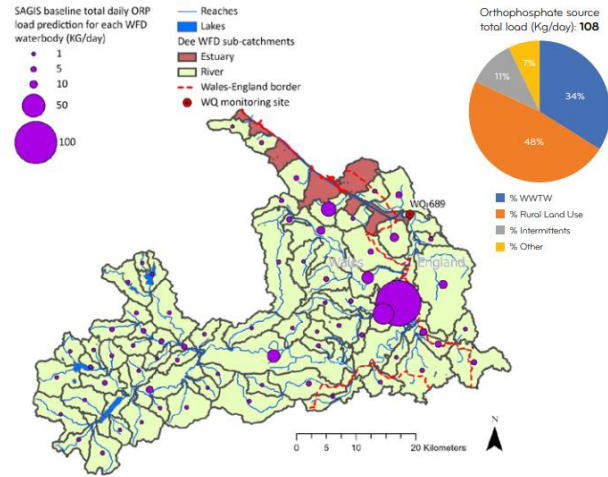


Figure 2 - Phosphorus apportionment by source at the furthest downstream point on the Afon Gwyrfa. Note that the 'Other' category is comprised of the estimated contribution from diffuse sources of urban, industry and septic tanks.

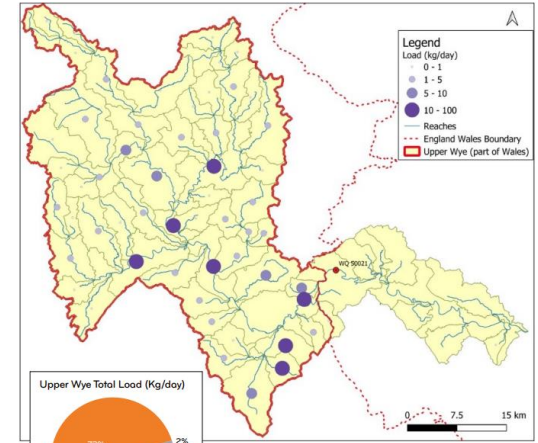
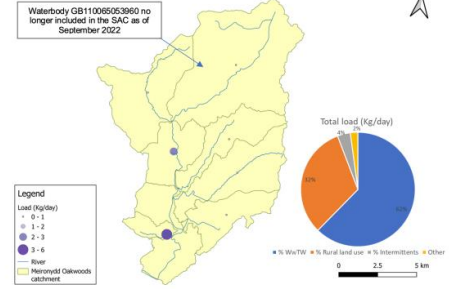
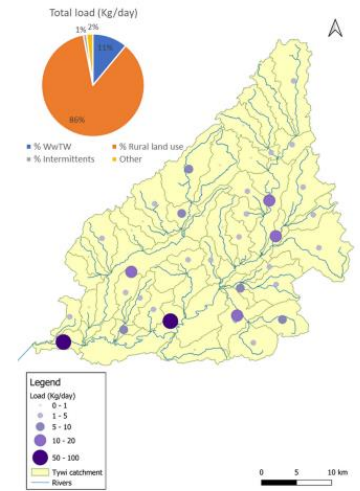
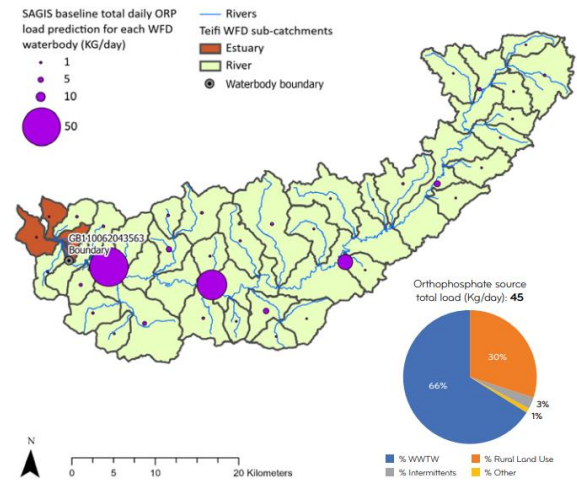
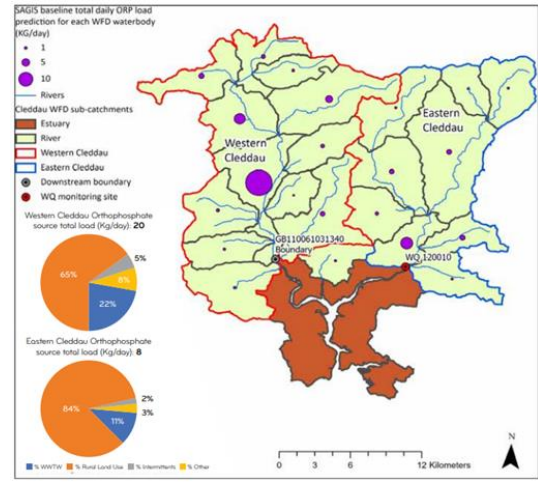


Figure 2 - Phosphorus apportionment by source at the furthest downstream point on the upper River Wye (in Wales). Note - other category is comprised of estimated contribution from diffuse sources of urban, industry and septic tanks.

2) In the model for the upper River Wye SAC the following criteria have been used to characterise model variability/trends:
 - Good: Where the difference is <0.005 mg/l between observed and simulated values.
 - Marginally: Where there is a difference of <0.020 mg/l between observed and simulated values for the difference is not statistically significant for the number of samples <10.
 - Poor: Where there is a difference of >0.020 mg/l between observed and simulated values and the difference is statistically significant.



SAC Overview
 Tywi final version following quality assurance by NRW



Pa waith sydd wedi'i wneud?

Amaethyddiaeth

- Gwell offer mesur amaethyddol
- Datblygiadau technolegol
- Economi gylchol
- Llenwi bylchau rheoleiddio
- Ffermio adfywiol
- Cadwyni cyflenwi



What work has been done?

Agriculture

- Better agricultural measurement tools
- Technological advances
- Circular economy
- Fill in regulatory gaps
- Regenerative farming
- Supply chains



Pa waith sydd wedi'i wneud?

- Dealltwriaeth ddeddfwriaethol
- Dadansoddi tystiolaeth amgylcheddol
- CNC
 - Adroddiadau cydymffurfio
 - Tudalen we
- Awdurdodau Lleol
 - Ffurio'r Bwrdd, cyfarfodydd GCT, Grŵp Rhanddeiliaid
 - Dyraniadau tai, digwyddiadau ymwybyddiaeth
 - Opsiynau lliniaru
 - Adnoddau gwefan: Cyfrifiannell Gorllewin Cymru, dogfennau cyfarwyddyd
 - Templed CRhM, CG
- Llywodraeth Cymru
 - Copaon Ff Cynllun Gweithredu ar yr Afon
 - Strwythur llywodraethu, rolau newydd
 - Cyllid
 - Cyfrifiannell Cymru Gyfan
 - Uniondeb Uchel Masnachu Maetholion
- DCWW
 - Dosraniad ffynhonnellau
 - Buddsoddi Asedau
- Amaethyddiaeth

What work has been done?

- Legislative understanding
- Environmental evidence analysis
- NRW
 - Compliance reports
 - Webpage
- Local Authorities
 - Board formation, TAG meetings, Stakeholder Group
 - Housing allocations, awareness events
 - Mitigation options
 - Website resources: West Wales calculator, guidance documents
 - NMP template, ToR
- Welsh Government
 - P Summits, River Action Plan
 - Governance structure, new roles
 - Funding
 - All-Wales Calculator
 - High integrity Nutrient Trading
- DCWW
 - Source apportionment
 - Asset Investment
- Agriculture

Rhwystrau i gynnydd

Obstacles to Progress

Rhwysterau i gynnydd

Y rhwysterau rydym yn eu hwynebu
nawr:

Obstacles to Progress

Obstacles we are facing **now:**

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu
nawr:

- Ffordd newydd o weithio

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working

Rhwysterau i gynnydd

Y rhwysterau rydym yn eu hwynebu
nawr:

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture

Rhwysterau i gynnydd

Y rhwysterau rydym yn eu hwynebu
nawr:

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture
- Accountability

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu **nawr:**

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture
- Accountability
- Enforcement

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu **nawr**:

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi
- Ydy'r gwersi wedi cael eu dysgu?

Obstacles to Progress

Obstacles we are facing **now**:

- A New way of working
- Activity capture
- Accountability
- Enforcement
- Have lessons been learnt?

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu **nawr:**

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi
- Ydy'r gwersi wedi cael eu dysgu?
- Systemau economaidd

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture
- Accountability
- Enforcement
- Have lessons been learnt?
- Economic systems

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu **nawr:**

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi
- Ydy'r gwersi wedi cael eu dysgu?
- Systemau economaidd
- Diffyg hyder mewn llinellau sylfaen amgylcheddol

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture
- Accountability
- Enforcement
- Have lessons been learnt?
- Economic systems
- Lack of confidence in environmental baselines

Rhwystrau i gynnydd

Y rhwystrau rydym yn eu hwynebu **nawr:**

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi
- Ydy'r gwersi wedi cael eu dysgu?
- Systemau economaidd
- Diffyg hyder mewn llinellau sylfaen amgylcheddol
- Monitro

Obstacles to Progress

Obstacles we are facing **now:**

- A New way of working
- Activity capture
- Accountability
- Enforcement
- Have lessons been learnt?
- Economic systems
- Lack of confidence in environmental baselines
- Monitoring

Rhwysterau i gynnydd

Y rhwysterau rydym yn eu hwynebu **nawr**:

- Ffordd newydd o weithio
- Dadansoddiad gweithgaredd
- Atebolrwydd
- Camau gorfodi
- Ydy'r gwersi wedi cael eu dysgu?
- Systemau economaidd
- Diffyg hyder mewn llinellau sylfaen amgylcheddol
- Monitro
- Cymru – data penodol

Obstacles to Progress

Obstacles we are facing **now**:

- A New way of working
- Activity capture
- Accountability
- Enforcement
- Have lessons been learnt?
- Economic systems
- Lack of confidence in environmental baselines
- Monitoring
- Wales – accurate data

Rhwysterau i gynnydd

Rhwysterau i gynnydd yn y **dyfodol**:

Obstacles to Progress

Obstacles to **future** progress:

Rhwystrau i gynnydd

Rhwystrau i gynnydd yn y **dyfodol**:

- Newid yn yr hinsawdd, dirywiad amgylcheddol, a phoblogaeth sy'n tyfu

Obstacles to Progress

Obstacles to **future** progress:

- Climate change, environmental degradation, and a growing population

Rhwysterau i gynnydd

Rhwysterau i gynnydd yn y **dyfodol**:

- Newid yn yr hinsawdd, dirywiad amgylcheddol, a phoblogaeth sy'n tyfu
- Rheoliadau halogion sy'n dod i'r amlwg

Obstacles to Progress

Obstacles to **future** progress:

- Climate change, environmental degradation, and a growing population
- Emerging contaminants

Rhwystrau i gynnydd

Rhwystrau i gynnydd yn y **dyfodol**:

- Newid yn yr hinsawdd, dirywiad amgylcheddol, a phoblogaeth sy'n tyfu
- Rheoliadau halogion sy'n dod i'r amlwg
- Polisi

Obstacles to Progress

Obstacles to **future** progress:

- Climate change, environmental degradation, and a growing population
- Emerging contaminants
- Policy

Anghenion Ymchwil

Research Needs

Anghenion Ymchwil

- Monitro

Research Needs

- Monitoring

Anghenion Ymchwil

Research Needs

- Monitro

- Monitoring



Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig
fforddiadwy ar gyfer ffynonellau pwynt a
gwasgaredig, Rhagfynegyddion
Deallusrwydd Artiffisial, Rhyngrwyd Pethau

Research Needs

- **Monitoring**— affordable automatic
sensors for point and diffuse sources, AI
Predictors, IoT

Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig fforddiadwy ar gyfer ffynonellau pwynt a gwasgaredig, Rhagfynegyddion Deallusrwydd Artiffisial, Rhyngrwyd Pethau
- **Ail- naturioleiddio Afonydd** – llwybr afon a cheuffosydd

Research Needs

- **Monitoring**– affordable automatic sensors for point and diffuse sources, AI Predictors, IoT
- **Re-naturalisation of rivers** – river path and culverts

Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig fforddiadwy ar gyfer ffynonellau pwynt a gwasgaredig, Rhagfynegyddion Deallusrwydd Artiffisial, Rhyngrwyd Pethau
- **Ail- naturioleiddio Afonydd** – llwybr afon a cheuffosydd
- **Lliniaru** – mesur gwelliant

Research Needs

- **Monitoring** – affordable automatic sensors for point and diffuse sources, AI Predictors, IoT
- **Re-naturalisation of rivers** – river path and culverts
- **Mitigation** – measuring benefit

Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig fforddiadwy ar gyfer ffynonellau pwynt a gwasgaredig, Rhagfynegyddion Deallusrwydd Artiffisial, Rhyngrwyd Pethau
- **Ail-naturioleiddio Afonydd** – llwybr afon a cheuffosydd
- **Lliniaru** – mesur gwelliant
- **Model defnydd tir amaethyddol ar gyfer Cymru** – ‘Farmscoper’, PLT, ACT

Research Needs

- **Monitoring** – affordable automatic sensors for point and diffuse sources, AI Predictors, IoT
- **Re-naturalisation of rivers** – river path and culverts
- **Mitigation** – measuring benefit
- **Agricultural land use model for Wales** – Farmscoper, PLT, ACT

Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig fforddiadwy ar gyfer ffynonellau pwynt a gwasgaredig, Rhagfynegyddion Deallusrwydd Artiffisial, Rhyngrwyd Pethau
- **Ail- naturioleiddio Afonydd** – llwybr afon a cheuffosydd
- **Lliniaru** – mesur gwelliant
- **Model defnydd tir amaethyddol ar gyfer Cymru** – ‘Farmscoper’, PLT, ACT
- **Fframwaith rheoleiddio** - Lliniaru ac Amaethyddiaeth

Research Needs

- **Monitoring** – affordable automatic sensors for point and diffuse sources, AI Predictors, IoT
- **Re-naturalisation of rivers** – river path and culverts
- **Mitigation** – measuring benefit
- **Agricultural land use model for Wales** – Farmscoper, PLT, ACT
- **Regulatory framework** – mitigation and agriculture

Anghenion Ymchwil

- **Monitro** - synwryddion awtomatig fforddiadwy ar gyfer ffynonellau pwynt a gwasgaredig, Rhagfynegyddion Deallusrwydd Artiffisial, Rhyngrwyd Pethau
- **Ail- naturioleiddio Afonydd** – Ilwybr afon a cheuffosydd
- **Lliniaru** – mesur gwelliant
- **Model defnydd tir amaethyddol ar gyfer Cymru** – ‘Farmscoper’, PLT, ACT
- **Fframwaith rheoleiddio** - Lliniaru ac Amaethyddiaeth
- **Arloesi technolegol** – Y&D, astudiaethau peilot

Research Needs

- **Monitoring**– affordable automatic sensors for point and diffuse sources, AI Predictors, IoT
- **Re-naturalisation of rivers** – river path and culverts
- **Mitigation** – measuring benefit
- **Agricultural land use model for Wales** – Farmscoper, PLT, ACT
- **Regulatory framework** – mitigation and agriculture
- **Technological innovation** – R&D, pilot studies

Ffyrdd newydd o weithio ar gyfer heriau newydd

- Beth yw BRM?
- Prif amcanion y BRM
- Pwy sy'n cymryd rhan?
- Dangosyddion llwyddiant
- Gwaith sydd wedi'i wneud hyd yn hyn
- Rhwystrau i gynnydd yn y dyfodol
- Ble gall ymchwil academaidd chwarae rhan?

New Ways of Working to Tackle new Challenges

- What are NMBs?
- Primary objectives of the NMBs
- Who is involved?
- What does success look like
- Work undertaken so far
- Obstacles to Future Progress
- Where can academic research play a part?



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