

# Penybont and District Community Council

**You are summoned to attend a Council meeting of the Penybont and District Community Council to be held on Tuesday 9<sup>th</sup> November 2021 online with Zoom.**

Geraint Evans  
Clerk to Community Council  
3<sup>rd</sup> November 2021

*Geraint Evans*

## **1. Apologies for Absence**

## **2. Declaration of interest:**

Reminder to members. A personal Interest is also a Prejudicial Interest because under the objective, public perception test (Para 12(1) of the Members' Code of Conduct) where you have a personal interest in any business of your authority you also have a prejudicial interest in that business if the interest is one which a member of the public with knowledge of the relevant facts would reasonably regard as so significant that it is likely to prejudice your judgement of the public interest. Forms available from the Clerk

## **3. Minutes**

To authorise the Chairman to sign minutes of the previous meeting of the Council held on the

- 14<sup>th</sup> September 2021

## **4. Clerk's update.**

- Speeds signs

## **5. County Councillors Report**

## **6. Planning:**

- Application Reference: 21/1807/FUL Grid Reference: E:311352 N: 263971  
Proposal: Change of use of existing Shepherd's Hut from residential use to holiday let accommodation Site Address: Shepherd's Hut At Tynwydd , Penybont, Llandrindod Wells, LD1 5TY
- 20/1808/RES Land to the south of A44 Penybont, application for reserved matters following the approval of P/2017/0497 for the creation of 5 dwellings. To review councils' comments of the 23/11/2020

## **7. Community Projects**

- Flooding at Ithon Terrace – see correspondence
- Penybont War Memorial maintenance

## **8. One Voice Wales**

## **9. Finance**

- Expenditure to authorise.

Penybont Community Hall	Hall hire, various dates from 2019 (Covid start)	£63.41
Royal British Legion	November Wreath	£20
One Voice Wales	Annual Subscription	£68

# Penybont and District Community Council

## 10. Correspondence

- **Flooding Meeting Notes**
- **Update relating to a new pump at Ithon Terr**
- **Letter from Mr Davies re Hendy Windfarm**
- **Letter from R.Evans AM**

## 11. Public Discussion Time<sup>1</sup>

## 12. Hendy Wind Farm (ongoing item agenda)

- **Date of next meeting: 11<sup>th</sup> January 2022, via Zoom.**

### **Public Attendance and Involvement at Community Council Meetings**

1. Members of the public are entitled to attend Community Council Meetings except when the Council has something of a confidential nature to discuss.
2. Members of the public have no automatic right to speak at Community Council Meetings
3. Penybont and District CC have allocated a space at the end of meetings when members of the Public are invited to raise matters for the Community Council to consider as items to be put on the Agenda for their next meeting.
4. Members of the public who bring other matters to the attention of the Community Council may be listened to at the discretion of the Chair.
5. Members of the public who are told that an item is not relevant to the work of the Council may be told to desist. Failure to desist could mean that the person is asked to leave. Failure to leave the Meeting could result in the Chair adjourning the Meeting and/or calling the Police.
6. The Chair may call upon members of the public who have specialist knowledge on an item being discussed to speak at any time during the Meeting.
7. A member of the public who wishes to speak about an item being discussed and who has something to say that might assist the Councillors may raise their hand to attract the attention of the Chair. The Chair has the discretion as to whether or not to ask the person to speak.
8. Minutes will record only the actions of the Council and Agenda items from the public that the Council have agreed to include on the next meeting's Agenda.
9. A certain informality has crept into our meetings and, while members of the Council would like this continue, it is important that we as a Council and that members of the public are clear about the terms of reference that apply to how the meetings may need to be conducted.

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<sup>1</sup> Standing Orders 2.15C

**Minutes of Ordinary Meeting of the Council held on Wednesday 14<sup>th</sup> September 2021 at Penybont Community Hall at 7.30pm.**

**PRESENT:** Cllrs D.Turner (Chair); A.Willemsen D.Lyall ; Cllr D.Baylis; J.Ingram: L.Watkins

**Apologies:** L.Lawrence

**Absent:**

**Others:** County Councillor M. Weale (mention only, Councillor left the meeting following his report)

**Declarations of Interest:** Nil

**PD/0091/21 Minutes**

To authorise the Chairman to sign minutes of the previous meetings of the Council held on the

- 14<sup>th</sup> July

**Resolved to accept: Proposed Cllr Lyall Unanimous**

**PD/0092/21 Clerk's update:**

- Speed Signs: No success was made to gain financial assistance towards the footings of the signs. A balance sheet was produced showing funds available from reserves to cover these costs of £2489.52.

**Proposed by Cllr J.Ingram to proceed, Unanimous**

- With the resumption of public meetings by councils in Wales, the Welsh Government introduced new legislation governing such meetings. (*Statutory Guidance made under Section 4 of the Local Government (Wales) Measures 2011*)
  1. Any councillor may attend the meeting remotely, but when speaking must be heard and seen and be able to see and hear other members attending the meeting.
  2. Facilities must also be available for the public as above.The council must therefore invest in technology to comply with this legislation.

- I. Broadband at the meeting place
- II. Projector and screen
- III. Computer with zoom
- IV. Camera/sound system.

The council were advised that until these measures were in place the council was not permitted to have public council meetings and must return to on-line meetings.

It was agreed to return to such meetings and for the council to investigate the costings to return to public meetings during its annual budget meeting on 11/1/22.

**PD/093/21 County Councillors Report**

- Gave further updates on the closure of Llanfihangel Rhydithon C.P. (Dolau School). New housing in the area is constantly being built and this is a persuasive argument to keep this valuable resource open.
- Penybont Railway Station, the station is an unstaffed request stop with one active platform and serves more than 1500 users per year and is a valuable resource to the local community. However, its access/exit

onto the A44 is situated on a blind corner. This is inherently dangerous, and a widening of the verge needs to be considered giving greater visibility. Support to write to Highways Powys was accepted and the clerk will contact Mr T Caine regarding this matter.

**PD/0094/21 Planning:**

- **Hendy Wind Farm: Application to discharge Condition 38A (Bat & Starling & Raptor Protection Plan). 21/1564/DIS.**  
The council felt that this did not represent an accurate study siting numbers of starlings at 30-50,000.  
Recent published figures by:  
Radnorshire Wildlife= 180,000  
RSPB = 500,000  
It was further noted that construction of the turbines would not begin until this report was prepared, and Powys Planning are not enforcing their conditions.  
The clerk will respond to this application and expect that Powys will ensure the monitoring program of mortality of wildlife when the turbines are operating is correctly done.
- **Statutory Pre-Application re Bryn Thomas, Penybont LD1 5SW**  
The council resolved to acknowledge receipt and make no further comments until sight of the plans. **Proposed Cllr Lyall Unanimous.**
- **Complaint Received.**  
Ty Pont, LD1 5TY, subject to planning conditions on 19/1425/Ful (20/0962/Ful having been withdrawn) the authorised tool shed is now being used as a residual property, Clerk to contact Planning office.

**PD/0095/21 Community Projects/Issues: Partially suspended during the public restrictions.**

- **Community Council web site: Heritage Grant.**  
This matter has now been completed and any comments to enhance its contents would be welcomed. There has been positive feedback from the Heritage Fund, particularly on the use of QR codes describing the walkers location.
- **Road markings at Llandegley**  
Following site meetings by the Chair and Mr T.Caine (PCC Highways) and full discussions at council, it is **Proposed** by Cllr Turner that no further signs or markings or removal of signs/markings are required at the site. Agreed by majority, Cllr Willemsen abstained. Clerk to inform PCC
- **Flooding of the Ithon Terrace**  
  
Cllr Turner reported that a further meeting with authorities is being held in the Community Hall on Friday 17<sup>th</sup> Sept.
- **My Life, My Wishes**  
Cllr J.Ingram brought to the councils attention an awareness campaign by NHS for individuals advanced care planning and 'end of life'. It was agreed that this should be published on the council web site.

**PD/0096/21 One Voice Wales**

Nothing additional to report

**PD/0097/21 Finance**

- Expenditure to authorise.

National Heritage	Refund of underspend grant	£326.00
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- HSBC Bank charges will now be applied to all town and community councils.

**Proposed to pay Cllr Ingram Unanimous**

**PD/0098/21 Correspondence.**

Nil

**PD/0099/21 Public Questions**

- Mrs J. Jenkins informed the council about the commitment and service by the mobile library throughout the pandemic, in reaching and supply books, particularly to those less able to go to them. The council supported all the high praise given and will write our appreciation to the staff on this matter.
- Mr Hulse raised an issue of rubbish/fly tipping behind the bus shelter in Llandegley despite the efforts of the villagers. He suggested a request be made that grass cutting behind this location be more frequent thus suggesting to individuals it was a cared for environment and not appropriate to leave their rubbish. Clerk to enquire.
- He supported the council's opinion on the Hendy report on wildlife and that from his observations, their figures are wildly inaccurate.
- The total lack of information and alternatives regarding the movement of AIL(Abnormal Indivisible wide Loads) going to Hendy Wind Farm requiring the sealing up of the local post box and the effect upon the post office delivery is unacceptable. *(This will form the contents of several issues to be raised with Powys Planning)*
- Raised the possibility of renting out the automated speed signs to other local communities thus assisting with the costs to our community.

**PD/000100/21 Hendy Wind Farm**

Issues raised to be brought to the attention of planning and planning enforcement: -

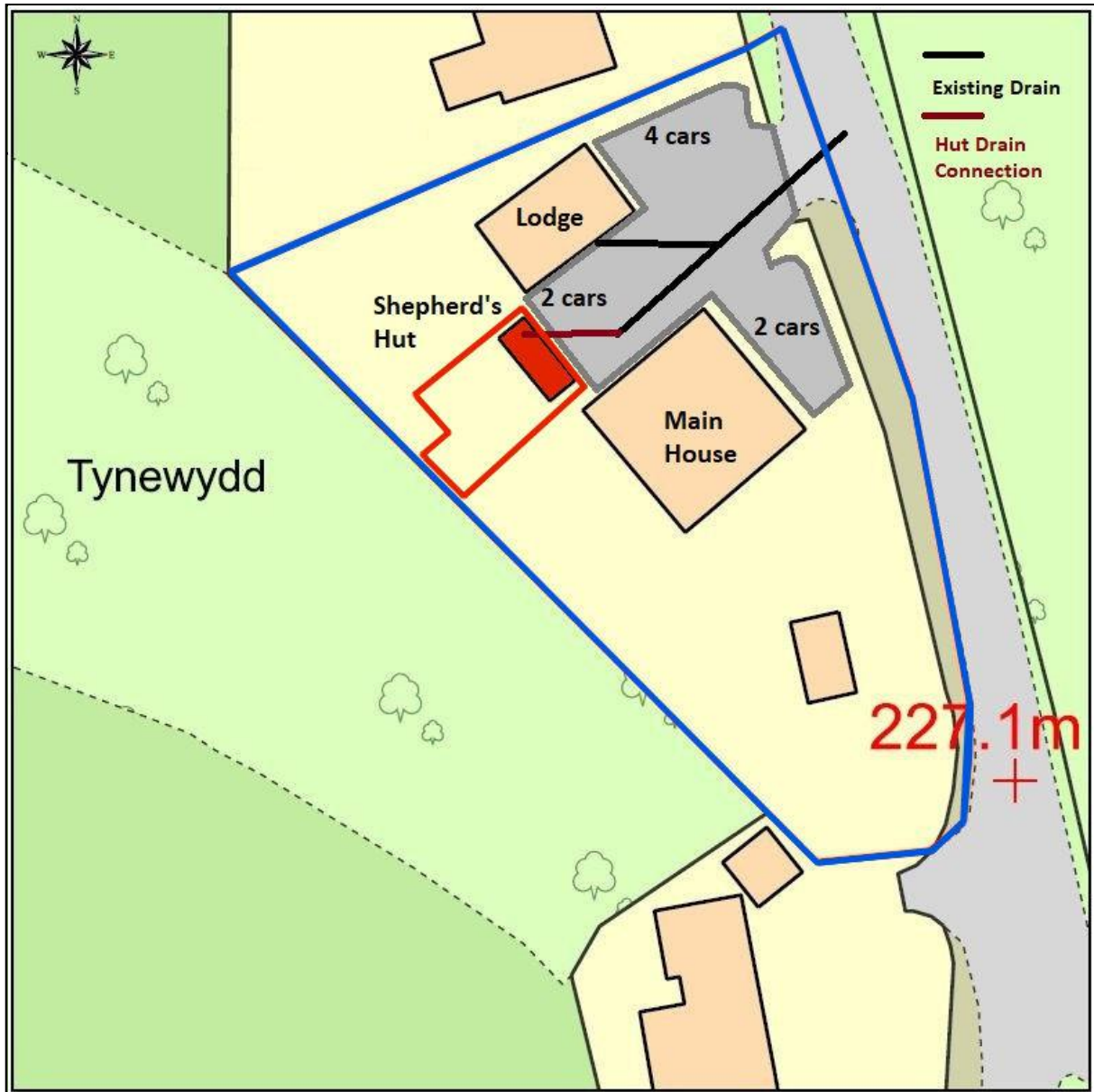
- Quality of report contained in 21/1564/DIS
- 19/1709/Ful: The biodiversity mitigation and measures detailed in section 6.2 and 6.3 of the approved Biodiversity Enhancement Plan produced by ADAS dated 08/04/2020 shall be fully implemented prior to the beneficial use of the access hereby approved and retained as such thereafter."

Condition 6 has not been discharged, the developer has not implemented the biodiversity mitigation and measures, and beneficial use of the access has taken place (i.e. delivery of the AILs). The developer is therefore clearly in breach of the planning condition, and Powys should take enforcement action.

- Continued closure of the 'Boat' and 'public rights of way' for maintenance, which was concluded 8 weeks ago.
  - Prohibitive sign to the public use of the rights of way, restricted to Hendy vehicles only.
  - The Section 106 agreement with Hendy Ltd of £17,500 for the upkeep of public rights of way, appear not to have been used.
  - 12<sup>th</sup> September at 1920hrs, 3 AIL, brought into Hendy Farm without consideration to residents nor contact with residents.
  - Despite the undertakings given, (*see reply from Principle Planning Officer, Holly Wilkinson, dated 4/9/20, ..... I can confirm that this will be raised with the developer to ensure compliance with the details as agreed and encourage effective communication between interested parties.*) This council nor its residents have never been informed/consulted.

**PD/0090/21 Meeting concluded at 9.30pm Next meeting**  
**Tuesday 9<sup>th</sup> November at 7.30pm via Zoom, access code to be published on the [November agenda](#).**

# Tynewydd Cwt Block Plan



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0m 5m 10m 15m 20m 25m 30m 35m 40m

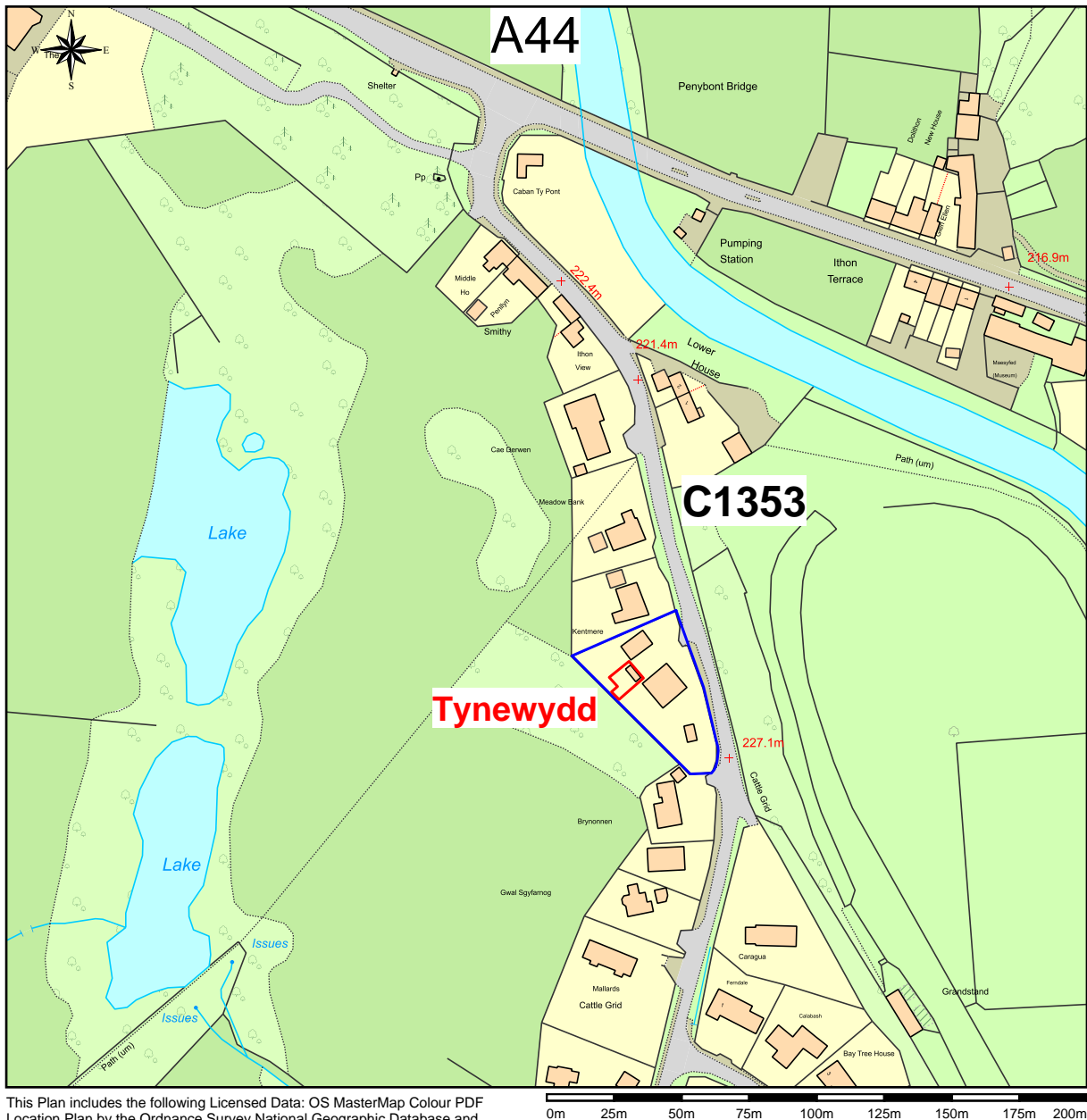
Scale: 1:500, paper size: A4



**emapsite™**  
plans

Prepared by: Dave Lunn, 04-10-2021

# Tynewydd Site Plan - revised



This Plan includes the following Licensed Data: OS MasterMap Colour PDF Location Plan by the Ordnance Survey National Geographic Database and incorporating surveyed revision available at the date of production. Reproduction in whole or in part is prohibited without the prior permission of Ordnance Survey. The representation of a road, track or path is no evidence of a right of way. The representation of features, as lines is no evidence of a property boundary. © Crown copyright and database rights, 2021. Ordnance Survey 0100031673

Scale: 1:2500, paper size: A4



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plans

Prepared by: Dave Lunn, 24-10-2021



**Notes of Flood Meeting on River Bank Adjacent to Ithon Terrace**  
**17<sup>th</sup> September 2021 at 2.00 p.m.**

1. **Attended by:** Martin Weale, County Councillor; Richard Davies, Dwr Cymru; Steve Smith, Powys County Council Land Management; Phil Harris, Powys County Council Highways; Nick Thompson, Natural Resources Wales; Scott Landford, Powys County Council; John and Jimmy Hughes, Dolswydd Farm; Tony Davies Powys County Council; Anne and Steven Williams, Residents Ithon Terrace; Chris Dunne, Resident Ithon Terrace; Rob Morgan, W.H. Atkins; Derek Turner, Chair Penybont Community Council; James Evans M.S. Brecon and Radnor + Assistant
  
2. **Welcome and Context of the Meeting:** Martin welcomed everyone to the meeting and in particular praised the work that Richard Davies put in to bring all of the agencies together in a spirit of working together to find a solution to the flooding problem albeit that each agency has separate responsibilities. All four agencies were represented – Dwr Cymru who have responsibilities for the sewerage; Powys County Council who have two responsibilities – water directed towards Ithon Terrace via the Highway and water coming off the land and in particular coming from Penybont Common; and finally Natural Resources Wales who have responsibilities for the Ithon River and its environs.
  
3. **Dwr Cymru:** Having already invested resources to put a sleeve into the sewer pipe to stop water entering the pipe and adding to the flooding problem, Richard Davies said that he had no new plans at the present time. He retained the commitment of Dwr Cymru to provide a pump when a yellow weather warning was issued. He agreed that he was considering further mitigation measures, such as door protectors, but unless he could measure the amount of sewerage coming out of the manhole during flooding it was difficult to prioritise further substantial funds to address the challenges with the pumping station. He acknowledged that the pumping station was unable to cope during heavy flooding. There are no plans however to improve the Pumping Station.

4. **Powys County Council:** Having consulted W.H. Atkins as consultants, Steve Smith said that a permanent pump was to be installed in the drive that would come on automatically when there was a risk to the cottages. This powerful pump would eject water from the Highway and the Common into the river beyond the bund. Steve acknowledged that in terms of this coming Autumn and early winter this would not be installed until January/February/March 2022, so he was planning to have the same mitigation measures in place to help with any early potential flooding. This would include sandbags and the utilisation of the tractor drawn pump. This pump is mobilised when an orange warning is issued. The difference between the different warnings by Powys and Dwr Cymru was explained by the fact that the Dwr Cymru pump has much further to come.
5. **Natural Resources Wales (NRW):** Nick explained that the work that NRW have done so far has been to ensure that the valves, that had been leaking water from the river back towards Ithon Terrace, are now working efficiently. They have also carried out a survey of the river shoals and identified that these have increase substantially in recent years. Nick has investigated the initial cost of removing the shoals and he estimates that this would be in the region of £350,000. With the number of properties that would be protected by this investment set against the challenges NRW face across Wales he does not foresee this one-off investment being secured in the foreseeable future. This investment would however simply bring the river back to an on-going relatively low cost, 5-year maintenance programme, as was in place between 1967 and 2002. Some of the costs are associated with the habitat that has been created and the fact that the shoals have within them noxious weeds such as Himalayan Balsam. Nick did agree to help with other mitigation measure similar to those outlined by Richard Davies.
6. **Residents:** There was praise for the work that Dwr Cymru have done up to now. The sleeve does appear to have made a difference to the rate at which the manhole fills. It is however the case that once it starts to overflow then the volume of sewerage and water that comes from the manhole is immense. The residents

have only ever turned the pump supplied by Dwr Cymru on at the point where it is at risk of overflowing. It will be difficult to satisfy Richard Davies's desire to measure the amount of discharge from the manhole when properties are at risk of flooding.

The plans that are to be put in place by Powys County Council were well received but there is concern about the period from now to early 2022.

Residents were pleased that there was, at least, an acknowledgement by NRW that the shoals are a problem. They raised in addition the failure this year to cut the growth on top of the shoals and on the banks of the river. This was put down to manpower shortages. Jimmy Hughes offered the fact that he was a recognised contractor with NRW. John Hughes pointed out that the river is no longer 'natural' as the course of the river was altered in 1967. John is particularly concerned that this created a pinch point down stream beyond the foot-bridge and this is a major contributor to flood. NRW agreed to look into this. Concern was raised by Anne that NRW have not maintained the vegetation on the banks and shoals and that this will be a further impediment to the flow of the river and increase the potential for flooding. NRW said that the failure to maintain the banks was due to a lack of resources. Steven said that he had obtained permission to remove the trees on the opposite bank to encourage the flood plain to work more effectively. There was discussion about the fence on this bank, which is the responsibility of the Management Group for the Dole. It would be better if the fence had strands of wire rather than the squared wire, as this encourages the debris from the river to stick to the wire and again impede flood water going onto the flood plain.

7. **Mental Health:** The disparity between the management of resources and the impact that flooding has on the lives of people affected by the potential for on-going flooding raised the particular impact that flooding has on personal mental health. This was brought home vividly by Chris when he described the trauma experienced by a 12-year-old girl within Ithon Terrace who's mental health is impacted every time it rains. There was agreement between the professional present and the residents

that there is insufficient consideration of this when priorities are being set. James Evans MS said that it would be important to lobby Welsh Assembly Ministers and in particular Lee Waters, Minister for Climate Change. James agreed that he would try to set up a meeting with Lee Waters that Martin Weale could attend. Derek agreed to encourage more lobbying by the Community Council.

8. **Conclusion:** It was agreed that the meeting was very constructive and it was good to see the Agencies working together to address the flooding at Ithon Terrace. While there is still much to be done to solve the problem, it was felt that the meeting was a constructive step in the right direction.

**From:** Melanie Hardwick <[melanie.hardwick@powys.gov.uk](mailto:melanie.hardwick@powys.gov.uk)>

**Sent:** 23 September 2021 12:13

**To:** JONES, Fay <[fay.jones.mp@parliament.uk](mailto:fay.jones.mp@parliament.uk)>; POULTON, Wendy <[wendy.poulton@parliament.uk](mailto:wendy.poulton@parliament.uk)>

**Cc:** Councillor Martin Weale <[cllr.martin.weale1@powys.gov.uk](mailto:cllr.martin.weale1@powys.gov.uk)>

**Subject:** Response from Cllr. Heulwen Hulme, Cabinet Member (Powys CC)

**Importance:** High

**Our ref:** MS635-2021

Dear Fay,

**Permanent pump to alleviate flooding in Penybont**

Further to your email dated 6<sup>th</sup> September 2021.

Powys County Council and residents of Ithon terrace held a joint meeting with NRW and Welsh Water on the 17<sup>th</sup> September to discuss the issues with flooding of the properties in the locality and the flooding of the A44 leading to the road having to be closed on various occasions in the past.

PCC explained to the residents that the authority has sought and been granted government funding for a flood prevention scheme at the site that will involve an automatic pumping station that will in times of heavy persistent rain pump the excess water from the highway drainage system over the earth bund and into the river, this will help to ensure that any water from highway drainage should no longer lead to the authority having to close the road and also ensure no water from highway drainage is flooding the properties. Due to the complex nature of these works Powys County Council have enlisted and specialist engineering consultancy (Atkins Design) who have progressed through the design phase of the schema and we are now at the stage where we are looking to secure the permits and permissions from NRW to allow the scheme to commence. It is anticipated that these works should be underway by the early part of next year with a view to completion by the middle of 2022.

Due to the timeframe for these works Powys County Council have agreed with the local residents that we would keep in place the temporary measures that we had in place last year, these being that sandbags will be supplied before the winter period, a local contractor will be on standby with a large volume high capacity tractor mounted pump should this be needed and the operatives of the local depot in Penybont will be briefed on what to do should they be needed on site.

Over recent years the local Highway Depot have built up a good relationship with residents and everybody is aware that if they should need to contact the local depot about any issues they are encouraged to do so.

Yours sincerely,



**County Councillor Heulwen Hulme**  
**Cabinet Portfolio Holder – Environment**

**Cc to: Cllr. Martin Weale, Local Member**

**From:** Penybont District <[penybont.district@hotmail.co.uk](mailto:penybont.district@hotmail.co.uk)>;  
**Received:** Fri Sep 24 2021 16:58:44 GMT+0100 (British Summer Time)  
**To:** North planning <[northplanning@cyfoethnaturiolcymru.gov.uk](mailto:northplanning@cyfoethnaturiolcymru.gov.uk)>; North Planning Mailbox Queue <[northplanning@cyfoethnaturiolcymru.gov.uk](mailto:northplanning@cyfoethnaturiolcymru.gov.uk)>; North Planning <[northplanning@cyfoethnaturiolcymru.gov.uk](mailto:northplanning@cyfoethnaturiolcymru.gov.uk)>;  
**Subject:** RE: Hendy Windfarm NRW:03592517

Dear Mr Davies

Following our last conversation below and comments made by Mrs Holly Wilkinson to the council (*Going forward, I would advise that colleagues in Countryside Services are continuing to monitor activity at the site in order to safeguard the public rights of way network and ensure compliance with the Access Management Plan as approved. 4/9/20*).

Penybont and Llandegley Community Council have just responded to an application from Hendy Ltd to discharge condition 38A Bat, Starling and Raptor environmental study, in which they stated the follow

*The findings of RSK ADAS Ltd estimated during their survey to be numbers of starlings at 30-50,000.*

*The council found this to be wildly inaccurate there being recent published figures by:-*

*Radnorshire Wildlife= 180,000*

*RSPB = 500,000*

*It was further noted that construction of the turbines would not begin until this report was prepared, and Powys Planning are not enforcing their conditions.*

*The clerk will respond to this application and expect that Powys will ensure the monitoring program of mortality of wildlife when the turbines are operating is correctly done.*

- The council have raised further issues, the Section 106 payment of £17500 paid for the upkeep of public rights of way appears not to being used effectively.
- The continued closure of the 'Boat' despite the conclusion of works some time ago and restrictions of the public rights of way.

Furthermore, the present issues on 19/1709/FUL would be a breach of planning condition 6, which states:

"The biodiversity mitigation and measures detailed in section 6.2 and 6.3 of the approved Biodiversity Enhancement Plan produced by ADAS dated 08/04/2020 shall be fully implemented prior to the beneficial use of the access hereby approved and retained as such thereafter."

Condition 6 has not been discharged, the developer has not implemented the biodiversity mitigation and measures, and beneficial use of the access has taken place (i.e. delivery of the AILs). The developer is therefore clearly in breach of the planning condition, and Powys should take enforcement action.

Are you in any position to inform my council to update your current position and monitoring in respect to Hendy Windfarm Ld. Planning requirements or comments on the matters above.

Yours sincerely

Geraint Evans

Clerk

Penybont & Llandegley Community Council.

**From:** Mid Planning <[MidPlanning@cyfoethnaturiolcymru.gov.uk](mailto:MidPlanning@cyfoethnaturiolcymru.gov.uk)>

**Sent:** 07 October 2021 14:07

**To:** Penybont District <[penybont.district@hotmail.co.uk](mailto:penybont.district@hotmail.co.uk)>

**Subject:** RE: Hendy Windfarm NRW:03592517

Dear Mr Evans,

We are always grateful to receive additional environmental information relating to the planning applications we have been consulted upon. The issues you have identified in relation to the starling numbers reported and public rights of way are matters for Powys County Council (PCC) to consider. The monitoring and enforcement of planning conditions is also the responsibility of PCC. We do not have regulatory or enforcement powers for discharging planning conditions, we are an advisor to the process only.

We have a specific remit in relation to responses to planning applications (further information can be found at [DPAS consultation checklist DRAFT March 2018 \(cyfoethnaturiolcymru\)](#)). All our previous responses to the discharge of condition applications are available on the PCC website. In relation to our monitoring of the site, we have investigated a number of potential pollution incidences. Colleagues have visited the site and provided advice with regards to the appropriate implementation of pollution prevention measures, and we do not currently have any on-going investigations relating to the site.

I trust the above is of assistance.

Yours Sincerely,

Daniel

Daniel Davies

[Uwch Cyngorydd Cynllunio Datblygu](#) / Senior Development Planning Advisor  
[Cyfoeth Naturiol Cymru](#) / Natural Resources Wales



**Cyfoeth  
Naturiol  
Cymru  
Natural  
Resources  
Wales**

Ein cyf/Our ref: CAS-164087-W3Z1  
Eich cyf/Your ref: 21/1564/DIS

Swyddfa Llywodraeth Cymru/Welsh Government  
Building,  
Rhodfa Padarn,  
Llanbadarn Fawr,  
Aberystwyth  
SY23 3UR

Ebost/Email: [midplanning@cyfoethnaturiolcymru.gov.uk](mailto:midplanning@cyfoethnaturiolcymru.gov.uk)

Powys County Hall  
Spa Road East  
Llandrindod Wells  
Powys  
LD1 5LG

15/09/2021

Annwyl / Dear Luke,

**BWRIAD / PROPOSAL: Discharge of condition 38A (Bat Protection Plan)**  
**LLEOLIAD / LOCATION: Hendy Wind Farm**

Thank you for consulting Natural Resources Wales (NRW) about the above, which was received on 23/08/2021.

**We have no objection to the proposed development as submitted and provide the following advice.**

We note the Bat Mitigation Plan, Hendy Wind Farm (ADAS, 30 July, 2021).

Condition 38 A states that "prior to the erection of turbines 1, 2, 3, 4, 6 and 7 an updated Protection Plan must be submitted to and approved in writing by the Local Planning Authority. The updated Protection Plan must include:

- I. The development of casualty risk models for bats; and
- II. Details of specifications for mitigation and reasonable avoidance measures in relation to bats and starlings and their raptors throughout the operational phases of the development."

In our view the submitted report is satisfactory in respect of the development of bat casualty risk model for bats. We also consider that proposed bat mitigation and reasonable avoidance measures are satisfactory. In these circumstances, we have no objection to the updated submission.

#### **Other Matters**

Our comments above only relate specifically to matters included on our checklist, Development Planning Advisory Service: Consultation Topics (September 2018), which is published on our website. We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.



**From:** [Tim.Donegani@gov.wales](mailto:Tim.Donegani@gov.wales) <[Tim.Donegani@gov.wales](mailto:Tim.Donegani@gov.wales)>

**Sent:** 14 October 2021 16:01

**To:** [penybont.district@hotmail.co.uk](mailto:penybont.district@hotmail.co.uk)

**Subject:** TO/RE/10334/21 - RE: Community Involvement-Provision of Council Meetings

Our reference: TO/RE/10334/21

Dear Geraint,

Thank you for your correspondence to Rebecca Evans AM, Minister for Finance and Local Government. I have been asked to reply.

I am grateful for your feedback regarding the capacity of the council to support hybrid meetings. The concerns around costs of new equipment and risks to digital exclusion are key reasons why the minimum requirement is that those in attendance can hear and be heard. This should be easier to support than requiring participants to have full aural and visual access.

However, we recognise councils will be starting from different places. The Minister has agreed to fund a three-year Digital Delivery Manager post, hosted within One Voice Wales to assist the sector with digital resources. One of their roles will be to advise the Minister on the digital capacity and capability needs of the sector – including meeting its statutory obligations. The Minister is keen to work with the sector, through the Digital Delivery Manager to understand the issues and consider options to resolve them.

For your information, a Briefing Note was issued through One Voice Wales for all Community and Town councils. I attach in case you have not previously received.

Multi location      Multi location  
meetings - LGE Act - (meetings - LGE Act - (

Kind Regards,

Tim Donegani

Tim Donegani

[Swyddog cymorth polisi partneriaethau a gweddnewid LG/](#) LG Transformation and Partnerships Policy Support Officer

[Llywodraeth Leol: Perfformiad a Phartneriaethau /](#) Local Government: Performance and Partnerships

[Grwp Addysg a Gwasanaethau Cyhoeddus/](#)Education and Public Services Group

[Llywodraeth Cymru /](#) Welsh Government

[Parc Business Rhydycar /](#) Rhydycar Business Park

[Merthyr Tydfil /](#) Merthyr Tydfil

CF48 1UZ

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[Hysbysiad preifatrwydd Llywodraeth Cymru /](#) [Welsh Government Privacy Notice](#)

## POWYS COUNTY COUNCIL

### SCHOOL STANDARDS AND ORGANISATION (WALES) ACT 2013

#### NOTICE OF PROPOSAL TO DISCONTINUE LLANFIHANGEL RHYDITHON COMMUNITY PRIMARY SCHOOL

Notice is hereby given in accordance with section 43 of the School Standards and Organisation (Wales) Act 2013 ("the Act") and the School Organisation Code 011/2018 ("the Code"), that Powys County Council of County Hall, Llandrindod Wells, Powys, LD1 5LG ("the Council"), having consulted such persons as required, proposes the following: -

- i. To discontinue Llanfihangel Rhydithon Community Primary School ("Llanfihangel Rhydithon C.P. School"), Dolau, Llandrindod Wells, Powys, LD1 5TW.

It is proposed to implement the proposal on 31<sup>st</sup> August 2022.

The school is currently maintained by Powys County Council.

Powys County Council undertook a period of consultation before deciding to publish this proposal. A consultation report containing a summary of the issues raised by consultees, the proposer's responses and the views of Estyn is available on the Council's website: <https://en.powys.gov.uk/article/10580/Llanfihangel-Rhydithon-C.P.-School>

#### Admissions

From 1<sup>st</sup> September 2022, pupils currently attending Llanfihangel Rhydithon C.P. School will be able to express a preference for an alternative school. The Council will comply with any such expressed preference subject to Section 86(3) of the School Standards and Framework Act 1998.

In future, any new pupils living in the area currently served by Llanfihangel Rhydithon C.P. School will be able to apply for a place in any school in accordance with the Council's Admissions Policy.

#### Details of nearest alternative schools

The nearest alternative schools for pupils currently attending Llanfihangel Rhydithon C.P. School would be as follows:

	School Type	Language Category	Admission Number <sup>1</sup>
<b>Crossgates C.P. School</b>	Community Primary	English medium	30
<b>Llanbister C.P. School</b>	Community Primary	English medium	7
<b>Ysgol Cefnlllys</b>	Community Primary	English medium	37
<b>Ysgol Trefonnen C. in W. Community School</b>	Voluntary Controlled Primary	Dual stream	28
<b>Knighton C. in W. School</b>	Voluntary Controlled Primary	English medium	34

#### Details of any other measures proposed to be taken to increase number of school places at the nearest alternative schools

The expectation is that the number of pupils transferring to each of the nearest alternative schools would be small, and therefore the impact on these schools would not be significant. Therefore, no measures are proposed to be taken to increase the number of school places available on consequence of the proposed discontinuance of Llanfihangel Rhydithon C.P. School.

<sup>1</sup> Powys Schools – Powys County Council Admission Arrangements and Information 2022/23

Alongside this proposal, the capacity of Llanbister C.P. School has increased from 45 to 73 following the addition of a third classroom, which provides additional school places at Llanbister C.P. School. The school's admission number as indicated above does not reflect this increase in capacity. This will be updated in future versions of the Council's Admission Arrangements and Information document.

### **Home-to-School Transport Arrangements**

Transport arrangements will be in accordance with the Council's Home-to-School Transport Policy.

### **Implementation**

The proposal will be implemented by Powys County Council.

### **Proposal to close a rural school**

The proposal to discontinue Llanfihangel Rhydithon C.P. School is considered the most appropriate response to the reasons for formulating the proposal, and are as follows:

- To address the issue of low pupil numbers
- To reduce the Council's overall surplus capacity in primary schools
- To realise a financial saving to the Council
- To enable pupils to attend larger schools, which would be better equipped to meet the requirements of the new curriculum
- To enable pupils to attend larger schools, which could provide a wider range of educational and extra-curricular opportunities
- To enable pupils to attend schools with better quality accommodation
- The proposal meets all of the Critical Success Factors

### **How to Object to this Notice**

Within a period of 28 days after the publication of this proposal, that is to say by **18<sup>th</sup> November 2021**, any person may object to the proposal.

Objections should be sent to Lynette Lovell, Director of Education, Powys County Council, Powys County Hall, Llandrindod Wells, Powys, LD1 5LG, or by e-mail to [school.organisation@powys.gov.uk](mailto:school.organisation@powys.gov.uk)

Powys County Council will publish a summary of any such objections made within the objection period (and not withdrawn in writing), together with the Council's observations thereon, within the period set out in the Code.

**Lynette Lovell,  
Director of Education  
For Powys County Council**

Dated this day 21<sup>st</sup> October 2021.

### **Explanatory Note:**

(This explanatory note does not form part of the Notice but is offered by way of explanation).

- The Council's intention is to close Llanfihangel Rhydithon C.P. School on the 31<sup>st</sup> August 2022.
- From 1<sup>st</sup> September 2022, pupils currently attending Llanfihangel Rhydithon C.P. School will be able to express a preference for an alternative school. The Council will comply with any such expressed preference subject to Section 86(3) of the School Standards and Framework Act 1998. In future, any new pupils living in the area currently served by Llanfihangel Rhydithon C.P. School will be able to apply for a place in any school in accordance with the Council's Admissions Policy.
- The rationale for this proposal was set out in a Consultation Document which was issued in April 2021. The Council subsequently published a Consultation Report which summarises the issues raised during the consultation period and provides the Council's response to these issues. The Consultation Report is available on the Council's website: <https://en.powys.gov.uk/article/10580/Llanfihangel-Rhydithon-C.P.-School>
- Transport arrangements would be made for pupils in accordance with the Council's Home-to-School Transport Policy.



**Powys County Council**  
**Update for Planning Agents on the**  
**Riverine SAC and Phosphorous / Phosphate position and actions**  
**October 1st 2021**

Dear all

I am writing to you to provide an update from Powys County Council regarding the ongoing river SAC phosphate issues on the rivers Usk and Wye. Clearly, this is causing significant concern amongst planning agents, this planning authority, BBNPA, developers, the agricultural sector, DCWW, builders and a host of other organisations and businesses, all the way down to members of the public who just want to build an extension to their home.

I'm sure many of you are aware of the reasons why we all find ourselves in this situation and some of the work being undertaken to find a resolution. Unfortunately, and very frustratingly for me, we appear to have a long way to go before a resolution is found. Listed below are some links to information provided by NRW about river SACs, together with information about the structures set in place to deal with this issue and, the work planning officers and myself have been carrying out. Also, attached to the email with this letter is a long and a short term summary analysis of the river Wye from NRW. I have included these to draw your attention to the conclusions at the end of each paper where, at the end of the short term summary it refers to only **one** reading being used from the Wye in 12 years' worth of data and, at the end of the long term summary, reference to phosphate levels already being in a state of betterment, since **1971**. These details are the reasons for my letter to NRW challenging compliance assessments and the rationale for tightening targets, as mentioned in the summary below.

Earlier this week the Wye nutrient management board met, as did the Welsh Government SAC oversight group. It was reported that source apportionment work has been carried out and, although I was hoping accurate results would be available by now, the results are only in draft form to show that around 30% of phosphates come from sewage treatment plants with around 60% from agriculture. The agriculture contribution is somewhat lower than that reported by certain commentators, and I understand some sectors of agriculture, particularly intensive poultry unit farmers, are already investigating ways of introducing phosphate stripping technology to deal with the problem. I'm pleased to see farmers taking a lead on this, particularly following the report at the bottom of page 69 of NRW's [compliance-assessment-of-welsh-sacs-against-phosphorus-targets-final-v10.pdf \(cyfoethnaturiol.cymru\)](#).

DCWW have been investigating ways of dealing with this issue and have reported they have 34 sewage treatment works that are suitable for phosphate stripping technology. A figure of around £79 million has been suggested as installation costs with running costs of around £1.5million annually. Alongside this, I have met with an organisation keen to install equipment to treatment works at significantly lower costs, less than £10k per works, very similar to technology already up and running in other parts of the world. I understand this organisation is currently engaging with DCWW and hope a solution, in one form or another, is implemented very soon. It should be noted that there is currently a shortage of the chemicals required for phosphate stripping technology here in the UK.

Carmarthen County Council have a phosphate calculator in draft format currently being considered by NRW. If this is accepted, then I understand the ambition is to have this available throughout Wales shortly.

### **Background**

- NRW's Compliance Assessments of Welsh River SACs Against Phosphorus Targets:

River Wye: <https://naturalresources.wales/evidence-and-data/research-and-reports/water-reports/river-wye-compliance-report/?lang=en>

Welsh River SACs: <https://naturalresources.wales/evidence-and-data/research-and-reports/water-reports/compliance-assessment-of-welsh-river-sacs-against-phosphorus-targets/?lang=en>

- Natural Resources Wales' planning advice (last updated 26th May 2021):

<https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/our-role-in-planning-and-development/advice-to-planning-authorities-for-planning-applications-affecting-phosphorus-sensitive-river-special-areas-of-conservation/?lang=en>

### **Structures**

The **SAC Phosphate Rivers – Planning Sub-group (Wales-wide)** group meets monthly to discuss, share advice and information and to co-ordinate actions across Wales from a land use planning perspective. It includes representatives from LPAs, WG, NRW, DCWW, Home Builders Federation and PINs.

A **SAC Management Oversight Group** sits above this and is chaired by Welsh Government.

**Nutrient Management Boards (NMBs)** – River Wye NMB has a 'live' Nutrient Management Plan setting out actions to improve water quality for the benefit of the SAC habitats. Other NMBs are in the process of being established across other SAC catchments in Wales.

### **Summary of Main Actions to date by Powys County Council**

- Professional Lead – Planning, Peter Morris - Currently chairs the Sub-Group (see actions below) and attends Oversight Group as the representative for Planning Officers Society Wales.
- Portfolio Holder for Planning, Cllr Iain McIntosh - wrote to WG ministers seeking additional investment in phosphate stripping technology. (Response attached separately).
- Portfolio Holder for Planning, Cllr Iain McIntosh has written to NRW challenging the compliance assessments and the rationale for tightening targets.
- Local Housing Authority has commissioned consultants (Wood plc) to provide specialist support in relation to bringing forward Council house-building projects within the Usk and Wye SAC catchments. Currently investigating potential solutions with relevant authorities to achieve nutrient neutrality / betterment to enable developments to progress.
- This authority is a member of the River Wye Nutrient Management Board (NMB) (and its supporting Technical Advisory Group).
- Solutions at planning application level – permissions granted outside public sewered areas granted where they comply with NRW's advice (as above link) and where they are screened / assessed as not having a "likely significant effect" (Habitats Regulations 2017 requirement) on the SAC. A small number of planning applications are currently suggesting betterment solutions where they propose to improve existing private systems as part of the new development (final

decisions to be made as subject to Appropriate Assessment and consultation with NRW, and potentially S106 agreement required). Grampian (subject to) conditions could be used where connecting to a public WWTWs where DCWW has planned improvements committed.

#### **Main Actions from SAC Phosphate Rivers – Planning Sub-group**

- WG is to develop guidance supplement on drainage (circular 008/2018) – due to start late 2021.
- NRW undertaking scoping project on nutrient offsetting and trading calculator project and will prepare Methodology Guidance. NRW is also collaborating with Carms CC who have appointed Ricardo to commence preparation of a calculator. The outcome of this work is to be shared across Wales.
- NRW clarifying permitting position for independent wetland treatment sites.
- NRW to make private system registrations data (subject to quality assurance checks) available on Datamap Wales. Existing dataset available on Lle.
- NRW clarifying permit position on sludge removal and disposal and whether or not this should be a material planning consideration. Could lead to the NRW planning advice being updated.
- All-Wales Counsel advice expected early Oct. LPAs to co-ordinate website advice and information following receipt.
- WG organising Habitats Regulations training for LPAs, to be delivered late 2021.
- DCWW is undertaking a source apportionment project. River Wye results expected shortly, but other results not expected until late 2021 /early 2022. Results will inform DCWW's future investment plans.
- DCWW asked to consider, without any commitment, the role of a trading system.
- All-Wales planning impacts report being collated for the Oversight Group.
- Cross-sector task and finish group being established to consider and review whether certain development types can be exempted for reasons of double-counting or 'additionality' (for example, premises where users already reside in a catchment). This action was agreed on 8<sup>th</sup> Sept. 21.
- Mons CC to take lead on looking at options for developing a nutrient management board for the Usk catchment (will involve relevant LPAs including BBNPA and PCC).

Finally, and somewhat ironically, I understand a worldwide shortage of phosphate has been reported. I hope entrepreneurs are currently investigating ways of resolving both issues at the same time and come up with a solution very soon.

Regards,



Cllr Iain McIntosh  
Cabinet Member for Housing,  
Planning & Economic Regeneration.

Powys County Council

Phone: 07870 655669

EMAIL: [cllr.iain.mcintosh@powys.gov.uk](mailto:cllr.iain.mcintosh@powys.gov.uk)

Ward: Yscir





Ein cyf/Our ref JJ/10490/21

Cllr Iain McIntosh  
Cabinet Member for Housing, Planning & Economic Regeneration  
Powys County Council

cllr.iain.mcintosh@powys.gov.uk

13 July 2021

Dear Iain,

Thank you for your e-mail of 22 June, regarding action the Welsh Government could take to help relieve the pause on some developments in Welsh riverine Special Areas of Conservation (SAC) catchments.

The issue of high phosphorus (P) levels in riverine SACs is particularly challenging. I appreciate that the publication of the evidence and the associate planning advice by Natural Resources Wales (NRW) has caused concern within local planning authorities (LPAs) and that the consequences of that advice, including in Powys, are far reaching.

As you note, Dŵr Cymru Welsh Water (DCWW) and NRW are currently undertaking modelling to apportion sources to pollutant levels. The work is expected to be completed in the autumn and will help to determine the most effective and sustainable solutions, particular to each catchment. Nature based solutions, such as wetlands, may prove effective in the long-term.

Before investing in P stripping technology in waste water treatment assets, it is vital to establish a strong evidence base to support their use. The technology is expensive (estimated £2-3 million per plant), and many of DCWW's waste water treatment assets serve populations of 1,000 people or less. Asset management is determined by DCWW's five year business plan. This is an independent process, agreed with Ofwat, the industry economic regulator.

NRW have recently established a Project Board to consider how to reduce P levels in SAC catchment. The work will include looking at short term solutions to relieve the pause on developments. A related workstream of the project is focusing on providing further advice and guidance to LPAs and applicants.

Canolfan Cyswllt Cyntaf / First Point of Contact Centre:  
0300 0604400

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[Correspondence.Julie.James@gov.Wales](mailto:Correspondence.Julie.James@gov.Wales)

Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

Local Authorities will be key to achieving the desired outcomes of the new Drainage and Wastewater Management Plans. The plans will help ensure water companies plan invest strategically and transparently for a wastewater and treatment network that is resilient and affordable in the long and short term. The plans will allow for greater collaboration, ensuring effective sharing of information between water companies and Local Authorities (and other stakeholders). It will provide the opportunity for identifying mutually beneficial schemes, including work, such as to reduce phosphorus levels in certain catchments, and maximise the value of investment through joint funding. Local Authorities will be able to link local development plans to effect the changes and improvements required in their area.

Yours sincerely,

A handwritten signature in blue ink that reads "Julie James". The signature is written in a cursive, flowing style.

**Julie James AS/MS**

Y Gweinidog Newid Hinsawdd  
Minister for Climate Change



## Wye Long Term Trend Analysis for Orthophosphates Summary

This document provides an executive summary of the findings of the long-term trend analysis for orthophosphates (OP) for seven stations in the Wye catchment, for years 1971-2020 inclusive. The work summarised herein was part of a larger analysis, which also considered shorter-term (2008-2019) trends in Orthophosphates, Nitrates and Ammoniacal Nitrogen.

### Summary of Findings

Of the seven Wye catchment stations, four showed evidence of a decreasing trend and three showed no evidence of a trend. Of the four decreasing trends, two were on the main Wye – one upstream and one downstream, one on the Ithon and one on Lugg. Thus, there is evidence for a long-term decrease in OP in some areas of the Wye catchment.

### Purpose

The purpose of this analysis was to determine whether any monotonic trends over time could be detected, either positive or negative, in OP for seven sampling stations in the Wye catchment with good data availability in the time period 1971-2020. A monotonic trend means the concentration of OP consistently increases (or decreases) through time, but the rate of increase (or decrease) may vary. It should be noted the analysis does not detect non-monotonic changes, such as cyclical fluctuations, or identify points in time where a step change may have occurred.

### Dataset

Data was extracted from NRW's WISKI database for seven Welsh Wye catchment stations for the period 1971-2020. Anomalous results were observed at freshwater sampling points throughout Wales for orthophosphate analysed with the 'low' method (an analytical laboratory method using a Gallery discrete analyser for optimal detection of low concentrations) between 1st July 2014 and 31st July 2016. Hence, 'low' method results for orthophosphate from 2014-2016 have been removed from the analysis.

All results with laboratory comments indicating possible holding time breaches were excluded from the analysis. An investigation into the occurrence of holding time breaches, to provide higher confidence in the identification of affected results, is pending.

Samples with purpose codes UI (Unplanned Reactive Monitoring) and PI (Planned Investigation) were excluded.

## Analysis Method

### Limit of Detection

When a sample contains a determinant at a concentration that is less than the limit of detection of the equipment used, this is typically referred to as a 'less than'.

All measurements that were below the limit of detection (LOD) were assigned a value of half the LOD. Method changes over time have the potential to create spurious trends, as a more sensitive method can result in lower concentration results than could previously have been achieved. Thus, for all stations, all values lower than the highest 'less than' value were raised to that highest 'less than' value.

### Minimum Data Requirements

To test trends for a site, at least 10 results from at least 6 different years are required. In addition, not more than 50% of results may be 'less than' results, as recommended by our statistical consultant (APEM) as consistent with best practice in freshwater studies.

One station had 51% less than results. Because of the low number of specific sites of interest and the low deviation from the 50% requirement, all sites were trend tested.

In addition, to calculate meaningful annual means as input for the trend test, at least four results from at least three different seasons are required. This is so only annual means which represent nutrient concentrations across the whole year from a full set of annual sampling will be used.

### Trend Analysis

The Theil-Sen estimator was used to determine the presence or otherwise of a monotonic trend. This is the approach recommended by UKTAG<sup>1</sup> for analysis of trends in water chemistry data, and was further endorsed by independent statistical consultants. When compared to linear regression, this approach makes fewer assumption about the data and is more robust to outliers.

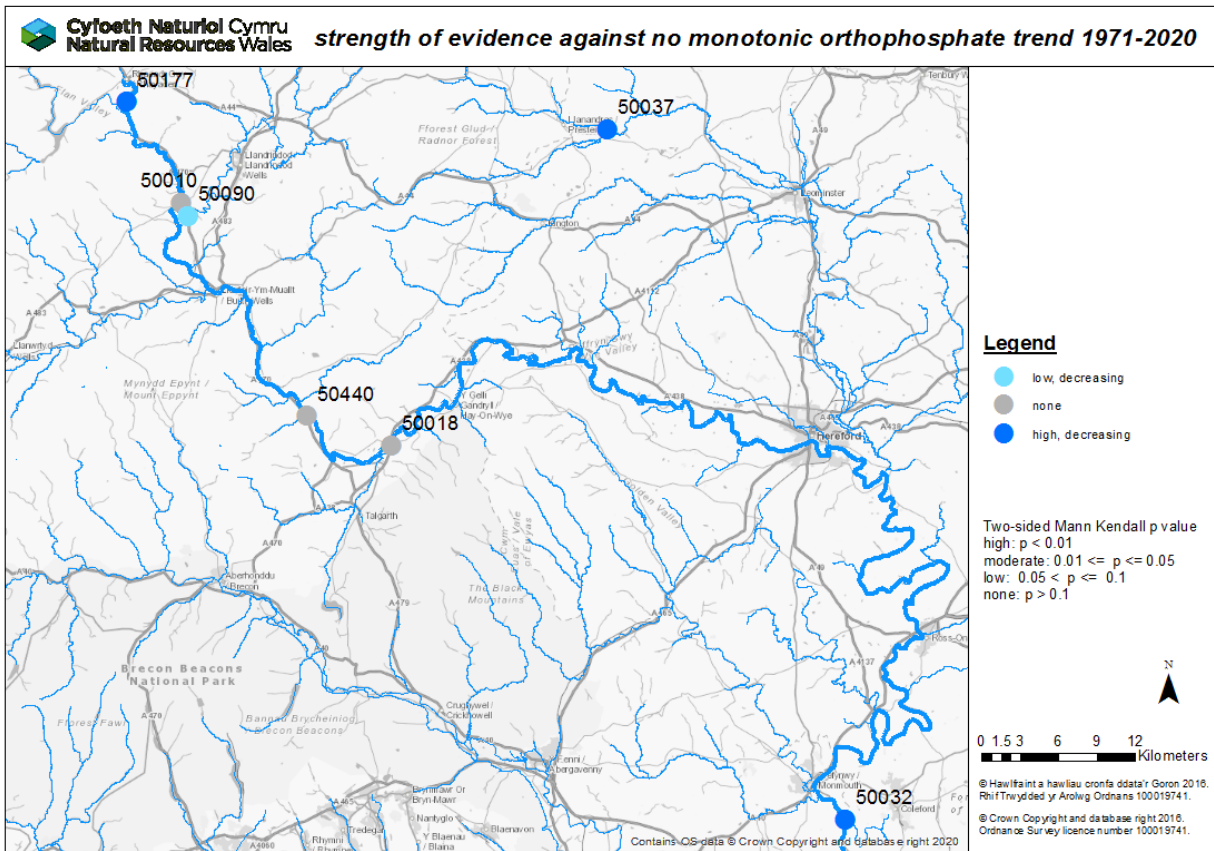
For stations showing evidence of a trend, the strength of evidence was classified into the three confidence categories: low,  $0.1 > p \geq 0.05$  ( $p$  is the value from the trend hypothesis test); moderate,  $0.05 > p \geq 0.01$ ; and high,  $p < 0.01$ .

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<sup>1</sup> United Kingdom Technical Advisory Group (UKTAG) supports the implementation of the European Community Water Framework Directive (WFD), and provides coordinated advice on technical aspects of the implementation of the WFD.

## Trend Test Findings

Of the 7 sites, 3 gave no evidence of a trend. For the decreasing trend case (4 total), 3 had high confidence and 1 had low confidence.



## Geographical Analysis

From the map and the table below, we can see that we have four stations with decreasing OP levels either on the Wye (2 stations) or on its tributaries (2 stations).

Of the two stations on the main Wye, one is situated in the Upper Wye, while the other is situated at the bottom of the freshwater Wye and is hence influenced by nutrient influx across the catchment.

*Table 1 - Station number, station name, and British National Grid Reference for all sites with decreasing levels of orthophosphate.*

Station Number	Station Name	British National Grid Reference
50032	River Wye at Redbrook Railway Bridge	SO 53607 09884
50037	River Lugg at Rossers Bridge Presteigne	SO 34857 64077
50090	River Ithon at Pont a'r Ithon	SO 01910 57260
50177	River Wye at Llanstephan Court Bridge	SO 11260 41580

## Conclusions

We analysed long-term datasets for seven stations in the Wye catchment, looking for monotonic trends in orthophosphate levels. Of the seven sites, four showed evidence of a decreasing trend three with high confidence and one with low confidence. Evidence for a decreasing trend was found on the Lugg, the Ithon, the Upper Wye and the bottom of the freshwater section of the main Wye at Redbrook. Thus, there is evidence that there has been a decrease at locations across the catchment in OP since 1971, although we make no assertion as to the ecological significance of this change, or to the cause.

Long-term time series of OP measurements are only available for a limited number of stations, hence we are unable to draw similar inferences for large parts of the catchment. However, it should be noted that the Redbrook station, due to its location, can be expected to represent influences across the catchment, as nutrient influx further upstream is likely to be carried downstream.

The analysis was hampered by data quality issues such as holding time breaches; work to address this is now underway, but this must be completed. There was no time to explore corrections for variables such as flow and temperature; as such, it is quite possible that additional trends (positive and negative) are present, but currently undetected. Additional work might also give an improved understanding of the extent to which factors such as the weather affect OP levels.

It should be noted that decreasing trends are observed in particular for stations with data prior to the late 90s. Analysing all stations with data only from 1996 onwards shows no evidence for trends. This suggests a change in nutrient dynamics, with a decline prior to the late 90s and comparatively more stable concentrations since.

## Wye Trend Analysis for Orthophosphates Summary

This document provides an executive summary of the findings of the trend analysis for orthophosphates (OP) for the Wye catchment, for years 2008-2019 inclusive. The work summarised herein was part of a larger analysis, which also considered Nitrates and Ammoniacal Nitrogen, as well as a longer-term analysis of OP (1971-2020).

### Summary of Findings

Of the 104 Wye catchment stations with OP readings, it was not possible to conduct trend tests for 83 because of either too many results below the detection limit of the laboratory equipment, or insufficient results, in approximately equal parts. Thus, for these stations, we can make no inference, i.e. we do not know what trends may or may not be present.

Of the remaining 21 stations, 11 showed no evidence of a trend or were inconclusive, one showed evidence of a decreasing trend, and nine showed evidence of an increasing trend. Of the nine increasing trends, five were linked to the Llynfi; of the other four, one was on the main river Wye, and the remaining three on its brook tributaries. Thus, there is evidence for increasing OP in some areas of the Wye catchment, particularly the Llynfi, but for the most part, we are unable to draw inferences.

### Purpose

The purpose of this analysis was to determine whether any monotonic trends over time could be detected, either positive or negative, in OP for individual sampling stations in the Wye catchment in the time period 2008-2019. A monotonic trend means the concentration of OP consistently increases (or decreases) through time, but the rate of increase (or decrease) may vary. It should be noted the analysis does not detect non-monotonic changes, such as cyclical fluctuations, or identify points in time where a step change may have occurred.

### Dataset

Data was extracted from NRW's WISKI database for all Welsh Wye catchment stations for the period 2008-2019. Anomalous results were observed at freshwater sampling points throughout Wales for orthophosphate analysed with the 'low' method (an analytical laboratory method using a Gallery discrete analyser for optimal detection of low concentrations) between 1st July 2014 and 31st July 2016. Hence, 'low' method results for orthophosphate from 2014-2016 have been removed from the analysis.

All results with laboratory comments indicating possible holding time breaches were excluded from the analysis. An investigation into the occurrence of holding time breaches, to provide higher confidence in the identification of affected results, is pending.

Samples with purpose codes UI (Unplanned Reactive Monitoring) and PI (Planned Investigation) were excluded.

## Analysis Method

### Limit of Detection

When a sample contains a determinant at a concentration that is less than the limit of detection of the equipment used, this is typically referred to as a 'less than'.

All measurements that were below the limit of detection (LOD) were assigned a value of half the LOD. Method changes over time have the potential to create spurious trends, as a more sensitive method can result in lower concentration results than could previously have been achieved. Thus, for all stations, all values lower than the highest 'less than' value were raised to that highest 'less than' value.

### Minimum Data Requirements

To test trends for a site, at least 10 results from at least 6 different years are required. In addition, not more than 50% of results may be 'less than' results, as recommended by our statistical consultant (APEM) as consistent with best practice in freshwater studies.

### Trend Analysis

The Theil-Sen estimator was used to determine the presence or otherwise of a monotonic trend. This is the approach recommended by UKTAG<sup>1</sup> for analysis of trends in water chemistry data, and was further endorsed by independent statistical consultants. When compared to linear regression, this approach makes fewer assumption about the data and is more robust to outliers.

For stations showing evidence of a trend, the strength of evidence was classified into the three confidence categories: low,  $0.1 > p \geq 0.05$  ( $p$  is the value from the trend hypothesis test); moderate,  $0.05 > p \geq 0.01$ ; and high,  $p < 0.01$ .

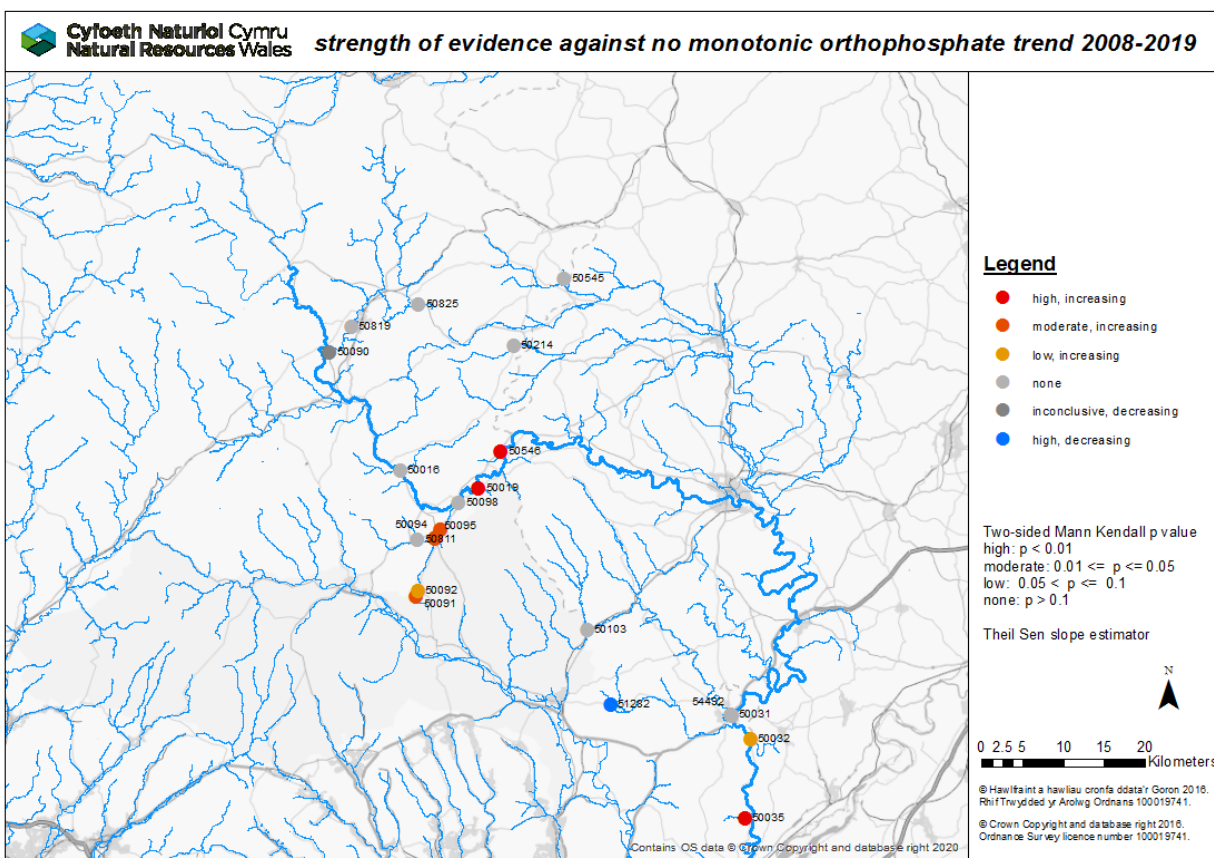
### Trend Test Findings

In total, 83 sites failed the data requirements. Of these, 38 failed due to too many less thans, 23 failed due to too few samples, and 17 failed due to too few years; the remainder failed due to combinations of the three.

Of the 21 sites where a trend test could be run, 10 gave no evidence of a trend. For the decreasing trend case (2 total), 1 had high confidence and 1 was inconclusive. For the increasing trend case (9 total), 4 had high confidence, 3 had moderate confidence and 2 had low confidence.

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<sup>1</sup> United Kingdom Technical Advisory Group (UKTAG) supports the implementation of the European Community Water Framework Directive (WFD), and provides coordinated advice on technical aspects of the implementation of the WFD.



## Geographical Analysis

In line with the precautionary principle, we focus on the locations of the nine stations where increasing trends were detected, regardless of the confidence level of the trend.

From the table below, we can see that we have four stations with rising OP levels either on the Wye (1 station) or on its brook tributaries (3 stations, Digedi Brook has a confluence with the Wye), as well as five stations with rising OP levels either on or flowing into the River Llynfi.

Considering the Llynfi in more detail, there are 11 stations on the Llynfi, of which eight had OP data. Of these eight, six passed the data requirements, with as mentioned five showing evidence of rising OP. The last station showed no trend. Thus, five out of six of testable stations on the Llynfi showed evidence of rising OP.

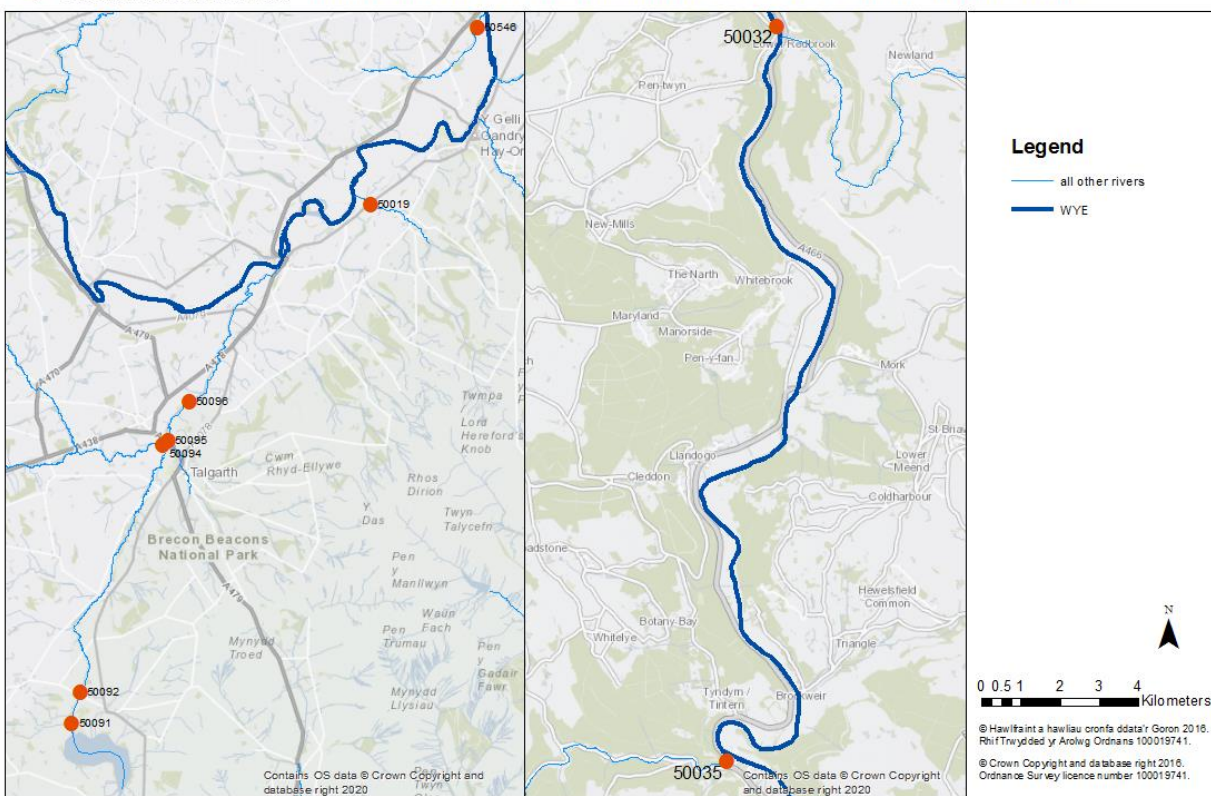


*Table 1 - Station number, station name, and British National Grid Reference for all sites with increasing levels of orthophosphate.*

Station Number	Station Name	British National Grid Reference
50019	Digedi Brook at Little Fford Fawr	SO 20232 40592
50032	River Wye at Redbrook Railway Bridge	SO 53607 09884
50035	Angidy (Tintern) Brook at Wye confluence	SO 52950 00210
50091	River Llynfi, Llangorse Lake outlet	SO 12572 27285
50092	River Llynfi at Llynfi Bridge, Llangorse	SO 12787 28078
50094	River Dulas at confluence with River Llynfi	SO 14900 34432
50095	River Ennig at confluence with River Llynfi	SO 15040 34526
50546	Clyro Brook at confluence with River Wye	SO 22965 45115



**monitoring sites with increasing 2008-2019 orthophosphate trends**





## Caveats of Data Analysis

Stations where no trend test could be calculated due to a high proportion of 'less than' values cannot be assumed to have no trend, or to have ecologically insignificant OP levels. Illustratively, there could be a large number of 'less thans', followed by a few years of increasing levels.

Care must also be taken when interpreting the 'no trend' case. Due to the limited amount of sampling data available, it is possible the analysis was not able to detect smaller trends at some sites. It does not mean that there is, with absolute confidence, no trend.

Finally, due to sampling cuts, some stations have no data since 2013. At the time of writing (late 2020), the gap in time is such that it is not possible to be confident that whatever trends were present then still persist.

## Conclusions

We analysed 12 years' worth of data, looking for monotonic trends in orthophosphate levels for all stations in the Wye catchment. Of the 104 stations, only 21 had sufficient data to allow analysis to be carried out. The reasons for rejecting a site were split approximately evenly between too many 'less thans', and an insufficient number of samples either in total number or in their distribution over time. No inference can be made for these rejected sites. Thus, for the most part, we do not know what changes may be taking place in OP levels.

Of the 21 sites where analysis could be performed, nine showed evidence of an increasing trend with varying degrees of confidence, five of which were either on or directly linked to the River Llynfi. Of the other four, one was on the Wye, the other three on its brook tributaries. Thus, particularly on the Llynfi (being a rather smaller waterbody than the Wye), there is considerable evidence that there has been an increase in OP since 2008, although we make no assertion as to the ecological significance of this change, or to the cause. The extent of the problem on the main river Wye is much harder to be confident about, but any detection of rising OP is clearly a cause for concern.

Looking to the future, unless the sampling frequency is increased, our inability to draw inferences for large parts of the catchment is likely to persist. Investigations should also be undertaken by area teams in sites where there was evidence of a trend to understand possible causes.

The analysis was hampered by data quality issues such as holding time breaches; work to address this is now underway, but this must be completed. For example, there was not time to correct for variables such as flow and temperature; as such, it is quite possible that additional trends (positive and negative) are present, but currently undetected. Additional work might also give an improved understanding of the extent to which factors such as the weather affect OP levels. Finally, it may be possible to overcome some of the data paucity issues by pooling individual sites across larger geographical units, thus allowing additional trend tests to be undertaken, further improving understanding.