



Habitats Directive

Afonydd Cleddau/Cleddau Rivers

What's happening?

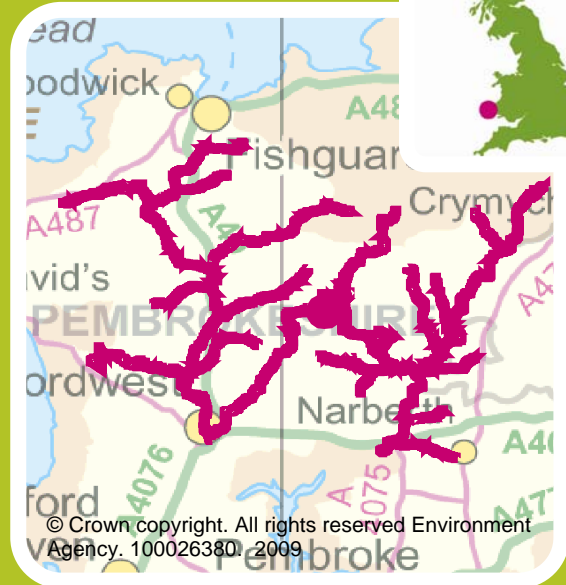
The Habitats Directive has introduced laws to safeguard Europe's most endangered plants, animals and habitats.

As part of this, the Environment Agency has to review all the existing consents that we regulate to ensure there are no adverse effects on the nature conservation interests of designated sites such as Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

We are using a staged approach to do this:

- Stages One and Two – listed all consents and looked at those with the potential to have a significant effect.
- Stage Three – looked in detail at whether they have an adverse affect on special sites;
- Stage Four - those consents with no adverse affect will stand; we examined those that do have an effect further to see what could be done about it.

Location



About this site

The Afonydd Cleddau/Cleddau Rivers SAC is made up of two river catchments. The Western and Eastern Cleddau and selected tributaries join to form the tidal reaches of the Daugleddau; part of the Pembrokeshire Marine SAC. The whole river system is of outstanding ecological quality.

This area is particularly noted for its otter population, being one of the best rivers in Wales for otters, due to the abundance of undisturbed dense cover.



All three British lamprey species are present in the catchment, as is the bullhead. The river also supports communities of water crowfoot *Ranunculus* species and submerged and floating plants. Habitats such as active raised bogs and alluvial forests also form important areas of the SAC.

Research

We carried out a lot of research as part of this work to improve our understanding about the site.

- We developed water quality models to help us understand the effects of nutrients from water discharges.
- We did hydraulic modelling to study how various abstraction and flows affect the water depth, water velocity and the wetted edge of the river.
- We carried out otter surveys from 2001 to 2005.
- We commissioned surveys to investigate the status of lamprey populations at 36 sites throughout the Afonydd Cleddau/Cleddau Rivers SAC.
- A plant survey was carried out, commissioned by the Countryside Council for Wales.

Impacts

Our assessments showed that six discharges to water and five water abstractions had the potential to affect species and habitats of the SAC.

Discharges from waste water treatment works can lead to increased levels of nutrients in the water, particularly phosphorus. The water crowfoot species and other submerged and floating plants are particularly susceptible to elevated levels of phosphorus. This can lead to changes in the plant species that are found in the river. High levels of nutrients can also mean that the plant roots do not grow as deep, making it more likely that plants are washed away by high river flows.

We found that some of the water abstractions could reduce the river flows. This could potentially affect the ability of fish to migrate through the rivers as well as leading to a loss of fish spawning habitat. We found that several of these abstractions posed a further risk to fish as they did not have suitable screening to prevent juvenile fish being sucked into the abstraction with the water. This occurrence can often result in their deaths.

What will change?

We investigated different options for changes for the abstraction licences and discharge consents that could potentially have an effect on the SAC.

We will change the discharge consents to ensure there are lower concentrations of phosphate entering the river.

We will also make changes to the abstraction licences such as reducing the volume of water licence holders can take from the river, or by preventing them taking water when river flows are too low. Abstraction licences with insufficient screening to protect fish will have a condition placed on the licence to ensure proper screening is installed, and the impact on migrating fish species is minimised.

Conclusion

We are confident that the proposed modifications to the discharge consents and abstraction licences, along with changes to the way operators practise, will prevent further impact to the plants, animals and habitat which make the Afonydd Cleddau/Cleddau Rivers SAC so unique.

Further information can be found on our website

www.environment-agency.gov.uk

You can request guidance from enquiries@environment-agency.gov.uk



Cyfarwyddeb Cynefinoedd

Cleddau Wen a Chleddau Ddu

Beth sy'n digwydd?

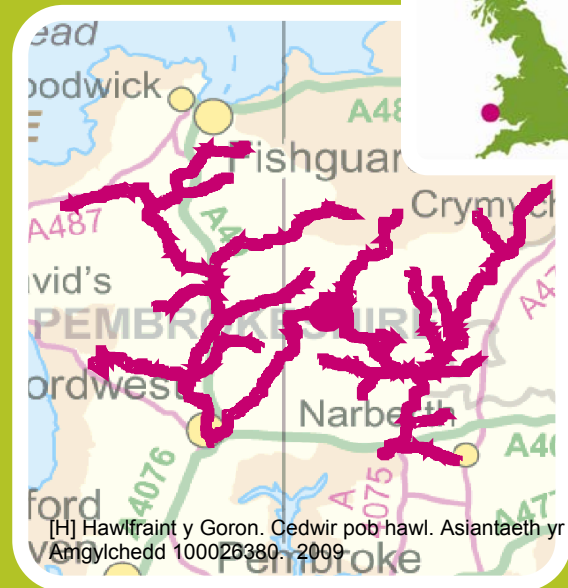
Mae'r Gyfarwyddeb Cynefinoedd wedi dwyn i fod gyfreithiau gwarchod y planhigion, yr anifeiliaid a'r cynefinoedd hynny yn Ewrop a fygythir fwyaf.

Yn rhan o hyn, rhaid i Asiantaeth yr Amgylchedd adolygu pob caniatâd presennol a reoleiddiwn, er mwyn sicrhau nad ydynt yn effeithio er gwaeth ar fuddiannau cadwraeth yr un Ardal Gadwraeth Arbennig (AGA), Ardal Warchodaeth Arbennig (AWA) nac unrhyw safleoedd dynodedig arall.

Mae sawl cam i hyn:

- Camau 1 a 2: rhestru pob caniatâd, ac edrychar y rhai a ddichon fod ag effaith sylweddol;
- Cam 3: edrych yn fanwl ar a ydynt yn effeithio er gwaeth ar safleoedd arbennig;
- Cam 4: bydd y caniatadau nad ydynt yn effeithio er gwaeth yn sefyll; archwiliasom y gweddill er mwyn gweld beth arall ellid ei wneud ynglŷn â hynny.

Lleoliad



Ynglŷn â'r safle hwn

Mae AGA Cleddau yn ddau ddalgylch, sef Cleddau Wen a Chleddau Ddu. Mae hwythau a'u rhagnentydd yn ymuno yn Naugleddau, rhan o AGA Forol Sir Benfro. Mae'r holl rwydwaith afonydd o safon ecolegol ardderchog.

Mae'r ardal yn enwog ei dyfrgwn, gan fod yr afonydd ymysg rhai gorau Cymru ar eu cyfer. Hynny oherwydd fod cymaint o loches ymysg coed a llwyni nad oes tarfu arnynt.



Ceir tair rhywogaeth lampeiod Prydain yn y dalgylch, a'r crothell hefyd. Ceir rhywogaethau *Ranunculus* crafanc y dŵr, a phlanhigion tanddwr a nofiol. Mae cynefinoedd megis Cyforgorsydd Mawnaidd a Choedwigoedd Llifwaddodol hefyd yn rhannau pwysig o'r AGA.

Ymchwil

Yn rhan o'r gwaith hwn, darfu inni ymchwilio llawer er mwyn deall rhagor am y safle hwn.

- Bu inni ddatblygu modelau ansawdd dŵr fel y gallwn ddeall effeithiau maetholion o ollyngiadau dŵr.
- Darfu inni greu modelau hydrawlig er mwyn astudio sut ma amryw dynnu a llifoedd yn effeithio ar ddyfnder a chyflymder dŵr, ac ar ymyl gwlychedig yr afon.
- Bu inni arolygu dyfrgwn o 2001 hyd 2005.
- Darfu inni gomisiynnu arolygon ymchwilio i gyflwr poblogaethau lampreiod 36 safle ledled AGA Cleddau.
- Cynhaliwyd arolwg planhigion, wedi'i gomisiynnu gan Gyngor Cefn Gwlad Cymru.

Effeithiau

Dangosodd ein hasesiadau fod dichon i chwe gollyngiad i ddŵr a phum tyniad dŵr effeithio ar rywogaethau a chynefinoedd yr AGA.

Gall gollyngiadau o weithfeydd trin dŵr gwastraff arwain at gynydd maetholion yn y dŵr, yn enwedig ffosforws. Mae rhywogaethau crafanc y dŵr a phlanhigion tanddwr a nofiol eraill yn neilltuol agored i'w niweidio gan gynydd ffosforws. Gall hyn arwain newid y rhywogaethau planhigion a geir yn yr afon. Gall lefelau uchel o faetholion hefyd olygu nad yw planhigion yn ymwreiddio cyn ddyfned, felly mae llifeiriadau mawrion yn fwy tebygol o'u diwreiddio a'u hysgubo ymaith.

Canfuom y gallai rhai tyniadau dŵr leihau llifeiriadau'r afon. Dichon i hynny effeithio ar allu pysgod i ymfudo hyd yr afonydd, yn ogystal â difrodi cynefin silio pysgod. Canfuom fod sawl un o'r tyniadau hyn yn fygythiad ychwanegol i bysgod, gan nad oes arnynt rwyll atal sugno pysgod ifainc i'r tyniad gyda'r dŵr. Yn aml, gall hynny eu lladd.

Pa newid?

Ymchwiliad i wahanol ddewisiadau newid y trwyddedau tynnu a'r caniatadau gollwng y mae dichon iddynt effeithio ar yr AGA.

Newidiwn y caniatadau gollwng er mwyn sicrhau nad oes cymaint o ffosffad yn mynd i'r afon.

Newidiwn y trwyddedau tynnu hefyd, er mwyn lleihau faint o ddŵr y gall deiliaid trwyddedau ei gymryd o'r afon, er enghraifft, neu eu hatal rhag cymryd dŵr pan fo llifau'r afon yn rhy fychain. Rhoddir amod ar drwyddedau'r tyniadau hynny nad oes rwyllau arnynt, er mwyn sicrhau gosod rwyllau atal sugno pysgod ifainc. Dylai hynny sicrhau cyfyngu i'r eithaf eu heffaith ar rywogaethau pysgod mudol.

I gloi

Rydym yn hyderus y bydd y newidiadau arfaethedig ar ganiatadau gollwng a thrwyddedau tynnu dŵr, ynghyd â newid arferion gweithredwyr, yn atal rhagor o effeithio ar y planhigion, yr anifeiliaid a'r cynefinoedd sy'n gwneud AGA Cleddau mor unigryw.

Cewch ragor o wybodaeth ar ein gwefan
www.asiantaeth-amgylchedd.cymru.gov.uk

Gallwch ofyn i enquiries@environment-agency.gov.uk am arweiniad.