

Habitats Directive

River Teifi

What's happening?

Laws have been introduced under the Habitats Directive 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, those that do have been examined further to see what can be done about it.

Location



© Crown copyright. All rights reserved Environment Agency. 100026380.

About this site

The River Teifi is one of the longest rivers in Wales, flowing for 122 kilometres from the Cambrian Mountains to Cardigan Bay. From its source at Llyn Teifi, the river descends steeply through moorland and forests to the raised peat bogs of Cors Caron. The river continues through the Teifi Gorge and on to its estuary near Cardigan. A series of lakes at the headwaters of the river, known collectively as the Teifi Pools, are another interesting feature of this varied and beautiful river system.

The river is considered to be one of the best in the United Kingdom for several species of fish, including Atlantic salmon, lamprey and bullhead. It is also important for otters, which breed throughout the Teifi catchment where there is sufficient cover and abundant food. There are nationally scarce plant species including floating water plantain and water-crowfoot.



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 undertook hydraulic modelling to study how various abstraction and flows affect the water depth, water velocity and the wetted edge of the river.
- We developed air quality models and undertook monitoring to help us understand the effects of air-borne pollutants.

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 do not have suitable screening. This can prevent juvenile fish being sucked into the abstraction with the water, which often results in their deaths.

What will change?

We investigated different options for changes to the abstraction licences, discharge consents and air quality permissions 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 revise the abstraction licences to effect changes, e.g. 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 protection will have a condition placed on the licence to ensure proper screening is installed. Through doing so, the impact on migrating fish species will be 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 makes the River Teifi SAC so unique.

Impacts

Our assessments showed that 15 discharges to water and nine 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 crow-foot 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 deeply, 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

Lamprey



Lamprey are strange and primitive animals that thrive in the River Teifi. They are superficially like eels, with long thin bodies, but lamprey have no lower jaw – instead the mouth is surrounded by a sucker-like disc with strong rasping teeth. They are parasites and they feed by attaching themselves to larger fish and sucking out their body fluids. All three British species of lamprey live in the River Teifi – sea lamprey, river lamprey and brook lamprey.

Further information can be found on our website

www.environment-agency.gov.uk

Guidance can be requested from enquiries@environment-agency.gov.uk



Y Gyfarwydddeb Cynefinoedd

Afon Teifi

Beth sy'n digwydd?

Mae'r Gyfarwydddeb 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



[H] Hawlfraint u Goron. Cedwir pob hawl. Asiantaeth yr Amgylchedd. 100026380. [2008].

Ynglŷn â'r safle hwn

Teifi yw un o afonydd hwyaf Cymru, gan lifa 122clm o lethrau Trawsallt i Fae Ceredigion. O'i ffynhonnell yn Llyn Teifi, disgynna'n serth trwy weunydd a choedwigoedd i orgorsydd mawnog Cors Caron. Â ymlaen trwy Geunant Cilgerran i'w haber ger Aberteifi. Mae Llynnoedd Teifi ym mlaen yr afon y maent ymhlith nodweddion diddorol rhwydwaith amrywiol a phrydferth yr afon hon.

Y farn yw mai'r afon hon yw un o rhai gorau'r Deyrnas Unedig am sawl rhywogaeth bysgod, gan gynnwys eog yr lwerydd, y lamprai a'r grothell. Mae'n bwysig ar gyfer dyfrgwn hefyd, sy'n epilio ledled dalgylch Teifi lle bo digon o loches a bwyd helaeth. Ceir rhywogaethau planhigion sy'n genedlaethol brin, gan gynnwys y llyriad nofiadwy ac egyptl y dŵr.



Ymchwil

Ymchwiliasom lawer er mwyn gwella ein hamgyffrediad o'r safle.

- Darfu inni ddatblygu modelau ansawdd dŵr er mwyn ein helpu i ddeall effeithiau maetholion a gollyngiadau dŵr.
- Gwnaethom waith modelu hydrowlig er mwyn astudio sut mae amryw dyniadau a llifoedd yn effeithio ar ddyfnder a chyflymder dŵr, ac ymyl gwlychedig yr afon.
- Datblygasom fodelau ansawdd awyr a bu inni arolygu er mwyn ein helpu i ddeall effeithiau llygryddion hedegog.

allu pysgod i fudo hyd yr afonydd, yn ogystal â lleihau cynefin silio pysgod. Canfuom fod sawl un o'r tyniadau hyn yn fygythiad ychwanegol i bysgod, gan nad oes sgriniau addas arnynt. Gall hyn arwain at sugno pysgod ifainc i'r tyniad gyda'r dŵr, sy'n aml yn eu lladd.

Beth fydd yn newid?

Ymchwiliasom i wahanol ddewisiadau newid trwyddedau tynnu, caniatadau gollwng a chaniatadau ansawdd awyr a ddichon effeithio ar yr AGA.

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

Newidiwn drwyddedau tynnu hefyd, er mwyn peri newidiadau: lleihau faint o ddŵr y gall deiliaid trwyddedau ei dynnu o'r afon, neu eu hatal rhag tynnu dŵr pan fo llif yr afon yn rhy fychan, e.e. Rhoddir amod ar drwyddedau tyniadau sydd â sgrinio annigonol er mwyn sicrhau gosod sgriniau priodol. Bydd hynny'n lleihau'r effaith ar bysgod mudol.

Casgliadau

Rydym yn hyderus y bydd addasu caniatadau gollwng a thrwyddedau tynnu yn y modd arfaethedig, ynghyd â newid arferion gweithredwyr, yn atal rhagor o effeithio ar y planhigion, yr anifeiliaid a'r cynefin sy'n peri bod AGA Teifi 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.

Effeithiau

Dangosodd ein hasesiadau bod dichon i 15 gollyngiad i ddŵr a naw tyniad dŵr effeithio ar rywogaethau a chynefinoedd yr AGA.

Gall ollyngiadau o weithfeydd trin dŵr gwastraff arwain at gynyddu lefelau maetholion yn y dŵr, yn enwedig ffosfforws. Mae egypt y dŵr a phlanhigion tanddwr a nofiol eraill yn neilltuol agored i effaith lefelau uchel o ffosfforws. Gall hyn arwain at newidiadau yn y rhywogaethau planhigion a geir yn yr afon. Gall lefelau uchel o faetholion hefyd olygu nad yw gwreiddiau planhigion yn tyfu cyn ddyfned, felly mae'n haws i lifoedd mawrion yr afon eu golchi ymaith.

Canfuom y gallai rhai o'r tyniadau dŵr ostwng llifoedd yr afon. Byddai dichon i hynny effeithio ar

Lamprai



Mae'r lampreiod yn anifeiliaid rhyfedd a chyntefig sy'n ffynnu yn Nheifi. Maent yn debyg eu golwg i llyswennod, â chyrrff hirion main: ond 'does ganddynt enau. Yn hytrach, mae'r geg yn sugnydd crwn â dannedd rhathellog cryfion. Maent yn barasitiaid, gan fwydo trwy lynu wrth bysgod mwy a sugno allan hylifau eu cyrrff. Ceir tair rhywogaeth lampreiod Prydain yn Nheifi: lamprai'r môr, lamprai'r afon a lamprai'r nant.