

Statement of Case: Objection to Abstraction and Impoundment Licence Applications AIL/2024/0008 and AIL/2024/0009 for the Proposed Curraghinalt Gold Project

We are submitting this detailed objection to the proposed abstraction and impoundment at lands adjacent to 80 Mullydoo Road, Greencastle, County Tyrone, BT79 7QP, as outlined in the applications AIL/2024/0008 and AIL/2024/0009. Based on extensive review of the submitted documents, recent legal precedents, and hydrological considerations, we have identified critical environmental, legal, and safety concerns that fundamentally question the sustainability of this project. We urge the NIEA to reject the applications based on the following key points:

The Precautionary Principle and Outdated Environmental Data

In **Harris v Environment Agency [2020] EWHC 2277 (Admin)**, the court reinforced the centrality of the **precautionary principle** in environmental decision-making. The principle dictates that in situations of scientific uncertainty regarding potential environmental impacts, particularly on legally protected habitats, decision-makers must err on the side of caution to prevent harm. This legal precedent is highly relevant to the Curraghinalt project, where the applicant's environmental assessments are based on data collected between 2017 and 2020, which is now outdated.

The Chartered Institute of Ecology and Environmental Management (CIEEM) and UK Government guidance recommend that ecological data should not be more than two years old when used to inform decisions, due to the dynamic nature of ecosystems. Relying on data more than four years old, as the Curraghinalt project does, introduces significant scientific uncertainty regarding the current condition of the site and its ecosystems. In light of the **Harris** decision, the outdated environmental data necessitates the application of the **precautionary principle**, meaning that **no licences should be granted** unless up-to-date and reliable data unequivocally demonstrates that the project will not harm the sensitive ecosystems.

Misleading Hydrological Assessments and the Risk of Cumulative Impacts

The **Planning Appeals Commission (PAC) decision regarding a proposed hydropower plant** on the Leitrim River further underscores the importance of accurate and site-specific hydrological assessments. In that case, the PAC highlighted the need for robust data to understand the effects of water abstraction on sensitive aquatic habitats, particularly for **salmonid species** (Atlantic salmon and brown trout). The decision emphasized that insufficient hydrological assessments could lead to underestimating risks to fish habitats and aquatic biodiversity.

In the case of the Curraghinalt project, the applicant's hydrological data fails to fully account for the interconnections between the Pollanroe Burn and the Owenreagh River. The latter contains **priority species** and designated protected areas. Similar to the PAC case, the abstraction plans for the Curraghinalt project underestimate the potential for reduced flow rates and cumulative impacts

downstream. This failure is significant because the **Owenreagh River** supports salmonid species, which require carefully maintained flow regimes to support their spawning and nursery habitats.

In the PAC decision, the Commission imposed a **Q80 flow restriction** to protect the salmonid habitats, ensuring that water flows did not drop below a level that would threaten the ecological balance. However, the Curraghinalt project contains no such provisions or flow safeguards, which puts the sensitive ecosystems at risk of degradation due to mismanaged abstraction and flow alterations.

Risks to Protected Downstream Ecosystems

The Curraghinalt project risks significant adverse effects on the **Owenreagh River** and its downstream ecosystems, which are legally protected under various conservation frameworks, including potential Special Areas of Conservation (SACs). The river supports a rich diversity of flora and fauna, including species of conservation concern such as **Atlantic salmon** and **trout**. Any environmental impacts upstream, particularly from abstraction, will inevitably propagate downstream, affecting sensitive habitats in these protected areas.

The **Harris v Environment Agency** case highlights the long-term, often subtle impacts of water abstraction on ecosystems. It emphasized that even seemingly minor changes in groundwater levels and surface flow can lead to **irreversible ecological damage** over time, especially in habitats dependent on consistent water supply. In that case, it was shown that groundwater abstraction had contributed to significant habitat loss in a Special Area of Conservation (SAC), even though these effects were not immediately apparent when licences were initially granted. The precautionary principle, therefore, requires that the potential risks to the Pollanroe Burn and Owenreagh River be fully assessed before any licences are approved.

Non-Compliance with Legal Obligations under the Habitats Directive and Water Framework Directive

The **EU Habitats Directive** and the **Water Framework Directive** impose strict legal requirements on projects that could impact protected water bodies and their surrounding ecosystems. The **PAC decision** on the hydropower plant reiterated the importance of these directives, noting that projects must not be allowed to proceed unless they can demonstrate no adverse effects on the ecological integrity of protected sites.

- The Curraghinalt project has **not submitted a Habitats Regulations Assessment (HRA)**, which is mandatory for any project likely to have a significant effect on protected habitats or species.
- Under the **Water Framework Directive**, watercourses supporting **salmonid species** must be maintained at high ecological status. The potential for water quality degradation from the project's proposed activities, including contamination from mining effluents and the alteration of natural flow regimes, poses a direct threat to the Owenreagh River's compliance with the directive's requirements.

Without a comprehensive assessment of these risks, granting abstraction licences would violate both the **Habitats Directive** and the **Water Framework Directive**, potentially leading to long-term legal and environmental consequences.

Inadequate Contingency Plans and Safety Concerns

Both the **Harris** and **PAC decisions** emphasize the need for robust contingency plans to prevent environmental degradation and protect public safety. In the PAC case, restrictions were imposed to ensure that water flows remained adequate to support fish habitats, with contingency measures in place to address any system failures. Similarly, the **Harris** case stressed the importance of proactive management to avoid long-term environmental damage caused by unchecked water abstraction.

In contrast, the Curraghinalt project's reliance on a single Reverse Osmosis (RO) treatment plant, without sufficient backup systems, presents a critical flaw. The lack of contingency measures to address extreme weather events or system failures means that any breakdown in the treatment system could lead to significant pollution incidents. Additionally, there are no clear emergency response protocols in place to manage overflow or effluent discharge, which poses a severe risk to the water quality of the Pollanroe Burn and Owenreagh River.

Application of Recent Legal Precedents

Both **Harris v Environment Agency** and the **PAC decision regarding the hydropower plant** set crucial legal precedents for environmental protection in cases involving water abstraction. These cases demonstrate that where there is scientific uncertainty or incomplete data about the potential impacts of abstraction, the precautionary principle must be applied, and projects should not proceed unless they can definitively show no risk of harm to protected ecosystems.

The Curraghinalt project fails to meet this standard. Given the significant **gaps in the environmental and hydrological data** and the risks posed to legally protected species and habitats, it is clear that the project should not proceed without further, thorough assessment and mitigation.

Conclusion and Recommendations:

In light of the significant environmental, hydrological, and public safety risks posed by this project, we strongly urge the NIEA to:

1. **Refuse the licence applications AIL/2024/0008 and AIL/2024/0009** due to the substantial risks and inadequacies identified.
2. **Require the applicant to submit updated and comprehensive environmental and hydrological assessments** before any further consideration of the project.
3. **Ensure an independent expert review** and thorough public consultation to fully assess the project's potential impacts on the Pollanroe Burn and Owenreagh River ecosystems.

4. **Strengthen regulatory oversight** to ensure that future proposals strictly adhere to environmental protection standards, particularly under the **EU Habitats Directive** and **Water Framework Directive**.

The potential for **irreversible ecological damage**, as highlighted in **Harris v Environment Agency**, combined with the ecological and hydrological concerns emphasized in the **PAC decision**, demonstrate that the Curraghinalt project cannot proceed without significant revision and stronger environmental safeguards. The NIEA must prioritize the protection of Northern Ireland's natural environment and uphold its legal obligations by rejecting the current licence applications.

We would also request that the PAC take in to consideration the original objections which had been submitted to the department in concern of these abstraction and impoundment applications.

Yours sincerely,

[Redacted signature]



Neutral Citation Number: [2022] EWHC 2264 (Admin)

Case No: CO/3345/2021

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
PLANNING COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 6 September 2022

Before :

MR JUSTICE JOHNSON

Between :

(1) MR TIMOTHY CHARLES HARRIS
(2) MRS ANGELIKA HARRIS

Claimants

- and -

THE ENVIRONMENT AGENCY

Defendant

-and-

NATURAL ENGLAND

Interested Party

Richard Wald QC (instructed by Freeths LLP) for the Claimants
Matthew Dale-Harris (instructed by Environment Agency) for the Defendant

Hearing dates: 7-8 July 2022

Approved Judgment

This judgment was handed down remotely at 10.30am on 6 September 2022
by circulation to the parties and release to The National Archives.

Mr Justice Johnson:

1. The claimants, Angelika and Timothy Harris, live in the Norfolk Broads. They are concerned that water abstraction is causing irremediable damage to the environment, including ecosystems that are legally protected. Their intervention was instrumental in the decision of the defendant, the Environment Agency, not to renew two abstraction licences. The claimants believe that the Environment Agency ought to review more broadly the impact of water abstraction to decide whether other licences should also be withdrawn or altered. They challenge, by judicial review, the Environment Agency's refusal to expand the scope of an investigation that it conducted into the effect of 240 licences for abstraction. That investigation concerned the effect of abstraction on just three Sites of Special Scientific Interest ("the three SSSIs").
2. The claimants' case is that:
 - (1) the Environment Agency is in breach of an obligation under article 6(2) of the EU Habitats Directive (92/43/EEC) ("the Habitats Directive") to avoid the deterioration of protected habitats and disturbance of protected species.
 - (2) The obligation under article 6(2) of the Habitats Directive has effect in domestic law by reason of regulation 9(3) of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations") which requires the Environment Agency to "have regard" to the Habitats Directive.
 - (3) Irrespective of the effect of regulation 9(3) of the Habitats Regulations, article 6(2) of the Habitats Directive is enforceable by the domestic courts.
 - (4) The Environment Agency's decision not to conduct a more expansive investigation into the impact of licenced water abstraction is irrational.
3. The Environment Agency accepts that it must have regard to article 6(2) of the Habitats Directive. It maintains that it has done so and that it has, after taking it into account, reasonably decided to limit its investigation of the impact of the 240 licences to the three SSSIs. It disputes that article 6(2) has direct effect in domestic law beyond the obligation to "have regard" to it. In any event, it maintains that it is acting compatibly with the requirements of article 6(2).
4. Permission to claim judicial review was granted by Chamberlain J. The parties have cooperated closely in identifying areas of agreement and dispute and focussing argument on the latter. They agree that the outcome of the claim depends on the resolution of the following issues:
 - (1) The ambit of the obligation, under regulation 9(3) of the Habitats Regulations, to "have regard" to the requirements of the Habitats Directive, including whether that mandates compliance with article 6(2) of the Habitats Directive (paragraphs 73-88 below).
 - (2) Whether article 6(2) of the Habitats Directive imposes an obligation of a kind recognised by the Court of Justice of the European Union ("CJEU") or any court or tribunal in the United Kingdom in a case decided before 2021 (paragraphs 89-94 below).

- (3) Whether the Environment Agency has breached article 6(2) of the Habitats Directive by limiting its investigation of water abstraction to the three SSSIs (paragraphs 95-106 below).
- (4) Whether the Environment Agency acted irrationally by limiting its investigation of water abstraction to the three SSSIs (paragraphs 107-109 below).
5. There is also a dispute between the parties as to the relevance (when determining issues (3) and (4)) of (a) funding constraints on the Environment Agency and (b) the possibility that it might undertake further work in respect of the impact of water abstraction, outside the ambit of the programme that examined the three SSSIs.

The factual background

The parties

6. The Environment Agency was established by section 1 of the Environment Act 1995. By section 6(1)(b) of the 1995 Act, its duties include the promotion of the conservation of flora and fauna which are dependent on an aquatic environment. It is responsible for the grant (and variation and revocation) of licences for the abstraction of water.
7. The claimants own and reside at Catfield Hall, Norfolk. That is within the area of Catfield Fen which is, itself, within the area of the 240 licences that were considered in the Environment Agency's investigation. The claimants also own land in Hickling and Potter Heigham which is also within the area covered by the 240 licences. They have been concerned for many years about the condition of fenland in the area where they live and own land. They are particularly concerned about the impact of the abstraction of groundwater for agricultural and other purposes. They have been raising those concerns with the Environment Agency for well over a decade. They successfully supported the Environment Agency's decision to vary two licences when that decision was challenged on appeal.

Impact of water abstraction on ecosystems

8. Groundwater is water that is present in the ground. Many ecosystems are dependent on a supply of groundwater. Groundwater may be abstracted (in the Norfolk Broads, from either the chalk, the crag, or the Sandringham sands) for use by the public water supply, industry, and agriculture. A licence is required to extract groundwater. Such licences may either be permanent (with no requirement to renew) or time limited (with the possibility of periodic renewal). The Environment Agency has power to revoke abstraction licences: sections 52 and 53 of the Water Resources Act 1991 (see paragraph 41 below).
9. The abstraction of groundwater has an impact on the supply of water to wetland habitats. The precise mechanism is complex. There are many unknowns, particularly in respect of the pathways by which water travels between the aquifer (underground permeable rock, from which abstraction generally takes place) and the shallow water table (from which it is accessed by flora). Changes to groundwater flows can also influence the chemistry within the ground and this can impact on the surface ecology. This all means that it is difficult to predict the locations where water abstraction from

a particular area might have an impact, or to predict what the impact might be. It is known that there can be an impact over a considerable distance: abstraction from one location may affect an ecosystem several kilometres away. It is also known that it can take many years for the impact of abstraction to become fully apparent. Changes to ecosystems can, initially, be too subtle to be detected by routine monitoring (for example, loss of specialist invertebrates, or plants that only naturally occur in low densities). Once changes to an ecosystem are apparent, it may be too late to put matters right; by that stage, irreparable damage may have occurred.

10. For this reason, the interested party (“Natural England”) (which has statutory responsibility for providing advice to the Environment Agency and others), advised the Environment Agency in October 2020 that it was necessary to consider water supply in the Broads and to take any necessary action to restore ground and surface water levels. For the same reason, the Environment Agency itself recognises an obligation to apply a “precautionary approach to dealing with adverse effects” such that it must take appropriate and proportionate action to ensure that licenced water abstraction does not lead to adverse effects.

The Norfolk Broadland river valleys

11. The Norfolk Broads is, in terms of rainfall, one of the driest parts of the country. Long-term average annual rainfall is between 600mm and 730mm. The low rainfall is exacerbated by periods of drought. The Broads also lie within an area where a great deal of irrigated fruit and vegetable production takes place. This is reliant on water abstraction. In the Bure and Thurne Reporting Area alone, more than 60 million litres of ground water and surface water are abstracted each day. So, there is a relatively small amount of rainfall, but a considerable amount of water is taken from the ground.
12. The exceptional biodiversity in the Norfolk Broads has resulted in it having the highest level of national and international nature conservation protection. There are 28 individual SSSIs which together make up The Broads Special Area of Conservation (“SAC”). There are 25 SSSIs that make up the Broadlands Special Protection Area for birds (“SPA”).
13. The SAC and SPA are each designated as a “European site” protected under article 6 of the Habitats Directive, as is the Broadland Ramsar site which is designated under the Ramsar Convention. The area supports water and wetland habitats which host the most diverse areas of fen vegetation in Western Europe. They support many rare animal and plant species. The features of the SAC which give rise to its status include types of calcareous fens and alluvial forests which are priority natural species and habitats respectively (listed in Annex 1 and Annex 2 of the Habitats Directive). The SPA’s qualifying features include the great bittern, the ruff, and the Eurasian marsh harrier. The claimants’ case applies to the entirety of all three European sites, but it is sufficient to focus on the SAC in order to resolve the claim.
14. The 28 SSSIs within the SAC include the Ant Broads and Marshes SSSI, Alderfen Broad SSSI, and Broad Fen, Dilham SSSI. These are the three SSSIs which were the subject of the Environment Agency’s investigation.
15. There has been a measurable decline in some habitats in the SAC over recent decades. The Environment Agency believes that the abstraction of water has contributed to this

decline. For example, the Ant Broads and Marshes hosts the largest population of fen orchid in England, but there has been a decline in the habitats that it needs to thrive. This is due to water abstraction.

16. In 2019 Natural England provided the following advice to the Environment Agency:

“Given that the Broads is the major site in the UK for some of the Annex 1 habitats classified as Endangered and Vulnerable within Europe, the importance of maintaining the existing habitat extent and improving the integrity of supporting processes (eg the supply of low-nutrient base-rich water) cannot be [overstated].

...

Experimental work on abstraction effects on calcareous fens (Johansen *et al* 2011) clearly shows abstraction has impacts on water flows through a fen at distances of kilometres from the abstraction point. This effect occurs even whilst water level changes are indistinguishable from natural level variations. Water source and flows are intrinsic features of the hydrological regime of all wetland sites. As a result hydrological modelling of flows through sites is necessary to determine effects of abstraction.”

The Review of Consents

17. Regulation 50 of the Conservation (Natural Habitats etc) Regulations 1994 (“the 1994 Habitats Regulations”) required the Environment Agency to review, as soon as reasonably practicable, all licences for the abstraction of water that were granted before 30 October 1994 and which were likely to have a significant effect on any European site. In order to discharge that obligation, the Environment Agency reviewed those licences between 2002 and 2010. This resulted in licences being affirmed, amended, or revoked, as appropriate.
18. The review identified four SSSIs in the Norfolk Broads where it was assessed that the risk associated with water abstraction was unacceptable. Licence changes were implemented to address the risks. The Environment Agency concluded that abstraction at other SSSIs (including the three SSSIs) was sustainable and that no further licence changes were required.
19. Following the completion of the Review of Consents programme, a “Renewals Communique” process was established between the Environment Agency and Natural England. This enables Natural England to indicate any concerns in relation to the renewal of particular licences. In a number of cases Natural England has expressed concerns about the renewal of licences which were approved during the Review of Consents.

Restoring Sustainable Abstraction (“RSA”) Programme

20. The RSA programme began in 1999. Its purpose is to identify, investigate, and resolve environmental damage caused by unsustainable water abstraction. The focus was on sites, with each RSA investigation addressing the impact of abstraction on a

particular site, area, or river (by contrast, the Review of Consents had focussed on abstraction licences).

21. The RSA programme began with the identification of sites at potential risk. Once a site was identified as being at risk from abstraction, the Environment Agency appraised the options. These included using statutory powers under the 1991 Act to vary or revoke abstraction licences.
22. By 2012, approximately 500 sites had been identified throughout England as being at risk. Most of these were SSSIs. In 2012 a decision was made to close the programme to new sites. This enabled the Environment Agency to plan the workload, timescales, and costs to complete the programme. The Environment Agency stresses that its decision did not mean that no new sites could be investigated, just that any further investigation would not take place under the RSA programme and would instead take place through the Environment Agency's "River Basin Management Plans." Conversely, the Environment Agency does not suggest that all sites at risk were captured by the RSA programme. It recognises that further sites are likely to be at risk.

Ant Broads and Marshes RSA Investigation

23. At a meeting with the Environment Agency in 2010 the claimants expressed concern about the impact of abstraction on Catfield Fen and the Environment Agency's "apparent lethargy and indifference". For example, they said that Milkweed (which is an important food source for the swallowtail butterfly) was suffering due to lack of groundwater. They made particular reference to abstraction at Plumsgate Road. They said that work undertaken by the Environment Agency indicated that abstraction at Plumsgate Road was having an effect more than 1km to the west, beyond Catfield Fen. They asked the Environment Agency to "stop the abstraction" (ie to revoke the licence).
24. The Environment Agency initiated a new investigation under the RSA programme, partly as a result of the information provided by the claimants. Initially, the investigation was focussed on the evidence that had been presented in respect of Catfield Fen, but it also covered the Ant Broads and Marshes SSSI. In 2011, Natural England and the claimants compiled and presented a compendium of evidence documenting changes to the ecology of Catfield Fen which were caused by changes in the hydrological regime. The Environment Agency responded by commissioning a report on Catfield Fen's hydrology and hydrogeology. The report did not identify any definitive impact from abstraction, but there was broad agreement that abstraction, in combination with other factors, might be the cause of observable ecological changes. Modelling assessments were undertaken in 2014. These indicated that abstraction was reducing the upward flow of groundwater to the shallow surface water table. This had an impact on surface water levels.
25. In July 2017 an interim investigation report was produced. This raised concerns about changes to (and risk to) certain flora, including the calcareous fen habitat and the fen orchid populations. It summarised the work that had been undertaken by the RSA programme.

The Plumsgate Road and Ludham Road licences

26. Licences for the abstraction of water from sites at Plumsgate Road and Ludham Road (which are close to Catfield Fen) were granted in the late 1980s. They were subject to periodical renewal. They each permitted the abstraction of water from the crag aquifer for spray irrigation, with annual limits of 68,000m³ and 22,700m³ respectively. The licences continued to be renewed after the Review of Consents.
27. In May 2015 the Environment Agency refused to renew these two licences, in part because of the potential impact on flora at Catfield Fen which had been demonstrated by the RSA investigation and by the evidence produced by Natural England, the Royal Society for the Protection of Birds (“RSPB”), and the claimants. The Environment Agency was particularly concerned about the impact on calcareous fen and the fen orchid. The Environment Agency’s decision was upheld on appeal by Elizabeth Hill, a Planning Inspector appointed by the Secretary of State. In her decision of 16 September 2016, Ms Hill charts the evidence of ecological change at Catfield Fen. The RSPB measured a 50% decline of calcareous fen between 1991 and 2015. This was corroborated by other evidence. There were also increasing acidity values and greater evidence of drier conditions across Catfield Fen. There was also evidence of a one third reduction of the population of fen orchid. Ms Hill concluded that the possibility that this was due to water abstraction pursuant to the two licences could not be ruled out.
28. At the end of her written decision, Ms Hill said:

“I... acknowledge that Mr and Mrs Harris have committed their time and resources into managing [part of Catfield Fen] in accordance with the [Higher Land Stewardship scheme] to maintain and improve its conservation value. Mr and Mrs Harris have... said that the outcome of the appeals should influence the EA’s RSA programme more generally. However, that is a matter for the EA and these decisions cover only the submitted appeals.”

29. This claim picks up where Ms Hill left off.

Natural England’s Site Improvement plan

30. On 8 March 2018 Natural England provided the second version of a Site Improvement Plan for the SAC. It identified the risk of water abstraction as “a key issue potentially affecting the full range of Broads’ habitats and species.” It said that there was a need to “[i]nvestigate and restore sustainable abstraction” at sites where abstraction might be impacting on a particular site, and “to review licences in the context of a changing climate.” Nothing within the Site Improvement Plan suggests that the need for such action was limited to the three SSSIs.

Limitation of Ant Broads and Marshes RSA to the three SSSIs

31. In 2018, the Environment Agency conducted an external consultation. Consultees suggested extending the Ant Broads and Marshes RSA investigation so as to cover other SSSIs. The Environment Agency initially rejected the suggestion because the

RSA programme was closed to the addition of new sites. However, it then decided to add two further sites immediately adjacent to the Ant Broads and Marshes SSSI - Broad Fen, Dilham SSSI and Alderfen Broad SSSI.

32. It is the decision to limit the investigation to the three SSSIs and not to expand the coverage of the RSA investigation to other SSSIs within the SAC, which is the decision that is under challenge in these proceedings.
33. Ian Pearson, the Environment Agency's Lead Officer for the Ant Broads and Marshes RSA investigation, explains the reasons for the decision in his witness evidence. They are that:
 - (1) The RSA programme was closed to new sites.
 - (2) The Environment Agency's limited resources did not enable it to embark on further investigations.
 - (3) However, Broad Fen, Dilham SSSI and Alderfen Broad SSSI could be added without incurring significant additional expense.
 - (4) Those two sites were the most immediately adjacent to the Ant Broads and Marshes SSSI and supported similar SAC habitats.
 - (5) The inclusion of these two sites would inform pending licence renewal applications.
 - (6) There were no new concerns at these two sites which had not already been recognised and addressed through the Review of Consents process.
34. Insofar as Natural England had identified concerns in relation to other sites, the Environment Agency indicated that additional modelling work would be undertaken outside the RSA programme.

Natural England's October 2020 advice

35. On 28 October 2020 Natural England advised the Environment Agency on the assessment of abstraction licences. It said that knowledge had evolved since the Review of Consents process. This evolving knowledge needed to inform the approach. The Environment Agency should, when determining licences for other protected sites, act consistently with the approach taken in the Ant Broads and Marshes and should conduct a "systematic assessment of the evidence of ecosystem dependence on the supporting groundwater body or surface water system and the level of impact on these water bodies and systems..."

The Ant Broads and Marshes RSA Report

36. The Ant Broads and Marshes RSA Report was published on 14 June 2021. It addresses in considerable detail (and on the basis of extensive modelling and other work) the effect on the three SSSIs of abstractions under 240 licences in a screening area which covered, and extended well beyond, those SSSIs. It does not consider the effect of abstraction on other SSSIs within, or adjacent to, the screening area.

37. The Report concludes that it is not possible to rule out abstraction of water as a cause for adverse effects across the Broads SAC. It recognises that the Habitats Regulations require it to apply a precautionary approach and to take action to reduce abstraction where there was a risk that abstraction might cause such adverse effects. It identifies a number of options to achieve sustainable levels of abstraction so far as the three SSSIs are concerned. The preferred option entails the revocation or modification of 21 permanent abstraction licences, the expiry (without further renewal) of 10 time-limited licences, and the refusal of 4 further pending licence applications.
38. The modelling that was conducted for the RSA investigation shows that there are risks to other sites within the SAC, beyond the three SSSIs that were the focus of the investigation. Advice from Natural England is that seemingly small changes in the proportion of water supply, and consequential effects on water chemistry, can be significant to cause adverse effects to the habitats and species for which the SAC is recognised. The Environment Agency applies a threshold for water flow of a 5% deviation from that which would occur under natural conditions (ie without abstraction). It can only safely be concluded that abstraction has no adverse effect on site integrity if that threshold is not breached. The modelling shows that this threshold is exceeded in many areas across the SAC, including (but not limited to) the three SSSIs.

Further work following RSA Report

39. The work undertaken by the Environment Agency as part of its RSA programme was valuable in identifying new assessment tools and refinements to existing models. These are documented in a technical report. The Environment Agency accepts that the application of these new tools and refined models may demonstrate that there is a risk of harm to other sites. It is, accordingly, conducting further work. This includes work on the implications of the conclusions of the technical report for three further SSSIs. Preliminary indications are that the hydrological criteria that were used in the Ant Broads and Marshes RSA report are not currently met at two of those three further SSSIs (but there is an outstanding question as to whether those criteria are appropriate for the three further SSSIs). The Environment Agency is also using the new tools and refined models when considering applications for new licences, and applications to renew existing licences.
40. Natural England has indicated that “further work is needed to assess the impacts of water supply on protected sites and priority habitats out-with the Ant Valley and action taken as necessary.” The Environment Agency emphasise that Natural England has not said in terms that this work is required “urgently” or “without delay”.

Legal framework

Water Resources Act 1991

41. Chapter 2 of Part 2 of the Water Resources Act 1991 regulates the licensing of water abstraction. Section 24 prohibits water abstraction without a licence. Section 38 makes provision for the Environment Agency to determine licence applications (requiring that it has regard to all relevant circumstances). Section 52 permits the Environment Agency to formulate proposals for revoking or varying existing licences.

Section 53 permits the Environment Agency to revoke or vary a licence pursuant to such proposals.

The precautionary principle

42. Article 191(2) of the Treaty on the Functioning of the European Union provides that Union policy on the environment shall aim at a high level of protection and shall be based on the precautionary principle, and on the principle that preventive action should be taken, and that environmental damage should, as a priority, be rectified at source.

Habitats Directive

43. The Habitats Directive concerns the conservation of natural habitats and wild fauna and flora. Its aim is to contribute to biodiversity in Member States through the conservation of natural habitats, wild fauna, and flora: article 2.
44. It defines “natural habitat types of Community interest” to include those that present outstanding examples of typical characteristics of the Continental region and are listed in Annex 1. It defines “priority natural habitat types” to mean natural habitat types that are in danger of disappearance (where certain other conditions are also fulfilled). Again, they are listed in Annex 1. They include calcareous fens with *Cladium mariscus* and species of the *Caricion davalliana*, and alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*. It defines “special area of conservation” to mean a site that is designated by the Member State where conservation measures are applied for the maintenance or restoration of the natural habitats or species for which the site is designated. It defines “species of Community interest” to include species that are endangered, vulnerable, rare, or endemic and requiring particular attention. They are listed in Annex 2. They include fen orchid *Liparis loeselii*.
45. Article 4 prescribes a process for designating a site as a special area of conservation. It requires Member States to establish priorities for the maintenance or restoration of those habitats listed in Annex 1, and those species listed in Annex 2, in the light of any threats of degradation or destruction to which those sites are exposed.
46. Article 6 states:
- “ ...
2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.
3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of

the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

...”

47. In *Landelijke Vereniging tot Behoud van de Waddenzee v Staatssecretaris van Landbouw, Natuurbeheer en Visserij (Case C-127/02)* [2005] 2 CMLR 31, the Grand Chamber of the European Court of Justice addressed the relationship between articles 6(2) and 6(3), in the context of the grant of annual licences for mechanical cockle fishing. The following principles emerge from the judgment:
- (1) The Habitats Directive must be interpreted in accordance with the precautionary principle: [44].
 - (2) An activity such as mechanical fishing is within the concept of a “plan or project” within the meaning of article 6(3): [27].
 - (3) Each annual grant of a licence is properly considered as a “plan or project” within the meaning of article 6(3): [28].
 - (4) Where a licence has been granted in a manner compatible with article 6(3) (so only after ascertaining that it will not adversely affect the integrity of the site concerned, and consequently not likely to give rise to deterioration or significant disturbance) article 6(2) is (at that point) superfluous: [35]-[36].
 - (5) But if the plan or project subsequently proves likely to give rise to deterioration of habitats or significant disturbance of species, article 6(2) provides a mechanism for ensuring the conservation of natural habitats and fauna and flora: [37].
 - (6) Thus, article 6(3) ensures, prospectively, that a relevant plan or project is authorised only if it will not adversely affect the integrity of the site, whereas article 6(2) imposes a general protection obligation to avoid deterioration and significant disturbance: [38].
48. Article 6(2) therefore imposes a proactive preventive requirement: Commission notice “Managing Natura 2000 sites: The provisions of article 6 of the Habitats’ Directive 92/43/EEC” at paragraphs 3.2 and 4.5.1. Compliance with article 6(2) cannot be achieved by reacting to demonstrable deterioration. Anticipatory measures are required to prevent deterioration before it occurs: *Case C-418/04 Commission v Ireland* [2007] ECR I-10997 at [207]-[208]. This is an aspect of the precautionary principle.
49. Thus, where it appears that there is a risk of deterioration of a protected habitat, article 6(2) of the Habitats Directive requires that “appropriate steps” are taken to avoid that deterioration: *Case C-399/14 Grüne Liga Sachsen eV v Freistaat Sachsen* EU:C:2016:10 [2016] PTSR 1240 at [41]-[44].

50. This means that where it becomes apparent that there may be a risk to a protected habitat or species as a result of the licenced abstraction of water, article 6(2) imposes an obligation to review the applicable licences: *Grüne Liga* at [44]. The review must be sufficiently robust to guarantee that the abstraction of water will not cause significant damage to ecosystems that are protected under the Habitats Directive: *Grüne Liga* at [53].

Habitats Regulations

51. The 1994 Habitats Regulations transposed the Habitats Directive in England and Wales. They were consolidated and updated by the Conservation of Habitats and Species Regulations 2010 which, in turn, were consolidated and updated by the Conservation of Habitats and Species Regulations 2017. As explained below, the Habitats Regulations continue to have effect in domestic law because they are EU-derived domestic legislation: sections 1B(7) and 2(1) of the European Union (Withdrawal) Act 2018. The Habitats Regulations are thus retained EU Law: section 6(7) of the 2018 Act. It follows that they must be interpreted in accordance with retained EU case law and retained principles of EU law: section 6(3) of the 2018 Act.
52. Regulation 9 of the Habitats Regulations states:

“9 Duties relating to compliance with the Directives

- (1) The appropriate authority, the nature conservation bodies and, in relation to the marine area, a competent authority must exercise their functions which are relevant to nature conservation, including marine conservation, so as to secure compliance with the requirements of the Directives.
- ...
- (3) Without prejudice to the preceding provisions, a competent authority, in exercising any of its functions, must have regard to the requirements of the Directives so far as they may be affected by the exercise of those functions.”

53. The “appropriate authority” means the Secretary of State; the “nature conservation bodies” means (in relation to England) Natural England; a “competent authority” includes any public body (and so, in particular, includes the Environment Agency); the “Directives” include the Habitats Directive: regulation 3.
54. Regulation 65(1), read with regulation 102(5) and (6), requires that when a site which has a water abstraction licence becomes a European site, the Environment Agency must, as soon as is reasonably practicable, undertake a review of the licence (and, if necessary, vary or revoke the licence following the review).

Withdrawal from European Union: The European Union (Withdrawal) Act 2018

55. The 2018 Act repeals the European Communities Act 1972 and converts EU law, as it stood at the end of 2020, into domestic law.

56. Legislation (such as the Habitats Regulations) passed under section 2(2) of the 1972 Act is EU-derived domestic legislation and continues to have effect in domestic law: section 2(1).
57. Section 3 provides that “direct EU legislation” forms part of domestic law. The Habitats Directive is not direct EU legislation (see section 3(2) and the definition of “EU tertiary legislation” in section 20, which excludes EU directives).
58. Section 4 (as amended by the European Union (Withdrawal) Act 2020) states:
- “4 Savings for rights etc. under section 2(1) of the ECA
- (1) Any... obligations... which, immediately before IP completion day —
- (a) are recognised and available in domestic law by virtue of section 2(1) of the European Communities Act 1972, and
- (b) are enforced... accordingly,
- continue on and after IP completion day to be recognised and available in domestic law (and to be enforced... accordingly).
- (2) Subsection (1) does not apply to any... obligations... so far as they—
- ... arise under an EU directive (including as applied by the EEA agreement) and are not of a kind recognised by the European Court or any court or tribunal in the United Kingdom in a case decided before IP completion day (whether or not as an essential part of the decision in the case).
- ...”
59. Questions as to the meaning and effect of retained EU law (so, including the Habitats Regulations, and the obligation under article 6(2) which continues to have effect under section 4) must be decided in accordance with retained general principles of EU law: section 6(3)(a). The precautionary principle is a retained general principle of EU law: section 6(7).
60. IP completion day is 11pm on 31 December 2020: section 1A(6) of the 2018 Act and section 39(1) of the 2020 Act.

The claim for judicial review

61. The claimants say that, so far as the three SSSIs are concerned, the Environment Agency has acted lawfully and in accordance with article 6 of the Habitats Directive. The work done by the Environment Agency (and the resultant licensing changes) will ensure that there is no prospect that water abstraction will cause deterioration of the

habitats or significant disturbance of the species at the three SSSIs. The claimants are not critical of the RSA investigation or report so far as it addresses the three SSSIs.

62. The claimants' case is that the Environment Agency acted unlawfully by limiting its investigation to the three SSSIs. They say that once it decided to review the 240 abstraction licences, it was required to consider their impact across the entirety of the SAC. Further, once the Environment Agency was aware of potential risks to other sites, it was obliged to address those potential risks.
63. The legal foundation for the claimants' claim is article 6(2) of the Habitats Directive. Their submission is that article 6(2) has effect in domestic law by virtue of regulation 9(3) of the Habitats Regulations. Although that regulation imposes an obligation only to "have regard" to the requirements of the Habitats Directive, in context this requires compliance with the Habitats Directive. This (say the claimants) was the finding of Sullivan J in *R (Friends of the Earth) v Environment Agency* [2003] EWHC 3193 (Admin) at [57]. This interpretation is also mandated by a concession made by the Government in *Case C-6/04 Commission v United Kingdom* [2006] Env LR 29. Further, the claimants rely on the fact that regulation 9(1) imposes an obligation on Natural England to secure compliance with the Habitats Directive, together with the fact that the Environment Agency acts on advice from Natural England. This means, they say, that the Environment Agency thereby itself comes under an obligation to secure compliance with the Directive.
64. Irrespective of the correct application of regulation 9(3), the claimants contend that article 6(2) is enforceable in domestic legal proceedings. That is because article 6 was recognised as having direct application in domestic law by the European Court of Justice in *Waddenzee* and by the Upper Tribunal (Administrative Appeals Chamber) in *Natural England v Warren* [2019] UKUT 300 (AAC) [2020] PTSR 565, and because section 4(2)(b) of the 2018 Act preserves that recognition.
65. The claimants' substantive case is that the decision to limit the RSA investigation to the three SSSIs was in breach of article 6(2) and was irrational.
66. The RSA programme amounts to the Environment Agency's purported compliance with article 6(2) in respect of the SAC. The "appropriate steps" comprise the review of the 240 licences in the screening area so as to ensure that abstraction does not give rise to a risk of deterioration or significant disturbance. The problem is that the Environment Agency has not conducted the review across the entirety of the SAC but only in respect of three SSSIs. Further, the evidence shows that the Review of Consents was flawed. It can no longer be relied on as demonstrating that there is no risk to sites within the SAC. It is therefore necessary to conduct a review across the entirety of the SAC. The failure to do so amounts to a breach of article 6(2).
67. Irrespective of the question of the enforceability of article 6(2) in domestic proceedings, the Environment Agency has decided to comply with article 6(2) and has devised a programme of work to discharge that obligation. Its decision making as to the work required was irrational, because there was no good reason to limit the RSA investigation to just three SSSIs. The potential risks apply across all the SSSIs within the screening area. Alderfen Broad SSSI and Broad Fen Dilham SSSI were not, on the available evidence, at any greater risk than other SSSIs. The Environment Agency recognised that there are priority natural habitats, protected under Annex 1 to the

Habitats Directive, at those two SSSIs. But the same priority habitats can be found within 16 further SSSIs which were not part of the RSA programme. It was therefore irrational to limit the investigation to the three SSSIs. The Environment Agency could not rationally conclude that it could comply with article 6(2) without conducting a broader investigation.

The Environment Agency's response to the claim

68. The Environment Agency contends that the claim is based on a misunderstanding as to the nature of the RSA programme. It was never intended that the programme would be a comprehensive assessment of the impact of abstraction across the entirety of all European sites. The Ant Broads and Marshes RSA investigation was not intended to review the impact of all 240 licences across every protected species and habitat in the SAC. The intention of the RSA programme was to focus only on sites that had been assessed to be at risk. The Ant Broads and Marshes investigation was initially concerned only with the Ant Broads and Marshes SSSI, but this was expanded to two further SSSIs as a result of public consultation and for the reasons that Mr Pearson explains (see paragraph 33 above). The Environment Agency recognises that there may be risks to other sites, but these can be addressed by additional work outside the scope of the RSA programme. This work is ongoing and iterative. The tools and modelling that were developed in the course of the RSA programme are being deployed when deciding whether new licence applications should be granted or whether time-limited licences should be renewed (and, in each case, what terms should be applied).
69. Regulation 9(3) of the Habitats Regulations requires only that the Environment Agency “has regard” to the Habitats Directive. It does not impose an obligation on the Environment Agency to comply with the Habitats Directive. If that had been the intention then regulation 9(3) would have been drafted in the same way as regulation 9(1) which imposes an obligation (but on the Secretary of State, not the Environment Agency) to secure compliance with the requirements of the Habitats Directive. The Environment Agency plainly had regard to the requirements of the Habitats Directive: the contemporaneous documentation, including the Ant Broads and Marshes RSA report, shows in terms that it took the requirements of the Habitats Directive into account at every stage of its decision making.
70. Article 6(2) has not been recognised by the courts as having direct effect in domestic law. The decision in *Waddenzee* was concerned with article 6(3), not article 6(2), and the court explicitly did not address the question of whether article 6(2) has direct effect. The court in *Warren* recognised that article 6(2) is binding, but that is a different matter. In any event, *Warren* was decided *per incuriam* because the court had not appreciated that *Waddenzee* did not rule on the question of whether article 6(2) has direct effect in domestic law.
71. The Environment Agency contend that it has not been shown that it has breached article 6(2): “there is no proper evidence before the court to demonstrate that a specific risk has been established which is not being acted upon.” As and when risks are identified, they are appropriately addressed by the Environment Agency, acting on advice from Natural England. It was reasonable to limit the Ant Broads and Marshes RSA investigation to the three SSSIs. It was not necessary, practicable or reasonable to expand it to cover all other SSSIs in the screening area. On the contrary, it was

reasonable to close the RSA programme to new sites so as to allow the programme to be completed and for the lessons learned from the programme then to be applied to future work. Notwithstanding that the programme had, in principle, been closed to new sites it was reasonable to expand it to cover the two additional sites for the reasons given by Mr Pearson (see paragraph 33 above). The Environment Agency has therefore acted rationally.

72. The decision as to how to discharge its statutory functions is for the Environment Agency, not the court: *Boggis v Natural England* [2010] PTSR 725 at [37]. The Environment Agency's judgement on questions of scientific, technical, and predictive assessments can only be challenged on a *Wednesbury* basis, acknowledging that an enhanced margin of appreciation is to be applied: *R (Mott) v Environment Agency* [2016] 1 WLR 4338. Further, in determining the level of resources to deploy in investigating potential risks, the Environment Agency is entitled to take account of funding pressures and competing demands on resources.

Issue 1: The requirement to “have regard” to the Habitats Directive

73. It is common ground that regulation 9(3) of the Habitats Regulations obliges the Environment Agency to have regard to the requirements of article 6(2) of the Habitats Directive.

74. The claimants argue that the obligation to “have regard” to article 6(2) amounts to an obligation to secure compliance with article 6(2). They rely on what was said by Sullivan J in respect of regulation 3(4) of the 1994 Habitats Regulations (the predecessor of regulation 9(3) of the Habitats Regulations, and in materially identical terms) in *Friends of the Earth* at [57]:

“Regulation 3(4) requires the Agency... to have regard to [the requirements of the Habitats Directive] in so far as they are relevant... when exercising any of its functions. ... Even if the meaning of reg 3(4) was uncertain, which it is not, it would be necessary to construe it so as to impose such an obligation upon the Agency in order to give effect to the Directive (*Case C-106/89 Marleasing SA v La Comercial Internacional de Alimentacion SA* [1990] ECR I-4135 p 4159 para 8.”

75. I do not accept that this supports the claimant's argument. Sullivan J does not, in this passage, suggest that the words “have regard to” mean “secure compliance with”. Sullivan J instead points out that in order to give effect to the Habitats Directive it is necessary to construe regulation 3(4) in a way which requires the Agency to “have regard” to the Habitats Directive when it exercises its functions (which is, anyway, what regulation 3(4) plainly requires). The claimants thus read far too much into this passage.

76. Even if the meaning of Sullivan J's observation (read in isolation) is uncertain, which it is not, it is necessary to consider it in context. The meaning is clear when the passage is considered in the context of the issue that he was addressing, and the argument that was advanced. The case concerned a decision of the Environment Agency to modify a waste management licence. The Environment Agency and Friends of the Earth agreed that regulation 3(4) imposed an obligation on the

Environment Agency to have regard to the requirements of the Habitats Directive when deciding whether the waste management licence should be modified: [41], [51]. The beneficiary of the licence disagreed, contending that the word “they” in regulation 3(4) referred to “every competent authority” rather than the requirements of the Habitats Directive: [55]. Thus, the argument that was advanced was that the obligation to “have regard” to the Habitats Directive arose where a public authority might be affected by the exercise of its functions rather than where the requirements of the Directive might be affected by the exercise of the authority’s functions. The passage quoted at paragraph 74 above is immediately preceded by the sentence “FoE and the Agency are plainly correct that “they” is a reference to the requirements of the Habitats Directive.” Thus, Sullivan J was not determining the meaning of the words “have regard to.” He was instead determining the issue between the parties, namely which noun (as between “authority” and “Directive”) was referenced by the pronoun “they”.

77. The claimants further rely on an argument advanced by the Government in *Case C-6/04*. In that the case the Commission contended that the UK had not adequately transposed the Habitats Directive. In response, the Government submitted:

“The relevant competent authorities are under a statutory obligation to exercise their functions so as to secure compliance with the Habitats Directive. This results... from regulations 3(2) and (4)...”

78. Again, I do not accept the claimants’ argument. The Government’s submission as to the effect of the regulations is not, in itself, an aid to interpretation. Further, the Government’s submission was based on the combination of regulations 3(2) and 3(4), rather than the effect of regulation 3(4) in isolation. Regulation 3(2) (the predecessor of regulation 9(1) of the current regulations) itself imposes an obligation “to secure compliance with the requirements of the [Habitats Directive]”. The Government did not therefore submit that regulation 3(4) in isolation imposed an obligation to secure compliance with the Habitats Directive. Further, it may be noted that the court was not satisfied that regulation 3(4) was sufficient to “ensure that the provisions of the Habitats Directive... are transposed satisfactorily”: [28].
79. The claimants are correct that regulation 9(1) imposes an obligation, on Natural England, to “secure compliance with the requirements of the Directives.” They point out that the Environment Agency has not purported to depart from the advice that has been given by Natural England. They contend that it follows that the Environment Agency is itself under a legal obligation to secure compliance with the requirements of the Directives. I disagree. It does not follow. The claimants’ argument assumes that the advice was a comprehensive distillation of the steps required to comply with the Directives. Even if that assumption is correct (and I do not think it is), it further assumes, wrongly, that the Environment Agency’s decision to accept the advice means that the Environment Agency itself falls under the same legal obligation as the author of the advice.
80. A statutory obligation to “have regard” to something arises in many different contexts. It is usually imposed in respect of advice or guidance or a code of practice. It means that the advice or guidance or code must be considered when exercising the function or making the decision in question. That does not mean that it must be

“followed” or “slavishly obeyed”; a decision maker may depart from such advice or guidance or code if there is good reason to do so – *R (London Oratory School Governors) v Schools Adjudicator* [2015] EWHC 1012 (Admin) *per* Cobb J at [58].

81. The duty to “have regard” to X (where X is advice or guidance) is therefore different from a duty to act in accordance with X. In the present context, it is striking that the statutory language for the duties imposed by regulations 9(1) and 9(3) differ. Regulation 9(1) applies to the Secretary of State. It does not require the Secretary of State merely to have regard to the Habitats Directive. It requires the Secretary of State to secure compliance with the requirements of the Directive. Different statutory language is used in regulation 9(3). Instead of mandating compliance with the Directives it states only that regard must be had to their requirements. There is some force in Mr Dale-Harris’ submission that this must impose a less onerous obligation than regulation 9(1).
82. Here, the natural and conventional approach to the “have regard” duty is that it means that the Environment Agency is obliged to take account of the requirements of the Habitats Directive but may depart from its requirements if there is good reason to do so. In other words, it must take account of the Habitats Directive but is entitled not itself to discharge all of the requirements of the Directive where that can be justified.
83. It is, however, relevant (when considering whether a departure can be justified) that the object of the “have regard” duty is “requirements” rather than advice or guidance. Advice or guidance is not, ordinarily, mandatory. “Requirements” more usually are mandatory. The “requirements” are set out, in mandatory terms, in a Directive which the Regulations themselves transposed. In this context, there is not the same broad scope for taking something into account, but then deciding for good reason to depart from it, as there is in the case of non-binding guidance.
84. There is an important part of the regulatory context which helps explain the different language as between regulations 9(1) and 9(3). Regulation 9(3) is concerned with a “competent authority”. That has a broad meaning (including every public body). In some contexts, different competent authorities may have overlapping roles that are relevant to the discharge of the requirements of the Habitats Directive. In such cases, it would not be meaningful or appropriate to impose on one single competent authority (or on every competent authority) an obligation to secure compliance with the Habitats Directive. Instead, what is required is that all competent authorities have regard to the Habitats Directive so as to ensure that, in the result, compliance with the Directive is achieved.
85. Conversely, regulation 9(1) is concerned with the Secretary of State and the nature conservation bodies, who each have overarching responsibility for compliance with the Habitats Directive. That seems to me to explain the difference in language. This implies that the duty to “have regard” here does not implicitly permit the Environment Agency to act in a way that is inconsistent with the Habitats Directive (in other words to have regard to the requirements of the Directive but then deliberately decide to act in a way that is inconsistent with those requirements). Rather, it recognises that the Environment Agency is one part of a complex regulatory structure and, depending on the issue, it may have a greater or lesser role to play.

86. In the present context the Environment Agency is effectively the sole (and certainly the principal) public body that is responsible for determining whether abstraction licences should be granted, varied, or revoked. If it does not secure the requirements of article 6(2) in respect of those decisions, then no other public body is capable of filling the gap.
87. For these reasons, in this context, the duty on the Environment Agency to have regard to the requirements of the Habitats Directive means that the Environment Agency must take those requirements into account, and, insofar as it is (in a particular context) the relevant public body with responsibility for fulfilling those requirements, then it must discharge those requirements. In other words, the scope for departure that is ordinarily inherent in the words “have regard to” is considerably narrowed.
88. This is all entirely consistent with the approach that the Environment Agency has sought to take. It is clear from all of the contemporaneous evidence (including internal emails) that the Environment Agency has regarded itself as bound by the Habitats Directive and has sought to act in compliance with its requirements. Thus, in a “Q&A” document, prepared in 2021 and published as part of the RSA report, it states: “The Environment Agency has a legal obligation to... avoid adverse effects on habitats and species...” Whether or not it has succeeded in discharging the requirements of article 6(2) is the subject of issues 3 and 4.

Issue 2: Are the obligations under article 6(2) of a kind recognised by a court before 2021?

89. The parties agree that the question of whether article 6(2) is enforceable by a UK court (irrespective of regulation 9(3) of the Habitats Regulations) turns on the application of section 4(2)(b) of the 2018 Act, namely whether the obligations under article 6(2) are of a kind recognised by the CJEU, or any court or tribunal in the United Kingdom, in a case decided before 11pm on 31 December 2020.
90. In *Waddenzee*, conservation bodies in The Netherlands challenged a government decision to issue licences for mechanical cockle fishing. The court made a reference to the European Court of Justice. One of the questions that was referred was whether article 6(2) and 6(3) of the Habitats Directive “have direct effect in the sense that individuals may rely on them in national courts and those courts must provide the protection afforded to individuals by the direct effect of Community law...” In the light of the Court’s analysis of the relationship between article 6(2) and article 6(3), and its conclusion that only article 6(3) was relevant in the context of the reference, it was not necessary for the court to consider the direct effect of article 6(2). It did not do so. It held that article 6(3) had direct effect. Its reasons for doing so were that it is binding ([65]), that its binding effect would be weakened if individuals could not rely on it before national courts ([66]), that it requires certainty that there will be no adverse effect before a licence is granted ([67]), and it may therefore be taken into account where the national court is determining whether the grant of a licence has kept within the limits of article 6(3) ([69]-[70]).
91. The court did not rule on the question of whether article 6(2) has direct effect. Section 4(3) does not, however, require that the particular provision in issue (here article 6(2)) has been held to have direct effect. It only requires that it is “of a kind” that has been held to have direct effect. There is a close relationship between article 6(2) and 6(3).

They both require the national authorities to take steps to achieve the aims of the Habitats Directive and, in particular, to avoid deterioration of habitats and significant disturbance of species in the special areas of conservation. Article 6(3) applies prospectively. Article 6(2) enables a retrospective check that the article 6(3) steps remain adequate. Article 6(2) is thus “of a kind” that was recognised in *Waddenzee* as having direct effect.

92. Further, the question of whether article 6(2) has legal effect in domestic proceedings was addressed by the decision of the Upper Tribunal in *Warren*. Upper Tribunal Judge Markus QC held (in a judgment given on 2 October 2019), at [88], that the duties on member states under article 6(2) are binding on all public authorities of a member state, including the courts:

“The tribunal was bound to act consistently with the precautionary principle because the duties on member states under article 6(2) are binding on all authorities of a member state including the courts...”

93. Judge Markus cited *Waddenzee* at [65]–[66]. Mr Dale-Harris argues that Judge Markus was saying only that article 6(2) was binding, without expressly stating in terms that it had direct effect in domestic law. That is correct so far as it goes, but the effect of Judge Markus’ judgment was to recognise and enforce the precautionary principle that is inherent in article 6(2). This is sufficient to satisfy the test in section 4(3) of the 2018 Act. Mr Dale-Harris further argues that *Warren* was decided *per incuriam* because the judge had not appreciated that *Waddenzee* only decided that article 6(3) had direct effect and had made no such finding in respect of article 6(2). I disagree. There is no indication in *Warren* that Judge Markus had misunderstood the ambit of the court’s finding in *Waddenzee*. Her citation of *Waddenzee* at [65]–[66] was entirely apt. Although those passages only concern article 6(3), their rationale reads across to article 6(2). They therefore provide support for Judge Markus’ conclusion. In addition, even if *Warren* was decided *per incuriam*, that is not relevant to the section 4(2) test. That test is satisfied once a case is identified that recognises article 6(2) as being enforceable in domestic proceedings. The statute expressly provides that it is not necessary for that to be an essential part of the court’s decision. It is not relevant to the section 4(2) test to enquire as to whether the case was correctly decided or was decided *per incuriam*. The position might be different if the decision had been overturned on appeal, or later overruled, but that is not the case here.
94. Accordingly, by reason of section 4 of the 2018 Act, article 6(2) continues to be recognised and available in domestic law and is to be enforced accordingly.

Issue 3: Has the Environment Agency breached article 6(2) of the Habitats Directive?

95. The RSA investigation focusses on the impact of abstraction on specific sites, rather than the effect (across all sites) of specific licences. That answers the claimants’ narrow argument that having elected to investigate the effects of 240 abstraction licences, it was not open to the Environment Agency to limit that investigation to the impact on just three SSSIs. The narrow argument overlooks the fact that the RSA investigation was always intended to be focussed on sites (and, in particular, sites which had been assessed as being at risk) rather than a comprehensive analysis of the impact of abstraction across every SSSI. The claimants have not identified any

principled objection to the Environment Agency's decision to take a site-centric (rather than licence-centric) approach.

96. All permanent licences were scrutinised during the Review of Consents process (see paragraphs 17-19 above). *Waddenzee* recognises that (assuming the review is adequate) this satisfies article 6(3), and that article 6(2) has no role to play at that point (see paragraph 47(4) above). All time-limited licences are scrutinised when they fall to be renewed. The evidence indicates that the lessons learned during the RSA programme, including the new assessment tools and the refined models, are deployed when renewal decisions are made. Again, that process in principle satisfies article 6(3), and article 6(2) has no role to play at the point that licences are reviewed. This process is, in principle, capable of complying with the requirements of article 6.
97. Further, there is no general obligation proactively to review a licence unless there is some reason to do so. The fact that the Environment Agency reviewed the impact of abstraction on three sites does not, in itself, mean that it was obliged to review the impact on all sites.
98. On the other hand, the authorities are clear that it is not sufficient to wait until damage to a site occurs before taking remedial action (see paragraphs 47-48 above). If there is reason to believe that there is a risk of damage then it is necessary to take remedial steps: *Waddenzee* at [37], and *Grüne Liga* at [42].
99. Here, the Environment Agency do not suggest that there is no risk of damage to other sites (besides the three SSSIs). They accept that there is a potential risk. The Environment Agency is right to make that concession:
 - (1) As the Environment Agency recognise in its RSA report, one of the key characteristics of the SAC is the through-flow of base-rich water that derives from the underlying aquifers.
 - (2) Water abstraction involves the taking of water from the underlying aquifers and thereby potentially reduces the through-flow of base-rich water which is a key characteristic of the SAC. It also potentially changes the ground chemistry, impacting on surface ecology.
 - (3) There is therefore the clear potential for water abstraction to cause damage to wetland ecosystems.
 - (4) It is thus necessary to address the question whether abstraction of water in the area of a protected site is damaging to that site.
 - (5) This was done by the Review of Consents. That process was, in principle, capable of complying with the Environment Agency's obligations under article 6.
 - (6) However, as Mr Dale-Harris put it, the science of understanding the impact on SSSIs has "moved on". It has become clear, as a result of the evolving knowledge gained from the RSA programme, that the Review of Consents was flawed. It did not identify the risks posed by the Plumsgate Road and Ludham Road licences which are explained in the decision of Ms Hill. Nor did it identify the risks posed

to the three SSSIs. Those risks were identified subsequently, as a result of the more developed work that was undertaken in the course of the RSA programme.

- (7) The Environment Agency has itself recognised in a number of places that the Review of Consents has since been shown to be flawed. For example, in its pre-action protocol letter it accepted that by 2009/10 there was credible evidence that abstraction could be having adverse effects on Catfield Fen (even though the Review of Consents had not identified that the Plumsgate Road and Ludham Road licences posed any risks). The RSA report shows that there are other SSSIs where there are significant risks (see paragraph 39 above).
 - (8) Moreover, the Review of Consents process took place more than a decade ago. Natural England has identified the need to review licences in the context of a changing climate.
 - (9) Natural England has advised that further assessment work is needed (see paragraph 40 above). The Environment Agency has not provided any basis for disagreeing with this advice.
 - (10) Natural England does not consider that the Renewals Communique process is sufficient to address the risks. Nikolas Bertholdt, a freshwater senior adviser with Natural England, has provided evidence that Natural England considers that a “more strategic approach is needed, and investigation and actions taken where there is a credible risk to sites.” This reflects the advice it provided in October 2020 (see paragraph 35 above).
100. The Environment Agency may well be right that it is reacting appropriately where it becomes aware of evidence of a specific risk to a particular site. However, the factors set out in the previous paragraph show that the Review of Consents was not effective in ensuring that abstraction does not cause damage to protected sites and there thus remains a generalised risk from abstraction (particularly abstraction under permanent licences) across the entire SAC. Having regard to the precautionary principle, that is sufficient to trigger the article 6(2) duty (see paragraphs 42 and 48-49 above). It would be contrary to the precautionary principle and the reasoning in *Grüne Liga* if article 6(2) were not triggered by the factors set out in the previous paragraph and could only be triggered once it becomes clear that a particular site is at risk by an identified mechanism from abstraction at a specific location. It is sufficient that a generalised risk has been established (as a result of the demonstration of flaws in the Review of Consents process) to require “appropriate steps” to be taken. What those steps might be depends on the particular circumstances, the expert advice of Natural England and the expert judgement of the Environment Agency. In some cases, very little may be necessary. For example, it might be possible to rule out any risk at a particular site by showing that it is sufficiently far from any location where abstraction takes place under a permanent licence for abstraction to have any impact. Or it might be possible to rule out the prospect that abstraction at a particular location has any impact by applying the tools and models that were developed during the RSA programme. The steps taken must, however, be sufficiently robust to guarantee that abstraction of water does not cause damage to ecosystems that are protected under the Habitats Directive: *Grüne Liga* at [53].

101. Further, the Environment Agency has a broad discretion as to the steps that should be taken to achieve that end. The cost of different options is a relevant factor that can legitimately be considered. A court will be slow to question the Environment Agency's expert assessment as to the steps that should be taken. It is, however, not open to the Environment Agency to take no steps – that is a breach of article 6(2).
102. In respect of time limited licences, the Renewals Communique process (see paragraph 19 above) together with the application of the lessons learned from the RSA programme when considering the renewal of licences, is in principle capable of securing compliance with article 6 of the Directive. The same applies to new licence applications.
103. That leaves over the question of permanent licences. In his witness statement, Mr Pearson says that the ongoing work includes “adjusting permanent licences shown to be seriously damaging, either through voluntary action or by using our powers provided under s52 of the Water Resources Act 1991.” This shows that there are significant limitations to the ongoing work that is being done in respect of permanent licences. First, Mr Pearson does not suggest that any systematic programme is in place to investigate permanent licences so as to establish whether abstraction under those licences is risking damage to protected sites. The deficiencies in the Review of Consent process, and the Environment Agency's recognition of the risks of such damage, means that some form of review is required. Absent such a review there is no secure basis for identifying a need for adjustments to licences. Second, the test that is applied before an adjustment is applied (that is, that the licence is shown to be “seriously damaging”) is contrary to the precautionary principle. A much lower threshold for intervention is required. The Environment Agency must act unless it is satisfied that there is no risk of significant damage. Mr Pearson has, elsewhere, recognised that the flaws in the Review of Consents process necessitate further work to review permanent licences. In an internal email, in May 2021, he said the assessments made during the Review of Consents were called into question by the subsequent work but that there was “no plan or resourcing to look at these sites again other than through the occasional licence renewals process, and the chances are that time-limited licences are not the main cause of any concerns.”
104. It follows that the Environment Agency has not taken sufficient steps in respect of the risks to sites in the SAC (beyond the three SSSIs) posed by abstraction in accordance with permanent licences. It is only the Environment Agency (albeit with advice from Natural England) that may vary or revoke permanent licences. No other authority can do so. So, the Environment Agency cannot absolve itself from compliance with article 6 by pointing to work done by other public authorities. It has not therefore complied with article 6(2). Although it has taken account of article 6, it has not justified its failure to take steps in respect of the risks (particularly risks posed by abstraction in accordance with permanent licences), and it is therefore in breach of its obligation under regulation 9(3) of the Habitats Regulations. The claimed lack of resource does not justify these breaches. Resources may be relevant to the decision as to how to discharge the article 6(2)/regulation 9(3) obligations, but they are not relevant to the question of whether to discharge those obligations. The Environment Agency say that “other strands of work may be added.... in due course” but that is too vague and too late.

105. It was not essential for the risks to other sites to be addressed in the course of the RSA programme. It was open to the Environment Agency (within the bounds of rational decision making) to focus the RSA programme on a small number of sites, so long as adequate steps were taken, outside the RSA programme, to address the risks to other sites. The Environment Agency is entitled to exercise its scientific expertise in assessing what steps should be taken. I agree with the submission advanced on its behalf that relevant factors may include the degree of risk, the extent to which the risk is already being addressed, and the availability of resources. It may also take account of technical constraints (so, for example, it is said that a single RSA programme could not practically address disparate European sites featuring different habitat types). I also accept the submission that a court should be slow to second guess expert scientific and technical assessments that are made by the Environment Agency. So far, however, the Environment Agency has not undertaken any sufficient analysis of the steps needed to address the impact of abstraction in accordance with permanent licences.
106. The claimants have therefore demonstrated a breach of article 6(2) of the Habitats Directive and a breach of regulation 9(3) of the Habitats Regulations.

Issue 4: Has the Environment Agency acted irrationally?

107. Mr Pearson has explained why the Environment Agency did not expand the RSA programme to cover additional sites. The explanation is coherent. It amounts to a rational cost:benefit analysis. It was reasonable to close the RSA programme to new sites so as to enable the programme to be completed in a timely and planned manner. Likewise, it was reasonable, for the reasons Mr Pearson gives, to expand the programme (notwithstanding that it had been closed to new sites) to cover Broad Fen, Dilham SSSI and Alderfen Broad SSSI but not other sites. I do not accept the claimants' submission that having added those two additional sites it was irrational not to extend the programme further. Although one or more of the reasons for including those sites also applied to other SSSIs, the full constellation of reasons did not do so. The whole point was that this was a limited exception to the principle that the programme had been closed to new sites. Any significant expansion of the programme would itself have been inconsistent with that rational and legitimate policy choice.
108. The decision not to expand the Ant Broads and Marshes investigation further was not necessarily inconsistent with article 6(2). I agree with the submission advanced by the Environment Agency that the RSA programme was not the only means by which the Environment Agency could legitimately discharge the obligations arising under article 6(2). In particular, I agree with the submission that it would be open to the RSA to discharge those obligations by reviewing individual licences, rather than by expanding the RSA programme so that every site within the SAC was investigated.
109. The problem for the Environment Agency is that, for the reasons given above in connection with issue (3), its programme of works will not discharge the article 6(2) obligation. Having committed itself to discharge that obligation, it was irrational for the Environment Agency not to expand the RSA programme without having any alternative mechanism in place that could ensure compliance with article 6(2). It follows that even if (contrary to the findings I have made in respect of issues (1) and (2)) article 6(2) is not enforceable by the High Court, the Environment Agency's

decision is flawed on common law grounds. On this basis, the claimants' rationality challenge also succeeds.

Relief

110. The claimants seek an order that requires the Environment Agency to undertake a further RSA report forthwith. The Environment Agency contends this is unworkable. In any event, the relief sought by the claimants is not consistent with my finding that the Environment Agency can, in principle, discharge its obligations under article 6(2) in other ways. The parties did not make any submissions as to the form of relief in the course of the hearing. They agree that the question of relief is best determined following judgment on the substantive claim. I will make directions accordingly.

Outcome

111. The claimants have shown that water abstraction may be causing deterioration of protected habitats or significant disturbance of protected species within The Broads Special Area of Conservation (see paragraph 99 above).
112. The Environment Agency must (by reason of regulation 9(3) of the Habitats Regulations) have regard to the requirements of article 6(2) of the Habitats Directive. It must therefore be in a position to justify any departure from those requirements. The Environment Agency's obligation under article 6(2) continues to be enforceable in domestic law: section 4 of the 2018 Act. That obligation must continue to be interpreted in accordance with the precautionary principle: section 6 of the 2018 Act.
113. It follows that the Environment Agency must take appropriate steps to ensure that, in the SAC, there is no possibility of the deterioration of protected habitats or the significant disturbance of protected species as a result of licensed water abstraction. The Environment Agency has discharged that obligation in respect of three sites of special scientific interest. But it has not done so in respect of all sites within the SAC. That is because its review of abstraction licences was flawed and (at least in relation to permanent licences) it has not conducted a sufficient further review to address those flaws. It is therefore in breach of regulation 9(3) of the Habitats Regulations and article 6(2) of the Habitats Directive.
114. In addition, having decided to comply with article 6(2), it was not rational for the Environment Agency to limit its investigation to just three sites without undertaking further work to ensure compliance with article 6(2) across the entire SAC.
115. The claim therefore succeeds.

Appeal Reference:	2015/W001
Appeal by:	Mr Jim Martin
Appeal against:	The conditional grant of a licence to abstract/impound water.
Proposal:	Hydropower plant
Location:	On the Leitrim River, Leganny Hall, Ballyward, Castlewellan
Authority:	Northern Ireland Environment Agency
Authority's Reference:	AIL/2013/0005
Procedure:	Written representations and accompanied site visit on 13 January 2016 and Informal Hearing on 10 March 2016
Decision by:	Commissioner Rosemary Daly, dated 17 August 2016.

Decision

1. The appeal is dismissed.

Reasons

2. The main issue in this appeal is to what extent it is necessary to restrict the rates and residual flow of the abstraction of water from the Leitrim River to facilitate the proposed hydropower plant.
3. The site is located on the Leitrim River and at a historic mill site. An existing mill house and dam are on the site. The project involves the abstraction of water upstream of the dam conveying it via a sealed pipeline to a point approximately 150 metres downstream where it passes through a turbine to produce electricity. The water is then returned to the river. The site does not fall within any environmental designations or within a Special Area of Conservation (SAC) but is hydrologically connected to the Murlough SAC.
4. In accordance with the Water Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006, authorisation is required from the Department of Environment (now the Department of Agriculture, Environment and Rural Affairs DAERA) to abstract or impound water. A licence to abstract water was granted on 23 June 2015 at the above address for the primary purpose of a hydro electric generation of power.

The means of abstraction permitted by the licence is the diversion of river water.

5. While the licence permits the abstraction of water all year round, it states that the volume of water abstracted shall not exceed 18,144 cubic metres per calendar day (equivalent to 0.210 cubic metres per second). It also places additional restrictions on the rate and residual flow of water under conditions 6.2 and 6.3. It is these specific conditions that the appellant is seeking to challenge and have relaxed from Q_{80} to Q_{90} . The licence restrictions are currently expressed as:

- Condition 6.2 – No abstraction of water is permitted when the flow of the river at the Abstraction Point is 4,838 cubic metres per calendar day (0.056 cumecs) or less. This equates to the Q_{80} flow for the river at the point of abstraction.
- Condition 6.3 – When the water is being abstracted, the licence holder shall maintain a residual flow between the Abstraction Point and the Return Point (as marked on the attached map) of at least 4,838 cubic metres per calendar day (0.056 cumecs). This equates to the Q_{80} flow for the river.

6. A copy of the Northern Ireland Environment Agency (NIEA) document dated November 2011 and entitled '*Guidance for run of Hydropower schemes in Northern Ireland*', was provided by both parties. The guidance helpfully provides a glossary of commonly used terms and defines Q as the volume of water in a river flowing past a point during a specific time interval. This is commonly measured in cumecs, a cubic metre per second. Q_{95} is defined as the flow of the river expected to be exceeded 95% of the time. It is the frequently used characteristic value for the natural low flow in the river. A residual flow is the flow, specified in the Abstraction Licence, which must remain in the depleted stretch when abstraction is taking place. For hydropower schemes, the HOF (Hands-off flow) and residual flow are normally the same. HOF is the flow below which abstraction must cease. Chapter 6 of this guidance relates to 'Flow Standards' and states that NIEA will use the following guidelines for setting a residual flow. In summary these are:

- Minimum Residual Flow equal to Q_{95} as default standard;
- For rivers protected under the Freshwater Fish Directive (FFD) the residual flow should equate to at least Q_{90} at the point of abstraction; and
- Additional protection will be afforded and the residual flow licensed will equate to at least Q_{80} for:
 - I. All rivers designated as a SAC
 - II. Tributaries of an SAC river, or
 - III. Where the conservation features include salmonids and their habitats (i.e spawning and nursery areas for salmonids)

7. Notwithstanding the information and standards set out in the guidance document, NIEA advised that this guidance is now out of date and is therefore no longer used by NIEA for the assessment of Run of River Power Schemes. As highlighted on page 9 of the guidance, NIEA is committed to the continual review of the guidance in the document, indicating that it would be amended as the evidence base improves. Accordingly the document was removed from the NIEA web site after 21 May 2015 and before the licence under appeal was issued. During the processing of the licence application the appellant was advised that the guidance was under review.
8. To date no new guidance has been produced to replace this document. The appellant argued that other regulatory authorities throughout the rest of the UK and Ireland would place a Q_{90} or Q_{95} restriction on a site like this. Reliance on published guidance from other regulatory areas in Ireland and the UK has, however, limited weight in the consideration of this appeal given they are in a different regulatory regime and landscape setting. Processes, procedures, legislation and guidance are always evolving and changing. In policy terms, it is the date the application is determined that is relevant rather than when the application was submitted. In the absence of up to date guidance NIEA advised that each licence application must be considered on its own merits on a site specific basis. As there is no published guidance the merits of this case therefore must be considered in this way.
9. The appellant stated that conditions which require a Q_{80} flow will restrict the operation of the generator to 80% of the time during a typical year and that taking account of the start up flow this could equate to 100+ days per year. He further argued that a Q_{80} flow would mean a £1,000 difference per year and a 10% reduction to the viability of the hydropower scheme. It would, he contended, significantly reduce the return on the investment and development costs of the scheme and make it a borderline case in terms of viability. NIEA acknowledged that the difference between a Q_{80} and Q_{90} flow equated to some 30 days extra abstraction. The restrictions imposed by the licence therefore have an impact on the economic and environmental viability of the hydropower scheme for the generation of electricity. As the appellant pointed out, the scheme can deliver up to 15 kW of electricity which if not produced will also impact on meeting the Governments 40% renewable energy targets by 2020. These undoubted benefits of the scheme do however have to be weighed against the environmental affects that a higher level of abstraction would have on the watercourse and its biodiversity.
10. NIEA stated the justification for restrictions specified by Conditions 6.2 and 6.3 relate to recommendations provided by the Competent Authority for Fisheries, DCAL (now DAERA). They stated that the Leitrim River is a tributary of the Carrigs River and contains areas of good salmonid habitat and corresponding populations of resident and migratory brown

trout and eels. It was accepted at the appeal hearing that the spawning habitat in this part of the river was not as significant as the nursery habitat, when taking account of its characteristics. The nursery habitat of the river is noted to be a Grade 1 or +2 habitat in accordance AFBI (Agric-food and Biosciences Institute). The 150 metre depleted section of river channel associated with this development has excellent quality salmonid nursery habitat. The stocks in the river hold a considerable nature conservation and biodiversity value and provide an important social and economic resource in the form of recreational angling opportunities.

11. Having carried out Water Resource Assessments (WRA) of the site NIEA considered that flows below Q_{80} begin to reduce the wetted area of the river channel where the areas of salmonid nursery and spawning habitats are present. Whilst a Q_{90} may have a lower start up flow this is an operational matter. The Q_{80} flow is for the protection of the depleted stretch of the river and took account of the data provided by the appellant. NIEA stated that the Water Framework Directive (WFD) requires that river flow and water level to be protected for its own sake at sites of High Status. Elsewhere, it must be protected as far as required to meet the ecological objectives of the Directive. In their assessment they stated that whilst reduced flows in a river naturally occur, the imposition of unnaturally long sustained low flow regimes have the potential to negatively impact on primary productivity, the abundance and diversity of invertebrates, expose spawning gravels and reduce the area of juvenile territories so increasing the risk of density dependent mortalities and predation. For these reasons NIEA consider that the restriction set out by condition 6.2 and 6.3 should not be relaxed.
12. NIEA stated that the generation activity between a Q_{80} and a Q_{90} restriction would be small but the ecological impact of 30 extra days of abstraction would have a major impact on the fisheries habitat. NIEA referred to studies that have been carried out by AFBI and DCAL along other river systems, at the Knockoneill River Clady, to look at the impact of an abstracted area of the river. The conclusion of the research was that the suspected lower flow regime within the abstracted area may have reduced the wetted area and habitat quality available in the abstracted area during low flow conditions and this potentially limits the recruitment of young trout and salmon. Based on this research NIEA advocated that a precautionary approach should be adopted until further environmental studies were carried out. The research does, though, state that this a snap shot of three sites in one year and it is not located in the same area as the appeal site. On this basis I consider whilst this research is relevant it has limited weight when considering the site specific conditions at the appeal site.
13. The appellant provided a copy of Fisheries Research 62 (2003) 143-170 '*Habitat requirements of Atlantic salmon and brown trout in rivers and streams*'. This paper was known to the Fisheries Group. The paper

provides an overview of information available regarding the habitat requirements of salmon and brown trout. Taking this into account the appellant argued that the site specific circumstances on the Leitrim River at the Leganny Mill site do not justify a Q_{80} flow condition.

14. It was accepted all of the parties that fish migration at this location was prevented by the natural barrier provided by the impassable rock ledge at this part of the river. However, the concern related not to fish migration but to the resident and pockets of fish at this location, which have migrated up river to this point.
15. Photographs of the river channel were provided by the Fisheries Group, some which the appellant disputed as not being the subject river. I visited the site in January 2016 and again in August 2016. From my observations of the area to be dewatered, at the upper part of the river within the appeal site, the river flow is fast because of the drop over the rock ledge. The ground is covered over 50% bedrock, boulders and cobbles. However, as you move further downstream the river flow is slower and the size of and presence of bedrock lessens as the areas of cobbles increases. The appellant provided a table to demonstrate the reduction in the wetted area between a Q_{80} and Q_{90} flow. The table illustrated a variance of a 1% difference in the wetted perimeter to a 6% difference in the Race area. A hand drawn sketch to illustrate the table was also provided. While the appellant also referred to the historic flow and the design of the original dam, where the complete flow was diverted along the river, the historic flow and the technical information provided by the appellant is not persuasive of itself to demonstrate that that use of a Q_{90} flow would not cause harm to the ecological nursery habitat of the river. As the appellant himself acknowledged, that during dry summers and due to the upland nature of the catchment of the river the flow can naturally go below a Q_{90} flow for prolonged periods. From my observations of the river channel, in midsummer, the water level in the river channel was low especially towards the lower part of river channel where cobbles were dry and more exposed because of the low level of the river channel. Allowing a sustained residual flow of Q_{90} flow could result in further drying out the river channel in parts.
16. The watercourse in the area to be dewatered along the river is surrounded by substantial mature tree cover. This keeps the water cool and maintains oxygen levels for the fish. Notwithstanding the appellants research abstract relating '*to the effect of varying levels of deciduous bank side vegetation*' (WAC10) I am more persuaded by the NIEA evidence which suggest that the fish respond well to and seek out shaded areas. The wetted width of the channel, velocity of the river, depth of the river less than 30 cm and the type and size of the substratum all combine to ensure that this river gives rise to a good habitat. A reduction in flow, as proposed by the appellant, will almost inevitably impact in the oxygen levels in most nursery areas.

17. The evidence presented by the Fisheries Group indicates that the watercourse contains areas of good salmonid habitat and corresponding populations of resident and migratory brown trout and eels and that these stocks in the river hold considerable nature conservation and biodiversity value. The appellant's evidence relating to his observations of the characteristic of the Leitrim River relate research on the characteristic of other rivers. Whilst similarities can be drawn from this research to the Leitrim River and this evidence is helpful, it was not substantiated with a full assessment of the fishery habitat of the Leitrim River, taking account of species, abundance and the quality of habitat. I have also reviewed the appellant's supporting documents including the Construction Method Statement, the Monitoring and Maintenance Plan and the Project Statement none of these documents provide specific information relating to the effects on the ecology of the depleted stretch of the river or the effect of reduction in water flows on fish habitat of the river. The evidence presented by the appellant does not satisfactorily persuade me that the fish stock in the river does not hold considerable nature conservation and biodiversity value nor have I been persuaded that relaxing the restrictions set out by Conditions 6.2 and 6.3 of the Licence, to that suggested by the appellant, would not cause significant harm or detrimentally alter the salmonid habitat and ecology of the river.
18. While the economic, financial viability and contributions to the wider renewable energy targets of the proposed scheme carry considerable weight that weight is not determining in this case. In conclusion, as I have not been persuaded that a Q₉₀ rate and residual flow would not harm the nature conservation and biodiversity value of the river, the appeal is dismissed and conditions 6.2 and 6.3 should remain on the Licence to Abstract Water.

This decision relates to:

- Drawing PL01, PL02, PL03 and PL04
- Project Statement
- Construction Statement
- Monitoring Plan
- AIL/2013/0005 Location Plan
- AIL/2014/0005 Built Heritage Map

COMMISSIONER [REDACTED]

List of Appearances at the Site Visit

Appellant:-



List of Appearances at the Hearing

NIEA Water Management Unit:-



DCAL Inland fisheries Group:-



Appellant:-



List of Documents

NIEA Water Management Unit:- “A” Statement of Case and Appendices
(WAC4) NIEA Photographs of River Channel & NEIA disputed photographs
(WAC5) File Summary of NIEA emails and emails attached
(WAC6) Knockoneill River – FQ Fishery Survey Summary Data
(WAC8) Extract on background to the Water Framework Directive
(WAC11) Suggested Conditions (without prejudice)

Appellant:- “B” Statement of Case
“B1” Comments
(WAC1) Habitat requirements of Atlantic salmon and brown trout in rivers and streams
(WAC2) Guidance for run of river hydropower schemes in Northern Ireland NIEA November 2011
(WAC3) Guidance for run of river hydropower schemes in Northern Ireland – Stakeholder Engagement June 2011
(WAC7) Appellant’s photos of river channel.
(WAC9) River Channel Sketch
(WAC10) Abstract – on the effects of varying levels of deciduous bank side vegetation on salmonid stocks in Irish Waters.