UKELA

e-law

Better law for the environment

September/October 2018 | Issue 108

Welcome to the September/October edition of elaw.

The focus of this issue is water resources and marine management.

With water scarcity having being such a relevant issue to us in the UK over the unusually hot summer months, I cannot help but feel that water resource management and related issues will become a very hot topic in environmental law over the coming years. Equally marine management is also becoming more of a concern to the public and subject to increasing regulation, as we have seen in relation to microbeads and microplastics.

With pressure on water resource, it is important that its abstraction is carefully regulated. We are grateful to Alistair Mills for setting out so clearly the law relating to abstraction licensing and discussing some of the major questions which may arise in the abstraction licensing regime, see Water abstraction licensing.

We are also grateful to Professor William Howarth for explaining the current fragmentation which exists in relation to environmental and water laws and the failure to recognise the need for Integrated Water Resources Management (IWRM), see Integration and fragmentation in environmental and water laws. Perhaps we will see the law in this area being revisited and consolidated in the coming years.

With regard to how national management of water resources can in turn affect the marine environment, we are grateful to Cecily Kingston for her article Ocean deoxygenation and agricultural nitrate pollution in water. The article provides background and an overview of the UK's compliance in reducing nitrate pollution from agricultural run-off and highlighting the importance of maintaining pressure on government to reduce nitrate pollution in a post-Brexit government in order to mitigate ocean deoxygenation

Finally, don't miss Dr John Fetwell's book review of 'Protecting Forest and Marine Biodiversity, The Role of Law'.

In this issue

This is my first edition as editor of elaw, following Hayley Tam's move back to Australia. I am sure you will all join with me in wishing Hayley every success in her new job as a Knowledge Lawyer at Maddocks in Sydney, and her and her family happiness in their new lives. I am also sure you will all agree she has done a fantastic job over the years in shaping and editing elaw and join me in thanking her for all her hard work and diligence.

Best wishes,

Sophie Wilkinson
UKELA e-law Editor

E-law editorial team

Sophie Wilkinson, Editor – Sophie is an environmental law specialist at LexisPSL with 13 years' experience, including 11 years' experience in private practice. She moved to LexisNexis from Shoosmiths LLP where she was a Senior Associate. Prior to this Sophie trained at Browne Jacobson LLP and spent 6 years at Eversheds LLP.

Jessica Allen is currently pursuing the BPTC at City Law School, with a view to qualifying as a domestic and international public law barrister. She graduated with distinction in Law (BCL) at the University of Oxford in 2018, having previously graduated with honours in Law with French and French Law at the University of Nottingham in 2017. Jessica has also served as the Vice President for Academic Activities of ELSA UK (2016-17).

Dr Ben Christman – Assistant editor, is an independent environmental law researcher.

Lewis Hadler, Assistant Editor – Lewis currently studies the BPTC at the University of the West of England, having previously worked as a paralegal with Richard Buxton Environmental & Public law. He graduated in 2015 after completing his LLB at Anglia Ruskin University Cambridge.

Words from the Chair

Welcome to the October edition of e-law, which this month focuses on the issue of water resources and marine management. The excellent range of articles highlights the complexity of responsible management of the water environment and given the cross-border nature, the need for collaboration. Pause for thought, just over six months away from Brexit.

But I don't want to talk about that! What I would like to highlight is membership. Our 60 second interview this month is with Nina Pindham, UKELA trustee and former convenor of the water working party. Nina sums up perfectly the benefits of being a UKELA member, particularly when you are new to the field of environmental law (or indeed the UK!). We understand that there is a lot of competition for both time and money, but the success of UKELA relies on its membership. We are a very small organisation that is heavily reliant on voluntary contributions from our members; however that is also our strength, as the collective knowledge we are able to draw upon has allowed us to do some incredible things relative to our size.

We don't want to grow for growth's sake, but we do want to make sure that we understand what our members want, and that we are attractive to new members. So please take a few moments to read the accompanying summary and complete the questions to help our Membership Development Group. There is further information under UKELA news. If you have any colleagues who might be interested in joining UKELA, or have let their membership lapse, now is an ideal time for them to join. New members signing up now for 2019 will get the remainder of 2018 for free!

Another good reason to do so is to benefit from our packed autumn events schedule. We are particularly delighted to welcome Prof. Dr. Juilane Kokott, who holds the position of Advocate General at the Court of Justice of the European Union, as this year's Garner lecture speaker. The lecture will be chaired by our President, Lord Carnwath, and is hosted by Freshfields Bruckhaus Deringer. We hope to see many of you there. Please see the website for booking details and for details of various video link venues around the UK.

Regards,

Anne Johnstone

Anne Johnstone
UKELA Chair

UKELA news

Membership audit

We would like to ensure that we are offering the most appropriate service to you, our members. Along with your copy of this edition of e-law you will also receive a short summary of the steps we are taking and asking whether there are areas of UKELA with which you would like to become more involved. Any feedback is welcomed, but in particular we would like to know that we hold the correct details for you, that you are on the appropriate membership tier, and if there are any working parties or regional, devolved or special interest groups which you would like to join. We are also keen to hear from anyone who would like to speak at any of our events – particularly women! There will be a prize draw taking place for those who reply to Elly-Mae Gadsby before 31 October, with the winner having a choice of either a bottle of bubbly or a free ticket to this year's Garner lecture. We look forward to hearing from you!

Membership survey

Please help us with our membership development – we are always looking for ways to improve the membership offer and so attract more members. Take part in our short survey (just 5 questions) to give us your thoughts on what you like about UKELA and how we can attract more members. Take the survey here. Thank you!

Annual conference 2019

We are delighted to let you know that we will be heading to Sheffield for the annual conference in 2019. Join us at the University of Sheffield from 28 to 30 June for two days of topical presentations and debate, as well as the opportunity to connect with old and new friends and colleagues. Our conference team is working hard on the programme right now and we will bring you more details later in the year. For now, make a note in your diaries!

Regional news

South West region event on 'Working in environmental law: An overview' – 28 November

Please join the UKELA South West Regional Group for our autumn event, which will provide an overview into working in the field of environmental law. We have speakers from various parts of the environmental law community taking us through their work, sharing their hot topics, and highlighting why environmental law is such a fascinating and important area to work in. This event is aimed at those looking to enhance their understanding of the broad environmental law sector and its different professional components, and for those about to embark on their professional life or considering a career change within this field. After the speakers' presentations, there will be an opportunity to network over drinks and light refreshments, kindly hosted by Osborne Clarke in Bristol. More details, including how to book, coming soon.

Working party news

Wyn Jones made Honorary Member

Wyn Jones, recently retired convenor of the Nature Conservation Working Party, was made an Honorary Member of UKELA at the recent Annual General Meeting. Here he is pictured being presented with his certificate at the recent meeting of the working party, by Ned Westaway, trustee and Vice Chair of UKELA. We would like to pass on our heartiest congratulations to Wyn and thank him for his continued dedication to UKELA and the Nature Conservation Working Party.

Student news

Annual careers evening 2018

This year's annual UKELA student careers evening will be kindly hosted once again by Francis Taylor Building in London on Thursday 8 November from 6pm to 8.30pm. We have a wide variety of advisers and speakers including solicitors, barristers, environmental groups and consultancies. It is an excellent opportunity not only to find out more about the field in which you are interested, but also to network and mix with like-minded people. Refreshments are provided and entry is free, but you will need to book your place in advance. It is not a requirement to be a UKELA member in order to attend, so please tell anyone you think may be interested. We look forward to seeing you there!

Student publication opportunity

Interested in co-authoring a hot topic article with an environmental professional? UKELA provides an opportunity for students to publish their work in e-law, our members' journal which is circulated to over 1400 practitioners. Students are invited to email a short abstract of up to 500 words to Lewis Hadler, our student advisor. If selected, the Editorial Board will endeavour to pair students with a supervising practitioner in that field. Articles can be on the e-law issue theme or on any topic related to environmental law. The theme of the next issue is 'Human health, human rights and the environment', expected to be published in late November.

Student Advisor position

UKELA is offering a student with the right skills and outlook an opportunity to join our student team as a Student Advisor. UKELA typically has two Student Advisors at any one time who work with the support and supervision of our Trustees and staff.

The role of Student Advisor involves:

- Advising UKELA's Council on how to make our services relevant and accessible to student members throughout their education and professional development.
- Working with student contributors on articles for our members' journal, e-law.
- Managing student mailings, maintaining mailing lists and social media posts to keep members up to date.
- Maintaining the student section on the website.
- Providing practical input on specific initiatives, such as our moot competitions and student bursary scheme.

Ideally, the Student Advisor will attend Council meetings and be available to discuss ideas with UKELA staff and Trustees responsible for the student programme. The advisor is also expected to attend the annual student careers advice and networking evening (held this year at Francis Taylor Building on 8 November) and the Moot competition finals day (typically held in spring or early summer). Student Advisors are volunteers and may benefit from a free place at UKELA's annual conference (subject to budgetary restraints). All reasonable travel and subsistence costs are refunded.

This is an excellent opportunity to obtain board-level experience.

If you would like to be considered for this two-year role, please send a CV and succinct covering letter addressed to UKELA's Operations Director, Alison Boyd via email.

UKELA's existing Student Advisor, Lewis Hadler, would be pleased to have an informal discussion in advance of your application. Telephone interviews will be held with shortlisted candidates at the end of October 2018.

The closing date for applications is midday on Tuesday 17 October 2018.

UKELA events

Waste legislation, case law and consultation roundup 2018 – 10 October

Join the Waste Working Party at 25 Bedford Row Chambers in London for a general catch up as well as a discussion of changes to legislation and consultations this year. The meeting will be followed by drinks and snacks for those who would like to stay. Please contact Anna Willetts if you are planning to attend. More details, may be found on our website.

Environmental law and governance in Wales after Brexit – 16 October

The Wales Working Party is pleased to host a seminar on Environmental Governance in Wales post Brexit, kindly hosted by Blake Morgan Solicitors. More details, including how to book, may be found on our website.

Implications of Brexit for the waste and resources sector in Ireland: joint event with CIWM – 7 November

Join us in Armagh for a seminar looking at Brexit issues in Northern Ireland. This joint event with the Chartered Institute of Waste Management will be held in central Belfast. Full details, including how to book, may be found on our website.

Annual careers evening – 8 November

Bookings are now open for our annual careers evening, kindly hosted once again by Francis Taylor Building in London. This evening is for members and non-members alike; anyone who is interested in a career in environmental law is welcome to come along. More details, including how to book, may be found on our website.

Nature conservation working party: introduction to wildlife law course – 14-16 November

This course is designed for those whose jobs require them to understand the practical impact of the legislation surrounding wildlife. It will concentrate on enabling participants to make the best use of the law on the ground and to avoid the pitfalls that accompany such a technical subject as the law. For programme details, and to book your place, please see the website.

Non-UKELA events

Planet Pod talks bats, bison and beavers in Sussex

Planet Pod presents a rewilding discussion with Sussex Wildlife Trust recorded on location at Ebernoe Common. Join the team as they dodge the late summer rain and walk and talk about re-wilding. What it is – bottom up or top down, the case for wolves and beavers in the UK and tips on what you can do in your plot. Dr Tony Whitbread (SWT) and Simon Boyle (Argyll Environmental) took shelter with Amanda and Jim in the porch of a country churchyard to chat about how re-wilding really works, what it means and its many benefits. Then, when the rain stopped, they took a leisurely stroll round the 80 hectares of Ebernoe Common. There is free access to the podcast online.

UKELA diary dates

Young UKELA: chimneys and tunnels – 13 October

Our next Young UKELA event will be a private walking tour entitled 'Chimneys and Tunnels' with Dotmaker Tours, followed by an informal meal locally. More details, including how to book, may be found on our website.

London meeting: fracking – 12 November

Join us at Herbert Smith Freehills for an early evening seminar on Fracking. Full details, including how to book, coming later this year.

Annual Garner lecture – 23 November

Join us at Freshfields Bruckhaus Deringer on Fleet Street for the annual Garner lecture. We are delighted to welcome Prof. Dr. Juliane Kokott, who holds the position of Advocate General at the Court of Justice of the European Union. More details, including how to book, may be found on our website.

Fundraising lunch – 5 December

Join us for a relaxing lunch with Baroness Barbara Young in the elegant surroundings of Norton Rose Fulbright's private dining room and help raise funds for UKELA's work. Barbara is a UKELA Patron. She has held very senior positions in a number of environmental organisations, including the Environment Agency (former Chief Executive), English Nature and the RSPB. She is the current Chair of the Woodland Trust. Her talk is entitled 'No time to stand still'. More details, including how to book, may be found on our website.

The e-law 60 second interview

Nina Pindham, Barrister at No5 Chambers and UKELA Trustee

How did you get into environmental law?
I trained as a scientist in Canada (majoring in chemistry, biology, geology; double minor in physics and mathematics). I then worked in a laboratory carrying out baseline water quality assessments for a government-funded project. I think it was an 18-hour day of titrations that prompted the career change…

What are the greatest achievements in environmental law during your career?
I've only been a barrister for five years, but so far, I would say greater public awareness of the importance of environmental law.

When did you get involved with UKELA?
It was the very first organisation I joined when I moved here. I went to every event I could in order to understand what 'environmental law' actually meant in practice. I now encourage all students who come to me and are interested in environmental law to do the same.

How does UKELA contribute to the development of environmental law in the UK?
This comes about in a number of ways: consultation responses, seminars, working parties, and, of course, the annual conference. UKELA punches well above its weight size-wise and has had a direct influence in the development of a great variety of areas of environmental law, not least of which is the government's post-Brexit environmental law and policy. Overall I think this is likely to be the result of a consistently professional approach, an independent stance, and the great depth of expertise within its membership.

What is your favourite UKELA memory?
The UKELA Moot exhausts me every year but come finals day it always feels worthwhile. The ability of the entrants it attracts is extraordinary, we are incredibly lucky to have Dove J as our judge, and it is a truly great day. More members should come and watch finals day. So, Moot finals day is my favourite UKELA memory each year, until the next one comes along.

What opportunities exist to advance environmental law in the UK?
The present political circumstances are an opportunity, in particular to test the theory that lawyers are the economy's janitors. There is definitely scope within the work of sorting it out to make it better.

What changes to environmental law in the UK do you think we'll see over the next decade?
My top three in no particular order are: greater awareness of the need to proactively plan for climate-change related events; improvements in how we farm and how we remunerate farmers; and the new environmental watchdog.

Theme question: what do you think will be the main challenges for water law over the next few years? For example, how might issues such as water scarcity, climate change and flood risk be dealt with at a legal level?
On a national level, the main challenge will be for water companies when planning for extreme events. The timing and levels of hands-off flow, the conditions related to any drought orders, the knock-on impacts on ecosystems and protected species are immensely complex and require significant advance planning and technical analysis. Lawyers are certainly going to be needed to determine where legal priorities lie in such conditions, how to render agreements enforceable, and in determining what agreements and what terms are necessary in the first place.

On a local level, I would say it is putting in place relatively small-scale environmental schemes when there is a great competition for resources. Local-level flood prevention schemes, particularly around roads, are as underfunded as they are necessary.

Environmental law headlines

A selection of recent environmental law news and updates prepared by the teams at Lexis®PSL Environment and Practical Law Environment.

BEIS lays regulations to close CRC Energy Efficiency Scheme from October 2018

Lexis®PSL Environment

On 18 July 2018 the Department for Business, Energy and Industrial Strategy (BEIS) laid before the Westminster Parliament and the assemblies in Scotland, Wales and Northern Ireland its CRC Energy Efficiency Scheme (Revocation and Savings) Order 2018, SI 2018/841 (the Order).

The Order comes into force on 1 October 2018 and makes a number of changes to the CRC Energy Efficiency Scheme Orders of both 2010 and 2013. It brings an end to the CRC Energy Efficiency Scheme (CRC) with effect from the end of the current phase (which ends on 31 March 2019), while ensuring that ongoing compliance obligations in respect of that phase (and the prior phase) survive after that date.

For participants in the current phase, that includes submitting an annual report by the last working day of July 2019, and purchasing and surrendering sufficient allowances by the last working day of October 2019.

Participants in the first two phases should also be aware that the CRC administrator (the Environment Agency) will retain its powers to monitor and enforce compliance after 31 March 2019. In particular, it will be able to impose penalties:

- Requiring the purchase and surrender of additional allowances until the end of February 2022.
- Blocking access to the CRC Registry or of publication of a participant's details on the CRC Registry until the end of March 2022.

Participants in the first phase must maintain their records until the end of March 2021 and participants in the second phase must inform the administrator about any change of address and maintain their records until the end of March 2025.

There is no new scheme to replace the CRC. However, the main rates of the climate change levy are increasing from April 2019 in order to recover the revenue lost from the sale of allowances under the CRC.

The government is also introducing a new streamlined energy and carbon reporting (SECR) regime under the Companies Act 2006, which will extend current requirements for reporting on carbon emissions and energy use in company annual reports and is expected to come into force on 1 April 2019. Although the SECR regime will not apply to public sector organisations, it will apply to a number of private sector CRC participants.

For more information, see News Analysis: BEIS lays regulations to close CRC Energy Efficiency Scheme from October 2018.

Environment Agency not obliged to issue end-of-waste protocol for re-refined oil

Practical Law Environment

ProTreat Limited (ProTreat) is a member of the Oil Recycling Association Ltd (ORA) providing consultancy services to companies that convert waste lubricating oil (WLO) into useable products. In March 2017, Protreat applied for judicial review of the Environment Agency's (EA's) December 2016 decision that the May 2016 technical submission by the ORA could not form the basis for determining whether products of re-refining had reached end-of-waste status.

ProTreat claimed that the:

- EA's December 2016 decision:
  - treated recyclers re-refining waste oil for non-fuel use less favourably than re-processors who merely enable recovery of energy from waste oil; and
  - gave less favourable treatment to other potential re-refiners than the existing waste oil re-refiners whose products have not been treated by the EA as waste subject to the Waste Framework Directive 2008 (*2008/98/EC*) (WFD 2008).
- EA had failed in its duty to direct its resources and use its powers to seek to ensure the result required by the WFD 2008 (that is, to ensure that waste oil treatments higher in the waste hierarchy are more attractive than treatments lower in the hierarchy). Specifically, the EA had a duty to issue end-of-waste guidance in relation to re-refined waste oil products.

On 30 July 2018, the High Court dismissed ProTreat's application for judicial review (*R (Protreat Ltd) v The Environment Agency [2018] EWHC 1983 (Admin) (30 July 2018)*.)

The court decided that:

- The decision by the EA that the technical submission by the ORA could not form the basis of EA guidance on the end-of-life status of re-refined base oil products did not constitute unfavourable treatment of recyclers as compared to re-processors. The principle of equal treatment could not compel the EA to approve a technical submission that it had reasonably and rationally concluded lacked the necessary relevant information for enabling a judgement to be made that a given product had achieved end-of-waste status.
- The WFD 2008 did not oblige the EA to issue end-of-waste guidance. The court did not accept ProTreat's argument that in failing to issue end-of-waste guidance, the EA had failed to ensure that recycling (which is higher in the waste hierarchy in Article 4) is more attractive to industry than reprocessing of waste oil.
- On the facts, nothing in the EA's discussions with the ORA with a view to producing end-of waste guidance for re-refined products had given rise to an obligation to prepare and issue such guidance.

This is an important case in clarifying the role of, and obligation on, the EA in preparing end-of-waste quality protocols. These could become increasingly important in the drive towards the circular economy, including recent amendments to the WFD 2008 and related waste directives (see Practice note, Circular economy: EU and UK initiatives).

For more information, see Legal update, Environment Agency not obliged to issue end-of-waste protocol for re-refined oil (High Court)

Legislating for Brexit

Practical Law Environment

The European Union (Withdrawal) Act 2018 (EUWA) is the legislative measure that will end the supremacy of EU law in the UK by repealing the European Communities Act 1972 (ECA 1972) and prepare the UK's legislative framework for its withdrawal from the EU.

The EUWA aims to provide legal certainty by converting EU law into UK legislation at the point of exit (29 March 2019). The government will achieve this through SIs made under the EUWA (as well as potentially under other legislation) (Brexit SIs). Brexit SIs address failures of retained EU law to operate effectively and correct other deficiencies arising from Brexit.

To date, ten Brexit SIs have been made or published (as relevant) on a variety of environmental or energy issues including:

- Guarantees of Origin (GOOs) of electricity produced from renewable energy sources.
- Illegal timber and timber licensing regimes.
- Carbon dioxide monitoring, reporting and verification (MRV) from shipping.
- Nuclear safeguards regulations.

(See Brexit statutory instruments: tracker: Environment and Energy.)

For more Practical Law resources on Brexit-related SIs, see the Brexit statutory instruments tracker toolkit. To search legal updates on Brexit-related SIs, see Practical Law's Brexit statutory instruments page.

For more information on:

- The potential implications of the UK's decision to leave the EU on environmental legislation in England and Wales and on the on the energy sector in Great Britain, see Practice note, Brexit: the effect on environmental law and Practice note, Brexit and energy.
- The latest updates on Brexit, visit Brexit key developments: tracker.
- Practical Law's Brexit-related content generally, see the Brexit page and on legislating for Brexit, see Brexit materials: Brexit legislation.

Misleading investors on climate change related-risks poses legal risks (ExxonMobil decision)

Lexis®PSL Environment

In a world first, a decision by a Texan judge has confirmed that misleading investors on climate change-related risks poses serious legal risks to companies and their directors.

ExxonMobil was sued in Texas by a group of shareholders who alleged that the fall in the value of the company's shares between 31 March 2014 and 30 January 2017 was caused by material misrepresentations or omissions made by ExxonMobil and its directors, including former CEO (and former US Secretary of State) Rex Tillerson.

The claim arose from the company's claims that none of its assets were or would become stranded as a result of climate change-related risks, and specifically by its failure to write down assets that had become unprofitable as a result of the steep drop in oil price that began in mid-2014.

The claim also concerns the report entitled 'Energy and Carbon—Managing the Risks' which was released by the company to investors in March 2014.

The court found that the plaintiffs sufficiently pleaded

their securities fraud claims, and so denied ExxonMobil's motion to dismiss the claims. In making this finding the court found that sufficient facts were pleaded to support a 'strong inference' that ExxonMobil knowingly made the material misstatements.

The case underlines how climate change presents legal risks to companies and their directors. It is likely that the transition to a low-carbon economy will have a significant impact on the value of financial assets and their capital returns. This gives rise to the risk of asset stranding, where assets are prematurely written down or converted into liabilities, with this case demonstrating how easily executives may be incentivised to hide stranded assets from investors. If such risks and impacts associated with climate change are not adequately evaluated and disclosed to investors, legal action may ensue.

For more information, see News Analysis: Misleading investors on climate change related-risks poses legal risks.

In associated news, ClientEarth announced on 6 August 2018 that it has reported three insurance firms to the Financial Conduct Authority for failure to disclose climate risks in their annual reports. For more information, see: LNB News 07/08/2018 77.

Summary of responses to call for evidence on tackling plastic waste

Lexis®PSL Environment

HMRC has published a summary of responses to its consultation calling for evidence on how to use tax to reduce plastic waste. The consultation closed on 18 May 2018 with an unprecedented 162,000 responses from individuals, businesses and campaign groups.

The summary of responses shows significant public support for using the tax system to:

- Encourage manufacturers to use more recycled plastic instead of new plastic.
- Discourage the use of carbon black plastic and other plastics that are hard to recycle.
- Reduce demand for single-use plastics.
- Encourage additional recycling rather than incineration.

HMRC will consider the responses to help inform their approach ahead of this year's Budget.

For more information, see: LNB News 20/08/2018 17 and LNB News 22/08/2018 8.

Clarification of habitats assessment under Habitats Directive 1992

Practical Law Environment

An Bord Pleanála (An Bord) (the National Planning Appeals Board in Ireland) granted permission to ESB Wind Developments Ltd and Coillte (the body with responsibility for Ireland's forestry) for a wind farm project in a Special Protection Area (SPA) that hosts the habitat of the hen harrier, which is a protected species under the Birds Directive 2009 (*Directive 2009/147/EC)*.

Although the contested development may result in the complete loss of 162.7 hectares of the harrier's foraging habitat, An Bord granted permission for the project, partly because it considered that measures proposed by the developers in a Species and Habitat Management Plan (management plan) complied with the obligations in Article 6(3) of the Habitats Directive 1992 (*Council Directive 92/43/EEC)* and that the proposed development would not adversely affect the integrity of the site in light of their mitigating effect. (Article 6(3) requires Member States to carry out an appropriate assessment of any plan or project that is likely to have a significant effect on an SPA to assess if it will have a negative effect.) Under the proposed measures, the SPA would be managed dynamically to preserve the hen harrier's natural habitat, in the sense that the areas suitable for that habitat would vary geographically and over time, according to how the SPA was managed.

Ms Grace objected to An Bord's consent decision, arguing that it should have concluded that the contested development and its related management plan entailed compensatory measures and, accordingly, it should have taken account of the criteria laid down in Article 6(4) of the Habitats Directive 1992 when carrying out its assessment.

The Supreme Court (Ireland) referred the issue to the Court of Justice (ECJ) for clarification.

On 25 July 2018, in *Grace v An Bord Pleanala (C-164/17) EU:C:2018:593 (25 July 2018)* the ECJ decided that compensatory measures should not be taken into account in the habitats assessment carried out under Article 6(3) when it was not sufficiently certain that those measures would be effective in avoiding harm to the site. Instead, those compensatory measures should be considered, if necessary, under Article 6(4).

The court said that a distinction had to be drawn between:

- Protective measures that form part of a project and are intended to avoid or reduce any direct adverse effects that may be caused by the project to ensure that it did not adversely affect the integrity of the

area. These were covered by Article 6(3).
- Measures that were aimed at compensating for the negative effects of the project on a protected area under Article 6(4).

Similar to its decision in *People Over Wind and another v Coillte Teoranta (Case C-323/17) EU:C:2018:244 (12 April 2018)* that mitigation measures should not be considered at the screening stage when determining whether it was necessary to carry out an appropriate assessment of the impact of a proposed plan or project on a protected site, in *Grace v* An *Bord Pleanala*, the ECJ confirmed again that each step in the process must include only the considerations that are proper to that particular step. Other considerations must not bleed into earlier steps in the process.

For more information, see Legal update, Clarification of habitats assessment under Habitats Directive 1992 (ECJ).

Challenge to rules on RHI support for biomass CHP dismissed

Practical Law Environment

The Renewable Heat Incentive Scheme (Amendment) Regulations 2016 (*SI 2016/718*) (RHI Amendment Regulations 2016) introduced a 20% power efficiency threshold into the non-domestic Renewable Heat Incentive (RHI) to address concerns that some operators were 'gaming' the system by converting biomass plant that was only generating heat into plant that would generate heat and a small amount of power so that it could take advantage of a new higher tariff for biomass combined heat and power (CHP) that was introduced in 2014. This change was not consulted on before the RHI Amendment Regulations 2016 were made as the government was concerned that a consultation would encourage a rush of applications by plants that wanted to game the system.

Following written complaints by affected installations after the RHI Amendment Regulations 2016 came into force, the government invited complainants to provide further information on the impacts of the change on potential biomass CHP applicants to the RHI. As a result of information submitted by affected RHI applicants (including the claimant), the government decided to reduce the power efficiency threshold requirement from 20% to 10% for an interim period to support a group of small biomass CHP installations that could not achieve the 20% threshold but were able to achieve power efficiency thresholds between 10-15%. This change was not consulted on so that it could be introduced quickly.

The claimant, which was developing three biomass CHP plants during 2016 when the RHI Amendment Regulations 2016 and the Renewable Heat Incentive Scheme (Amendment) (No. 2) Regulations 2016 (*SI 2016/1197*) (RHI Amendment No 2 Regulations 2016) were made, brought judicial review proceedings on the grounds that the implementation of the RHI Amendment No 2 Regulations 2016 was procedurally unfair because the government had not consulted on the changes before the Regulations were implemented.

On 31 July 2018, the High Court dismissed the application for judicial review on the basis that:
- It was academic as the accreditation changes to biomass CHP had subsequently been consulted on in February 2017 and the resulting Renewable Heat Incentive Scheme Regulations 2018 (*SI 2018/611*) had repealed both sets of 2016 Regulations. The claimant's applications for accreditation fell to be assessed under the 2018 Regulations, which included a 10% power efficiency threshold. The court considered there was no entitlement to be paid under the RHI scheme until the relevant plant has been accredited. There was no basis for presuming that the claimant will qualify for the higher tariff that applies to biomass CHP until and if the plant is accredited.
- A duty to consult on the two sets of 2016 Regulations had not been established under the concept of legitimate expectations. The government's conduct in setting up the RHI scheme and the claimant providing the government with information on the impact on its business made by the 2016 Regulations could not establish a secondary case of legitimate expectation of consultation under the public law concept of legitimate expectations.

(*R* (*Brooke Energy Ltd*) *v Secretary of State for Business, Energy and Industrial Strategy [2018] EWHC 2012 (Admin) (31 July 2018)*.)

This case follows the decision in *Solar Century Holdings Ltd and others v Secretary of State for Energy and Climate Change [2016] EWCA Civ 117*, where the Court of Appeal dismissed an appeal against the High Court's refusal to judicially review the Secretary of State's decision to close the Renewables Obligation (RO) early to large-scale solar PV in 2015 and shows that establishing a breach of a legitimate expectation is a tall order in the context of renewable support schemes.

For more information, see Legal update, Challenge to rules on RHI support for biomass CHP dismissed (High Court)

Government seeking views on performance of Energy Performance Certificates

Lexis®PSL Environment

The Clean Growth Strategy, published last year, committed to a call for evidence seeking views on extending Energy Performance Certificates (EPCs) to other trigger points and how EPCs could be further improved in light of new sources of data and capabilities .

The call for evidence was opened by BEIS on 26 July 2018 and responses must be submitted by 19 October 2018.

The aims of the call for evidence are to:

- Gain evidence on how the current EPC system is working.
- Gather information on the suitability of the current system of EPCs for both their current and emerging uses in measuring building energy performance.
- Obtain feedback on suggestions for improvement.

For more information, see: LNB News 27/07/2018 28.

Water resources and marine management

Water abstraction licensing

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At a glance

- This short article outlines some of the main issues in relation to water abstraction licensing.
- The general need for a licence to abstract water is set out, as are the various types of licence.
- The article goes into some detail on the important practicalities of applying for a licence, as well as the Environment Agency's duties when determining the application. The important role of the Secretary of State is explained.
- The article closes with reference to some of the major questions which may arise in the abstraction licensing regime, being the habitats regime and the Water Framework Directive.

Introduction

Humanity's need for water is self-evident; not only do we all have a need for water in our domestic lives, but industries can require a large amount of water.[1] Some industries abstract large amounts of water directly, for instance industries for the supply of electricity, gas, steam and air conditioning, and the manufacture of chemicals and chemical products.[2] Water is however a limited resource. Abstraction can have a considerable impact upon the environment. In order to manage and regulate the pressures on water sources, there is a legislative regime for the abstraction of water. Estimates suggest a recent gradual increase of direct abstraction of water from non-tidal surface water and groundwater,[3] in Defra's most recent published estimates.[4] This article concerns the public law and regulatory questions arising from water abstraction,[5] rather than private law aspects.

The need for a licence

Section 24 of the Water Resources Act 1991 (WRA) prevents the abstraction of water, without a licence. The Water Act 2003 removed the requirement for a licence to abstract less than 20m^3 of water per day.[6] There are certain exemptions set out in the Water Abstraction and Impounding (Exemptions) Regulations 2017.[7] However, for most major abstractions, a licence will be required.

The types of licence

WRA s.24A sets out three types of water abstraction licence:

- A full licence, which permits the abstraction of water from one source of supply over a period of 28 days or more.
- A transfer licence, which permits the abstraction of water to transfer it to another source of supply, or to another point within the same source of supply, 'in the course of dewatering activities in connection with mining, quarrying, engineering, building or other operations', in any event without an intervening use.
- A temporary licence, to abstract over a period of less than 28 days.

Licences are readily transferable.[8]

The making and consideration of applications

The Environment Agency (EA) has a scheme for charges for abstraction licences, under s.41 of the Environment Act 1995.[9] Applications for abstraction licences in England are made to the EA. There is a modest charge for making the application, currently £135 or £1500, depending on the nature of the application.[10]

For abstractions by persons other than the EA itself, the application procedure for applications made before the end of 2019 are different for applications on the one hand by applicants who had not previously held a licence, and on the other hand by those who in the seven years prior to 1 January 2018 had abstracted water without a need for a licence, or a successor to such a person. Those in the latter category have the benefit of a transitional procedure, under the Schedule to the Water Abstraction (Transitional Provisions) Regulations 2017. The focus of this article will be on non-transitional applications, brought by applicants other than the EA itself.

Applications in non-transitional cases must be made under the Water Resources (Abstraction and Impounding) Regulations 2006 (the Abstraction Regulations). Applications are to be made on a form issued by the EA, and must include information, and be accompanied by such reports as the EA reasonably requires in order to determine the application.

The EA has the power to decide that an application for a particular type of licence should be treated as an application for one of the other types of licence, to change the number of licences being applied for, or that the application should include an application for revocation of an existing licence.[11] The applicant may however appeal against such a decision.[12]

The EA must publish a notice of an application for a full licence or transfer licence as prescribed by Regulation 6 of the Abstraction Regulations.[13] This includes publication in at least one local newspaper, and on the EA's website. A copy of the application must be served on any water undertaker, navigation authority or drainage board for any proposed point of abstraction or impounding.[14] These requirements do not apply where the proposed abstraction is essentially continuing an existing licence, or putting an end-date on a licence currently without a specified end point.[15] Neither do they apply in cases where complying with the requirements would be contrary to national security,[16] or where the EA considers that the proposed abstraction would have no appreciable adverse effect on the environment, or other abstractions.[17]

The notice must give a period for the public to make representation, and the EA must not determine an application before the end of this period.[18] Regulation 10 of the Abstraction Regulations provides for time-periods for the making of a decision by the EA.

The EA must have regard to all relevant circumstances.[19] The EA must not authorise a licence which would derogate from protected rights, without the consent of the holder of the rights.[20] Where the application is for abstraction from underground strata, the EA is to have regard to 'the requirements of existing lawful uses of water abstracted from those strata, whether for agriculture, industry, water supply or other purposes'.[21] The EA must also have regard to minimum acceptable flows.[22]

If the holder of an abstraction licence wishes its licence to be revoked, then the EA must do so.[23] The holder of a licence may also apply to the EA for the licence to be varied.[24] The legal principles for a variation application are similar to those for an application for a licence, with a less restrictive regime in cases where the variation is simply to reduce the quantity of water authorised to be abstracted.[25] The EA may also formulate proposals for a licence to be varied or revoked, and give the right for the holder of the licence to give notice of objection (or any other person the right to make representations). If no notice is given by the holder of the licence to the variation or revocation, the EA may proceed to revoke; if there is a notice of objection, the matter is to be referred to the Secretary of State. If either the EA or the holder of the licence request it, the Secretary of State must hold a public inquiry or a hearing; in any event, he may hold an inquiry if he thinks fit.[26]

The role of the Secretary of State

The Secretary of State has the power under s.41 WRA to call in applications for his own consideration. The Secretary of State may decide that a licence should be granted, on such terms as he sees fit, or may determine that no licence should be granted.[27] The Secretary of State must hold a local inquiry or afford the applicant and the EA a chance to be heard, if requested by either the applicant or the EA; in any event, the Secretary of State may hold an inquiry or a hearing if (s)he sees fit.[28] The role of the Secretary of State on call-in is similar to that of the EA, but the Secretary of State's powers are less constrained by protected rights.[29] If a licence is to be granted on a call-in, the formal position is that the Secretary of State is to issue a direction to the EA to grant a licence on such terms as the Secretary of State directs. The Secretary of State may also direct the EA to formulate proposals to vary or revoke a licence.[30]

If the applicant is dissatisfied with the EA's decision on an application (either due to the application being refused, or due to the terms of the grant), or the EA fails to make a decision in time, then the applicant can appeal to the Secretary of State under WRA s.43. WRA s.44 provides that the powers of the Secretary of State on appeal are broad, including varying any part of the EA's decision, whether the appeal relates to that part of the decision or not, and the Secretary of State may deal with the application as if it had been made to him in the first place.

Major questions and practical issues

Points of contention in disputed licence matters are likely to involve the impacts upon the environment, specifically under the Habitats Directive and the Water Framework Directive (WFD).

On the topic of habitats, there may be questions about the adverse effects of the proposals, and whether imperative grounds of overriding public interest (IROPI) exist so as to justify the proposals notwithstanding the potential for harm to the environment.[31] Evidence required to make good habitats arguments may not be restricted to that dealing with ecology, but may also include hydrological evidence, and (potentially) economic evidence.

The WFD imposes a prohibition on the deterioration in the status of a body of surface water, the concept of the deterioration of status being explained in C-461/13 *Bund für Umwelt und Naturshutz Deutschland eV v Germany*. Art 4(6) WFD permits temporary deterioration in cases of force majeure, or due to accident; Art 4(7) provides that there is no breach of the WFD where the failure to achieve good status, or to prevent deterioration in status, is the result of new modifications to the physical characteristics of the body of water, or new sustainable human development activities, and certain conditions are met.

The supply of water may constitute IROPI for the purposes of Art 6(4) of the Habitats Directive, or a justification for temporary failure under Art 4(6) WFD.

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Endnotes

1 'Non household water use accounts for approximately 12% of public water supply' - *Water Statistics in the UK: R&D Technical Report WT1509* – Defra, March 2013, p.94. Abstraction for electricity generation reached 2.7bn m3 in 2016: *Water abstraction statistics: England, 2000 to 2016* – Defra, 8 February 2018, p.2.
2 See *Water Statistics in the UK*, Table 10, pp.47-48. In the North West River Basin District, the level of abstraction for legal and accounting activities was zero.
3 Freshwater abstraction is not all from rivers; groundwater abstraction made up 21% of total abstractions in 2016: *Water abstraction statistics: England, 2000 to 2016* – Defra, 8 February 2018, p.2.
4 *Water abstraction statistics: England, 2000 to 2016* – Defra, 8 February 2018, p.1.
5 For a good summary of the law, see *Water and Drainage Law* – John Bates, Sweet & Maxwell (looseleaf), part 4.
6 Set out in WRA s.27.
7 For instance, the abstraction of water within a managed wetland system, where the sole purpose of the abstraction is the management, operation or maintenance of water levels of flows in the system (Reg 8), or certain abstractions in order to prevent interference with building or engineering works (Reg 6).
8 The detail is set out in WRA ss.59A-C.
9 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691736/Abstraction-Charges-Scheme-2018-2019.pdf
10 Detail at paras 4.2.1-4.2.3 of the Abstraction Charges Scheme.
11 WRA s.36A(1).
12 WRA s.36A(4).
13 WRA s.37(1).
14 WRA s.37(2)-(3) – but the requirement to serve on a navigation authority or drainage board does not apply if the proposed licence is exclusively for the abstraction of water from a source of supply that does not form part of any inland waters.
15 The Abstraction Regulations, Reg 7(1)-(2).
16 The Abstraction Regulations, Reg 7(3). The decision is for the Secretary of State.
17 The Abstraction Regulations, Reg 7(4).
18 WRA s.37(4)(b); s.38(1).
19 WRA s.38(1).
20 WRA s.39(1), subject to exceptions set out in s.39(1A). Protected rights are defined in s.39A, including the rights of those having the benefit of an abstraction licence.
21 WRA s.39(2).
22 WRA s.40.
23 WRA s.51(1).
24 WRA s.51(2).
25 WRA s.51(3)-(4).
26 WRA s.54.
27 WRA s.42(1).
28 WRA s.42(2).
29 WRA s.42(3)(b), (4). The same applies to appeals to the Secretary of State.
30 WRA s.52(2).
31 A recent example of an inquiry raising habitats matters: Catfield Fen APP/WAT/15/316&317.

Water resources and marine management

Integration and fragmentation in environmental and water laws

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At a glance

- Environmental Law has its origins in the integration of laws concerning the distinct environmental media of water, air and land. Given the success of integration in environmental regulation, the lack of integration of water resource management laws is remarkable.
- Water has been regulated for traditional utilitarian reasons and ecological purposes. Water management is about determining priorities between competing water uses.
- The sectoral approach towards water regulation fails to recognise the need for Integrated Water Resources Management (IWRM).
- Despite ambiguities, IWRM has gained widespread international endorsement as an imperative for management of the water environment. Integrated regulatory decision-making would be a first step towards implementation of IWRM in national law.

The rise of environmental integration

During the three decades of UKELA's existence, perhaps the most notable development has been the reshaping and recharacterisation of a diverse bundle of national regulatory measures as 'environmental law'. Certainly statutory provisions concerning water and air pollution, statutory nuisances and other public health matters can be traced back to at least the mid nineteenth century, but English laws concerning the 'environment' *as a whole* (as opposed to the various sectoral matters) are a fairly recent innovation. The conception that pollution of water, air and land should have something in common which calls for a coordinated regulatory approach is a momentous shift in thinking. It is a movement from disparate controls relating the tangible media of water, air and land, to the regulation of impacts on an abstract thing, the environment, which encompasses the three media, but is distinct from them. It is this transition from a sectoral (media-specific) approach to a holistic and integrated approach to regulation of our surroundings that has largely determined the shape of present day environmental law.

Integrated environmental quality laws and permitting systems may be seen as illustrative of this transition (particularly measures originating under Part I of the Environmental Protection Act 1990 and the Environmental Permitting Regulations from 2007 onwards). Matters that would have previously fallen under quite separate systems of regulatory control, subject to the jurisdiction of differently constituted regulatory authorities, have been progressively brought within the remit of bodies with cross-sectoral responsibilities and duties to address environmental emissions and impacts in a unified way. Similarly, the multitude of licensing systems relating to activities impacting upon the quality of the environment have been largely consolidated in permitting arrangements that seek to prioritise commonality in respect of administration, restrictions and enforcement. This is not to say that the movement towards integrated environmental regulation and permitting has reached a conclusive end point (far from it) but merely that integration may be seen as a principal route to modernity in environmental quality law.

Given the successful progress of integration in environmental law, it might be thought that an integrated approach to regulation might usefully be pursued in related fields of natural resource management, such as water resources management. Surprisingly, perhaps, this appears not to be the case.

The purpose of this paper is to explore the comparative lack of integration in water resources management law and to reflect upon the national resistance to international calls for an IWRM approach as this relates to the regulatory dimension of water management.

Fragmentation in water regulation

Whilst the progression from a sectoral to an integrated approach has been a prominent theme in the development of environmental quality law, it is remarkable that the need for integration seems to have made relatively little progress in related areas, such as water management regulation. Although activities involving discharges of industrial and sewage effluent into natural waters have been brought within the environmental permitting regime, controlling effluent emissions into the aquatic environment is only one aspect of water resources management. It should be recalled that there are a range of other reasons why water-related activities may need to be regulated.

Traditionally, water regulation has tended to be utilitarian, in the sense of supporting a range of recognised water uses to secure the greatest human benefit. However, the calculus of costs and benefits is far from precise when the range of possible water uses is considered. Water resources serve as a source of potable supply for domestic use, a source of irrigation for agriculture and may serve various industrial purposes including providing hydro-power. Waters may be used for navigation, fisheries and recreation and a range of other non-consumptive uses, where water is not removed from its natural flow or location. Alongside these things, water needs to be managed to reduce flood risk and to ensure the availability of supplies under conditions of drought and scarcity. In respect of all of these diverse considerations, the discharge of industrial and sewage effluent has potentially serious implications in respect of the usability of water for other purposes.

Beyond the traditional reasons for regulating water use and management, is the more recent awareness of the 'intrinsic value' of the water environment and the species and ecosystems that it supports. This appreciation has provided a basis for legislation extending beyond strictly utilitarian purposes. The diverse water resource management concerns noted above have thereby acquired an ecological dimension requiring different human water uses to be managed and/or restrained to prevent unacceptable impacts on aquatic species and ecosystems.

The key point to be drawn from outlining the range of possible water uses and management concerns is that the different users may best be seen as *competitors* for a finite natural resource, where allocation of water to one group of users may be seen as excluding or disadvantaging others. As between the different users, the potential for incompatibility is markedly variable, with consumptive uses necessarily reducing water availability for other uses. However, the element of competition between uses is almost invariably present. Hence, an overall objective in water management may be seen as that of determining priorities between competing water uses and ecological needs.

As regards the *law* concerning water management, therefore, the overall objective should be to provide a system by which competing claims to different kinds of water use can be transparently evaluated and ranked according to comprehensive overall criteria within a unified and harmonised regulatory regime. Is this possible under present national water legislation? The answer seems to be in the negative or, at best, only to a limited extent. Within water law, sectoralism prevails. Issues are consigned to different legal categories which are separately regulated and largely unrelated to each other. The idea that the natural resource of water should be regulated as an integrated whole seems to have made no major inroads into the statute book.

Integrated Water Resources Management

The lack of coordination in water legislation may well reflect the piecemeal way that national law has developed over time, but given the comparison with the development of environmental law (discussed earlier) it is notable that water law has continued to be so unresponsive to international calls for more integrated management of water resources.

Since the Rio Earth Summit Conference on Environment and Development in 1992, environmentalists have perceived the overall international objective of their endeavours as the need to make progress towards 'sustainable development'.[1] Similarly, many environmental lawyers may regard their role to act in furtherance of this global imperative. Whilst difficulties with the interpretation and application of the key concept abound, there seems to be a degree of consensus that environmental law, in all its diverse forms, is concerned with the use of law in progressing towards the realisation of sustainable development.

However, a closer reading of the documentation from the Rio Conference shows that a more exacting route towards sustainable development is envisaged in respect of the water environment: 'Integrated Water Resources Management' (IWRM).[2] The origins of IWRM as an imperative for the water environment are to be found in Agenda 21 from the 1992 Rio Conference. This provides that:

> 'the widespread scarcity, gradual destruction and aggravated pollution of freshwater resources in many world regions, along with the progressive encroachment of incompatible activities, demand integrated water resources planning and management.'[3]

Remarkably though, IWRM was not actually defined in Agenda 21 or in any of the agreements reached at the Rio Conference and it was not until some years later that a generally accepted definition was formulated:

> 'IWRM is a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.'[4]

So defined, the intuitive attraction of IWRM lies in the proposition that the aggregate of benefits (economic, social and environmental) will be at its greatest where the degree of integration of water management is highest. In relation to the water environment at least,

this means that the optimum route towards sustainable development is through application of IWRM. Similarly, in respect of water resources regulation, as a key aspect of water management, the greatest possible degree of legislative integration should be the ultimate aim.

Not everyone is entirely convinced of the merits of IWRM as a guiding concept for water management and regulation. Not least problematic is the difficulty of quantifying and making trade-offs between the different kinds of benefits (economic, social and environmental) and the commensurability between these raises seemingly insuperable challenges. This has prompted some sceptical views as to the practical value of IWRM.[5]

It is difficult to deny that, 'integration' seems to carry a highly favourable, if opaque, emotive meaning. It acquires this from its antonyms. 'Integration' is the opposite of 'disintegration', 'disorganisation' or perhaps 'chaos' (things which few people could be in favour of) and therefore it must be seen as 'a good thing'. On the other hand, 'integration' begs the question, integration of what? Integration of factors A, B and C, might equally be seen as separating or distancing these from factors D, E and F. What counts as 'integration' of some elements might equally be seen as involving the disintegration of others. Everything depends upon the scope of the 'integration' exercise and what it includes and excludes.[6]

This ambiguity in the scope of integration may well be at work within the concept of IWRM. Although the Global Water Partnership definition, cited above, characterised IWRM as 'a process which promotes the co-ordinated development and management of water, land and related resources' the extent of the integration process is seriously opaque. Indeed, it is difficult to conceive of any kind of environmental or natural resources management that is not in some way 'related' to water management. If so, IWRM actually turns out to be 'integrated *everything* management', but this is difficult to reconcile with the emphasis that seems to be placed upon the word 'water'. In short, the concept of IWRM gains its attraction from an explicit appeal to coherence within determinable boundaries, whilst implicitly conceding that those boundaries are elusive.

Despite these reservations about the practicality and logic of 'integration', the idea that integrated management of water is generally beneficial has an extremely broad appeal that has commanded widespread international support as the dominant global idea in water resources management.[7] Notwithstanding this, the implementation of IWRM involves challenges across the raft of disciplines, sub-disciplines and practices contributing to diverse water management activities, encompassing politics, economics and hydrology amongst a spectrum of natural and social science inputs.[8] Not least amongst these inputs is the vital role of law in providing an institutional and normative framework to support integrated water management activities.

Progress towards IWRM by integrated regulation

Despite the uncertainties and reservations about IWRM, its global importance as a means of ensuring that water management is undertaken in furtherance of sustainable development seems unassailable. Like sustainable development, however, the main difficulty is that of putting IWRM into practical effect.

Viewed from a legal perspective, the greatest conformity with IWRM might be realised where there is the maximum degree of coordination between laws and administrative requirements relating to *all* aspects of water management. This might involve all water-related matters being provided for under a single codifying statute. Legal powers and duties relating to water would need to be exercised by the minimum number of different regulatory bodies and subject to the least possible number of administrative and enforcement boundaries. In the real world, however, water management laws and administrative arrangements fall well short of this comprehensively unified ideal. Indeed, in practice the national law relating to water legislation might be seen as providing a textbook model of regulatory disintegration.

Evidence for this can be found by taking a cursory scan of water legislation on the UK Government's Legislation.gov.uk website of statutory information. A search of primary legislation under the term 'water' in 'Primary Legislation' produces 47 hits concerning a wide spectrum of water regulatory issues across the different jurisdictions within the UK. A search of 'UK Statutory Instruments' produces 'more than 200 results'. The diverse range of legislative subdivisions that apply to the management of water resources is remarkable. It is also notable also that this scan of the subject area, does not encompass various water-related matters where 'water' does not appear in the title of the statute, such as navigation or fisheries legislation, for example. Nonetheless, it is readily apparent that the law relating to a particular natural resource (water) is spread far and wide across the statue book and the potential interrelations between the different regulatory provisions for distinct purposes are of mindboggling complexity.

What needs to be done about this? Whilst the present legislative horizon does not look promising, a longer term objective might be to consider the scope for consolidation of some of the existing provisions under a new Water Resources Act. This would replace the shell that remains of the 1991 Water Resources Act,

after innumerable repeals and amendments have made it largely redundant. A new Water Resources Act could serve to place IWRM at centre of stage, across the full range of water management regulatory functions. The importance of taking a coordinated approach to duties and powers of ministers and regulatory bodies could be emphasised by general duties of a kind similar to those which impose sustainable development obligations upon public bodies.[9] Hence, there should be an explicit duty that water-management responsibilities should be exercised with full regard to the need for IWRM. This would mean that authorisations and decisions, in one sector of water management (such as water supply, wastewater treatment, flood risk management, drought management, ecological protection etc.) would need to take into account the implications for other sectors. Integrated regulatory decision-making should be the first step towards implementing IWRM and a statutory obligation in this respect would be a major stride in this direction.

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Endnotes

1 See Rio Declaration on Environment and Development, available at http://www.un.org/documents/ga/conf151/aconf151126-1annex1.htm/ (Accessed 17 August 2018, as are other electronic sources referred to below) and see A. Ross Robertson, 2012, *Sustainable development law in the UK: from rhetoric to reality?* for a useful discussion of the national legal implications of this concept

2 For a useful general discussion of the concept of IWRM and it is interpretation in different jurisdictions see S. Hendry, *Frameworks for Water Law Reform* (2015) Ch.2.

3 See United Nations, United Nations Conference on Environment and Development Rio de Janeiro, Brazil, 1992, Agenda 21 Chapter 18 available at: http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf. See also the reaffirmation of the need for IWRM in the World Summit on Sustainable Development (2002) Plan of Implementation, *Report of the World Summit on Sustainable Development*, A /Conf. 199/20 para.26 available at http://un-documents.net/jburgpln.htm.

4 Global Water Partnership – Technical Advisory Committee, Integrated Water Resources Management: Background Paper 4, Stockholm (2000) at https://www.gwp.org/; and see M. Rahaman and O. Varis, 'Integrated water resources management: evolution, prospects and future challenges', (2005) 1(1) *Sustainability: Science, Practice, and Policy* 15. For discussion of how IWRM might be applied in practice, with illustrations from different jurisdictions, see Global Water Partnership, *The Handbook for Integrated Water Resources Management in Transboundary Basins of Rivers, Lakes and Aquifers* (2012) https://www.gwp.org/globalassets/global/toolbox/references/the-handbook-for-integrated-water-resources-management-in-transboundary-basins-of-rivers-lakes-and-aquifers-inbo-gwp-2012-english.pdf.

5 A widely cited critique is offered by A.K. Biswas, 'Integrated Water Resources Management: Is it working?' (2008) 24(1) *Water Development Management* 22. For further critical observations on IWRM see M. Giordano and T. Shan, 'From IWRM back to integrated water resources management' (2014) *International Journal of Water Resources Development* Vol.30 No.3 p.364. Perhaps placed at the extreme end of the sceptical spectrum, in contesting the value of IWRM as a conceptual tool, P. Jeffrey and M Gearey, 'Integrated water resources management: lost on the road from ambition to realisation' (2006) *Water Science & Technology* Vol.53 No.1 p.1.

6 J. G. Hering and K. M. Ingold, 'Water Resources Management: What Should be Integrated?' (2012) 8 June 2012 Vol.336 *Science*. Also on the definitional confusion as to the precise meaning of IWRM see N. S. Grigg, 'Integrated water resources management: balancing views and improving practice' (2008) *Water International* Vol.33 No.3 p.279.

7 UN Water *Report*, *The Status Report on the Application of Integrated Approaches to Water Resources Management* (UN, 2012) and see the United Nations, *International Decade for Action, Water For Life 2005-2015* web pages at http://www.un.org/waterforlifedecade/iwrm.shtml.

8 For an interdisciplinary discussion of the foundational principles of integrated governance of water, particularly in respect of water, shortage and flood risk, see M. van Rijswick et al, 'Ten building blocks for sustainable water governance: an integrated method to assess the governance of water' (2014) Vol.39 No.5 *Water International* p.725.

9 See s.4 Environment Act 1995 and s.39 Planning and Compulsory Purchase Act 2004 for examples of general sustainable development duties.

Water resources and marine management

Ocean deoxygenation and agricultural nitrate pollution in the UK

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At a glance

- A study published earlier this year by Breitburg et al observed that oxygen reserves in open-ocean and coastal waters have been declining since the 1950s as a result of anthropogenic activity.[1]
- There has been an increased appearance of 'Ocean Dead-Zones' across the planet, deriving from a 'deadly trio' of ecological events: ocean acidification, warming ocean temperatures and ocean deoxygenation.
- Eutrophication in water plays a significant role in ocean deoxygenation. Nutrient pollution into water catalyses eutrophication in water. In particular, it is the nitrates entering the water from agricultural practices that are known to trigger eutrophication.
- This article aims to provide background and overview of the UK's compliance in reducing nitrate pollution from agricultural run-off, in the context of objectives prescribed by the EU Nitrates Directive 1991 and Water Framework Directive 2000.
- Furthermore, this article aims to highlight the importance of maintaining pressure on government to reduce nitrate pollution in a post-Brexit government in order to mitigate ocean deoxygenation.

Ocean deoxygenation and eutrophication

The ocean acts as an essential mediator in the global cycling of oxygen. It not only absorbs carbon, but also provides half of the planet's oxygen supply by way of photosynthesis occurring in marine algae.[2] However, whilst the ocean works to provide oxygen, it is also experiencing continuous oxygen loss.[3] Eutrophication (the ecological process where nutrient discharge into water triggers dense plant or algae growth) plays a significant role in ocean deoxygenation. Whilst atmospheric fixed nitrates and waste-water effluent contribute to eutrophication in coastal and open-ocean waters, eutrophication is heavily associated with agricultural run-off (water that is not absorbed by soil in farm fields that carries pollution into lakes, ponds, and marine waters).

The mixture of nitrate and phosphate entering the water is directly linked to eutrophication.[4] It should be noted that it is only when phosphate is mixed with nitrate that it becomes toxic.[5] When these chemicals enter the water, they trigger blooms of harmful algae in surface waters. When the algae eventually sink, the bacterial decomposers that feed on the algae require oxygen to digest them. Where there is not enough oxygen in the water to cater for the mass of decomposing organisms, the oxygen levels deplete. The biogeochemical chemistry of water then alters to a hypoxic condition (where oxygen levels in water deplete to the point where little to no aquatic organisms can be supported).[6]

EU Nitrates Directive 1991 and Nitrogen Vulnerable Zones (NVZs)

The EU Nitrates Directive 1991 (the Nitrates Directive), implemented for the purpose of reducing water pollution by nitrates deriving from agricultural sources, requires that all Member States identify the area mass of Nitrogen Vulnerable Zones (NVZs).[7] NVZs are areas of land that drain into waters 'affected by pollution and waters which could be affected by pollution' if no remedial action were taken.[8] A further requirement of the Nitrates Directive is the implementation of an 'Action Programme', and agricultural practitioners within NVZs are responsible for compliance with the regulations deriving from the Action Programme.

In 1998, Action Programme Regulations were implemented in England and Wales, Northern Ireland, and Scotland. The Nitrates Directive stipulates that any Action Programme should dictate an onus upon agricultural practitioners to follow a range of measures that aim to mitigate nitrate pollution, such as the control of both timing and quantity of fertiliser use in agriculture. Despite this, the Department of Environment, Food and Rural Affairs (DEFRA) found that the Directive was not prescriptive in aspects such as time frames and closure periods in the use of fertiliser.[9] The objectives of the Nitrates Directive caused uncertainty as to how they could be applied, due to a need to consider the individual characteristics of each NVZ site (e.g. weather conditions, wetlands etc.). Indeed, such considerations continue to represent challenges, suggesting that a 'one size fits all' approach would be, and has been, insufficient.[10] This particular issue initially led to inadequate compliance to the objectives set by the

Nitrates Directive for many EU Member States when it was first implemented.

In 2000, the EU Water Framework Directive 2000 (WFD) came into force. The WFD became the principal framework for water management, and it prioritised reduction of the use of hazardous substances in order to better protect groundwater, surface water and coastal water.[11] The Nitrates Directive forms a vital part of the WFD: this is because the Nitrates Directive has the ability to assist in implementing the WFD's objectives in an agricultural context.[12]

In the same year, the European Court of Justice (ECJ) ruled that the UK's initial attempts in implementing the Nitrates Directive were inadequate as they only focused on drinking water as opposed to all affected surface waters.[13] Following the ECJ ruling in 2000, the UK formally increased its mass percentage of NVZs. Despite the formal increase of NVZs, in 2003 the EU Commission indicated that the UK's attempted efforts to adequately implement the Nitrates Directive were again deemed unsatisfactory.[14] The EU Commission's dissatisfaction mainly stemmed from the fact that the UK was not complying with the limit of nitrogen (170kg per hectare) allowance used in agricultural holdings as prescribed by the Nitrates Directive. DEFRA took the view that the limit should be more flexible, and questioned the scientific basis for the prescribed figure. Its complaints against the prescribed limit were rejected.[15] Therefore, policy makers were left with the challenge of how the UK could improve compliance with the Nitrates Directive whilst maintaining a productive and stable agricultural market. The answer: the 'grassland derogation'.

Grassland derogation: Improving or debilitating nitrate pollution objectives?

What is 'grassland derogation'?

The grassland derogation allows agricultural practitioners operating within NVZs to increase their use of nitrate-based fertilisers over the prescribed limit. To be eligible for grassland derogation, at least 80% of the respective agricultural holding must be grassland, and the nitrogen must derive from grazing livestock manure. Derogation can be rejected in the event that an applicant is found to not comply with the conditions of any previously granted derogation and the NVZ rules.[16] The current limit is 170kg of nitrogen per hectare, and a successful application for derogation will allow the use of 250kg of nitrogen per hectare. Agricultural practitioners are required to apply for derogation on an annual basis, whilst the UK Government must apply to the EU for derogation every four years.

Grassland derogation provides incentives to both agricultural practitioners and governments alike.[17] For agricultural practitioners, grassland derogation allows some leeway in striking a balance between: (i) catering for growing consumer demand of good quality and low price food; (ii) compliance with nitrate and water regulation in order to procure subsidy payments from the government; and, (iii) maintaining quality of life.[18] With that said, procuring agricultural subsidy payments is increasingly subject to increased compliance with water regulations and criteria.[19] For governments of Member States, grassland derogation can allow for leeway on compliance with nitrate pollution policy, bolstering agricultural economies, and acts to lessen any penalties enforced by the EU where that Member State has breached the limits of nitrate pollution.

How has derogation improved compliance with water pollution policies?

Though such opinion is speculative, improved UK compliance with the WFD and Nitrates Directive seems to occur shortly prior to applications to the EU for grassland derogation. This would imply that UK compliance is predominantly motivated by both the need to avoid EU enforcement action, and the economic benefits procuring grassland derogation brings.

To demonstrate this point, let us look to examples of timelines of such efforts in the run up to applications for grassland derogation.

Application for Derogation 2009

2008: In 2008, an analysis on nitrate policy undertaken by DEFRA looked at the feasibility of applying for derogation in respect of the Nitrates Directive in order to increase the prescribed allowance of manure and chemical fertilisation used in agricultural practice. This was on the basis that there appeared to be a lack of evidence supporting the 170kg limit, though this argument was rejected by the ECJ in the action brought against the UK in 2000.[20] The 2008 DEFRA papers speculated that in order to be successful in its application for derogation under the Nitrates Directive, it – the UK - must not prejudice the achievements of the Nitrates Directive. Furthermore, DEFRA had to adequately evidence that 'no environmental damage would be caused where derogation would be granted'.[21] Following this, the UK implemented Article 5 of the Nitrates Directive with the establishment of the Nitrate Regulations 2008.[22]

2009: The EU granted grassland derogation to the UK.[23] A derogation of the same terms was approved in 2013.[24]

Application for Derogation Renewal 2018-19

2015: The European Commission issued a reasoned opinion stating that the UK had failed to transpose the WFD correctly in the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 (the 'WFD Regulations 2003').[25]

2017: The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (the 2017 Regulations) amended the WFD Regulations 2003. The amended regulations set out how regulators can ensure compliance with the WFD, and improved deadlines for achieving WFD objectives. The 2017 Regulations set out key provisions more fully, but continue to cross-refer to the EU Water Directives where appropriate.[26] It remains unclear as to whether renewal of grassland derogation will be granted to the UK by the European Commission for 2019.[27] This may be in light of the fact that derogation would last for four years, whereas the UK is due to exit the EU in March 2019. Disregarding this, it would be reasonable to conclude that the EU would be unlikely to renew grassland derogation to the UK under the same terms as the 2009 and 2013 derogation without first reviewing compliance with the WFD and the Nitrates Directive.

It is clear that the pressure of EU compliance with nitrate policies on Member States has had some positive effect. A recent survey taken by the European Environmental Agency (EEA) in January 2018 observed decreasing levels of nitrate across Europe's waters, and credited the decrease to the frameworks presented by the WFD 2000.[28]

How could derogation inhibit improved compliance with nitrate pollution objectives?
This year saw prolonged droughts in numerous Member States, and in light of this, the EU has granted derogation to the affected countries to allow farmers to increase use of fertiliser and move on to other lands. This decision has faced strong criticism from the likes of Greenpeace, with Christiane Huxdorff commenting:

> 'The measures adopted by the Commission may give some farmers temporary relief, but they will also reinforce the damaging intensive farming practices that drive climate change in the first place and make droughts like the current one in Europe more likely […] As long as governments and the EU refuse to back sustainable farming methods that don't exacerbate climate change and are more resilient to its effects, this crisis will be the new normal.'

Given the recent displays of leniency by the EU in terms of granting grassland derogation, the question must be asked whether a post-Brexit UK will realistically continue to improve water quality with the same ambition the EU Directives impose if there is no financial incentive to do so? Indeed, this question grows far more urgent in the light of tangible threats posed by climate change on agriculture.

Nitrate pollution policy in a post-Brexit UK

Water pollution law is a highly developed and complex area. Despite this, it has been observed that the topic of ocean deoxygenation as an emerging global threat has been neither fully acknowledged nor incorporated into planning by policymakers and stakeholders.[29] The Intergovernmental Oceanographic Commission (IOC) observed that a multi-faceted approach is needed to tackle ocean deoxygenation. Such approaches would include responsible land use and coastal agricultural practices to reduce the occurrence of harmful events such as eutrophication, together with approaches taken to climate change.[30] Vladimir Ryabinin, the executive secretary of the IOC commented:

> 'It is engagement of people, governments and private sector that, in the shorter run, may help to reduce nutrient pollution of the ocean, which in turn may partially help to cope with some areas of deoxygenation near the coast'.[31]

The 2008 DEFRA consultation papers on the Nitrates Directive remarked that the Nitrates Directive is 'universally unpopular', before going on to reluctantly conclude that the UK 'may have to learn to live within the constraints of the [Nitrates] Directive'.[32] In light of Brexit, we now know that this is not necessarily the case. Numerous concerns have been raised as to whether the UK government will devise and implement a suitable successor of the Nitrates Directive into renewed domestic legislation. It must be asked how the UK government can be held accountable to the duty to continue to devise mitigation strategies.

Section 16 of the European Union (Withdrawal) Act 2018 does provide a ray of hope for the environment in a post-Brexit legislative landscape. This section of the act allows for accountability of the UK government to ensure the succession plan of environmental legal principles into renewed domestic law, and for action to be taken against the government in respect of any environmental breach.

The economic challenges faced by agricultural practitioners are crucial considerations for UK policy makers in respect of nitrate and water regulation. To evidence the significance of agricultural practitioners' roles in reducing nitrate pollution in coastal waters would require a balanced approach incorporating the requirement for both site-specific policies and research into sustainable agricultural practice.[33] However, such ongoing monitoring is likely to incur considerable costs upon an already overstretched government. A recent report issued by the EU Commission found that whilst nitrate pollution levels have improved, nitrate overload from agriculture continues to be one of the largest pressures on the

aquatic environment. Conclusions on data also proved difficult due to a lack of cohesive reporting on water from Member States.

It is clear that a key component in achieving progress in mitigating nitrate pollution from agriculture will be continued co-operation between all Member States to identify where Action Programmes have been successful, and how that success can be translated to domestic legislation and policy. Regardless of Brexit, the common goal of restoring health to transitional, coastal and marine waters must continue. Raising public awareness to recognise oceanic health factors beyond plastic pollution and over-fishing will be vital to a wider understanding of the environmental impacts of food consumption. Whilst issues such as plastic pollution and over-fishing are of course very important, it seems that there is little awareness of the fact that the essential oxygen supply that supports life on land, and in water, is diminishing. As Professor Robert Diaz of the Virginia Institute of Marine Science so aptly put it: 'If you can't breathe nothing else matters'.[34]

Cecily Kingston is to commence a traineeship based in northern Scotland with R&R Urquhart Solicitors that will focus on environmental law. This article is based on a research paper conducted in the course of her studies on the Diploma in Professional Legal Practice at Edinburgh University.

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Book review

'Protecting Forest and Marine Biodiversity, The Role of Law' edited by Ed Couzens, Alexander Paterson, Sophie Riley and Yanti Fristikawati (2017)

Dr John Feltwell

As the 9th volume in *The IUCN Academy of Environmental Law Series*, this book comes after other titles such as two on climate change, one on water and law, one on biofuels and another on energy, governance and sustainability. Biodiversity has not cropped up before, so this is a timely tome to embrace the subject, since the concept has been around since Rio in 1992 and provided plenty of debate amongst ecologists and lawyers.

The four editors are from South Africa, Australia (two) and Indonesia and have pulled together a multitude of researchers (17) who have written under just four parts of the book: Introduction, Global issues of protecting biological diversity, Biodiversity in the forest environment, and Protecting biological diversity in the marine environment.

There was a time four decades ago when it was said that so many hectares of rainforest would be lost during the time it takes to deliver a normal lecture, such was the speed of destruction of habitats. Having read this book, it is not clear that this habitat loss has changed one iota. For example, the continuing loss of peatlands, especially in Indonesia that **Nicholas A Robinson (Pace University)** has taken as a special case study, where more than 6000 species of animals live in the swamp forests, and Indonesia holds 6-7% of the world's global peat deposits. There are measures to reduce or eliminate biodiversity loss, but putting this into effective action is very slow, mainly due to 'business as usual' meaning that destruction of habitats continues unabated. He has a perfectly measured and reasonable plan that governments could adopt to put an end to peatland loss but it does require commitment from governments.

The protection of the black coral forests of New Zealand is another case where there are legal measures for protection but it looks sometimes as though they are ineffectual **(Trevor Daya-Winterbottom, Nottingham Trent and University of Waikato).** The chapter focuses on the Fiordland coastal marine area, which has the largest global submarine forest of black coral trees in that area, some trees being over 300 years old. Even though it has 'world leading legislation' he says 'New Zealand has struggled to halt the decline of indigenous biodiversity.' The adverse environmental impacts include damming and diversion of rivers which results in phytoplankton blooms, depleted nutrient levels and an increase in sea squirts that thrive on fouling materials present on the hulls of marine vessels. He concludes by saying that although there is strong commitment to sustainable management of marine reserves it is weakened by incomplete implementation of framework statutes, the lack of monitoring and the fragmentation of environmental law. There has however been some success in collaborative administrative arrangements in the protection of the Fiordland marine area.

It is not clear that biodiversity is the winner over agriculture in **Marcia Fajardo Cavalcanti de Albuquerque's (Montpellier)** chapter on 'Biodiversity and agriculture – friends or foes?' She takes Brazil as an example as it is the 'farm of the planet' and is the fifth largest agricultural producer of agricultural commodities, reminding us that 80 species of crop and 50 animal species provide most the world's food. With Brazil owning most of the Amazon rainforest and rainforest loss seemingly progressing unabated, it is not clear that the biodiversity perspective has been properly assessed in this chapter. Her conclusion to her chapter question is that 'agriculture and biodiversity should and could be great allies.' Yes indeed, should and could, but reality prevails. She says that 'There is unfortunately no national policy specially aimed at advancing agroforestry systems.' However there are biodiversity considerations within the Brazilian Constitution and the Forest Code in place that are not always effective. It would have been useful to see the quantum of species decline in relation to habitat loss, or even some flora and fauna species actually mentioned in the chapter. The problem in many tropical places is that the law, if indeed present, is not always applied through the millions of forest people that often live beyond effective governance.

The effect of Chinese enterprises is examined around the world by **Bingyu Liu (Hamburg University).** It is clear that in many countries Chinese companies have significant holdings. Bingyu states that many natural

resources from overseas are brought back to China for working and that this then produces significant pollution within China. We are told that integration of environmental protection within the developments overseas is only 'just beginning'.

This snapshot of various papers within the book gives an idea of the depth of topics covered. It is not a good day for biodiversity, and the lesson learnt seems to be that even when laws are in place they are not keenly followed. Habitats, flora and fauna have been the losers over the last 25 years of biodiversity initiatives being in place.

The book is recommended for all libraries that deal with wildlife law and is complemented with a comprehensive index.

The eBook is priced from £22 from Google Play, ebooks.com and other eBook vendors, while in print the book can be ordered from the Edward Elgar Publishing website.

As an independent scientist Dr John Feltwell has visited many marine and wetland habitats around the world including rainforests in Asia and South America. He has a Diploma in EC Law from Kings College, London University

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