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Plastic 'Highways' to the Sea: The Problem of Litter in English Inland Waterways

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Abstract: There is a conspicuous lacuna in the Environmental Protection Act (EPA) 1990 because it imposes no legal duty on statutory bodies to clear litter from aquatic environments (rivers, canals and lakes) in England and Wales. This paper identifies a significant gap in the law on aquatic environmental protection by undertaking doctrinal research, including contextual analysis of references to rivers in 'soft' law (e.g., policy documents such as the Conservative Government's Litter Strategy) and 'hard law' (e.g., legislation including the EPA 1990); an examination of the problems with existing legal frameworks in this sphere and an exploration of legislative and practical measures which could protect our rivers and other inland waterways from litter. A legislative amendment to the EPA is proposed with discussion of whether imposing a duty on an existing body or a new, specialised body to clear litter from rivers will ameliorate these problems. The intention behind this paper is to initiate an informed debate on how to protect aquatic environments from the harmful effects of litter.

Keywords: aquatic litter; marine litter; national litter strategy; rivers; riparian owners; environment; Environmental Protection Act 1990

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1. Introduction

Over sixty years ago, concerns about land-based litter led to the enactment of the Litter Act 1958. This Act was the precursor to the contemporary litter law provided for in the Environmental Protection Act (EPA) 1990 (as amended by the Clean Neighbourhoods and Environment Act 2005). Although section 89 of the EPA imposes a duty upon specified bodies (including, but not limited to county, district and borough councils, Highways England and National Rail) to clear litter from land, this provision omits reference to water and has been subject to criticism (Select Committee on Environment, Transport and Regional Affairs Memoranda). This omission means that while public bodies have discretionary powers to remove litter from water (including rivers and the territorial sea, i.e., the sea which falls within the boundaries of domestic territory), there is no duty for them to do so. This legal lacuna is incongruous with the criminal offence of littering under section 87, at odds with the perception of where responsibility for clearing litter lies (Hulme and Samantha 2020) and with the current Conservative Government's emphasis on litter prevention, including the international focus on plastics pollution. It has been stated by the Government that: 'England is a beautiful country, but it is tarnished by the persistent blight of litter.' Furthermore, the Canal and River Trust, a charitable organisation responsible for over 2000 miles of rivers and canals, has described our littered waterways as 'plastic highways to the sea' (CRT 2021). Sadly, the littered landscape of England and Wales is not a new image, but litter in rivers and watercourses is an issue which has been under-explored by successive governments and the academic community alike. This can be contrasted to 'marine litter', that is litter found in the oceans, which has received considerable attention over the last decade. This article therefore identifies an area of law which has not been critically discussed in contemporary legal literature.

Considerable attention has been given to how the marine environment has been affected by litter with high-profile campaigns expressing consternation over the impact of pollution, with an emphasis on the effect of plastics on marine wildlife (Kuhn et al. 2015),

animal habitats and ecosystems (Gallo et al. 2018). In contrast, there has been considerably less focus on the problems that accumulations of litter can cause to internal waterways. Thus, this article investigates the need to protect 'aquatic' environments, an issue which has remained in the shadows both politically but also in terms of the legal protection afforded to keep rivers and watercourses litter-free. This article, therefore, considers the existing role of public bodies involved in wider pollution matters, such as the Environment Agency and the Canal and River Trust in protecting and maintaining internal waters.

Principally, this article is concerned with the impact of litter on the aquatic environment and focuses on internal waters of the state rather than seas and the ocean, which are governed by international law. Litter is defined by the Environmental Protection Act 1990, s98(5A) as: '(a) the discarded ends of cigarettes, cigars and like products, and (b) discarded chewing-gum and the discarded remains of other products designed for chewing'. Litter can be understood best by examining the Department for Environment, Food and Rural affairs (DEFRA) Code of Practice on Litter and Refuse (DEFRA 2006). Most items of litter, according to the Code of Practice, are materials from eating, drinking or smoking (DEFRA 2006, pp. 11–12) and are small items which can be disposed of easily. Marine litter includes items such as fishing gear, e.g., nets, ropes and lines and plastics (UNEP 2018, p. 21), such as plastic bottles, plastic bags and microbeads. When plastic (often containing trace amounts of toxic materials (Nakashima et al. 2012, pp. 10,099–105) is reduced into smaller pieces, it increases the likelihood that it will interact with other toxic matter in the water (Engler 2012, p. 12,315) and, ultimately, be ingested by water-based life-forms (Dye 2013, pp. 122–23) including mammals (Nakashima et al. 2012, p. 10,105). At present, duties imposed on public bodies to clear litter from land, do not appear to apply to internal waters (Article 8 of the UN Law of the Sea Convention (UNCLOS) 1982 defines internal waters as those which are on 'the landward side of the baseline of the territorial sea').

Analysis and evaluation of potential legal and policy-based options will be undertaken in this article. This analysis addresses litter in rivers and watercourses, to facilitate debate on whether the law ought to be reformed and, if so, on what basis law and policy may be reformed to provide rivers and other internal waterways with effective protection from littering. This article discusses the legal issue created by the lacuna in the (EPA 1990) over public bodies' duties and powers pertaining to rivers and watercourses. It is acknowledged that proactive solutions which prevent litter would be better. The reality of it is that litter is a significant problem and that there is a need for 'preventative' measures, that not all aquatic litter can or will be prevented and that thus, there is a need to consider how to respond to this challenge.

This article will consider the need for comprehensive protection of all inland waterways. The discussion will focus primarily on rivers and canals because they cover a vast geographical surface and they are most likely to be impacted by harmful litter. The final section will examine the possible solutions to filling the lacuna, ranging from the potential creation of new public bodies to smaller, 'nudging' actions (Nordic Council of Ministers 2016), such as consolidation of existing roles. These options consist of: (a) a statutory provision amending the (EPA 1990) to include duties for litter authorities to clear litter from water; (b) the provision of a statutory duty for a new or existing organisation to be tasked with clearing litter from internal waters; or (c) no substantive reform, but the provision of comprehensive policy guidance from DEFRA (or another appropriate body).

2. The Legal Issue

2.1. The Legal Lacuna

This section considers the incongruent treatment of land and internal waterways under the Environmental Protection Act (EPA) 1990 and how this differential treatment has led to a failure to provide rivers and watercourses with adequate legal protection. The EPA is a broad statute which covers a range of environmental issues including litter, waste, contaminated land and air pollution. Scotford and Jonathan (2013, p. 383) observe that:

> 'The picture of the EPA as a whole is one of a fragmented and disparate statute that is difficult to read on its face . . . '

The problematic aspects of the (EPA 1990) emerge when we contrast section 89 with section 87 of the Act. There is a comprehensive legal regime in respect of land. Although most litter that is found in water originates from land-based sources, due to wind and rain, litter may be blown or swept into rivers and watercourses, and yet water-based litter, appears to have been overlooked in Parliamentary debates. This omission may be because, in the debates prior to the enactment of the EPA, the discussion emphasised that monitoring and enforcement duties over domestic waters rested with the (former) National Rivers Authority (NRA) (Hansard 1990, EP Bill, cols 524–25). In practice though, this was not the case, and the NRA was responsible for the supply of drinking water, sewerage and sewage disposal, flood management and pollution prevention, but not the clearance of litter from internal waterways.

Under s89 of the EPA, specified bodies have duties to clear litter from 'relevant' land. S86(4) of the Act defines relevant land as that which could be littered upon as an area which: ' . . . is open to the air and is land (but not a highway or in Scotland a public road) which is under the direct control of such an authority to which the public are entitled or permitted to have access with or without payment.' These bodies are: local authorities, the Secretary of State, principal litter authorities, Crown authorities, designated statutory undertakers (e.g., train operators owning land), educational institutions and other occupiers (i.e., private landowners). These specified bodies' duties of clearance under s89 exist only in respect of litter on land and not over litter in water. As a point of note, county, district/borough and parish councils are regarded as litter authorities under the EPA, but in practice, the main responsibility for clearing litter on land falls to district and borough councils (Hulme and Samantha 2020, pp. 27–35). The omission of 'water' in relation to the s89 duty to remove litter becomes even more apparent when we consider s87, which outlines the criminal offence of littering. (Section 87(1) of the EPA provides that:

> 'A person is guilty of an offence if he throws down, drops or otherwise deposits any litter in any place to which this section applies and leaves it'.

Most importantly, Section 87(4) provides:

> 'It is immaterial for the purposes of this section whether the litter is deposited on land or in water.'

Thus, for criminal law purposes, the relevant legislation provides no distinction between the consequences of littering on land compared to littering in water. It is an offence to drop litter, regardless of whether it is dropped on land or into water (i.e., rivers and watercourses). There appears to be an artificial divide in public law's treatment of water, therefore creating fragmentation and an unhelpful delineation between the criminal law and the regulatory framework for clearance of litter, even though the two spheres are often intertwined in environmental law.

2.2. Justification(s) for the Legal Lacuna?

The rationale for the differing treatment of water for the purposes of criminal law and the purposes of a duty under public law to clear the litter may, in part, stem from the transient nature of water itself—and legal issues of 'ownership' and 'rights' stemming from property law. The perceptions of what constitutes property, and the nature of property rights may have influenced legislation such as the Environmental Protection Act 1990. Specific ideological norms pertaining to water are deeply embedded in English Law. As Gray and Susan (2005) note at p. 60:

> 'English property law remains relatively uncertain or incoherent in its conceptual treatment of . . . water'.

Freyfogle (1988) has also observed at p. 1529 that the legal treatment of water is a 'matter of some doctrinal embarrassment', since English Law regards water, including the

surfaces of rivers (per Attorney General ex rel Yorkshire Derwent Trust Ltd. v Brotherton 1992, 1 AC 435), as being incapable of ownership (Gray and Susan 2005, p. 60). Rivers and watercourses cannot be owned by anyone and are regarded under English Law as *res nullius* (Getzler 2004; Rose 1990). Getzler (2004) has pointed out that, in comparison to land, flowing water cannot be possessed in a tangible manner. Water can merely be 'quasi-possessed or appropriated by the user'. He has identified the problem of 'possessing' water:

> '. . . flowing water is a thing in constant state of change which may be diverted, abstracted, or polluted by competing users, and hence destroyed. So a running stream cannot be appropriated or possessed in a way that land as a stable, immutable object of property is capable of possession'. (Getzler 2004, p. 43)

Indeed, while both inland waterways and land are tangible, inland waterways pass across boundaries onto privately owned lands. Eons ago, the philosopher Heraclitus observed that no man steps into the same river twice since natural waters are in a state of flux (Conche 1998). The transient nature of rivers and watercourses makes them difficult to exercise control over, unlike land. These issues are stressed by Getzler, at p. 43:

> 'The quality of instability creates difficulties of legal characterisation, for underlying the law's intricate structure of property rights corporeal and incorporeal, of tenured, estates, and trusts, lay an abiding principle of physical possession . . . as the foundation of right.'

So how does the law in England and Wales view water and watercourses? While we often refer to the concept of 'riparian ownership', this is in fact a misnomer, as rivers and other watercourses are not subject to ownership by private (or indeed public) bodies under English property law (Malcolm and Alison 2018, p. 202). It is more accurate to say that the landowner acquires certain water use rights, known as riparian rights (for general discussion on water rights see Kalinoe 2008). More precisely, the landowner has ownership over the *riverbed* (Chasemore v Richards 1859, 7 HL Cas 349), and will have a bundle of rights and responsibilities in relation to such watercourses, but they will not *own* the actual watercourses. The term 'riparian ownership' is merely indicative of a 'package' of rights and responsibilities over rivers (and indeed other watercourses). A specific right enjoyed by riparian owners is the ability to bring an actionable nuisance for an unreasonable interference, by another, which impacts with the water quantity or quality (Bell et al. 2017, p. 651).

It has been argued that the legal position of water can best be understood via the concept of a public trust, established via Roman Law (Ruhl and Thomas 2020). Rather than being ownerless, it has been argued that water may be regarded as 'common property to mankind' (Ryan 2020, p. 143). Ryan has suggested that: ' . . . some resources, such as navigable waters, are so critical that they cannot be owned by anyone in particular . . . they must belong to everyone together' (Ryan 2020, p. 137). It should be noted that Roman Law principles can be unclear or ambiguous (Frier 2019, p. 643), but this may demonstrate the best way to view water and thus provide stronger justification for the protection of out 'shared' resource. The difficulty then, more generally, is that a 'scarce resource' (Ostrom 1992, p. 1992) such as water is vulnerable to harm, due to such ambiguity in its property status and the corresponding lack of regulation. As Clarke notes, 'the law struggles to find appropriate legal structures for the recognition and efficient regulation of land that is communally used' (Clarke 2006). A better framework for understanding water may be that of communal ownership, i.e., the notion of an entire community having open access to a resource, or a limited number of persons within a community being afforded such access) (Clarke 2006). Taking such a 'common treasury' (Malcolm and Alison 2018) approach towards inland waterways has the benefit of acknowledging the interconnectedness of water (which may traverse the lands of multiple owners) while protecting its functions. A communal property approach, coupled with a regulatory

framework with greater recognition of internal waterways, for instance, could protect them from the harmful effects of litter.

It is asserted that, regardless of the logical justifications for overlooking the need to protect internal waterways via the EPA, water is qualitatively equal to land and profoundly important. Public bodies, therefore, should have the same unambiguous duties towards protecting internal waterways from the polluting effects of litter. Going further, by adopting Barritt's stewardship perspective of environmental law (Barritt 2014, p. 3), this distinction makes even less sense. Consequently, its differential treatment in public law, compared with criminal law, is challenging to justify. This statement holds weight when considering the increased global environmental consciousness and whether this conceptual understanding and treatment of internal waters sits comfortably with societal and legal developments occurring globally.

Further confusion can arise from terminology such as 'riparian ownership' (deriving from the Latin 'riparius' to mean bank or shore—per Warner and Kathleen 1984) which implies that rivers (and other watercourses) are owned by private or public bodies (as considered above). In conclusion, the conceptual and legal doctrine shaping the treatment of water, is an unsatisfactory situation at best and out-dated and unequal at worst.

3. Legal Duties

England and Wales boast approximately 4700 miles of navigable waterways, 2000 miles of which are held on trust by the Canal and River Trust (CRT) for the benefit of the public. The Government in 2012 transferred much of England and Wales' canals (and a number of reservoirs, rivers and heritage buildings) to the newly established CRT, which is a registered charitable organisation, with the objective to 'preserve, protect, operate and manage Inland Waterways for public benefit' for navigation and recreation. The Public Bodies Reform Programme transferred public functions over to charitable organisations, including the Canal and River Trust. The CRT is funded by an array of sources including DEFRA, charitable donations, investments, boat licences, utilities and water development and income from marinas (Canal and River Trust 2017, p. 2). The primary role of the CRT is to act as the navigation authority on rivers. Specifically, as regards litter, the Trust arguably has a duty to remove litter only if it is severe enough to affect the condition of the waterways and thus, the ability of boats and other vessels to navigate (e.g., at weir booms and bridge/lock approaches).

Similarly, The Transport Act 1968 s105(1) requires the removal of rubbish by canal owners for navigation purposes, stating that the Waterways Board (now the CRT) has a duty to: '*maintain* . . . waterways in a suitable condition' for vessels and cruising craft. Therefore, there is (arguably) a duty to remove significant accumulations of litter, stemming from this duty of maintenance. This duty, however, cannot translate into a duty to remove single items of litter which might not have an immediate, discernible effect on the waterways. In addition to the aforementioned duty, under s9 of the British Waterways Act 1983, the CRT has the power to 'remove from any inland waterway or from any reservoir' anything which is 'causing, or likely to become, an obstruction to, or likely to cause interference with, navigation'.

In addition to the CRT, the other major body concerned with waterways in England and Wales is the Environment Agency (EA), which is a public body responsible for protecting most other main rivers from pollution, with duties and powers stemming from the Water Resources Act 1991 (see sections 84 and 161). The EA is the second largest agency of its kind in the world, the largest in Europe and its raison d'être is to work to enhance the environment, create better places for people and wildlife, and achieve sustainable development (Sunkin et al. 2002, p. 297). More specifically, the EA is responsible for water issues ranging from regulating major industry waste and the treatment of contaminated land, to water quality and resources, fisheries, inland river estuary and harbour navigations and conservation and ecology. The EA also manages the risk of flooding from main rivers, reservoirs, estuaries and the ocean. Importantly, the EA has a role in both producing policy

guidance and the enforcement of laws which serve to protect the environment, including involvement in cases of severe pollution. Moving to litter related issues, the EA has created several initiatives to address litter including a recent pledge of £750,000 to reduce the problems caused by single-use plastics via a specialised plastics and sustainability team (EA 2018). The EA also works with a myriad of bodies in the prevention of litter such as councils, charities, businesses and community action groups. The responsibility for maintaining other main rivers and watercourses, which do not lie with the CRT or EA, rests with private landowners and other public bodies which own land, including the Forestry Commission, Natural England, the Port of London Authority, Natural Resources Wales, district, and borough councils.

Consequently, there is no clear legal duty imposed on either public bodies or private owners which compels them to remove individual items of litter from rivers and watercourses. Guidance, however, can be found in the form of soft law within an EA policy document, '*Living on the Edge*', provided for landowners whose land includes a river or other watercourse running through/over it. This guidance appears to contradict the various provisions under the Environmental Protection Act 1990 since it implies that there is a legal duty placed on the landowner to clear litter from rivers and watercourses. In '*Living on the Edge*', the EA states that: riparian 'owners' should keep the riverbanks clear of 'anything' capable of causing an obstruction or increasing flood risks, clear litter and animal carcasses (Environment Agency 2014, p. 9), keep structures such as 'culverts, trash-screens, weirs and mill gates' clear of litter (p. 8) and 'not cause obstructions, temporary or permanent' (p. 9). This guidance is written in such a way that it could cause confusion and create a misperception that there is a positive duty imposed on landowners to remove litter from rivers and watercourses which applies equally to privately and publicly owned land.

The EA guidance, however, is subordinate to the EPA, which does not impose such a duty on riparian owners. This guidance is significant because it may highlight the lack of clarity over public bodies' duties to clear litter from rivers and watercourses. This confusion may, in part, stem from the existence of (1) enforcement powers that these bodies have to prosecute individuals under the criminal law who drop litter, and (2) the duties of various public bodies which *may* involve the clearance of litter (such as removing debris which is blocking the passage across internal waterways), being wrongly equated with a duty to clear litter. One example was considered in the context of the CRT, where a duty to remove debris which is blocking the passage across internal waterways, could be conflated with a duty to clear litter. In fact, the removal of litter in such circumstances is ancillary to the main purpose of removing the debris. It is trite law too, that a statutory power to act (including the power to remove accumulations of litter for the purposes of maintaining a river or to address pollution) does not create a general duty to remove such litter. Other examples will be considered in detail below.

Moving more specifically to *powers*, the EA and local authorities have powers under the Land Drainage Act 1991 and the Water Resources Act 1991, which enable them to undertake 'maintenance work' on rivers or watercourses, which can be exercised to include removal of litter and debris. Thus, the use of certain powers may provide public authorities with ancillary rights to remove litter from the land of others. Drainage authorities, for example, may enforce riparian owners to undertake work on rivers or watercourses on their land as set out under the Land Drainage Act 1991, s25. There are many powers which, if interpreted generously, can include the removal of litter. However, there are very few duties imposed on these public bodies.

In practice, despite the potential for the use of existing legislation to hold riparian owners accountable for litter in waterways running through their lands, inland waterways litter is not a matter of priority for financially stretched public bodies. Litter in rivers and other watercourses will typically only be removed by councils (outside of riverside litter clearance organised by volunteers) who must adhere to a duty of care under the (EPA 1990), s34(1)(a) and special volunteer initiatives, e.g., the 'Treasure your river' campaign (see: 'Action to remove 90 tonnes of litter from 5 of the UK's biggest rivers') and the CRT's

'Plastics Challenge' (CRT 2021), when it is regarded as a hazard to navigation or when a stretch of canal is drained for repair. There is no specific guidance provided on this matter, so it is at the discretion of the bodies seeking to rely on these powers as to whether they use them for the purposes of clearing litter. In practice, many litter initiatives which involve the clearance of litter from rivers and watercourses will be driven by volunteers, ranging from interested individuals to groups brought together by charitable organisations such as Keep Britain Tidy and the CRT. In these circumstances, some councils are willing to provide waste bags and other materials to volunteers involved in clearance of internal waterways; however, this is the extent of their involvement due to limited resources (Hulme and Samantha 2020, p. 52).

4. Why Do We Need to Improve the Legal Protection of Rivers and Watercourses from Litter?

4.1. The Government's Agenda

There are many important reasons to improve the legal regulatory framework with respect to litter in internal waterways, such as rivers and watercourses. This is an area which needs attention since, as considered in the introduction, scant attention has been paid to the issue of litter in internal waterways. Indeed, in a political climate focused on the social and economic impacts of Brexit (Gee et al. 2016), the coronavirus, and other pressing environmental issues such as climate change, this attention has understandably diminished further. The specific problem of aquatic litter remains overlooked by national policy despite the poor condition of our inland waterways (Natural Capital Committee 2020). Admittedly, the Government's 25 Year Plan does refer to the protection of both marine and aquatic environments, but contextual analysis reveals that there is no explicit reference to aquatic litter and only brief reference to marine litter in the DEFRA Code of Practice on Litter and Refuse, a vital policy document outlining which bodies are duty-bound to clear litter and the extent of their duties.

Limited policy progress could be seen in September 2019 when DEFRA made a small amendment to its Code of Practice; however, this was a missed opportunity to provide a substantial amendment to Government guidance, addressing matters such as the existing lacuna in the Environmental Protection Act 1990 and the need to strengthen the legal regulatory framework to protect aquatic environments from litter. It is, unfortunately, unsurprising that litter in waters is not mentioned since the existing statutory litter framework largely ignores the protection of internal waters from litter. It is a cause for concern, however, when one considers the long-lasting impact of plastics pollution when litter passes into the oceans and seas. Geyer et al. estimate that approximately 8300 million metric tons of new plastic has been produced, to date, 79 percent of which has accumulated in landfill (Geyer et al. 2017). Rivers account for 404,000 square kilometres of the Earth's non-glaciated surface area (Allen and Pavelsky 2018), so the scope for litter to pass into the oceans and seas is considerable.

At first glance, progress can be seen in the form of the Environment Act 2021, s1(3)(b) which aims to put the 25 Year Plan on a statutory footing, broadly sets the protection of 'water' as a priority area for long-term government targets including the creation of an Office for Environmental Protection (within ss22–43). As Fisher (2019) accurately notes at p. 189, unfortunately the Plan is 'silent when it comes to law, legal reasoning and legal institutions' with limited references to the existing legal framework and potential improvements.

There are laudable proactive solutions contained within the Environment Act such as the use of bottle deposit schemes and enhanced producer responsibility (e.g., with emphasis on reduced packaging). These are measures which are proactive and would certainly reduce the 'flow' of litter into the aquatic environment. Moreover, while the protection of water is undoubtedly a policy priority, a set of coherent principles and an institutional framework are essential, otherwise the Government's Plan is merely paying lip service to environmental protection. This Plan falls short of a National Strategy to protect internal waterways from pollutants, such as litter. Proactive solutions are important

in addressing litter both on land and in the water, but it is argued that such measures may reduce but will not serve to eliminate such litter. Furthermore, litter in internal waterways is less obvious (since much of it is below the surface), which is why a legal framework is so crucial in the protection of aquatic environments. This article now intends to identify how the existing law can be improved and how specific institutions can address the challenge of litter in internal waters, especially rivers.

4.2. Litter as Pollution

The accumulation of litter, particularly of non-organic litter such as tin cans, plastic bottles and other types of packaging, is hazardous to health and the welfare of wildlife. In 2020, 84 per cent of rivers and lakes in England failed tests for chemical pollution, demonstrating one of the worst records in Europe (The Times 2020). The most significant forms of river pollution are chemicals, sewage, manure, and plastics (the latter is classed as a type of litter). Plastic pollution has been described as 'geographically widespread, pervasive and rapidly increasing' (Wilcox et al. 2015). It is an 'anthropogenic issue' (Thushari and Senevirathna 2020) which accounts for a considerable amount of this litter (Schmidt et al. 2017; Gross 2015; Inland Waterway Association 2019) and it is estimated that river systems across the Earth contribute up to 95 per cent of the plastic in oceans (Schmidt et al. 2017). Litter has negative social, economic and environmental consequences (UNEP 2018, p. 15). This includes, but is not limited to, harm to public health due to contamination of drinking water, harm to marine life and the destruction of aquatic eco-systems. This is even more problematic because rivers, and other aquatic environments serve as a bridge between the sea and land, since most litter originates on land, travels through rivers which are 'major pathways' (Schmidt et al. 2017; Bruge et al. 2018) for litter to enter the seas and oceans. Thus, this section will focus on whether litter falls under the regulation of 'pollution'.

The main benchmark for the quality of water, for now, remains the EU Water Framework Directive (WFD). The Environment Agency has responsibility to exercise its functions under s84 of the Water Resources Act (WRA) 1991 to ensure statutory objectives on water quality are satisfied. The EA works in partnership with organisations, including councils, to address water pollution. The Environment Agency acts as a regulator and holds other organisations—such as water companies and private waste disposal firms—to account for incidents of pollution. Under s161 of the WRA, the EA have wide-ranging powers to prevent pollution or to clean up pollution. Serious incidents of pollution are addressed by front-line officers of the EA and enforcement measures are taken against commercial bodies which have caused water pollution. Litter, however, typically does not fall within the scope of its activities. This is despite the fact that, as stated by Bell et al. (2017), 'numerous substances can have a damaging impact on water quality in sufficient quantities'. The focus on the quality of the water rather than the qualities of all pollutants which enter internal waterways, typically means that less harmful substances such as litter do not have sufficiently serious adverse effects in the environment to trigger applicability.

The Environmental Protection Act 1990 provides a clear demarcation of provisions on waste on land in Part II of the Act, waste, and pollution at sea under Part VIII, ss140–148 and litter in Part IV. Hence, again litter is treated as separate from water pollution for the purposes of domestic law. We can thus conclude that individual items of litter or small accumulations of litter will not amount to pollution, within English Law. It could be argued, however, that accumulations of litter for amenity purposes could amount to a statutory nuisance (see the EPA 1990, s79(1)(e) 'any accumulation or deposit which is prejudicial to health or a nuisance') or cause water pollution. Bell et al. (2017) note that different factors come into play in determining whether specific items will cause water pollution and have a 'synergistic' effect whereby factors such as location, amount of oxygen and the existence of other pollutants will determine the effect of the pollution. The difficulty is that the existing legal framework does not fully address circumstances where non-hazardous material mixes with other materials and becomes toxic in nature.

The Environmental Permitting (England and Wales) Regulations 2010 define polluting substances as those which are poisonous or noxious, waste matter, or trade or sewage effluent. While these Regulations remain in force and that these definitions still apply, many provisions are updated by the Environmental Permitting (England and Wales) Regulations 2016. These types of pollution are not defined comprehensively by the Regulations, but it is at least arguable that accumulations of litter could fall within the scope of the Regulations since a large amount of litter in one place, or litter which has degraded over months or years, could become 'poisonous'. Accumulations of plastic litter, in particular, are known to become toxic over time. *R v Dovermoss Ltd.* [1995] Env LR 258. has interpreted 'poisonous, noxious or polluting' as requiring a likelihood of causing harm to animals, plants or those using the water. It is clearly arguable, therefore, that accumulations of litter, especially plastics, can cause harm and, in some circumstances, will have been proven to have caused actual harm.

4.3. A Global Movement

The importance of protecting seas, rivers and watercourses from the ill-effects of litter is part of a global movement (Westra 1998; Turner 2014; Percival et al. 2014) to protect the environment, particularly because of the health benefits to humans, animals and the need to recognise and support biodiversity. These important goals are supported by a range of heavyweight international organisations such as the United Nations vis-à-vis its United Nations Environment Programme, the EU via the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, the UN Economic Commission for Europe through the Aarhus Convention, the latter document emphasising the need for an 'environment adequate . . . to health'. The specific issue of plastics has gained further global importance via negotiations to create a UN Treaty on Plastics Pollution. Moreover, rivers and other important parts of national heritage have recently received legal protection vis-à-vis existing constitutional provisions protecting the environment, in countries such as Ecuador (Manzano 2014) and Colombia (Alvarado and Rivas-Ramirez 2018), which demonstrates the social significance of the environment being translated into a set of legal obligations. New Zealand and India (see O'Donnell 2018), and states in the USA such as Ohio, via the Lake Erie Bill of Rights, have established that rivers have legal rights (Spitz and Eduardo 2020). The developments in New Zealand have been of particular interest to legal scholars in the sphere of Earth jurisprudence; particularly advocates of posthuman legal theory and the rights of nature movement (Jones 2021).

These important legal developments provide ammunition for the argument that English Law ought not to be ambiguous nor ambivalent about its legal protection of internal waterways, such as rivers. Instead, we ought to be embracing diverse global perspectives which extend beyond the traditional principles of English Law or even the recognised principles of international environmental law (Jones 2021). Quite simply, water (including internal waterways) is a finite, global resource which ought to be protected, including internal waterways, such as rivers. Brown Weiss (2012) argued that: 'If we were to recognize the availability and use of water resources as being a common concern of humankind', this would create a normative basis for protecting all bodies of water, including internal waterways, globally. Thus, while globally marine environments have been protected, it is argued that an elevation in the status of water would lead to greater concern among the public, elevating concern about water to a similar status to that of climate change.

4.4. Rivers and Watercourses as a Legacy

The notion of equity in 'inter-generational consequences' (Spitz and Eduardo 2020, p. 93) is an important issue in considering why we should provide legal protection to rivers from litter. Rivers and other watercourses provide habitats for many creatures (Haward and Joanna 2008) and constitute a source of important natural resources (Bruge et al. 2018). Moreover, they form part of the horizon of the idyllic English countryside, viewed and

admired by many. Historically, the beauty of the countryside has been synonymous with our culture in literature and has been a source of enjoyment and inspiration nationally and internationally. One famous author even used 'Orwell' as a pseudonym, based on the River Orwell in Suffolk. As a nation, we enjoy swimming in rivers, boating and deriving enjoyment from the aesthetic value of rivers. Internal waterways fulfil an important social purpose and facilitate a sense of belonging by bringing communities together to enjoy a myriad of activities, which contribute to our overall sense of well-being individually and collectively (Benson 2000, p. 34). Rivers and watercourses have value as important sources of natural capital (such as providing drinking water, a means of transport and leisure activities) and because they are part of our natural heritage (DEFRA 2013, p. iv). There is also a strong link between the value of 'blue spaces' like rivers and mental health benefits derived from access to water, 'on-water' activities and access to nature. Litter in rivers and watercourses can, therefore, be regarded as a blight on the countryside and is an inter-generational and transnational issue which demands the ongoing attention of both central and local government.

The scope, usage and increasing recognition of the importance of inland waterways in our everyday lives are important arguments in favour of increased legal protection. It should be noted, however, that these rights are an important symbolic step but do not necessarily translate into greater legal protection for aquatic environments. Although New Zealand's recognition of river rights has placed the matter firmly on the global stage, thereby creating increased academic focus on rivers (Sanders 2018), legal academia has largely overlooked the specific problem of clearing litter from rivers and watercourses and the respective duty of public authorities. Matters are not helped by the fact that littering tends to be perceived, by some, as a more trivial and less obvious environmental problem. This is the situation, even though accumulations of plastic litter in rivers could cause water pollution. The difficulty is that statutory and policy measures to address pollution tend to concern water discharge activities (e.g., the discharge of trade waste or sewage), rather than accumulations of items of litter (e.g., plastics) which may become poisonous, noxious or pollute water over time.

Thus, while we cannot recreate a pristine marine environment, nor can we remove all internal waterways litter due to the need to protect the biodiversity of aquatic life (Aquacross 2018), we must ensure the clearance of harmful litter from internal waterways. Another way in which this matter has been addressed is by environmental activists via strategic litigation. This can be seen by the earlier cases mentioned above in New Zealand and in India. It is not argued that rivers and other watercourses ought to be afforded 'personhood' akin to legal entities such as corporations, since as stated by Spitz and Eduardo (2020) at p. 72, '[It is] not immediately obvious what legal entitlements would flow from personhood for a waterway.' Nor is it clear that such an approach would 'accomplish the goals activists wish to achieve.' (ibid). Moreover, they argue that environmental litigation is 'expensive in terms of both time and money'(ibid). Therefore, while the law needs to change and environmental activism is a valuable way of affording attention to natural resources, statutory reform would offer a more direct way of achieving this goal since the existing legal regime in England and Wales needs to be more robust. The law would benefit from legal reform to improve the protection of internal waterways which are rife with litter (Hulme and Samantha 2020) and to protect invaluable ecosystems now and in the future.

The best way to provide legal protection to internal waterways is by building on the foundations of the existing statutory framework, rather than by re-inventing the wheel or using litigation to bring public bodies to account for failures to exercise statutory powers to clear litter from rivers and watercourses. There are already mechanisms in place to protect the environment from litter; the problem is that this protection is too narrow in scope and is largely limited to the protection of land or more hazardous forms of 'pollution'. The applicable legal frameworks which provide duties and powers to public bodies to assist in the prevention of litter will be considered below.

5. Reform to Protect Our Internal Waterways?

A sea of change is apparent from recent political momentum to address accumulations of litter on land and in the sea. Marine litter has attracted increased attention, due to greater global environmental consciousness under the auspices of campaigners in charitable organisations and others with a vested interest. These include: Keep Britain Tidy and Campaign to Protect Rural England (the Countryside Charity), environmental litigation from groups such as Client Earth (for discussion see Fisher 2019) and popular television programmes such as the BBC's Blue Planet series, all of which may have influenced the Conservative Government's ambitious 25 Year Plan, in 2017 to improve the environment and the development of a National Litter Strategy (DEFRA 2017).

In September 2020, the Conservative Prime Minister Boris Johnson announced that the UK will sign an international commitment which binds signatory nations to protect at least 30 per cent of their land-based habitats by 2030 (see: BBC News 2020). Although this is a commendable goal, like the Government's previously adopted 25 Year Plan, this pledge is not focused on the protection of aquatic environments. The issue is that the approach towards the environmental protection of aquatic environments has not evolved since 2017. Specifically, the earlier 2017 English Litter Strategy contains only a derisory two-page section regarding litter and covers both marine and aquatic environment. Thus, these documents all focus largely on land- and marine-based litter to the detriment of aquatic litter. Furthermore, land-based environments and marine environments (oceans and the seas) receive more national and global legal protection and attention than do aquatic environments (rivers, lakes and canals). Although it is hoped that the Government will review its Litter Strategy (DEFRA 2017), which is now four years old and arguably out of date, existing law and policy documents do not provide comprehensive coverage of how to best protect aquatic environments (and thus other types of internal waterways) from the problem of litter.

In summary, no legal duty exists either under the Environmental Protection Act 1990 or other Acts of Parliament to clear litter from aquatic environments. Three normative routes are, therefore, proposed to improve the legal protection of aquatic environments from litter, which consider relevant socio-political factors such as the requirement of post-COVID-19 austerity measures. First, changes could take place via statutory reform to address the existing omissions in the EPA. As an alternative to statutory reform, it would be beneficial to strengthen the protection of inland waterways from discarded litter through the development of soft law (e.g., guidance from authoritative bodies like DEFRA). These options, which can be viewed as small 'paternalistic' changes to 'nudge' the law in the direction, of improved environmental protection, are considered below.

(a) Statutory provision amending the Environmental Protection Act 1990 to include a duty for litter authorities to clear litter from water in addition to land.

Therefore, examination of the (EPA 1990) demonstrates that s87 (on the criminal offence of littering) provides explicit protection over both land and water, while s89 applies a duty of clearance only to land. Section 89, considered above, could be amended to refer explicitly to water, so that duties to clear litter on land apply equally to litter in waters like rivers. This is a simple change which would address the current lacuna and provide a gentle 'nudge' in the right direction. Although this is a useful starting point, unsurprisingly, such reform is not without its challenges. An extension of this duty could fall upon the councils and other bodies responsible for clearing litter on land that falls within their defined areas (such as schools, park authorities and railways operators, etc.).

It can be argued that since councils have powers to clear litter from privately owned land, that it 'makes sense' for them to have a duty to clear litter from waters also. District and borough councils already pay millions of pounds per year to clear litter from land within their areas. An additional duty to clear litter from inland waterways would increase expenditure significantly, since councils and other public bodies with duties over land would have to hire additional staff and additional specialist equipment including boats or hire private contractors to undertake the work. This could potentially increase costs

and revenue would have to be raised elsewhere to fund this clearance. Further expenses might also occur due to the need to coordinate litter clearance measures with landowners of neighbouring lands, over and through which rivers flow. In the context of the clearance of land-based litter, for instance, the work of Hulme and Samantha (2020) has shown that such coordination is challenging and has led to further expense and delays. Thus, a simple amendment would open a 'can of worms' since many different organisations would suddenly face a disproportionate financial burden. It can be concluded that challenges which exist already, such as coordination between different bodies involved in clearing litter on land, could be replicated in the process of clearing litter from internal waterways. These challenges might even be more frequent due to the need to work with owners of neighbouring lands, because rivers may flow through the land of more than one owner. It is suggested that this 'fragmentation' or 'dispersal' of duties could make the law and its application more complex.

This author would suggest then, that while a modification to the EPA would be a welcome development, such an amendment would not, by itself, resolve the lack of clarity over which public body (or bodies) would be responsible for clearing litter from internal waterways. This also imposes duties upon bodies without the resources to discharge it. Therefore, while this reform provides a helpful starting point, any changes to legislation would need to be accompanied by further clarification (either through hard law or soft law in the form of DEFRA guidance) to establish whether duties to clear litter ought to be imposed on the same bodies which clear land, or whether due to the specialised nature of clearing litter from water (especially beneath the surface), that duties need to be imposed elsewhere, such as on bodies with the resources and equipment to tackle litter in rivers and other internal waterways (such as the EA and the CRT). This issue, and the potential value of exploring the utilisation of these bodies' services, is explored below.

(b) Creation of a statutory duty for a new or existing specialised organisation to clear litter from internal waters

As well as, or instead of, extending the existing duty to clear litter on land to include rivers and watercourses, a statutory duty could be imposed on a new or existing body to clear litter from internal waterways. In other words, rather than imposing a duty on a wide range of bodies already listed within the Environmental Protection Act, a duty could be imposed on one or two bodies with specific expertise in addressing matters relating to internal waterways. Under the Public Bodies Act 2011, Ministers of the Crown are, following a consultation process, empowered to abolish, merge, transfer functions or modify the funding arrangements of public bodies, including environmental public bodies. The question then, is should this duty to clear litter from rivers and watercourses be imposed on an existing body or should a new, purpose-built organisation be developed to address water-based litter?

The enactment of legislation to create a new, bespoke organisation would have advantages such as to emphasise increased environmental consciousness, thereby creating an important feedback loop reinforcing the importance of inland waterways. This would send a powerful message to the public and other state institutions. It would, however, be necessary to determine whether this body should be limited to addressing litter clearance or whether this organisation should be involved in enforcement and the development of policy guidance. This would require consultation by the Government and would make reform an even more time-consuming process. It is argued that this is unnecessary. The best way to achieve reform is to utilise existing bodies such as the newly established Office for Environmental Protection (OEP) which has a role overseeing the protection of the environment, including the rivers and sea through its scrutiny, advice and enforcement functions. Fisher (2019) argues at p. 179 that: 'The exact function of the OEP is difficult to determine' but surmises that it is intended to have a post-Brexit role which, in part, replaces that of the European Commission (ibid at p. 180).

It is apparent, however, that under s31 of the Environment Act, a public authority which fails to comply with environmental law, can be brought to account by the OEP. See

section 28 of the Bill concerning the failure of public authority to comply with environmental law. Of particular interest, s28(2)(b) addresses public authorities 'unlawfully exercising or failing to exercise any function it has under environmental law' and section 29 provides for a complaint process if a member of the public believes a public authority has failed to comply with environmental law.

The OEP might be important in ensuring enforcement of existing duties to clear litter from rivers and watercourses. Although the OEP has important functions which may have relevance so far as protecting inland waterways is concerned, it lacks the specific focus and day-to-day powers and duties required to protect aquatic environments from litter. Because it is a newly established organisation, it is unclear what impact, if any, it will have on the issue of littering or, specifically, the protection of inland waterways from littering. It does, however, seem like a potential vehicle for providing a review of the existing problems.

Imposing sole duty on an existing body with discretionary powers in relation to clean-up of inland waterways might be easier than the creation of a new, bespoke institution. Making use of councils specifically and imposing a duty upon them to clear litter from internal waterways is a potential solution to the 'duty' problem. This author has concerns, however, that it will not be an optimal solution (as considered in the previous section) unless councils have sufficient resources at their disposal, do not face additional expense and delay from partnerships between neighbouring lands, and thirdly, that councils develop the necessary expertise in clearing litter from internal waterways which is, at least equal to, bodies with greater experience in this area such as the CRT and EA. Of course, using contractors from specialised organisations involved in such litter clearance could overcome this issue to some degree, but it would not address the imposition of a financial burden alongside the need for further coordination between neighbouring lands.

One potentially useful way to reform the law and to develop infrastructure to tackle such litter would be to draw on the experience of the charitable sector. It was highlighted by Hulme and Davey that a high proportion of rivers and watercourses are cleared of litter by charitable organisations. Thus, investing further in a charitable organisation such as the Canal and River Trust (CRT) and/or a public organisation such as the Environment Agency (EA) would make sense. As considered above in section (a) district and borough councils are not in the best position to clear litter from inland waterways since this would entail a significant investment in staff, training and resources. The focus of this section then, will be on why the CRT and EA may be best placed to clear such litter.

Firstly, these bodies already have the necessary equipment due to their routine work in tackling obstructions and pollution in rivers and watercourses. As such, it can be argued that as these bodies are charged with the task of addressing pollution in inland waterways and the sea, they ought also to consider litter. This primary responsibility tends to rest with the EA via the Environment Act 1995, ss4–5 which outlines its powers to tackle pollution. Under s109, for instance, the EA has the power to deal with cases where there is an imminent danger of serious pollution and has broad powers which can easily be interpreted to encompass managing litter in rivers.

The EA's role in tackling pollution is one which it tends to share with other bodies. The Natural Environment and Rural Communities Act 2006, for instance, envisaged a partnership between the EA and Natural England (the latter body being the Government's advisor for the natural environment in England) to tackle water pollution. It has been previously suggested by DEFRA that the EA should have its remit extended to include aquatic litter (DEFRA 2015). Indeed, this body has had a wide role addressing land-based and sea-based pollution, along with other agencies and would be well-placed to have a duty to tackle water-based litter. There is a perception, however, within the business community and waste management that the EA has difficulty managing its wide range of responsibilities (House of Commons, Environment, Food and Rural Affairs Committee 2006). Stakeholders have expressed concern about the difficulty of the EA in combining the regulatory role with that of 'Champion of the Environment' (ibid). Thus, there is a tension between its roles as both a regulator and enforcer on the one hand and a regulator and

champion on the other (ibid). As a consequence, the Government has instead started to focus on transferring the EA's responsibilities for navigation of rivers and watercourses over to the CRT (Environment Agency 2017).

The transfer of certain functions over from the EA to the CRT would be a good fit since the CRT has roles in relation to pollution and clearance of obstructions from internal waterways and, in contrast to bodies such as district and borough councils, is more likely to have the equipment necessary for the removal of litter. The CRT is also more specialised and focuses solely on rivers and canals, in contrast to the EA, which has become more fragmented in nature due to its increasing responsibilities. Therefore, transferring responsibility over to the Trust, where possible, and making the EA responsible for enforcing clearance of litter by private owners, would be a suitable way of addressing the existing deficit in the law. As considered above under (a) the benefit of creating a statutory duty for district and borough councils to clear litter from internal waterways means the imposition of an incremental extension in the duty of councils. This option is not favoured, however, for the reasons considered under (a).

This author advocates a partnership approach drawing on the benefits of the independence, research and experience of the charitable sector, (via CRT involvement) and the EA, which has already provided policy guidance pertaining to internal waterways and has a significant role in the prevention of water pollution. The CRT could have a duty to clear litter in rivers and canals (where its responsibility lies) and the EA could have responsibilities of enforcement in respect of other aquatic environments which are not within the CRT's remit. It is clear though, that if such duties were to be imposed by statute, that this change would need to be coupled with additional financial resources.

It is acknowledged that one drawback of imposing a new set of duties upon a public (or charitable) organisation is the constraint of limited public resources. This issue is not insurmountable but new income streams are, nonetheless, essential. It is suggested that funds could be raised from private investment in the form of grants and donations (Malcolm and Alison 2018), existing taxes, such as the plastic bag charge (which, in May 2021, increased from 5p to 10p–(DEFRA Department for Environment, Food & Rural Affairs and Rebecca Pow MP 2021), and new 'packaging' taxes such as the plastic packaging tax to be introduced in due course. This would have the effect of placing the responsibility on businesses producing such packaging, for their contribution to the litter problem. Thus, it is acknowledged that while the allocation of a duty would be beneficial, that this would need to take place alongside a 'green' tax to ensure that scarce resources were not diverted away from other important local issues.

(c) No substantive reform but the provision of comprehensive policy guidance

Fresh policy guidance could be provided but there are two useful documents which, with appropriate modification, could be combined to apply to rivers and watercourses. A holistic understanding of environmental law within such guidance is crucial, and litter needs to be seen in the context of broader themes, like water pollution. Explicit soft law exists in the form of a DEFRA Code of Practice for Litter and Refuse which specifies the body (or bodies) responsible for clearing litter. The nature of the duty is that appropriate public bodies (such as councils) must routinely remove litter from specified areas according to a grading system. This is outlined in the Code of Practice which ranges from Grade A where no litter or refuse can be found to Grade D, referring to areas which have been affected by significant accumulations of litter. The guidance suggests that problem areas, or areas with high footfalls, need to be cleaned frequently with an emphasis on tackling litter in urban areas. Even though the DEFRA guidance was updated in 2019, there is still, unsurprisingly, no reference at all in the grading guidance to ensuring cleanliness of rivers, watercourses or the territorial sea, with references only to 'waterside land' and 'beaches'.

The Code of Practice could, therefore, be amended to provide guidance. The grading system, for instance, is useful since it would enable duty-bound bodies to prioritise specific rivers and watercourses to be cleared of litter. Although rivers and watercourses might be more difficult to monitor than roads and highways, with the need for specialist equipment

to view beneath the surface, aquatic environments could also be graded for levels of litter accumulation. The removal of litter could be fast-tracked for the most severely affected rivers and watercourses. A grading system could be further improved by setting safe levels for different chemicals which can be found in the water supply, because the issue of litter is related to pollution (since plastics accumulation can cause pollution). DEFRA itself has acknowledged that the existing Code of Practice needs to be reviewed and ought to be amended to address the issue of standards for cleaning aquatic environments. (DEFRA 2015). This would help to clarify the scope of existing legislation and to improve protection of aquatic and marine environments in the interim. At present, there is guidance which has been developed by the EA (Environment Agency 2014). While it provides helpful information for riparian landowners, this could be integrated into the Code of Practice.

There is a concern that the provision of such guidance may fall outside the EA's remit. Several bodies perceive that DEFRA is, or at least ought to be, responsible for policy-making and that the EA should focus on enforcement (House of Commons, Environment, Food and Rural Affairs Committee 2006). The London Port Authority, for example, has complained previously that the EA 'exceeds the purposes for which it was established'. In defence of the EA, DEFRA has been criticised for being too slow to provide guidance, creating a 'policy vacuum' necessitating the EA to adopt the role of policy maker. As the central government body responsible for the environment, it is argued that a revised Code of Practice from DEFRA would carry the most authority. Further guidance would be helpful, regardless of whether the (EPA 1990) is amended to include duties to clear litter from water.

6. Conclusions: A River Too Far?

It is not just the oceans and seas we ought to focus on protecting from the harmful effects of litter and pollution, it is the rivers (and, at times, watercourses) which serve as pathways to our marine environment. Recent global environmental movements have led to an emphasis on issues such as climate change, air pollution and water pollution. The default position legally and academically; however, is to focus on the most significant environmental problems and perhaps assume that gargantuan steps are essential to protect the environment effectively. It is submitted that we should examine 'small' issues, and smaller steps within our grasp to promote greater environmental change. A small 'nudge', in this context, could have a significant impact. It is time to address aquatic litter which contributes to more significant problems like pollution. The changes proposed to the legal framework are manageable and realistic. Minor amendments to the EPA to protect aquatic environments could lead to major changes and a reduction of litter and pollution.

At first glance, designated litter authorities (typically district and borough councils) have duties to clear litter in rivers and watercourses based on a duty to clear litter from relevant land under the Environmental Protection Act, s89. The difficulty is the Act does not state that local authorities have a duty to clear litter from aquatic environments. In contrast, s87(4) of the Act states that it is an offence to drop litter, regardless of whether the litter is dropped on land or in water. It can be concluded that, under the (EPA 1990), there is a legal duty to clear litter from land but not from rivers and other bodies of water. This is most problematic for rivers and watercourses, due to the relative paucity of attention litter in aquatic environments has received from policy makers and legal scholars, despite the widespread nature of the problem.

The legislation designed to tackle litter is 'complex' and 'fragmented'. There is no single statutory body responsible for clearing litter. Nor is there a single, specified body responsible for ensuring that riparian owners remove litter from water flowing through their land. There is no robust system which ensures protection. There is ambiguity under the (EPA 1990), s89 as to whether local authorities' duties to clear 'relevant land' of litter encompass rivers, watercourses and oceans. Inferences can be drawn from the explicit reference in s87 to 'water' and its absence in s89 that rivers and watercourses are not afforded legal protection equal to the landscape. While it is a criminal offence to drop litter in water, there is no statutory duty placed upon principal litter authorities to clear such

litter. Despite providing a welcome commitment to the protection of our environment, the failure to impose a duty upon statutory bodies to clear litter from river and adjacent seas is an issue which has yet to be addressed by the Government, despite its recent emphasis on environmental policy. Unfortunately, these concerns may be shelved, pending the management of the coronavirus which is the current political priority.

This author favours imposing a positive duty on pre-existing bodies, through a legislative amendment rather than the creation of fresh legislation and a new, purpose-built body responsible for clearing litter from aquatic environments. The new Office of Environmental Protection is envisaged to play a role in ensuring accountability of these existing bodies. Despite the current progress, further legal change is necessary to improve protection of marine and aquatic environments. It is proposed that an amendment to legislation to impose a duty in respect of water as well as land would be an important step in the right direction.

Although creating a new, purpose-built body could be an answer, suitable organisations already exist which could be tasked with tackling litter; namely district and borough councils, the Canal and River Trust (CRT) and the Environment Agency. There are advantages from using the charitable sector. The CRT would be a good choice, since this organisation is responsible for most rivers and canals in England and Wales and the Government and the Trust itself have envisaged increased responsibilities, the CRT ought to be duty-bound to clear litter from the rivers which fall within its remit. In situations where rivers run through privately owned land which the CRT is not responsible for, the EA is best placed to tackle the clearance either through exercising its powers to ensure that private owners clear litter or to remove such litter itself as its primary role is one of enforcement, a role not typically undertaken by the CRT. This enforcement role would be a natural, incremental development of its existing duties to tackle water-based pollution. This author advocates a sharing of responsibilities between the two bodies with the potential for a partnership. It is acknowledged, however, that such reform needs to be take place in concert with new funding streams (such as from potential 'green' taxes imposed on producers, such as businesses which create packaging which then resides in aquatic environments, adversely affecting ecosystems).

Although the Government, local government and charitable organisations need to educate the public and focus on proactive methods which prevent littering, it is easy to 'ignore' discrete aquatic environments, especially when litter accumulates below the surface. It is, therefore, necessary to impose duties on bodies to address the accumulation of litter in aquatic environments which will, it is hoped, reduce over time. It is less important which body undertakes responsibilities for clearing litter from rivers and watercourses, and more important to establish which specific body (or bodies) ought to clear litter. The current legislative framework under the (EPA 1990) is flexible but does not address internal waterways cohesively. A legislative amendment should firmly state which body (or bodies if a partnership is deemed appropriate) is responsible for clearing litter from aquatic environments. Currently, duties are imposed on public authorities which protect the landscape from litter. A new approach is essential to ensure the equal protection of land and internal waterways. It is hoped that this article invites a dialogue on the necessity of protecting internal waterways, including rivers, via national policy and law-making from within state institutions, to complement litigation undertaken by environmental activists.

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