NATURE’S PLACE? PROPERTY RIGHTS, PROPERTY RULES AND ENVIRONMENTAL STEWARDSHIP

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I. INTRODUCTION

The role of property rules in the conservation of nature – the “un-owned” environment – raises a number of interesting questions. “property” is a malleable concept that fulfils a number of differing social and legal functions. It may encompass legal structures associated with the ownership of objects or land or (in the case of property rules) denote abstract sources of legitimate entitlement to property. Modern scholars have, on the other hand, stressed that “property” is not a thing, but rather the relationship that one has with a thing,¹ and emphasise its role as a mechanism for allocating access to material resources such as land. Waldron, for example, argues that property rules are, properly defined, social rules adopted to resolve conflicts over access to material resources such as land.¹ As such, they define not only the relationship of power that one asserts over a resource such as land, but also one’s relationship with other individuals who claim (or wish to use or exercise rights over) that resource. In the case of land, this interpretation would require us to consider how the bundle of abstract property “rights” that the law recognises will in turn define, distribute and reflect different elements of resource utility that accrue to the “owner” of the right in question.

This article will examine the role of property institutions in protecting living natural resources and promoting biodiversity, and will consider the theoretical basis for a new framework of analysis for “environmental” property. It will argue that a resource allocation model of property rights is essential to an understanding of their role in environmental regulation. Environmental disputes are typically disputes about access to an economic resource. This is certainly true of the law of nature conservation, where disputes will commonly involve a conflict between the desire of a landowner to use land for optimal economic purposes (for example for development or intensive

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farming), and the imposition of land use restrictions by public bodies in order to preserve wildlife habitats. The role of property rights in this context is to allocate access to a disputed resource, and to define the terms on which access to that resource will be permitted by law.

How the law recognises and structures property rights is also an important issue for environmental governance. It will determine the design of publicly funded conservation schemes, and will shape the legal controls on land use imposed by statute. It also has potential human rights implications, in as much as the European Convention on Human Rights and Fundamental Freedoms protects property rights from arbitrary state appropriation. In Aggregate Industries UK Ltd v. English Nature it was, for example, held that the confirmation of the notification of a wildlife habitat as a Site of Special Scientific Interest by English Nature was determinative of a landowner’s civil rights to use and enjoy property, and therefore potentially engaged the convention rights. In human rights cases the key issue is often the extent to which land use controls imposed by the state are proportionate to the public policy interest that is being pursued. Even in a human rights context, however, the central issue is one of resource allocation – it is about who should bear the cost of conservation measures, and not about the desirability or statutory competence of environmental regulation.

The true question is the extent to which the cost of implementing public policy on environmental protection should be borne by individual property owners whose land use rights have been restricted, and the extent to which it should be borne by the public.

Using a resource allocation model of property rights as a framework of analysis this article will focus, in particular, on two aspects of property rights theory of central importance to the development of a coherent theory of “environmental property”:

(a) The need for a new and innovative characterisation of the legal rules that define and support property rights, i.e. one that reflects the dynamic nature of the interaction of environmental regulation with property rights. This is a question that focuses on the function of property rules in environmental regulation.

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1 Article 1 of the Protocol to the European Convention on Human Rights guarantees the peaceful enjoyment of possessions, but subject to the important caveat that the state has the right to enforce such laws as it deems necessary “to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties”.
(b) How do we characterise the nature of private property where environmental stewardship obligations have been imposed by modern environmental legislation? Is it truly “private” property or should we categorise it as “public” or “quasi-public” property in those cases where the state has reassigned elements of resource utility to itself through the imposition of environmental controls on land use? Waldron’s classification of property relationships into private, collective and common property is of particular importance in this respect. The article will therefore conclude with a consideration of whether we should recognise a new species of “public”, “quasi public” or “quasi private” property where land use rights have been restricted, varied or re-assigned to the state under nature conservation legislation.

II. “PROPERTY”, PROPERTY “RIGHTS” AND ENVIRONMENTAL REGULATION

The development of a coherent jurisprudence explaining the interaction of modern nature conservation legislation with property rights theory has been hampered by the conceptual uncertainties that surround ideas of “property” and property “rights” in English Law. At a fundamental level, notions of “property”, “property rights” and “property rules” are both multi-faceted and multifunctional, and stress differing aspects of the relationship of the property holder with land and with other users of that resource.

When examining the nature of “property” there is an understandable tendency for legal theorists to locate property rights within a framework of ownership discourse. Property is accordingly often viewed as an abstract construct, characterised by a focus on the presence of “incidents” of ownership, and of conceptually abstract “rights” which make up the essential ingredients of ownership. This is often accompanied by a focus on the legitimacy (or otherwise) of entitlements reflected in property rules. An example of this approach is found in Honore’s classic analysis of the key characteristics of property ownership. Honore lists ten “rights” which he regards as the essential indicia of ownership, even though not all need be present together: the right to possession, to use, to manage, to income and capital, to security, the incident of transmissibility, incident of absence of termination and liability to execution. Alternatively, “property” might be seen as based upon “trespassory rules” and located at different points

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8 See Waldron, above n.2, 327–333.
on the “ownership spectrum”, or as capable of separate assignment as parts of private wealth. Harris, for example, sees property as comprising a range of open-ended relationships presupposed and protected by trespassory rules that may be either civil or criminal in their orientation.

This approach – viewing property ownership as constituent primarily of a “bundle of rights” – is a characteristic of the western liberal property concept, which emphasises the power to exclude others as the central indicia of ownership, and the right of the owner to the beneficial use and enjoyment of the land and personal property over which ownership is claimed.

Theoretical analyses that solely address the role of the law in defining the legitimacy or otherwise of property institutions inevitably present a rather static view of property rights that fails to encompass the dynamic and functional relationship of property rights with the natural environment. In particular, they say little about the role of the law in shaping and controlling the way in which land use entitlements are exercised. Modern environmental regulation has an important role to play in shaping property institutions that are inherently flexible. It is forward looking, and attempts not only to limit the exercise of land use entitlements, but also to change and adapt them to promote environmental stewardship and the enhancement of natural habitats. Capturing the role of environmental law in protecting living natural resources requires a theoretical analysis that recognises both the dynamic function of property rights and their dynamic interrelationship with the natural environment itself.

Many social scientists focus on economic allocation models of property rights, and tend to adopt a perspective that focuses not on the legitimacy of land use rights, but on the relationships of power reflected in property rights and their utility as elements of economic resource. In other words, they see the central function of property “rights” in giving access to a stream of benefits, and the right to that stream of benefits is viewed as an expression of the relative power of the bearer, with the holder of a property right able to command certain responses.

11 J W Harris, “Private and Non Private Property” (1995) 111 L.Q.R. 421, 425. By a trespassory rule here is meant a social rule that purports to impose an obligation on all members of society (other than an individual who is taken to have an open ended relationship with a thing) not to make use of that thing without the consent of the individual or group.

12 J.W. Harris, Property and Justice (Oxford 1996), at 140–142.


14 Although the importance of legitimacy is by no means ignored in all sociological thinking on property: see for example Max Weber, “The Three Pure Types of Legitimate Rule”, in S. Whimster (ed.), The Essential Weber, a Reader (London 2004), chapter 7.
by others enforced by the state (through law).\(^\text{15}\) According to this model the function of property rights is primarily to provide incentives to internalise the potential environmental externalities that have emerged (and continue to emerge) from the growing technical potential of industrial and agricultural production to generate pollution and damage biodiversity.\(^\text{16}\)

Economic allocation models posit a dynamic relationship between property rights and the natural environment. Modern legal scholars have also stressed the function of property rights as a tool of resource allocation.\(^\text{17}\) Coupled with this, much recent research on the development of new economic models for property now stress the dynamic nature of property rights themselves.\(^\text{18}\) This is an approach with considerable potential for the development of a framework of analysis to explain the relationship of modern environmental regulation with property rights. It also has the potential to capture the dynamic function of legal mechanisms employed in environmental legislation to protect and enhance living natural resources, such as those in the Wildlife and Countryside Act 1981 and Countryside and Rights of Way Act 2000 discussed further below. Finally, the use of a resource allocation model of property rights facilitates an evaluation of the effectiveness of legal and economic instruments that seek to modulate property rights – such as planning agreements, incentive payments under government funded conservation schemes and statutory land management agreements.

III. PROPERTY RIGHTS PARADIGMS AND THE FUNCTIONALITY OF PROPERTY

The necessity for building a theory of environmental property around a resource allocation model of property rights becomes clearer if we consider the problems inherent in capturing the dynamic interaction between property institutions and environmental regulation within a theoretical framework based on ownership discourse. Two classic paradigms that categorise property rights by reference to the function

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of the legal rules that protect property entitlements are those put forward by Calabresi and Melamed\textsuperscript{19} and by Harris.\textsuperscript{20} These arguably fail, however, to adequately capture the dynamic nature of the interaction of modern environmental regulation with property rights.

Calabresi and Melamed classify property rights into three groups. The land use privileges conferred by property rights can be protected by property rules, they can be protected by liability rules, or they can confer inalienable entitlements\textsuperscript{21}. Land use privileges are protected by a \textit{property rule} if they can only be removed by a voluntary transaction to trade the entitlement at a price that is either determined or approved by the holder. An example would be the common law rules defining the land use entitlements conferred by a freehold estate in land. These are property rules because the state, having decided who shall be regarded as the holder of a freehold entitlement, then leaves the valuation of the entitlement to the owner and a prospective purchaser if the owner decides to sell. When, on the other hand, someone is entitled to destroy a property entitlement by paying a value for it that is determined by the state rather than by the owner and a potential purchaser, then the entitlement is protected instead by a \textit{liability rule}. And, of course, the state can itself provide for public acquisition of the entitlement \textit{e.g.} through planning law or the rules of compulsory purchase. The rules for determining the payments made under environmental land management contracts of the kind discussed below\textsuperscript{22} are also property liability rules, for the state determines the basis on which payments will be made in return for environmental stewardship obligations entered into by the landowner.\textsuperscript{23} Property rights may also be \textit{inalienable} if the law does not permit their transfer between a willing buyer and a willing seller. Depending on the circumstances, in most cases a property entitlement will be protected by a mixture of some or all of the three types of legal rule, according to Calebresi and Melamed.

A similar approach is adopted by Harris, who also categorises property rules by reference to the function that they perform in protecting property rights. So, for example, he places property rights at different points along the ownership spectrum depending on the functions of the legal rules by which a property entitlement is protected. In the context of environmental regulation, the most important are property limitation rules, property independent prohibitions, property


\textsuperscript{20}Harris, above n.12, esp. at 35ff.

\textsuperscript{21}See G. Calabresi and A.D. Melamed, n.19 above, at 1092.

\textsuperscript{22}For example Entry Level and Higher Level Environmental Stewardship agreements, discussed below at p. 568.

\textsuperscript{23}E.g. under section 50 Wildlife and Countryside Act 1981 and the \textit{Financial Guidelines for Management Agreements and other related matters} (Department of the Environment Transport and the Regions 2001).
duty rules and property privilege rules. Harris characterises most environmental rules as property limitation rules, in that they impose drastic limits on ownership privileges and powers.\textsuperscript{24} Ownership use privileges are therefore overridden and restricted where there is a public interest in nature conservation which modern environmental legislation wishes to promote. As this article will endeavour to demonstrate, however, Harris’s paradigm does not adequately capture the forward looking role of environmental law in changing the manner in which property rights are exercised so as to impose positive stewardship obligations on landowners.

While they offer valuable insights, these paradigms tell us little about the interaction of modern environmental legislation with land use and property rights. In relation to environmental regulation, for example, Calabresi and Melamed’s analysis fails to capture the way in which liability rules interact with economic instruments. This is particularly important when considering the success or failure of environmental policy instruments targeted to the protection and enhancement of biodiversity. Consider, for example, environmental stewardship schemes introduced under the EC’s common agricultural policy (“CAP”). Fluctuations in the market price for agricultural commodities may reduce the compensation payable under environmental agreements in return for trading property entitlements. Compensation under agri environment management schemes is determined in accordance with rules established in the Community legal order, and based upon the “income foregone” by the property owner in return for the rights traded.\textsuperscript{25} The liability rules established in the legal order may not change at all, but the economic “value” they place upon a property entitlement traded by its owner in a management agreement may be fundamentally altered by the market, or as a consequence of changes in the subsidy regime of the CAP. These issues can only be adequately captured if a dynamic model of property rights is adopted.

Similarly, most modern environmental legislation does not fit easily into Harris’s categorisation, which characterises property rights as founded on either property limitation rules, property independent prohibitions, property duty rules or property privilege rules. In Harris’s hierarchy of rules, property limitation rules are identified as

\textsuperscript{24} See Harris, above n.12, at 35.

\textsuperscript{25} See Council Regulation (EC) 1698/2005, OJ [2005] L277/1, esp. arts 36(a)(iv) and 39. Agri-environment measures introduced between 1999 and 2006, many of which are still current, were introduced under the 1999 Rural Development Regulation, which incorporated similar principles: see Art. 24 Council Regulation (EC) 1257/1999, OJ [1999] L 160/80. Support can also include payments in respect of the additional cost resulting from the commitment given in the contract and “the need to provide an incentive”. 
predominant in the sphere of environmental regulation. In practice, however, the impact of environmental legislation is somewhat more prosaic. Admittedly, some environmental legislation does impose a simple property limitation rule. Examples here might include the legislation on listed buildings, which prohibits the development or alteration of buildings subject to listed building status without prior consent; and the legislation protecting scheduled ancient monuments, which imposes a similar prohibition of work without prior consent from English Heritage. And of course, it is illegal to undertake new development, or to make a material change of use of existing buildings or premises, without planning permission from the relevant public authorities. These are all measures whose primary focus is to impose restraints that can be presented as limitations on the exercise of property, and therefore fit within Harris's paradigm. As will be shown below, however, the focus of modern legislation on nature conservation is forward-looking and targeted to changing the way in which property rights are exercised, and cannot therefore be characterised as simply imposing property limitation rules.

An altogether different approach would categorise property rights as elements (or strands) of utility that together combine to make up the constituent elements of a land interest. According to this analysis “property” consists not of a bundle of abstract rights protected by legal rules, but rather a bundle of individual elements of land based utility. As Gray has observed, it follows that where there is any addition to, or subtraction from, the bundle of utility rights enjoyed by a person, it is possible to argue that a transaction or movement in “property” has occurred – a proposition of great relevance to modern environmental regulation. Viewed in this sense, a property right gives a legally protected right of access to a resource. Moreover, the advent of modern land use planning, and of legislation protecting living natural resources, has arguably produced a situation where the “property” of the owner, viewed in this sense, represents merely a residuum of socially permitted power over land resources. Where legislation has imposed land use restrictions in the interests of environmental protection, therefore, Gray would argue that property has become “quasi public”

26 See Harris, above n.12, at 35, and especially at 41 (“Much of environmental law consists of property limitation rules – restrictions on what people would otherwise be free to do by virtue of ownership interests”).
29 Town and Country Planning Act 1990, section 57(1).
31 Above n.1, at p.40.
32 Gray terms this a “state-approved usufruct”: above n.1, p.40.
in the sense that the constituent elements of resource utility that it represents are partly privately owned and partly assumed by the state.\footnote{See for example Gray and Gray, above n.17, at 18–20.}

The primary impact of much environmental legislation is concerned with the limitation or redistribution of property rights in this sense – as elements of utility – in order to pursue public policy objectives. Property rights are therefore fundamentally important to an understanding of the impact of the legal and economic instruments used to implement environmental policy. Gray’s analysis of property rights as elements of land-based utility\footnote{Above n.1, esp. at p.39ff.} provides a more promising framework of analysis for the interaction of environmental regulation with property rights. In particular, it can be used to examine the resource allocation function of property rules and to identify the inherent tensions between the use of public resources for environmental protection on the one hand and the restriction of private property rights of land use and utility on the other. Modern environmental regulation plays an important role in determining and shaping future resource allocation, and in shaping future land management to enhance biodiversity. It is not concerned solely with determining the nature and allocation of existing land use resources and entitlements. A theory of “environmental property” must also, therefore, capture the forward looking role of modern environmental instruments,\footnote{For example management agreements with incentive payments, made under the Wildlife and Countryside Act 1981 and the Financial Guidelines for Management Agreements and other related matters (DEFRA 2001), made under section 50 of the 1981 Act.} many of which are designed to change future land use practices in order to improve and enhance biodiversity and the environment.

Building on the resource allocation model of property rights posited by Gray and others, the case for a new theory of environmental property can be made by examining two areas of modern environmental legislation that impact directly upon land use entitlements: the law protecting designated wildlife habitats, and complementary measures to promote environmental stewardship in the wider countryside. A key feature of both has been an increased focus on the imposition of innovative obligations of positive land management aimed at enhancing biodiversity and wildlife habitats. The recent development of the law also demonstrates, in both cases, that the interaction of environmental legislation with property rights is much more subtle, dynamic and varied than an analysis which characterises it as comprising mainly property limitation rules might suggest.
IV. Property Theory and the Law of Habitat Protection

The policy of nature conservation legislation towards the protection of wildlife habitats has increasingly focused on the use of proactive legal instruments that enable the statutory conservation bodies to impose, or negotiate, positive management obligations to protect habitats in a targeted and strategic manner. This development is exemplified by measures introduced in England and Wales by the Countryside and Rights of Way Act 2000, and in Scotland by the Nature Conservation (Scotland) Act 2004.

The use of legal instruments to create positive property management obligations in order to promote nature conservation is not new. Planning obligations and planning agreements are, for example, commonly used to provide for the future management of the conservation features of wildlife sites, following development that has been granted planning permission. A good example is the development of the Cairngorm funicular railway, where planning permission was granted subject to planning obligations requiring the developer to undertake baseline monitoring of protected wildlife habitats, annual monitoring thereafter, and land management designed to avoid the disturbance of ground nesting bird populations of European level significance by the increased ski visitor numbers likely to result from the development.

Applications to the Environment Agency for water discharge or...
integrated pollution control permits \(^{40}\) can also give rise to negotiated solutions addressing nature conservation management issues. These are all examples of applications for regulatory approval that can lead to a negotiated result with nature conservation benefits. They therefore operate in a reactive regulatory context – the use of planning agreements to extract conservation management benefits is dependent, of course, upon a developer applying for planning permission to implement a project that impacts upon a wildlife habitat. What is new is the use in modern nature conservation law of proactive legal instruments that enable Natural England and the other conservation bodies to take action to impose (or, in the case of management agreements, to negotiate) positive management obligations to protect natural habitats in a targeted and strategic manner. The legal and economic instruments described in this and the following section fall into this category, and represent a new departure in environmental regulation that has major implications for property rights, and for property rights theory.

The principal measures on habitat protection in England and Wales are contained in Part 2 of the Wildlife and Countryside Act 1981. This provides for the notification and protection of Sites of Special Scientific Interest (“SSSIs”) by the conservation bodies. The 1981 Act is heavily conditioned by the emphasis in UK nature conservation policy of the so called “voluntary principle”, by virtue of which legislative intervention is aimed primarily at securing the voluntary participation of property owners in conservation measures. This is an approach that dates back to the immediate post-war years and the publication in 1947 of the Huxley Committee report on Nature Conservation in England and Wales. \(^{41}\) Following the Huxley report, measures were introduced in the National Parks and Access to the Countryside Act 1949 providing for the notification of Areas of Special Scientific Interest. The law eschewed any direct interference with property rights, however, and was focussed instead on the introduction of a requirement for consultation with the Nature Conservancy Council on planning applications in designated areas.

The Wildlife and Countryside Act 1981 greatly strengthened the environmental regulation of land use, but remained firmly rooted in the voluntary principle. The 1981 Act was premised on a protectionist philosophy aimed at preventing damaging land use proposals in

\(^{40}\) Water Resources Act 1991, s. 85 (water discharge permits); Environmental Permitting (England and Wales) Regulations 2007 (SI 2007/3538), Schedule 1, and the Integrated Pollution Prevention and Control Act 1999 (IPPC Permits). IPPC and waste management licences were brought within an integrated permitting framework by the 2007 regulations.

\(^{41}\) Conservation of Nature in England and Wales, Wildlife Conservation Special Committee Cmnd. 7122 (the “Huxley Committee”).
areas notified as SSSIs by “buying out” harmful development. The underlying assumption of these provisions was that property entitlements give an absolute right to resource use and exploitation, even if the owner’s land use is environmentally damaging. The legal mechanisms introduced in the 1981 Act were therefore a curious compromise between direct intervention to restrict property rights and the need to maintain the voluntary principle on which public policy was based. Section 28 of the 1981 Act imposed restrictions on a landowner’s right to carry out operations in an SSSI where they have been notified in the site notification as “operations likely to damage” the conservation interest of the site (referred to for brevity hereafter as “OLDs”). The 1981 Act required a landowner to serve notice on the conservation body of his intention to carry out an OLD, and then to enter into a statutory consultation with them before carrying it out. The Act specified a consultation period of four months, during which it remained a criminal office to carry out notified OLDs, but on conclusion of the consultation period the owner could lawfully carry them out without redress. These provisions did not, in their original form, apply a property limitation rule conforming to Harris’s paradigm. Protection of the site would ultimately depend upon the landowner trading his unfettered property entitlement in a management agreement with the conservation body, or on the secretary of state making a nature conservation order to protect the site. Ministerial guidance provided for the payment of compensation under management agreements – either on the basis of a lump sum payment representing loss of land value or


43 Subject, of course, to planning constraints, which have a limited application to agriculture and forestry in any event: section 55(2)(e)(f) Town and Country Planning Act 1990 (exemption of use of land or buildings for agriculture or forestry purposes from definition of “development” necessitating planning permission), Schedule 2 Part 6 Town and Country Planning (General Permitted Development) Order 1995, SI 1995/418 (permitted development rights for agricultural buildings and operations).


45 This procedure was subjected to judicial criticism by the House of Lords in Southern Water Authority v. Nature Conservancy Council [1992] 3 All. E.R. 481. Lord Mustill referred to the statutory consultation procedure as “toothless” ([1992] 3 All. E.R. 481 at 484 g).

46 Harris, above n.12, at 35.


48 Under section 29 Wildlife and Countryside Act 1981. This power was repealed in England and Wales by the Countryside and Rights of Way Act 2000 Sched. 10 para. 7; Sched. 16.
an annual payment representing the “profits forgone” by the landowner as a consequence of complying with the terms of the agreement.\textsuperscript{49}

The Countryside and Rights of Way Act 2000 strengthened the law by empowering the conservation bodies to indefinitely refuse operational consent to OLDs,\textsuperscript{50} subject to a right of appeal to the secretary of state.\textsuperscript{51} Although this might appear to be a property limitation rule in the fullest sense, the amended consultation provisions for OLDs are now even more strongly focussed on encouraging positive conservation management by the landowner. The 2000 Act introduced a requirement that the conservation body serve a site management statement when notifying an SSSI, containing a statement of their views about the management of the land and the conservation and enhancement of its natural features, flora and/or fauna.\textsuperscript{52} In Scotland, all SSSI notifications must also now include a site management statement that “provides guidance to owners and occupiers of land within an SSSI as to how the natural feature [of the site] should be managed or enhanced”.\textsuperscript{53} The objectives in the site management statement will provide the operational context within which decisions will be made on applications for consent to carry out OLDs. Although the amended rules governing OLDs take the form of a property limitation rule, therefore, their focus and operational impact will often be targeted to the achievement of the positive management objectives identified in the site management statement as necessary to enhance and improve the conservation status of the site. If necessary, a management agreement can be offered in which the landowner trades property entitlements in order to protect the nature conservation interest in the SSSI. It is only obligatory to do so in limited circumstances, however – for example, where operational consent has been given by Natural England, but is later withdrawn or amended.\textsuperscript{54} Similar provision is made in relation to SSSIs in Scotland by the Nature Conservation (Scotland) Act 2004,\textsuperscript{55} although Scottish Natural Heritage must offer a management agreement in a wider set of


\textsuperscript{51} Section 28F. Operational consent granted by the conservation bodies for potentially damaging operations can also now be subject to conditions or time-limited.


\textsuperscript{53} See Nature Conservation (Scotland) Act 2004, section 4 (emphasis added). Provision is also made for the review of the site management statement and its amendment by Scottish Natural Heritage: section 4(4).

\textsuperscript{54} See Wildlife and Countryside Act 1981, as amended by Sched.9 Countryside and Rights of Way Act 2000, section 28M.

\textsuperscript{55} See Nature Conservation (Scotland) Act 2004, sections 16–18.
circumstances than apply in England and Wales. These include cases where it refuses to grant operational consent for an OLD.\textsuperscript{56}

A harder edge to land use control is imposed if the site is also a European site forming part of the \textit{Natura 2000} network of sites, and designated under the Conservation (Natural Habitats, &c.) Regulations 1994.\textsuperscript{57} Although the legal controls in European sites are modelled on those in the 1981 Act, the conservation bodies have more limited power to grant operational consent for OLDs than applies if the site is simply an SSSI.\textsuperscript{58} They must carry out an environmental assessment of any proposal for operational consent and can only grant consent if satisfied that the proposed operations will not adversely affect the conservation status of the site.\textsuperscript{59} They have power to make byelaws in European sites prohibiting the killing or disturbance of wildlife, and prohibiting any interference with the vegetation, soil or other features of the site.\textsuperscript{60} They can also apply to the magistrate for a restoration order if an OLD has been carried out without their consent.\textsuperscript{61} Despite these additional powers it remains the case, as with SSSIs, that management agreements are the primary mechanism for structuring land use controls to protect European Sites. Indeed, the 1994 regulations expressly envisage the use of management agreements for the \textit{restoration and improvement} of habitats in European sites.\textsuperscript{62}

An analysis that characterises these provisions solely as property limitation rules is of limited utility. It will capture the restrictions on land use imposed by a site notification, but fail to recognise that the law's primary function is to encourage positive conservation

\textsuperscript{56} Section 16(9). This is subject to Ministerial guidance approved under section 54. In England it is compulsory to offer an agreement where operational consent has been granted but is later withdrawn or amended.


\textsuperscript{58} As a matter of public policy all European sites in England and Wales are also notified as SSSIs under the Wildlife and Countryside Act 1981. They are therefore subject to two parallel systems of land use control – those applicable under the 1994 regulations in European sites, and the land use restrictions described above and applicable in SSSIs. The administrative discretion of the conservation bodies to consider a site's role in a wider geographical habitat of European significance when considering it for initial notification as an SSSI was upheld in \textit{Fisher v. English Nature} [2004] EWCA Civ 663. In \textit{Aggregate Industries Ltd. v. English Nature} [2003] Env. L.R. 3, 83 it was also held, on judicial review of an SSSI notification by English Nature, that the fact that a site was to become a European site under the EC Wild Birds Directive was not an irrelevant consideration provided the criteria for designating the site as an SSSI under section 28 of the Wildlife and Countryside Act 1981 were satisfied.

\textsuperscript{59} Conservation (Natural Habitats, &c.) Regulations 1994, SI 1994/2716, regulation 20(1),(2).

\textsuperscript{60} Regulation 28.

\textsuperscript{61} Regulation 26.

\textsuperscript{62} Regulation 16.
management by the land owner. The prohibition on the carrying out of OLDs in an SSSI is, therefore, a hybrid form of property limitation rule. It places restrictions on the owner’s land use rights, but it is forward looking and does so primarily to encourage positive conservation management – including, if necessary, the conclusion of a management agreement with the conservation body, under which the owner’s property rights are traded in an economic exchange so as to provide future conservation management tailored to the ecological needs of the SSSI or European site.63 It is also a flexible property rule. The site notification can be varied by the conservation bodies to change the list of OLDs and, in so doing, further vary the property rights of the owner – for example to reflect the changing nature of the management required over time in order to retain or improve the conservation status of protected ecosystems in the SSSI.64 It is therefore a more complex species of hybrid property limitation rule than those represented in Harris’s classic paradigm.65

V. PROMOTING POSITIVE STEWARDSHIP

The wider public policy imperatives underpinning the nature conservation legislation have also changed dramatically since the introduction of the Wildlife and Countryside Act in 1981. A number of new and innovative legal and economic instruments have been introduced to promote positive management of wildlife habitats by landowners,66 and to prevent damage caused by persistent neglect. These complement the changes to the rules restricting OLDs introduced by the Countryside and Rights of Way Act 2000. Like the latter, many of the new property rules cannot be readily accommodated within existing property rights paradigms. In most cases they are not property limitation rules at all,

63 See generally Sites of Special Scientific Interest: Encouraging Positive Partnerships (Code of Guidance) (Department for Environment Food and Rural Affairs, 2003); in particular paras 9–12 (working in partnership), 25–28 (managing SSSIs), and 37–41 (applications for consent to operations). The code of guidance sets out advice to Natural England on how DEFRA wish to see its extensive new powers in the Countryside and Rights of Way Act 2000 used to promote the positive management of SSSIs.

64 Wildlife and Countryside Act 1981, section 28A, inserted by Sched. 9 Countryside and Rights of Way Act 2000. A site can also be denotified if the conservation body is of the opinion that all or part of it no longer has special interest: section 28B. Scottish Natural Heritage has similar powers to amend SSSI notifications under section 8 Nature Conservation (Scotland) Act 2004, and has a duty to periodically review operational consents under section 6.

65 See Harris, above n.12, at 35, and above n.24.

66 See Sites of Special Scientific Interest: Better protection and Management (DETR 1998) Proposal 28 and paras D14-D16; Sites of Special Scientific Interest: Encouraging Positive Partnerships (Code of Guidance) (Department for Environment Food and Rural Affairs, 2003) at para. 25 (“the secretary of state lays the greatest store in ensuring that SSSIs are appropriately and positively managed. Lack of appropriate management is widely recognised as the commonest cause of deterioration in the special interest. Positive management is most likely to be secured with the active co-operation of land managers”).
and can be more appropriately interpreted as a new species of property rule – property management rules.

The Countryside and Rights of Way Act 2000 introduced new powers for the conservation bodies to make management schemes that include positive management obligations for the restoration and conservation of wildlife sites.\(^{67}\) Where a management scheme is not being adhered to they can also serve a management notice compelling the landowner to take positive steps to manage the site and conserve its special interest.\(^{68}\) The introduction by the 2000 Act of a power to introduce compulsory positive management obligations is probably the clearest example of the changed approach in environmental regulation in this area, and one which has obvious implications for property rights. These powers remain firmly located in the voluntary principle, however, in that a management notice can only be made if Natural England is satisfied that they cannot conclude a management agreement on reasonable terms to secure the management of the SSSI in accordance with the scheme.\(^{69}\) Similar powers were introduced in Scotland by the Nature Conservation (Scotland) Act 2004, which now empowers the Scottish Ministers, on application from Scottish Natural Heritage, to make land management orders imposing positive management obligations both on SSSI land and on land “contiguous” to an SSSI.\(^{70}\) The Scottish provisions also retain the link to the voluntary principle, however, in that a proposal for a land management order can only be put forward by Scottish Natural Heritage if a management agreement has been offered and refused, where there is breach by the landowner of an existing agreement, or where the owner or occupier of the site cannot be traced.\(^{71}\)

We saw above that the property liability rules restricting the carrying out of OLDs in an SSSI are qualified in that they are targeted to achieving consensual management, if necessary under the terms of a management agreement with the site owner. The changes made by the 2000 Act have been supplemented by changes in the rules for

\(^{67}\) Wildlife and Countryside Act 1981, section 28J introduced by Sched. 9 Countryside and Rights of Way Act 2000. DEFRA’s guidance to the conservation bodies envisages that management schemes should only be used where voluntary agreement as to positive management of a SSSI cannot be reached with landowners. It is also envisaged that schemes will be used in SSSIs with more complex management and/or ownership issues: see Sites of Special Scientific Interest: Encouraging Positive Partnerships (Code of Guidance) above n.63, paras. 29–34.

\(^{68}\) Section 28K(1).

\(^{69}\) Section 28K(2). The use of management notices was envisaged as a measure of last resort, to be used after extensive discussion with landowners and managers. There is, moreover, a right of appeal against the making of an order to the secretary of state. See further Sites of Special Scientific Interest: the Governments Framework or Action (DETR 1999) at p5.

\(^{70}\) See Nature Conservation (Scotland) Act 2004, section 30. If made, an order can impose both positive obligations on the landowner (“operations which are to be carried out on the land for the purpose of conserving restoring or otherwise enhancing” the natural features of the site) and restrictions on damaging operations: see section 31(1)(d)(e).

\(^{71}\) See Nature Conservation (Scotland) Act 2004, section 29(2)–(4).
management agreements in SSSIs, which now require that positive conservation management be provided in return for public funding. By giving Natural England an indefinite power to refuse operational consent for OLDS, the 2000 Act fundamentally changed the balance of power in negotiations over operational consents and management agreements. It also amply demonstrates that the law is no longer premised on the assumption that landowners have unlimited land use rights, irrespective of the environmental damage to which their exercise may give rise\(^\text{72}\), and that the property rights that can be traded by the landowner in an economic exchange are now accordingly more limited.

New *Financial Guidelines* for Management Agreements were published in 2001, making fundamental changes to the way in which payments for agreements on European sites and SSSI land will be calculated.\(^\text{73}\) Under the revised guidelines, payments are now made for positive conservation work carried out in SSSIs and European sites, rather than for profits foregone by landowners not able to carry out OLDS that have been “bought out” by the agreement. The use of management agreements in SSSIs is, under the 2001 guidelines, increasingly focussed on the imposition of positive land management to recreate and improve natural habitats, rather than on land use restrictions aimed simply at preserving the *status quo ante*. In England and Wales, the principal habitat protection schemes are based upon a new generation of “positive” management agreements that typically impose obligations to manage land for environmental improvement and habitat recreation, with incentive payments for capital works of conservation benefit, such as providing traditional hedges and dry stone walls, recreating upland heather habitats or recreating wetlands. In England this development is typified by the Wildlife Enhancement Scheme (“WES”) administered by Natural England. The use of management agreements under schemes like WES is strategically targeted to specific habitat restoration objectives in SSSIs. Furthermore, empirical research increasingly suggests that the statutory consultation provision for OLDS, which is essentially a reactive mechanism, is now infrequently used by landowners and rarely leads to the conclusion of a management agreement to protect SSSI habitats.\(^\text{74}\)

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\(^{72}\) This was, of course, the underlying premise on which the measures in the Wildlife and Countryside Act 1981 were originally based: above n.42 and 43.


\(^{74}\) See research data at p.30 and Annex E of *Management Agreements for Promoting Nature Conservation* (C. Rodgers and J. Bishop, RICS Research Report, 1998). Only 18% of landowners with agreements in the research sample were found to have served notice of intention to carry out OLDS prior to being offered a management agreement. 82% of agreements had been secured through a unilateral approach from the conservation body. The use of the statutory consultation mechanism increased slightly when a chartered surveyor represented the landowner in negotiations with English Nature, but only to 25% of respondents. More recent research involving SSSIs on common land found that the use of the section 28 provisions is now extremely
The changed emphasis in the rules underpinning management agreements in SSSIs is also reflected in provisions for management agreements in the wider countryside. Environmental land management schemes that will attract incentive payments are governed by rules in the EC Rural Development Regulation.\(^7\) Alongside this, following reform of the CAP in 2003 most direct support payments to farmers are now subsumed within the Single Farm Payment scheme, “decoupled” from production and subject to “cross compliance”, \(i.e.\) environmental conditionality by which payment is conditional upon the observance of basic land management prescriptions targeted to environmental protection and animal welfare.\(^7\) In general terms\(^7\) cross compliance measures are targeted at protecting the rural environment, as it now exists, while the improvement or enhancement of farmland biodiversity is a matter for agri environment schemes introduced under the Rural Development Regulation that provide incentive payments for habitat improvement or restoration. In order to qualify for environmental stewardship payments, however, farmers must meet conditions going beyond what is required by “good agricultural practice”.\(^7\) Landowners will, in other words, be expected to bear environmental compliance costs up to a reference level of good agricultural practice reflected in property rights.\(^7\) The CAP reform attempted to apply the Polluter Pays principle of EC environmental law to the agriculture sector.\(^8\) The express incorporation of environmental management standards within property rights by the legal order for the CAP represents a fundamental shift away from the philosophy that underpinned earlier UK legislation, such as the 1981 Wildlife and Countryside Act. It also complements, rare: see qualitative research data at http://commons.ncl.ac.uk/casestudies (AHRC research project AH/ES/0310, Contested Common Land: Environmental Governance, Law and Sustainable Land Management c.1600–2006).


\(^8\) “The philosophy underpinning the environmental aspects of the CAP reforms is that farmers should be expected to observe basic environmental standards without compensation. However, where society demands that farmers deliver an environmental service beyond the base line level, this service should be specifically purchased through the agri-environment measures”: Directions Towards Sustainable Agriculture, COM (1999) 22 Final at para 3.2.1.


therefore, the changes to the law habitat protection made by the Countryside and Rights of Way Act 2000 and Nature Conservation (Scotland) Act 2004, and discussed above.

These rules now underpin the principal agri-environment scheme in England – the Environmental Stewardship Scheme – which adopts a “whole farm” approach and is based on a “public goods model” under which positive management for conservation is purchased by the state.81 Payments for environmental land management are made under one of three optional elements within a stewardship agreement: Entry Level Stewardship (“ELS”), Organic Entry Level Stewardship (“OELS”) and Higher Level Stewardship (“HLS”).82 Entry is dependent on the applicant achieving the relevant points score for management undertakings under each of the three elements of the scheme.83 So for example, under an agreement with an ELS element the farmer must undertake to carry out on his “conventional land” sufficient ELS options to meet his ELS points’ target, typically 30 points for each hectare of his conventional (non-organic) land.84 Farmers receive £30 per hectare for land entered into the scheme, with supplementary capital payments for habitat restoration work. Payments under Higher Level Stewardship agreements are made on the basis of specific works under one of a number of closely targeted conservation programmes e.g. heather regeneration in the uplands. In Wales, similar objectives are pursued through the Tir Gofal and Tir Cynnal agri-environment schemes, which (like the Environmental Stewardship Scheme in England) are premised on a positive conservation ethic with payments for habitat recreation, whole farm management and payments for capital works of environmental benefit. Although participation in agri-environment schemes is voluntary, they are commonly used to deliver the environmental management of conservation features on many SSSIs and European sites.

VI. RETHINKING ENVIRONMENTAL PROPERTY THEORY

To what extent can the relationship between environmental regulation and the property rules outlined above, especially those imposing


82 SI 2005/621, reg. 3, Detailed prescriptions are set out in the Schedule to the 2005 regulations, with basic prescriptions for ELS agreements in Schedule 2 Part 2 and more advanced prescriptions for inclusion in HLS agreements in Part 3 of Schedule 2.

83 See reg. 5 (2) (ELS), 5(3) (OELS), and also reg. 5(4) in relation to HLS obligations to be included in the agreement.

84 Schedule 3 paragraph 1. For the definition of “conventional land” see reg. 2 (“agreement land which is not organic land”). In relation to land within the less favoured area (for example upland semi-natural grazing), and which comprises all or part of a parcel of at least 15 hectares, the target is only 8 points per hectare.
positive management obligations, be explained by extant property rights scholarship? And how are we to characterise the nature of land over which positive management obligations are imposed to further the public interest in nature conservation?

A Classifying Property Management Obligations

Legal rules requiring positive land management, whether imposed by statute, within a contractual framework or through the administrative arrangements for agricultural support, cannot be satisfactorily classified simply as property-limitation rules. The same can be said for the legal restrictions on carrying out OLDs in an SSSI, which fulfil the dual role of preventing damage to protected sites while at the same time encouraging consensual conservation management. The primary focus of all these rules is the requirement of positive land management in accordance with an established normative standard, a common feature that characterises them as a type of property-duty rule. They do not, however, fit within existing property rights paradigms. Harris, for example, recognises the distinction between property-liability rules and property-duty rules when classifying different categories of property right, but locates property-duty rules in the imposition of obligations on the land owner that have nothing to do with the exercise of ownership privileges.85

Environmental rules of this kind are arguably a new species of property rule in that they impose positive obligations as an attribute of the exercise of ownership privileges. They do not limit or remove property rights or land use privileges, but impose positive obligations that condition the manner in which they are exercised. A landowner remains free to adopt the type of land use he wishes on his land. He may, for example, choose whether to set aside some of his land for a nature reserve, or (if a farmer) to use some or all of his land for intensive arable, dairy or livestock farming. In the case of land used for farming purposes, however, the law now requires him to manage it according to normative standards of good agricultural practice, and to comply with cross compliance conditions that apply to the type of agricultural land use that he has chosen.86 He may also be offered a management agreement with incentive payments for positive management to recreate or improve habitat features on his land, either under an agri-environmental scheme or under one of the incentive schemes applicable in SSSIs.

The new techniques of environmental regulation exemplified by management schemes and land management orders in SSSIs, and by

85 Harris, above n.12, at 37.
86 Unless he chooses not to claim the single farm payment, in which case the cross compliance conditions will not apply to constrain his land management decisions.
normative environmental management standards in the legal order for the CAP, are not based upon property-duty rules in the sense understood by Harris. Neither are they property rules in the sense understood by Calebresi and Melamed. They are instead, it is suggested, a new category of property-management rule.

The distinction between property-duty rules, property-liability rules and the new species of property-management rule becomes clear if we consider the role of each, and their interaction, in relation to an economic exchange by which property entitlements are traded for environmental services, such as a management agreement in an SSSI. Protection of an interest by a property rule normally suggests that its owner’s wishes will be preferred to those of the other contracting parties, unless he decides to voluntarily reassign his control. Property-management rules have an entirely different impact to property rules of this kind. Their imposition is intended to prosecute a public interest objective – nature conservation – rather than to protect the property owner’s rights per se. Property management rules do this not by appropriating ownership of the resource (land) to the state, but by controlling the terms on which access to the resource is permitted. The restrictions on carrying out OLDs in an SSSI have, for example, the effect of transferring elements of resource utility to the state, and of restricting those elements of resource utility that the owner can exercise without permission from the conservation bodies. Viewed in these terms, it could be argued that the restriction on carrying out OLDs in an SSSI is actually a hybrid form of property-management and property limitation rule, because the land use restrictions in the site notification can be varied at any time by the conservation body if the restoration, enhancement or protection of the site’s natural features so require. Although it imposes land use restrictions, the rule’s primary role is to ensure appropriate conservation management of the site. This is achieved by imposing a dynamic and hybrid form of property limitation/management rule – one that is flexible, subject to change, and focussed to achieving the conservation management of the site required by the site management statement for the SSSI.

The dynamic role of property management rules in environmental regulation can also be illustrated by the application of an economic “bargaining” model of property rights. In the negotiation of an interdependence by which property rights are subsequently reassigned, such as a management agreement, the scope of those rights that the

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87 Calabresi and Melamed, above n.19, 1092–1093,1106–1110.
property owner can bargain and reassign is correspondingly reduced where a property management rule has been applied by legislation. In principle he still has unfettered property rights, but his freedom to bargain them away is restricted. In the case of an SSSI it will be restricted by the rules against carrying out OLDs without written permission from the conservation body or under the terms of a management agreement. And whether the land is within an SSSI or not it will, if an agri-environment agreement is being negotiated, be restricted by the absorption of the rules of good agricultural practice into normative standards of land management for which the state will not make incentive payments available.

The bargaining model stresses that property rules are fundamental to the operation of markets. The terms of the exchange that the parties voluntarily agree (for example in a management agreement) will depend on the alternatives available to them if a market transaction cannot be negotiated. Environmental regulation that constrains land management choices and diminishes net returns fundamentally alters the factual negotiating matrix – it impacts upon the alternatives available to a landowner negotiating an exchange such as a management agreement, thereby reducing his bargaining power, and correspondingly reduces his ability to negotiate terms allocating a higher value to the rights he is willing to reassign.

B Towards a Theory of “Environmental” Property?

What is the nature of property that is subjected to rules of this kind by modern nature conservation legislation? Waldron classifies property relationships into private, collective and common property, and views property as primarily a medium for allocating use rights in resources such as land. Property rules dictate how scarce material resources are to be used (and land is, of course, a classic example in this context).

The private property solution to this problem is to allocate the final decision in disputes over access to resources to a particular individual (the “owner”).

Land that is subject to a property rule imposed by nature conservation legislation cannot be categorised as purely private, for the legislation reallocates decision making on key aspects of its use to the state. How, then, does it fit within Waldron’s classification of property relationships into private, collective and common property? Consider the restrictions on land use imposed in SSSIs by the Wildlife and Countryside Act 1981 and Nature Conservation (Scotland) Act 2004.

91 See further Colby, above n. 89.
92 See Waldron, above n.2 at 327–333.
93 Waldron, above n.2, 342.
The final decision on the allocation and exercise of land use rights here depends upon whether the rights in question involve operations that have been notified as likely to damage the conservation interest of the site.94 In the case of land uses that do not involve notified operations, the final decision remains with the owner; but in the case of operations notified as likely to damage the conservation interest of the site it is reallocated to the state.95 The relationship cannot be categorised as one of “collective” property, however, as the conservation bodies are not themselves given direct access to the use of the resource (i.e. the land)96. Neither is it common or communal property,97 as the public at large have no right to use the land or, indeed, to be consulted on the grant or refusal of operational consent to OLDs proposed by the landowner.98

It is therefore difficult to categorise this type of property relationship as either simply “private” or “public” – indeed it illustrates very clearly Kevin Gray’s observation that there is no clear distinction (or “clean break”) between private and public property relationships, but rather a multitude of fine distinctions or gradations between the two.99 Nevertheless, the key attribute of a private property system lies in the fact that it allocates to a certain specified person (rather than society as a whole) the right to determine how a specified resource (in our case land) is to be used.100 In as much as both the Wildlife and Countryside Act 1981 and Nature Conservation (Scotland) Act 2004 leave the primary responsibility for determining the choice of land use to the owner, and limit themselves to restricting specified “operations likely to damage” the conservation interest of protected sites, it may be more appropriate to characterise property subject to this type of environmental regulation as “quasi-private”, rather than as collective, common or quasi-public property.101

94 I.e. notified as OLDs to the owner or occupier in the site notification. See Wildlife and Countryside Act 1981 section 28E (England and Wales), and Nature Conservation (Scotland) Act 2004 section 16 (Scotland).
95 Represented by the statutory conservation bodies, i.e. Natural England, the Countryside Council for Wales or Scottish Natural Heritage (above n.36).
96 Although they may acquire a right to enter the land and carry out works of conservation management in limited circumstances – principally when the owner has failed to comply with a management order made under section 28J of the 1981 Act. If the owner or occupier of the land concerned fails to comply with the terms of a management order the conservation body can enter the land to carry out the operations ordered themselves, and recover the reasonable cost of doing so from the owner: section 28P(8) Wildlife and Countryside Act 1981.
97 As to which see Waldron above n.2, 329–339; Lucy and Mitchell, above n.17, at 580ff.
98 Wildlife and Countryside Act 1981, section 28E(1), (4), as inserted by Sched. 9 Countryside and Rights of Way Act 2000; Nature Conservation (Scotland) Act 2004, section 16(1)–(3). The 1981 Act provides for a “closed” consultation between the conservation body and the landowner in these cases, with no provision for the public to be notified of the proposal or consulted as to whether consent should be granted.
99 See Gray and Gray, above n.17, esp. at 18–20.
100 Waldron, above n.2, 348.
101 Gray and Gray, above n.17, at 18ff. uses the broad concept of “quasi public property” to describe the gradations of public control of access and use of resources prevalent in modern legislation.
VII. CONCLUSION

The jurisprudence of property rights has moved a long way since Blackstone’s well known, but outmoded, dictum that property comprises “that sole or despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe”. Nevertheless, this article has attempted to demonstrate that in order to develop a framework of analysis for “environmental” property rights – one that recognises the role of property institutions in protecting and enhancing biodiversity – we must fundamentally reappraise several aspects of existing property rights theory.

First, it is essential to recognise that a new species of property rule has emerged to promote nature conservation and enhance biodiversity. It is no longer possible to characterise property rules exclusively as property liability rules, property limitation rules or property-independent rules. The analyses offered by leading theorists like Harris and Melamed and Calabresi do not capture the dynamic relationship between property institutions and modern environmental regulation. Property management rules are a paradigm of a new generation of property rules introduced to further the collective interest in promoting nature conservation. These rules are best located within a resource allocation model of property rights, but understanding their status and function as an allocative rule requires a reappraisal of property rights theory.

Property management rules of the type described in this paper dictate that the state decides not by whom a resource such as land is used – but rather how, when and in what manner that resource is used. In this sense the property over which the property management rule applies remains “private” property. The inclusion of a prohibition on drainage in a SSSI notification affecting farmer X’s land does not prevent him draining his land. Rather, it requires him to consult the conservation body before he does so, and prohibits him from carrying out this potentially damaging operation without its consent. In practice, in the majority of cases they will permit the landowner to carry out notified operations in a modified manner that is not environmentally damaging, or offer him a management agreement to manage the site in a manner beneficial to its conservation status.

103 Above n. 12.
104 Above n. 19.
105 For example those in a management scheme or management notice, or in a land management order imposed by the conservation bodies on SSSI land (as to which see the Wildlife and Countryside Act 1981, section 28J; Nature Conservation (Scotland) Act 2004 section 30).
Finally, it is necessary to recognise the *dynamic* role of property rules in protecting and promoting biodiversity. The law has developed entirely new legal mechanisms to apply property management rules and to enforce positive management prescriptions tailored to nature conservation. If biodiversity is to be protected and enhanced, the law must adopt a forward-looking stance that allows property rules to adapt and change as ecology and ecosystems change and adapt. The use of mechanisms such as management schemes and land management orders in SSSIs, and of management agreements with obligations tailored to specific habitat types, provides clear examples of new legal instruments that facilitate the adjustment and manipulation of property rights in order to do just this. Legal scholarship must also recognise the need for an interdisciplinary approach to the study of the interaction of property rights with the natural environment. Economics, applied biology and agricultural science have, for example, an important role to play in furthering our understanding of the operation of property management rules and of their effectiveness in protecting ecosystems and wildlife habitats.