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Compensating Biodiversity Loss: The EU Commission's Approach to Compensation under Article 6 of the Habitats Directive

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Abstract

This Article assesses that part of the legal obligation to provide for compensatory habitat under Article 6(4) of the EU Habitats Directive which requires an opinion from the European Commission. This is located within a wider 'impact neutrality' context where such offsetting measures are increasingly being advanced. The literature on compensatory habitat, some of which relates to site-specific measures and some to habitat 'banking', is considered in order to map how compensatory measures may be prone to failure. This is done against the criteria of functionality, proponent bias, monitoring and enforceability, and economic influence. These are then used to evaluate the Commission's opinions under the Directive. While the compensation obligation is to be applauded, the Commission's opinions fare poorly against all these criteria, a common, and important, thread being a lack of transparency. This calls into question the wider compensatory aspects of the legislation.

Keywords: Habitats, 'no net loss', compensation, EU law, Habitats Directive 92/43, Article 6(4), Commission opinions

1. Introduction

There are elements of an ever increasing aspiration in environmental regulation (I hesitate to call it a trend) to move away from justifying harm to the natural environment because of non-environmental gains. Trading natural capital for economic and social capital no longer commands the persuasive force it once had. In its place is an ethos under which natural resources may only be interfered with if

functional equivalents are provided. I term this an ‘ecological impact neutrality’ approach.

At the EU level, the most longstanding example of this approach is in the obligation, under the 1992 Habitats Directive,¹ to compensate, in the face of development, for certain losses to the Natura 2000 network of protected sites. The obligation is activated, as part of a sequential approach, after due attention has been given to prevention and mitigation and to alternatives (ie the obligation is to compensate unavoidable losses). It is an obligation which the Directive does not qualify by any test of ‘best’ or ‘reasonable’ endeavours. And in the case of ‘priority’ sites (priority attaching to habitats which are more endangered, or habitats of species whose natural range falls predominantly within the EU), the European Commission is required to issue an opinion to the Member State concerned if a development is to be justified on public interest grounds.

Whilst facilitating development, the duty to compensate is therefore a mandatory, and seemingly cost-oblivious, requirement, traceable back three decades to the seminal *Leybucht* case² and hence in principle the obligation has been a constant feature of the law. But what does this sparsely worded obligation entail? How has the Commission interpreted the obligation in its Guidance? And, crucially, what has the practice of the Commission been when issuing its opinions? Furthermore, is the position any different from when the first opinions were issued in 1995, which Nollkaemper fairly described as having taken ‘only a soft glance at the adequacy of compensation’?³

In this article I consider these questions using as my primary data the 15 opinions of the European Commission publicly issued up to 31 July 2011 under Article 6(4) paragraph 2 of the Habitats Directive. Although these opinions have received some academic scrutiny, this has mainly focused on the exercise of the Commission’s judgement, under this provision, about whether harmful development is nevertheless justified for imperative reasons of overriding public interest.⁴ The nature of the compensation obligation has received much less attention, and its application in

¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7 (‘the Habitats Directive’).

² Case C-57/89 *Commission v Germany* [1991] ECR I-883 (‘Leybucht’).

³ A Nollkaemper, ‘Habitat Protection in EC Law: Evolving Conceptions of a Balance of Interests’ (1997) 9 JEL 271, 283.

⁴ Nollkaemper (n 3) 279-283; N de Sadeleer, ‘Habitats Conservation in EC Law – From Nature Sanctuaries to Ecological Networks’ (2004) 5 Yearbook of European Environmental Law 215, 248-250. L Krämer, ‘The European Commission’s Opinions under Article 6(4) of the Habitats Directive’ (2009) 21 JEL 59.

practice seems to have attracted almost no scholarly attention whatsoever.⁵ The practice of the Commission under the Directive in relation to compensation, then, has also received something of a cursory glance in the literature.

Habitat compensation raises a range of ethical, legal and policy concerns about how best to maintain and improve ecological functions and services, and respect ecological values (often over considerable distances of time and space) and about how ecological values and services are given due weight in decision-making processes.

Compensating habitat loss raises some profound questions about commensurability and fungibility; of valuation; and of regulatory flexibility, discretion, monitoring, enforcement and follow-through. My concern here is not primarily with whether compensation is effective, which is a difficult question to answer one way or the other looking at the sample selected, not least because of the time frames involved in creating new habitat and assessing its ecological functionality.⁶ My concern is more about process and design than about likely outcome, and the extent to which the ecological values expressed in the Habitats Directive are respected. Given that Natura 2000 sites represent the most highly valued habitats in the EU, and that the opinion of the Commission is only sought with respect to priority sites, the lack of detailed scrutiny of the Commission's opinions with respect to compensation is remarkable.

1.1 Method and Structure

The 15 opinions issued by the Commission up to July 2011⁷ were evaluated, alongside discussion with relevant Commission officials⁸ and further literature review. It is worth bearing in mind, however, that the Article 6(4) opinions are not the only, or even the main, instance when habitat compensation obligations arise under the Directive. EU Member States have obligations under Article 6(4) first paragraph

⁵ The most considered and systematic discussion is in Krämer (n 4) although the emphasis there is more on justifications for site selection and for development. Compensation issues are the specific focus of F Haumont, 'L'application des mesures compensatoires prévues par Natura 2000' (2009) 10 ERA Forum 611–624.

⁶ Though some would like to answer the question of effectiveness, see Natural Capital Initiative (2010) *Addressing practical challenges for biodiversity offsetting in the UK*. Summary report for policy makers on the first 'Towards no net loss, and beyond' workshop, 22nd June 2010, 6 ('Current policy, such as the Habitats Directive, is effective in requiring compensatory measures where it is deemed that impacts of development projects on Natura 2000 sites cannot be avoided'). For perhaps the best ex post evaluation of the compensatory measures involved in one Commission opinion, see Ecologic, *Compensation for Development of the Airbus Facility within the Mühlenberger Loch, Germany* (2008), available at <www.envliability.eu> accessed 16 December 2011, discussed in section 5.

⁷ Since then 2 further opinions have been published. The opinions are available at <http://ec.europa.eu/environment/nature/natura2000/management/opinion_en.htm> accessed 16 December 2011.

⁸ Conducted in Spring 2006 and relating only to the first two phases. Discussion was with a group of Commission officials who had dealt with or were then dealing with the issuing of opinions.

to compensate and notify the Commission (but not seek its opinion) when ‘non-priority’ habitats are involved. The sample selected is therefore likely to be an unknown fraction of the full number of plans or projects to which the general compensation obligation applies.⁹

The completeness of the published opinions does not seem to be in doubt.¹⁰ However, in at least one further development a ‘preliminary opinion’ has been sought, seemingly to give guidance on whether Article 6(4) would be triggered.¹¹

Furthermore, the compensation duty may be evaded, and hence never addressed under Article 6(4) paragraph 2. The prior assessment of plans and projects which comes before Article 6(4), termed ‘appropriate assessment, ought to identify any significant effects of the development, and assess whether these will affect site integrity. But it operates weakly in practice.¹² As the Commission has found:

Member States are struggling with the development of appropriate assessments as required under Article 6(3). ... [T]he assessments of the effects of projects are frequently vague and too general. The Commission is concerned by the way biodiversity matters and nature aspects are addressed. Given that the evaluation of impacts determines what needs to be compensated, both in quantity and in quality, this issue becomes crucial.¹³

⁹ In the period 2007-2010, 21 projects were notified to the Commission, see <http://circa.europa.eu/Public/irc/env/monnat/library?l=expert_reporting/meeting_24112011/presentations&vm=detailed&sb=Title> accessed 16 December 2011, whereas during this period 3 opinions were published. Similarly, in the period 2001-2006 in the UK compensatory measures were judged necessary in 16 cases, but no opinions were sought, see Joint Nature Conservation Committee, *Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006* (JNCC 2007), 6.1. Available at <www.jncc.gov.uk/article17>, accessed 16 December 2011.

¹⁰ Personal communication, DG Environment, 19 December 2011.

¹¹ Development of the Markermeer-IJmeer shallow-lake ecosystem, Netherlands, discussed in J Verschuuren ‘Climate Change: Rethinking Restoration in the European Union’s Birds and Habitats Directives’ (2010) 28 *Ecological Restoration* 431, 433. As the author points out, it is not clear that the Court of Justice would support this approach, because it seems to go against the sequential approach to compensation, under which compensation only comes into play when a negative impact is inevitable and there are deemed to be overriding public interests reasons for proceeding. For support for this interpretation see Case C-239/04 *Commission v Portugal* [2006] ECR I-10183 (‘Castro Verde’), opinion of Advocate-General Kokott at [35]:

¹² See also C Backes, A Freriks and A Nijmeijer, *Article 6 Habitats Directive – A Comparative Law Study on the Implementation of Art. 6 Habitats Directive in Some Member States* (Centre for Environmental Law and Policy/NILOS 2006) 77.

¹³ Directorate General Environment, *Implementation of Article 6(4), First Subparagraph, of Council Directive 92/43/EEC During the Period 2004-2006: Summary Report* (European Commission, 30 June 2008), 3, available at <http://ec.europa.eu/environment/nature/knowledge/rep_habitats/docs/art_6_4.pdf> accessed 16 December 2011.

Clearly, such shortcomings with assessment frustrate the sequential approach to decision-making, under which compensation issues should only be addressed as a last resort, and reduce the number of cases which should call for an opinion.

Neither of these caveats, however, seems to detract significantly from the basic methodological point that all the opinions which have been issued are publicised and that these provide the most detailed practical indication we have of the Commission's interpretation of its legal obligations and of what it considers adequate compensation to be.¹⁴ There is simply no better sample that can be used to test the Commission's practical understanding and of the law in action. Moreover, this understanding can reasonably be assumed to influence its obligations in scrutinising the much larger number of cases relating to non-priority sites where Member States are required not to request an opinion but simply to notify the Commission.

This article is structured in six sections. Section 2 looks at the rise of impact neutrality with regard to biodiversity, while section 3 considers some of the challenges with ecological modes of compensation, in particular with regard to devising an appropriate 'currency' and with certain biases associated with habitat compensation. In the light of this analysis, a number of propositions are established. Section 4 then considers the Habitats Directive regime, while section 5 evaluates the opinions issued by the European Commission against the propositions outlined in section 3. Section 6 draws some conclusions.

2. The Rise of Impact Neutrality

Based on stronger sustainability theories,¹⁵ an ecologically-driven model of compensation has arisen. This aims at ensuring that development with adverse ecological impacts which cannot be avoided, reduced or mitigated should only be permitted where steps are taken to ensure that there is no net loss of nature conservation interests. This is part of a more general reorientation. As Fischmann and J Hall-Rivera have argued:

¹⁴ The Natura 2000 regime may also require ecological compensation as a requirement of more general habitat conservation measures, or as a means to meet legal tests relating to species protection (under art 6(2) Habitats Directive and art 3 Wild Bird Directives, and arts 12-16 Habitats Directive, respectively). It is not necessary to consider these here because these do not expressly engage the Commission in issuing an opinion.

¹⁵ E Neumeier, *Weak Versus Strong Sustainability: Exploring the Limits of Two Opposing Paradigms* (3rd rev edn, Edward Elgar 2010).

‘In the coming decades, approaches to conserving biological diversity that merely mitigate harm or abate damage will increasingly reveal themselves inadequate. Restoration and recovery will be the hallmarks of any successful biodiversity strategy.’¹⁶

The central provision with which this article is concerned is Article 6(4) of the Habitats Directive, discussed in more detail in section 4. But a further, more recent, example of this orientation is provided by the obligations under the EU Environmental Liability Directive which in defined circumstances requires ecological compensation, and under which off-site ecological compensation may be required if restoration or remediation of the damaged natural resource or service is unachievable.¹⁷

There are some similarities between the Environmental Liability Directive and the Habitats Directive insofar as neither permits the exchange of natural with non-natural resources.¹⁸ There is also a commonality in terms of some of the valuation and restorative techniques used. But there are also some important differences. Under the Habitats Directive scheme, the compensation obligation is forward-looking. By contrast, although the Environmental Liability Directive also requires preventive action in response to the threat of imminent harm, it does not in general terms require deliberative evaluation of the kind envisaged under the Habitats Directive. Both the Environmental Liability Directive and Habitats Directive regimes, then, tap into aspects of the curative legal model described by de Sadeleer under which ‘everything is seen as capable of being indemnified, replaced, repaid, compensated’.¹⁹ Without downplaying the similarities, however, the far greater ex ante focus of the Habitats Directive seems to engage a somewhat different set of issues. For example, it seems

¹⁶ R Fischmann and J Hall-Rivera ‘A Lesson For Conservation From Pollution Control Law: Cooperative Federalism For Recovery Under The Endangered Species Act’ 27 *Columbia Journal of Environmental Law* 45, 47.

¹⁷ Under Annex II of the EU Environmental Liability Directive (Directive 2004/35/EC of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L143/56) a sequential approach to environmental remediation following accidental damage is to be taken. In the case of damage to water or to Natura 2000 sites, the primary responsibility is to restore the damaged natural resource and/or impaired services by returning them to, or towards, ‘baseline conditions’. Primary remediation can be either active remediation or natural recovery. To the extent that primary remediation does not fully restore the damaged natural resources and/or services to baseline conditions, ‘complimentary remediation’ is required. Complimentary remediation, which in the language of this article is a compensatory measure, applies where remediation is impossible or primary remediation on site is disproportionate relative to benefits. Finally, ‘compensatory remediation’, compensating for the interim loss of natural resources and services pending recovery, must always be carried out. If primary remediation is achieved by natural recovery then obviously compensatory remediation costs will be higher.

¹⁸ Environmental Liability Directive (n 17) Annex II, 1.2.3 (monetary valuation techniques may be used to determine equivalents, but compensation must be ecological not monetary).

¹⁹ N de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (OUP 2002) 15 (in which he somewhat narrowly identifies private liability rather than administrative law as the central legal tool here, while also acknowledging the need for preventive controls to go beyond this).

perfectly reasonable to approach issues of ecological valuation differently depending on whether one is acting prospectively than when, say, one is responding to an incident, because they engage different aspects of decision-making.²⁰

For Owens and Cowell, discussing developments in UK land use planning policy over the 1990s, the development of the sustainability agenda in relation to conservation was not explainable simply because the discourse of ‘natural capital’ allowed biodiversity to develop a ‘neo-material rationale’. These developments:

cannot be fully rationalised in terms of instrumental or utilitarian thinking; in places, it reflects and implements a more ecocentric ethic, or a strong sense that appreciating intrinsic value in nature is constitutive of good human lives and societies. When, for example, it is ruled that ...compensation is an inappropriate substitute for conservation in situ, the implication is that certain benefits do not ‘count’ if, in order to attain them, an obligation to protect the site would have to be breached. Thus the institutional arrangements for the most important sites do not just give nature conservation greater weight; they effectively remove the habitat from an arena of simple trade-off, creating a framework in which judgement must be exercised about what human imperatives could be important enough to overrule the case for protection.²¹

In terms of a reorientation of law and policy, this particular kind of ‘ecological impact neutral’ approach also appears distinct from, for example, the pursuit of an optimum or ‘best’ environmental harm reduction strategy based on reasonable efforts.²² Moreover, as an obligation which bites on specific plans and projects, it differs from more strategically focused measures which, as a general principle, aspire towards impact neutrality but which do not require that any particular decision contributes, to any particular extent, towards this objective.²³ In addition, its status as a binding legal obligation distinguishes it from similar approaches found elsewhere only as strategic, policy aspirations. In the field of nature conservation, such ambitions include that there be ‘no net loss of biodiversity’, on which the EU, like the rest of the world, has

²⁰ Eg, a response after an incident cannot take a sequential approach, and hence cannot narrow the scope of any compensation duty.

²¹ S Owens and R Cowell, *Land and Limits* (Routledge 2002) 123. See also C Miller, ‘Attributing “Priority” to Habitats’ (1997) 6 *Environmental Values* 341, 346, in which the authors note that ‘even if that assignment [of priority] does not amount to the recognition of a clear ecocentric right, it does represent some erosion of the anthropocentric hegemony’.

²² For an interesting discussion of this in the context of EU pollution prevention and control legislation see *R (Rockware Glass Ltd) v Chester City Council* [2005] EWHC 2250; [2006] EWCA Civ 992 (concerning in part whether the obligation was to minimise pollution to an ‘irreducible minimum’ or to achieve a high level of environmental protection, and upholding a precautionary approach).

²³ eftec, IEEP and others (2010) *The Use of Market-based Instruments for Biodiversity Protection – The Case of Habitat Banking – Technical Report* <<http://ec.europa.eu/environment/enveco/index.htm>> accessed 27 July 2011, 16 (‘there appears to be a gap in the BAP and EU policy framework with respect to measures for residual impacts on biodiversity outside Natura 2000 sites’) and 25 (‘there is currently no explicit no net biodiversity loss policy in the EU’).

struggled,²⁴ and the prospect of a related ‘no net loss’ of ecosystem services commitment.²⁵

3. The Practical Challenges

In this section I select a number of the main concerns which emerge from the literature about whether equivalent ecological functions or services are created by replacement habitat.²⁶ Because of the focus of the article, these are primarily drawn from the literature on ex ante compensation obligations; however, there are obviously respects in which they also apply to ex post obligations, which are also drawn on as appropriate. Some of this literature relates to site specific compensation measures, such as those provided as a matter of law, for example in the Netherlands, and elsewhere as a matter of policy. But much of the literature relates to biobanking, especially from US experience with wetland mitigation banking and, more recently, habitat conservation banking. Under such regimes, land of ecological value is created, restored or preserved and made available to developers who must ‘buy’ habitat mitigation (in the form of credits) in order to get development consent.²⁷ The habitat

²⁴ In Decision VI/26 the Conference of the Parties to the Convention on Biological Diversity adopted the Strategic Plan for the Convention, under which Parties committed themselves ‘...to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth’. In the EU, the commitment was to ‘halting biodiversity loss by 2010’ (Gothenburg summit 2001; 2002 6th Environmental Action Programme). This is now a commitment to halt biodiversity loss and the degradation of ecosystem services, and restoring them where feasible, by 2020, Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, *Our Life Insurance, Our Natural Capital: An EU Biodiversity Strategy to 2020*, COM (2011) 244 final.

²⁵ ‘The Commission will carry out further work with a view to proposing by 2015 an initiative to ensure there is no net loss of ecosystems and their services (e.g. through compensation or offsetting schemes), COM (2011) 244, *ibid*, 12.

²⁶ These issues have recently been analysed by C Reid, ‘The Privatisation of Biodiversity? Possible New Approaches to Nature Conservation Law in the UK’ (2011) 23 JEL 203, 214-219.

²⁷ Most of the US literature on wetland mitigation banking predates rule changes in 2008 (under 33 C.F.R. pt. 332 (Corps of Engineers); 40 C.F.R. pt. 230 (Environmental Protection Agency), however, it has been argued by Murphy and others that: ‘Unfortunately, the new rule does little beyond codifying a status quo that makes it far too easy for the Corps to continue its history of falling short of its charge to protect aquatic resources... this new rule allows for far too much discretion by Corps officials to allow mitigation to occur where avoidance or minimization should instead be required. It also includes too few safeguards to ensure that mitigation serves to successfully compensate for lost functions and values of impacted waters’ (J Murphy, J Goldman-Carter and J Sibbing, ‘New Mitigation Rule Promises More of the Same: Why the Corps and EPA Mitigation Rule Will Fail to Protect Our Aquatic Resources Adequately’ (2009) 38 Stetson L Rev 311, 312-3). For a more cautiously optimistic assessment Gardner and others note, ‘although the new regulation represents significant progress, much depends on implementation in the field and the degree to which the regulatory provisions are viewed by the Corps as discretionary or obligatory’ (R Gardner and others, ‘Compensating for Wetland Losses under the Clean Water Act (Redux): Evaluating the Federal Compensatory Mitigation Regulation’ (2009) 38 Stetson L Rev 213, 248). Furthermore, as noted by e.g. Madsen and others, banking extends well beyond the US with ‘39 existing programs around the world, and another 25 in various stages of

loss is then compensated in geographical areas remote from the development site under the guidance and management of an environmental/ecological authority.

Since habitat ‘banks’ are generally justified on grounds of greater effectiveness and efficiency than individualised, site-specific, compensation, this seems a reasonable approach. But care has to be taken in extrapolating from banking to site-specific compensation. For banking systems to work, relatively simple currencies (like acres) are likely to be preferred to make the market sufficiently liquid.²⁸ High liquidity also requires quick trades. So habitat markets generally assign credits ex ante and regulators are not likely to match, in detail, the impact and the compensation measures, because this would make the market too thin and ineffective. Also, much of the literature on ecological banking relates to wetland banking which is the longest established and most widespread, but may in principle be somewhat easier to recreate than other forms of habitat.²⁹

Hence, I take some of the concerns associated with banking, both empirically and in the theoretical literature, and use these to construct a set of propositions about how compensation obligations may be prone to failure. At this stage I do not infer that these represent the current state of ecological compensation; indeed some of the problems I identify have been partially or fully addressed by changes in law and in policy guidance.³⁰ Also, much of the literature consists of ex post assessments of compensation measures and, as such, the most recent examples of current practice are not well represented in this literature. Following analysis of the compensation obligation under the Habitats Directive (in section 4) I then test these propositions against the Commission’s Article 6(4) opinions.

3.1 Proposition 1: compensation in practice is poor on providing comparable ecological functionality

development or investigation’, B Madsen, N Carroll and K Moore Brands, ‘State of Biodiversity Markets Report: Offset and Compensation Programs Worldwide’ (2010) 59
<<http://www.ecosystemmarketplace.com/documents/acrobat/sbdrm.pdf>> accessed 27 July 2011.

²⁸ J Salzman and J B Ruhl, ‘Currencies and the Commodification of Environmental Law (2000-01) 53 Stanford L Rev 607, 646 (‘Fat markets are sloppy ...thin markets are bland’). The authors suggest that barter rather than a commodity market may be a better description of the realities, 683.

²⁹ R Morris and others ‘The Creation of Compensatory Habitat – Can it Secure Sustainable Development?’ (2006) 14 Journal for Nature Conservation 106 (‘Compensatory habitat creation can probably be used in some wetlands and intertidal environments, but the prospects for success in many terrestrial situations are far less certain’).

³⁰ A good example is the Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006 in Australia, which attempts to build on US experience of banking and address the challenges these initiatives generated, L Fromond, J Similä and L Suvantola, ‘Regulatory Innovations for Biodiversity Protection in Private Forests—Towards Flexibility’ (2009) 21 JEL 1 (noting in particular greater stipulation about trading of like-for-like).

Compared to emissions trading, where there is a relatively agreed and common ‘currency’,³¹ and equivalent impact regardless of where emissions or their reduction take place, there is no such quantifiability or fungibility with habitat: no compensation will fully produce ‘like for like’ habitat.³² What is being compared is not just impact but ecological value; what is lost with what is being claimed to be created.

Experience with site-specific compensation, especially with wetlands in the US, suggests that this led to ‘a proliferation of “postage stamp” mitigation sites that presented serious administrative monitoring and enforcement concerns ...[and] generally failed to produce compensatory wetland resource values’.³³ As a result, under a flexible agency interpretation of section 404 Clean Water Act 1972, there is scope for developers to discharge their obligations via a wetland mitigation bank. There has been a dramatic rise in the number of banks since the early 1990s.

It has been said that ‘the difficulty of measuring and comparing the equivalency of debits in impacted areas with credits in proposed offsets or existing banks is one of the most difficult challenges to establishing habitat banking systems. It is also a complex subject that is rapidly developing’.³⁴ Analyses of the early years of mitigation banking, however, tended to be critical. For example, a seminal 2001 study by the National Resources Council concluded that the goal of no net loss³⁵ was not being met, although the rate of wetland loss had apparently slowed.³⁶ Surveying the literature in 2000, Salzman and Ruhl found that:

assessment methods in actual use in wetlands mitigation banks have advanced very little from the beginning of the decade ... the trading currency has stagnated at the relatively crude acre-based form ... In practice, most habitat trades to date in wetlands and HCP programs have

³¹ Though differences may be masked by various devices, eg producing a common currency of global warming potential to cover the main greenhouse gases involves decisions about the potential of each of the gases about which there are differences in knowledge, see Salzman and Ruhl (n 28) 629.

³² On the challenges generally of trading non-fungibles through allegedly ‘common’ currencies see Salzman and Ruhl (n 28).

³³ JB Ruhl, A Glen and D Hartman ‘A Practical Guide to Habitat Conservation Banking Law and Policy’ (2005) 20 *Natural Resources and Environment* 26. See also M Bean and L Dwyer, ‘Mitigation Banking as an Endangered Species Conservation Tool’ (2000) 30 *Envtl L Rep* 10537, 10538-9 (‘The track record of traditional, project-by-project wetland mitigation is dismal’).

³⁴ *eftec*, IEEP and others (n 23) 82.

³⁵ National Research Council, *Compensating for Wetland Losses under the Clean Water Act* (Natl Acad Press 2001) 2.

³⁶ See also on this J Kaiser ‘Recreated Wetlands No Match For Original’ *Science*, Vol 293 No 5527, 25 (6 July 2001).

been approved on the basis of acres, in many instances ensuring equivalence in neither value nor function.³⁷

A 2004 report also found that compensation was good on acreage but poor on function,³⁸ although elsewhere it has been suggested that overall compensatory measures fall short both in terms of acreage and, in particular, functionality, and have been especially inadequate in replacing the ecosystem functions of more complex wetland types such as forest wetlands.³⁹ Tellingly, this report found that 67% of projects met permit conditions, but only 17% could be considered adequate functional replacements for the impacted wetlands. Similar gaps, both in terms of non-compliance and effectiveness, have been found in further studies, although it may be that the effectiveness gap reflects the length of time that it may take for newly created habitats to stabilise and mature, which may be far in excess of the time allowed under existing regulations.⁴⁰ As the 2001 National Resources Council report concluded, '[i]t is of paramount importance that the regulatory agencies consider each permitting decision over broader geographic areas and longer time periods, i.e., by modifying the boundaries of permit decision-making in time and space'.⁴¹

Overall, there are significant concerns about how effective compensation measures can be.⁴² Although site-specific measures should in principle be more attuned to the specific losses and gains involved, they may suffer from ecological economies of scale, or compensate for more easily identified losses or more easily reproduced gains. If compensation for wetlands is poor, it would seem unlikely that it is any more effective for more complex habitats.

³⁷ Salzman and Ruhl (n 28) 660, 665. See also P Brown and C Lant, 'The Effect of Wetland Mitigation Banking on the Achievement of No-net-loss' (1999) 23 *Environmental Management* 333.

³⁸ R Ambrose and S Lee, *Guidance Document for Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the Los Angeles Regional Quality Control Board* (UCLA 2004).

³⁹ P Minkin and R Ladd, *Success of Corps Required Wetland Mitigation in New England* (US Army Corps of Engineers, New England District, 3 April 2003).

⁴⁰ Eg, *Wetlands in Washington State Volume 1: A Synthesis of the Science*. Washington State Department of Ecology, Publication 05-06-006 (2005), para 6.11 ('Studies relying solely on permit files and databases indicated that permitting programs have improved over time in terms of wetland acreage required for compensation. However, studies which relied on site visits and field analyses indicated that compensatory wetland mitigation has resulted in a loss of wetland acreage ... Some unique types of wetlands, such as bogs, fens, and mature forested wetlands, may not be reproducible, especially not within current regulatory timeframes'); see also eftec, IEEP and others (n 23) 80.

⁴¹ National Research Council (n 35) 10.

⁴² Morris and others (n 29) note that 'compensatory habitat creation ... cannot be relied upon in all circumstances as means of offsetting loss of the highest quality habitat, and cannot be seen as a consistent and reliable delivery mechanism for sustainable development'.

3.2 Proposition 2: compensation in practice favours the proponents by underestimating impacts and overestimating the positive effects of compensatory measures.

Development interests may prevail in making compensation decisions not simply because economic interests carry more weight, but because assessment methodologies tend to underestimate impacts and overestimate the positive effects of compensatory measures. Owens and Cowell note, with some exceptions, that:

application-specific bargaining over impacts and compensation is almost invariably a secretive process, to which the developer has privileged access. Most of what passes for “environmental compensation” has accommodated the interests of developers more successfully than those of conservationists.⁴³

The findings of any inquiry reflect what is looked for. As such there may be a tendency to under- or over-recognise ecological value depending on whether one is considering, for example in an assessment under the Habitats Directive, the site to be destroyed or the value of the replacement habitat. Proponents’ perspectives and valuations – ‘proponents’ here being both the developer undertaking the assessment and the member state advancing the compensation - may therefore both lean towards their own perceived interests. Such perspectives or interests may carry considerable weight in decision making processes. As Fox and Nino-Murcia found in relation to US conservation banking, for example:

biological surveys completed to support a banking agreement recognized more ecological value than previous environmental impact surveys conducted for the purposes of mitigating development. Impact assessment may underestimate ecological consequences, thereby reducing mitigation requirements, whereas a prospective conservation bank may inflate ecological values to optimize numbers of credits awarded. Ultimately, when the mitigation seeker is matched to a credit seller, there is likely to be a net loss of ecological value.⁴⁴

Under-valuation can be addressed through precaution by requiring ratios – of acreage of habitat lost to habitat created - above 1:1 which, as well as respecting functionality and taking likely degrees of ineffectiveness into account, is also a way of factoring in under- and over-valuation.

⁴³ Owens and Cowell (n 21) 121, footnote 41, citing R Cowell, ‘Stretching the Limits: Environmental Compensation, Habitat Creation and Sustainable Development’ (1997) *Trans Inst Br Geogr, New Series*, 22(3), 292 who write that ‘the use of habitat creation as a form of environmental compensation has tended to accommodate those interest well-represented in the planning system, particularly major developers’ (293).

⁴⁴ J Fox and A Nino-Murcia, ‘Status of Species Conservation Banking in the United States’ (2005) *Conservation Biology* 996, 1005.

3.3 Proposition 3: compensation in practice is poorly monitored and audited and of limited enforceability.

A further criticism of compensation is that, even if appropriate metrics are used, it may not be subject to sufficient management measures to make it work or monitoring measures to verify whether it is effective or likely to be so.⁴⁵ Whether there is sufficient funding and institutional support will also be relevant. It is certainly the case, with banking, that the developer and the banker are the main actors and neither has a particularly powerful incentive to produce and maintain high quality habitat.⁴⁶ There is no reason to suppose that site-specific measures are any less prone to this, which can be seen as a further instance of possible proponent bias because compensatory measures which are not adequately monitored and enforced are more likely to be exaggerated. Compensation arrangements require a strong degree of regulatory oversight to be effective,⁴⁷ no more so than in relation to monitoring.

Banking in particular is also likely to have limited scope for third party involvement. This may not be the case with site-specific compensation in major developments, however, which in practice tends to have more involvement of third party conservation organisations in implementation and monitoring.⁴⁸

3.4 Proposition 4: economic considerations may improperly or unduly be taken into account

⁴⁵ Government Accountability Office, *Wetlands Protection: Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure That Compensatory Mitigation Is Occurring* (Sept 2005) (finding both monitoring and enforcement of mitigation to be poor; barely half required monitoring, and in less than a quarter of those was there evidence of monitoring, and few compliance inspection reports were submitted); P W Edgar, R A Griffiths and J P Foster, 'Evaluation of Translocation as a Tool for Mitigating Development Threats to Great Crested Newts (*Triturus Cristatus*) in England, 1990-2001' (2005) 122 *Biological Conservation* 45.

⁴⁶ Especially as banking has shifted from an essentially not-for-profit to for-profit enterprise, see Murphy and others (n 27) 317.

⁴⁷ Although compensation and banking can be conceptualised as 'privatisation', this is misleading. J Salzman and JB Ruhl, "'No Net Loss': Instrument Choice in Wetlands Protection" in J Freeman and C Kolstad (eds) *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience* (OUP 2006) 337 in which the authors note that 'there is no invisible hand at work here. It falls on this agency, which is not a market participant, to ensure the quality of the restored wetlands because neither the buyer nor seller have incentive to do so'. See also AM Dodd, 'EU Habitats Directive and Habitat Compensation', unpublished thesis, Oxford Brookes University, 2007.

⁴⁸ R Cuperus and others, 'Preparation and Implementation of Seven Ecological Compensation Plans for Dutch Highways' (2002) 29 *Environmental Management* 736, 746; R Lawton, 'Ecological Compensation Within the UK Planning System: The Effect of Article 6(4) of the Habitats Directive on Three South Coast Port Developments' (2007) 18 *J Water Law* 47.

Whilst ecological compensation obligations should be cast in cost-oblivious terms, in practice economic considerations may intrude. There are two main ways in which this occurs. Compensation issues may not be adequately distinguished from the prior question of the justifications for the development. Equally, compensation measures may be considered disproportionate on economic grounds. In both cases, economic factors are brought in to the compensation issue. Neither of these seems to respect ecological impact neutrality.

Generally, compensation issues are engaged after proper consideration of impacts and the search for less damaging alternatives, a sequential approach which is widely followed in ecological compensation regimes.⁴⁹ This approach is premised on the economic or other rationale for the ecological loss having already been determined. However, Cuperus and others, for example, note that in Dutch highway development, where an ecological compensation policy principle has applied since 1993,⁵⁰ there is an ‘undesirable entanglement of the fundamental debate on the development itself with discussion of any compensation measures associated with each of the alternatives’.⁵¹

The example of EU nature conservation law bears out how economic considerations have encroached on what ought to be regarded as purely ecological decisions. This is exemplified by failure to designate habitat under the Wild Birds Directive being justified by the Member States concerned on the basis that economic factors should be taken into account when designating. Affected parties have also sought to argue that economic considerations should be relevant when sites are designated under the Habitats Directive. The Court of Justice has rejected this line of argument for both Directives,⁵² but such litigation indicates the pressures on decision makers to promote economic objectives at the expense of compensating ecological losses.

⁴⁹ R Gardner, ‘Rehabilitating Nature: A Comparative Review of Legal Mechanisms that Encourage Wetland Restoration Efforts’ (2003) 52 *Cath U L Rev* 573, 613-4. Exceptions include environmental assessment under the US National Environmental Policy Act 1969 (‘NEPA’), see D Mandelker, *NEPA Law and Litigation* (Thomson/West updated), § 8.57; T Schoenbaum and R Stewart, ‘The Role of Mitigation and Conservation Measures in Achieving Compliance with Environmental Regulatory Statutes: Lessons from Section 316 of the Clean Water Act’ (2000) 8 *NYU Env'tl LJ* 237, 277.

⁵⁰ Under the National Structure Plan for Rural Areas.

⁵¹ R Cuperus and others, ‘Ecological Compensation in Dutch Highway Planning’ (2001) 27 *Environmental Management* 75, 84 (citing earlier work).

⁵² Case C-355/90 *Commission v Spain* [1993] ECR I-4221 (‘Marismas de Santoña’); Case C-44/95 *R v Secretary of State for the Environment, ex parte Royal Society for the Protection of Birds* [1997] QB 206 (‘Lappel Bank’) (both Wild Birds Directive); Case C-371/98 *R v Secretary of State for the Environment, Transport and the Regions, ex parte First Corporate Shipping Ltd* [2001] ECR I-9235; Case C-226/08 *Stadt Papenburg v Bundesrepublik Deutschland* [2010] Env LR 19 (Habitats Directive).

A separate issue is just how cost-oblivious compensation decisions should be. Environmental regulation tends to recoil from the notion that legal obligations should be completely cost-blind, for example because of the perceived disproportionality of the costs of eliminating all risks (the ‘last 10 percent’ issue).⁵³ Some ecological restoration obligations are consciously cast, or interpreted, in terms of what is reasonable, for example in terms of costs and benefits.⁵⁴ Similar points might be made about optimality of enforcement.⁵⁵

4. The Habitats Directive Compensation Obligation

I turn now to the Habitats Directive, the central legal provision at EU level for the conservation of biodiversity. The Directive applies both to listed natural habitat types, and to listed species. It provides for the creation and maintenance of a network of sites – Natura 2000 sites – across separate biogeographical regions of the EU, as well as specific provisions about interference with species. Potentially harmful plans or projects must be assessed, under Article 6(3), for their impacts on site integrity. If negative effects are envisaged, then development harmful to a Natura 2000 site may be allowed if there are no alternatives, if there are imperative reasons of overriding public interest (which may include economic and social reasons), and if compensatory measures are taken (and communicated to the Commission) which ensure the overall coherence of the Natura 2000 network. If the site hosts a priority habitat or species, stricter tests apply: development may only be authorised on economic or social grounds following an opinion in the affirmative from the European Commission.

In particular, the Directive seeks to strike a balance between the common interest of the EU in conserving natural heritage, and the responsibilities of the Member States in achieving this. A good illustration is in the way that special areas of conservation – which, alongside areas designated under the EU Wild Birds Directive, make up Natura 2000 - are designated. Although the process is essentially a scientific, technocratic one, there is regulatory room built into it so that there is an element of

⁵³ S Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* (Harvard UP 1993) 11. See generally T McGarity ‘The Goals of Environmental Legislation’ (2004) 31 BC Envtl Aff L Rev 529.

⁵⁴ Eg, art 1(6), 1992 International Convention on Civil Liability for Oil Pollution Damage, which states that ‘compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken’.

⁵⁵ A Heyes, ‘Cutting Environmental Penalties to Protect the Environment’ (1996) 60 J Public Economics 251.

burden sharing between the Member States, so that those which are comparatively rich in biodiversity are not disproportionately burdened.⁵⁶

The extent to which the Habitats Directive marks a step away from a ‘best efforts’ instrument can be seen in a judgment of the Court of Justice of the EU on the interpretation of Article 6(3) of the Directive:

As regards, in particular, installations not subject to authorisation under the BImSchG [Bundes-Immissionsschutzgesetz], the fact that that text requires verification, that serious environmental damage which may be prevented by current technology is in fact prevented, and that damage which cannot be prevented by current technology is reduced to the minimum, cannot be sufficient to ensure compliance with the duty laid down in Article 6(3) of the Directive. The duty of verification laid down by the BImSchG is not, in any event, capable of ensuring that a project relating to such an installation does not adversely affect the integrity of the protected site. In particular, the duty to verify whether serious environmental damage, which cannot be prevented by current technology, is reduced to the minimum, does not ensure that such a project will not give rise to such damage.⁵⁷

The central compensation obligation is Article 6(4) of the Habitats Directive. This applies to the whole Natura 2000 network⁵⁸ and provides that:

If, in spite of a negative assessment of the implications for the site⁵⁹ and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or

Comment [CJH1]: Does this have to be indented? Better without?

DM – I agree

⁵⁶ ‘Whereas it is recognized that the adoption of measures intended to promote the conservation of priority natural habitats and priority species of Community interest is a common responsibility of all Member States; whereas this may, however, impose an excessive financial burden on certain Member States given, on the one hand, the uneven distribution of such habitats and species throughout the Community and, on the other hand, the fact that the ‘polluter pays’ principle can have only limited application in the special case of nature conservation, Habitats Directive, preamble, recital 11; ‘Each Member State shall contribute to the creation of Natura 2000 in proportion to the representation within its territory of the natural habitat types and the habitats of species’, Habitats Directive (n 1) art 3(2).

⁵⁷ Case C-98/03 *Commission v Germany* [2006] ECR I-00053 [43].

⁵⁸ That is, special protection areas designated under Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds [2009] OJ L20/7 (the EU Wild Birds Directive) and Special Areas of Conservation under the Habitats Directive. Sites that ought to have been designated as SPAs remain subject to the less flexible provisions of art 4(4) of the Wild Birds Directive, see Case C-374/98, *Commission v France* (‘Basses Corbières’) [2000] ECR I-10799. For sites which ought to be included as SACs, or which are pending formal inclusion in Natura 2000, see Case 244/05 *Bund Naturschutz in Bayern eV and others v Freistaat Bayern* [2006] ECR I-08445 (‘Member States cannot therefore authorise interventions which may pose the risk of seriously compromising the ecological characteristics of a site’, [46]). In practice, an art 6(3) and (4) approach seems to suffice and has been used (Karlsruhe / Baden-Baden opinion).

⁵⁹ Following an ‘appropriate assessment’ under art 6(3) of the Directive.

public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.⁶⁰

This provision was included in the Habitats Directive as a direct legislative response to the decision of the European Court of Justice in the *Leybucht* case involving damage to a special protection area (SPA) by dyke works and the strengthening of coastal defences.⁶¹ *Leybucht* concerned the first sentence of Article 4(4) of the 1979 Wild Birds Directive, obliging Member States to ‘take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article’.

The Court held that ‘the power of the Member States to reduce the extent of a special protection area can be justified only on exceptional grounds [which] must correspond to a general interest which is superior to the general interest represented by the ecological objective of the directive’.⁶² The Court accepted that the danger of flooding and the protection of the coast were sufficiently serious reasons justifying the works.⁶³ On the other hand, works which had a purely economic basis – in enabling fishing vessels access to harbour – did not justify a derogation from Article 4(4). However, these works were allowable because they resulted in a reduction in pressure on the SPA and because they exposed an extensive area of it to tidal movements and allowed the formation of ecologically valuable salt meadows. Hence, the fishing interest could be taken into account ‘because there were ... offsetting ecological benefits, and solely for that reason’.⁶⁴

The *Leybucht* case triggered, at a relatively late stage in the adoption of the Habitats Directive, the step-wise approach to justified damage to Natura 2000 sites found in Article 6.⁶⁵ And while the Habitats Directive amended Article 4(4) of the Birds Directive to provide, across both regimes, that economic and social factors could,

⁶⁰ Notably, art 2(1a) of the EU Environmental Liability Directive excludes damage ‘expressly authorised by the relevant authorities in accordance with provisions implementing Article 6(3) and (4)’ of the Habitats Directive.

⁶¹ Case C-57/89 *Commission v Germany* [1991] ECR I-883.

⁶² *ibid* [21]-[22].

⁶³ *ibid* [23].

⁶⁴ *Ibid* [25]-[26].

⁶⁵ D Freestone and H Somsen ‘The Enforcement of the Wild Birds Directive: A Case Study’ in H Somsen (ed) *Protecting the European Environment: Enforcing EC Environmental Law* (Blackstone Press 1997) 229.

unless priority habitats or species were concerned,⁶⁶ override conservation interests in Natura 2000 sites,⁶⁷ the compensation duty remained.

4.1 Opinions: Status and Function

Opinions are prepared by the Environment Directorate-General Environment of the Commission, which has responsibility for EU conservation legislation, but approved by the whole College of Commissioners. Opinions are not directly legally binding, in the sense that their content must be followed.⁶⁸ Procedurally, however, failure to seek an opinion where required seems to be unlawful. In a recent decision, the Spanish Supreme Court held that the failure of the Spanish authorities to seek the opinion of the Commission in relation to motorway construction works affecting a priority site was a ground in its own right to declare the authorisation null.⁶⁹ Even if this interpretation were not to be followed by the Court of Justice of the EU, it must still be the case that failure to obtain a positive opinion from the Commission may make it difficult for a Member State to show that permitting the damaging work will not adversely affect site integrity.⁷⁰ It is perhaps notable that the Commission's own labelling of opinions as merely 'exchanges or advice and information' is no longer followed.⁷¹

On the function of opinions, Commission Guidance states:

⁶⁶ There is some uncertainty about this, which has not been ruled upon by the Court of Justice of the EU.

⁶⁷ In practice, economic justifications lie behind all the positive opinions issued by the Commission, see further section 5.

⁶⁸ Article 288 TFEU. 'From its nature, the opinion is not an act having binding legal effects. The national authorities can move away from it and decide to implement the plan or project, even if the opinion is adverse. In the latter case however, one can reasonably expect that the decision will address the Commission's arguments and explain why its opinion has not been followed. In any case the Commission can assess whether the implementation of the plan or project is in conformity with the requirements of Community law and, if necessary, initiate appropriate legal action' (European Commission, *Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC* (2001), para 5.5.3; replicated in European Commission, *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC, Clarification of the Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission* (2007) 1.8.3, both available at http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm#art6> accessed 20 July 2011.

⁶⁹ Appeal No. 1511/2008, Spanish Supreme Court, 14 Feb 2011. 'Madrid motorway is illegal, says Spanish court', ENDS Europe, 21 February 2011, <http://www.endseurope.com/25641/madrid-motorway-is-illegal-says-spanish-court?referrer=search>> accessed 26 July 2011; see also 'EEB Member Organisation Leads an Environmental Rights Victory in Spain' <http://www.eeb.org/publication/2008/Meta-49_05.pdf> accessed 18 February 2012.

⁷⁰ Nollkaemper (n 3) 283. See also de Sadeleer (n 4) 250.

⁷¹ Opinions in TGV East, Rotterdam and Bothnia (all 2003).

The opinion has to cover the assessment of the ecological values which are likely to be affected by the plan or project, the relevance of the invoked imperative reasons and the balance of these two opposed interests, as well as an evaluation of the compensation measures. That assessment involves both a scientific and economic appraisal as well as an examination of the necessity and proportionality of the realisation of the plan or project with regard to the invoked imperative reason.⁷²

Despite Article 6(4) referring to opinions determining whether other imperative reasons of overriding public interest justify the development, then, the role of the Commission's opinion extends to evaluating the compensation measures. For Nollkaemper, 'the Commission is mandated and arguably obliged to review the adequacy of compensation' and failure to do so would in principle justify infringement proceedings against the Member State⁷³ under what is now Article 258 TFEU.⁷⁴ That said, as Krämer notes 'this has never happened in environmental matters (or indeed elsewhere)'.⁷⁵ There cannot be direct third party oversight of the substance of the Article 6(4) opinions.⁷⁶

Opinions are subject to 'conditions' addressed to the Member State. It is unclear what this means. These are not conditions as might be attached to a legal authorisation, where breach is unlawful in itself. At most any breach of a condition would be an evidential issue addressing whether there is a breach of the compensation and coherence duties of the Directive, justifying infringement proceedings being taken by the Commission against the Member State. Nonetheless, I can only find one example of this occurring, seemingly with little enthusiasm.⁷⁷ In any event there seems to be little effective monitoring by the Commission.

For Krämer, opinions have been used to green light development projects on the basis of standards and reasoning, especially about what is an appropriate consideration of alternatives and what counts as an imperative reason of overriding public interest, which would not withstand scrutiny were the Court of Justice to rule on them.⁷⁸ This

⁷² European Commission, *Managing Natura 2000 Sites* (n 68), para 5.5.3.

⁷³ The obligation is addressed to the Member State, rather than the developer directly. In most cases, in practice the obligation to provide compensation falls on the developer and development consent ought to be refused if the developer cannot demonstrate that, through its efforts, the compensation obligation is being met. Indeed, under French law compensating measures are expressly 'for the account of the party that will benefit from the works or management or structural activities', (Backes and others (n 12) 77).

⁷⁴ Nollkaemper (n 3) 283.

⁷⁵ Krämer (n 4) 61.

⁷⁶ 'As opinions are not binding, they cannot, under [art 263(4) TFEU], be challenged in Court, by, for example an environmental organisation or an individual.' Krämer (n 4) 61.

⁷⁷ Mühlenberger Loch opinion (2000).

⁷⁸ Krämer (n 4), 84 ('In my opinion, not one of the positive Commission Opinions would, with the reasoning made, successfully survive scrutiny by the Court of Justice').

is due in part to a deferential approach towards assessing the adequacy of compensation. The Commission's 2007 Guidance states that information should merely 'enable the Commission to appreciate the manner in which the conservation objectives of the site in question are pursued in a particular case'. (As it was put in my discussion with Commission officials, it is the 'logic of the argumentation' that matters.) Moreover, the extent of Commission deference is further illustrated by the understandable stance taken in its Guidance that 'it is not the Commission's role either to suggest compensatory measures, or to validate them scientifically'.⁷⁹

4.2 *The Nature of the Compensation Obligation*

Whilst a strict construction the meaning of 'compensation' is to be deduced from the Directive itself, the Directive does not directly flesh out what it means.⁸⁰ Nonetheless the primary obligation under the Directive is to ensure that listed habitats and species are maintained or restored at a 'favourable conservation status'.⁸¹ Natura 2000 sites are to form a 'coherent' European ecological network. This bypasses the contested issue of whether compensation provides results which are 'natural' or authentic,⁸² though the concepts of 'coherence' and 'conservation status' inevitably lack clarity, and are prone to significant information deficits. Moreover, the duty emphasises the species or habitat type generally, rather than individual specimens or particular areas of habitat type. So the Article 6 compensation duty is a particular kind of 'impact neutral' measure because it is the impact to the network that must be compensated.

Of central importance to the present analysis, guidance first issued by the Commission in 2001⁸³ and then revised and enlarged in 2007,⁸⁴ has sought to interpret what compensation entails. The Guidance is expressed to be non-binding, and is probably not exhaustive of potential ways of complying with the compensation duty. As a matter of law, however, Advocate-General Bot has noted that it serves to restrict discretion,⁸⁵ and acting 'outside Guidance' may, as a mixed matter of law and practice, be regarded as risky.⁸⁶

⁷⁹ Commission, *Guidance Document on Article 6(4)* (n 68) 1.7.

⁸⁰ Contrast the Environmental Liability Directive (n 17), which to some extent indicates how this is to be approached in terms of resources and services.

⁸¹ Habitats Directive (n 1) art 2.

⁸² K Rundcrantz and E Skaerbaek, 'Environmental Compensation in Planning: A Review of Five Different Countries With Major Emphasis on the German System' (2003) 13 *European Environment* 204, 222. See generally R Elliot, *Faking Nature: The Ethics of Environmental Restoration* (Routledge 1997).

⁸³ Commission, *Managing Natura 2000 Sites* (n 68).

⁸⁴ Commission, *Guidance Document on Article 6(4)* (n 68).

⁸⁵ Case C-362/06P *Sahlstedt v Commission*, 23 October 2008, [96]–[97] ('the Community institutions establish ever narrower limits on the discretion enjoyed by the competent national authorities. Thus, the

The Guidance has always provided that compensation should be genuinely additional to protection and management measures that would in any case have been required;⁸⁷ that proposing compensation at the beginning of a project process should not remove the need for proper consideration of impact and alternatives;⁸⁸ and that compensation measures are a ‘last resort’. The Guidance has been amended slightly to remove the criteria of ‘exceptional’ when referring to when it might be appropriate to compensate by adding an existing site to the Natura 2000 network, which may give more discretion to Member States in cases where site-specific compensation is difficult.⁸⁹

The Guidance has been significantly enlarged upon by indicating the range of measures that might be deemed compensatory (both bio-physical alterations, and legal changes such as acquiring land rights);⁹⁰ the matters that ought to be included in any programme of compensatory measures (covering such things as close liaison between the authorities and the proponent, clear objectives according to the conservation objectives of the site, analysis of the measures’ feasibility, implementation schedule, public consultation, monitoring and financing);⁹¹ criteria for designing the compensatory measures, which must be ecological, precautionary, and ‘clearly refer to the structural and functional aspects of the site integrity, and the related types of habitat and species populations that are affected’;⁹² the timing of compensation (compensation should be in place when the site is irreversibly affected, but time lags may be acceptable where there is no other way to create the compensation (for example as regards forests) and where there is overcompensation for interim losses);⁹³ and a sequential approach to selecting the location of the compensation, starting within the Natura 2000 site affected and working outwards.⁹⁴ The 2007 Guidance falls short of saying that some kinds of harm might not be compensatable, although it does say that:

Commission has produced a guide to the interpretation of Article 6 of the Directive’). Generally on how guidance shapes law, see S Bell and D McGillivray, *Environmental Law* (7th edn OUP 2008), 9.

⁸⁶ HM Government, *Severn Tidal Power, Potential for Compensatory Measures* (2010) 9, available at <<http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renovable%20energy/severn-tp/657-stp-potential-compensatory-measures.pdf>> accessed 16 December 2011. This document notes that ‘developing measures outside Commission guidance would be unprecedented. It would involve novel environmental and delivery risks’.

⁸⁷ Eg, under art 6(2) Habitats Directive.

⁸⁸ And see also A-G Kokott in Case C-239/04 *Commission v Portugal* (‘Castro Verde’) [35].

⁸⁹ Commission, *Managing Natura 2000 Sites* (n 68) para 5.4.2; Commission, *Guidance Document on Article 6(4)* (n 68) para 1.4.3.

⁹⁰ Commission, *Guidance Document on Article 6(4)* (n 68) para 1.4.3.

⁹¹ *ibid* para 1.4.4.

⁹² *ibid* para 1.5.1.

⁹³ *ibid* para 1.5.6.

⁹⁴ *ibid* para 1.5.5.

Member States should pay particular attention when the negative effects of a plan or project are produced in rare natural habitats types or in natural habitats that need a long period of time to provide the same ecological functionality. Under these circumstances, the zero option should be seriously considered.⁹⁵

In particular, with respect to ‘overall coherence’, the Guidance now provides more detail about comparable functionality: for Habitats Directive sites, ‘the role played by the site concerned in relation to the biogeographical distribution has to be replaced adequately’ and compensation should provide ‘the properties and functions comparable to those which had justified the selection of the original site’. For SPAs under the Wild Birds Directive, where there is no biogeographical approach and sites are selected nationally, ‘compensation should fulfil the same purpose that motivated the site’s designation’.⁹⁶ Functionality rather than, for example, equivalent acreage is central. Aspects of woodland biodiversity, for instance, clearly might not be compensated for by new forestry plantation: as the latest State of the Environment report notes, across Europe the area of forest is increasing, but woodland biodiversity is decreasing.⁹⁷ This reflects the fact, amongst other things, that old and dead wood is an asset in biodiversity terms. Nevertheless, it is worth noting that the Guidance refers to ‘comparable’ functionality, which suggests that there need not be an exact replication of functions.

There is also a stress on the effectiveness of the compensation, in terms of its feasibility and operationalisation. Compensatory measures must be ‘feasible and operational in reinstating the ecological conditions to ensure the overall coherence of the Natura 2000 network’.⁹⁸ ‘[T]he most effective option ... must be chosen’, and the Guidance does not indicate that cost is a factor in reaching this decision.⁹⁹ In relation to technical feasibility, however, the Guidance begins by noting that:

According to current knowledge, it is highly unlikely that the ecological structure and function as well as the related habitats and species populations can be reinstated up to the status they had before the damage by a plan or project.¹⁰⁰

There is a certain ambiguity about this aspect of the Guidance. For example, this part goes on to suggest a general need for ratios ‘well above 1:1’ as one means of overcoming the limits of site-specific compensation, and also the need for

⁹⁵ *ibid* para 1.4.3.

⁹⁶ *ibid* para 1.4.2.

⁹⁷ European Environment Agency, *The European Environment, State and Outlook 2010: Synthesis* (2010) 53-57.

⁹⁸ Commission, *Guidance Document on Article 6(4)* (n 68) para 1.5.2.

⁹⁹ *ibid*.

¹⁰⁰ *ibid* para 1.5.3.

overcompensation to address interim losses when the compensation will take time to establish. However, the Guidance is ambiguous as to whether this kind of quantitative ‘overcompensation’ goes to addressing the general issue about the likelihood that ecological structure and function cannot be reinstated. Moreover, this aspect of the Guidance, taken as whole, might be taken as suggesting that the compensation duty is, to a degree at least, a ‘best efforts’ obligation, although not a kind of ‘best practicable’ efforts obligation which takes cost factors into account.

5. The Opinions

The 15 opinions publicly issued by the Commission under Article 6(4) of the Habitats Directive as at 31 July 2011 span the period from 1996 to 2011. This period can be divided at 2001, when Commission Guidance was first published, and again at January 2007 when the expanded Guidance was published. Table 1 summarises these periods, the developments concerned and the compensation issues involved.

[Table 1 about here]

Three opinions (all addressed to Germany, two relating to motorway works - on the A20 at Peene Valley and at Trebel and Recknitz valley - in 1995, and to a large aircraft factory at Mühlenberger Loch, Hamburg in 2000) were issued before the 2001 Guidance.

Opinions issued during the second period between 2001 and 2007 concerned the Bothnia railway (Sweden 2003); colliery extension at Haniel (Germany 2003); industrial and commercial development at Trupbach, North Rhine-Westfalia (Germany 2003);¹⁰¹ port expansion at Rotterdam (Netherlands 2003); high speed rail development, TGV East (France 2004); construction of La Breña II dam (Spain 2004); the expansion of Karlsruhe / Baden-Baden airport (Germany 2005); and port construction at Granadilla, Tenerife (Spain 2006).

Since the 2007 Guidance was published, a third period has seen opinions on extension of the Lübeck-Blankensee airport (Germany 2009); A20 motorway construction in Schleswig-Holstein (Germany 2010); A49 motorway extension, Hesse (Germany 2010); and economic development and associated infrastructure at Győr (Hungary 2011).

¹⁰¹ With respect to Trupbach the proposal was rejected due to alternatives, and no compensation measures were ever proposed.

A striking feature of these opinions is that only one (Trupbach) has been negative, and in that opinion no compensation measures had been proposed. The Commission, then, has never issued a negative opinion on the grounds that the compensation measures were deficient. It is also worth noting that the more recent opinions appear to have been finalised somewhat more swiftly than previously, though it is beyond the scope of this paper to speculate why.

In terms of the functional effectiveness of compensation measures, an overall evaluation is impossible. Many of the developments are comparatively recent and a full evaluation would require both time and proper ecological assessment. Nevertheless, an evaluation can still be made about whether the process appears to stand up to scrutiny when set against the four propositions outlined in section 3 and whether the compensation issue is treated any differently now compared with the first and second phases – in other words about the effect of Guidance on practice. Has scrutiny moved on since the 1995 opinions which, according to Nollkaemper, ‘did not enter into a substantive examination of the adequacy of compensation’?¹⁰²

Functionality

In terms of functionality, when compensation measures have been proposed these do not appear to be wholly inadequate, though in some cases this may be because the terms of the compensation requirement are very general or conditional. The Commission’s opinions do not display any of the obvious limitations shown by some of the compensation measures notified by Member States to the Commission under Article 6(4) first paragraph.¹⁰³

It is remarkable however that three positive opinions have been given even though the compensation measures had not been finalised. This was the case in Bothnia, where the ‘view’ of the Commission was said to be ‘conditional’ on ‘a comprehensive and realistic compensation package’ being ‘submitted for the Commission’s evaluation and approval before the execution of the project’.¹⁰⁴ It was also the case in Trebel and Recknitz, where the Opinion spoke of ‘possible compensatory areas’. In the third,

¹⁰² Nollkaemper (n 3) 283.

¹⁰³ ‘Commonly, the compensatory measures proposed are not related to the impacts caused by the project and do not offset for its effects, for instance, building interpretation centres for the site’, DG Environment (n 13) p 4.

¹⁰⁴ The compensation package was agreed shortly after the Opinion and by time of formal approval by Government in June 2003.

Mühlenberger Loch,¹⁰⁵ there has been ex post evaluation. This – from 2008 - reached the uncomfortable finding that ‘[r]emediation measures were started in 2001, but have not yet been completed. It is actually not clear if remediation measures will ever be completed, and if they are, which form they will take and which results they will have’.¹⁰⁶ In cases such as these, even accepting, as the Guidance states, that the science is not to be ‘validated’, it is impossible to see how there can be the ‘evaluation’ of the compensation that the Guidance indicates at the time of the opinion.

The opinions are somewhat remarkable for their variation when it comes to the issue of whether overall coherence of the Natura 2000 network will be protected. Some opinions state categorically that there will be no lack of protection of coherence.¹⁰⁷ But some opinions (for example Győr) do not state this expressly. In La Brena II, the Opinion states that ‘long term overall coherence will not be significantly affected’; this seems to fall short of finding that coherence will be protected. There is also one opinion – Haniel – which suggests that the creation of new conservation interests which do not compensate for what is lost might still be seen as being relevant because of the contribution to the coherence of Natura 2000.¹⁰⁸ If categorical assurances are given in some opinions, it is understandable that negative inferences may be drawn when they are not.

A number of the opinions relate to habitat, such as forests, where full ecological compensation will take some time. As noted, the Guidance recognises this by allowing for interim losses of functionality as an exception to the norm of replacement habitat being available when the development site is destroyed. In Haniel, there is an express offsetting of long-term temporal losses (of residual alluvial forests) with quantity of new planting and of different gains.

For the replacement of alluvial forests (15 ha or 2.5 km of riverside), the very long time periods that will be necessary to re-establish habitats with a nature value equivalent to that which will be destroyed will be compensated by the creation of equivalent habitats by afforestation and improvement of existing forests on a total area that will be 2.5 to 3 times larger than the areas that will be affected or destroyed. When compared to the 95 hectares of land with high nature

¹⁰⁵ Some of the difficulties are mentioned in C Lasen-Diaz, ‘The EC Habitats Directive Approaches its Tenth Anniversary: An Overview’ (2001) 10 RECIEL 287.

¹⁰⁶ Ecologic (n 6).

¹⁰⁷ ‘The measures will completely protect the coherence of the Natura 2000 network with immediate effect’ (Hesse).

¹⁰⁸ ‘In the long term, some of the affected or destroyed habitats will evolve towards new habitats with high nature value, such as bog woodland, oligotrophic to mesotrophic standing waters and hydrophilous tall herb fringe communities. These new habitats will also contribute to the coherence of Natura 2000’.

conservation value (including approx. 16 ha of priority habitats), which will be destroyed or affected by the project, the planned compensation measures can be considered as an acceptable compensation for the habitats that will be lost, *at least from a quantitative point of view* (emphasis added).

Elsewhere, ratios of new to lost habitat of >1 have not always been justified because of interim losses.¹⁰⁹ In Schleswig-Holstein, the damages caused to the priority habitat types concerned are said to be compensated overall by a 3:1 ratio. According to the German authorities these measures will have taken place before the damages occur. (Given the nature of the habitat types involved, this seems optimistic to say the least. Indeed, most of the habitat types for which opinions have been issued involve habitats which require very long restoration periods.¹¹⁰) In Karlsruhe / Baden-Baden, the possible inability to compensate for the one priority habitat affected seems to have induced generous ratios for some of the non-priority habitats affected. This suggests a degree of virement between compensatable and non-compensatable impacts, and priority and non-priority habitats. This does not follow the Guidance, and seems a dubious interpretation of the Directive.

There is a striking and general lack of transparency about why ratios >1 are being offered: is this because of interim losses? For reasons of margin of safety precaution?¹¹¹ Or as bargaining? There is some overlap here with the issue of proponent bias discussed below.

One consequence of focusing on the coherence of Natura 2000 is that while the Commission conceives of overall coherence in relation to the relevant biogeographic region, as it must under the Directive, it pays regard to local interests only insofar as local compensatory habitat is preferable ecologically in terms of species migration / likely success and so on. Direct human interests, such as recreational interests, are irrelevant. A similar point might be made about the exclusion of ecosystem service values:¹¹² the focus is on the contribution of the habitat to the network, and not upon ecosystems more widely.

¹⁰⁹ See also Mühlenberger Loch, 'The area foreseen for the compensation is significantly larger than the area exposed to the significant impact'.

¹¹⁰ For an overview of the periods involved for different habitat types see eftec, IEEP and others (n 23) 80.

¹¹¹ R B Stewart, 'Environmental Regulatory Decision Making Under Uncertainty' (2002) 20 *Research in Law and Economics* 71, 76 (in which the author distinguishes the margin of safety precaution from other regulatory aspects of precaution).

¹¹² Contrast the Environmental Liability Directive (n 17), which extends to the restoration of ecological services. See generally E Barbier and G Heal, 'Valuing Ecosystem Services' (2006) 3 *Economists' Voice* 2; G Heal and others, *Valuing Ecosystem Services: Toward Better Environmental Decision Making* (The National Academies Press 2005); J Salzman, B H Thompson Jnr and G Daily, 'Protecting

Proponent Bias

The process of seeking an opinion is inherently proponent biased. Regardless of whether the development is public or private, it is the Member State which must seek the opinion and which inevitably will be seeking to justify the development in both economic and ecological terms to gain a positive opinion. The process is a paper exercise,¹¹³ and the Commission does not adjudicate on factual disputes, for example about acreage affected by development. This deference is likely to favour the proponent. There also appears to have been outright political pressure in some cases.¹¹⁴

There are no formal avenues for third party involvement, though environmental and conservation bodies such as NGOs have often made representations during the period the opinion is under consideration. But there is very limited and haphazard information about this. Two of the opinions have recorded in bare outline exchanges between the Commission and the Member State, and also other stakeholders (Rotterdam; TGV East¹¹⁵). Interestingly, there is no record of this in the Phase 3 opinions. This might be because these later opinions have generally been decided more swiftly. But it is impossible to know, from the opinions, whether there has been any greater or lesser interaction with the Member State or with others. What is notable, however, is that no opinion ever records an opponent of the development being asked for further information, whereas asking Member States for further information is recorded in a number of opinions. Only one opinion (Lübeck) mentions the role of wider stakeholders.¹¹⁶

Ecosystem Services: Science, Economics and Law' (2001) 20 Stanford Environmental Law Journal 309.

¹¹³ The Commission has undertaken one site visit (Peene Valley), and has said that it would not rule further visits out, but its practice is not to do so.

¹¹⁴ In relation to Peene Valley, Trebel and Recknitz, Mühlenberger Loch, Rotterdam, Bothnia and the Granadilla Port 'political interventions were made at the highest national political level, in order to obtain the green light from the Commission on the project in question' (Krämer (n 4) 82).

¹¹⁵ In the Bothnia opinion, the following statement is deleted in track changes: 'A detailed account of the exchanges with the Swedish administration and other stakeholders is given in annex 1.'

¹¹⁶ 'Additionally, a mediation between stakeholder groups and the private airport investor in the framework of the planning procedure resulted in the creation of the "Grönauer Heide" foundation, to ensure the sustainable management of the site and to facilitate compensation measures and awareness raising programmes beyond the borders of the site. The foundation is donated with 2.5 mio. EUR [sic] from the airport and is managed by a consortium of nature NGOs and institutions ... In reaching this opinion, the Commission has taken particular account of the detailed assessment of ecological impacts when drawing up the planning documents, and the participation of the relevant stakeholders, which has been made in that process. The Commission also takes note of the creation of a foundation, which is accepted by the main participatory groups in the area, and which will ensure the sustainable management of Natura 2000 in that area' (Lübeck opinion, 4, 5).

A further aspect of potential bias is the extent to which opinions take a precautionary approach. In discussion with officials, the Commission professed to base its opinion on the worst case and there is some evidence to support this (Rotterdam). But this is not always borne out. For example, in Karlsruhe / Baden Baden the worst case was that an experimental scheme in relation to provision of compensatory habitat for a type of *Nardus* grassland would not be successful and would result in a small loss of habitat. Nevertheless, there was considered to be no reasonably practical alternative. Sometimes, then, ‘best-efforts’ precaution takes precedence over ‘margin of safety’ precaution.¹¹⁷

Finally, and linking forward to the next sub-section, in the context of the Commission not publishing monitoring reports required of Member States, it has been argued that ‘the suspicion exists that Member States’ information on compensatory measures may often be rather exaggerated in order to obtain a positive Opinion from the Commission’.¹¹⁸ At least one opinion (Mühlenberger Loch) strongly supports this.¹¹⁹

Monitoring and Enforceability

The Commission does not itself monitor the compensation measures but virtually all of the opinions require some degree of monitoring by the member state. However, annual (eg Mühlenberger Loch, Haniel, La Brena II, Tenerife) or periodic (Rotterdam) monitoring reports, when required, appear not always to have been submitted. The practice has been said, by the Commission in discussion, to be that if the Member State permit contains strict monitoring and adaptive provisions then these will not be duplicated in the opinion. In one case (Lübeck), implementation and monitoring reports needed only be made available to the Commission upon request. This must present at the least practical problems with third party verification. There is no evidence that the later opinions require any more by way of monitoring than the earlier opinions did. Nor is it clear that there is any effective check on ensuring that stipulations made in opinions about, for example, securing compensatory habitat with adequate implementation measures and funding are properly given effect to at the national level.¹²⁰

¹¹⁷ Stewart (n 111).

¹¹⁸ Krämer (n 4) 83.

¹¹⁹ Ecologic (n 6) 11 (‘With hindsight, the prognosis of the success of the Hahnöfersand measure seems to have been incredibly optimistic: instead of providing living space for 1,000 Northern Shoveler, the numbers actually observed has been closer to 50’).

¹²⁰ Eg Bothnia - obligations that are to be secured with guaranteed funding become obligations (and funding arrangements) that seem to be little more than described.

Alongside monitoring obligations, a number of opinions also contain adaptive management provisions. A typical wording is that ‘The results of the accompanying monitoring programme regarding Natura 2000 sites will be taken into account in that it may, if need be, lead to appropriate rectification of the project design or to additional compensation and/or mitigation measures.’¹²¹ Again, in the absence of access to monitoring reports, it is generally impossible to know whether any adaptive response has been necessitated or has occurred. In the one case where it is known that compensatory measures have not succeeded (Mühlenberger Loch), it remains unclear whether adaptive measures will in fact be required.

In general, then, the Commission does not see opinions as licences and appears to have little enthusiasm for ongoing case management. However, in 2006 the Commission did open infringement proceedings against Germany because of concerns about overall coherence following the apparent failure of compensatory measures at Mühlenberger Loch, though these proceedings were closed in 2007.¹²² Whether the closing of these proceedings was appropriate might be questioned, however, since it appears to have been done because of planned rather than executed compensatory measures. Further infringement proceedings have not been ruled out, but the trigger that might in practice activate these remains unclear.¹²³

Finally in this context, it is notable that, in providing 6-yearly information about implementation,¹²⁴ the Commission poses, to the Member States, the question ‘What is the impact of projects in need of compensation measures on conservation status (general overview at national level indicating species or habitats affected by the projects, impact of the projects and of the compensations measures, separately if possible, area concerned and whether a follow up of the compensation measures was carried out)?’ It is striking that answering the question is optional.

Economic Influence

The view in the literature is that a generous interpretation is given to economic considerations in issuing positive opinions. De Sadeleer suggests that the Commission’s practice in relation to whether imperative reasons of overriding public interest (IROPI) ‘seems to be a priori favourable to requests from Member States’.¹²⁵

¹²¹ Győr; see also Karlsruhe / Baden-Baden (unclear why); La Brena; TGV; Rotterdam; Bothnia.

¹²² European Parliament Petition 1349/2007; Commission Reply 26 September 2008.

¹²³ European Parliament Written Question E-6647/2010 (20 August 2010) and Commission answer (28 September 2010).

¹²⁴ Under art 17 Habitats Directive.

¹²⁵ de Sadeleer (n 4) 249 note 169.

Krämer goes further, questioning whether a number of the favourable opinions even fit the criteria.¹²⁶

It appears that most of the time considering opinions is taken up with IROPI issues and liaison with other Directorates General of the Commission.¹²⁷ IROPI is most often found on grounds of furthering other Community policies such as those concerning energy, transport and ports. My own discussion with Commission officials was notable for the conversation being taken back to IROPI, even when the focus was more specifically on compensation. It is not at all clear that the element of the public interest represented by the protection of natural heritage is examined in the same depth as the (invariably) economic case and alternatives to the damaging activity.

Mühlenberger Loch is a good example of how economic factors may contaminate the ecological compensation issue. The opinion states that the development is justified by IROPI. However, compensatory measures could not be assessed by the date of the opinion; indeed they seemed some way off being finalised. Nevertheless, a positive opinion was given. This clearly shows a separation of what ought to be joined-up issues – the justification and the compensation – with a clear prioritisation of the economic rationale, which was accepted as proven, over the ecological safeguarding, which was not. Indeed, the German authorities in Mühlenberger Loch split the decision to authorise the development from the decisions regarding compensation. The result, by 2008, was that ‘whereas the expansion of the Airbus site was completed successfully and the first aircraft ... were rolling off the conveyor belt by July 2007, the remediation for the filling-in of 171 ha of tidal mudflats protected under German and European law is to date nowhere near completion’.¹²⁸

Economic factors also seem clearly to have been relevant when the Commission dropped infraction proceedings against Spain in relation to the M-501 motorway – in favour of assessing the project after it had been completed, which seems impermissible under the scheme of the Directive - notwithstanding that Spain had proceeded with the development without requesting an opinion.¹²⁹

Transparency

¹²⁶ Krämer (n 4) 81-83.

¹²⁷ In at least one case – TGV East – the need for the opinion initially arose within DG Transport.

¹²⁸ Ecologic (n 6) 9. Some progress is indicated in a Commission answer to a Parliamentary Question (n 122).

¹²⁹ It is worth noting that the action of the Commission did not prevent the authorisation being annulled before the Spanish Supreme Court, see n 68.

Underpinning all of the above issues are concerns about transparency of decision-making. Whether or not they show appropriate decision-making about compensation issues, the opinions vary little in terms of detail, regardless of the complexity of the compensation issue. Opinions - covering all aspects of the decision from alternatives and overriding public interest reasons to mitigation and compensation - range from 4 to 10 pages in length. The lack of detail is extraordinary. Decisions relating to minor, innocuous neighbourhood development can be longer and more detailed. The very lack of availability of opinions is also a key transparency concern.¹³⁰ There is no duty to publish opinions officially, nor any duty to publicise that an opinion has been sought (which might allow more ex ante participation and scrutiny).

This lack of transparency undermines what is otherwise a commendable feature of the legislation: Commission oversight. In its latest biodiversity strategy, the Commission commits itself by 2012 to 'improve the flow, accessibility and relevance of Natura 2000 data'.¹³¹ To be sure, opinions are not data, but to be effective and to command confidence, the whole process of requiring opinions relies on the communication of data both to and from the Commission. Litigation is more likely when political opportunity is restricted but legal opportunity is stronger.¹³² It is hardly surprising that, in the absence of information, a number of the cases discussed in this Article have remained controversial after the Commission has issued its opinion, leading to a range of legal challenges and scrutiny which have called the lack of transparency seriously into question.¹³³

6. Conclusion

¹³⁰ Krämer (n 4) 76-77.

¹³¹ COM (2011) 244 final 12.

¹³² C Hilson, 'New Social Movements: The Role of Legal Opportunity' (2002) 9 J Eur Public Policy 238. This is well illustrated in *Mühlenberger Loch* in particular.

¹³³ See eg Case T-168/02 *IFAW Internationaler Tierschutz-Fonds GmbH v Commission* [2004] ECR II-4135, appealed as Case C-64/05 *Sweden v Commission* [2007] ECR I-11389; Case T-362/08, *IFAW Internationaler Tierschutz-Fonds GmbH v Commission*, Court of Justice, 13 January 2011 (n/r) (regarding *Mühlenberger Loch*; no veto on disclosure of documents could be applied by the member state without reasons which conform to EU transparency rules); see also Tenerife (referral to European Ombudsman), 'The Ombudsman also noted that, as indicated by the Commission, in cases like the present, there is a strong public interest in transparency as regards the elements on the basis of which it makes its assessment. Even under the very terms of Article 6(4) of the Habitats Directive, the Commission had to give an opinion on whether, in view of the project's negative impact on priority species and/or a priority natural habitat type, there were "*imperative reasons of overriding public interest*" justifying its implementation. Hence, in this kind of case, there is, in any event, a public interest in disclosure weighing heavily in favour of transparency. ... the Commission appeared to have failed to balance this interest properly', <<http://www.ombudsman.europa.eu/en/cases/decision.faces/en/5515/html.bookmark>> last accessed 18 February 2012, [29].

Commission oversight is, in theory, an appropriate check on Member State action in the face of conserving areas of common European natural heritage. After many years of delay in establishing the Natura 2000 network, the European Commission has stated its intention to focus on the protection and management of sites.¹³⁴ Whether the Commission can be entrusted with this relies on many factors, not least the reach of its powers in an area of shared competence, its historically limited resourcing, and the way in which opinions are approved by the College of Commissioners as a whole. But it also relies on scrutiny of the Commission's own judgements about whether Natura 2000 sites may be sacrificed in the face of competing interests and the promise of offsetting.

Writing in 1997, Nollkaemper excused the Commission's 'soft glance' at compensation on the grounds of the uncertainties involved, the undeveloped state of restoration ecology, and its lack of experience.¹³⁵ It is a somewhat depressing conclusion to reach that, looking at the record, and despite the enlargement of the Guidance, little seems to have changed. The opinions cast doubt across each of the four criteria used here as tests. Moreover the opinions, and their follow up, fail spectacularly on transparency.

The Commission has suggested 'that Member States better design the compensatory measures when ... the opinion of the Commission is required'.¹³⁶ This is in contrast to the position where Member States merely have a duty to inform, where the Commission has noted a 'remarkable ... lack of understanding of the purpose of compensatory measures and the very common low quality of the measures proposed'.¹³⁷ This is not to conclude that Member State practice is always weak; there are examples of incredibly thorough compensation evaluations at national level.¹³⁸ But even if it is the case that Commission opinions drive better design, design is just one aspect of what is a more multi-faceted issue embracing, amongst other things, monitoring, enforceability and transparency. If the Commission cannot demonstrate, through its published opinions, that it is itself faithful, in letter and spirit, to all aspects of the compensation obligation, its leverage over the Member States in relation to the

¹³⁴ DG Environment (n 13) 2.

¹³⁵ Nollkaemper (n 3) 283.

¹³⁶ DG Environment (n 13) 4.

¹³⁷ *ibid* 5.

¹³⁸ See eg Sustainable Development Commission, *Equal Value: Can a Major Severn Tidal Power Scheme be Compatible with Enhancing the Natura 2000 Biodiversity Network? Recommendations to the Severn Tidal Power Project Board As Part of the Severn Tidal Power Feasibility Study* (February 2010); HM Government (n 86) (a thorough analysis and envisioning, engaging a wide range of stakeholders, of the difficult compensation issues raised by the possibility of a major tidal barrage).

wider range of cases where the compensation obligation applies, and across the Habitats Directive regime as a whole, is diminished.