

# THE SEVERN BARRAGE DIGEST

## ENGINEERING ENVIRONMENTAL COMPENSATION

The duty of any member state of the European Union to compensate for loss of, or damage to, certain places of crucial importance to a pan European network of protected sites, is the product of a greater environmental awareness that has evolved over the past few decades. There is now a general understanding that there must be genuine limits to development if we are not to risk losing irreplaceable environmental assets. Where this is unavoidable because of a true lack of alternatives and because the proposed development is so desperately needed as to be justified by imperative reasons of overriding public interest, then compensation in the form of a habitat equivalent to that which is lost must be provided. The scale of the proposed development in the Severn, viz. a ten mile long concrete barrier across Britain's second largest estuary and the consequent loss of approximately two thirds of the territory which makes it such a valuable site for wildlife would seem to make compliance an impossibility and is perhaps the biggest obstacle to the development of tidal power in the Severn.

This component of the protective legislation is key to any argument against the barrage. Its pivotal role in the project's future is acknowledged by both The Sustainable Development Commission, the Government's independent watchdog on sustainable development in the UK, and the Severn Tidal Power Group, representing the developers, in their "New Appraisal" of the scheme. Further it is picked up in David Hart QC's Advice and in the Environment Agency's Position Statement. *See below.*

In DH's Advice (paragraph 69 page 26) "*I agree with the nature conservation bodies that the government must take into account the special features of the Severn (its size, shape and extreme tidal conditions) when considering compensation, and more particularly, the quantum of that compensation.*" And in the next paragraph (70) "*I find it difficult to see how estuaries with significantly different ecological characteristics can form any necessary part of a compensation package.*"

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As any compensation has to include an area of greater size than the original this fact alone should give the government cause for concern.

In the SDC report (Turning the Tide, Tidal Power in the UK) it is noted that the package of remedial measures required to compensate for the loss of inter-tidal habitat on this scale is unprecedented any where in the UK. The size of such a compensation project would mean that the substantial up-front capital costs it incurred would raise the cost of the electricity output and that this would need to be taken into consideration. *“It is clear that the compensation requirement would be the biggest test that any barrage proposal would have to face and may even determine the overall viability of the project.”*(page 144)

The SDC also notes that a UK government that failed to uphold its commitments to environmental legislation would set a dangerous precedent both to other EU states and to the wider world and would not deliver a Severn Barrage consistent with the UK’s agreed framework for sustainable development. They conclude that if *“compliance with the directives is found to be scientifically or legally unfeasible, then proposals for a Severn Barrage should not be pursued.”*

The Severn Tidal Power Group’s own report notes that *“within the basin formed by the barrage the hyper-tidal nature of the estuary would alter significantly and no measures to compensate for the loss of this particular feature could be engineered.”*

The Environment Agency are also of the opinion that *“A Severn Barrage development would not be possible within the current legal framework provided by the EU Habitats and Birds Directives. Adverse effects on the integrity of the habitats and species of international importance appear inevitable.”*

(A Severn Barrage: Position statement May 2006)

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## A SHORT HISTORY AND THE MAIN FEATURES OF THE BIRDS & HABITATS DIRECTIVE

Hugely significant for the future of the Severn estuary is the Directive on the Conservation of Wild Birds (79/409/EEC) commonly known as the Birds Directive. It recognises that birds have no national boundaries and consequently international legislation is required to protect and restore the places where they breed, feed and live. Because of the migratory nature of many birds the repercussions of destroying a habitat in one country will have a knock on effect on the bird populations of another. Action on a co-ordinated Europe wide front ensures that no member state can gain short- term economic advantage over another by destroying its environment.

The Birds Directive applies to the birds themselves, their eggs, nests and habitats and is divided into two parts, **Habitat Conservation** and **Species Protection**.

The Species protection provision of the bill concentrates on banning the deliberate capturing or killing of wild birds, disturbing them or their nests in breeding seasons and the taking or keeping of eggs.

More pertinent to the Severn estuary project is the section of the Bill that deals with habitats. Articles 3&4 require member states to preserve, maintain and re-establish habitats for all wild birds. This involves the creation of Special Protection Areas (SPAs)

Article 4 specifies further action to be taken in support of these SPAs. It lists a range of species in Annex 1 which takes account of the historic losses of wildlife that have occurred in recent times and includes species because of their likelihood of extinction, their vulnerability to loss of habitat and their rarity.

Singled out for attention here are the migratory species and member states are required to select SPAs that represent their breeding, moulting and over-wintering

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places as well as staging posts along the migratory routes. Particular attention must be afforded to the protection of wetlands that are of international importance.

Article 4.3 requires members to report back to the commission on the establishment of SPAs in order to consider whether further initiatives will be required to ensure that, collectively, the sites form a coherent network that meets the needs of the species concerned.

This concept of a coherent network of sites that protect Europe's bio-diversity is mirrored in a sister Directive on the conservation of natural habitats and of wild flora and fauna (92/43/EEC) and is known as the **Habitats Directive**.

Article 3 of the Habitats Directive established an ecologically coherent framework consisting of Special Areas of Conservation (SACs) and (SPAs) called Natura 2000. Since its introduction in 1977 the duty to protect SPAs set out in the Birds Directive has largely been replaced by Articles 6.2 and 6.4 of the Habitats Directive.

Under these Articles member states must take appropriate steps to avoid damage to either the habitat or the species for which the site has been designated. This includes damage through deterioration or neglect. They provide detailed procedures aimed at making sure that these objectives are met and these procedures are dealt with in detail in DH's advice. (Alternatives, IROPI, Compensation)

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## **WATER FRAMEWORK DIRECTIVE**

Water quality standards are set by UK legislation but derived from European Directives or international conventions. Important amongst them is the Water Framework Directive of 2000. This requires that all inland and coastal waters achieve “good status” by 2015. This is implemented by the Environment Agency through their regulation of water quality and by their licensing, monitoring and enforcement procedures that control the output of sewerage and industrial waste into the system. For the first time this recent legislation includes “transitional water bodies” or estuaries. The EA has made it clear that the Cardiff-Weston barrage would make it impossible to be in compliance by 2015.

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## LEGAL GROUNDS FOR OPPOSING BARRAGE DEVELOPMENT.

Summary of QC advice:

David Hart QC was asked by WWF to advise them on the important issues of principle which arise from the proposed development of a Severn Barrage. This document is a summary of the main points included in his advice. The document in its entirety has been included at the end of this digest.

Because of its inclusion in the Natura 2000 pan European network of protected sites, any development of the Severn estuary has to be compatible with Article 6(3) & 6(4) of the Habitats Directive (92/43/EEC)

Article 6(4) reads *“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must 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 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 that may be raised are those relating to human health or 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.”*

DH is clear that there were three main issues to be considered. They are the examination of **alternative solutions** to the proposal followed by the justification of the **Imperative Reasons of Over-riding Public Interest** qualifier and finally the matter of **Compensatory Habitat**.

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### **Alternatives:**

DH is clear that any alternatives must match the main objectives of the project underpinning any IROPI. The main objective of the Barrage is to produce “long term carbon free energy at reasonable costs.” It follows from this that the barrage has to be judged by comparing it with other ways of achieving the same objective. All other forms of renewable energy -not just tidal power- from anywhere in the UK, must be assessed as possible substitutes.

DH found little precedent on the Government’s obligation to consider alternatives but given the massive impact that a barrage must have on the site he states that the scope for alternatives must be proportional. The bigger the threatened impact the wider the search must be for alternatives to the disruption. The question of the search for alternatives cropped up in Portugal when the proposition to route a motorway through an SPA was mooted in the *Castro Verde* case. “*The absence of alternatives cannot be ascertained when only a few alternatives have been examined, but only after all the alternatives have been ruled out.*” Any limitations on the search for alternatives, perhaps by only considering say, tidal power, would be to take an unlawfully narrow view. (DH para. 22 pgs.9-10)

Helpful guidance on this aspect of the law comes from the European Commission and the Secretary of State in the Diben Bay case.

EC publication *Managing Natura 2000 sites*, states that the search for alternatives which better respect the integrity of the site could involve looking at different locations and different scales or designs of development together with different processes. It would also be in line with this guidance to consider the possibility that absolutely no works should be done in the Severn at all, (DH para. 25 pge. 11) and to examine whether or not the project’s objectives could be met through demand management. The “zero option” questions the need for the destruction of the site while continuing with profligate use of electricity. Further EC guidance in 2007 says that the govt. has to demonstrate a need for the project and that this assessment has to be made against the site’s conservation objectives.

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On the domestic front, ODPM 06/2005 states that consent for a project cannot be granted if there is a possibility of achieving the same effect by methods less harmful to the site's integrity. This position confirms the principle that the search for alternatives can and should range beyond the locality in question. As DH comments in his reference to the Dibden Bay case, (para 30 pge 13) "it is notable that the Secretary of State expressly differed from the Inspector, who had taken a narrower view of the task." In this instance Government followed EC guidance which stated that they should not limit their considerations to those put forward by the project's proponents and that it was possible for alternative solutions to be located in other regions or countries.

### **IROPI**

If the search for acceptable alternatives proves fruitless the Government have to submit their plan to the IROPI test. That is, they have to show that the barrage, or any other structure and including all ancillary works, must be carried out for **IMPERATIVE REASONS of OVERRIDING PUBLIC INTEREST**. It is predicted that they will cite the urgent need for production of reliable low carbon electricity as the basis for their claim for IROPI.

DH's approach (pge 16) is to ask the question "Does the IROPI test require that any public interest served by a Severn Barrage is net of any disbenefits to public interest that may arise as a result of a barrage."

His answer is an unqualified YES. That is to say that the construction of a Severn Barrage that has as its objective the reduction of carbon emissions into the atmosphere cannot be allowed to proceed if the process of building the barrage causes carbon emissions which cannot later be offset by the production of clean electricity from the plant. The costs, in carbon terms, must be the subject of a full analysis and this should include all expenditure incurred through construction, operation and maintenance. It should include all predictable ancillary costs as well, that is those associated with creating infrastructure such as roads and ports and the necessary compensatory habitats.

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DH also notes that the ancillary works outlined above will all have to undergo their own separate IROPI where they have some specific impact of their own upon an SAC or SPA in order to determine the alleged benefits.

Obviously developments associated with the barrage but which do not impact on the integrity of the protected site need not satisfy any IROPI test and would go through normal planning procedures. However if any such development is in the pipeline then it should be declared at an early stage ie. during the investigations into the net carbon benefits of the scheme. “It would be incumbent upon the Government to set out its strategic plans for the areas potentially affected by the barrage so that the true sustainability benefits of the barrage proposals can be assessed.”

### **COMPENSATORY HABITAT**

Having failed to find an acceptable alternative solution and having satisfied any IROPI tests, the UK government would then have to overcome a final hurdle of providing compensatory habitat. Art.6 (4) says it “*shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected.*”

Any compensation must satisfy two criteria from Art 3(1.) So when evaluating whether a species or habitat loss can be compensated for, the competent authority has to take into account the quality and quantity of the species or habitat in question and the role of the site in ensuring the adequate geographical distribution in relation to the range.

Other general observations made by DH include:

Compensation can only be considered when adverse effects *have* to be accepted in the absence of any alternative and for imperative reasons of overriding public interest.

The substitute must fulfil the function of the original which has in itself been designated an SAC or SPA because of its function within the framework of other protected sites. It is therefore difficult to see how, for example, the Government could offer a river with no such designation as compensation for the loss of one that is.

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Reclassification of that river cannot be the answer because if it in anyway qualified for the status it should have been already designated as an SPA or SAC. If it hasn't already been put forward it can hardly be said to be equivalent. Government must also take into account special features of rivers being assessed, their size, shape and even the tidal conditions that prevail. Because of uncertainty over outcomes, compensation must include areas greater than the original. *“This alone should give the Government cause for concern, if it were otherwise inclined to proffer a package falling substantially short of that which will be lost.”*

DH (para. 71 Page 26)

They must also be capable of sustaining the displaced populations of Salmon, Lampreys and Shad. The latter species is already facing potential eradication and the Severn is host to the entire UK stock. As the Severn and its tributaries also represent 24% of Salmon spawning ground in Wales and England it is difficult to see how they could be replaced never mind increased.

IROPI cannot trump compensation. Proponents of the scheme cannot say that they have tried but are unable to find or create an equivalent habitat to the one being destroyed or damaged. Both tests must be passed.