Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

INDEX

FIGURES

TABLES

CHARTS

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GOVERNMENT ENVIRONMENT OFFICERS TAKING PART IN THE FUNDACIÓN BIODIVERSIDAD WORKSHOP HELD ON 10 DECEMBER 2012.

Alicia Izquierdo Sanz (Madrid), Roberto Subirá (Madrid), Antonio Aranda (Castilla-La Mancha), Salomé Arnal (Valencia), Josep Ramon Nebot Cerdá (Valencia), Paula Bruna (Catalunya), Pilar Muela (Ministerio de Agricultura, Alimentación y Medio Ambiente), Susana Molinero (Ministerio de Agricultura, Alimentación y Medio Ambiente), Noel Vega (Extremadura), Luis Ignacio Rojo González (Castilla y León), María José Moralo Rodríguez (Extremadura), Rafael Díaz (Murcia).

PARTICIPANTSIN THE WORKSHOP HELD IN VII CONEIA, MARCH 2013

Jordi Solina (government/Catalunya); Juan Manuel González Martín (consultancy firm/Castilla y León), Laura López Varona(ONG/Asturias), Cristóbal Bermúdez (consultancy firm/Madrid), Raquel Suárez (consultancy firm/Madrid), Juan Martínez (consultancy firm/Asturias), Carlos Quintanal (student/Asturias), Silvia Samoano (student/Asturias), Rubén Paz García (consultancy firm/Asturias), Ignacio Encabo (consultancy firm/Valencia), Inmaculada González (government/Madrid), Pablo Antonio Álvarez (consultancy firm/Asturias), Laura Castro (government/Madrid), Izaskun Oyanguren (government/País Vasco), Rubén Casado (consultancy firm/Madrid), Juan Cedeceba (consultancy firm/Asturias), Raquel Antón (consultancy firm/Madrid), Laura Simón Otegui (consultancy firm/Madrid), Ainhoa Ruiz Pinilla (consultancy firm/Aragón), Silvia Major (consultancy firm/Madrid), Isabel Rotuela Quintana (government/Madrid), Ana Delgado, Ignacio Apilane (consultancy firm/Asturias), Víctor Colina (student/Castilla y León), Ángel de Miguel (government/Asturias), Rodrigo San Millán (consultancy firm/Madrid), Miguel Montanés (consultancy firm/Aragón), Raquel Santos (government/País Vasco), Santiago García Campillo (government/Aragón), Borja Álvarez Enríquez (consultancy firm/ Balearic Islands), Lourdes Tejero Gonzalez (consultancy firm/Asturias), Heriberto Carrodegvas (consultancy firm/Galicia), Mariano Oliveros (government/Madrid), Margarita Fabián (government/Asturias), Jorge Abad (consultancy firm/Aragón), Nélida García (government/Aragón), Tamara Castrillón (consultancy firm/Madrid), Joaquín Arce Fernández (ONG/Asturias), Carlos Lizardo (consultancy firm/Dominican Republic) Guillermo Camacho (consultancy firm/Madrid), Ángel Salinas (consultancy firm/Madrid), Rafael Guadalfajara (consultancy firm/Aragón), Jorge Cano (consultancy firm/Madrid), Juan Antonio Martín (government/Catalunya), Rufino Cerdán (government/Catalunya), Miguel Abascal (consultancy firm/Madrid), Alicia Izquierdo (government/Madrid), Pascual Calvo (consultancy firm/Aragón), Lucía Claros (government/Madrid), Marta Somer Sala (consultancy firm/Asturias), Susana García Díaz (government), Ignacio Jáuregui (consultancy firm/Madrid), Javier Cordón (consultancy firm/Asturias), Manuel G. Sánchez (government/Madrid).

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INTRODUCTION

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

INTRODUCTION

MORE THAN NATURAL RESERVES

By Pía Bucella

Natural Capital Director of the European Commission

The LIFE Project "Activa Red Natura 2000" (Natura 2000: connecting people with biodiversity) aims at contributing to the effective implementation of the Birds and Habitats Directives and promote a better understanding and protection of biodiversity as a whole.

Together with the LIFE instrument, these Directives have been the EU's key instruments for the conservation and sustainable use of biodiversity over the past two decades. Thanks to the Habitats Directive, our knowledge of the status and management needs of species and habitats in Europe, and our capacity for action has greatly increased. It has also allowed for increased funding for nature conservation for example using EU agriculture and cohesion funds.

The greatest contribution of the Habitats Directive has been the creation of Natura 2000, the largest coordinated network of protected areas in the world, which includes over 27,000 sites covering almost a fifth of the EU's land territory. In Spain, more than 1700 Natura 2000 sites have been designated. With more than one fourth of its land territory included under the Natura 2000 network, Spain is the Member State that provides a larger total surface to the network. This is an evidence of the rich biodiversity of this country, which is a real biodiversity 'hotspot' in the EU and in the world.

Natura 2000 is much more than nature reserves. It's about people and nature, because it ensures that conservation and sustainable use go hand in hand with benefits to local citizens and the wider economy. It also provides new opportunities for sustainable development, such as recreation and tourism. Natura 2000 has brought new ways of collaboration between local and public authorities, nature conservation organisations, land owners and users and has generated new ways to work with people.

But despite the important success achieved, the implementation of the Birds and Habitats Directive is still a work in progress. Much remains to be done before all species and habitats of EU conservation concern enjoy favourable conservation status. At EU level, only 17 % of the species and habitats listed in the Habitats Directive have attained that goal. The key challenge is currently to ensure that the Natura 2000 sites are effectively managed and restored. Likewise, protection of areas must also cover offshore marine environment where further efforts must be done.

Full and effective implementation of the nature Directives is one of the main pillars of the EU's 2020 Biodiversity Strategy, our plan to halt and reverse the loss of biodiversity and ecosystem services by 2020.

If we are to achieve these objectives, we need to provide the right policy framework and incentives for those who own and manage Nature 2000 sites, so that they are rewarded for the services they provide. Furthermore, we need to ensure that national and EU policies like transport, energy, agriculture, forestry and land-use fully embrace the protection requirements of Natura 2000 and wider biodiversity.

Investing in Natura 2000 is also about investing in our own future. Natura 2000 sites provide us with vital services such as carbon storage, flood conveyance, water quality maintenance. The services provided by the network are estimated to be worth around €200–300 billion per year. This is many times more than the cost of managing the network, estimated at less than 6 billion € per year. The Natura 2000 network constitutes a natural wealth. We all are responsible of conserving and enhancing it.

However, too few people in Europe and in Spain know about Natura 2000 and its values. One of the key actions of the EU biodiversity Strategy is therefore to enhance public awareness and communication about Natura 2000. I hope that this LIFE project will contribute to this objective and wish it all the best success in connecting people with biodiversity and Natura 2000.

INTRODUCTION

OUR REAL WEALTH

By Asun Ruiz

Executive Director of SEO/BirdLife.

You cannot conserve what you do not know. This slogan has driven SEO/BirdLife´s work since its foundation in 1954. For decades, that necessary knowledge has driven and served as the basis for the actions that our NGO has undertaken to defend, restore and disseminate knowledge on some of the most valuable sites in our territory. One of the first of those was Doñana, an initial battlefront where we fought to stop the destruction of a heritage that belongs to all citizens.

It was there, near the Guadalquivir wetlands, towards mid-XX century that the Spanish Society for Ornithology was shaped and where a new kind of europeism was born, too: that of peoples from all countries -scientifics, academics, naturalists, common citizens- that took action to make sure one of the natural paradises in the continent didn´t dry up. Doñana was a wintering spot for dozens of thousands of European birds and what happended there regarded the whole continent. In this way, before the European Union was born, before the environment reached political agendas and before conservationism exploded as a social movement in every country of Europe, Doñana served to bring about a primitive form of Europe-wide movement behind the flag of nature conservation. SEO/BirdLife was there.

Much has changed in the landscape since then. After 60 years the EU is a 28 member state reality, environmental policy is basic for states and Europe has granted itself a protected area network that is the largest in the world: over 26.000 sites and one million square kilometres form the Natura 2000 Network.

However, despite these improvements, there is still a long way to go before we achieve a favourable conservation condition for our natural environment. We must return to the “to know in order to conserve” slogan. It is not very useful to have a Natura 2000 Network if, as surveys say, hardly 10 per cent of Europeans know of its existence and meaning. For this reason we must insist on the fact that only what is known can be conserved. The Natura 2000 Network will not be totally safe until it lives in the heart of each and everyone of us, until all us, citizens, are aware of the enormous treasure we have in our hands and we fight to avoid losing it.

The publication you have in your hands is part of the effort of SEO/BirldLife to publicize the importance of the Natura 2000 Network and to raise public awareness of its conservation. This is about making the most of our true wealth. With the Life+ Activate your true wealth. Red Natura 2000 project we want to make Spanish and European societies see that we are rich in biodiversity and that caring for and respecting that great natural asset is the best guarantee for seeing any crisis through.

Lastly, as SEO/BirdLife Director, I cannot fail to underline the importance that birds have had in the designation proccesses of the Natura 2000 Network and in the overall protection of natural heritage. The Natura 2000 Network was founded under two great European directives: the Habitats Directive, of 1992, and the Birds Directive, of 1979, as a result of which thousands of Special Protection Areas for Birds (SPAs) have been created.

It is no coincidence that this type of fauna has deserved a specific directive. Birds are a great indicator of the quality of ecosystems and, because of their ubiquity and mobility, they react quickly to alterations in the environment. Sothey are a thermometer for environmental changes and also act as a shield for the rest of biodiversity: when you protect birds you conserve the rest of elements that surround them, too.

In fact it has been shown that the most important areas for birds in the whole world -identified by BirdLife International and known as IBAs (Important Bird and Biodiversity Areas)- contain up to 80 per cent of the rest of world biodiversity. Our intention is to make the Natura 2000 Network succeed protecting all IBAs -including marine ones- that SEO/BirdLife has helped identify, many of which still lack legal protection.

SEO BirdLife

INTRODUCTION

THE LARGEST COORDINATED NETWORK OF PROTECTED AREAS IN THE WORLD

Over 27.000 natural sites of high ecological value all over Europe are part of the Natura 2000 Network. With a total surface of nearly one million square kilometres, it is the largest network of conservation areas in the world. Nearly 30 per cent of the Spanish territory is included in it, which gives a clear idea of the great wealth of our country in terms of nature and biodiversity. With 1.858 sites (December 2014), Spain is the state that contributes the most to the network: 14 per cent of the total.

The Natura 2000 Network takes into account that the European landscape has been intervened by human beings for thousands of years and that the biodiversity they host is the result of cultural and historic interaction between man and nature. That is why the network does not propose the creation of strict nature reserves where human activities are excluded but fosters a kind of nature conservation goes hand in hand with the obtaining of benefits for the population and the economy at large. Far from being an obstacle to socioeconomic development, the Natura 2000 Network offers new opportunities for the development of traditional productive activities, recreational activities and tourism.

The need to preserve these sites in favourable condition is obvious. The European Commision estimates that the Natura 2000 Network rends European citizens vital services like the carbon sequestration, the maintenance of the quality of water or protection against floods or droughts for a value of 200.000-300.000 million euros.

Legal status

The Natura 2000 Network was born as such in 1992 and it includes sites designated under two key European laws: the Birds Directive, whose first version is from 1979 and the last from 2009, and the Habitats Directive, from 1992. It includes different types of sites:

- Sites of Community Importance (SCIs) are places that host natural habitats or species of particular value at a EU level. These sites are designated according to the Habitats Directive. The SCIs change their name to Special Conservation Areas (SCAs) once they have been official designated by member states and their management plans approved.

- The Special Protection Areas for birds (SPAs) are places that host wild bird species to be conserved in the European Union. SPAs are designated under the Birds Directive.

Both SCIs and SPAs can be land or marine areas, although the marine network is still much less developed than the land network.

The protection of these areas aims at guaranteeing the survival in the long term of the most valuable and endangered species and habitats. In order to achieve this, member states of the European Union must take the due measures to maintain a favourable conservation condition, such as the approval of specific management plans. These management plans are essential to get to know the conservation condition of our natural wealth and to maintain or improve it, as well as to ascertain the necessary funding for it.

In Spain about 24 per cent of Natura 2000 Network sites are being managed with a specific management plan, despite the fact that all sites should have had a plan approved before 2011, according to Law 42/2007 on Natural Heritage and Biodiversity.

In spite of the importance of the Natura 2000 Network, there is a general lack of knowledge of it in European society. The percentage of Europeans that can say that they know its name and what it stands for verges on 10 per cent.

INTRODUCTION

LIFE+ NATURA 2000: CONNECTING PEOPLE WITH BIODIVERSITY

The Life+ *Natura 2000: Connecting people with biodiversity* project calls society to action so that it gets to know and becomes involved in the conservation of the Natura 2000 Network. 80 per cent of Spanish citizens live in a place that hosts a Natura 2000 Network site, but in spite of its significance and geographical closeness, the Natura 2000 Network is not very well known by society. Several surveys show that only 10 per cent of Europeans know what it is. The rest have heard of it or know the name but could not explain what it is.

The Life+ *Natura 2000: Connecting people with biodiversity* project aims at increasing that knowledge and bridging the information breach. That is why between 2013 and 2017 very many actions will be undertaken in different realms in order to bring the Natura 2000 Network closer to Spanish society and to get society involved in its conservation.

SEO/BirdLife and EFE news agency develop this project, supported by the European Union. The co-funders are the Ministry of Agriculture, Food and the Environment of Spain, the Biodiversidad Foundation, Red Eléctrica Española and the autonomous communities of Andalucía, Castilla y León, País Vasco, Navarra, Baleares, Castilla-La Mancha, Madrid and Cantabria.

NATURA 2000

Activa tu auténtica riqueza Red Natura2000

www.activarednatura2000.org

ABOUT THIS MANUAL

These guidelines form part of the *Life+Activa tu auténtica riqueza. Red Natura 2000* initiative (Life+ Natura 2000: Connecting people with biodiversity) carried out by SEO/BirdLife and EFE news agency with the aim of helping to instruct and train the stakeholders involved in the environmental assessment of projects likely to affect the Natura 2000 Network.

The need and obligation of assessing the implications of projects likely to affect Natura 2000 sites was first expressed in article 6.3 of Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora. This Directive, however, laid down no assessment procedure or methodology. Several guides have therefore been brought out, not only by the European Commission but also other European countries at national level, with the aim of expediting this task. Despite this, implementation in Spain is still very patchy and uneven, and the impact-preventing effectiveness of assessments is very poor. Although Spain has no basic implementation regulation at national level, some *comunidades autónomas* (Spanish regions) like *Castilla y León, Islas Baleares* and *Valencia* have approved their own regulations. Other regions, like *Extremadura* have given over an article of the Law on the Conservation of Nature and Natural Areas 8/1998 of 26 June *(Ley de conservación de la naturaleza y de espacios naturales)* to the system for assessing activities in the Natura 2000 Network.

Bearing in mind the sheer extension of the Natura 2000 Network in Spain, which is one of the countries bearing the greatest biological diversity in Spain and accounting for the biggest share of the network, it is vitally important to meet the objective of heading off the loss of biodiversity, guaranteeing the efficiency of impact-prevention arrangements. This includes assessing implications for the Natura 2000 Network.

According to the European Commission report on implementation of Article 6.3 of Directive 92/43/EEC (Habitats Directive)[1], Spain features among the countries where there is still an overall lack of understanding of, or willingness to accept, the Article 6.3 procedure among certain authorities or sectors.

It is for this reason that SEO/BirdLife wishes to help improve implementation of article 6 of the Habitats Directive by drawing up a methodological guide to expedite the tasks of those responsible for writing environmental studies, government environment officers and all stakeholders interested in intervening in the procedure through the public participation arrangements.

Working to this end, the guide has a practical approach, aiming to shed light on those concepts and criteria currently posing an obstacle or giving rise to inconsistent interpretations.

With the twofold objective of pinpointing the main weaknesses of the procedure and tapping into the knowledge and experience of all stakeholders, the first step was to conduct a survey and hold two workshops with the participation of government environment officers, environmental consultants, conservationist NGOs and companies.

The guide also quotes excerpts from rulings of the European and Spanish courts that have served to flesh out the interpretation of many of the concepts and criteria to be applied for a correct implementation of article 6 of Directive 92/43/EEC, thus guaranteeing that European law is enforced uniformly in all member states. It is important to bear in mind here that the findings of the Court of Justice of the European Union (CJEU) are binding on all member states (Curia, 2011). In Spain the judgments of the Supreme Court *(Tribunal Supremo)* lay down case law when there are at least two judgements with the same tenor and none against and have a real binding force for the other judges and courts. The judgements of the Higher Courts *(Tribunales Superiores)* are not binding though they may lay down jurisprudential precedent and hence may be quoted in litigation whenever there is no *Tribunal Supremo* case law on the matter in hand.

By incorporating real examples and good practices, the idea has been to build up a hands-on guide for application in future assessments, favouring the implementation of uniform and consistent criteria in all Natura 2000 sites, helping to conserve the natural assets they treasure and encouraging sustainable development to the mutual benefit of man and nature.

The ultimate aim is for this document to help improve assessment of projects impinging on Natura 2000 sites and to be taken up by the maximum number of government authorities.

The following symbols have been used to facilitate interpretation of these guidelines and identify the type of text at a glance:

When it is a case of a legal text or judgment.

When it is a case of a good practice or something conducive to improved procedures.

When it is a case of a bad practice or something conducive to a worsening of procedures.

When stakeholders responsible for carrying out a certain task are identified

[1] Comisión European Commission (2013). EC Study on evaluating and improving permitting procedures related to Natura 2000 requirements under Article 6.3 of the Habitats Directive 92/43/EEC.

METHODOLOGY AND RESULTS

The first step in identifying the aspects to be developed by the guide was conducting an online survey to pinpoint the strengths and weaknesses of Spain's assessment procedures. The survey was answered by 113 people, most of them environmental consultancies (33%), government officers specialising in the Natura 2000 Network (24%), government officers specialising in environmental impact assessments (28%) while 9% were conservationist NGOs (see Annex 1). All Spanish regions were represented barring Navarre.

Two workshops were also held. The first involved central government and regional officers with responsibilities for the Natura 2000 Network and environmental impact assessment. This workshop identified the main aspects hindering a proper environmental assessment of projects likely to affect the Natura 2000 Network. A second workshop, held as part of the 7th Environmental impact assessment Congress *(VII Congreso de Evaluación de Impacto Ambiental)*, involved 54 participants (consultancy firms, government environment officers and conservationist NGOs) to debate different criteria and concepts.

On the basis of the survey findings and the workshops held, this guide was drawn up with the aim of improving assessment of projects likely to affect the Natura 2000 Network in the following aspects:

- Clear up the procedure and the participation of stakeholders.
- Clarify the nomenclature used, identifying equivalences.
- Facilitate the assessment of the effects in combination with other projects.
- Identify the information to be input by developers, giving them rights of access.
- Describe methodologies for improving impact identification and assessment.
- Identify requirements for designing compensatory measures.

This whole participative process brought to light a series of problems that hinder the correct assessment of projects likely to affect the Natura 2000 Network and which cannot be addressed by these guidelines, namely:

- Delay in drawing up management plans of Natura 2000 sites.
- Insufficient knowledge of habitats and species.
- Failure to update information to hand.

Lastly, various proposals made by participants were taken up in favour of improving the quality of studies and ensuring the impartiality and objectivity of the assessment bodies. Especially important to this end is to draw up a set of objective, uniform and consistent assessment criteria. Some of these proposals have been included in this manual. Other ideas, however, need further work to improve the procedure and quality of results.

Workshop held in the 7th Environmental Impact Assessment Congress, March 2013, Oviedo.

CHAPTER 1
THE NATURA 2000 NETWORK AND THE ENVIRONMENTAL IMPACT ASSESSMENT

Natura 2000 is the world's biggest network of protected sites; its foundational idea was to protect and conserve the European Union's biodiversity. It is made up by over 26,000 nature sites of great environmental value, making up between them an area of over one million square kilometres (figure 1). In Spain it accounts for nearly 30% of the country's total area and comprises over 2000 sites. Spain is the country making the biggest input to this network (14% of the total).

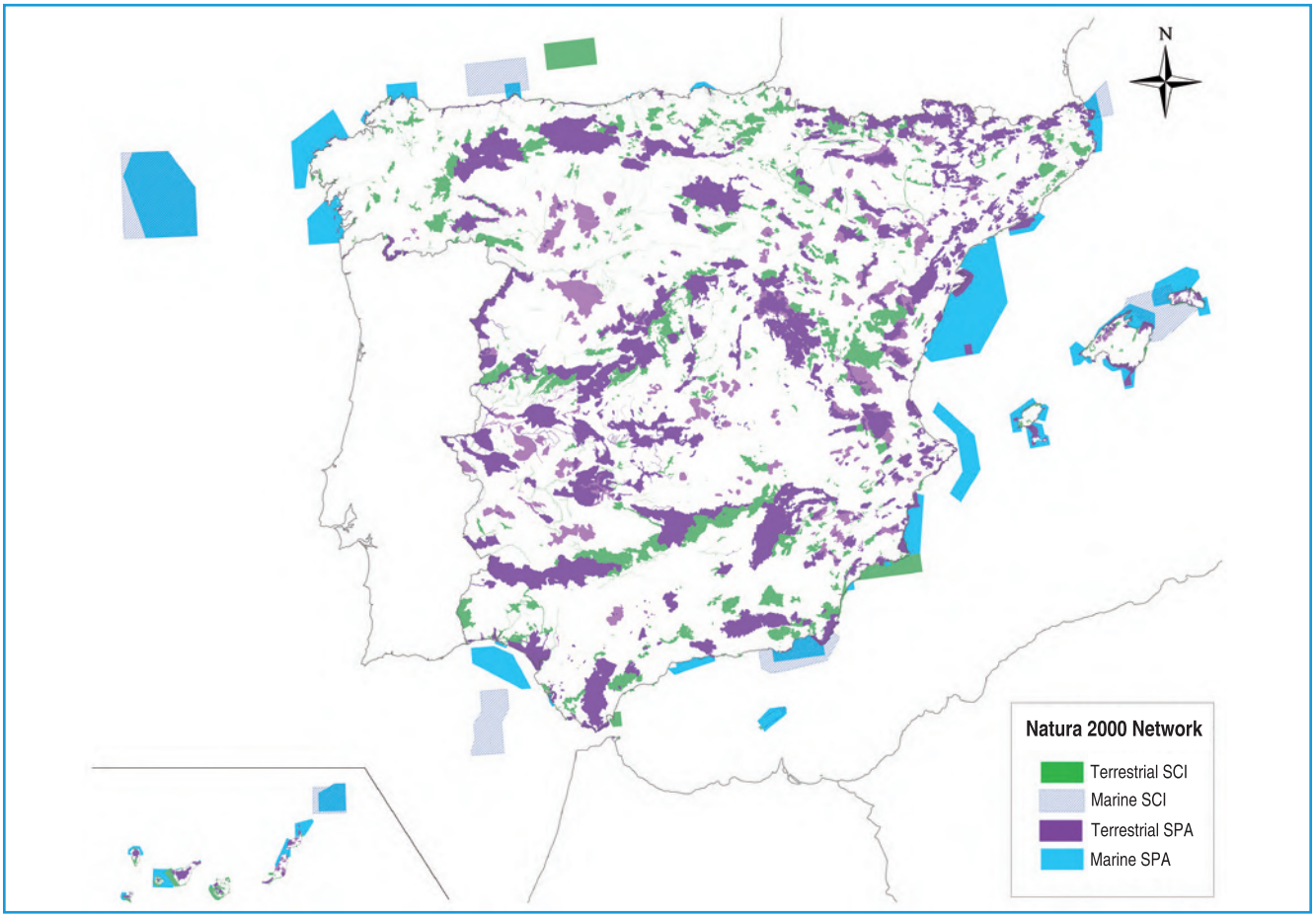


Figure 1. *Natura 2000 Network in Spain.*

The Natura 2000 Network was set up under the umbrella Directive 92/43/EEC with the aim of helping to conserve biodiversity by protecting natural habitats and wild flora and fauna in the member states of the European Union. This environmental network is made up by special areas of conservation (SACs), composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II of said Directive. Another component part of the Natura 2000 Network is the special protection areas (SPAs), designated by the Member States for species of Annex I of Directive 79/409/EC, on the conservation of wild birds, and also for regularly arriving migrant species not included in said Annex.

For designation of the SACs, member states previously propose a list of Sites of Community Importance (SCI). The proposed lists are then analysed by a series of scientific seminars broken down by biogeographical regions and with the participation of member states and experts representing stakeholder groups such as conservationist NGOs. Once the SCI had been approved by the European Commission, member states are then bound to designate them as SACs.

Spain's current Natura 2000 Network is therefore made up by three types of protected sites: SCIs, SACs and SPAs (see figure 2).

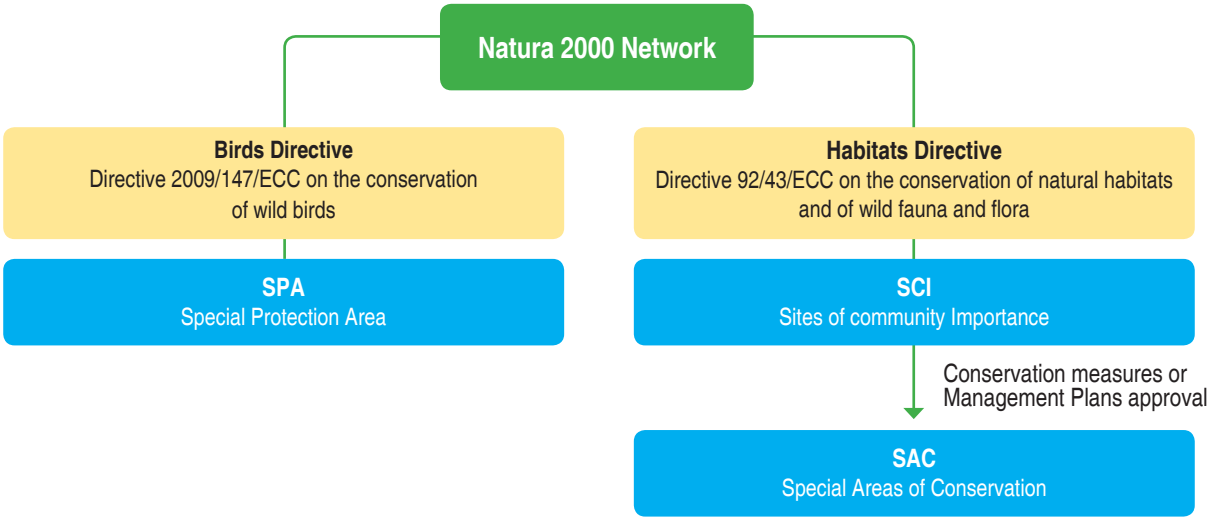


Figure 2. Natura 2000 Network Designation Process

Article 45 of the Spanish Natural Heritage and Biodiversity Law 42/2007 (Ley del Patrimonio Natural y de la Biodiversidad) lays down the competent authority's obligation, for both SACs and SPAs, to establish the necessary conservation measures to suit the environmental demands of the type of natural habitats and species present therein. This is to be done by means of: a) Appropriate management plans or instruments, specific to the sites or integrated into other development plans, including at least site conservation objectives and appropriate measures for maintaining the site in a favorable conservation status, and b) Appropriate regulatory, administrative or contractual measures.

The management plans will thus help to establish site conservation objectives, the management measures to be applied and their costs, in order to maintain their conservation status.

With the aim of preventing activities that might cause a nuisance or significantly jeopardise species or impair their habitats, Article 6.3 of the Habitats Directive laid down the obligation of assessing any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon appropriate assessment. This obligation was transposed into Spain's body of law by Article 45.4 of the Biodiversity and Natural Heritage Law 42/2007 (Ley del Patrimonio Natural y de la Biodiversidad). This obligation was also phased into basic legislation by additional provision seven of the Environmental Assessment Law 21/2013 (Ley de Evaluación Ambiental).

The assessment under Article 6.3 of the Habitats Directive can be integrated either into the environmental impact assessment procedure or the strategic environmental assessment. It should nonetheless be borne in mind here that the obligation of assessing implications for the Natura 2000 Network is independent of the general environmental impact assessment and poses different obligations. The main differences reside in the objectives, scope of application and the legal nature of the conclusions.

Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive) applies to all projects included in Annex I and those included in Annex II when so decided by the Member State. Spain's Environmental Assessment Law 21/2013 lays it down that the decision on whether to subject Annex II projects to an environmental impact assessment should be taken on a case-by-case basis, bearing in mind the criteria established in Annex III, including the environment's load-bearing capacity, paying special attention to Natura 2000 sites. Article 7.2 of Ley 21/2013 for its part, establishes a simplified environmental impact assessment procedure for projects not included in Annex I or Annex II which might, directly or indirectly, significantly affect protected Natura 2000 sites.

Article 1.3 of the EIA Directive lays it down that Member States may decide, on a case-by-case basis if so provided under national law, not to apply this Directive to projects serving national defence purposes, if they deem that such application would have an adverse effect on those purposes, while Article 1.4 exempts application to projects the details of which are adopted by a specific act of national legislation. According to Article 2.4, moreover, Member States may, in exceptional cases, exempt a specific project in whole or in part from the provisions laid down in the Directive, imposing a series of conditions such as informing the European Commission of the reasons justifying the exemption granted.

Assessment of the implications for the Natura 2000 Network, however, under Article 6.3 of the Habitats Directive, applies to all projects likely to have significant effects on the network, barring only those that might bear a direct relation with site management or are necessary for same.

Environmental impact assessment applies to CERTAIN projects listed in some Annexes, whereas assessment of implications for the Natura 2000 Network applies to ALL projects likely to have a significant effect thereon, either individually or in combination with other plans and projects, without bearing any direct relation to site management or being necessary for same.

The purpose of the Environmental Impact Assessment Directive is assessment of all projects that might impinge on the environment. It hence enforces impact assessment of some factors such as human beings, material assets, the landscape and cultural heritage. These aspects do not have to be taken into account in an assessment conducted according to Article 6.3 of the Habitats Directive. The latter has to be based exclusively on the effects on the sites' conservation objectives or integrity.

The assessment factors are different: assessment of the implications for the Natura 2000 Network takes in the impact on the site's conservation objectives and integrity, while assessment of the environmental impact takes in the population, human health, flora, fauna, biodiversity, geodiversity, the soil, air, water, climate factors, climate change, landscape, material assets, including the cultural heritage and the interaction between all these factors.

These essential differences between both techniques have been recognised by the Spanish Constitutional Court (Tribunal Constitucional) in judgment149/2012 of 5 July 2012. (BOE [Official State Journal] 181 of 30 July 2014):

"Environmental assessment of the special areas of conservation dealt with by the Directive and by the Natural Heritage and Biodiversity Law 42/2007 of 13 December (Ley del Patrimonio Natural y de la Biodiversidad) *and also by Royal Decree* (Real Decreto) *1997/1995 is, hence, a different assessment technique from the environmental impact assessment* per se, ***which has its own methodology****, although on occasions it may take its inspiration from the latter. It also has a more specific object and purpose, consisting of the analysis of the impacts of plans and projects that might significantly affect special areas of conservation, in order to preserve their integrity and conservation objectives and, in general, to guarantee the coherence of the Natura 2000 Network".*

This difference in the objective assessment factors has a knock-on effect on the **analysis of the selection of alternatives** in EIA procedures; this is not a perfect match with the procedure of article 6 of Habitats Directive and may not therefore replace it. The Environmental Assessment Law 21/2013 calls for what it calls the *Estudio* de *Impacto Ambiental* (Environmental Impact Assessment Report) to include an exposition of the main alternatives studied, including alternative zero, or the decision not to go ahead with the project, bearing in mind the environmental effects. In the assessment of the implications for the Natura 2000 Network the analysis of alternatives is considered only to be a good practice to be adhered to during the appropriate assessment (AA), serving to head off adverse effects. Nonetheless, it is obligatory to consider alternative solutions when applying the derogating article 6.4 of Habitats Directive, if it is concluded, after the appropriate assessment, that residual negative effects remain following application of mitigation measures (see page 31, European Commission, 2002). In these cases, in the assessment of alternative solutions, environmental criteria (conservation objectives and the state of the affected Natura 2000 site) must override other factors such as economic costs, delays, etc.

An environmental impact assessment is an administrative procedure that concludes with an Environmental Impact Statement (EIS); this then has to be taken into account when authorising the project. Moreover, Article 12 of the Environmental Assessment Law 21/2013 lays down arrangements for solving any discrepancy between the EIS-issuing environmental body and the project-authorising body. The conclusions of an assessment under Article 6.3 of the Habitats Directive, on the contrary, are binding on the project-authorisation or -approval decision. This aspect was duly reflected in CJEU judgment C-418/04, which runs as follows in section 231

"…Those two directives [Directive 85/337/EEC and Directive 2001/42EC] contain provisions relating to the deliberation procedure, without binding the Member States as to the decision, and relate to only certain projects and plans... Accordingly, assessments carried out pursuant to Directive 85/337 or Directive 2001/42 cannot replace the procedure provided for in Article 6(3) and (4) of the Habitats Directive."

The conclusions of an assessment of the implications for the Natura 2000 Network are binding on the project approval decision, whereas the conclusions of an environmental impact assessment under the EIA Directive are a recommendation and do not necessarily entail non-authorisation of the project.

The government should therefore try to make sure that any assessment of the implications for the Natura 2000 Network is begun as soon as possible, since a negative result would automatically end the whole procedure. This provision has been made by the *Comunidad Valenciana* (Valencia Region) in *Decreto* (Decree) 60/2012 regulating the special scheme for assessment, approval, authorisation or conformity of plans, programmes and projects likely to affect the Natura 2000 Network. In its Article 8.4 this Decree lays it down that the preliminary assessment of the need of carrying out an appropriate assessment should reach a decision within a one-month deadline of receipt of the application or proceedings in the management body of the Natura 2000 Network.

When the study of implications for the Natura 2000 Network is conducted within an environmental impact assessment, the Environmental Impact Assessment Report has to have a specific chapter dealing with Natura 2000 Network assessment. This requirement is laid down by Article 35 of the Environmental Assessment Law 21/2013:
"Whenever any project might directly or indirectly affect Natura 2000 sites, a specific section will be included for assessment of its impacts on the site, bearing in mind that site's conservation objectives".

And Article 14 of the Decree 6/2011 of Castilla y León runs as follows:

"The Environmental Impact Assessment Report shall contain a specific section analysing the impacts of said project, directly or indirectly, individually or by virtue of combined or synergistic effects with others, at least existing ones, on the assets by virtue of which the potentially affected sites were included in the Natura 2000 Network."

For its part, Article 23 b) of Decree 60/2012 of the Comunidad Valenciana lays it down that:

"B) The Environmental Impact Assessment Report shall contain a study of implications for the Natura 2000 Network, doing so in a clearly identifiable and separate way …"

When the study of the implications for the Natura 2000 Network is carried out within the environmental impact assessment procedure it is crucial to bear in mind that the Environmental Impact Assessment Report has to contain a specific chapter for assessing implications for the Natura 2000 Network.

Environmental assessment is a pyramidal system beginning at planning level, where assessment of the effects of plans and programmes on the Natura 2000 Network is vital for heading off any conflicts at project level. The planning therefore has to include the Natura 2000 Network as one of the criteria for drawing up sensitivity maps, which in turn facilitate project sitting. At the moment many plans and programmes do not carry out an appropriate assessment of the implications for the Natura 2000 Network, often claiming that the plan does not have a sufficient degree of detail. Progress therefore needs to be made in this sense, doing so by including in plans and programmes, whenever possible, spatial planning for assessing implications for the Natura 2000 Network.

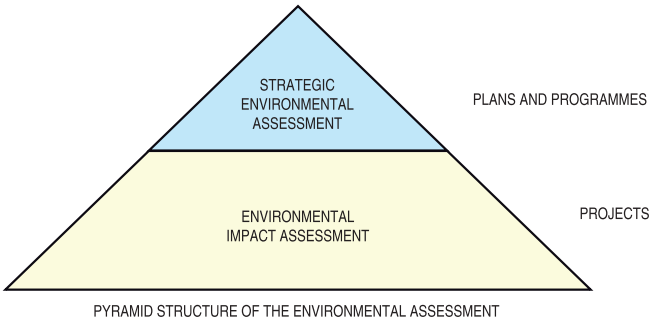


Figure 3. *Pyramidal structure of envimontal assessment.*

Lastly, it should be noted that the precautionary principle, provided for in Article 6.3 of the Habitats Directive, has to be applied in all procedure phases. In other words, during the screening phase, an assessment should be made of all the implications for the Natura 2000 Network, otherwise project authorisation should be turned down once assessed **whenever there is no certainty that no significant implications for the Natura 2000 Network will be provoked.** This will ensure sustainable development and also favour a more efficient use of natural resources while also helping to conserve European biodiversity.

	Natura 2000 Network Assessment	Environmental Impact Assessment
Scope of application	All projects not related with site management	Annex I and Annex II Projects
Assessment factors	Conservation objectives of the affected sites	The population, human health, the flora, the fauna, biodiversity, geodiversity, the soil, the subsoil, air, water, climate factors, the climate change, landscape, material assets including cultural heritage and the interaction between them
Analysis of alternatives	Recommended (art. 6.3) obligatory (art. 6.4)	Obligatory
Assessment results	Binding	Non-binding

Table 1. *Differences between the environmental impact assessment and the assessment of implications for the Natura 2000 Network.*

CHAPTER 2
WHEN SHOULD THE IMPLICATIONS FOR THE NATURA 2000 NETWORK BE ASSESSED?

Article 6.3 of the Directive 92/43/EEC runs as follows:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".

According to the provisions laid down in Article 6.3 of the Habitats Directive and the interpretation thereof by the Court of Justice of the European Union, the appropriate assessment laid down therein has to be carried out previously in the following cases:

1. Given the mere possibility that a project might appreciably or significantly affect a Natura 2000 site or doubt about whether or not this effect will occur.
2. Consideration has to be given to the cumulative and synergistic impacts in combination with other plans or projects.
3. Even projects not included in lists of environmental impact assessment legislation or plans or programmes that affect zones of little territorial scope or when it is a case of minor modifications and even projects not submitted for authorisation or declaration of responsibility.
4. Also in plans or projects sited outside the Natura 2000 Network but possibly impinging thereon.

The authorities have to check whether the plan or project is likely to have a significant effect on Natura 2000 sites, whether individually or in combination with other plans or projects, considering that the plan or project might cause appreciable effects on Natura 2000 sites, even if not physically set within the limits thereof and is outside same, and even if the plan or project is of reduced dimensions or represents only a minor modification.

An account is now given of some of most important concepts, indicating the applicable case law.

WHAT IS TO BE UNDERSTOOD BY ANY PLAN OR PROJECT?

The first question is to determine what should be considered to be a project when applying Article 6.3 of the Habitats Directive, since the Directive itself does not define the term.

The Court of Justice of the European Union has turned in the first instance to the definition included in Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (OJ L 175, page 40; EE 15/06, page 9). Article 1.2 thereof defines the concept of "project" as follows:

"- the execution of construction works or of other installations or schemes,
- other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources."

In most cases of construction work it is fairly easy to recognise when a "project" is involved, but this is not so clear in the case of activities or other interventions in the natural surroundings. In these cases the Court of Justice of the European Union has ruled that it should be considered in the broadest terms. For example, in relation to a request for a preliminary ruling, the CJEU ruled that mechanical cockle fishing which has been carried on for many years but for which a licence is granted annually for a limited period, with each licence entailing a new assessment both of the possibility of carrying on that activity and of the site where it may be carried out, falls within the concept of "plan" or "project" within the meaning of Article 6.3 of the Habitats Directive and ipso facto should undergo AA screening of its impacts on said site with respect to its conservation objectives (Court of Justice (EU) Grand Chamber, ECLI:EU:C:2004:482, C-127/02).

WHAT SHOULD BE UNDERSTOOD BY "NOT DIRECTLY CONNECTED WITH OR NECESSARY TO THE MANAGEMENT OF THE SITE"?

It should be borne in mind here that this assessment differs from the environmental impact assessment, which includes lists of projects subject to assessment. It should rather be applied to all projects that might have a significant effect on Natura 2000 sites. An exception is made only for those projects bearing a direct relation to the site management or necessary for same.

The European Commission (2002) considers that the term "management" refers to the conservation-favouring management measures and the term "directly" should refer to the measures conceived only for management of site conservation and does not refer to the direct or indirect consequences of other activities. Light is shed on these appreciations by the following judgment (C-241/08) of the European Court of Justice, quoted below:

The CJEU found the French Republic guilty of breaching obligations of Article 6.3 of the Habitats Directive by systematically exempting works or developments provided for in Natura 2000 contracts from the assessment of their implications for the site referred to in Article 6.3[3].

According to the French Republic, the systematic exemption of works and developments provided for in Natura 2000 contracts from the obligation, laid down in Article 6.3 of the Habitats Directive, to carry out an assessment of their implications for the site is justified by the

[3] Under French law the holders of in rem and personal rights over land falling within Natura 2000 sites are entitled to enter into "Natura 2000 contracts" with the government authority. These comprise a set of commitments pursuant to the guidelines and measures defined in the document of objectives, referring to the maintenance and, where applicable, the restoration of natural habitats and the species on the strength of which the Natura 2000 site was created.

notion that, insofar as those contracts are intended to achieve fixed conservation and restoration objectives for the site, they are directly connected with or necessary for the management of the site.

The Court, however, ruled that some conservation measures for habitats may prove favourable for certain habitats but involve a deterioration in other types of habitats. It follows that the mere fact that the Natura 2000 contracts comply with the conservation objectives of sites cannot be regarded as sufficient, in the light of Article 6.3 of the Habitats Directive, to allow the works and developments provided for in those contracts to be systematically exempted from assessment of their implications for the sites.

The conclusion to be drawn from this is that it is very difficult to exclude any plan or project from the appropriate assessment process. Neither is it lawful, therefore, to systematically exempt certain activities in site management plans unless an environmental assessment in the plan approval process has guaranteed that there is no possibility of a significant effect on the site, whether individually or in combination with other plans and projects, bearing in mind the site's conservation objectives.

The following table shows examples of measures that, while being indirectly related to the management of Natura 2000 sites, call for an assessment of impacts.

TYPE OF MEASURE	EXAMPLES
Measures related directly or indirectly to other activities but not conceived solely for "conservation management".	The construction of a nature classroom in a Natura 2000 site. This is an indirect conservation measure aiming to raise visitors' awareness.
A conservation measure of a Natura 2000 site that affects another space with no direct relation to the management of the second site.	Construction of a dyke in a Natura 2000 site to protect another site from floods causing environmental damage. The benefits for one Natura 2000 site could jeopardise the integrity of another.
A conservation measure within a Natura 2000 site but with the purpose of protecting a habitat or species that might potentially come into conflict with the conservation of another habitat or species of community interest.	Management measure for a type of tall bush that grows in a site listed as SPA on the strength of a grassland bird species needing bare ground. Expansion of the bushes would cut down the grassland birds' habitat.

Table 2. *Measures bearing an indirect relation with the management of Natura 2000 sites.*
Source: *Díez de Revenga Martínez, E. et al. 2005.*

WHAT IS TO BE UNDERSTOOD BY "THEREON" IN THE PHRASE "LIKELY TO HAVE A SIGNIFICANT EFFECT THEREON"?

It has to be borne in mind here that the obligation of assessing the effects of plans, programmes and projects on the Natura 2000 Network is laid down in the Habitats Directive, Article 7 of which runs as follows:

"Obligations arising under Article 6 (2), (3) and (4) of this Directive shall replace any obligations arising under the first sentence of Article 4 (4) of Directive 79 / 409 / EEC1 in respect of areas classified pursuant to Article 4 (1) or similarly recognized under Article 4 (2) thereof, as from the date of implementation of this Directive or the date of classification or recognition by a Member State under Directive 79 / 409 / EEC , where the latter date is later."
It therefore affects SCIs and SACs as well as SPAs.

The obligations laid down in Article 6.3 of the Habitats Directive apply to the sites or spaces belonging to the Natura 2000 Network, understanding these to be Sites of Community Importance (SCI), Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

WHAT DOES IT MEAN TO SAY THAT SOMETHING MIGHT HAVE A SIGNIFICANT EFFECT?

The appropriate assessment of Article 6.3 of the Habitats Directive is invoked not only when there is *certainty* but even *likelihood* of significant effects of a plan or project on a Natura 2000 site. According to the CJEU, in application of the precautionary principle, it is in order to carry out said appropriate assessment in the event of *reasonable scientific* doubt about the existence of adverse effects on the integrity of the site concerned (CJEU judgment of 13 December 2007, Commission/Ireland C-418/04, paragraphs 243 and 254).

Detailed grounds for the decision therefore need to be given in each case where it is decided not to carry out an appropriate assessment, bearing in mind the site's conservation objectives; it is not enough to give a merely formal justification for this decision without detailed grounds. Whenever it cannot be completely ruled out on objective grounds that said plan or project might have a significant effect on the site in question, then the precautionary principle always has to hold sway, (see, for example, the judgment of 13 December 2007, Commission/ Ireland, C-418/04, ECR page I-10947, paragraph 226).

The mere risk should be appreciated in light of the specific environmental conditions and characteristics of the site affected by said plan or project (judgments Waddenvereniging and Vogelbeschermingsvereniging, previously quoted, paragraph 49, and of 4 October 2007, Commission/Italy, C-179/06, ECR P I-8131, paragraph 35).

Furthermore, in relation to the condition that there might be **a significant effect** on said sites, the Court of Justice of the European Union has ruled that:

"such a risk exists if it cannot be excluded on the basis of objective information that the plan or project will have significant effects on the site concerned

[4] Derogated by Directive 2009/147/EEC of 30 November 2009 on the conservation of wild birds. The text of article 4 has been maintained entirely and unchanged in the new version.

(see the judgments of 7 September 2004, Waddenvereniging and Vogelbeschermingsvereniging, C127/02, ECR P I7405, paragraphs 43 and 44; of 20 October 2005, Commission/United Kingdom, C6/04, ECR P I9017, paragraph 54, and of 13 December 2007, Commission/Ireland, C418/04, ECR P I10947, paragraph 226)".

The following chapters analyse in some depth how to decide whether or not it is necessary to carry out an appropriate assessment.

The assessment of Natura 2000 implications, therefore, can be integrated into the environmental impact assessment procedure or the strategic environmental assessment procedure, but such an assessment might also be necessary for projects calling for a permit or authorisation from any government body, for example a town or city council.

Moreover, the risk of any effect has to be assessed not only bearing **in mind the project in question but also in combination with otherplans and projects.** This is crucial, as we will see in Chapter 5, for small projects that are thresholded out of environmental impact assessment but can nonetheless end up having a significant impact on the Natura 2000 Network when there is a spatial concentration of such small projects.

Article 6.3 of the Habitats Directive makes no specific reference to the project in question having necessarily to be within the Natura 2000 Network; it centres rather on the likelihood of any effect from projects located both inside and outside network sites.

The European Commission has dealt with this question in various publications. The likelihood of a significant effect can refer not only to plans or projects located in a protected site but also to plans or projects outside a Natura 2000 site. For example, a wetland could be affected by a drainage project carried out at some distance from the borders of this wetland. It is therefore important for the legislation and praxis of Member States to allow for application of Article 6.3 measures to pressure exerted by an activity physically lying outside a Natura 2000 site but still having a significant effect thereon. (European Commission, 2000).

CHART 1. IRUÑA DE OCA PRISON

In the case of the prison called *"Centro penitenciario en Iruña de Oca, Álava"* the Consejo de Ministros (Council of Ministers) excluded its construction project from the environmental impact assessment procedure and the Council of Álava *(Diputación Foral de Álava)* appealed against the decision on the grounds that, although the prison was not to be built inside a Natura 2000 site, its discharges could affect the River Zadorra SCI. The *Tribunal Supremo* ruled that exclusion from the environmental assessment proceedings cannot be invoked for assessment of projects affecting Natura 2000 sites, since this possibility is not allowed for in the Habitats Directive (STS [Supreme Court Judgment] of 24 May 2011, ECR 121/2009 [EDJ 2011/99852]). It did, however, consider that the *Sociedad Estatal de Infraestructuras y Equipamientos Penitenciarios* (State Corporation of Prison Infrastructure and Equipment) had conducted an assessment of the impact on the Natura 2000 Network before exclusion by the Council of Ministers from the assessment proceedings. In any case the *Tribunal Supremo* lays it down clearly in this judgment that the exemption does not mean that an appropriate assessment might not still be necessary of the effect on the Natura 2000 Network.

In more recent publications the European Commission (2011) has pointed out that whereas Article 6(1) and (2) of the Habitats Directive concern the day-to-day management and conservation of Natura 2000 sites, Articles 6(3) and 6(4) lay down the procedure to be followed when planning new developments that might affect a Natura 2000 site[32] (European Commission, 2011).

In the case of windfarms, for example, where the most collision-prone species are birds, developers and planners have to take into account possible effects on species that have prompted designation of the Natura 2000 site **even when the projects are outside the Natura 2000 Network.** This could occur, for example, if a given project lies on an important migration pathway, since it could cause significant disturbance or damage to protected species of birds, bats or other animals during their migration[32]. (Commission, 2011).

[32] This applies to SCIs, SACs and SPAs and concerns not just plans or projects inside a Natura 2000 sites but also those that are outside but could have a significant effect on the conservation of species and habitats within the site. For instance a dam constructed upstream on a river that could alter or stop the regular flooding of an important wetland for birds within an SPA further downstream.

CHART 2.WIND FARMS OUTSIDE THE NATURA 2000 NETWORK

In an appeal lodged by a wind power developer seeking annulment of the Environmental Impact Statement (EIS) on the grounds that the projected farm lay outside the Natura 2000 Network, the Higher Court of Justice of Extremadura (*Tribunal Superior de Justicia de Extremadura)* considered that although the proposed wind farm site lay outside Special Protection Areas and Sites of Community Importance, albeit adjacent, the project had an adverse and irreversible effect on the Natura 2000 Network, provoking a *"critical impact on the breeding areas of threatened bird species listed as sensitive to habitat alteration in the Regional Catalogue of Threatened Species of Extremadura* "therefore confirming the EIS (STSJ EXT [Judgment of the Higher Court of Justice of Extremadura] 1108/2011).

To date studies have tended to focus on projects lying inside the Natura 2000 Network, whereas the requisite of assessing the effects of projects lying outside is not always being met (Hicks, *et al.* 2011). A noteworthy case in point is that of projects generating contaminating emissions, such as those of intensive agriculture or a certain type of industrial plant. Nitrogen emissions are considered to be a significant threat to many sensitive habitats of the European Union. It has been estimated that by 2020 64% of the European Union's ecosystems (EU27) will be at risk from excessive nutrient N deposition (Hettelingh *et al.* 2008). There is therefore an urgent need to carry out an appropriate assessment of projects of this type that, although lying outside the Natura 2000 Network, could jeopardise its integrity.

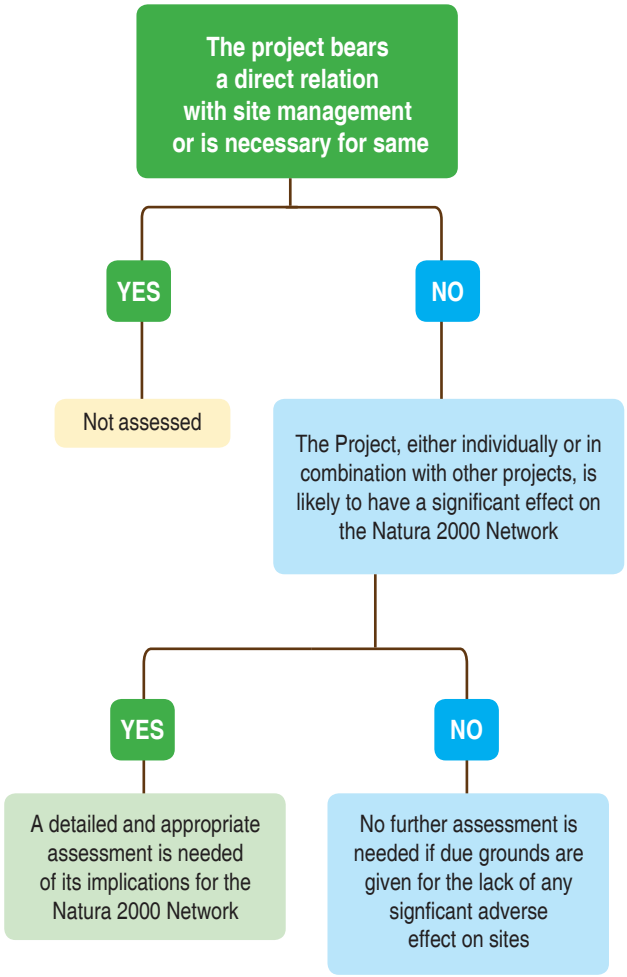
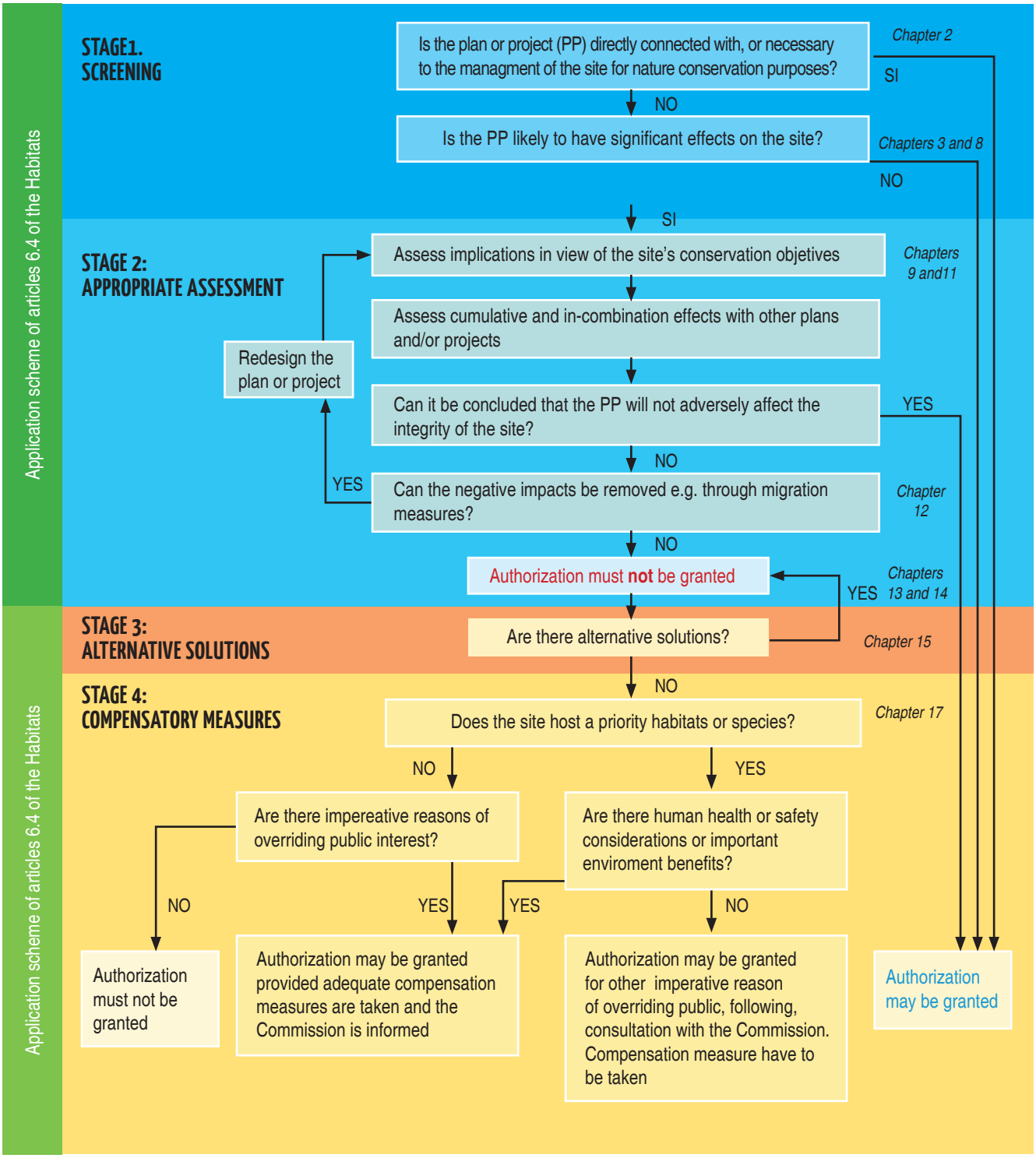


Figure 4. *Interpretation scheme of Article 6.3 of the Habitats Directive.*

Geese flying over a wind farm

Assessment of implications for the Natura 2000 Network is a procedure that, depending on the particular case, can comprise up to four phases. The first two follow from the provisions of Article 6.3 of the Habitats Directive and are bound up with the assessment strictly speaking. Furthermore, pursuant to Article 6.4, the Directive makes provision for a project to go ahead even after a negative assessment of the implications for the site involved, for imperative reasons of overriding public interest. This procedure could add on two more phases.

The whole procedure starts with the screening phase, which is when the decision is taken on whether or not to go on to the second stage and carry out an appropriate assessment of the project's implications for the Natura 2000 Network. The third is the assessment of alternatives phase, which applies to all those projects in which significant adverse effects have been determined. And the fourth is a phase for those projects that, despite being known to have significant adverse effects on the site and in the absence of alternative solutions, must nevertheless be carried out for imperative reasons of overriding public interest. As a result of this phase compensatory measures will be established.



Source. *Commission Guidance document on inland waterway transport and Natura 2000, 2012*

PHASE 1.
SCREENING

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

PHASE 1.
SCREENING

The aim in this first phase is to determine whether the project needs to undergo an appropriate assessment of its implications for the Natura 2000 Network. This decision is based on the condition laid down in article 6.3 of the Habitats Directive:

*Any plan or project not directly connected with or necessary to the management of the site but **likely to have a significant effect thereon,** either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.*

The idea is therefore to find out if there is any possibility of such implications, either individually or in combination with other projects.

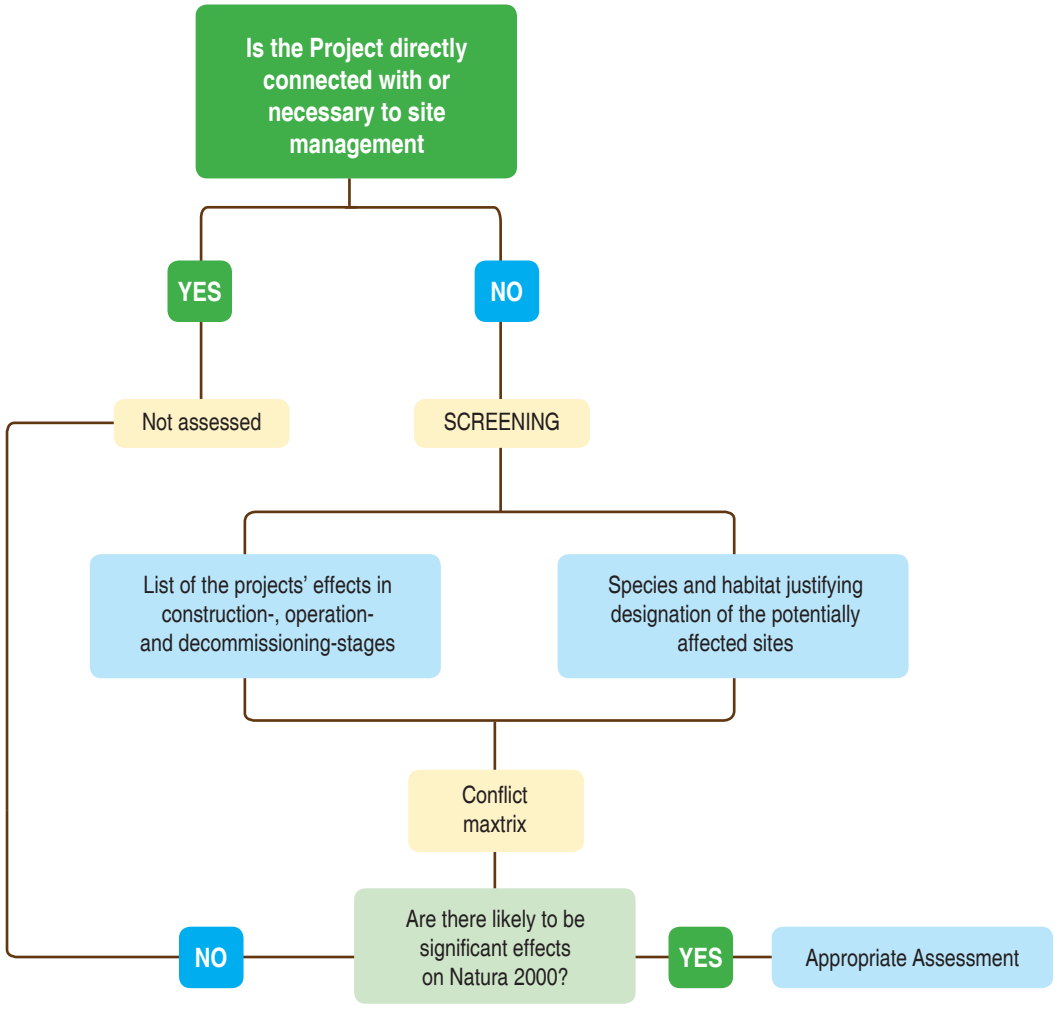


***Figure 6.** Scheme of screening phase.*

CHAPTER 3 / Phase 1

WHAT INFORMATION IS NEEDED TO DETERMINE WHETHER THERE ARE SIGNIFICANT POTENTIAL EFFECTS ON NATURA 2000 SITES AND WHERE CAN IT BE OBTAINED?

The first condition laid down by Article 6.3 for assessment of the implications of a plan or project for the Natura 2000 Network is that it should not be directly connected with or necessary to the management of the site. To that end it would be very useful for the developer to include a section explaining the objective of or grounds for the project, bearing in mind the observations on this matter made in Chapter 2.

In Spain the information needs for assessing a project's likely implications for Natura 2000 sites have been identified by the Ministry of Agriculture, Food and the Environment (*Ministerio de Agricultura, Alimentación y Medio Ambiente)* (2012) in its document Guidelines for Compiling the Necessary Environmental Information for the Environmental Impact Assessment of Projects Likely to Affect the Natura 2000 Network *("Directrices para la elaboración of the documentación ambiental necesaria para la evaluación de impacto ambiental de proyectos con potencial afección a la red Natura 2000").*

The developer has to furnish information on the characteristics of the project likely to produce implications for the Natura 2000 Network in the phases of construction, operation and dismantling. These depend on the project type. Figure 7 shows some of the basic characteristics that have to be included in general for projects of all types.

DESCRIPTION OF THE PROJECT

- Size, scale, surface area, land-take, etc.
- Plan sector.
- Physical changes deriving from the project or plan (due to excavation, piling, dredging, etc.).
- Resource requisites (extraction of water, minerals, etc.).
- Emission and generation of waste (disposal to soil, water or air).
- Transportation requirements.
- Duration of the construction, operation and decommissioning phases, etc.
- Plan implementation period.
- Distance from the Natura 2000 site or from key features of the site.
- Cumulative impacts in combination with other projects or plans.
- Others, as appropriate.

Figure 4. *Information on the main characteristics of the project.*
Source: *Adapted from the European Commission (2002).*

Impacts should be identified with due consideration given to the sensitivity of the habitats or species that the Natura 2000 sites have been set up to protect. This will be birds in the case of SPAs (Special Protection Areas) and the other fauna groups – including vertebrates and invertebrates – and habitats in the case of SACs (Special areas of conservation) or SCIs (Sites of Community Importance).

Enclosed in Annex 2 is a list of publications broken down by project type or biotic group; this might be useful for identifying potential impacts.

In relation to potentially affected Natura 2000 sites, the first thing to find out is whether they have an approved management plan. This document should identify the species and habits involved in the management measures and give a detailed account of the distribution of the species or habitats leading to site designation, their environmental needs, their conservation status, their threats and the appropriate measures for avoiding these threats.

Delays and backlogs in approving the management plans of Natura 2000 sites have been identified in the online survey *Life+ Connecting people with biodiversity* as one of the main hindrances to proper project assessment.

Until such time as all management plans of Natura 2000 sites in Spain have been approved, interim recourse can be made to the information present in the Standard Data Form of Natura 2000. The website of the *Ministerio de Agricultura, Alimentación y Medio Ambiente* gives access to the forms of all the Natura 2000 sites designated by Spain[5].The European Commission's Natura 2000 Network Viewer[6] can also give information on the species.

As well as this information, the government authority with responsibility for management of the Natura 2000 Network is bound to furnish certain site- and species-information for carrying out the assessment. If this information is insufficient or out of date, the project developer should carry out the pertinent studies to top it up as necessary, in order to ensure the government authority takes a well-founded decision. This in fact seldom happens. Only 12% (n= 113) of the survey respondents acknowledge that the environmental documents furnished by the developer, in the form of reports, scientific studies or fieldwork findings, help to update government information on the Natura 2000 Network, whereas 80% point out that environmental documents furnished by the developer do not contain all the necessary information for carrying out the assessment.

It is vital for the writer of environmental studies to weigh up properly the quality of information to hand on the potentially affected site, its habitats and species, filling in gaps and updating this information as necessary.

[5] http://www.magrama.gob.es/es/biodiversidad/temas/espacios-protegidos/red-natura-2000/rn_espana_espacios.aspx

[6] http://natura2000.eea.europa.eu/

As regards the necessary quality of information for deciding on whether there is a need to assess a project's implications for the Natura 2000 Network, judgments C-418/04 and C-404/09 of the Court of Justice of the European Union have ruled in the following terms:

Under Article 6 (3) of the Habitats Directive, an appropriate assessment of the implications for the site concerned of the plan or project implies that, prior to its approval, all aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified ***in the light of the best scientific knowledge in the field.***

The Court of Justice of the European Union, in a request for a preliminary ruling in relation to a potential impact on a SPA (CJEU judgment of 11 September 2012, partial diversion of the River Acheloos, C-43/10, paragraph 115), ruled that Directive 92/43/EEC, and especially its Article 6(3)and(4), should be construed in the sense of **opposing authorising of a river diversion project** not directly related to preservation of a SPA or necessary for same but likely to affect it significantly, ***"where information and reliable and updated data concerning the birds in that SPA are lacking".***

Neither the Directive nor the Spanish Environmental Assessment Law specifies the level of information detail or how data updating should be assessed. It should nonetheless be understood that very precise and up-to-date information is needed to demonstrate the lack of any adverse effects for site integrity, since this decision should be taken in the light of the best scientific knowledge in the field. Said decision, therefore, cannot be based solely on a standard data form, on the information of a national or regional atlas or a national or regional census (see, for example, the case of the high-speed Madrid-Valencia-Murcia train. Chart 3).

Assessment of a project's potential effects on any site's conservation objectives necessarily calls for up-to-date knowledge, at least, of populations, their detailed distribution, local trend, vital requirements, their seasonal use of the site (breeding-, foraging-, feeding- and wintering-areas, etc.) and their threats. On some occasions it could be necessary to analyse population viability to be sure there is no impact on any species. Without this knowledge there is no possibility of an appropriate assessment in light of the best scientific knowledge in the field.

CHART 3.
HIGH-SPEED MADRID-VALENCIA-MURCIA TRAIN

The high-speed train line section "Motilla del Palancar-Valencia" ran alongside several Natura 2000 sites. The assessment procedure did not include an appropriate assessment of the project's implications for these sites but the EIS provided for compensatory measures including the conducting of studies to allow the future implementation of mitigation measures. An appeal was lodged against the authorisation of the project and the National Court (Audiencia Nacional) ruled as follows:

The Directive [habitats] requires states to make an express pronouncement (and not merely mitigation measures) on the viability of the adopted route. This calls for ***a specific environmental study of the species to be protected. This study involves an inventory of the species and a description of their distribution and feeding-, foraging- and breeding sites.***

None of this can be left for the future *but must be assessed and analysed before approving and selecting the most recommendable option in the Informative Study; but the last paragraph of Article 6.3 states forthrightly that the "the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned". This overridingly important declaration was missing from the Environmental Impact Statement, which stems from an already adopted, simply measure-implementing decision. Always bearing in mind that the plan or project, "even if it has no direct relation with site management" could have a significant effect on special areas of conservation"* (Judgment of the Audiencia Nacional of 11 December 2006, ECR 394/2003).

The *Audiencia Nacional* makes it clear in this judgment that the appropriate assessment has to be carried out previously; the assessment or measures cannot be put back to later stages of the decision-taking process. It also points out that the assessment calls for detailed information on bird populations, citing, for example, **an inventory of the species and a description of their distribution and feeding-, foraging- and breeding sites.**

The competent national authority therefore needs to ensure that the Environmental Impact Assessment Report includes painstaking information on all species that might be affected. In fact, the necessary information (description of their location and feeding-, foraging- and breeding-sites, etc.) calls for more than the information gleaned from atlases and regional or national bird counts, which are habitually used in traditional environmental impact studies. Additional fieldwork is needed to identify this missing information. The *Audiencia Nacional* also makes it clear that it is not acceptable to put back the obtaining of this information for the future. This is in fact how it is often done in many cases where the compensatory measures include the conducting of fauna- or flora-studies that should rightfully have formed part of the Environmental Impact Assessment Report.

An appropriate assessment of the implications for the site concerned of the plan or project implies that, prior to its approval, all aspects of the plan or project which might, individually or in combination with other plans or projects, affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field. This entails obtaining dependable and up-to-date information on the fauna and protected habitats before authorisation. This information will have to be very detailed, including a description of their location and feeding-, foraging- and breeding-sites for each one of the species and habitats.

The assessing body therefore has to take into account the quality of the furnished information. In most projects it is easy to discern, in this screening phase, whether there is any likelihood of an effect that would call for an appropriate assessment. In others, however, where there is not such a clear relation, it might be necessary to delve deeper, analysing more information and arriving almost at the level of the appropriate assessment (see Chapter 11).

The responsibility for keeping information on the Natura 2000 Network rests with the mayusc Member States (Article 11, Directive 92/43/EEC), but if this information is missing the developer may choose to conduct the necessary studies for filling in and updating the information, since competent national authorities are entitled to authorise a project **only if they have made certain that it will not adversely affect the integrity of that site** (Judgment Commission/ Ireland, C-418/04, ECR P. I-10947 paragraph 243).

The Court of Justice of the European Union has used the information of the Standard Data Forms to demonstrate the need of assessing the implications for the Natura 2000 Network. Witness the judgment against the Kingdom of Spain for authorising open-cast mines but failing to subject that authorisation to an appropriate assessment in order to identify, describe and assess in an appropriate manner the direct, indirect and cumulative effects of said projects on the *"Alto Sil"* SPA (Case C-404/2009). This judgment ruled that the authorisation of the projects flouted the provisions of Article 6.3 of the Habitats Directive, failing as it did to assess the risk posed by those projects for the capercaillie, which is one of the natural assets that justified the classification of the *"Alto Sil"* as a SPA. The Court of Justice ruled that, in this case, protection of the capercaillie **clearly constitutes a conservation objective** which led the Kingdom of Spain to classify the *"Alto Sil"* site as an SPA in 2000. Furthermore, (on the basis of the site's Standard Data Form) it recalls that the national authorities, when it was proposed to classify that site as an SCI in 1998, stated that the capercaillie population in said zone was of **regional** or even **national** importance and that the **vulnerability** of that site was fundamentally due to open-cast coal mining operations. Although, once the management plan has been approved, it is this document that should contain the conservation objectives for each one of the species present on the Standard Data Forms.

To assess the possible effect on a Natura 2000 site, due consideration has to be given to the habitats and species accounting for the site's conservation objective, their population, abundance, data quality, their degree of isolation and overall evaluation, as well as threats, pressures and activities with site impact. All this information is contained in the Standard Data Form. If the site in question has its respective management plan, this will contain the most up-to-date information.

It is in this **screening phase** where conflict matrices come into their own, for bringing project effects or impacts into relation with site conservation objectives. It should be remembered that in this phase it is necessary **only to establish that there is a likely effect**, whereupon the whole processes moves on to the next phase to ascertain if these effects are significant. The matrix has to include the species listed in the Habitats Directive and Birds Directive that are present in the area affected by the project (both inside and outside Natura 2000 sites). By way of example a conflict matrix is shown below for assessing the impact of fishery activities.

Given that the implications for the Natura 2000 Network have to be assessed on the basis of the best available knowledge, it is necessary to ensure that all **information** furnished by the developer is correctly **referenced** to facilitate its validation.

Table 3. *Example of conflict matrix. Source: The N2K Group. 2010..*

Species of EU interest	Bycatch by fishing gears								Other effects
	Bottom trawl	Pelagic trawl	Beam trawl	Towed dredge	Gillnet	Longlines	Food depletion	Disturbance	Discard
Caretta caretta									
Tursiops truncatus									
Calonectris diomedea									
Etc									

To improve the procedure it is essential in this phase **to begin as soon as possible the dialogue with the body holding responsibilities for Natura 2000 sites** likely to be affected by the project. Given the binding character of the assessment of implications for the Natura 2000 Network it is vital to find out as soon as possible about any possible effect on the Natura 2000 Network since this will determine whether the project can go ahead. For this reason, liaison with the government authority with responsibilities for the Natura 2000 Network could facilitate identification of and access to the necessary information, guide the search for new alternatives and assessment of direct, indirect and cumulative effects.

CHART 4.

EXAMPLE OF GOOD PRACTICES. HOLDING MEETINGS IN THE INITIAL PHASE.

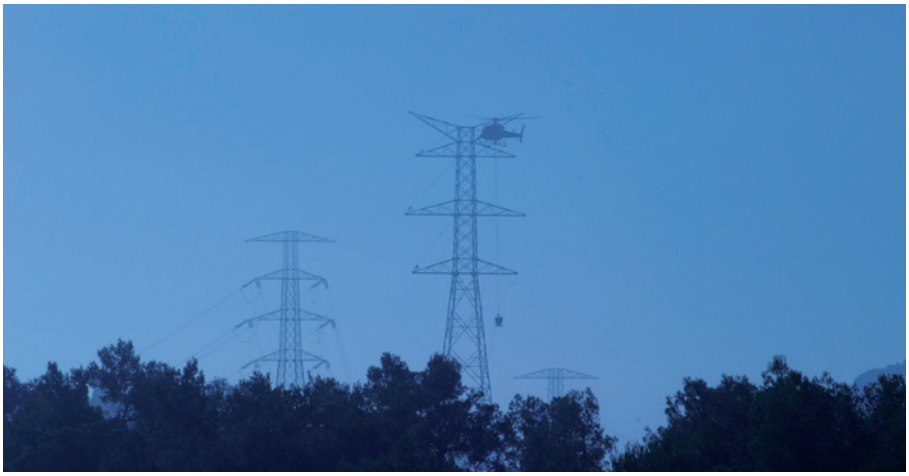
Projects related to the 400 kV Spain-France electrical interconnection: Buried direct-current power line Santa Llogaia-French border; 400 kV power line Bescanó - Ramis - Santa Llogaia, 400 kV substation Ramis and 400 kV substation Santa Llogaia; 400 kV input and output power line to the Riudarenes substation from the Sentmenat – Vic – Bescanó line.

Although the responsible environmental body for these projects is the *Ministerio de Agricultura, Alimentación y Medio Ambiente*, a key role was played from the start by the *Subdirección General de Evaluación Ambiental de la Generalitat de Catalunya* (Environmental Assessment Subdirectorate General of the Regional Government of Catalunya). The sheer scale of these projects (affecting several Natura 2000 sites) made close liaison essential between all the parties to ensure the resulting Environmental Impact Assessment Report had the right approach and level of detail. Meetings were held right from the initial phases, involving the developers and environmental teams both of the *Ministerio and the Generalitat.* This fluid communication between the parties was greatly beneficial to the whole process, not only from the environmental point of view but also from the procedural point of view. For example, the meetings enabled the developer to give prompt information on each likely environmental impact, favouring the agreed adoption of preventive measures with the bodies responsible for fauna and nature sites. These good results have now been carried over into the environmental monitoring phase.

The government authority is bound to make due arrangements to facilitate access to information on Natura 2000 sites. To do so it will have to bear in mind that, within the framework of these appropriate assessments, fieldwork studies are often conducted and the scientific information accruing there from often remains in the hands of developers, consultancy firms and the government. If this information were made available to all developers it would not only improve the quality of the assessment but also prevent overlapping and therefore redundant study efforts.

In any case government authorities have to ensure that sensitive-species or -habitat information is not inadvertently made available to the public in general. For example, the developer of a project that might affect a raptor population has to work with geo-referenced information on the nests of these species, but this information will have to handed over with a series of confidentiality clauses to head off any possibility of this information reaching networks of raptor nest robbers. And this information could certainly not be included in the Environmental Impact Assessment Report made available to the general public.

It is also very important to strengthen internal dialogue and cooperation mechanisms between the various regional ministries, boards and services of the government authority that participate in the authorisation and assessment procedures of projects likely to affect the Natura 2000 Network. This is especially important in countries like Spain with a complex network of government authorities made up by the central state government, 17 regional authorities, 50 provinces and two self-governing cities.



Sentmenat-Bescanó power line section. Red Eléctrica Española.

Source:
Dirección General de Políticas Ambientales. Generalitat de Catalunya.

CHAPTER 4 / Phase 1
HOW SHOULD CUMULATIVE OR SYNERGISTIC EFFECTS BE ASSESSED?

Article 6.3 of Directive 92/43/EEC lays it down that the assessment should be carried out with due consideration given to the effect of the project in combination with other plans or projects. Notably, this assessment should take in not only existing plans and projects but also those in the pipeline.

The first step to be taken by the developer to obtain this information is to ask the government for it, giving grounds for this request. To find out which plans or projects are currently in the process of environmental assessment, depending on their location, use could be made of online platforms run by some government authorities. These databases facilitate searches by location (local authority, province) and by type of project.

A study of the cumulative and synergistic effects is a *sine qua non*, as ruled by many judgments. On the one hand, consideration has to be given to the cumulative and synergistic impact of all necessary infrastructures for the project to work properly. In the case of wind farms, for example, as well as assessing bird collision with wind turbines, an assessment also has to be made of the impact due to bird collision with the grid-access power line.

Consideration also has to be given to the cumulative impact in combination with other projects, both existing and projected.

CHART 5. MURIAS II WIND FARM

The Murias II wind farm in Murias de Paredes (León) had its authorisation cancelled because it had adhered ineligibly to the simplified environmental impact assessment procedure. During the proceedings no consideration was given to the farm's location within a site proposed as SPA, Omañas, belonging to the Natura 2000 Network; the assessment had also been fragmented. The developer appealed against cancellation of the authorisation; this appeal was turned down by the Higher Justice Court of Castilla y León (Tribunal Superior de Justicia de Castilla y León: TSJCyL) (judgment 1448 of 10 June 2009) on the grounds that fragmentation of the project had left out of account the grid-access power line and no consideration had been given to the 18 wind farm projects being dealt within a 10 k radius. In its Legal Ground Six the TSJCyL ruled as follows:
"As the Chamber has already ruled in the judgment of 3 March 2009, in the environmental impact assessment of projects such as the one examined herein due consideration has to be given to the synergistic and cumulative effects of other existing facilities, the grid-access line and the substation. In other words consideration has to be given to all elements the wind farm needs to work, and also the incidence thereof in relation to other existing farms."

Lastly, special mention must be made of small-scale projects with a combined effect in the same area.

Witness the judgment of the Court of Justice of the European Union (C-418/04) in which Ireland had not requested environmental impact assessment for shellfish farms on the grounds that *they are small in size and are of only limited impact on the environment.* The European Commission quite rightly argued that this is not an adequate reason for not assessing the effects of such a plan or project. And the Court ruled that: *As just pointed out in paragraph 238 of this judgment, the first sentence of Article 6(3) of the Habitats Directive requires an appropriate assessment of any plan or project in combination with other plans and projects. It is also clear from the Court's case-law that the failure to take account of the cumulative effect of projects in practice leads to a situation where all projects of a certain type may escape the obligation to carry out an assessment, whereas, taken together, they are likely to have significant effects on the environment (see, by analogy, Case C-392/96 Commission v Ireland [1999] ECR I-5901, paragraph 76).*

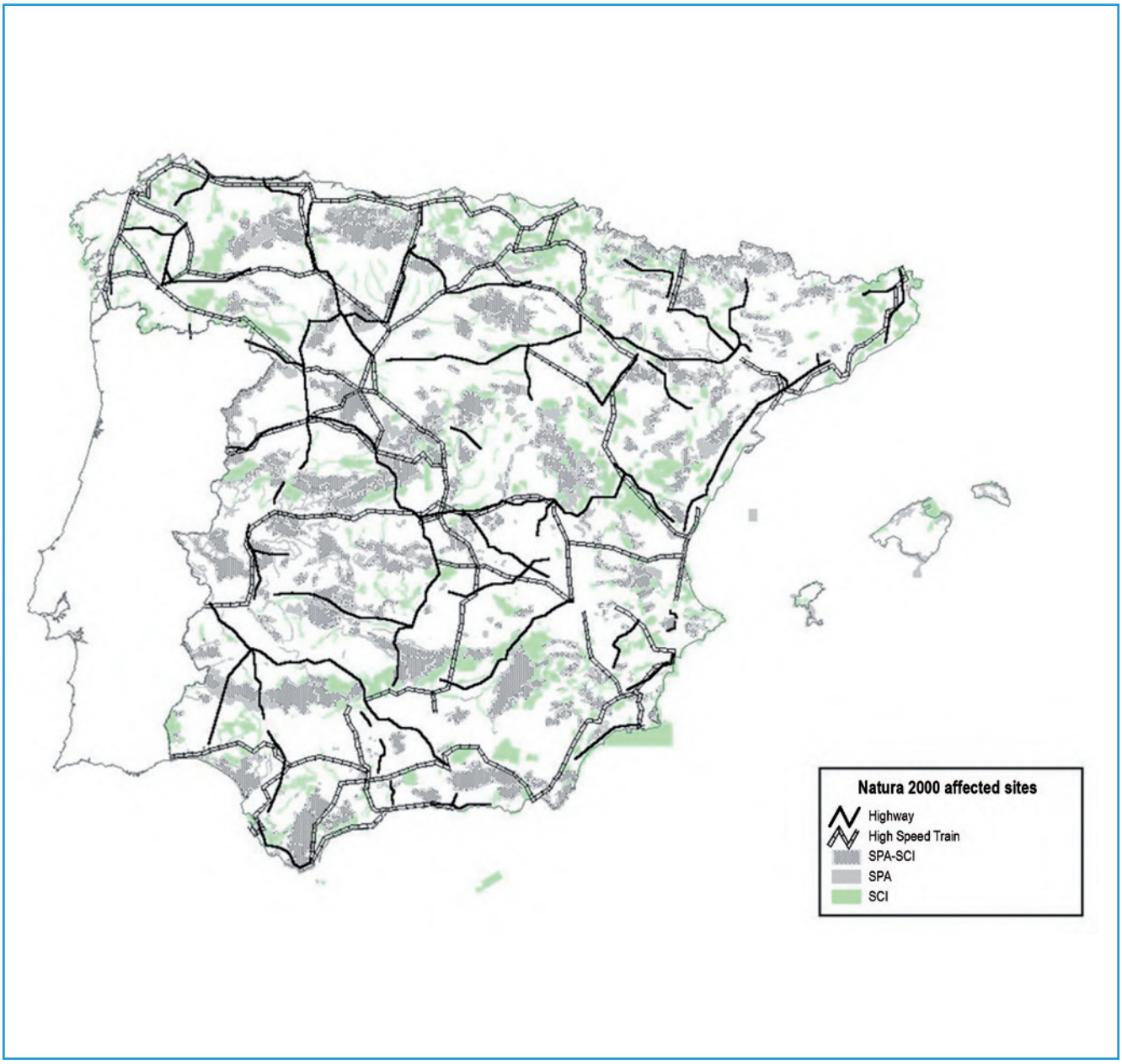
Special heed has to be paid to the assessment of cumulative and synergistic effects of projects that are not subject to the environmental impact assessment procedure because they do not reach a given threshold and those projects where the decision is taken on a case by case basis.

In the first workshop held for writing this manual the participants stressed the importance of the strategic environmental assessment as the appropriate level for assessment of cumulative and synergistic effects, although they also recognised that, depending on the plan in question, strategic planning is not always specific enough.

An enquiry should be made about the existence of plans that, by analysing cumulative or synergistic impacts, have been able to delimit or zone the territory, bearing in mind that planning of this type does not exclude the corresponding assessment of implications for the Natura 2000 Network. In many cases sector-based or regional plans can include constraints or criteria to be taken into account when assessing projects. For example, catchment-area plans (for reservoir and dam projects) transport plans (for roads and motorways) wind power plans (wind farms) etc. It is also useful to consult certain strategies, such as the marine strategy (for offshore oilfield projects, power transmission, gas pipelines, submarines, aquaculture, offshore wind farms).

CHART 6.
STRATEGIC INFRASTRUCTURE AND TRANSPORT PLAN

The European Commission opened infraction proceedings against Spain for the Strategic Infrastructure and Transport Plan 2005-2020 (Plan Estratégico de Infraestructuras y Transporte 2005-2020: PEIT) due to the failure to assess the impact on the Natura 2000 Network. The Environmental Sustainability Report (Informe de Sostenibilidad Ambiental) claimed that the Plan's level of detail did not enable an assessment of the effect on the Natura 2000 Network to be carried out. Nonetheless, a SEO/BirdLife study showed that its assessment was possible, identifying that 1800 km of the PEIT infrastructure (13.1% of the total length of infrastructure considered) ran through the Natura 2000 Network and that a total of 327 sites would be affected (see methodology in Atienza *et al.* 2004). Afterwards the Ministry of the Environment and Rural and Marine Affairs (Ministerio de Medio Ambiente y Medio Rural y Marino) carried out a study of the PEIT's effect on the Natura 2000 Network and came to much the same conclusions as SEO/BirdLife..



As regards the determination of synergistic effects, authors like Garza Villegas *et al.* (2011) point out that *"it is not easy to ascertain clearly just when cumulative effects begin to have a synergistic component"*. And they also point out that, it is **necessary to obtain precise information on population parameters** that will be affected. Population monitoring data is needed over a sufficient time period (they consider that, in the case studied by them, three years is too short a time for drawing conclusive results). The synergistic effects could be assessed by means of models that analyse the **key survival aspects of the affected species**. In the case analysed by Garza Villegas said factors were the connectivity and viability of Dupont Lark populations *(Chersophilus duponti)* potentially affected by the setting up of 15 wind farms. *This is a species with a very patchy distribution, so the connection between the scattered populations could be a crucial factor in its population trend. This can be analysed only by means of models, in default of any precise information on the degree of relation between them. This would involve conducting long-term studies by means of* ***genetic analysis or capturing/recapturing individual birds.*** *To assess the effect of this infrastructure, viability models have been used to identify the basic parameters acting as constraints on future viability (mortality, birth rate, etc.) The programme used for trend analysis to detect year-on-year changes was TRIM*[7] *v. 3.40 (Trends & Indices for Monitoring data), a frequently used technique for analysis of fauna time series. Census data was adjusted by Time Effect models and the Linear Trend).*

A *sine qua non* for obtaining all necessary information for determining whether there is likely to be adverse effects on a Natura 2000 site is a correct definition of the study area.

CHART 7.
CUMULATIVE IMPACT ASSESSMENT IN A MADRID SPA

Probably the first cumulative-impact study in a Natura 2000 site in Spain was the one conducted in 1998 by SEO/BirdLife for the *Gestor de Infraestructuras Ferroviarias* (Railway Infrastructure Managing Body) to assess the impact of three line infrastructures, the M-50 motorway, the R-3 toll road and the high-speed Madrid-Barcelona railway line, on the SPA *"Cortados y Cantiles de los ríos Manzanares y Jarama"*. The study was restricted to a part of the SPA though which the three infrastructures were to run. One of the study conclusions was that the study area was insufficient and that it was necessary to analyse the whole SPA and include more of the infrastructure. On this basis, SEO/BirdLife conducted a second study in 1999 for the *Secretaría de Estado de Infraestructuras y Transportes* (Secretary of State for Infrastructure and Transport) of the Ministerio de Fomento (Ministry of Public Works) in which the **field of study** was extended to the whole SPA and included a new infrastructure, the M-45 motorway. The study concluded that direct, indirect and induced impacts would be produced on populations of peregrine falcon and lesser kestrel and on the riverside thickets of the River Jarama, and that they could not be lessened by means of mitigation measures. Despite the implications for the Natura 2000 Network, the infrastructure was built with compensatory measures. Some of this infrastructure, such as the R3, turned out to be unnecessary, bankrupting the concessionary firm due to the lack of vehicles.

[7] Pannekoek, J. and Strien, V. 2005. TRIM 3 Manual (Trends & Indices for Monitoring data. Voorburg: Statistics Netherlands.

Madrid -Barcelona high speed railway viaduct

CHAPTER 5 / Phase1
HOW SHOULD THE SIGNIFICANCE OF THESE EFFECTS BE ASSESSED?

In the **screening phase** a decision has to be taken on whether the project needs to undergo an **appropriate assessment.** As we have seen, this happens when the Natura 2000 sites are likely to suffer a significant effect.

An important point here is that Article 6.3 of the Habitats Directive speaks of a "likely" significant effect. This use of the word **"likely"** presupposes that there is no need for any certainty, otherwise a more forthright term like "certain significant effect" would have been used.

According to the judgment of the European Court of Justice (C-127/02 paragraph 46-48, C-258/11) *when a plan or project not directly connected with or necessary to site Management is likely to undermine its conservation objectives it must necessarily be considered likely to have a significant effect on the site. This possibility must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project.*

The requisite that the effect be **significant** is established with the end of setting a minimum limit. This limit must necessarily be **very low**[8] and works as a mere threshold for determining whether an appropriate assessment needs to be carried out.

The next example, taken from an environmental impact assessment proceedings in which SEO/BirdLife called for an appropriate assessment of the effects of several wind farms on the Natura 2000 Network, shows the criteria underpinning this application.

CHART 8.STUDIES OF THE ANNUAL CYCLE OF BIRDLIFE AND BATS OF THE ALTOS DE CHINCHILLA I WIND FARM

The complementary document to the "Study of the annual cycle of birds and bats" of the *Altos de Chinchilla* I wind farm identified that the general scope of study partly overlapped with the SPA *"Área Esteparia del Este de Albacete"*, hosting great bustard populations. The section 4.2 Power Lines also identified, on the basis of the figures of the *Ministerio de Agricultura, Alimentación y Medio Ambiente*, that power line collision is one of the causes of great bustard mortality. Furthermore, power lines have been identified as one of the threats on the SPA *"Área Esteparia del Este de Albacete"* as recorded in the Standard Data Form. On the basis of records of birds injured by power lines from the *Centro de Recuperación de Fauna* (Wildlife Rescue Centre) of Castilla-La Mancha of the province of Albacete, six injured great bustards had been brought into the centre in six months, one of them within the study area (see page 81 of the Addendum). Furthermore, the study itself indicated that *most of these birds suffering electrocution or power-line collision die and the recorded figures tell us only about those that survive the incident. To this must be added the factor of low electrocution detectability in the field (10-20% detection rate on average)*, whereby the real accident rate from this cause must be much higher. Lastly, and considering that the proposed route of the grid-access power line of these farms lies less than three kilometres from the border of the SPA and that it also crosses a great bustard lek shown in "Map 3: Zones of Interest for Birdlife", no other conclusion could be drawn but that the competent authority should turn down authorisation of the proposed wind farms Altos de Chinchilla I, II and III, Pozo Cañada and Loma Caras II and III until such time as assurance could be given that they will have no significant effect on the Natura 2000 Network.

In this example the factors used to determine the likelihood of a significant effect on the conservation objectives of the Natura 2000 Network were: the location of the projected wind farm in relation to the site and to the distribution of one of the species making up the site's conservation objectives (great bustard) and the proneness of this species to collision with project infrastructure (power line). Then an assessment was made of the likely scale of this mortality on the basis of figures quoted in the Environmental Impact Report itself. Judging from the Standard Data Form of SPA ES000153 *"Área Esteparia Este de Albacete"* the great bustard population adds up to 275 and the power lines have a medium negative impact. On the basis of the figures furnished by the developer, if the recorded mortality is 72 birds a year and applying the proposed detectability ratio, this comes out as an estimated mortality of between 330-720 birds,– outnumbering the existing population – the conclusion can be drawn that significant effects on SPA ES000153 are likely. An **appropriate assessment** should therefore be carried out to study the viability of the great bustard population by application of population models.

[8]Request for a preliminary ruling Case C-258/11. Conclusions presented on 22 November 2012, by the Advocate General, Eleanor Sharpston.

In the first workshop held by SEO/BirdLife for drawing up this manual, government environment officers pointed out that studies usually confuse the term "significant impacts" when applied by virtue of the normal environmental impact assessment and when applied in assessing the implications for the Natura 2000 Network. Article 5 of the Environmental Assessment Law 21/2013 *(Ley de Evaluación Ambiental)* defines the terms in both contexts:

b) "Significant impact or effect": permanent or long-term alteration of a natural asset and, in the case of Natura 2000 sites, when it also affects the elements justifying its designation and included among its conservation objectives.

Annex VI Environmental Impact Report and technical criteria, for its part, defines it as follows:

Significant effect: that which manifests itself as a modification of the environment, of the natural resources or its fundamental functioning processes, producing or likely to produce appreciable repercussions thereon.

The difference therefore lies in the fact that, for the Environmental Impact Report, the alteration could occur in natural assets, including the population, human health, the flora, the fauna, biodiversity, geodiversity, the soil, the subsoil, air, water, climate factors, the climate change, landscape, material assets including cultural heritage and the interaction between them, while assessment of the implications for the Natura 2000 Network is based solely on the site's conservation objectives.

Nonetheless, *Ley 21/2013* introduces another variable for the impact to be considered significant, namely that the alteration has to be permanent in character or long term. In other words, the effect has to represent an open-ended alteration of predominant factors in the structure or functioning of the ecosystems or environmental relations present in the site.

With the aim of avoiding inconsistent assessments throughout Spain's territory and heading off disparity, the workshop agreed to make the following recommendation:

"It would be necessary to define some technical criteria to be held in common by comunidades autónomas and the various officers and experts responsible for the assessment and the Natura 2000 Network; this criteria would help in deciding whether or not there will be a significant impact on the Natura 2000 Network".

In Germany, for example, to avoid assessment subjectivity and ensure uniformity and consistency in assessing the significance of the impacts, the Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN) laid down a series of conditions to be met for the impact to be considered as insignificant (Ecosystems LTD, 2013), namely:

- Specific features of the given habitat/ habitat for species or key habitats of the typical species must remain unaltered.
- Tentative values of "quantitatively – absolute area loss" are not exceeded.
- Supplementary values of "quantitative – relative area loss" of 1 % are not exceeded.
- Cumulative effects with other projects do not lead to exceeding the above threshold values.
- Cumulative effects with other factors do not occur.

A research project has also been conducted on the habitats and species of the Habitat and Birds Directives for establishing various thresholds below which an appropriate assessment should be carried out.

The establishment of thresholds calls for a thoroughgoing investigation; the significance of the impacts has to be assessed on a case-by-case basis, since the loss of a certain number birds or a given land surface, for example, could be significant for a given species and not for another. Everything depends on the conservation status, on the breeding strategy, on species longevity or the available habitat surface area in a good state, among other factors.

Ireland's Forest Service of the Department of Agriculture, Food & the Marine (Ecosystems LTD. 2013b) has drawn up a computerised questionnaire that, by means of a series of questions to be answered by the District Forest Inspector, determines whether a particular project should undergo an appropriate assessment. The form also invites feedback from referral bodies.

Applications of this type, speeding up the procedure, can be very useful. But they need to be drawn up specifically for certain activities or project types in given sites.

In the first workshop held under the aegis of this guide, some government environment officers proposed that lists be drawn up for systematic exclusion of certain types of projects or activities from the Natura 2000 impact assessment procedure. This is not possible, however, since case law has already been laid down on this matter. Witness the judgment of the Court of Justice of the European Union in Case C-538/09:

42. The option of generally exempting certain activities, in accordance with the rules in force, from the need for an assessment of the implications for the site concerned is not such as to guarantee that those activities do not adversely affect the integrity of the protected site (see, to that effect, Commission v Germany, paragraphs 43 and 44, and Case C-241/08 Commission v France [2010] ECR I-1697, paragraph 31))."

43. Thus, Article 6(3) of the Habitats Directive does not authorise a Member State to enact national legislation which allows the environmental impact assessment obligation for development plans to benefit from a general waiver because of the low costs entailed or the particular type of work planned (see, to that effect, Case C-256/98 Commission v France [2000] ECR I-2487, paragraph 39).

44. Similarly, by systematically exempting works and development programmes and projects which are subject to a declaratory scheme from the procedure for assessing their implications for the site, a Member State fails to fulfil its obligations under Article 6(3) of the Habitats Directive (see, to that effect, Case C-241/08 Commission v France, paragraph 62).

45. It is therefore clear from the case-law of the Court that, in principle, pursuant to Article 6(3) of the Habitats Directive, a Member State ***may not,*** *on the basis of the sphere of activity concerned or by introducing a declaratory scheme,* ***systematically and generally exempt certain categories of plans or projects from the obligation requiring an assessment to be undertaken of their implications for Natura 2000 sites.***

In the sphere of Spanish regional legislation, a judgment of the *Tribunal Superior de Justicia de Castilla y León* (the higher court of justice for the region of Castilla y León, based in Valladolid) of 26 December 2013 (ROL STSJ CL 5775/2013) **declared partial nullity of several articles** of *Decreto* 6/2011, establishing the Natura 2000 impact assessment procedure of those plans, programmes or projects carried out within the territorial remit of the region of Castilla y León.

Article 2.1 violated the principle of the hierarchy of legal provisions by excluding, on the basis of land-development classification, assessment of the impacts of plans, programmes and projects in these sites. This Article limited Natura 2000 impact assessment to such plans, programmes or projects as are carried out on soil classified as non-development or on development land when the legislation classifying it as such did not originally undergo assessment of implications for the Natura 2000 Network.

For the same reason it considered section 3 of said Article 2 to be null and void on the grounds *a priori* that a given plan, programme or project is not likely to have a significant impact on the Natura 2000 Network.

As regards section 4, which entitles the competent authority to exclude certain projects from the obligation of performing the due assessment, the nullity is based on the fact that *the decision of whether or not to carry out the assessment is not discretional in nature; rather should it guarantee an in-depth analysis of the plan, programme or project in keeping with the established conservation objectives for the site in question.*

One of the most important aspects that this judgment declared to be null and void is the possibility of excluding from the Natura 2000 impact assessment procedure those projects that are included in *regional planning instruments such as the Management Plans of the Natura Network or the Master Plan of the Natura 2000 Network.* The Court ruled that these exceptions violated the principle of the hierarchy of legal provisions and infringed article 45 of the Spanish Natural Heritage and Biodiversity Law 42/2007 *(Ley del Patrimonio Natural y of the Biodiversidad)*, which does not allow for such exceptions, and also Article 6.3 of the Habitats Directive.

CHAPTER 6 / Phase 1
NO SIGNIFICANT EFFECTS REPORT

The competent national authorities are entitled to authorise a project only when certain it will have no significant effects on the Natura 2000 site, in which case a No Significant Effects Report has to be drawn up and made available to the interested parties (European Commission, 2002).

This report has to give grounds for the decision and explain how the conclusion was drawn that there would be no significant implications for the Natura 2000 Network. This justification has to be based on objective data; it has to indicate the direct and indirect effects that have been taken into account, the other projects that have been considered in order to gauge cumulative effects and the impact-assessing indicators used.

Decisions stating baldly that this assessment is not necessary because there is no significant effect, without giving any grounds and without the case proceedings including a report to this effect from the body with Natura 2000 responsibilities, are not acceptable (Gallego, 2014).

CHART 9.
SANTANDER WATER SUPPLY.
"BITRASVASE EBRO-BESAYA-PAS".

This project involved a set of hydraulic constructions to divert water during rainy periods from several catchment areas of the headwaters of the River Besaya to the Ebro reservoir, where it would be stored for subsequent use during the dry season for supplying water to Santander and Torrelavega. The project affects the SPA *"Embalse del Ebro"* and the SCI *"Río y Embalse del Ebro y Río Pas"*. The environmental body of the Government of Cantabria submitted the project to a simplified environmental impact assessment procedure, issuing an Environmental Impact Estimate indicating that the project *"will have no significant adverse effects on the sites included in the Natura 2000 Network, providing that the following conditions are observed …"*.

An appeal was lodged against this decision in which the *Audiencia Nacional* (judgment of 17 January 2011, ECR 273/2004) considered that no minimally sufficient grounds had been given for the **appropriate assessment** pursuant to article 6.3 of Directive 92/43, on the basis of the best scientific knowledge in the field.

The *Audiencia* considered that the Natura 2000 Watchdog Body's declaration that *"The appropriate assessment under Article 6.3 of Directive 92/42/EEC indicates that the project will have no significant adverse implications for the Natura 2000 Network, providing the following conditions are observed"*, to lack any grounds for this conclusion. The judgment was confirmed by the *Tribunal Supremo* in a judgment of 18 December 2013, ECR 1594/2011 which found that the conclusion of nullity should be ratified, since giving grounds for the decision in these cases is a *sine qua non* rather than just a formality.

The Habitats Directive does not lay down any validity term for the No Significant Effects Report. In Spain, however, some regions such as Castilla y León, have included in their regulation the possibility of establishing a validity term for what is called in Spanish the Informe de Repercusiones sobre la Red Natura 2000 (IRNA) (Natura 2000 Implications Report). If the project has not been initiated on the ground within this term, then the IRNA is understood to have expired and will have to be applied for a new (see section 3, art. 5, Decreto 6/2011).

The Natura 2000 No Significant Effects Report is a prerequisite for receiving funds from the European Union.

For the purposes of European legislation on community funds, the Environmental Assessment Law 21/2013 lays down in its additional provision nine that the environmental body of the General State Administration *(Administración General del Estado: AGE)* will be the competent authority for issuing the Natura 2000 No Effect Report for AGE-authorised projects when the environmental impact assessment, where compulsory, has determined that there is no impact on the Natura 2000 Network.

FINDING OF NO SIGNIFICANT EFFECTS REPORT	
NAME OF PROJECT OR PLAN	
NAME AND LOCATION OF NATURA 2000 SITE	
Description of the project or plan	It would be helpful for a map or plan to be provided.
Is the project or plan directly connected with or necessary to the management of the site (provide details)?	Provide details of size, scale, the physical requirements of construction, operation and, where relevant, decommissioning.
Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?	Define boundaries for the assessment, details of responsibilities regarding other projects or plans and the name and location of other projects or plans (maps will again be a useful tool to illustrate relationships).
THE ASSESSMENT OF SIGNIFICANCE OF EFFECTS	
Describe how the project (alone or in combination) is likely to affect the Natura 2000 site. plan	Include direct and indirect effects and explain how the assessment was carried out.
Explain why these effects are not considered significant.	This may be done with reference to key indicators of significance including degree of change to the site, duration of the project or plan, etc.
List of agencies consulted.	Provide contact name and telephone or e-mail address.
Response to consultation.	State whether the agencies consider the effects are significant or not.

DATA COLLECTED TO CARRY OUT THE ASSESSMENT			
Who carried out the assessment?	**Sources of data**	**Level of assessment completed**	**Where can the full results of the assessment be accessed and viewed?**
This could be the competent authority, project or plan proponent, or national or regional responsible government agency.	This will include field studies, existing records, consultation with relevant agencies, etc.	This could include desktop study, full ecological assessment, etc. Indicate the degree of confidence that can be attributed to the results of the assessment	Provide times and dates when the information can be viewed, and addresses and telephone numbers of the contact persons.
OVERALL CONCLUSIONS			
Explain how the overall conclusion that there are no significant effects on this Natura 2000 site was arrived at.			

Figure 8. *Finding of no significant effects report*
Source: *European Commission, 2002.*

CHAPTER 7 /Phase 1
WHAT HAPPENS IN THE CASE OF DOUBT ABOUT THE NON-EXISTENCE OF SIGNIFICANT EFFECTS?

In the event of any doubts about the non-existence of significant effects, the precautionary principle will come into play, as established in the United Nations Conference on the Environment and Development (Río de Janeiro, 1992) and brought into Community Law as a guiding principle of its environmental policy (article 174.2 of the EEC Treaty). This principle has been applied to various aspects of the Habitats Directive and, in particular, in the event of any doubt about the non-existence of significant effects, as borne out by case law:

"In the light, in particular, of the precautionary principle, which is one of the foundations of the high level of protection pursued by Community policy on the environment, in accordance with the first subparagraph of Article 174(2) EC[9] , and by reference to which the Habitats Directive must be interpreted, such an assessment must be carried out if there is any doubt as to the absence of significant effects (see Waddenvereniging and Vogelbeschermingsvereniging, paragraph 44)" Judgment of 13 December 2007, case C-418/04.

In application of the precautionary principle said **appropriate assessment should be conducted in the event of reasonable doubt about the existence of significant effects from the scientific point of view and also when, due to a lack of sufficient technical information about the projects or environmental assets affected, there is no certainty about the type or intensity of the impact.**

An appropriate assessment has to be carried out whenever there is any doubt about the possibility of significant implications for the Natura 2000 Network.

[9] The founding treaty of the European Union.

Villafáfila landscape, Natura 2000 site designated as SPA and SCI.

CHAPTER 8 / Phase 1
CONSEQUENCES OF AUTHORISING A PROJECT WITHOUT HAVING CARRIED OUT AN APPROPRIATE DECISION-MAKING PROCESS

A government authority cannot authorise a project without having assessed the implications for the Natura 2000 Network when this project might have a significant effect on the site's conservation objectives within the meaning of the second sentence of Article 6.3 of the Habitats Directive. This follows from the judgment of the Court of Justice in case C-418/04, paragraph 259. This judgment refers to drain maintenance work that might have a significant effect on the Glen Lough SPA; the Irish government carried out this work in 1997 without previously conducting an appropriate assessment of its effects on the site or following an appropriate decision-taking procedure. This prompted the Court of Justice to rule that Ireland had breached the obligations incumbent thereon by virtue of Article 6.3 of Directive 92/43/EEC.

CHART 10.
WIDENING OR UPGRADING OF THE M-501 ROAD.

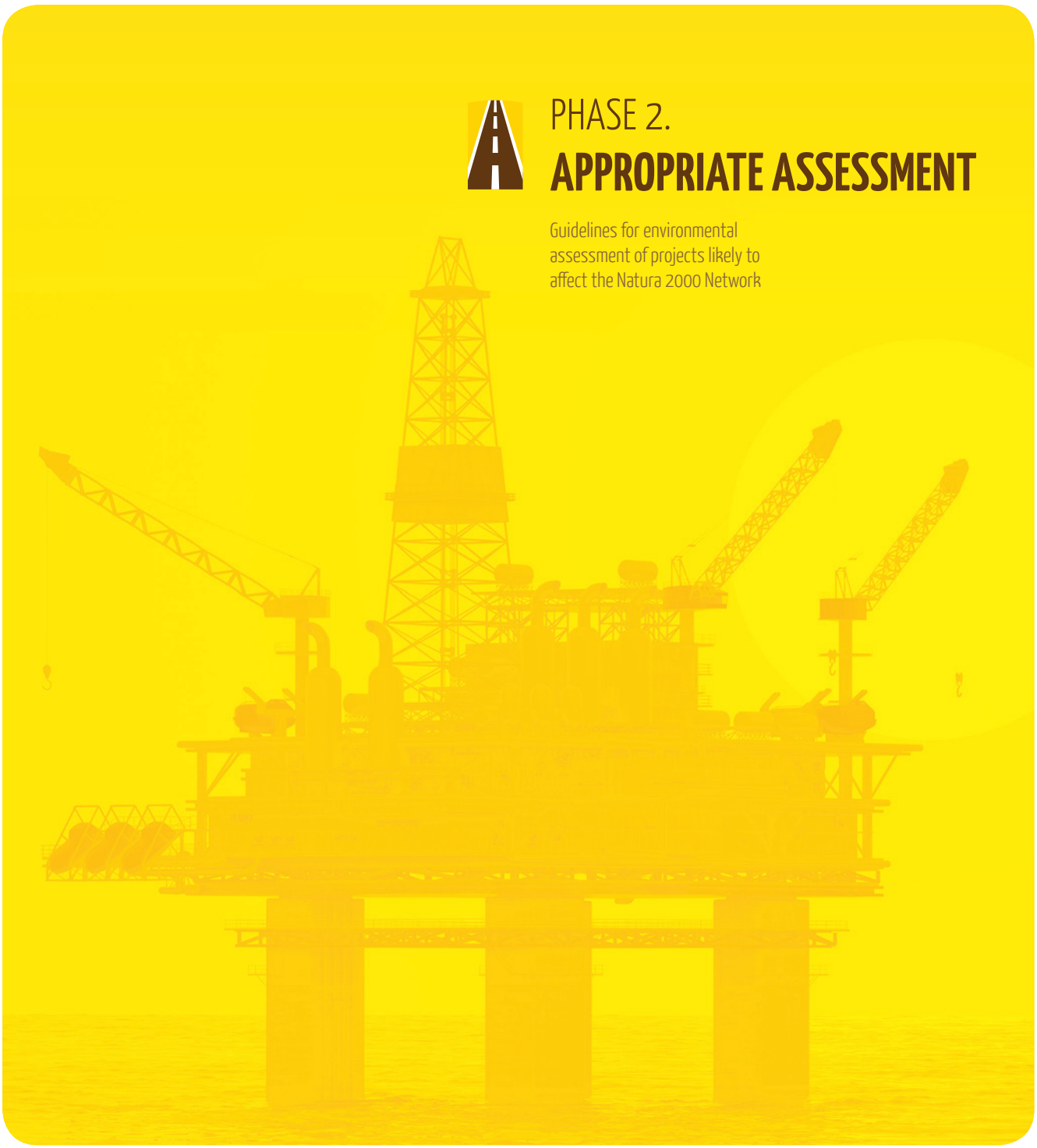
The Court of Justice (judgment of 15 December 2011 in the case C-560/08) analysed the widening of the M-501 road in a site listed as a SPA and proposed as a SCI. The road scheme was initially assessed but only one of its five sections, the first one outside the site, obtained a positive EIS. The environmental body considered that the Environmental Impact Report had failed to assess appropriately the implications for the Natura 2000 Network. The Comunidad de Madrid commissioned a new study from the Higher Scientific Research Council (Consejo Superior de Investigaciones Científicas: CSIC), which concluded that the second section would have adverse effects on site integrity. Even so, the Comunidad de Madrid decided to modify the project slightly and, without reassessing it, declare it to be of overriding public interest and establish a series of compensatory measures.

The Court of Justice ruled that Spain had breached its obligations in the M-501 road widening project, for having failed to carry out a previous assessment or for having carried out an incomplete assessment of the effects on the environment of the road-widening projects of sections one, two and four of the M-501 road and also having failed to meet the requirements laid down in Article 6.3 and 4 of the Directive on the conservation of natural habitats and of wild fauna and flora.

The case is still open and could end up with a new case for breach of the ruling and the consequent fines.

Carrying out a project that might affect Natura 2000 sites without having assessed impacts renders that project null and void

M-501 under construction



PHASE 2.

APPROPRIATE ASSESSMENT

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

PHASE 2
APPROPRIATE ASSESSMENT

Once the possibility has been established that the project might have significant implications for the Natura 2000 Network, the authority with responsibilities for the Natura 2000 Network will be bound to carry out an appropriate assessment.

As in the former screening phase, the developer will expedite the procedure by compiling all available information, identifying information gaps and conducting such studies as it deems necessary, always bearing in mind that said assessment has to be conducted in light of the best scientific knowledge to hand. In default of such knowledge, the competent authority will always be bound to turn down authorisation on the precautionary principle.

The objective of this phase is to assess the project's impact, whether individually or in combination with other projects or plans, on the integrity of the Natura 2000 site.

CHAPTER 9 / Phase 2
HOW TO CARRY OUT AN APPROPRIATE ASSESSMENT

Article 6.3 of the Habitats Directive lays down the obligation of conducting an appropriate assessment of projects likely to have a significant effect on sites of the Natura 2000 Network, in view of the site's conservation objectives.

The Directive, however, offers no definition of an appropriate assessment so this concept has since been fleshed out by various interpretations of the European Commission, as reflected in its Directive-implementation manuals and the judgments of the Court of Justice.

As indicated by the European Commission, the assessment has to be appropriate ***"in view of the site's conservation objectives"***. These objectives are therefore the first reference for deciding whether or not any activity is compatible with site preservation.

It is crucial to bear in mind here that the fact that the assessment has to be carried out in light of the site's conservation objectives rules out completely other factors of a social or economic ilk. These factors do come into an environmental impact assessment but they do not have to be considered in application of Article 6.3.

This has been the interpretation of the European Commission and the Court of Justice of the European Union: ***interests of a social or economic nature cannot be weighed up in the "appropriate" assessment of art. 6.3 of*** **the Habitats Directive** but only the environmental interests (paragraph 109 of the judgement of the CJEU of 24 June 2011, case 404/09, Commission against the Kingdom of Spain).

In some cases, such as Galicia's Natura 2000 Network Master Plan *(Plan Director Rede Natura 2000)*, the object of the assessment has been extended beyond the obligations established in Article 6.3 of the Habitats Directive, including the obligation of considering also the impact on species of the Spanish Catalogue of Threatened Species *(Catálogo Español de Species Amenazadas)* and the Galician Catalogue of Threatened Species *(Catálogo Gallego de Species Amenazadas)* (seepage 192, *Plan Director Rede Natura 2000*). It has to be borne in mind here that not all the species threatened at regional level are necessarily threatened at European level.

Under Article 6(3) of the Habitats Directive, an appropriate assessment of the implications for the site concerned of the plan or project implies that, prior to its approval, all aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified ***in the light of the best scientific knowledge in the field.*** *(Judgment of case C-418/04, paragraph 243).*

The Court of Justice of the European Union has ruled that an appropriate assessment ***"is not a merely formal process of examination, but must allow a detailed analysis which satisfies the conservation objectives of the site*** *in question, as set out in Article 6, particularly as regards the protection of natural habitats and priority species"* (Judgment of the CJEU of 14 April 2005, case C-441/03, paragraph 22). It adds that *"this assessment means that it is necessary to identify all aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect said objectives* ***in the light of the best scientific knowledge in the field****" (Judgment of the CJEU of 7 September 2004, "mar de Wadden", paragraph 54).*

A recent report on application of Article 6.3 of the Habitats Directive (Ecosystems, 2013) has identified one of the biggest problems as the **poor quality** of the appropriate assessments. The reports are incomplete or are not sufficiently robust to rule out any adverse effect on the integrity of the Natura 2000 Network.

Along similar lines the Court of Justice (case C-404/09) established that *an assessment made under Article 6(3) of the Habitats Directive* ***cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions capable of dispelling all reasonable scientific doubt as to the effects of the works proposed*** *on the SPA concerned (see, to that effect, Case C-304/05 Commission v Italy [2007] ECR I-7495, paragraph 69).*

It is the remit of the body with Natura 2000 responsibilities to check whether the site impact assessment meets these requirements.

As regards the content of the assessment, the information gleaned in the screening phase has to be topped up and must contain at least the following:

- Structure, function and role of each one of the site's environmental values.
- Surface area, representativeness and conservation status of the site's priority and non-priority habitats. Existing habitat maps offer little definition, so on nearly all occasions it will be necessary to conduct an on-the-spot search to check the actual presence and distribution of Annex I vegetable species of the Habitats Directive, paying special attention to any endemic species that may be affected.
- Size of the population, distribution, degree of isolation, age class structure, ecotype, genetic group, phenology, singularity, representativeness, use of space and conservation status of Annex II species of the Habitats Directive or Annex I species of the Birds Directive present in the site in question.

- Role of the site in the biographical region and in the coherence of the Natura 2000 Network.
- Other environmental functions and assets identified in the site.

In the particular case of the construction of dams and other works that might modify the flow of a river, a specific study will be carried out, considering not only the hydraulic but also the biological conditions of the affected catchment area. The aim of this study will be to maintain optimum flow conditions for species present downstream of the site location.

Aldeadávila Dam, Salamanca, Spain, located in the SPA and SCI "Arribes del Duero".

As in the screening phase, an appropriate assessment also has to take into account other current projects or plans, proposed plans and other authorised plans that might produce site-affecting synergistic or cumulative effects in conjunction with the project now being assessed.

When it is a case of a project submitted to an environmental impact assessment in Spanish territory, the contents thereof have to abide by the stipulations laid down in Annex VI, section 5, of the Environmental Assessment Law 21/2013 *(Ley de Evaluación Ambiental)*. In this case Spanish legislation requires that the population size, degree of isolation, ecotypes or locally adapted populations, genetic group, age structure and conservation status be defined for all species present in the site in question, whereas the European Commission requires it only for the species listed in Annex II of the Habitats Directive or Annex I of the Birds Directive and present in the site in question.

All the documentation used for carrying out an appropriate assessment will be used for giving the grounds for same and should therefore ensure justification and explanation of the reasons underpinning the project conformity decision. If this documentation is missing or incomplete the assessment cannot be deemed to be appropriate.

The assessment body shall evaluate the quality of the furnished information in terms of the following attributes:

Completeness: An evaluation has to be made of whether or not the study contains all necessary information for assessing all project impacts. Tables 4 and 5 give a guideline idea of the minimum necessary information on species and habitats; this should be fleshed out to suit the potential effects depending on the particular project in question in each case.

To obtain detailed and complete information on the identification and description of habitats of community interest and their conservation status it is recommendable to check the Preliminary Environmental Bases for Conservation of the Habitat Types of Community Interest in Spain *(bases ecológicas preliminares para la conservación de los tipos de hábitat de interés comunitario en España) (Vv.aa, 2009).*

Updating: due consideration will be given to the validity or age of the data furnished, in terms of the type of information in each case. The degree of updating is bound up with the capacity of varying over time. In the case of habitats of Community interest present in Spain, SEO/BirdLife recommends breaking them down into three categories in terms of their ageing trend (see table 6).

	HABITAT GROUP [10]	UPDATING SCHEDULE
Habitats of Community interest	Woods (except gallery forests), rocky habitat and caves.	6 years
	Sclerophyllous scrub, heath and scrub of temperate zone, Natural and semi-natural grassland (perennial), gallery forest.	3 years
	Coastal habitat and halophytic vegetation, Coastal and inland dunes, Natural and semi-natural grassland (non-perennial), Freshwater habitat, Raised bogs, mires and fens.	1 years

Table 4.
Degree of information updating for habitats of Community interest.

[10] Classification of Spanish habitats according to "Types of habitat of Community interest in Spain" Bartolomé *et al.* 2006.

NECESSARY INFORMATION	AVAILABLE INFORMATION	SPECIES 1		SPECIES 2		SPECIES n	
		UP TO DATE YES/NO	JUSTIFICATION	UP TO DATE YES /NO	JUSTIFICATION	UP TO DATE YES /NO	JUSTIFICATION
ANIMALS AND PLANTS							
Conservation status and trend of all species and habitats of the zone that might be affected							
Detailed distribution and abundance of breeding species							
Use of space, abundance and phenology of passage migrants							
Detailed distribution and abundance of wintering species							
Location and size of colonies or roosts or flocking areas							
Location of resting areas for passage migrants							
USE OF SPACE							
Habitat selection							
Use of space							
Biological corridors							
Foraging areas							

Table 5. *Minimum necessary information on species*

HABITATS	AVAILABLE INFORMATION	HABITAT 1		HABITAT 2		HABITAT n	
		UP TO DATE YES/NO	JUSTIFICATION	UP TO DATE YES/NO	JUSTIFICATION	AUP TO DATE YES/NO	JUSTIFICATION
Conservation status of the habitats							
Structure and function of habitats							
Surface area of habitat that will be affected by the project							
Distribution and abundance of characteristic and typical species[11]							
Life cycle and seasonal presence of typical species							
Habitat map							
Contour map							

Table 6. *Minimum necessary information on habitats.*

[11] Typical species are considered to be the important tax a for maintaining the habitat's favourable conservation status in each case, whether due to their structural or functional value. See Vv.aa. (2009).

For species the situation is more complex and should be analysed on a case-by-case basis, it being necessary to consider not only the population dynamic but also the size of the population in the affected site and its trend. SEO/BirdLife, by way of a guideline, proposes the criteria shown in table 7 for performing the assessment. In any case, even for species with large populations and an upward trend, the information used should never be older than 4-5 years. For species with a small population in the area concerned and a downward trend the information must not be older than one year.

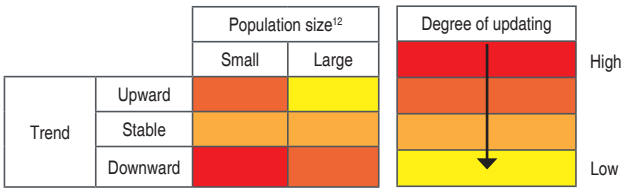


Table 7.
Criteria for assessing the degree of updating of species information.

As a general rule no information older than 5 years should be accepted as updated.

Adequacy: whether the impact-assessing information is adequate. For example, large-scale species-monitoring programmes are appropriate for detecting population changes that occur slowly over several years in large geographical areas, but often lack the necessary precision for rapid detection of population changes on a local level before these population changes become drastic.

Dependability: to ensure that the data or knowledge upon which the assessment is based is trustworthy and error-free. One way of guaranteeing dependability is by using knowledge and data published in scientific reviews.

Transparency: this boosts confidence in assessment results. To ensure this, all sources of error will have to be identified and reported.

As for the furnished data, this will have to be assessed in light of the following attributes:

Accuracy: this is related to the skew estimation. The Environmental Impact Report has to indicate the accuracy of the furnished data. The lower the skew, the more exact is the estimate.

Precision: this refers to the dispersion of the set of values obtained in repeated measurements of the same magnitude.

Resolution: this is the smallest detectable change.

The government authority should ask developers to include in the Natura 2000 impact assessment section a table with all the species, detailing for each one completeness, updating, adequacy, dependability, transparency, accuracy, precision and resolution.

[12] The magnitude of population size (small / large) depend on the species evaluated

	Specie 1	Specie 2	Specie n	Habitat 1	Habitat 2	Habitat n
Completeness						
Updating						
Adequacy						
Dependability						
Transparency						
Accuracy						
Precision						
Resolution						

Table 8. *Evaluation of the furnished information.*

Recommended reading for assuring the quality of species data and site data is “Principles of Data Quality” (Chapman, A. D., 2005)

An aspect that usually generates a fair amount of confusion when assessing implications for the Natura 2000 Network is the need or obligation of considering **alternatives**. A perusal of Article 6.3 soon shows that no actual mention is made of the term “alternatives” and the term “alternative solutions” is only introduced in section 4. Thus the Higher Court of Justice (C-441/03, paragraph 28) has ruled that:

“it must be held that the various requirements set out in Article 6.4. cannot constitute elements that the competent national authorities are obliged to take account of where they carry out an appropriate assessment provided for in Article 6.3.”

The European Commission (2000) notes that although, for purposes of Article 6.3, an assessment does not, strictly speaking, need to look beyond the plan or project proposed to address alternative solutions and mitigation measures, there may be a range of benefits from doing so. And in relation to section 4 it notes that *such solutions should normally already have been identified within the framework of the initial assessment carried out under Article 6.3.*

Another of the factors identified by Ecosystems (2013) as responsible for the poor functioning of Natura 2000 impact assessments is the lack of skills/knowledge of the people carrying out the assessment (developers, consultancy firms and authorities).

When setting up the working teams it needs to be borne in mind that a single biologist will not be able to cope with all aspects of a Natura 2000 impact assessment. Such an assessment calls for specialists in the various taxonomic groups or types of ecosystems.

Moreover, the fact of having a wealth of experience in environmental impact assessment does not necessarily ensure appropriate assessment of impacts on Natura 2000, since the legislation calls for scientific certainty of the conclusions and this in turn calls for a scientific methodology based on scientific knowledge. The government authority will be able to strengthen this aspect by a specific training syllabus targeted at all those taking part in the assessment of implications for the Natura 2000 Network.

It should also be ensured that all government officers involved in processing authorisation of a project or activity that might affect the Natura 2000 Network are familiar with the procedure and obligations deriving from Article 6.3 of the Habitats Directive, to guarantee that the body with Natura 2000 responsibilities is always consulted whenever there is a possibility of significant effects on the network.

From all this it follows that an appropriate assessment should contain complete, precise and definitive statements and conclusions for all Annex II species of the Habitats Directive, all Annex I species of the Birds Directive and also the passage migrants that regularly turn up on the site and all Annex I habitats of the Habitats Directive, bearing in mind the site's conservation objectives. This should be done in the light of the best scientific knowledge in the field, without taking economic and social interests into account. In no case may there be any information loopholes, and due grounds should always be given for any decision.

CHARACTERISTIC OF AN APPROPRIATE ASSESSMENT

- It should take into account the site's **conservation objectives.**
- It has to include conclusions for all Annex II species of the Habitats Directive, all Annex I species of the Birds Directive and all passage migrants that regularly turn up on the site plus all Annex I habitats of the Habitats Directive.
- Economic and social interests cannot be taken into account
- It should be carried out in the light of the **best scientific knowledge** in the field.
- An **in-depth analysis** has to be provided in keeping with established site conservation objectives.
- There must be no loopholes.
- It must contain **complete, precise and definitive statements and conclusions.**
- It must be fully **documented.**

These circumstances necessarily imply that an appropriate assessment study should include a section for each of the species and habitats present therein. This must follow a scientific methodology to reach a conclusion over whether or not the project will affect the conservation objective for this species or habitat. It must contain as many individual assessments as there are species or habitats to be considered in the site.

Picos de Europa, Natura 2000 site designated as SPA and SCI.

CHAPTER 10 / Phase 2

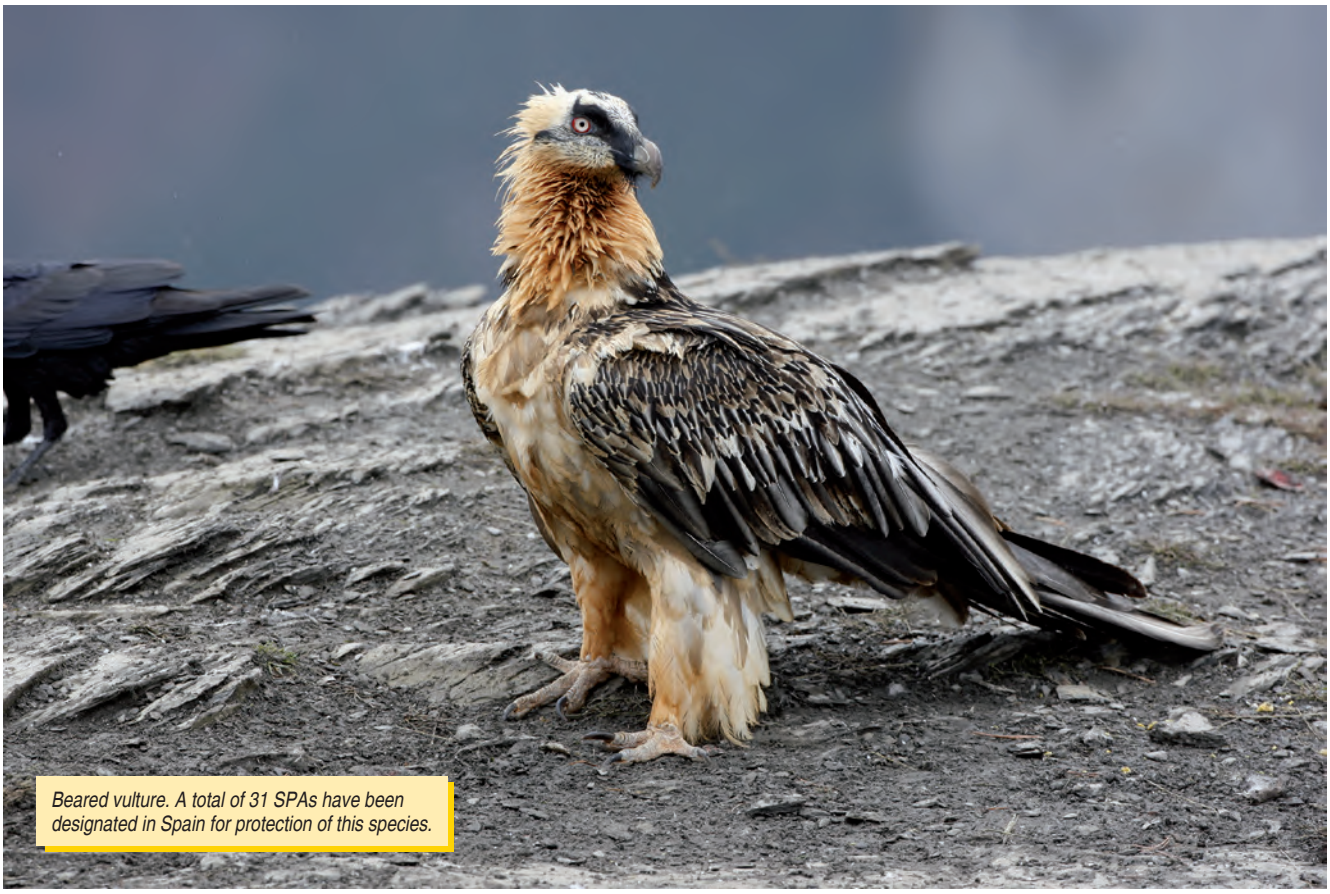
WHAT ARE THE CONSERVATION OBJECTIVES OF NATURA 2000 SITES?

The Spanish Natural Heritage and Biodiversity Law 42/2007 *(Ley del Patrimonio Natural y de la Biodiversidad)* transposes into Spanish law the obligation of drawing up management plans for Natura 2000 sites pursuant to the provisions laid down by the Habitats and Birds Directives. By virtue thereof, the competent authorities for management of protected Natura 2000 sites are bound to establish the necessary conservation measures in each site, which must meet the environmental needs of the types of natural habitats and species present therein. This also implies approval of appropriate management plans or instruments, either specific for the sites or integrated into other development plans. They have to include, at least, the **site's conservation** objectives and the appropriate measures for maintaining the sites' conservation status.

The Spanish Natural Heritage and Biodiversity Law makes a very broad interpretation of article 6 of the Habitats Directive, stipulating the obligation of drawing up management plans for all protected Natura 2000 sites, including SPAs. The objective is to ensure management plans that define measures and plan long-term conservation and, together with other plans and contractual measures, head off any site deterioration and even aid restoration.

MANAGEMENT PLAN APPROVAL DEADLINES

Transitional provision two of Ley *42/2007* lays down for Spain a three-year term for approving and publishing management plans for already-designated Natura 2000 sites. This means that all plans and conservation objectives should have been approved by December 2010. This deadline has not been met by Spanish government authorities, however, and most sites still do not have management plans and *ipso facto* conservation objectives approved.



Beared vulture. A total of 31 SPAs have been designated in Spain for protection of this species.

THE CONSERVATION OBJECTIVES OF MANAGEMENT PLANS

An Article 6.3-compliant assessment has to concentrate on the implications for the site in light of its conservation objectives. According to the European Commission manual on application of article 6 of the Habitats Directive (European Commission, 2000), these conservation objectives would be those established by member states for each of the species or habitats present, except for those species and habitats whose presence is considered to be "insignificant" and should not be considered as included in the site's conservation objectives. The manual indicates that these species are listed in the official site declaration forms and that the place where the conservation objectives should be determined is the management plan. Nonetheless, if subsequent fauna studies or the assessment inventory show up the presence in the zone of the site-flagging species of the Annexes of the Bird or Habitats directives, then an appropriate assessment will have to be made of the impact on these species and habitats, unless their presence is shown to be "insignificant".

The management objectives are bound up with the general objective laid down in Article 4.4 of the Habitats Directive for these protected sites, namely the maintenance or restoration, at a favourable conservation status , of a natural habitat type in Annex I or a species in Annex II and the coherence of Natura 2000.

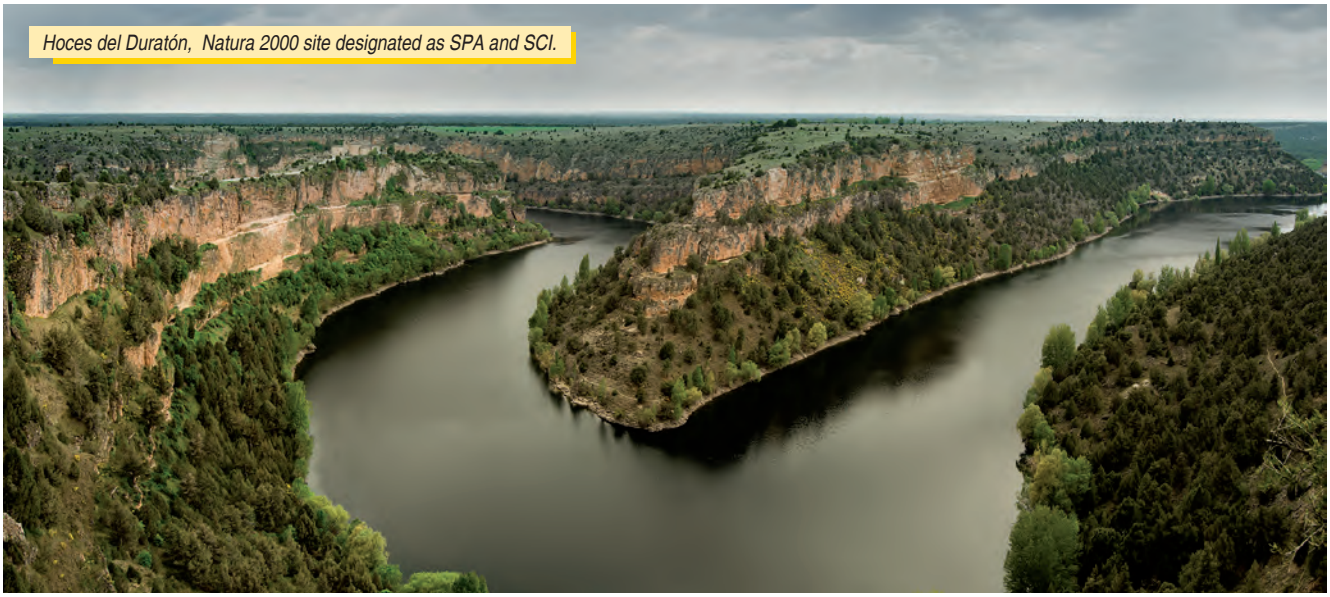
Closely bound up with the term "conservation objectives" is the term "conservation status" which the Habitats Directive defines in Article 1 for a habitat as *"the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution structure and functions as well as the long-term survival of its typical, species within the territory referred to in Article 2"*, and for species as *"the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2".*

Natura 2000 sites in Spain may currently be in any of the situations:

1.- There is a management plan with a specific conservation objective for each one of the habitats and species.
2.- There is a management plan with a conservation objective but it is vague rather than specific. For example, "maintaining populations in keeping with the environment's optimum capacity".
3.- There is a management plan but conservation objectives are not established for some species or habitats present for which an appropriate assessment has to be carried out.
4.- There is no management plan and there are no established objectives.

Under Article 6.3 of the Habitats Directive an appropriate assessment of implications has to be carried out in *light of the site's conservation objectives,* so these objectives have to have been established for the assessment to be conducted. This would be a case of the abovementioned situation 1.

In the remaining cases, in which conservation objectives have not been appropriately established, the developer will be entitled to request them in writing from the competent authority. In default of any new information, the competent authority may then resort to the Natura 2000 Standard Data Form (SDF), weighing up if said requirements are appropriate and will serve as guarantor of the ongoing conservation status of all species and habitats of community interest with a significant presence in this site. A determination should be made of whether the SDF is regularly updated and contains the best available information on each site and therefore reflects the current state of each site. In most cases in Spain, for many species and habitats, this may fall well below its conservation objective.



Hoces del Duratón, Natura 2000 site designated as SPA and SCI.

CHAPTER 11 / Phase 2
HOW SHOULD THE EFFECTS ON NATURA 2000 SITES' CONSERVATION OBJECTIVES BE ASSESSED?

An assessment of implications for the Natura 2000 Network should be capable of evaluating what would happen to the site if the project goes head. Article 6.3 of the Habitats Directive restricts project authorisation to the requisite that it should not **adversely affect the integrity of the site concerned.**

The fact that the integrity of a site is not adversely affected means preservation of its conservation status. The concept of "integrity" has to be construed as referring to the ongoing solidity and unity of the constitutive features of the site concerned, that is to say, of its conservation objectives.

This means that it is necessary to find out whether the project in question would allow maintenance or restoration of the site's conservation objectives in a favorable conservation status. This aspect is crucial. An analysis should be made not only of the situation at that moment but a projection into the future. In most cases the sites are not in a favourable conservation status; in fact their state is often even worse than on the date when the member state had the obligation of identifying, declaring and conserving the sites. Information to hand shows that many of these species and habitats of Community interest are in an unfavourable conservation status and many of the species are declining steeply in numbers. The assessment must therefore ascertain that the project will not balk improvement of the site until achieving the best conservation status possible.

Once the conservation objectives of the site concerned have been identified, an assessment should then be made of whether the project might have an adverse effect on them. The Habitats Directive does not define what an adverse effect on site integrity entails, and to date there has been no ruling from the Court of Justice to define it in depth and breadth. There are some guidelines, however:

1.- Site integrity is closely bound up with the fulfilment of conservation objectives. And an adverse effect to site integrity is considered to exist not only if compliance with any of these conservation objectives is made impossible but also if compliance therewith is hindered (see the conclusions of the Advocate General in C-127/02).
2.- The adverse effect to site integrity cannot be tied in with the surface area of the habitat concerned or destroyed. Small areas and percentages of habitat in any site may represent an adverse effect on site integrity (See chart 11).

Chart 11. Case C-258/11, Construction of a road crossing the Lough Corrib SCI

The Irish government approved construction of a road running through part of an SCI called Lough Corrib. The project underwent an assessment of implications for the site. For nine months the site was examined and stakeholders were heard during 21 days in writing or verbally. On the basis of this information it was argued that the loss of about 1.5 hectares of limestone pavement should be assessed in relation to the 85 hectares of limestone pavement included in the enlargement of the original surface area of Lough Corrib – considered to be a differentiated subzone of the site as a whole – instead of in relation to the 270 hectares of pavement included in the site as a whole. It was also argued that the zone of limestone pavement that would have to be eliminated as result of the road had been considerably reduced (from 3.8 to 1.5 hectares), thanks to the pavement loss compensation measures. It was therefore concluded that this proportionately small loss would not represent, in quantitative terms, an adverse effect on site integrity. As regards the problems of fragmentation and alterations, it was argued that the project would not gravely impede the site's conservation objectives or threaten site integrity. And that the appreciation of significant negative impacts, together with the establishment of appropriate compensation measures was reasonable. Assessment of these impacts was based on the guidelines of the Irish state road authority, which called for any permanent impact on a site like Lough Corrib to be considered as a "significant negative impact".

Thus, the competent authority in Ireland pursuant to article 6 of the Directive concluded that the road scheme, even though it would have a locally significant impact on the Lough Corrib SCI, would not adversely affect site integrity and that building of the road would not therefore have unacceptable impacts on the environment and would be in keeping with appropriate planning and the sustainable development of the area.

The European Commission lodged an appeal against this decision on the grounds that an error had been committed in concluding that the road scheme would not adversely affect integrity of the Lough Corrib SCI.

According to the ruling of the Court of Justice, the Lough Corrib SCI had been listed as a site hosting a priority natural habitat, specifically a limestone pavement, a natural resource that, **once destroyed could no longer be replaced**. The conservation objective was to maintain the constitutive features of said site, i.e., the limestone pavement, in its conservation status. The Court therefore considered that if, after an appropriate assessment of the project's impacts, the natural authority concludes that the road scheme would **result in the permanent and irreparable loss of all or part of a priority natural habitat on the strength of which the site had been listed as an SCI**, it followed that said plan or project would produce an adverse effect on site integrity regardless of its surface area.

That said, an analysis of impact assessments shows that where the surface area of an impact is evaluated in a given habitat, this need not necessarily be related to the total site area but depends on the function thereof. In the case of the abovementioned example, it was argued that the affected habitat lay within a differentiated subzone and that the proportional impact should be calculated in relation to the area of said subzone.

When the negative effect impairs site integrity, the project concerned cannot be carried out, under the provisions laid down in Article 6.3.

ECOSYSTEMIC APPROACH

Although the assessment has to be carried out in light of conservation objectives, it might be necessary to find out the state of other components of the environment (soil, water, air, landscape, etc), i.e., all environmental components that might impinge on the conservation objectives of the site in question. This is so because the assessment takes in not only the direct effects but also the indirect effects on the species and habitats to be conserved and their role in maintaining the ecosystems and natural processes. An account is given below of the conclusions of the Natura 2000 impact study of the Port of Pasaia, in which it was concluded that the **indirect impacts** on habitats and species of Community interest would adversely affect the conservation objectives of SCI ES2120017 *Jaizkibel.*

Chart 12.
Study of the appropriate assessment of the effects of the *Plan Director de Infraestructuras del Puerto de Pasaia* (Infrastructure Master Plan of the Port of Pasaia) on the Natura 2000 Network.

Conclusions

- In view of the assessment of the impacts on the SCI ES2120017 Jaizkibel and on the Natura 2000 Network as a whole, despite the application of the protective and mitigation measures established herein and application of its *Programa de Control Ambiental* (Environmental Control Programme), execution of the measures included in the *Plan Director de Infraestructuras del Puerto de Pasaia* could have an adverse effect on the integrity of the SCI ES2120017 *Jaizkibel.*

- This adverse effect would not be a result of direct impacts on the site's conservation objectives, since the planned infrastructure hardly coincides with the SCI limits.

- Nonetheless, the indirect impacts on habitats and species of Community interest resulting from alteration of the site's ecological processes during the construction and operation of the outer dock are appreciable in the case of habitat 4040* and of some Annex I bird species of the Bird Directive (peregrine falcon, Egyptian vulture and storm petrel) and could impair the conservation objectives of the SCI *Jaizkibel.*

Although the study was conducted on several species and habitats, an account is given below of the analysis made of the Egyptian vulture *(Neophron percnopterus)* to illustrate the criteria used. The study showed that a pair of Egyptian vultures bred within the plan study area and fed in the meadows and scrub, although they might also move off to forage in other areas, ranging over a radius of between 30 and 40 km in search of food during the breeding season. The study concluded that the most important effect was the **reduction of habitat quality** for cliff-loving species of Community interest (Annex II and IV of the Habitats directive and Annex I of the Birds Directive), including the Egyptian vulture. It was also concluded that construction of the outer dock could affect the **behaviour of the breeding birds**, causing abandonment of breeding territories or breeding failure. It foresaw an impact on habitat quality mainly due to an increase in human-caused disturbance, noise and light pollution.

Port of Pasaia, ES2120017 Jazkibel, Guipúzcoa.

• An Article 6.3 - compliant appropriate assessment always has to include a detailed description of all possible impacts of the plan or project on the site, either individually or in combination with other plans or projects.

• The Article 6.3 appropriate assessment applies the best available techniques and models for calculating the plan or project's impact on the biological integrity of the site or sites that might be damaged.

• The assessment provides for incorporation of the most efficient mitigation measures in the plan or project in question, with the aim of avoiding, mitigating or even annulling the negative site impact.

• Characterisation of the biological integrity and the impact assessment is based on the best possible specific indicators of Natura 2000 values, also serving for supervising implementation of the plan or project.

Source: *European Commission, 2007/2012.*

Evaluation of the significance of the impacts calls for conservation objectives to have been quantitatively defined in relation to a given parameter, for example, a specie's abundance or population viability. Thus, the impacts have to be assessed in terms of any change in said parameters that would be brought about as a direct or indirect result of carrying out the project, either individually or in combination with other plans or projects.

To weigh up the magnitude of impacts it is necessary to ascertain quantitatively the cause-effect relationships between the various components of the site's ecosystem, many of them interrelated with each other. To take just one example: if it is considered that construction or drainage work might cause a fall in the water table and hence affect the density of a plant in the site concerned, consideration then has to be given to whether it is a key food plant for a pollinating insect that in turn is a conservation object of the Natura 2000 site (Opdam, *et al.* 2009). *If the project went ahead, the insects would have to spend more time looking for their food plant, increasing their exposure to unfavourable weather and thereby producing a change in the species' conservation status and increasing the risk of extinction.*

An appropriate assessment needs to work out the sequence of events:

- *How the density of the plants responds to changes in the water table.*
- *How the pollinators respond to changes in density of their food plants.*
- *How changes in the density of the food plant affect the pollinators' death rate.*
- *How unfavourable weather conditions might impinge on all these relations.*

It is important to point out here that in the screening phase it was necessary only to ascertain the risk of any impact, which could be established in the above example by finding out the abovementioned relations. In an **appropriate assessment**, however, it is necessary to find out the magnitude of the effects to determine whether they will impinge on conservation objectives. This entails culling in-depth scientific information on exactly how these ecological relations work. Finding out the mathematical function describing this relation will enable us to determine whether there are given impact-critical thresholds. For example, if it affects the surface area of a given habitat with a Natura 2000 site, there might be a given lower threshold above which habitat reduction has no impact but below which stochastic processes might threaten the species with extinction.

These ecological relations have often been scientifically studied but not always in the same geographical region, landscape or Natura 2000 site where the assessment is now underway, so there will always be an uncertainty factor in any extrapolation from these other sites. Under these circumstances science will be capable of predicting the risk of a significant change, instead of quantitatively predicting the scale of the change in the site's conservation status. On other occasions it is impossible to make such an extrapolation, for example in terms of the ecological thresholds identified for habitat fragmentation impact in a given site, since the demographic parameters could vary geographically within a species' range (Groffman *et* al. 2006).

CONNECTIVITY BETWEEN SITES

The workshop carried out as part of Life+Activa tu auténtica riqueza. Red Natura 2000 in December 2012 concluded that there were **difficulties in assessing impacts on connectivity of Natura 2000 sites.**

Biodiversity conservation at European level has been addressed through the Natura 2000 Network, understanding this to be a system of interconnected sites with the aim of maintaining or restoring within a conservation status natural habitats and wild species of flora and fauna of Community interest. The very concept of ecological network, in this sense, implies facilitating dispersion of living beings through habitats connecting up various sites with favourable living conditions.

Thus, Article 10 of the Habitats Directive establishes that *Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods),are essential for the migration, dispersal and genetic exchange of wild species.*

Assessment of implications for the Natura 2000 Network therefore has to take into account any effect on elements that might be conducive to the connectivity of the Natura 2000 Network as a whole.

There is a significant number of government pronouncements and court rulings on the assessment and authorisation of plans and projects impacting on environmental corridors and connectivity areas (Gallego, 2014). In various types of projects (roads, golf courses, mining concessions, urban developments, etc.) court rulings have considered the conservation role played by intervening zones between Natura 2000 sites and the need to take this role into account in the appropriate assessment and the possible authorisation thereof.

Some *comunidades autónomas* have now identified their environmental corridors while in other regions this process is still underway. In default of any information, developers should therefore consider the use of geographical information systems to identify the areas most appropriate for connecting sites and populations and hence the aptitude of the territory.

Special attention must be paid to **offshore projects** such as offshore wind farms, oil rigs, etc, which might affect the connectivity of marine Natura 2000 sites; this type of analysis will also have to carried out during assessment of projects of this type. Designation of marine Natura 2000 sites is in general much more complex. Less progress has been made and there is therefore less information to go on. Witness the unfavourable Environmental Impact Statement of the oil-deposit-sounding project *Campaña Sísmica Chinook* (Málaga and Granada) for failure to analyse the project's possible effect on connectivity of the coastal Natura 2000 sites and those of the Isla de Alborán (decision of 14 October 2014, BOE 258). It is therefore very important to consult experts with the necessary skills for processing and interpreting study results.

CHAPTER 12 / Phase 2
MITIGATION MEASURES

The impact study has to include a proposal of mitigation measures designed to avoid or reduce negative impacts on the site.

> The mitigation measures have to give a quantitative description of how negative impacts are to be reduced, an economic appraisal and likelihood of success, enforcement arrangements, including an implementation timetable and monitoring plan for fault control and detection, including rectification solutions (European Commission, 2002).

Other essential features of mitigation measures have been identified from court rulings. Witness:

- Mitigation measures have to be **specific and detailed** and must be approved **before project authorisation**. For example the Environmental Impact Statement of Mularroya Reservoir, in section 11 dealing with Protection of the Elements of the Natura 2000 Network, mentions the need of approving projects incorporating mitigation measures (to be performed in collaboration with the *comunidad autónoma of Aragón* (pursuant to section 4). The Court, however, ruled that this measure was insufficient on the grounds that *"there is no indication therein of what these projects are to be or the protection measures to be written in the future. It therefore results there from that a project is being approved that is acknowledged to involve a series of negative and harmful impacts, known to require mitigation measures, but these mitigation measures are put back to an uncertain future whereas legislation actually calls for previous approval of said mitigation measures"* (judgment EDJ 2009/138142).

- Mitigation measures **cannot include studies carried out after project authorisation**. For example, in relation to the protection of fauna, the Mularroya Environmental Assessment Study laid down a time limit for the work, recommending a maximum period of seven months (January to July) and referring to a future study of the timing and spatial programming of the work but without specifying protection measures for Directive 79/409 Annex I species such as the griffon vulture and Bonelli's eagle. In another case Spain's Higher Court *(Tribunal Superior: TS)* ruled in the case of the High-Speed Train Madrid-Albacete-Valencia, Subsection: Motilla del Palancar (TS judgment of 22 September 2009, ECR 770/2007 [EDJ 2009/225115]) that certain fauna studies should be carried out before the informative study approval decision and the environmental impact statement. The mitigation measures included a complete study of the railway line's impact on protected species.

Mitigation measures therefore have to be assessed by the Natura 2000 competent authority. Article 6 of the Habitats directive lays it down that competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. It therefore follows that the work can go ahead only when these measures have been found to be sufficient and appropriate in relation to any possible damage.

Example of a corrective measure: a wildlife deterrent, which reflects carlights onto the hard shoulder, setting up an optical barrier that causes animals to shun the road.

It is recommended that this analysis be conducted using a table structured as follows:

Description of the Impact[1]	Proposed mitigation measures[2]	References showing the effectiveness of the measures[3]	Assessment of the impact without measures[4]	Assessment of the impact with measures[4] or residual impact
Impact 1:				
Impact 2:				
Impact x:				

Table 9. *Verification of mitigation measures.*

[1] Each row has to detail a significant impact that is likely to occur, indicating the natural asset affected.

[2] An indication has to be given of the proposed mitigation measures to reduce the likely impact.

[3] Other scientific evidence has to be given to show the proven efficiency of the proposed measures.

[4] Assessment of the impact will have to be quantified (habitat surface area, species population loss, increase in contaminant levels, etc.).

A quantitative indication has to be given of the likely impact after application of the corrective measure. This has to be understood as the impact that can no longer be reduced in any way, therefore becoming the object of the compensatory measures.

It should therefore be borne in mind that the absence of any sufficient mitigation measures could be a reason for rejecting the project, as occurred, for example, with the Mularroya Reservoir project (see judgment EDJ 2009/138142, legal ground seven).

CHAPTER 13 / Phase 2
NO SIGNIFICANT EFFECTS REPORT

When the conclusion drawn from an appropriate assessment of the impact of a project on Natura 2000 Network is that there will be no significant effects on site integrity, neither individually nor in combination with other projects, the European Commission recommends that the competent authority should issue a No Significant Effects Report.

To do so the competent authority has to check that the impact-assessment data and information is sufficiently clear and robust to be able to conclude with certainty that the project will not have significant adverse effects on site integrity, neither individually nor in combination with other plans or projects. To arrive at this certainty the authority will have to verify the existence of an appropriate assessment that scientifically shows the lack of any significant effect on the site, checking the quality of the information used and the sufficiency of the proposed mitigation measures. The mere existence of a report or chapter referring to the assessment of implications for the Natura 2000 Network and of a series of mitigation measures does not in itself guarantee their appropriateness or effectiveness and it is the remit of the assessment body to check on this appropriateness and effectiveness in each case.

In the online survey conducted hereunder only 12% of the respondents reported that the No Impact Reports are sufficiently robust to withstand a scientific analysis and expert opinion procedure (see question Annex 1).

To check the suitability of the impact-assessment information it is recommended to use question lists like those proposed in Chapter 21.

When the analysis and verification of the Natura 2000 impact assessment allows solid conclusions to be drawn, i.e., when there is a high degree of scientific certainty that the project is not going to affect the site, the competent authorities are then entitled to authorise the plan or project.

The results of the assessment mentioned in article 6.3 of the Habitats Directive must allow full traceability of any decisions ultimately adopted, with the aim of making them as transparent as possible. To that end the European Commission recommends that the appropriate assessment report should canvas public opinion (see Chapter 20).

When there are any doubts about the risk of any significant or irreversible damage, the Habitats Directive calls for the achievement or maintenance of the conservation objectives of Natura 2000 sites to be the overriding concern.

In the event of any doubt or if the conclusions are negative, the precautionary principle should apply; there are three possibilities:

- Ask the developer to conduct new studies.
- Not to authorise the project
- Apply the procedures described in article 6.4 of the Habitats Directive.

CHAPTER 14 / Phase 2

WHAT HAPPENS WHEN THE CONCLUSION DRAWN IS THAT A NATURA 2000 SITE IS SIGNIFICANTLY AFFECTED?

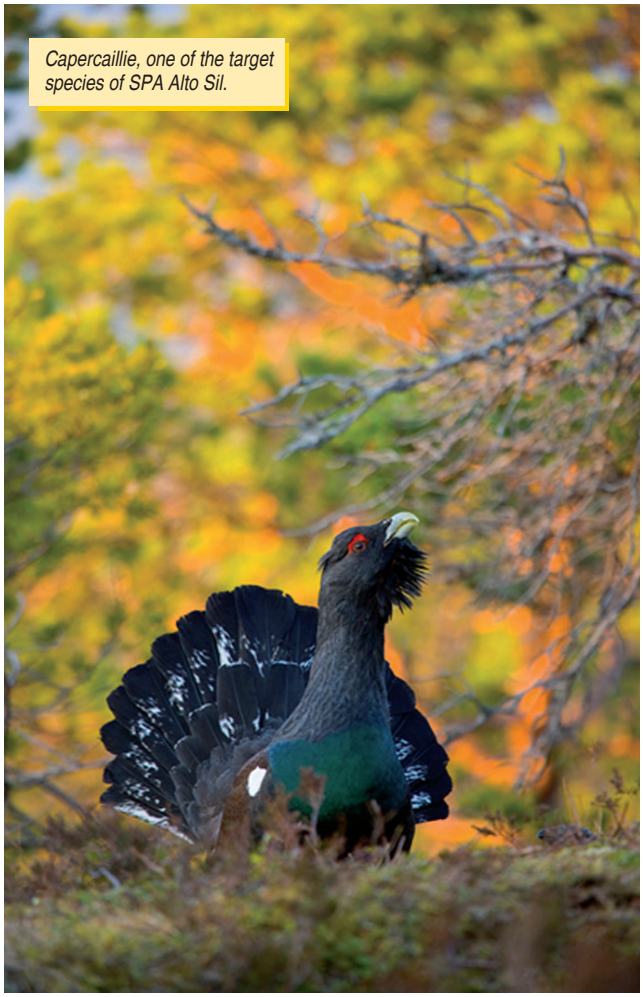
The Habitats Directive has left open the possibility for a project to go ahead exceptionally even if it has been concluded that negative effects will be produced on the integrity of the Natura 2000 site. This derogation arrangement is made in Article 6.4:

"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 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 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.****"*

As can be seen, this procedure involves a series of conditions and constraints that have to be met for the project to go ahead. An account is now given of the procedure to be followed to guarantee compliance therewith.

It should be borne in mind that, to be eligible for the derogation procedure provided for in Article 6.4, it must previously have been concluded that there will be significant adverse effects on site integrity, either individually or in combination with other plans or projects.



Capercaillie, one of the target species of SPA Alto Sil.

This is borne out by the judgment of the Court of Justice (case C-404/09) ruling that the Kingdom of Spain breached its obligations under Article 6(2) to (4) by authorising open-cast mining to go ahead when it could have significant impacts on the natural assets by virtue of which the **Alto Sil** had been listed as an SCI. In its legal ground 109 it observes that the Kingdom of Spain invokes the importance of mining activities for the local economy, and the Court reminds it that, whilst that consideration is capable of constituting an imperative reason of overriding public interest within the meaning of Article 6.4 of the Habitats Directive, that provision can apply only after the implications of a plan or project have been studied in accordance with Article 6.3 of that directive. **Knowledge of those implications in the light of the conservation objectives relating to the site in question** is a necessary prerequisite for application of Article 6.4 since, **in the absence thereof, no condition for application of that derogating provision can be assessed**. The assessment of any imperative reasons of overriding public interest and that of the existence of less harmful alternatives require a weighing up against the damage caused to the site by the plan or project under consideration. In addition, in order to determine the nature of any compensatory measures, the damage to the site must be precisely identified (judgment Commission/Italy, C-304/05, ECR P. I-7495, paragraph 83).

PHASE 3.

ALTERNATIVE SOLUTIONS

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

CHAPTER 15 / Phase 3
ALTERNATIVE SOLUTIONS

As already pointed out, unlike the normal Environmental Impact Assessment procedure under Directive 2011/92/EU, the appropriate assessment procedure under 6.3 of the Habitats Directive does not call for alternatives to be taken into account. Nonetheless, the European Commission does consider this to be a good practice and should therefore be implemented. This chapter will not deal with alternative solutions in this sense but rather the article 6.4.procedure.

Indeed, to be eligible for the derogation arrangements laid down in article 6.4 of the Habitats Directive it is necessary to demonstrate first that **there are no alternative solutions**. It should be noted here that it is up to the competent authorities to ensure that there are no other solutions friendlier to site integrity, although the developer may facilitate this task. Thus, the European Commission (2000) lays it down that *In conformity with the principle of subsidiarity, it rests with the competent national authorities to make the necessary comparisons between these alternative solutions*. As in the case of the Environmental Impact Assessment Directive it is the competent environmental authority that is bound to hand over a work of investigation and analysis in the interests of making the most complete appreciation of the project's direct and indirect effects and of its alternatives (CJEU judgment of 3 March 2011, C-50/09).

Nonetheless, in the online survey conducted hereunder, over half the respondents (58%) stated that, in practice, when it is concluded that a project could have negative impacts, the competent authority restricts itself to analysing the alternatives put forward by the developer (See question 20, Annex 1).

In fact, the Habitats Directive's obligation for an absence of alternatives to be demonstrated before authorisation of a project with harmful effects on Natura 2000 Network greatly cuts down the chances of qualifying for the derogation arrangements, since it is very unlikely that alternatives cannot be proposed in another geographical area.

The Habitats Directive's call for an assessment of alternatives differs from the conventional analysis of alternatives under the Environmental Impact Assessment Directive (Directive 2011/92/EU). With regard to the alternative solutions it is noteworthy that the assessment of alternatives to plans or projects considered likely to affect Natura 2000 sites has to be conducted appropriately. In the opinion of the European Commission this means the following:

i. The examination of alternatives has the sole objective of making sure the impact on the Natura 2000 Network is zero or the least possible.

ii. The only criteria to be taken into consideration are environmental; in particular an evaluation has to be made of the likely impact on the conservation objectives of the sites concerned.

iii. The 'zero-option' should be considered too.

The alternative solutions could include variations of location, magnitude or size, means of achieving targets (management of demand, etc.) designs, processes, methods of construction, operation, decommissioning, timing of construction and maintenance work, etc.

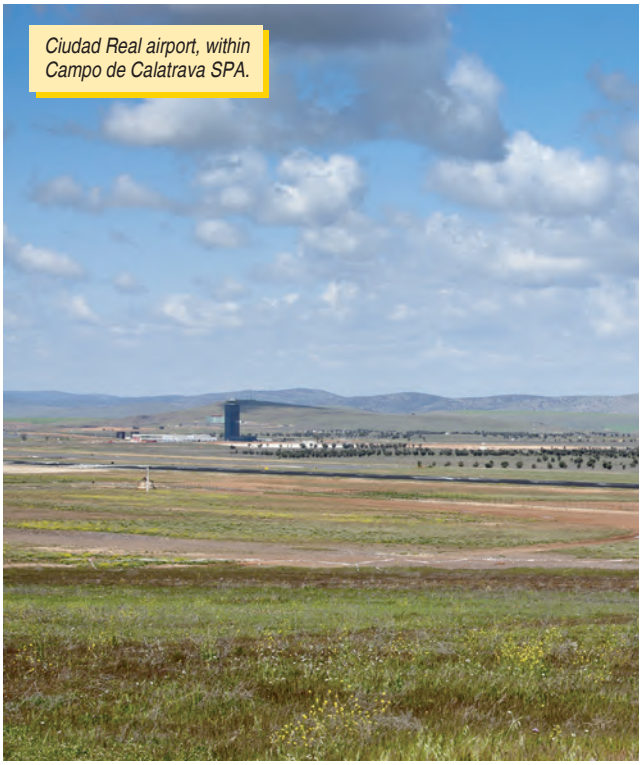
Once the alternative solutions have been identified, they then need to be shortlisted for comparison. This comparison should be made in light of the site's conservation objectives and these may not be overridden by other criteria such as economic cost, delays in project construction and other aspects of the alternative solutions. By the very nature of the process, the comparison cannot be a mere description of the alternatives and a cursory choice of the supposedly lowest-impact one. It will call instead for an in-depth examination that determines without any doubts the effects of each one on the Natura 2000 Network.

The assessment of the alternative solutions aims to determine whether there is a solution with a lower impact or whether, on the contrary it should be objectively concluded that there are no alternative solutions. To this end it will be necessary to take into account the responses of the government authorities and organisations consulted. It should not be concluded that there are no alternative solutions unless an appropriate assessment has been made of all reasonable alternatives put forward by all consulted organisations.

The proposed alternatives have to be viable and ostensibly with a similar or lower impact. It would make no sense to compare the project with non-viable alternatives that *de facto* are not alternatives. It is habitual to find cases in which the developer selects alternatives with an obviously higher impact with the hope of keeping its initial project unaltered (see for example chart 13).

CHART 13. BISCARRUÉS RESERVOIR.

In the assessment of the likely effects on the SCI *Bajo Gállego* of the 35 hm^3 Biscarrués Reservoir located in the River Gállego in Aragon, the alternatives initially proposed by the *Confederación Hidrográfica del Ebro* (Ebro Water Board) involved constructing a 110 hm^3 or 192 hm^3 reservoir on the same site. Quite clearly, the very idea of alternatives is to identify a project with a lower impact on the Natura 2000 Network so these, with, a priori, a bigger impact, were just not realistic. Furthermore, neither of the two alternatives was viable since they both involved ooding human settlements. In March 2011, in answer to the requirements of the environmental body, the developer put forward new alternatives that coincided with those presented in an Environmental Impact Assessment Report in 1981, and which had been rejected as environmentally unfriendly. In answer to a new requirement from the environmental body, in April 2011, the *Confederación* put forward new alternatives: heightening of the dams of Ardisa; La Peña; Bubal; Lanuza; deviation of water from La Peña Reservoir to the Gállego-Cinca irrigation system; modernisation of the La Peña floodgates and pumping water from the Bajo Gállego river. Once more it is striking that the suggested alternatives included completely non-viable alternatives insofar as they involved flooding of villages and artistic-historical heritage, with the mere purpose, once more, of presenting the initial project in the best comparative light (the 35-hm^3 Biscarrués Reservoir). The developer's two-page study concluded that its initial project was the only viable one and also the project posing the least impact to the Natura 2000 Network.



Ciudad Real airport, within Campo de Calatrava SPA.

In most cases the projects are severely constrained by the developer's ownership of the land where the project is to be carried out. The study of alternatives is therefore often prepared *ad hoc* so that, curiously enough, the project to be carried out on the developer's land comes across as the best alternative. Nonetheless, acquirement of the land is not preceded by an exhaustive study with the aim of avoiding harmful effects to Natura 2000 Network so it by no means guarantees compliance with the Habitats Directive (see chart 14).

CHART 14. CIUDAD REAL AIRPORT.

A private consortium decided to build a private international airport on land owned by this consortium in the SPA *Área esteparia del Campo de Calatrava* in the province of Ciudad Real. The province of Ciudad Real has geographical and climate features that in no way hinder the setting up there of an airport. Much of the land is made up by large flat plains and there are very few days of mist. The population density is low and there is little aircraft transit. The ownership of the land, however, represented a considerable obstacle in the whole process, calling for three Environmental Impact Statements, European-Commission infraction proceedings, a declaration of overriding public interest, the development of compensatory measures including the designation of another SPA and practically a decade-long delay in its construction. Finally the whole project imploded, proving that it was not really of overriding public interest at all.

The Directive's constraint of there being no alternatives that do not affect the Natura 2000 Network makes it well-nigh impossible to authorise any project that is not of very peculiar characteristics. For example, it would not be acceptable to authorise a wind farm or solar power plant that affects the Natura 2000 Network, since this would be tantamount to recognising that there are no non-network-affecting alternatives in Spain for new projects of this type.

CHAPTER 16 / Phase 3
WHAT HAPPENS WHEN THERE ARE NO ALTERNATIVES?

When it has been objectively concluded that there are no alternatives that would reduce the negative effects on the integrity of the Natura 2000 Network, the project may then be authorised only if there are **imperative reasons of overriding public interest, including those of a social or economic nature.**

In 2012 the European Commission (2012a) updated the guidance document on the clarification of some concepts, including the concept of **imperative reasons of overriding public interest.** Drawing from this document an account is given below of this concept's defining features:

- **overriding:** this concept can be applied only to long-term interests; short-term interests can never be allowed to outweigh the long-term conservation interests sought by the Habitats Directive.

- **imperative reasons of public interest:** when the projects are indispensable within the framework of actions or policies aiming to protect fundamental values for citizens' life (health, safety, environment, etc.) within the framework of fundamental policies for the State and the Society; or within the framework of carrying out activities of economic or social nature, fulfilling specific obligations of public service.

Nonetheless, in the online survey conducted hereunder only 30% of the respondents stated that overriding public interest is in practice defined in terms of long-term public interest. Most (51%) attributed these interests to economic reasons (see question 23 Annex 1).

The assessment of any imperative reasons of overriding public interest and that of the existence of less harmful alternatives require a weighing up against the damage caused to the site by the plan or project under consideration (Judgment of the Court of Justice of the European Union, case C-182/10 legal ground 74). On the basis of the opinions issued by the European Commission in the enquiries made about article 6.4 of the Habitats Directive, it can be concluded that in many cases overriding public interest is justified in terms of many reasons taken into account jointly; in some cases these reasons may even counteract each other. If the site under consideration hosts a priority species or type of natural habitat, **only a limited number of said imperative reasons may be invoked**, nonetheless, to argue in favour of a plan or project being carried out.

The conservation objectives of the Habitats Directive can be overridden only by **public interests**. Although, as made clear by the Court of Justice (see case C-182/10 legal ground 77), *it cannot be ruled out that that is the case (public interest) where a project, although of a private character, in fact by its very nature and by its economic and social context presents an overriding public interest and it has been shown that there are no alternative solutions.*

Once imperative reasons of overriding public interest have been found to exist, a check will then have to be made of whether the project will affect any **priority species or priority habitat type**. This is so because, in this case, the second paragraph of article 6.4 of the Habitats Directive lays down a series of even stricter constraints, recognising that the conservation of threatened species or habitats represents a special responsibility for the European Union.

*"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 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**".*

In other words there are only four possible reasons that might justify the carrying out of a project known to have significant effects on a Natura 2000 site hosting priority natural habitat type:

- Human health.
- Public safety.
- Beneficial consequences of primary importance for the environment.
- Other imperative reasons of overriding public interest, further to an opinion from the Commission.

For example, if the site concerned hosts priority natural habitat or priority species, supplying drinking water to a town or village could in principle be included among the considerations related with public health, while irrigation cannot in principle qualify as a consideration relating to human health or public safety. On the other hand, it appears more plausible that irrigation may, in some circumstances, have beneficial consequences of primary importance for the environment (Judgment of the Court of Justice of the European Union, case C-43/10 legal grounds 125 and 126).

Mediterranean salt steppes (Limonietalia) priority habitat 1510 in Villacañas wetland, (Toledo).

Article 6.4 of the Habitats Directive is worded so as to leave no doubt that human health and public safety could be imperative reasons of overriding public interest, but it says nothing about other reasons.

If **other imperative reasons** of overriding public interest are to be invoked, these must first be sent up for the Commission's opinion. The Commission will then respond in the form of an opinion **in answer to this query rather than a binding decision**. Nonetheless, the Commission will be entitled to bring appropriate legal action against any member state that disregards its opinion or allows others to do so (see Request for a preliminary ruling from the Supreme Court, case C-258/11).

In Spain article 2 of the Order *(Orden)* AAA/2231/2013 (BOE 288 of Monday 2 December 2013, sec. I, p. 95451) lays down the administrative procedures of applying for a previous consultation from the European Commission **for other imperative reasons of overriding public interest** justifying the adoption of compensatory measures. In the case of projects, the information supporting the application for a previous consultation has to be sent to the European Commission before formulating the corresponding Environmental Impact Statement.

To make this application the following documentation has to be sent in digital format:

a) Official form communicating the compensatory measures to the European Commission, included as an Annex of Orden AAA/2231/2013, duly filled in.
b) Project summary.
c) Environmental Impact Report of the project containing the appropriate assessment of the significant impacts on priority habitat types and species of a community interest, of the proposed alternatives and justification of the chosen alternative.
d) Justification of the alleged other imperative reasons of overriding public interest other than those related to public health, public safety or beneficial consequences of overriding importance for the environment.
e) Project of compensatory measures, containing at least those referred to in article 1.1.e) of Orden AAA/2231/2013.

In the transposition into Spanish law of paragraph two of article 6.4 of the Habitats Directive (see section 7, article 45 of the Natural Heritage and Biodiversity Law 42/2007, [Ley del Patrimonio Natural y la Biodiversidad]) the limitation imposed in relation to imperative reasons of overriding public interest when the site hosts priority habitat or species has been extended to the species listed in Annexes II or IV or when they have been listed as En Peligro de Extinción[13] (In Danger of Extinction). These species therefore now include those of Community Interest and, even without being classed as priority, those that have been listed as En Peligro de Extinción in the Spanish Catalogue of Threatened Species *(Catálogo Español de Especies Amenazadas).*

Moreover, section 5, article 45 of Ley 42/2007 lays it down that concurrence of imperative reasons of overriding public interest can be declared for each particular case only:

a) By means of a law.

b) By agreement of the *Consejo de Ministros* (Council of Ministers), when it is a case of plans, programmes or projects that have to be approved or authorised by the *Administración General del Estado*, or the Governing Body of the *comunidad autónoma*. This agreement has to be given with grounds and made public.

The European Commission (2012b), in its last report on implementation of article 6.4 of the Habitats Directive states that imperative reasons of overriding public interest have to be described and explained in depth, strongly justified and convincing. Beneficial consequences for the environment (eg. for environmentally friendly energy projects such as wind farms and solar farms) or official declaration of public interest or forming part of an European network (eg. TEN) is not sufficient reason to justify the imperative reason of overriding public interest.

Some European and national judgments have ruled that certain projects cannot be considered to be of overriding public interest:

- Infrastructure intended to accommodate the management centre of a private firm cannot be regarded as an imperative reason of overriding public interest, such reasons including those of a social or economic nature, within the meaning of article 6.4of the Habitats Directive (judgment of the Court of Justice of the European Union, caseC-182/10 legal ground 79).

- An open-cast mine cannot claim overriding public interest. The unemployment caused by the shutdown of the firm's activity and the social and economic impact thereof cannot override interests of environmental protection.

- Widening of a road, affecting priority species, on the grounds of road safety and easing traffic congestion is not a reason of public health and public safety serving as justification for overriding public interest (STS of 24 May 2012, ECR. 4853/2009 [EDJ 2012/103612]. The conclusion drawn is that road safety cannot be invoked as said public interests.

[13] Species of Community Interest, including birds, that are listed as In Danger (in bold those that are not priority for the Habitats Directive): Mammals *(Lynx pardinus, Monachus monachus, Ursus arctos,* ***Myotis capaccinii,*** *Mustela lutreola)*; Birds (**Bittern**, ***Botaurus stellaris***; **Squacco Heron**, ***Ardeola ralloides***; **Black Stork**, ***Ciconia nigra***; **Marbled Teal**, ***Marmaronetta angustirostris***; **Ferruginous Duck**, ***Aythya nyroca***; **White-headed Duck**, ***Oxyura leococephala***; **Lammergeier**, ***Gypaetus barbatus***; **Spanish Imperial Eagle**, ***Aquila adalberti***; **Small Button-Quail**, ***Turnix sylvatica***; **Houbara Bustard**, ***Chlamydotis undulata fuertaventurae***; **Red-Knobbed Coot**, ***Fulica cristata***); Fish (**Spanish toothcarp**, A***phanius iberus***; Valencia Toothcarp, *Valencia hispanica*); Amphibians (Majorcan Midwife Toad, *Alytes muletensis*); Reptiles (Hierro Giant Lizard, *Gallotia simonyi*), flora (***Diplazim caudatum, Psilotum nudum, Pteris serrulata, Christella dentata, Apium bermejoi, Laserpitium longiradium, Naufraga balearica, Seseli intricatum***, *Narcissus nevadensis,* ***Artemisia granatensis, Aster pyrenaeus, Centaurea avilae, Centaurea borjae, Centaurea citricolor, Centaurea pinnata, Femeniasia balearica (C. balearica), Hieracium texedense, Jurinea fontqueri, Nolletia chrysocomoides, Senecio elodes, Elizaldia calycina***, *Lithodora nitida, Omphalodes littoralis subsp. gallaecica,* ***Coyncia rupestris, Coronopus navasii, Lepidium cardamines, Alyssum fasgiatum***, *Arenaria nevadensis, Cistus heterophullus, Borderea choyardii, Euphorbia margalidiana,* ***Medicago arborea subsp. citrina***, *Vicia bifoliata, Centaurium rigualii, Erodium astragaloides, Erodium rupicola,* ***Puccinellia pungens, Vulpia fontquerana, Thymus albicans, Thymus loscosii, Rupicapnos africana, Sacocapnos baetica, Sarcocapnos crassifolia subsp. speciosa, Armeria euscadiensis, Limonium majoricum, Limonium malacitanum, Limonium neocastellonense, Limonium pseudodictyocladon, Limonium magallufianum, Androsace pyrenaica,*** Aquilegia cazorlensis, ***Delphinium bolosii, Ranunculus parnasiifolius subps. cabrerensis***, *Reseda decursiva,* ***Atropa baetica***, *Daphne rodriguezii).*

PHASE 4.
COMPENSATORY MEASURES

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

CHAPTER 17 / Phase 4
COMPENSATORY MEASURES

Compensatory measures are the last-ditch option; their implementation must be exceptional. They can be implemented only in those cases where it has been proven that no alternative solutions exist and that the project concerned has to be carried out for imperative reasons of overriding public interest, checking compliance with all the derogation conditions laid down in article 6.4 of the Habitats Directive. It is crucial to bear in mind here that compensatory measures are established once it has already been confirmed that the project concerned will have negative effects on the integrity of a Natura 2000 site, so the competent authority will have to adopt all necessary compensatory measures to guarantee ongoing overall coherence of the Natura 2000 network.

To ensure the compensatory measures are appropriate it is necessary to have identified first with precision the damage caused to the Natura 2000 site. This means that an appropriate assessment has to have been performed beforehand under article 6.3 of the Habitats Directive (see above mentioned judgment of 20 September 2007, Commission/ Italy, paragraph 83).

A study conducted by Carrasco García *et al.* (2013) of the Environmental Impact Statements issued by the Spanish *Administración General del Estado* showed a great number of Natura 2000 compensation cases in which the environmental compensation was implemented without previous recognition of significant impacts. The authors recognise that there is a dread of an environmental compensation procedure, under any name, being associated with a significant effect on the Natura 2000 Network. This has led to a decreasing take up of this measure in recent years, even in cases where habitats of community interest are involved, including priority habitats, inside or outside the Natura 2000 Network, situations in which compensation would be necessary in general to avoid loss of biodiversity.

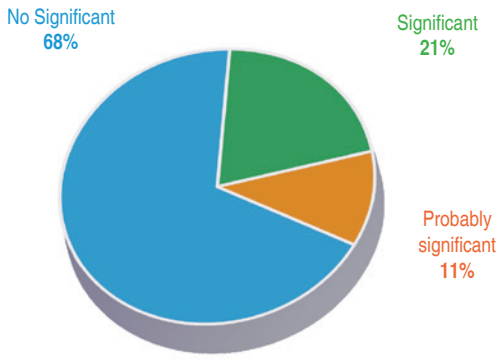


Figure 9. *Relation of proposed Natura 2000 compensation measures with the significance of the effects.*
Source: *Carrasco García et al. 2013.*

In Spain, *Orden* AAA/2231/2013 of 25 November, regulating the procedure for communication to the European Commission of the Natura 2000 compensatory measures adopted in relation to plans, programmes and projects and previous consultation before adoption thereof, as provided for in the Spanish Natural Heritage and Biodiversity Law 42/2007 *(Ley del Patrimonio Natural y de la Biodiversidad)* (BOE. 288 of Monday 2 December 2013, sec. I, p. 95451). Article 1.1.e) lays down the minimum contents of such compensatory measures:

- Description of each one of the compensatory measures adopted, detailing the significant negative impacts and types of habitats and species of community interest they have been designed for.
- Measure implementation timetable. These must be in place and the result of the compensation effective before any significant impacts on the assets of community interests occur. When the compensation effects are verifiable only in the very long term, extraordinary compensation arrangements will have to be made for any interim losses.
- Budget.

The European Commission (2002) has defined the main characteristics of the compensatory measures:

- Address, in comparable proportions, the habitats and species negatively affected.
- Relate to the same biogeographical region in the same Member State and be in as close proximity as possible to the habitat that has been adversely affected by the project or plan.
- Provide functions comparable to those which justified the selection criteria of the original site.
- Have clearly defined implementation and management objectives so that the compensatory measures can achieve the maintenance or enhancement of Natura 2000 coherence.
- Include a monitoring plan for checking their effectiveness.

A *sine qua non* of meeting these objectives is identification and delimitation of the compensation zone. For example, in the Environmental Impact Report of Biscarrués Reservoir (Spain) the proposed compensatory measure to offset implications for the Natura 2000 Network was creation of natural habitat with double the area of the project-affected area. No specification was made, however, of its location or characteristics, making it impossible to weigh up its efficacy; these measures, therefore, should not have been approved by the competent authority.

The European Commission (2012a) recommends that the location of the compensation area should be selected according to the following range of priorities:

- That compensation **within the Natura 2000 site** provides the necessary elements to ensure ecological coherence and network functionality exist within the site.
- When this is impossible, compensation can be made in **another site of the Natura 2000 Network** or **outside the Natura 2000 Network**, providing it be proved that said areas make a similar contribution to the ecological structure or network function as the affected area.
- In the case of compensation **outside the Natura 2000 Network**, the compensation area must be designated as a Natura 2000 site itself and be subject to all the requirements of the 'nature' directives.

SEO/BirdLife considers that when the compensation is proposed within a site in which the conservation objectives have not been achieved for the habitat or species that is the object of the compensation, it is especially difficult to establish how far the compensatory measures are replacing the necessary measures for compulsory site management.

The compensatory measures have to be additional to the conservation measures of the Natura 2000 sites.

According to the European Commission (2012a) the compensatory measures used in practice under the Habitats Directive include:

- Species recovery and reinforcement, including reinforcement of prey species; land purchase; and rights acquisition.
- Reserve creation (including strong restrictions on land use).
- Incentives for certain economic activities that sustain key ecological functions.
- Reduction of (other) threats, usually upon species, either through action on a single source or though co-ordinated action on all threat factors (E.g. resulting from space crowded effects).
- Species reintroduction[14].

These measures, however, cannot rightfully be classed as compensatory measures in general, and they call for an in-depth analysis since they cannot in themselves guarantee compliance with the requisites laid down by article 6.4 of the Habitats Directive. For example, land purchase for environmental purposes with double the area of the affected zone and reforestation with four times the area were considered by the Tribunal Supremo as simple obligations deriving from forestry legislation (STS of 29 November 2006, ECR. 933/2003 [EDJ 2006/388367] and were rejected as compensatory measures in the sense of article 6.4 of the Habitats Directive.

Compensatory measures will be assessed in light of the conservation or improvement of the overall coherence of the Natura 2000 Network.

According to article 6.4, the compensatory measures are meant to ensure that the overall coherence of Natura 2000 is protected. The European Commission's interpretations have established that the importance of a site for network coherence depends on the site's conservation objectives, the number and situation of the habitats and species occurring therein and the role played by the site in ensuring geographical distribution in relation to the natural distribution of the species and habitats in question.

Catchpole (2012) concluded that ecological coherence is a property of individual sites as well as clusters of sites at different scales. At larger scales, coherence is only present if:

- The full range of variation in specific habitats and species is represented.
- Appropriate dispersal, gene flow and migration between sites is supported.
- Threatened species and habitats, listed in Annex I and II of the Directives Habitat, are protected.

On the basis of these characteristics he proposed the following definition:

> At the scale of the whole network, coherence is achieved when: the full range of variation in valued features is represented; replication of specific features occurs at different sites over a wide geographic area; dispersal, migration and genetic exchange of individuals is possible between relevant sites; all critical areas for rare, highly threatened and endemic species are included; and the network is resilient to disturbance or damage caused by natural and anthropogenic factors.

To be able to check compliance with these characteristics, the competent authorities must work with at least the following spatial and quantitative information:

- The patch size distribution of different habitats (within and between sites).
- The size class distribution of core areas of each habitat type.
- The number and geographical separation of sites containing the same species and habitats.
- The degree of matrix hostility or reasons for adverse conditions around each site.
- The temporal occupancy of relevant sites by key species.
- The correspondence of rare species hotspots (across different taxa) with designated areas.
- Connectivity between sites with similar species or habitats.

[14] Species reintroduction will apply only in those cases in which it is not possible to recover the population by means of habitat management measures. It is appropriate only for species that cannot propagate by their own means. Birds should therefore be excluded. It should be guaranteed that there are no threats for the species on the breeding site.

It will also be necessary to find out if there are any conservation initiatives geared towards conserving or maintaining ecological coherence.

It should always be borne in mind that compensatory measures are the last-ditch option and can be authorised only in exceptional cases when a series of requisites are met. This needs to be brought home to stakeholders since studies based on an analysis of the measures adopted during the processing of eventually authorised projects have shown that damage caused is not always properly compensated.

DO COMPENSATION SCHEMES PROTECT BIODIVERSITY FROM PROJECT EXECUTION?

A French study (Regnery *et al.* 2013) of 85 projects carried out within the Natura 2000 Network from 2009 to 2010 showed that threatened species are not always protected. On average the compensation areas had five times fewer species that the affected areas before the project was carried out. In fact, when species richness was high (over eight species per site) in the areas before the project, the number of species in the compensation areas was ten times fewer. The compensation areas were also small, adding up between them to 37% of the areas affected by projects.

The study concluded that the Habitats and Birds Directives aim to maintain species' conservation status and improve this status when it is unfavourable. This is not the case, however, in most of the projects studied. The researchers recommend that the compensatory measures should be planned well before project execution, with ongoing monitoring after it is up and running.

In particular, consideration has to be given to the legal protection of the compensated areas, since their subsequent degradation or destruction would undermine any compensation attempt. In the study researchers calculated that only 16% of the compensation areas enjoyed any legal protection.

In the first workshop held under *Life+Activa tu auténtica riqueza. Red Natura 2000*, participating government environment officers argued that the design and application of compensatory measures would be greatly improved if an analysis were made of what had been done in other countries and an evaluation of what had been done beforehand in the same Natura 2000 site or in other similar ones.

For projects that have to authorised by the *Administración General del Estado*, in light of the conclusions drawn by the Environmental Impact Assessment on the zones in the Natura 2000 Network, pursuant to article 45 of *Ley 42/2007*, it is laid down in the Spanish Environmental Assessment Law 21/2013 *(Ley de Evaluación Ambiental)*, that it is the remit of the *Ministerio de Agricultura, Alimentación y Medio Ambiente* to establish and supervise the necessary compensatory measures to ensure overall coherence of the Natura 2000 Network. These will be defined on the strength of a compulsory consultation of the competent body of the *comunidad autónoma* in which the project is located. The deadline for this consultation report will be 30 days. Once this deadline has passed without having received the report, the state environmental body will then be entitled to go ahead.

Once approved by the member state, the adopted compensatory measures have to be communicated to the European Commission. In Spain, the *orden ministerial* (ministerial order) AAA/2231/2013 of 25 November regulates the procedure for making this communication to the European Commission of the compensatory measures impinging on conservation of the Natura 2000 Network.

Correct design of compensatory measures depends on availability of all necessary information for communicating adopted measures to the European Commission.

The government environment officers participating in the first workshop agreed that there is great terminological confusion over "compensatory measures" in the context of the Environmental Impact Assessment and in assessment of implications under article 6.3 of the Habitats Directive.

In the context of the Environmental Impact Assessment, as regulated by Ley 21/2013, compensatory measures are identified by referral to the definition given in article 3.24 of *Ley 42/2007 de Patrimonio Natural y de la Biodiversidad*:

"24) Compensatory measures: are specific measures included in a plan or project with the object of compensating as accurately as possible the negative impact on the species or habitat concerned."

The wording of section 2 of additional provision seven of the Environmental Assessment Law 21/2013 *(Ley de Evaluación Ambiental)*, of plans, programmes and projects that might affect Natura 2000 sites, distinguishes compensatory measures under article 45 of Ley 42/2007 de *Patrimonio Natural y la Biodiversidad,* using the term "necessary compensatory measures to ensure that the overall coherence of Natura 2000 is protected".

The feature differentiating use of the term "compensatory measures," according to the context in which it is used, is the object of the compensation and the implementation requisites to be met. On the one hand, in the Environmental Impact Assessment, the compensatory measures are applied to compensate such residual effects as may remain despite application of mitigation measures. These measures also go under the names of ***medidas complementarias*** (complementary measures) or ***medidas de sustitución*** (substitution measures). In the context of the assessment of implications for the Natura 2000 Network, compensatory measures are meant to offset negative effects on site integrity. For the compensatory measures to be approved, the following requisites have to be met: that there is a significant negative effect on site integrity, that there are no alternative solutions and that imperative reasons of overriding importance obtain. Compensatory measures for assessment of Natura 2000 implications have to be approved by the body with responsibilities for the Natura 2000 Network and communicated to the European Commission, whereas compensatory measures of the Environmental Impact Assessment have to be approved by the environmental body dealing with the proceeding.

CHART 15.
COMPENSATORY MEASURES PROGRAMME OF THE JEREZ-LOS BARRIOS MOTORWAY

An example showing the existing confusion in relation to compensatory measures and the Natura 2000 Network is the programme of compensatory measures for the Jerez-Los Barrios motorway. Its preamble ran as follows: *"When this necessary communication thoroughfare was being planned, an important environmental constraint was presented, since it runs through the southern part of the Parque de los Alcornocales, one of the sites with the greatest ecological and landscape richness of the Natura 2000 Network."*

Section 1 proposes a definition of the compensatory measures summed up in figure 13.

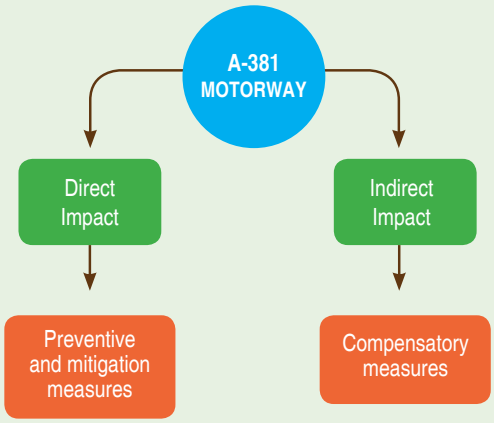


Figura 10. *Definition of compensatory measures.*
Source *Gestión de Infraestructuras de Andalucía S.A.* (shortened to GIASA), 2002.

This clearly falls into the error of assuming that compensatory measures, unlike impact-prevention and mitigation measures, cannot target the prevention of any direct road-building consequences but only the palliation of any diffuse effects it may have on the ecosystem. And it concludes: *"It would therefore seem to be advisable for the compensatory measures to be geared towards reinforcement or strengthening of the ecosystem's most sensitive elements, with the aim of reducing its fragility".*

It goes on: *"It is more difficult to decide a priori which elements or species of the ecosystem might be most sensitive to the problems deriving from building the motorway and for this reason they should be considered in the compensatory measures. Probably the best path would be to select species of groups of species habitually used as indicators of the potential quality of a habitat or the efficiency of ecological restoration."*

As already explained in previous chapters, the conservation objectives of the site concerned must already have been clearly identified by the time of the Natura 2000 implication assessment phase. Once, after due assessment, it has been proven that there will be negative effects on site integrity, an identification should have been made of the compensatory measures that would be most appropriate for offsetting those impacts, providing it has also been proven that there are no alternatives and that imperative reasons of overriding public interest obtain.

In this example the mistake has been made of basing identification of compensatory measures on a definition that does not tally with the compensation called for under article 6.4 of Habitats Directive; the measures defined therefore breach this article.

By way of example, an account is given below of some of the compensatory measures proposed in the programme of compensatory measures for the Jerez-Los Barrios motorway that SEO/BirdLife judges to be inappropriate according to European Commission criteria (2007/2012):

Los Canutos Protection Plan. The programme of compensatory measures describes the importance and fragility of this habitat but does not identify or quantify the magnitude of the motorway's effects on said habitat. And it concludes that there is an urgent need for an improvement and conservation plan of these ecosystems of inestimable value, authentic gems of the Parque Natural de Los Alcornocales, proposing the following measures:

A.1 Drawing up legislation on scrub clearance in the vicinity of Los Canutos, increasing the minimum distance from three to six metres. **This legislation, which has to be developed by the competent government authority, calls for previous studies to increase knowledge of vegetation and the effects of scrub clearance on the erosion process.** Logically, it is the remit of the comunidad autónoma to draw up legislation of this type and it cannot therefore be construed as a project compensation measure.

A.2 Creation of botanical gardens with an educational-cultural purpose, to conserve the environment (nursery of autochthonous plants) and for research purposes. Educational functions cannot be construed as compensatory measures. They could never meet the main objective thereof, which is to provide properties and functions comparable to those provided by the affected habitats or species that had justified designation of the original site. Research projects, such as the study of the genetic structure and biology of the populations of bushes and bryophytes (mosses) of Los Canutos and a study to characterise the invertebrate fauna and ecosystems of Canutos, cannot be considered to be a compensatory measure since the effectiveness of any measures has to be scientifically checked and proven before project authorisation. In other words, if the scientific knowledge ostensibly to be elucidated from the proposed studies were necessary for the design of compensatory measures, the competent authority should then refuse to authorise the project on the precautionary principle, due to the lack of scientific knowledge. This lack of knowledge would not allow necessary compensation measures to be taken beforehand to prevent disturbance of the natural habitat.

B. Protection plan of the cave-dwelling bats of the *Parque Natural de Los Alcornocales*, including:

- Inventory of the natural and man-made cavities that might potentially be used by the Park's cave-dwelling bats (including, caves, mines, tunnels, etc.).
- Count of colonies using these cavities to ascertain their importance. Due account would be taken of the species, number of individuals and the time of year they are used.
- Identification of the problems or factors of diverse ilk existing in these cavities that might dissuade bat use.
- Necessary measures for avoiding these problems and to strengthen the Park's bat populations.

It stands to reason here that the only measure that could be considered to be appropriate is the last. The first three involve gleaning information that should already have been obtained during the Natura 2000 implication assessment process, since it is necessary information for weighing up the motorway's impact on the population of cave-dwelling bats.

I. Red kite recovery plan and necessary actions to reintroduce this species as a breeding bird. As the Jerez-Los Barrios motorway compensatory measures programme points out, *the species does not currently nest in the* Parque Natural de Los Alcornocales; *its presence is sporadic and there are no records of nesting in the last ten years.* It follows from this that the nesting of the species will not be affected adversely by the project, since it abandoned the area as a breeder before the project. Any reintroduction scheme should therefore be considered as a standard conservation measure of Natura 2000 management. Furthermore, the obligation of adopting recovery plans for species listed as *En Peligro de Extinción in the Catálogo Español de Especies Amenazadasis* enshrined in article 56 of *Ley 42/ 2007, del Patrimonio Natural y de la Biodiversidad, whereby comunidades autónomas* are responsible for drawing them up and approving them. Drawing up a recovery plan for a species listed as En Peligro de Extinción can therefore never be put forward as a compensatory measure.


SPA and SCI ES0000049 Los Alcornocales

CHAPTER 18 / Phase 4
ASSESSMENT RESULTS

Once the appropriate assessment has been carried out, the project will be authorised only if it has no damaging implications for the Natura 2000 Network or if the derogation conditions of article 6.4 are met. In the latter case the Kingdom of Spain will be bound to check with the European Commission the viability of authorising the project or at least inform the Commission of the authorisation decision and the compensatory measures to be implemented.

Once the compensatory measures have been communicated to the European Commission, an opinion is to be expected only when:

- The site concerned is included in the list of sites selected as sites of Community importance (SCI) (see judgment of the Court of Justice, case C-244/05).

- The site considered hosts a priority type of natural habitat or priority species and the Commission has been consulted about other imperative reasons of overriding public interest.

These opinions have no legal binding effect; national authorities would therefore be entitled to go ahead with a plan or project even when the opinion is negative.

Nonetheless, this right granted to member states does not prevent the Commission from taking legal action for non-conformity of project execution with community law.

Estany de la Llebreta, Aigüestortes, SPA & SCI, Natura 2000 Network.

CHAPTER 19 / Phase 4
MONITORING

Before beginning construction work, correct implementation of compensatory measures has to be checked to ensure appropriate implementation thereof; their efficacy should also be monitored thereafter.

In the workshop held in late 2012 government environment officers suggested that site conservation status should be used as an indicator of the efficacy of the environmental assessment carried out, while pointing out that it could be difficult to establish the cause-effect relationship, since *"the site could be faring badly due to another cause besides the project"*. Nonetheless, compensatory measures should be monitored in light of the objectives of the measures, as defined during the process of drawing them up and approving them, while also gauging their effectiveness in terms of conserving or improving the coherence of the Natura 2000 Network. The monitoring has to have a solid scientific design to confirm without any doubt that proposed objectives have been met. This design should be performed by a sufficiently skilled person and confirmed by a scientific body of recognised prestige.

CHART 16.
MONITORING OF COMPENSATORY MEASURES OF PORT OF GRANADILLA.

One case that could exemplify the difficulty of establishing the aetiology of site conservation-status improvements is the ecological restoration of *Montaña Roja*, one of the compensatory measures adopted to restore the conservation status of the SCI Montaña Roja affected by the construction of the Port of Granadilla in Santa Cruz de Tenerife (Canary Islands, Spain).

The Environmental Observatory of Granadilla *(Observatorio Ambiental de Granadilla: OAG)*, the compensatory-measure watchdog body, assessed this measure. Its aim was to improve the area's conservation status and significantly increase the area covered by the habitat type "grass-covered fixed coastal dunes" (grey dunes) (see OAG, 2009). The OAG concluded that:

"There has been a "SIGNIFICANT" improvement and establishment of a favourable conservation status of the SCI as a general and specific consequence of carrying out the project finished in 2008. The increase in grey dune habitat was impeded by land ownership problems, and the area incorporated (a minimum of 12,000 m2) is considered to be OF LITTLE SIGNIFICANCE (7%) in relation to the pre-existing area. Nonetheless, the ecosystem in general is now in progressive successional phase, building up biomass and acquiring a better structure and ecological state of maturity, enabling the development of a set of grey dunes, currently in initial development phases.

The objective conclusion that can be drawn from this is that this measure has not met its objective of increasing the surface area of grey dunes significantly. There has, however, been an observed improvement in the SCI's conservation status, which is attributed to the implementation of the other measures. This example also brings out the importance of ensuring, before approval of the measures, that the project developer is owner of the land where the compensation projects are to be implemented or that at least some legal arrangements are made between the corresponding parties, to ensure enforceability of the measures. The OAG thus states in its conclusions that: *"The failure to recover a more significant area of grey dunes is due to lack of understanding with the land owners (excessive economic cost) or incompatibility of various apt areas with the uses assigned in the reserve management plan"*.

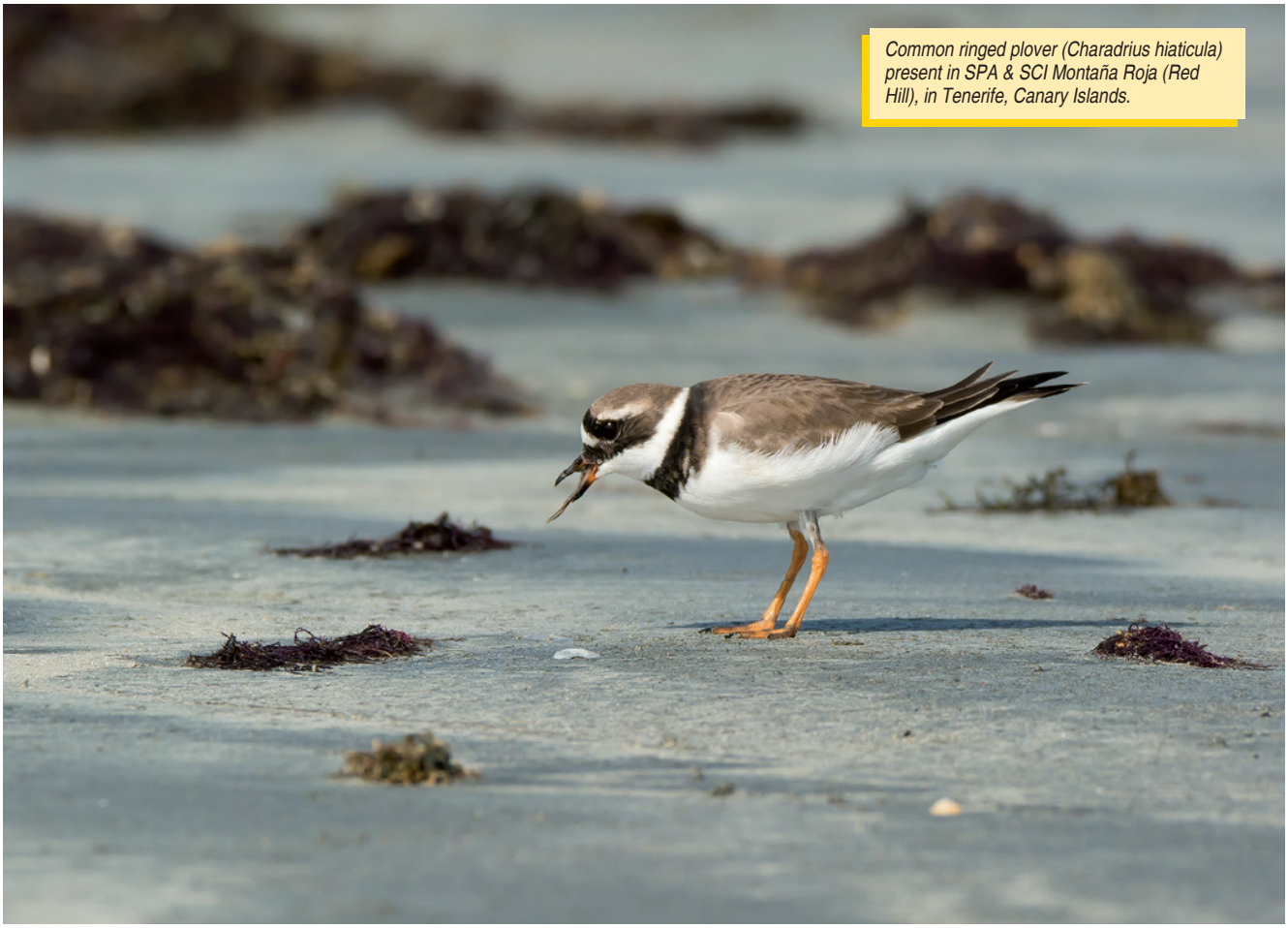
The beach called Playa de La Tejita with the Montaña Roja(Red Hill) in the background, Tenerife, Canary Islands.

The key to proper monitoring lies in the correct choice of indicators. For example, the effects of environmental changes on bird populations is normally influenced by one or more intermediate factors (Temple & Wiens, 1989). There is also often a time-lag before the effects become appreciable. For example, in a large scrub area that was destroyed and replaced with wheat fields in Oregon, the breeding population of Bell's sparrow *(Amphispiza belli*) and Brewer's sparrow *(Spizella breweri)* remained fairly stable for at least two years due to the inertial return of individuals to the same breeding territory even after the habitat was no longer suitable (Wiens and Rotenerry, 1985). Environmental effects on birds are often evaluated by means of changes in abundance, population density and distribution. These parameters, however, are not always the best change indicators. Fluctuations in basic population parameters (birth rate, mortality, dispersal) are more suitable for detecting evidence of induced environmental changes in bird populations, since there is likely to be a timing and spatial coincidence between the primary response and underlying environmental changes.

Once the best change-gauging parameter has been established, a check then has to be made on whether available data is appropriate for detecting said change.

Take the following example: it is a known fact that DDT contamination of the aquatic food chain reduces the annual average fecundity of bald eagles by 30%; and it is known at the same time that annual fecundity can fluctuate by 50%, depending on the availability of food and weather conditions. This means that to be able to detect a 30% variation in annual average fecundity in any given year with a 90% confidence interval and a statistical significance level of 0.005, it would be necessary to detect this reduction in at least 120 nests. If the fecundity monitoring programme has data only from 40 nests a year, scattered throughout the whole country, while DDT's fecundity effects are manifested at local level, the data to hand is an even worse indicator and another variable or indicator should be used to gauge DDT effects.

This type of analysis is seldom carried out when proposing measure-monitoring indicators, since statistical-sampling and result-validating considerations are almost never taken into account.



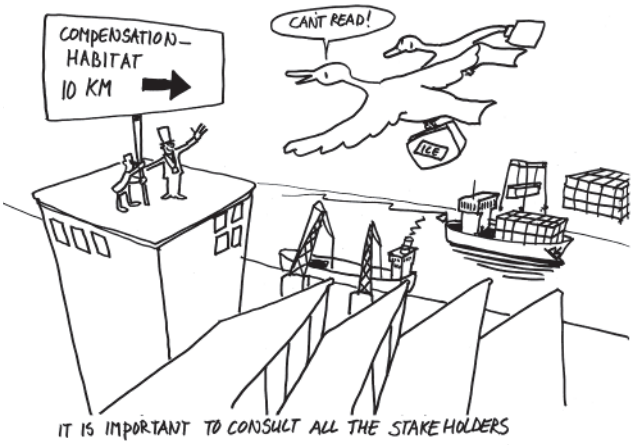
Common ringed plover (Charadrius hiaticula) present in SPA & SCI Montaña Roja (Red Hill), in Tenerife, Canary Islands.

CHAPTER 20
PUBLIC PARTICIPATION

Article 6.3 of the Habitats Directive lays it down that the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, **if appropriate, after having obtained the opinion of the general public.**

When a project undergoes an ordinary environmental assessment process under the Spanish EIA Law (*Ley 21/2013)*, due account will have to be taken of the discretional nature of determining the scope of the Environmental Impact Report. As already explained in the screening phase, it is *crucial to ascertain as quickly as possible whether there is a need of assessing implications for the Natura 2000 Network.* It is therefore recommended that projects likely to affect the Natura 2000 Network should voluntarily seek determination of the scope of the . This not only has the advantage of ascertaining the need of conducting a study of the implications for the Natura 2000 Network before carrying out the Environmental Impact Report, but also entails fulfilment of the public information procedure and consultation of affected public authorities and stakeholders in an initial phase of the procedure.

In those cases where the developer initiates the ordinary impact assessment procedure by directly presenting the Environmental Impact Report, the public information procedure of the assessment of implications for the Natura 2000 Network will be carried out jointly with the Environmental Impact Assessment Report, even with the disadvantage that the Natura 2000 implication assessment will have already finished by then.



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For projects submitted to a simplified Environmental Impact Assessment, article 46 of *Ley 21/2013* makes allowance for consultation of the affected public authorities and stakeholders. Article 45 lays it down that the environmental document has to include a specific section on site implication assessment for projects likely to affect Natura 2000 sites directly or indirectly. Where the environmental body concludes that the project should not be submitted to an ordinary Environmental Impact Assessment, having no significant effects on natural surroundings, due consideration has to be given to the fact that consultations carried out do not constitute a public information procedure as such, since they take in only the government and stakeholders without considering the opinion of the public at large.

It should always be borne in mind that proper implementation of the Aarhus Convention calls for open public participation in projects, plans and programmes or decisions adopted that might affect the environment.

For Natura 2000 implication-assessment purposes the European Commission (2010) recommends making contact with conservation NGOs, research institutions or local stakeholder groups to glean further local knowledge and ecological information on Natura 2000 sites. Consulting these organisations will help ensure that as complete a picture as possible is built up about the site, the species/habitats present and the potential impacts of the plan or project thereon.

In the online survey carried out hereunder, 68% of the respondents said that information input by conservation NGOs helped to improve assessment of the effects of projects on the Natura 2000 Network, and el 17% considered that said information is indispensable for information purposes (see question 12, Annex 1).

Public participation helps to speed up decision-making processes when all stakeholders participate from the start in seeking solutions that are acceptable to one and all.

CHAPTER 21
HOW CAN WE ASCERTAIN IF THE PROCEDURE MEETS ALL PROJECT-AUTHORISING REQUISITES?

This publication has been spelling out the essential features of the appropriate assessment of a project bearing no direct relation to site management and not being necessary for management thereof, to ascertain whether it might have a significant effect on the Natura 2000 Network, either individually or in combination with other plans and projects. This chapter proposes a checklist whereby any developer or government authority can make sure it is meeting all the conditions laid down by articles 6.3 and 6.4 of the Habitats Directive. This checklist has been drawn up fundamentally from the following documents: European Commission (2000), Söderman (2009), European Commission (2012a) and Gallego (2014).

A. PROJECT DESCRIPTION:

1. Is a description given of the purpose of the project and how it will be constructed, operated and decommissioned?
2. Is the project size delimited? For linear infrastructure like roads and power lines the length should also be indicated.
3. Is a description given of whether the project might have future changes or enlargements? This is especially important for projects that might be carried out in several phases.
4. Is an identification made and quantitative estimate given of emissions and those project elements that might have environmental impacts likely to affect the site's conservation objectives and other features?
5. Is the project or plan directly related to or necessary for site management?

B. DESCRIPTION OF THE POSSIBLY AFFECTED NATURA 2000 SITE:

6. Has a definition been given of the spatial scope (area affected) and project assessment deadline?
7. Has an indication been given of the relation between the area affected by the project and the affected Natura 2000 sites?
8. Has a description been given of the ecological requirements of all the site's species and natural habitats (referring in the case of SCIs and SACs to the Annex I habitats of the Habitats Directive and the Annex II species, and in the case of SPAs to Annex I species of the Birds Directive and passage migrants turning up regularly in the area)?
9. Is dependable and updated information available on the location and conservation status of all the site's natural habitats?
10. Is dependable and updated information available on the abundance and distribution (including breeding-, feeding-, migration- and wintering-areas) of all the site's species?
11. Have the specific areas hosting the species and natural habitats within the Natura 2000 site been ring-fenced?
12. Have conservation objectives been established for each one of the species and natural habitats?
13. Has the assessment been made by a multidisciplinary team covering all relevant disciplines involved in assessing possible implications for the Natura 2000 Network?
14. Has a qualified ecologist participated in the investigation?
15. Is there evidence of any field studies having been carried out?
16. Is information given on the dates, expert's name, training and experience and the number of field days?
17. Is the obtained scale of biological information appropriate, giving definitive answers to assessment of the various impacts?
18. Are information sources identified?
19. Is a description given of the loopholes and limitations of the data used and rectification measures?

C. CONSIDERATION OF OTHER PLANS AND PROJECTS LIKELY TO HAVE CUMULATIVE EFFECTS IN COMBINATION WITH THE PROJECT UNDER ASSESSMENT:

20. Has a definition been made of the spatial scope (area affected) and time limit for taking other plans and projects into account?
21. Has a check been made of information contained in other plans and projects related to the Natura 2000 site, even if outside same, or have scientific grounds been given for regarding cumulative effects in combination with other plans or projects as unlikely?
22. Is a detailed description given of all cumulative effects in combination with other plans and projects on each one of the conservation objectives?
23. Has due consideration been given to information loopholes and limitations for evaluating cumulative or combined effects and the way these gaps can be filled in?

D. DESCRIPTION OF IMPACTS, INCLUDING CUMULATIVE IMPACTS IN COMBINATION WITH OTHER PLANS OR PROJECTS, ON THE NATURA 2000 SITE'S CONSERVATION OBJECTIVES:

24. Is a detailed description given of direct impacts?
25. Is a detailed description given of indirect and secondary impacts?
26. Is a detailed breakdown of impact duration given (short-, medium- and long-term)?
27. Is a detailed description given of impact longevity (broken down into permanent and temporary)?
28. Have impacts been considered in quantitative terms?
29. Have impacts been considered in qualitative terms?
30. Have impacts for each type of habitat been identified individually in light of the best scientific knowledge?
31. Have impacts for each species been identified individually and precisely in light of the best scientific knowledge?
32. Is a precise indication given, in light of the best scientific knowledge, of whether impacts are significant or insignificant for each type of habitat or species?
33. Are scientific grounds given for the decision on whether each type of habitat or species will be significantly affected?
34. Are impacts assess by magnitude (high, moderate, low)?
35. Is an explanation given of the criteria used for assess the impacts by magnitudes/significance?

36. Is a description given of the methods/approaches used for identifying impacts and the grounds used?
37. Have effects on cultural heritage and the socioeconomic environment been excluded from the assessment?
38. Does the assessment include complete, precise and definitive statements and conclusions that might dispel any reasonable scientific doubt about the effects of the construction work on the Natura 2000 site concerned?
39. Has the precautionary principle been applied in the whole assessment process?
40. Is there any alternative and well-founded scientific information on site risks, or showing contradictions or mistakes in the assessment?
41. Are the effects on the Natura 2000 site as a whole summed up (integrity)?

E. ANALYSIS OF CORRECTIVE, MITIGATION AND MONITORING MEASURES:

42. Are corrective or mitigation measures proposed to reduce or eliminate impacts on conservation objectives?
43. Is a detailed description given of how mitigation measures are to be implemented?
44. Has an assessment of the effectiveness of proposed mitigation measures been made under circumstances similar to those of the project under assessment?
45. Might any proposed mitigation measures to reduce one impact produce impacts on another one of the site's conservation objectives?
46. Has the project been assessed anew in light of mitigation measures, obtaining precise and definitive findings and conclusions that might dispel any reasonable scientific doubt about the effects of the construction work on the Natura 2000 site concerned?
47. Is any monitoring of conservation objectives proposed?
48. Is a detailed description given of how monitoring will be implemented?

F. ANALYSIS OF ALTERNATIVE SOLUTIONS:

49. Is a description given of the impacts of alternative solutions and are they compared with those of the proposed project?
50. Does the assessment of alternatives have the sole objective of making sure the impact on the Natura 2000 Network is zero or as low as possible?
51. Are only environmental criteria considered and in particular the impact that might be caused on the conservation objectives of the sites concerned?
52. Is due consideration given to the zero alternative or not carrying out the project?

G. DECLARATION OF AN OVERRIDING PUBLIC INTEREST, WHERE NECESSARY:

53. Has it been demonstrated that the plan or project is indispensable and has a long-term interest in the framework of actions and policies designed to protect fundamental values such as health, public safety or the environment or in the framework of fundamental policies for the state and society?
54. Has it been properly demonstrated that there are no less damaging alternative solutions that are friendlier to site integrity?
55. Has the declaration of overriding public interest been made in the form of a law, by agreement with the Consejo de Ministros or by agreement with the government of the comunidad autónoma after having carried out an appropriate assessment?
56. Is the agreement well-grounded and public?
57. Does the considered site host a priority natural habitat or priority species listed as such in Annexes I and II of the Habitats Directive or is a species included in Annexes II or IV of Ley 42/2007affected, having been listed as In Danger?
58. Has it been properly and precisely shown, if such be the case, that the project involves an overriding public interest for human health, public safety or beneficial consequences of overriding importance for the environment?
59. Has the European Commission been previously consulted for its opinion?

H. ANALYSIS OF COMPENSATORY MEASURES, IF ANY:

60. Have the project's harmful effects been precisely identified to determine the corresponding nature of any compensatory measures?
61. Have all the necessary compensatory measures been proposed to ensure that the project does not jeopardise the overall coherence of Natura 2000?
62. Have the compensatory measures been designed on the basis of the best available scientific knowledge and taking into account the specific requisites of the ecological features to be restored?
63. Have sufficient grounds and reasons been given to show that the proposed compensatory measures cannot be considered necessary measures for normal implementation of Directives 92/43 and 2009/147?
64. Has there been an assessment of the viability and effectiveness of the proposed compensatory measures in similar conditions to the project under assessment?
65. Has a detailed timetable been given for execution of the compensatory measures and the moment when the measures will come into effect?
66. Will the result of the compensation be effective by the time the site concerned suffers the harm?
67. If applicable, has consideration been given to extraordinary compensation for temporary losses?
68. Will the temporary losses lead to population losses of site species protected under Annex II of the Habitats Directive or Annex I of the Birds Directive? Are any of them priority?

I. PRESENTATION OF MAPS

69. Has the project's land occupancy area been clearly identified on a map?
70. Have Geographical Information Systems been used?
71. Have habitat types within the Natura 2000 site been delimited?
72. Has the presence/territories of species within the Natura 2000 site been delimited?
73. Have the impacts been displayed on a map?

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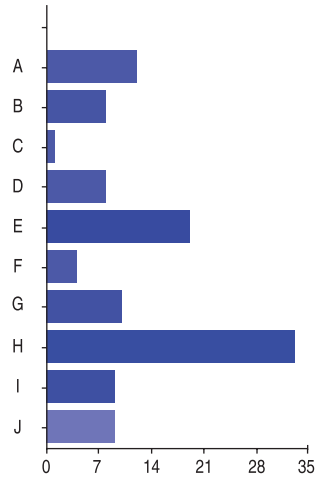
ANNEXES

Guidelines for environmental assessment of projects likely to affect the Natura 2000 Network

ANNEX 1.
SURVEY RESULTS

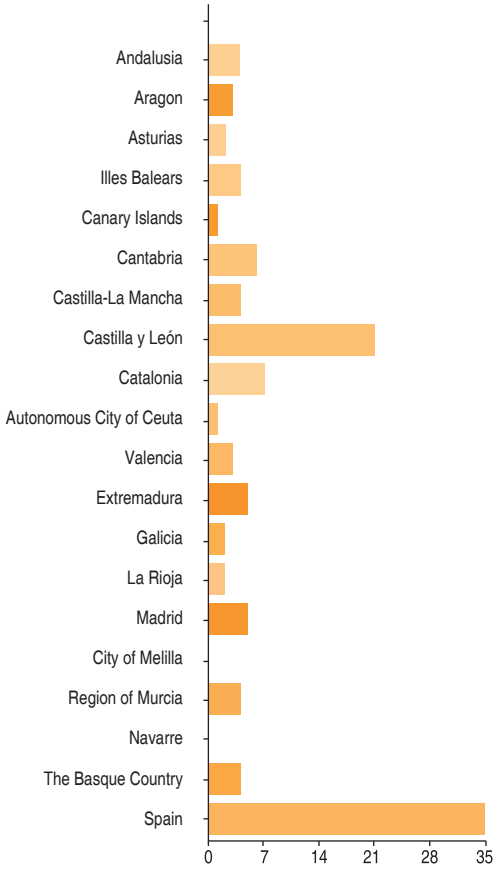
RESPONDENT PROFILE

Type of organization or institution to which the respondent belongs



A.	Environmental Assessment - Central Autonomous Community Service	12	11%
B.	Environmental Assessment - Peripheral Autonomous Community Service	8	7%
C.	Natura 2000 - Ministry of Environment	1	1%
D.	Environmental Impact Assessment – Ministry of Environment	8	7%
E.	Authority responsible for Natura 2000 - Central Government Autonomous	19	17%
F.	Authority responsible for Natura 2000 - Provincial Government	4	4%
G.	Public Company	10	9%
H.	Environmental Consulting	33	29%
I.	Environmental NGOs	9	8%
J.	Others	9	8%

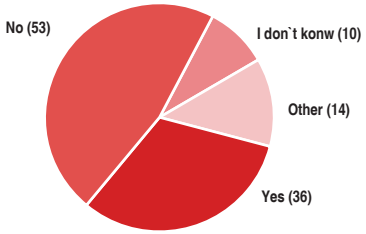
Regional distribution of the respondents



Andalusia	4	4%
Aragon	3	3%
Asturias	2	2%
Illes Balears	4	4%
Canary Islands	1	1%
Cantabria	6	5%
Castilla-La Mancha	4	4%
Castilla y León	21	19%
Catalonia	7	6%
Autonomous City of Ceuta	1	1%
Valencia	3	3%
Extremadura	5	4%
Galicia	2	2%
La Rioja	2	2%
Madrid	5	4%
City of Melilla	0	0%
Region of Murcia	4	4%
Navarre	0	0%
The Basque Country	4	4%
Spain	35	31%

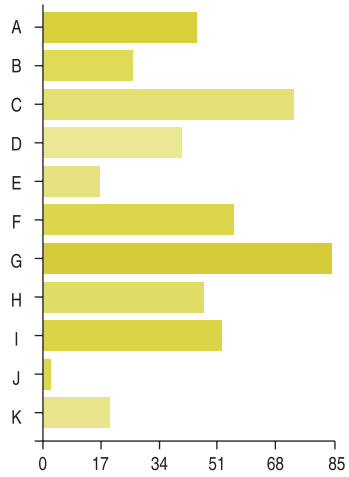
SECTION I. Overall rating of the effectiveness of the assessment of projects that are likely to affect Natura 2000.

1. Do you consider that the evaluation of projects that may affect Natura 2000 being effective to maintain a favorable conservation status of flora, fauna and habitats of Community interest?



Yes	**36**	32%
No	**53**	47%
I don't know	**10**	9%
Other	**14**	12%

2. What do you think are still the major issues that prevent a correct assessment of the projects?

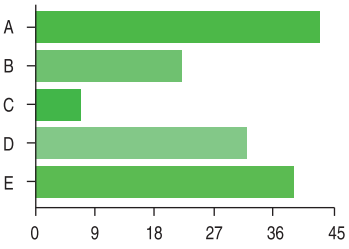


A.	The effects on the conservation objectives of Natura 2000 sites are not being evaluated	**45**	40%
B.	The effects of the project on the integrity of the site is not being evaluated	**27**	24%
C.	The cumulative and In combination effects with other plans or projects are not being evaluated	**73**	65%
D.	The competent authority don´t have enough staff to perform this task	**41**	36%
E.	The staff member with responsibility is not skilled enough to perform this evaluation	**16**	14%
F.	There is not enough information available and updated	**56**	50%
G.	Natura 2000 sites do not have corresponding Management Plans	**84**	74%
H.	The conservation status of Natura 2000 sites are not known	**47**	42%
I.	The dynamics of habitats, species and their ecology is unknown	**52**	46%
J.	None is correct	**2**	2%
K	Other	**20**	18%

3. What aspect/s will contribute to do the assessment of projects in Natura 2000 more effective? (Summary of the most frequent answers).

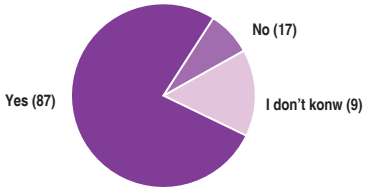
- To approved the management plans of Natura 2000 sites.
- To have more knowledge and better understanding of ecosystem functioning and dynamics of species.
- To improve the information available of Natura 2000 sites, e.g. habitats mapping.
- Most of the time the decisions on Whether to permit the project, is beyond the technical field and falls into the political arena.
- To provide the competent authority with enough technical resources to cope with with the work to be developed.
- Staff training.

4. In relation to the maximum statutory period for the assessment of projects significantly affecting Natura 2000 sites.



A.	Is sufficient	**43**	38%
B.	Could be reduced without compromising the quality of assessment	**22**	19%
C.	The competent authority has enough staff to take time reduction without compromising the quality of the assessment	**7**	6%
D.	None is correct	**32**	28%
E.	Other	**39**	35%

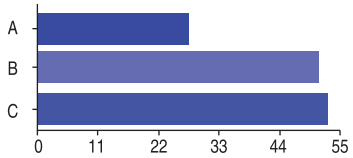
5. Do you think that a basic national regulation on how to assess projects that may significantly affect the Natura 2000 sites is necessary?



Yes	**87**	77%
No	**17**	15%
I don't konw	**9**	8%

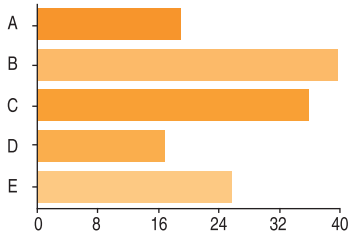
SECTION II. Screening phase.

6. Select the real options



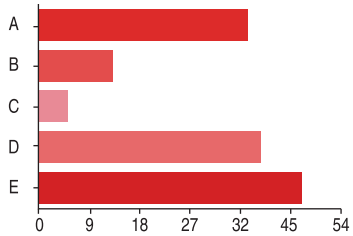
A.	Screening is efficient in detecting all projects being outside the Natura 2000 sites that could have negative effects on site	**27**	24%
B.	The screning is efficient in detecting all projects that are not subject to EIA and yet can have negative effects on Natura 2000?	**51**	45%
C.	None of the above	**53**	47%

7. When during the screening phase it can not be scientifically prove the absence of significant effects on Natura 2000:



A.	A resolution of no EIA submission is emitted	**19**	17%
B.	The developer is requested to undertake further studies to assess the effects on Natura 2000	**40**	35%
C.	An appropriate proper assessment of the project is performed	**36**	32%
D.	None is correct	**17**	15%
E.	Other	**26**	23%

8. The appropriate assessment reports issued in your geographical area of work



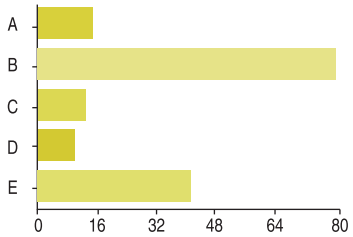
A.	Objectively and reasonably demonstrate no adverse effects on Natura 2000	**33**	29%
B.	Are sufficiently robust to withstand scientific scrutiny and expert	**13**	12%
C.	Are published and are accessible to citizens	**5**	4%
D.	Should be published as an annex to the resolution of the authorization	**39**	35%
E.	None is correct	**47**	42%

9. How could the screening be improved? (Summary of the most frequent answers)

- Improving the information submitted by the developer.
- Improving consultation process, taking into account the opinions and judgments of all individuals, NGOs, environmental organizations, expert reports (Universities for example), etc. Queries to the population concerned by internet. Making agreements with universities or independent consultants to ensure at least some independent view.
- There should be an internal protocol that technical specialists in species and habitats for which the site has been designated validate the absence / presence of effects.
- Defining minimum contents must have the information to send to the body with competence in RN2000, so it has sufficient information to make a proper technical analysis, eliminating uncertainties.
- Making it transparent, and publishing the results of the assessment.
- Defining appropriate evaluation criteria.
- Greater coordination between the competent bodies in EIA and Natura 2000 Network.

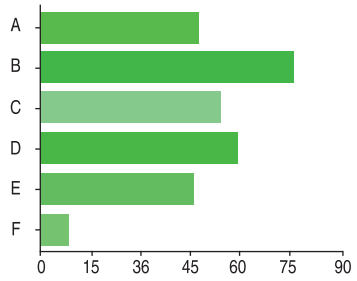
SECTION III. Information available to assess the effects on Natura 2000 sites.

10. The Environmental repots presented by the developer



A.	Usually contain most of the information needed to assess whether there will be significant effects on Natura 2000 sites	**15**	13%
B.	Not contain all information necessary for the assessment	**80**	71%
C.	frecuently updated official information on Natura 2000 through reports or scientific studies through fieldwork	**13**	12%
D.	None is correct	**10**	9%
E.	Other	**41**	36%

11. In relation to the information necessary for proper evaluation

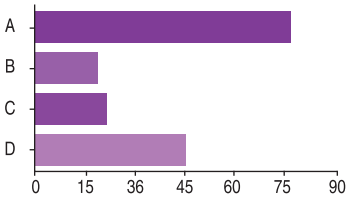


A.	Must be provided to the promoter by the competent authority	**48**	42%
B.	The competent authority should create more appropriate channels for providing information	**76**	67%
C.	Competent authority should implement for project submitted to the assessment under art. 6.3 y 6.4 of Habitat Directive, similar electronic tools to those for monitoring the EIA	**54**	48%
D.	Outdated Natura 2000 standard data forms is assuming an inadequate assessment	**59**	52%
E.	The initiatives for nature conservation that may affect the conservation status of the site in the future are not being taken into account	**46**	41%
F.	None is correct	**8**	7%

12. What is the best way for the developer present complete and updated information, including other existing or ongoing projects? (Summary of the most frequent answers).

- Improve data accessibility.
- Improve consultation process.
- To consider the Natura 2000 sites during the desing of the project.
- To perform previous meetings with developers in very early stages for guiding, from very early times, the design of the proposals.
- To make accesible information about other projects existing or running and their location.
- To define minimum content standards.
- To make the information available on internet.
- To demand that the experts that conduct the fieldwork and make the assessment have the adequate training to do the task.
- The developer should conduct field works to update the information provided by the competent authority.
- More transparency.

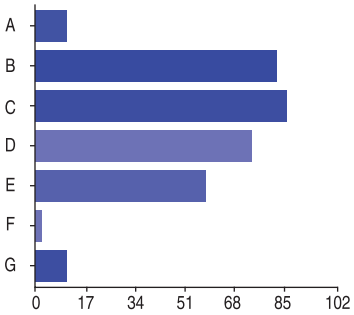
13. The information provided by environmental NGOs.



A.	Contributes to improving the assessment of the effects of projects on the Natura 2000	**77**	68%
B.	Is indispensable for a proper evaluation	**19**	17%
C.	None is correct	**21**	19%
D.	Other	**46**	41%

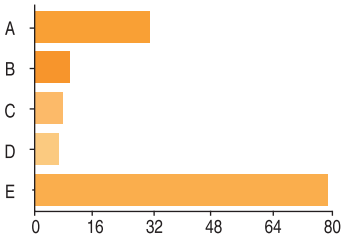
SECTION IV. Identification, analysis and assessment of impacts

14. Regarding impacts prediction.



A.	Are being evaluated properly	**10**	9%
B.	The evaluation done is often too generic	**84**	74%
C.	Not always cumulative impacts are evaluated taking into account other planned projects	**87**	77%
D.	Not always cumulative impacts are evaluated taking into account other existing or ongoing projects	**75**	66%
E.	Not always the impacts of all alternatives considered are evaluated	**59**	52%
F.	None is correct	**1**	1%
G.	Other	**10**	9%

15. The impacts are properly assessed on:

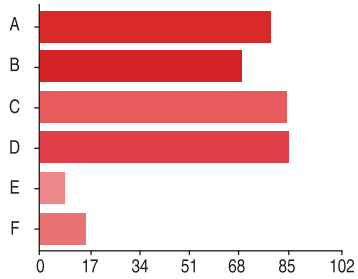


A.	Ecological corridors or stepping stones on species movements	**31**	27%
B.	Migration routes	**10**	9%
C.	Dispersion areas	**8**	7%
D.	Genetic exchange between populations of target species for which the areas affected were designated as Natura 2000 site	**7**	6%
E.	None is correct	**79**	70%

16. What do you understand by "integrity of the site"? (Summary of the most frequent answers)

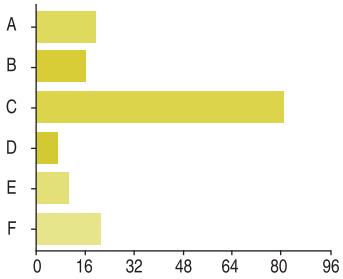
- Set of values (habitats, species and processes) required for the place and the different elements that compose it are maintained over time ensuring their ecological functionality and conservation of these same values (meaning they were that led to the declaration of the site as member of the Natura 2000 site).
- The values that motivated its declaration as a Natura 2000 site.
- The favorable conservation status of habitats and species at a Natura 2000 site.
- Not significantly affect the values that motivated the inclusion in Natura 2000 network.
- I do not know. Confusing concept.
- Maintenance of those environmental and social conditions in places that are intended to be affected.
- Not to affect the places where you intend to carry out the project.

17. With regard to mitigation measures:



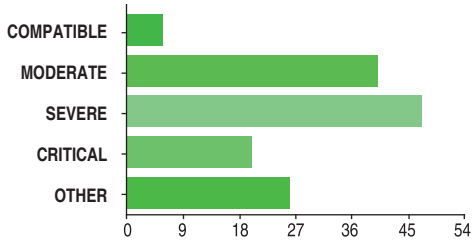
A.	Not always a timetable for their implementation is included	**79**	70%
B.	Not always identify who has to execute the measures	**69**	61%
C.	Not always mechanisms to ensure its implementation are identified. Ex. legally binding agreements that are signed prior to authorizing the project	**85**	75%
D.	Not always its economic assessment is included	**86**	76%
E.	None is correct	**8**	7%
F.	Other	**15**	13%

18. Which of the following criteria should be applied in order to follow the procedure under art. 6.4 of Directive 92/43/EEC?



A.	The average of impacts on habitats and species is significant	**19**	17%
B.	At least the average of impacts on any of the conservation objectives (habitats or species) is significant	**16**	14%
C.	A least a significant impact on any of the conservation objectives of the site	**81**	72%
D.	All the conservation objectives of the site will be significantly affected	**6**	5%
E.	None is correct	**10**	9%
F.	Other	**21**	19%

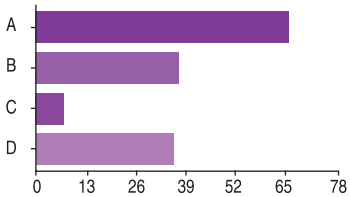
19. What is the minimum intensity of the impact on one of conservation objectives of the site in order to follow the procedure under art. 6.4 of Directive 92/43/EEC ?



COMPATIBLE	**6**	5%
MODERATE	**40**	35%
SEVERE	**47**	42%
CRITICAL	**20**	18%
Other	**26**	23%

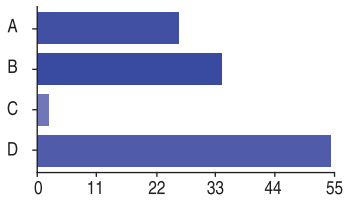
SECTION V. Outcomes.

20. When it is concluded that a project may haveD. a negative impact Natura 2000 the competent authority must determine whether there are alternative solutions. In practice, the competent authority:



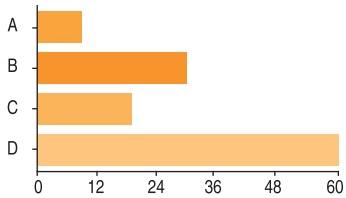
A.	Is limited to analyzing the alternatives proposed by the developer	**66**	58%
B.	Is able to propose other solutions	**37**	33%
C.	None is correct	**7**	6%
D.	Other	**36**	32%

21. Once the appropriate assessment is finished the competent authority:



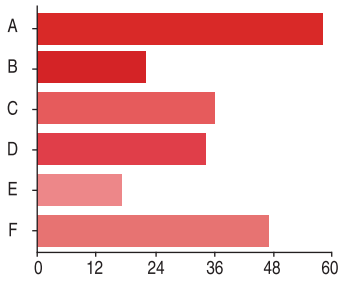
A.	Writes the report and submits it to public information	**26**	23%
B.	Should submit the report to public information, but it does	**34**	30%
C.	The report is submitted to an independent external audit	**2**	2%
D.	None is correct	**54**	48%

22. The examination of imperative reasons of overriding public interest



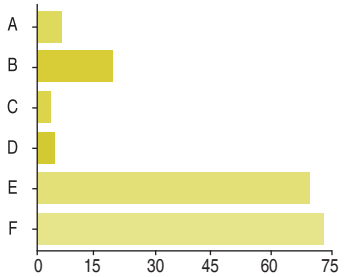
A.	Is being performed properly	**9**	8%
B.	The reasons are justified by describing the plans or programs that describe the need for the project	**30**	27%
C.	Focuses the public interest in protecting values such as health, safety, the environment or to meet public service obligations	**19**	17%
D.	None is correct	**60**	53%

23. That the public interest is first order is decided.



A.	For economic reasons	**58**	51%
B.	By the number of jobs created	**22**	19%
C.	Because it represents a short-term public interest	**36**	32%
D.	Because it represents a long-term public interest	**34**	30%
E.	None is correct	**17**	15%
F.	Other	**47**	42%

24. In relation to the compensatory measures.



A.	They are being effective to offset the impact produced by projects	**6**	5%
B.	Are designed to directly compensate the effects on conservation objectives of the Natura 2000 site	**19**	17%
C.	Are put in place before the project	**3**	3%
D.	Have a sufficient budget for implementation	**4**	4%
E.	None is correct	**70**	62%
F.	Other	**73**	65%

ANNEX 2.
GUIDANCE PUBLICATIONS FOR IDENTIFICATION AND EVALUATION OF IMPACTS

PORTS

Royal Haskoning DHV, 2012. *Environmental Impact Assessment (EIA) Appropriate Assessment (AA). Evaluation of assessment tools and methods. Lot2: Analysis of case studies of port development projects in European estuaries.* Commissioned by the Antwerp Port Authority.TIDE. Tidal River Development.Project part-financed by the European Union (European Regional Development Fund) The Interreg IVB North Sea Region Programme.http://www.tide-toolbox.eu/pdf/reports/EAS_Lot2.pdf

ELECTRICITY, GAS AND OIL INFRASTRUCTURE

Papoulias, F. *Guidance document on electricity, gas and oil infrastructures and Natura 2000.* DG Environment- Nature Unit.

PHOTOVOLTAIC PLANTS

Carullo, L. Russo, P., Riguccio, L. and Tomaselli, G. 2013. *Evaluating the Landscape Capacity of Protected Rural Areas to Host Photovoltaic Parks in Sicily.* Natural Resources. 4, 460-472.
http://dx.doi.org/10.4236/nr.2013.47057

WIND FARMS

European Commission, 2011.Guidance Document: *Wind energy developments and Natura 2000.* Luxembourg. ISBN 978-92-79-19308-8.
http://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms_es.pdf

Atienza, J.C., I. Martín Fierro, O. Infante, J. Valls and J. Domínguez. 2011. *Guidelines for Assessing the Impact of Wind Farms on Birds and Bats* (version, 3.0) SEO/BirdLife. Madrid.
http://www.seo.org/wp-content/uploads/2012/05/MANUAL-MOLINOS-VERSION-31_WEB.pdf

De Lucas, M. Janss, G.F.E., and M. Ferrer (2009). *Aves y parques eólicos. Valoración del Riesgo y atenuantes.* Quercus.
Bald. J., Fontán, A., Franco, J., Garmendia, J.M., González, M., Irondo, A., Liria, P., Menchaca, I., Muxika, I., Rodríguez, J.G., Solaun, O., Uriarte, A., Uyarra, M.C., Zorita, I., Camba Rey, C. *Guía para la elaboración de los estudios de impacto ambiental de proyectosde energías renovables marinas.* Proyecto CENIT-OCEAN LÏDER, líderes en Energías Renovables Oceánicas. Azti tecnalia, Acciona Energía, Ministerio de Economía y Competitividad, Centro de Desarrollo Tecnológico Industrial.

FISHERY

The N2K Group.European Economic Interest Group.2010. *Common methodology for assessing the impact of fisheries on marine Natura 2000.* European Comission. Directorate General Environment, B3 Unit. Service Contract.Nro.070307/2010/578174/SER/B3. http://ec.europa.eu/environment/nature/natura2000/marine/docs/Fisheries%20methodology.pdf

AQUACULTURE

European Commission. 2012. *Guidance document on aquaculture activities in Natura 2000 Network. http://ec.europa.eu/environment/nature/natura2000/management/docs/Aqua-N2000%20guide.pdf*

MINING

European Commission. 2010. Guidance document: Non-energy mineral extraction and Natura 2000. Luxembourg.
ISBN: 978-92-79-18646-2. http://ec.europa.eu/environment/nature/natura2000/management/docs/neei_report_es.pdf

Pajares Olmo, J. M., Navarro santa Mónica, R. M., Moreno Pérez J., Pérez Fernández, M.A. *Guía para la tramitación ambiental de las actividades mineras en la Comunidad Autónoma de Extremadura. Gobierno de Extremadura.* European Union.
http://extremambiente.gobex.es/files/biblioteca_digital/Guia%20Tramitacion%20Ambiental%20Actividades%20Mineras_peq.pdf

TRANSPORT INFRASTRUCTURE

Ministerio de Medio Ambiente y Medio Rural y Marino. 2010. *Prescripciones técnicas para la reducción de la fragmentación de hábitats en las fases de planificación y trazado.* Documentos para la reducción de la fragmentación de hábitats causada por infraestructuras de transportes, número 3. O.A. Parques Nacionales. Ministerio de Medio Ambiente y Medio Rural y Marino.145 pp. Madrid.
http://www.magrama.gob.es/es/biodiversidad/publicaciones/planificacion_trazado_tcm7-19517.pdf

RIVER TRANSPORT

EuropeanCommission. 2012. Guidance document on sustainable inland waterway development and management in the context of the EU Birds and Habitats Directives.

CROP AND LIVESTOCK FARMING /NITROGEN DEPOSITION

Hicks, W.K., Whitfield, C.P., Bealey, W.J. and Sutton, M.A. (Eds.) 2011. *Nitrogen Deposition and Natura 2000: Science and Practice in Determining Environmental Impacts.* COST729/Nine/ESF/CCW/JNCC/SEI Workshop Proceedings, published by COST.
ttp://cost729.ceh.ac.uk/sites/cost729.ceh.ac.uk/files/webfm/N2K%20Workshop/Nitrogen-Deposition-and-Natura-2000-Full-Book.pdf

IRRIGATION

San Sebastián Sauto, J., García Asensio, J. M., Hidalgo Treviño, N. and M. Ajo Villagra, J. 2007. *Guía sobre Environmental Impact Assessment de proyectos de Regadío.* Director Técnico: Ángel Barbero Martín. Ministerio de Agricultura, Pesca y Alimentación. Madrid.

WASTE

Ibánez, Mendizábal,R., Aldaco García, R., Garea Vázquez, A., Fernández Olmo, I., Puente Ruiz, M.E. 2006. *Guía de aplicación para las actividades de Gestión de Residuos.* Autorización Ambiental Integrada en la Comunidad Autónoma de Cantabria. Consejería de Medio Ambiente del Gobierno de Cantabria. Universidad de Cantabria.
http://aai.medioambientecantabria.es/hipervinculos%20pdf/Guia%20gest%20residuos_Julio06.pdf

BATS

Petrov, B. 2008. Bats – methodology for environmental impact assessment and appropriate assessment. A manual for developers, environmental experts and planning authorities.National Museum of Natural History-BAS, 88p. (http://www.nmnhs.com/downloads/brcc/bats-en.pdf).

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EDITORIAL COORDINATION

Olimpia García

AUTHORS

Julieta Valls
Octavio Infante
Juan Carlos Atienza

PHOTOGRAPHS

Alan Kraft - Shutterstock (47)
Algefoto - Shutterstock (62)
Bildagentur Zoonar GmbH - Shutterstock (19)
Dabarti CGI - Shutterstock (portada)
Dave Montreuil - Shutterstock (65)
Dccon. General Políticas Ambientales.Generalitat de Catalunya (26)
Dirima - Shutterstock (44)
Erni - Shutterstock (43)
Hector Ruiz Villar - Shutterstock (35)
Israel Hervas Bengochea - Shutterstock (54)
Juan Carlos Muñoz (51)
Lledo - Shutterstock (39)
Niko López (55)
Oleksandr Katrusha - Shutterstock (63)
Pedro Sala - Shutterstock (29)
Roberaten - Shutterstock (42)
Santi Rodriguez - Shutterstock (64)

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C/ Melquíades Biencinto, 34
28053 Madrid
Tel. (+34) 914 340 910

www.seo.org

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Govern de les Illes Balears
Conselleria d'Agricultura, Medi Ambient i Territori

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Comunidad de Madrid

Junta de Castilla y León