



Autorité environnementale



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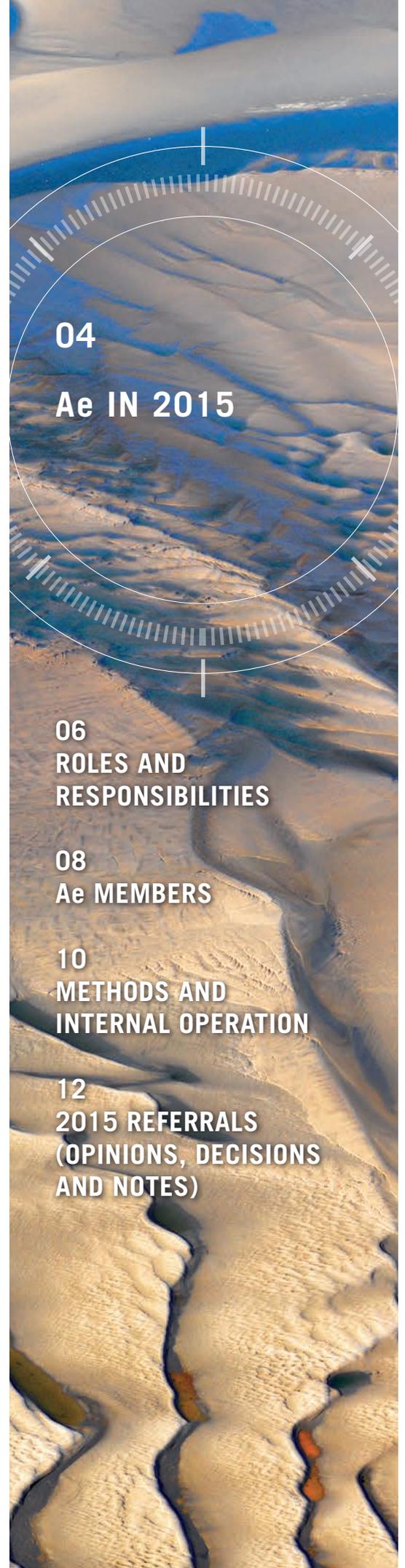
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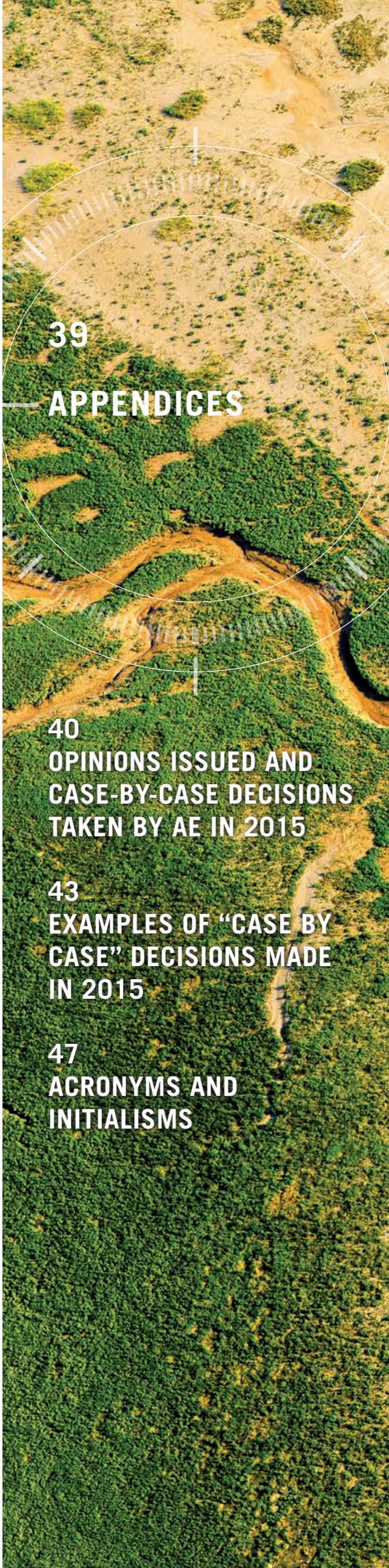
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ACRONYMS AND INITIALISMS



EDITORIAL



Environmental Authority continues its strategy, pending the announced reforms to make the regional environmental authorities more independent

At the end of 2014 the continuity of Ae's action was confirmed and changes were to the environmental assessment of projects, plans and programmes, and the opinions issued by the environmental authorities were announced.

The report confirms that activity remained stable in 2015: 111 opinions were discussed (110 in 2014). In addition, Ae took 58 decisions concerning applications for case-by-case examination to determine whether or not projects should be submitted to an impact study (99 in 2014).

Ae has fully implemented its guiding principles: providing useful external expertise, aiming for high quality and capitalising on its practice, particularly in an executive summary - on noise from transport infrastructures. It also shared its experience with its European counterparts, particularly at international meetings in Riga and Florence organised by the Presidency of the European Union and the European Commission. 2015 was particularly distinguished by the investigation of new types of projects or programmes (offshore wind farms, long term energy plans, preliminary scopings of national plans and the operation programme of a European fund).

At the start of 2016 the legislative and regulatory framework of environmental assessments could change.

This change, intended to take into account the EU Directive 2014/52/EU on the assessment of effects of certain public and private projects on the environment, which must be transposed into national law by 2017, to respond to a number of complaints of the European Commission, is still awaited:

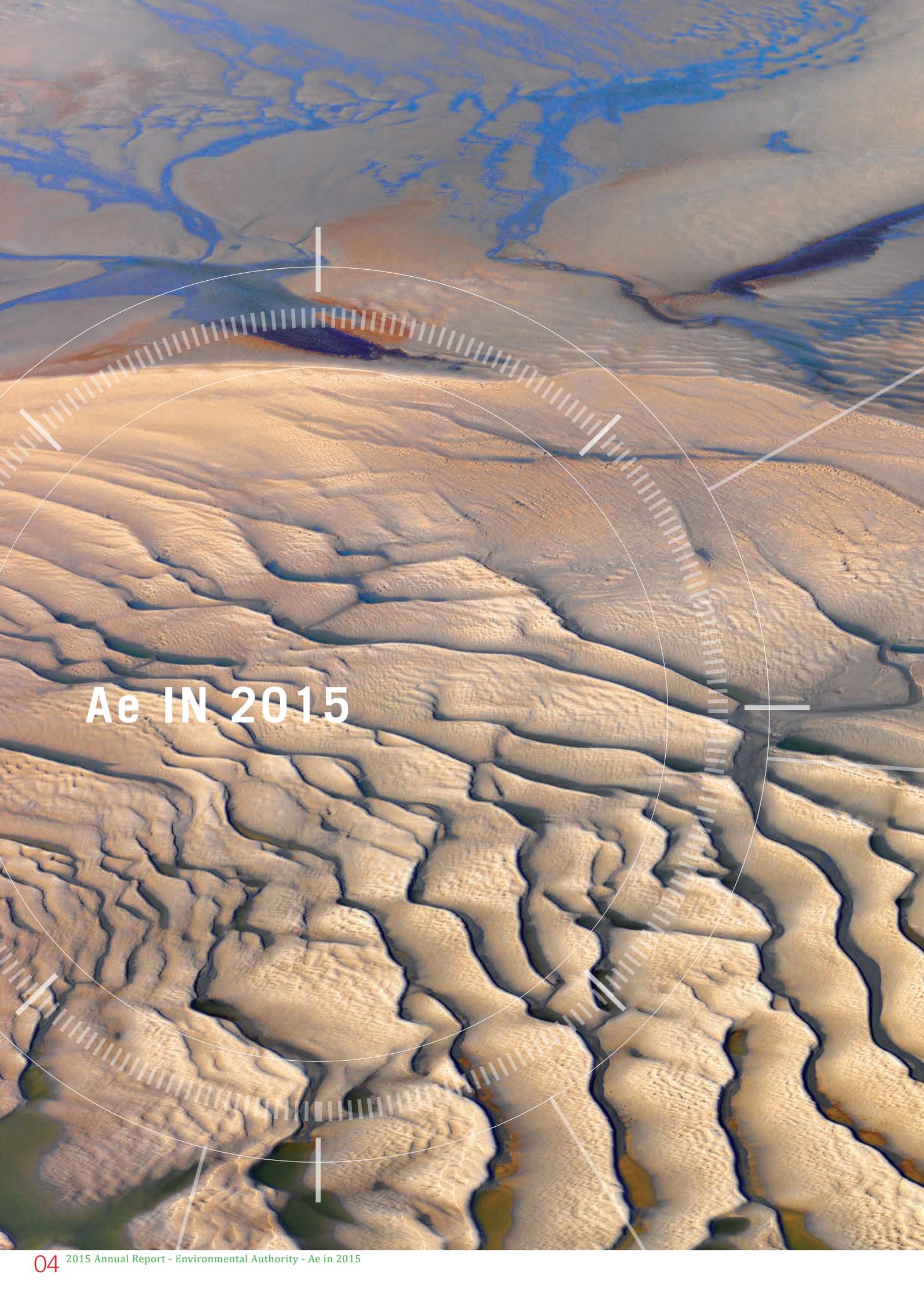
- thinking on changes to impact studies now seem to be converging towards the need to assess the impact of projects as a whole; this approach being consistent with the simplification of the environment law;
- a decision of the Conseil d'État of 25th June 2015 confirmed the need to look in more depth at the framework of all plans and programmes as part of their environmental assessment.

Interpretation of the "independence" of an environmental authority's opinions clarifies the need for at least "functional separation" between the authority which approves a plan or programme and the environmental authority: the latter must have real autonomy, meaning in particular, that it has its own specific administrative and human resources.

These changes would lead to a rapid expansion of Ae's competence over several categories of regional plans and programmes developed by government services. This should also lead to the establishment of autonomous, collective structures, at the regional scale, for the other plans and programmes. Ae is convinced moreover that such an interpretation should not be different for projects.

Thanks to this reform, the environmental authority's opinions, the objectivity of which ought to be indisputable, will be more robust and more comprehensive and will contribute to a modernised approach to environmental democracy.

The members of the Autorité environnementale of the Conseil général de l'environnement et du développement durable (general council for the environment and sustainable development)



Ae IN 2015



ROLES AND RESPONSIBILITIES

Certain projects, plans and programmes are subject to environmental assessment according to their specific characteristics and their potential impacts on the environments they affect.

As these assessments are carried out under the responsibility of the applicants themselves, it is necessary for an “environmental authority” to issue a public opinion on the quality of the assessment and on whether the operation being assessed has given due consideration to the environment

Ae exercises this environmental authority role for the environmental assessment of projects in the following two cases:

- if the Minister for the Environment is the authority responsible, under his ministerial competence, for taking the decision to authorise the project or suggest it to the government;
- if the project owner or applicant is the State, represented by a service reporting to this minister or a public-sector institution under his supervision.

The scope of Ae’s competence also extends to¹:

- all the projects in a programme of functionally linked operations, if one of the projects in the programme comes under a decision taken by the minister for the environment or is proposed by him to the government;
- all the projects requiring several administrative decisions, if one of them falls within the competence of the minister or is proposed by him to the government.

In other cases, this opinion is given by the minister himself, with support from his staff, or by the prefects, depending on the case².

Ae also performs the role of environmental authority in the case of projects not necessarily requiring an environmental assessment but examined on a case-by-case basis³. The examination results in a decision on whether or not to submit the project to an impact study.

For plans and programmes, the regulations⁴ specify the cases in which Ae is the competent authority, according to a list specified by the French Environment Code.



Ae IN 2015



Nord Canal at Etricourt (Seine-North Europe Canal)

A European framework of action

These opinions of “a competent environmental authority” are drafted in accordance with two European Union directives⁵ transposed into French Law⁶. Issued at a sufficiently early stage in the decision process, they are intended to improve both the quality of environmental assessments provided by applicants and the consideration given to the environment in operations subject to them. Their publication aims to facilitate public participation in the corresponding decision-making process.

An independent environmental authority

Ae’s function is that of a guarantor, testifying to the consideration given to environmental issues by project owners and decision-making authorities. The credibility of the guarantor therefore requires the absence of any link with the latter. This is the reason for the establishment of a dedicated authority backed by the General Council for the Environment and Sustainable Development (Conseil général de l’environnement et du développement durable - CGEDD), endowed with specific operating rules that protect the independence of its judgment and expression, for cases in which the decision to be made comes under one of the ministerial responsibilities of the Minister for the Environment.

Ae takes care to remove all suspicion of bias, or manipulation, in its opinions. The collective nature of the discussions and the publication of opinions and decisions at the end of session are probably the best guarantees, together with the critical public review to which they are subject.

Ae also implements the provisions specified by its rules of procedure:

- individual declarations of interest produced by all its members,
- publication of the names of members contributing to each opinion,
- non-participation of members likely to have conflicts of interest in certain discussions.

In 2015 the last provision was applied to 25 opinions, concerning a total of 8 different Ae members.

1 \ In accordance with article R. 122-6 II. para 3 and 4 of the French Environment code:
 2 \ See article R. 122-6 of the French Environment code:
 3 \ Presented and specified in articles L. 122-1, R. 122-2 and R. 122-3 of the French Environment Code.
 4 \ Article R. 122-19 of the French Environment Code and R. 104-21 of the French Town Planning Code.

5 \ See Directive 85/337/EEC, the so-called “projects” directive (codified by directive 2011/92/EU of 13th December 2011), and directive 2001/42/EC, the so-called “plans and programmes” directive.
 6 \ Directive 2011/92/EU was amended in 2014 by directive 2014/52/EU of 16th April 2014, which has to be transposed by Member States by 16th May 2017.

EVERYTHING YOU NEED TO KNOW
ABOUT Ae:
 composition, operation, referrals,
 opinions issued and decisions taken:
 Ae website:
www.cgedd.developpement-durable.gouv.fr
 Ae section



WEB

Ae MEMBERS



Philippe LEDENVIC

Permanent members of the CGEDD



Christian BARTHOD



Thierry GALIBERT



Marie-Odile GUTH



Claire HUBERT



Étienne LEFEBVRE

(From 13th April 2015)

Members appointed as qualified people



Barbara BOUR-DESPREZ

General Engineer of Bridges, Water and Forests. Member of the Conseil général de l'alimentation, de l'agriculture et des espaces ruraux (general council for food, agriculture and rural spaces).

(From 13th April 2015)



Bernard CHEVASSUS-AU-LOUIS

General inspector of agriculture, biologist, member of the Conseil scientifique du patrimoine naturel et de la biodiversité (CSPNB) (scientific council of the natural heritage and biodiversity), former chairman of the Muséum national d'histoire naturelle (National museum of natural history).

(Until 18th August 2015)



Marc CLÉMENT

Reporting judge at the Cour administrative d'appel (administrative court of appeal) in Lyon, founder member of the executive committee of the European Law Institute, chairman of the "Natural resources and energy" section of the Société de législation comparée (comparative law society).



Christian DECOCCQ

Former municipal councillor for Lille and councillor for Lille-Métropole, former deputy for Nord, former councillor for the Nord-Pas-de-Calais region and general councillor for Nord, former deputy director of the Artois-Picardie water agency.

(Until 13th August 2015)

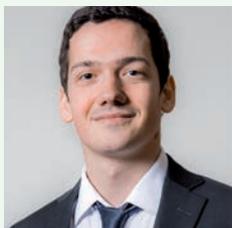


Sophie FONQUERNIE

Farmer in the Doubs. Vice-chairwoman of the Burgundy-Franche-Comté Region responsible for agriculture, viticulture and food processing industries. Associate of Agriculteurs français et développement international (AFDI) (French farmers and international development). Formerly held posts in agricultural trade unionism, the municipality, local council cooperation and the chamber of agriculture.

(From 13th April 2015)

Permanent team



Charles BOURGEOIS

(From 1 September 2015)



Thierry CARRIOL



Frédéric CAUVIN



Armelle DIF



Nadia FRÉRY



**François-Régis
ORIZET**

(From 23rd February 2015)



**Thérèse
PERRIN**



**Pierre-Alain
ROCHE**



**Mauricette
STEINFELDER**



**Éric
VINDIMIAN**



**François
LETOURNEUX**

Vice-chairman of the French Committee of the International Union for Conservation of Nature (IUCN), former director of the Conservatoire de l'espace littoral et des rivages lacustres (French coastal protection agency), former head of nature and landscape at the French Ministry of the Environment.



Serge MULLER

Professor at the Muséum national d'histoire naturelle (national museum of natural history), vice-chairman of the permanent committee and chairman of the Flora Committee of the CNPC (French Nature Protection Agency), member of the Conseil scientifique du patrimoine naturel et de la biodiversité (CSPNB) (French scientific council for the natural heritage and biodiversity, chairman of the species protection committee of the French Committee of the IUCN.

(From 18th August 2015)



Gabriel ULLMANN

Expert at the Grenoble Cour d'appel (court of appeal) specialising in the environment, enquiry commissioner, PhD engineering, MBA from HEC

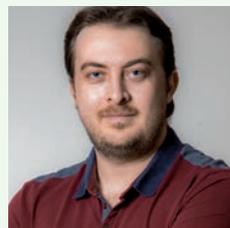
(From 23rd February 2015)



**Maxime
GÉRARDIN**



**Sarah
TESSÉ**



**Vincent
THIERRY**

(From 1st May 2015)



**François
VAUGLIN**

METHODS AND INTERNAL OPERATION

The working methods for each type of production: opinions, case-by-case decisions of submission to an impact study, preliminary scoping, are described below.

Ae always issues its recommendations within a maximum of three months from referral, by collective discussion based on drafts prepared by its members⁷ (or by non-deliberating members of Ae's permanent team). The rapporteurs, generally two per project⁸, carry out their investigations independently⁹, based on an analysis of the files supplied by applicants, and arrange any site visits and interviews they consider useful. If necessary, they approach experts to explain complex points to Ae. They prepare draft opinions according to a shared framework, submit them for peer review and then to collective discussion according to the arrangements detailed below. The opinions are made public immediately after discussion.

The case-by-case examination of projects and the decision that closes the process follow the same principle¹⁰: an examination committee, consisting of two Ae members appointed in rotation, presents the draft decisions for signature of the chairperson to whom it delegated its authority. Decisions are given within the regulatory period of 35 days after referral and made public immediately.

In 2015 Ae was approached seven times to draft a "preliminary scoping", in accordance with the provision¹¹ specifying that a project owner may ask the authority

responsible for authorising the project, which itself refers to the Autorité environnementale, to "specify the information that should appear in the impact study". This increase of referrals in the context of a preliminary scoping is a notable development compared with previous years. Ae encouraged authorities which wanted it to produce a list of specific questions on complex points, with a view to facilitating, through the responses given, the subsequent preparation of the impact study and reducing the risk of inappropriate treatment.

Opinions

Distributed to all members one week before Ae's fortnightly plenary meetings, draft opinions prepared by the rapporteurs are subject to written comments and exchanges by members before the meeting and then discussions at the meeting on all substantive matters raised during this preliminary examination. Each comment, whether referring to the content or the form, is specifically recorded. The final draft is agreed at the meeting. In 2015 all final drafts were agreed unanimously.

The contribution of the collective discussion is crucial, as it provides an opportunity to compare expert reports or additional readings on each of the opinions and to progressively establish stabilised answers to the questions of principle raised below.



Development of the Charité-sur-Loire (58) bridge

The opinions are published on the Ae website¹² on the day of the meeting at which the opinion was drafted and formally issued to the applicant and the authority responsible for preparing the files the next day at the latest.

Ae does not give an opinion on whether a project is appropriate: its opinions never therefore end with a general “favourable” or “unfavourable” summary.

Article L. 122-1 IV of the French Environment Code specifies that “the decision of the competent authority authorising the applicant or the project owner to carry out the project takes into account (...) the opinion of the competent administrative authority for environmental matters”. Ae states this information in a box in the preamble of each opinion.

For plans and programmes, the legislation specifies that Ae must formulate an opinion on the environmental report and the extent to which the plan or programme has considered the environment.

Case-by-case decisions on whether to submit a project to an impact study

A draft decision is prepared by a rapporteur, then submitted to an examination committee consisting of two permanent members, guaranteeing the collective nature of Ae’s decisions¹³. Here too, the contribution of the collective discussion is crucial in terms of both the reasoning behind the decision and the conclusion reached. Each decision is justified on the basis of three categories of considerations: the nature of the project, its location and its environmental impacts¹⁴. When the file is part of a larger project subject to an impact study (such as clearing work as part of the construction of a high-speed railway line or a compressor station as part of a gas pipeline project), the decision includes grounds outlining that an impact study must be produced for the project as a whole. Signature of the decision is delegated to the chairman of the Autorité environnementale (and if he is unavailable, a permanent Ae member).

The decision is either to submit the project to an impact study or not. It may not be combined with any recommendation.

Ae notes

With five years of experience behind it, the Autorité environnementale made the decision in 2014 to produce “Ae notes”. These notes take the form of summaries of its opinions with comments and points for reflection and progress in a given area (such as type of project or environmental topic). Each note is written in the light of the opinions issued by Ae at the date of the discussion



on the note, the thinking and questions they raised within Ae and with various stakeholders, the legislation and regulations then in force and, where appropriate, other sources such as explanatory notes of the European Commission. The note is prepared by the rapporteurs appointed by the chairman. They are free to consult any resource person they have identified who may be able to contribute to preparation of the note. As with opinions, their content is then reviewed collectively by Ae before being discussed. After the first note in 2014 on agriculture and forest land development (aménagement fonciers agricoles et forestiers - AFAF), in relation to major public works, Ae published a new note on 8th July 2015 on noise management in road and railway infrastructure projects¹⁵. These notes are available on its website.

The permanent team

The permanent team of Autorité environnementale was expanded in 2015 and now comprises nine people, as of 31st December 2015. This team contributes to Ae’s daily working: analysis of incoming files (ensuring the file is complete and within the competence of Ae), administrative follow-up of applications and activity, on-line publication, organising meetings and answering questions from project owners, administrative authorities and other interested bodies. Six of its members also act as rapporteurs in the technical analysis of files and prepare draft opinions or decisions following case-by-case examination and write draft notes.

7 \ Who were assisted several times by rapporteurs outside Ae in 2015.

8 \ Of the 111 opinions issued in 2015, only 11 were investigated by a single rapporteur and 2 were investigated by 3 rapporteurs.

9 \ See Ae’s rules of procedure (order of 7th May 2012), and in particular paragraph 2.1.2: “Ae’s draft opinions are prepared by rapporteurs, based on all the consultations they consider necessary, in addition to the consultations specified by the regulations”.

10 \ By Ae decision dated 25th April 2012 combined with an amendment to the rules of procedure, made necessary by the new regulations. This decision has since been repealed and replaced by a decision of 25th February 2016.

11 \ See articles L. 122-1, R. 122-2 and R. 122-4 of the French Environment Code.

12 \ Link: http://www.cgedd.developpement-durable.gouv.fr/rubrique.php?id_rubrique=145.

13 \ The analysis is based on information provided by the applicant, as indicated in article R. 122-2 of the French

Environment Code; this information is defined in the two additional Cerfa application forms (n° 14734*01 and 14752*01) for a case-by-case examination, the content of which is specified by an order of 22nd May 2012 (in accordance with article R. 122-3 of the French Environment Code), amended by an order of 26th July 2012. The forms come with instructions.

14 \ With reference to the three criteria described in appendix 3 of directive 2011/92/EU of 13th December 2011.

15 \ Note n° 2015-N-02.

2015 REFERRALS

In general, the number of files referred to Ae for an opinion remained stable (111 opinions compared with 110 in 2014) and there was a considerable reduction in the number of files submitted to the so-called “case-by-case” decision procedure (58 decisions compared with 99 in 2014, i.e. a decrease of 41 %).

With regard to opinions, as already stated, there was a consequent increase in the number of preliminary scopings requested in 2015: seven¹⁶ compared with just one in 2014, concerning programmes of national interest (national management plan for radioactive materials and waste, national forestry and wood programme) and projects of more limited scope (such as the project to improve embarkation conditions at the ports of Le Conquet, Molène and Le Stiff in Ouessant, reconstruction of the Châtillon-sur-Loire bridge, dredging of sediments at the major sea port of Rouen and piling them on the Le Machu site).

As regards the subjects dealt with, Ae had to become acquainted with two new types of file in 2015, including among others offshore wind farm developments and their connection to the electricity grid (Courseulles-sur-mer, Saint-Nazaire, Fécamp)¹⁷ and the first long term energy plans (Corsica, Réunion)¹⁸ provided for under the French law of 17th August 2015 on the energy transition for green growth.

It also continued to examine strategic plans for major seaports (Guyana, Dunkirk, Marseilles, Bordeaux, Nantes-Saint-Nazaire, Guadeloupe, Martinique)¹⁹ and plans for new public transport lines in the Île-de-France region (lines: 14 south, 15 west, 15 south, 18, 17 north; tramway T10)²⁰.

The other referrals, in more than two out of five cases²¹, concerned transport projects with various issues, a number of which can be cited as an illustration:

- in the area of road developments: conversion of the RN 164 (Rostrenen section) and RN 17 (between Vimy and Avion) to a dual carriageway, conversion of the bypass west of Bordeaux to 2X3 lanes, enlargement of the A6 motorway to three lanes in the Auxerre sector, the Martigues – Port-de-Bouc bypass, development of the RD 36 as a multimodal platform at Saclay and Villiers-le-Bâcle²²;
- in the railway sector, in conjunction with port activities: modernisation of the Serqueux – Gisors railway line, the plan to create a combined transport terminal at Mourepiane²³;
- in the area of river and port developments: modification of the Seine-Nord Europe canal project, improvement work on the access to the Atlantic Basin of the Dunkirk seaport and, at the same port, extension of the quai de Flandre²⁴. This category could also include long term management plans for dredging operations (plans de gestion pluriannuel des opérations de dragage - PGPOD), two of which were submitted in 2015 for Ae’s opinion (PGPOD* for the canal parallel to the Garonne in Gironde and PGPOD for the canalised section of the Rhine)²⁵.

A significant aspect of Ae’s activity remains the real estate, agricultural and forest land development plan, mostly related to major infrastructure projects, since these represent nearly one fifth of the opinions issued in 2015 (21 opinions compared with 17 in 2014).

A minority of referrals to Ae concerned electricity line projects (225 kV Feurs – Volvon underground power line, conversion of the 225 kV Cergy – Persan line and 225 kV Crenay – Marolles – Revigny lines to 400 kV)²⁶ and, in the area of developments, plans to create joint development areas (zone d’aménagement concerté - ZAC) (“Liesse II” in Saint-Ouen l’Aumône, “Centralité” in Lens, “Part-Dieu Ouest” in Lyon)²⁷ or the latest territorial development contracts (contrats de développement territorial - CDT) related to the Grand Paris (Paris Est Transport Development Centre between Marne and Bois and the Paris - Saclay Transport Development Centre southern region)²⁸.

* see glossary



Fécamp offshore wind farm project



Several files referred to Ae in 2015 had no equivalent in terms of its previous opinions: the French programme related to the Fonds européen pour les affaires maritimes et la pêche (FEAMP) (European Fund for maritime affairs and fisheries), first operational programme of a European Fund which was referred to it for an opinion; the plan to extend the underground storage of hazardous materials in the municipality of Wittelsheim for an unlimited period (the so-called “StocaMine storage”), the only facility of its kind in France; the plan to secure the site of argentiferous lead mineral processing waste at Roure-les-Rosiers in the Puy-de-Dôme, aimed at remediation of a badly contaminated old mining site by a government organisation; the creation of a containment system along the railway embankment between Arles and Tarascon, more than ten years after the flooding of the lower Rhône in 2003; plans for sensitive classified sites (renovation of the Bimont dam, clearance and development of the Tremblant sector in the Domaine de Barbossi in Mandelieu-le-Napoule²⁹). These applications demonstrate, if there were a need to do so, the great variety of subjects dealt with by Ae in 2015, as in previous years.

As regards the location of projects, the Île-de-France, Provence-Alpes-Côte d’Azur, Nord-Pas-de-Calais and Rhône-Alpes regions made up a considerable proportion of referrals to Ae in 2015 (more than two fifths). The large number of referrals from the Poitou-Charentes region (a little over 10% of referrals in 2015) mainly being explained by the implementation of AFAFs (agricultural and forest land development) following the construction of the Southern Europe Atlantic High Speed Railway Line.

As regards referrals for case-by-case decisions, Ae received 73 applications in 2015, 58 of which resulted in a decision³⁰.

More than half of decisions issued concerned Infrastructure (railway or road) and one quarter concerned development operations.

It should be remembered that classification of Ae decisions by subject is approximate, most operations being mixed: rail and road, development and transport infrastructure, and therefore difficult to classify in a specific subject area.

Of the 58 applications examined, 12, i.e. one fifth, resulted in a decision to submit them to an impact study. Of these twelve decisions, only four resulted in applications for “separate” impact studies, the other decisions being related to the fact that the operation presented for examination was an integral and inseparable part of a project submitted to a mandatory impact study.

Two decisions were the subject of an obligatory pre-trial administrative appeal “RAPO” at the end of which Ae confirmed its decision to submit the project to an impact study³¹. Ae also dismissed a “RAPO” in 2015 against a decision taken in 2014³².

Six out of 27 regions (Île-de-France, Provence-Alpes-Cotes d’Azur, Aquitaine, Rhône-Alpes, Languedoc-Roussillon and Brittany) alone represent nearly two thirds of the files submitted for a case-by-case decision dealt with in 2015 (63%).

Since Ae was set up all opinions have been issued within the regulatory three month period: no opinion has therefore been considered as having been tacitly issued without comment after the end of this period. The same is true for case-by-case decisions which have all been issued within the regulatory 35 days.

As in previous years Ae has had to adapt to the low visibility and considerable irregularity in its short term work schedule. In fact, this is entirely determined by the referral schedule chosen by project owners, on a project by project basis, and is very seldom predictable for Ae. Some project owners however, particularly in the case of very large projects, advise Ae of the referral well in advance.

You can find comprehensive graphs showing Ae’s activity in 2015 in the “appendices” section of this annual report.

16 \ Ae opinion n° 2015-23 / 2015-25 / 2015-41 / 2015-43 / 2015-71 / 2015-75 / 2015-86.

17 \ Ae opinion n° 2015-03 / 2015-11 / 2015-24.

18 \ Ae opinion n° 2015-59 / 2015-65.

19 \ Ae opinion n° 2014-96 / 2014-107 / 2014-108 / 2015-20 / 2015-51 / 2015-56 / 2015-76.

20 \ Ae opinion n° 2014-105 / 2015-10 / 2015-54 / 2015-63 / 2015-78 / 2015-22.

21 \ Integrating the above-mentioned planned new lines .

22 \ Ae opinion n° 2014-116 / 2015-01 / 2015-39 / 2015-61 / 2015-60 / 2015-73.

23 \ Ae opinion n° 2015-12 / 2015-30.

24 \ Ae opinion n° 2015-48 / 2015-15 / 2015-84.

25 \ Ae opinion n° 2015-49 / 2015-83.

26 \ Ae opinion n° 2014-109 / 2014-110 / 2015-50.

27 \ Ae opinion n° 2014-94 / 2015-31 / 2015-52.

28 \ Ae opinion n° 2015-07 / 2015-68.

29 \ Ae opinion n° 2015-34 / 2015-58 / 2015-53 / 2015-47 / 2015-32 / 2015-70.

30 \ As regards the fifteen files which did not result in a decision, six came under another environmental authority (the regional prefect), two came under a systematic impact study or were attached to a more comprehensive project. As Ae is not competent to take a decision after a case-by-case examination, four did not come under the case-by-case examination procedure and three files were withdrawn by the applicants.

31 \ Decisions of the 10th June 2015 concerning the “d’entrée aéroport logistique» (airport technology park entrance) project in Mauguio (Hérault) and of the 15th June 2015 concerning the plan to create 400kV and 225 kV connections to the new “Sud-Aveyron” electricity sub-station in the municipality of Saint-Victor-et-Mellevieu (Aveyron).

32 \ Decision of the 11th March 2015 concerning the plan to create garage positions between the Robinson terminus and Fontenay-aux-Roses station (Essonne).

A YEAR OF ENVIRONMENTAL ASSESSMENT







A YEAR OF ENVIRONMENTAL ASSESSMENT

In this annual report, Ae decided on a general presentation of its analysis and recommendations for three types of projects and plans that constituted a large part of its activity in 2015 (offshore wind farms, Grand Paris metro lines, strategic plans for major seaports) and for one topic: noise from transport infrastructures. Ae particularly wishes to thank the main contributors, who wanted to explain this information through their perception of the opinions issued by Ae and the use they could make of them – a major sea port has already given its testimony in the 2014 report.



OFFSHORE WIND FARMS

Projects aimed at achieving high ambitions

France has set itself the target of bringing the share of renewable energy up to 23 % of gross final energy consumption by 2020 and to 32 % of gross final energy consumption by 2030³³. To achieve such a target by this date, renewable energies will have to account for 40% of electricity production. In practice, the development of wind power, both onshore and offshore, is consistent with this line of reasoning.

With this in mind, the French government organised a call for tender in 2012 for the construction and operation of four offshore wind farms. This is a new type of project for Ae. Three of the projects were examined in 2015: the offshore wind farms at Courseulles-sur-Mer, Saint-Nazaire and Fécamp. Ae should be examining the Saint-Brieuc offshore wind farm development soon. These projects related to each wind farm and its connection to the electricity grid on land up to the electricity sub-station and the transmission line intended to receive the electricity produced.

The methods used for the construction and maintenance should also be assessed: construction of foundations, wind turbine assembly areas, maintenance bases, the number of journeys and mode of transport used for construction and maintenance, etc. As the files gave only limited attention to analysis of these impacts, Ae recommended that this section be expanded in the impact studies.

Ae's analysis of these projects highlighted the issues, gaps and methodological difficulties common to all the projects. They were set out and, in some cases, illustrated with specific examples from the Saint-Nazaire offshore wind farm.

The land-based section (grid connection) corresponds on the other hand to types of projects already well-known and mastered. Since Ae's recommendations have no particular specificity to this land-based section, they are not subsequently stated.

Technical choices of the Saint-Nazaire and Courseulles-sur-Mer wind farm projects

The type of wind turbine chosen is an Alstom Haliade 150 turbine. Its hub reaches a height of about 110 metres above sea level, the rotor blade has a diameter of about 150 metres and the height of the turbine to the blade tip is about 185 metres.

It is designed to start working at wind speeds above 3m/s and is at full power from 12 m/s. It stops turning in winds of 25 m/s and above. Its rotation speed is between 4 and 11.5 revolutions per minute, this value representing a tip speed of 324 km/h. Each wind turbine is fitted with aircraft warning lights. Each wind farm consists of about 80 turbines.

These turbines are built on monopiles of about 7 metres in diameter, driven into the ground. During the construction phase, this technique causes underwater noise at levels likely to harm certain species of marine fauna with consequences that could be fatal.



The four zones of the national offshore wind farm call for tender awarded in April 2012

source : impact study of the Saint-Nazaire offshore wind farm.

33 \ Extracts from article L. 100-4 I 4° of the French Energy Code, taken from law n° 2015-992 of the 17th August 2015 on the energy transition for green growth.

The main environmental issues

Although the issues vary in nature and intensity according to the wind farm and differ in their construction and operation phases, they may reveal considerable similarities:

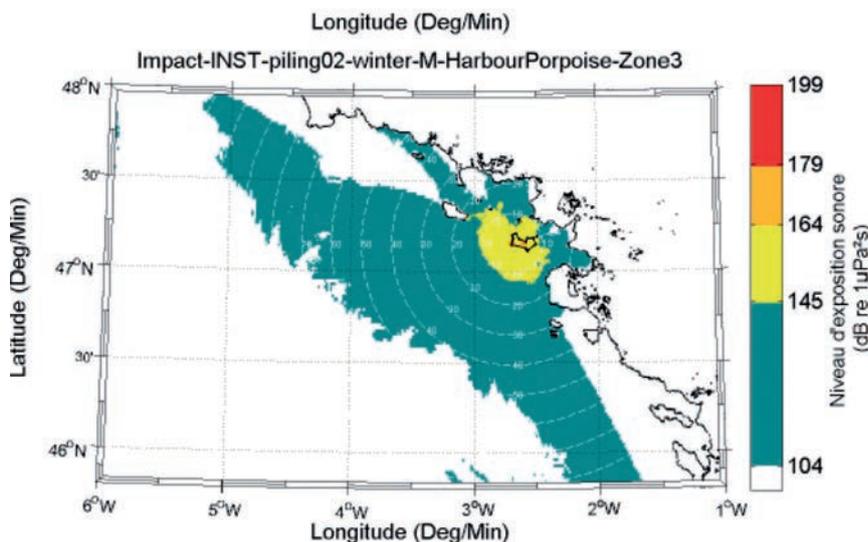
- **the marine landscape:** in particular, substantial modification of the landscape by the wind farm at iconic sites (this issue, sensitive in all cases, was particularly important at Étretat and from the cliffs of the Côte d'Albâtre in the case of the Fécamp wind farm);
- **marine avifauna:** particularly species which were the reason for designation of Natura 2000 sites, due to the risk of collision with wind turbines and the loss of habitats, and also the "barrier" effect of the farm on bird movements (such as the Balearic Shearwater in the case of the Saint-Nazaire wind farm);
- **underwater fauna:** particularly species which were the reason for designation of Natura 2000 sites, due to sound disturbances caused by pile driving during installation of the wind turbine supports. These operations are actually very noisy and liable to cause significant disturbance, or even damage (auditory injury) to cod or herring over a distance of 2 to 3 km and to modify their behaviour over 28 to 30 km, as these species can hear the sound up to 100 km away. Permanent hearing loss is likely to affect certain sea mammals, leading to a reduction of their life expectancy. Porpoises may be sensitive to the sound over several tens of kilometres (the following diagram shows that the sector in which the sound will be perceptible by porpoises extends from the south of Finistere to the Gironde estuary).

Other issues have been identified, such as the conservation of underwater soils, the quality of sea water and the fishing industry.



Calls for tender and adaptation of projects to environmental issues

The calls for tender organised by the French government precisely predefined the four geographical sectors where it is planned to put wind farms. The choice of project site was then presented as resulting from the calls for tender. Yet, the French Environment Code specifies that the impact study presents "an outline of the main alternative solutions examined by the applicant or the project owner and the reasons why, with respect to effects on the environment or human health, the present project was accepted" (article R. 122-5 II 5° of the French Environment Code). For this reason, in view of the fact that the chosen procedure made it particularly difficult for project owners alone to give a full account of the foreseeable prevention measures, particularly with regard to the projects located in the sea, Ae recommended that the French government should present the terms and conditions of the calls for tender and the bid assessment criteria and explain the reasons why, with regard to the environment or human health, the three projects were accepted.



Zones of biological risk for the common porpoise during pile driving work on the 7 metre diameter monopiles:

- red: permanent physiological damage;
- orange: temporary physiological damage;
- yellow: modified behaviour;
- green: noise perception.

The concentric circles are spaced 10 km apart.

(source : impact study of the Saint-Nazaire offshore wind farm)

Having noted some changes to projects between the version presented in response to the call for tender and that of the impact study, Ae also recommended that project owners compare the prevention, reduction, compensation and monitoring measures that appeared in their bid, and therefore influenced the government's choice, with the prevention, reduction, compensation and monitoring measures appearing in the impact study and justify any changes.

Ae thought the French government should give greater weighting to the impact prevention, reduction and compensation criteria (PRC sequence) in subsequent calls for projects in order to better respond to the aims of the directive cadre "stratégie pour le milieu marin" - (DCSMM) (marine environment strategy framework directive) and the requirements for protection of habitats and species, especially those coming under Natura 2000, and in relation to landscape protection. It also wonders about the contribution and possible improvements made by certain innovative technologies that would enable them to be moved further from the coasts (such as floating wind farms).

Methodological questions

Ignorance of the marine environment

Ae noted that the level of knowledge and methodologies available to help a project owner draw up an initial inventory, identify the effects and vulnerabilities of species and environments to these effects and draw conclusions on the impacts were significantly lower for the sea than for the land.

To define the state of mind in which an impact study must be carried out, the "Projects" directive specifies that an assessment of impacts on the environment should include information that might reasonably be required in order to reach an explanatory conclusion concerning significant impacts of the project on the environment, in the light of existing knowledge and assessment methods.

Consequently, there seems to be no justification in putting the whole weight of responsibility for remedying the lack of knowledge and methodologies on the project owner alone, even if the impact study should help to improve them in the case of issues identified as major. Ae therefore regretted that the national decision to develop offshore wind power was not also accompanied by the appropriate research effort to add to this knowledge.

To the extent of the information available to it, Ae was therefore forced to produce a similar analysis of the three projects and to take into account a level of requirement comparable to that used in other EU Member States with experience in offshore wind farm authorisation procedures, such as the United Kingdom and the



Beach of Mr Hulot at Saint-Marc-sur-Mer

Netherlands, in conjunction with the organisations responsible for environmental authority opinions in these Member States. Ae therefore recommended presenting any knowledge gaps, uncertain reasoning and their possible influence on the conclusion under discussion, so that the decision-making authority and the public could properly identify the degree of probability of the conclusion. It also recommended that some findings on impacts should be re-examined in the light of the principle favouring the worst case scenario, in order to make the conclusions more secure.

Landscape sensitivity study

In view of the La Baule bay and the wild coast of the Guérande peninsula or the famous beach of "Mr Hulot's Holiday", the landscape issue is a sensitive one. The impact study provided an in-depth analysis of the current situation and of the impact of the project, seeking to reproduce different situations and perceptions as faithfully as possible: according to climatic conditions, tidal conditions, in the daytime and at night, etc. A counter-assessment was commissioned and included in the analysis presented.

This step seemed, in this case, to be relevant and proportionate to the highly sensitive landscape issue of an offshore wind farm. However, with regard to the iconic Étretat site, Ae asked to review the assessment of the extent of the impact on the landscape, and in particular, to demonstrate practically that the photomontages presented in the study are a proper representation of the human view of distant perspectives.

Insufficient study of impacts on water quality

In order to limit corrosion of the foundations a cathodic protection system has to be applied with the aid of so-called "sacrificial" anodes³⁴, composed of 95% aluminium and 5% zinc. A detailed composition of the other elements, representing less than 0.1% was not

³⁴ \ By oxidising faster than the metal on which it is placed a sacrificial anode protects the latter from corrosion. It should therefore act on a more reductive metal (i.e. which loses its

electrons more easily) than the one it protects. This technique is known as "cathodic protection".

given. These anodes have a mass of about 12 to 15 tonnes per foundation when installed, but their residual end-of-life (25 years) mass is estimated at 15 % of their initial mass.

The presentation of the analysis of potential pollution resulting from the diffusion of nearly 1000 tonnes of aluminium and 50 tonnes of zinc among others was too superficial, did not take into account the chemical forms and elements given off and did not present foreseeable alternatives, with their advantages and disadvantages. Ae therefore recommends developing this subject in the impact study.

Developing knowledge further

These first projects appear to be essential for acquiring the necessary knowledge for drawing up impact studies of future projects and making strategic assessments of the offshore wind farm development policy. With regard to the Saint-Nazaire wind farm project, like the others it has examined, Ae recommended:

- ensuring that the monitoring system for each project is consistent with the DCSMM³⁵ monitoring programme and the Bay of Biscay maritime environment action plan monitoring system;
- undertaking to implement any corrective or compensatory measures that appear necessary;
- ensuring that the data collected is made available to scientists and organisations and authorities responsible for community reporting on the DCSMM.

Towards more comprehensive approaches to combined impacts

Ae raised recurring questions in its first three opinions. Drawing on the same kind of questioning as some of its European counterparts, it also wondered about the combined impacts of several wind farms, especially those in the English Channel (this also concerns wind farms belonging to other Member States).

Similar to the thinking of some neighbouring countries, Ae thinks that consideration of such effects, in the context of the scheduled deployment of new wind farms, and also in the light of public enquiries on projects already underway and public debates on new projects, can only be correctly treated at the scale of the strategic environmental assessment of an overall plan (such as long term energy plans).

“

Testimonies

**Jean-Yves Hervé,
Brigitte Chalopin³⁶,
Jean-Claude Helin,**

Members of the enquiry commission on the offshore wind farm off the coast of Saint-Nazaire and its connection to the grid

The environmental impacts of an offshore wind farm concern both maritime and terrestrial environments. They are complex and difficult for non-specialists and an uninformed public to understand. For the Saint-Nazaire offshore wind farm, the impact study and the Natura 2000 impact studies were presented in the form of particularly voluminous technical and scientific documents (over 2500 pages for the wind farm and its connection to the grid) and therefore impossible for the general public to understand properly.

On 6th May 2015 Ae issued an opinion on the project, which formed an integral part of the enquiry document. This 36 page document included a summary and detailed analysis. It was a valuable aid to members of the commission of enquiry, enabling them to have a particularly helpful external analysis of the file submitted for enquiry. Ae's opinion, which gives an objective and critical interpretation of the impact study, enhanced their understanding of the document and provided different conditions under which they could subsequently open the dialogue with the appropriate project owners.

While it did not yet have perfect mastery of the files and even before visiting the sites and reading the project owners' response to Ae's opinion, the commission of enquiry thought it pertinent to meet the authors of Ae's opinion for several reasons:

- the importance given to this opinion in the investigation and the composition of the file and also in the decision-making process;
- the quality of Ae's very well developed and particularly critical and demanding opinion on the wind farm and its connection to the grid;
- the need for clarification about the spirit in which it was written and to obtain explanations or even an interpretation of a number of the points developed in the opinion.



Canal of Taillée

After preparing this interview and carrying out a full and detailed analysis of the opinion, the commission of enquiry was welcomed on 12th June 2015 by the authors of the opinion: Mr François Vauglin and Mrs Claire Hubert. The talks were held in a good environment and were very constructive. A number of topics were discussed, particularly highlighting:

- the lack of scientific knowledge about the marine environment, hence the need to capitalise on that acquired by other countries with more experience in the offshore sector;
- the fragility of some findings prepared on limited and insufficiently scientifically supervised experience and knowledge;
- the lack of alternative solutions for setting up a wind farm, since it is a government choice;
- the particular problem of protecting an endangered species such as the Balearic Shearwater;
- the need to reduce the noise emitted during pile driving at source, so as not to put marine mammals at risk;
- insufficient assessment of risks linked to sacrificial anodes protecting turbine masts;
- the need to optimise the terrestrial route in order to limit impacts on wetland areas.

All these questions, and others, were the subject of open and very soundly argued discussions, even if the commission of enquiry sometimes found them a bit theoretical and dogmatic, and needing to face up to reality.

The commission drew a wealth of knowledge from this very fruitful meeting. To its credit, it enabled the commission:

- to put certain questions in order of priority and to put others into perspective, i.e. to have certain points to look out for, particularly in relation to certain highlighted impacts;
- to have a better approach to the sensitive aspects of the file under investigation;
- to have a clearer and better quality dialogue with project owners during the site visit and the public enquiry;
- to provide more detailed responses to the various spokespersons encountered during the public enquiry, and to the public in general;
- to enhance its findings, at least on two issues that have been the subject of in-depth discussion with the authors of Ae's opinion:
 - a species in danger of extinction, the Balearic Shearwater, which was particularly highlighted by Ae. This led the commission to consult an international expert (Mr Yesou) and to set up a reserve for its protection, which must be implemented by the project owner;
 - accurate measurement of the risk related to the dilution of aluminium in the sacrificial anodes, to which the project owner will give a response in not only technical but also public health terms.

The commission of enquiry can only encourage this type of approach. It is useful for the proper understanding of public enquiry documents and helps members of the commission of enquiry with the performance of their duties.

35 \ Directive cadre stratégique pour le milieu marin (Marine Strategy Framework Directive).

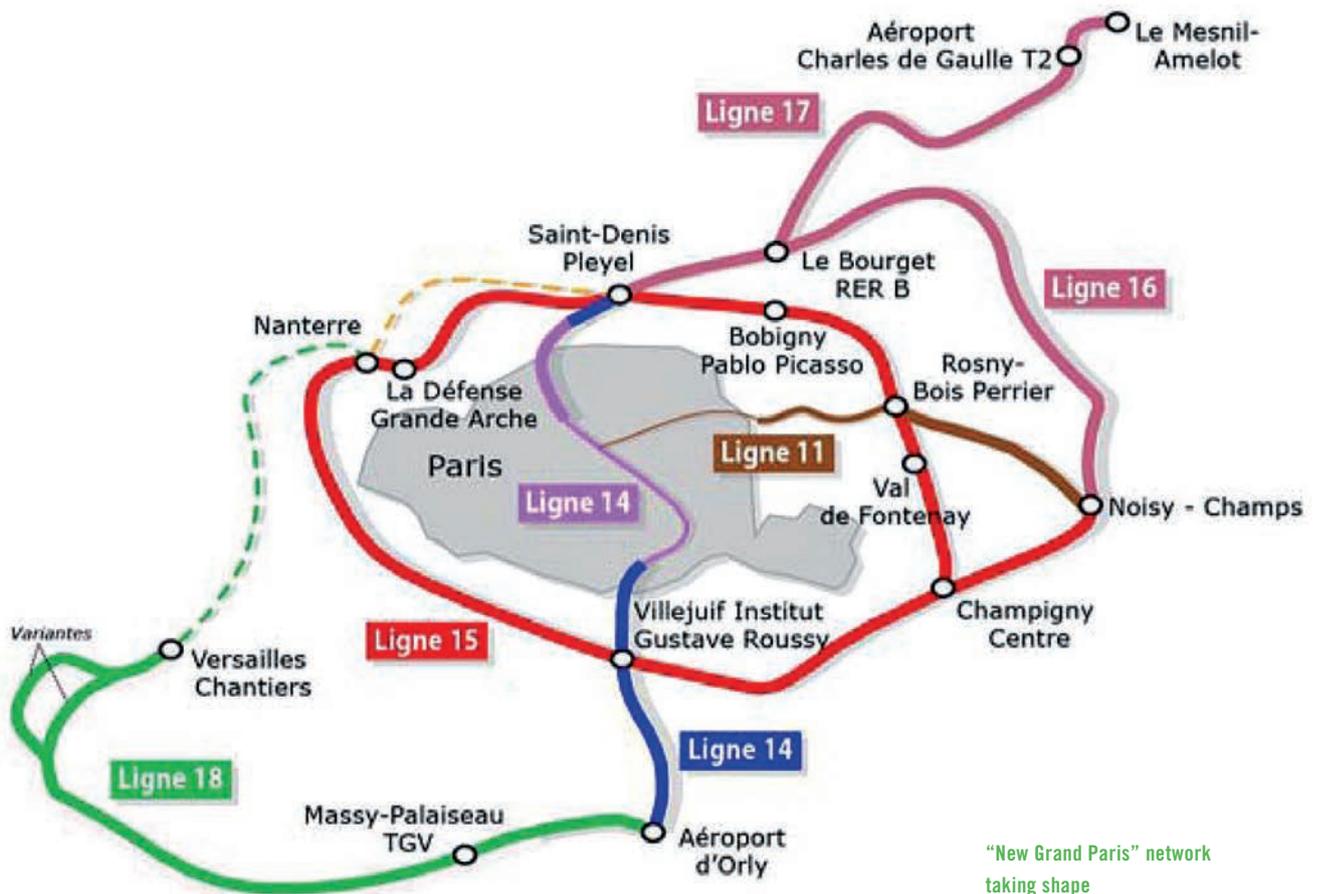
36 \ Mrs Chalopin was also chair of the Compagnie nationale des commissaires-enquêteurs (French national company of enquiry commissioners).

THE GRAND PARIS TRANSPORT NETWORK THROUGH THE SPECIAL CASE OF LINE 18

The principle of the Grand Paris transport network- the Grand Paris Express (GPE) - results from French law n° 2010 597 of the 3rd June 2010. Its route was decided by an order of 24th August 2011 and its construction arrangements were the subject of an agreement between the French government and the Île-de-France region, announced by the French Prime Minister on the 6th March 2013 under the name “the new Grand Paris”. In specifying the links between this transport infrastructure and town planning, housing and environmental conservation policies in the law on the Grand Paris, the French government wanted it to become an essential element of the Ile-de-France development policy. The Île-de-France regional development plan (Schéma

directeur de la région Île-de-France - SDRIF) and the Territorial Development Contracts (Contrats de développement territoriaux - CDT)³⁷ were developed in line with this project.

Since 2012, after giving its opinion on the plan for the whole transport network development plan³⁸, Ae issued an opinion on six sections of the GPE lines³⁹, the final section (line 15 between Saint-Denis Pleyel and Champigny Centre) having been examined at the beginning of 2016. Ae also issued an opinion on the planning application for the red line south (line 15) with respect to the French law on water and the planning application for construction of Vitry Centre station⁴⁰.



“New Grand Paris” network taking shape

Source: Ae opinion n° 2015-93 of 23rd January 2016.

The different sections examined by Ae are part of the “GPE transport network” presented as a programme of functionally linked operations. Each therefore belongs to the same functional unit in the meaning of article L.122-1 of the French Environment Code. As construction is spread over time, impact studies of each section include an assessment of the impacts of the whole programme.

The intended objectives of the Grand Paris Express (GPE), as presented in the public enquiry documents are of different kinds:

- to develop an effective alternative to the car for travel from one suburb to another;
- to reduce public transport congestion across the central zone of the Paris conurbation;
- to promote equality between the different areas of the Île-de-France region;
- to facilitate access to the high speed railway network and to Orly, Le Bourget and Roissy - Charles-de-Gaulle airports;
- to support regional economic development;
- to deal with environmental issues (climate change, limiting urban sprawl, conservation of ecosystems, etc.).

To deal with these different objectives the GPE network includes the following lines:

1. A “Le Bourget - Villejuif - La Défense” bypass, known as the “red line” (15, 16 and 17), serving Hauts-de-Seine, Val-de-Marne and north of Seine-Saint-Denis. An additional section is planned between Le Bourget and Le Mesnil-Amélot stations via the Roissy airport area in particular. This line has a total length of 95 km;
2. A “blue line” (14) which will link the Saint-Denis Pleyel centre to Orly Airport, using the current infrastructure of line 14 of the Paris Metro and its extension to the Saint-Ouen town hall. This line will be about 30 km long, 9 km of which is the current line 14 of the Paris Metro.
3. A “green line” (18) which will initially provide a link between Orly and Versailles (35 km) and will then be extended northwards towards Nanterre (20 additional kms);
4. An “additional network structure” known as the “orange line” consisting of line 15 East and the extension of line 11, which will link Noisy-Champs and Champigny Centre stations, both situated on the “red line”, to Plaine Saint-Denis, via Bobigny, along a route of about 30 km. It is planned to subsequently extend this line to Nanterre⁴¹.



In the Saclay and Gonesse plateau sectors and the Villepinte exhibition centre, the infrastructure is planned to include an elevated railway line, or viaduct, while the rest of the network will consist of an underground railway line.

According to the files most recently examined by Ae the total cost of the GPE is €28.171 billion (2010 value, expressed to five significant figures), rolling stock and land purchase included.

Main points raised by Ae

Overall, the impact studies for these projects are well illustrated and, procedurally, of good quality. Ae noted the efforts of the project owner, the Société du Grand Paris (SGP), to take account, as it went along, of the comments it had made in its successive opinions. It nevertheless noted that, in several subject areas, these studies did not contain the usual level of precision of documents submitted to it. Ae issued a reminder, in each of its opinions, that the need for subsequent procedures does not exempt the project owner from presenting, as early as possible and, at the latest, after the declaration of public utility stage, all the information enabling the public utility of the project and its environmental aspects to be assessed in all subject areas.

Ae therefore thought that several topics, characterised by insufficient precision in the documents presented, should be updated as part of future planning applications requiring the production of an impact study. SGP made these updates for the planning application in respect of the French law on water for the “red line south”; the first of its projects to be the subject of such a procedure.

37 \ Arrangements also put in place in the context of the Grand Paris network.

38 \ Opinion discussed on 26th August 2010 (n°Ae 2010-31).

39 \ The first, relating to the “red line south” (15) was the subject, in view of the first application, of an Ae opinion dated 24th October 2012, then a second opinion on 10th July 2013 on the basis of a new application. The second project, relating to the Noisy-Champs - Saint-Denis Pleyel and Saint-Ouen

town hall - Saint-Denis Pleyel sections (lines 14/16/17), was the subject of an Ae opinion dated 28th May 2014. The third project relating to line 14 (Olympiades - Orly Airport) was the subject of an Ae opinion dated 25th February 2015. The fourth project relating to line 15 (Pont de Sèvres - Saint-Denis Pleyel) was the subject of an Ae opinion dated 6th May 2015. Line 18 was the subject of an Ae opinion dated 21st October 2015. The opinion on line 17 was discussed at the meeting held on 2nd December 2015.

40 \ Opinions n°Ae 2015-54 and 2015-67 adopted at the meeting held on 23rd September 2015.

41 \ Opinion discussed on 20th January 2016.

In spite of the great diversity of areas crossed, the various projects share, at least in part, the same environmental issues. For the most part these issues were identified at the time of the opinion on the whole plan.

They particularly relate to:

- geo-technical characteristics of the chosen leg, particularly in densely built-up areas, in terms of different kinds of geological substrates;
- noise and vibrations in construction and operational phases;
- treatment of the millions of cubic metres of rubble produced;
- water, particularly the effects of the underground network on ground water, and the creation of structures in the area liable to flooding.

Apart from the direct impacts of construction of the underground line, two sensitive points also emerged, particularly in relation to their connection with the Île-de-France regional development plan that was adopted in 2013:

- at the scale of each municipality, indirect impacts on urban development and transport near stations, combined with regionalisation of the housing supply, planning documents and local development plans, developments themselves causing considerable environmental effects;
- at regional scale, the project's contribution to objectives concerning the reduction of urban sprawl on the one hand and greenhouse gas (GHG) emissions on the other.

On the subject of greenhouse gas emissions, two types of positive effects were highlighted:

- "transport effects", or modal transfer effects,
- "regional development" effects.

"Transport effects" mainly consist of pollutant emissions savings through lower car use. According to the assessments provided, these savings are actually quite low in relation to the size of the projects, but enough to compensate, after several decades, for the emissions generated in the construction of the lines. To these are added other savings, provided by less traffic congestion, which contribute a significant amount of the "transport effects" but are based on two hypotheses, the increased speed of traffic and lower fuel consumption. But these two hypotheses are not supported today, as they do not take into account the indirect effects of this reduced congestion in terms of attractiveness of road transport. Thus, the savings remain very modest after 30 years and

subject to very considerable uncertainty. Ae therefore wondered about the consistency between these results and the various international, national and regional commitments on GHG emissions reduction targets⁴².

Furthermore, the majority of emissions prevented as a result of the project would be saved through the so-called "regional development" factor, which is supposed to take into account regional development changes depending on the presence or absence of the GPE. According to the method used in the files, these effects correspond to increased density of a region's built-up areas due to the presence of the GPE and the resulting lower energy consumption. By nature these effects are also subject to very high degrees of uncertainty, poorly developed in the impact studies. In fact, the assessments presented highlight far greater positive "regional development effects" than "transport effects" alone. Nevertheless, as Ae investigates the environmental reports of the territorial development contracts (CDT) of the regions crossed, they do not necessarily confirm these increased density projections. In the case of lines 17 and 18, the projects are even essential conditions for the creation of a new urban development, contrary to the increased density objective, which was not brought out as such in their impact study on the analysis of this section.

Furthermore, Ae notes that the impacts of the regional development factor are not taken into account in the other environmental areas. The favourable nature of this factor should now be modified, in the light of all the environmental assessments carried out, particularly with regard to possible impacts in other environmental areas (land use, nuisance, consumption of resources, etc.)

Many Ae recommendations are common to the different sections. They particularly relate to:

- impacts on groundwater and surface water, in the light of sometimes significant impacts of pumping in order to carry out dry work in terms of:
 - lowering of the water table or, conversely, the obstruction to the groundwater flow constituted by the infrastructure,
 - the risk of pollution and management of volumes of pumped water,
 - or hydraulic risks (water table rise, developments in an area liable to flooding, dissolution of anteludian gypsum) and stability of the land crossed;
- the projects' direct and indirect impacts on land use, particularly near stations, and organisation of access and travel to and from them. In general, file after file,

Ae did not detect significant progress in the analysis of project impacts combined with other known projects and assessment of the impacts of the construction programme as a whole. For Ae, this is not limited to sections of the GPE network but also covers development operations constituting a functional unit with the various projects. This insufficiency presents a risk of considerable inconsistency with the impact studies of other projects or programmes (particularly CDTs);

- nuisance generated by the construction work (work site compound, noise, water pollution, travel disruption, etc.);
- methods of site rubble management⁴³.

Ae also insisted on the need to implement a monitoring system from the opening of construction sites, and to specify the framework of this system and the details of its implementation, development and particularly management (corrective measures according to observations resulting from monitoring). Additions should be made to this system when other special planning applications are made for each project in accordance with specialist regulations (French law on water, classified facilities, etc.). The public consultation and information system should also specify aspects relating to the monitoring of measures.

Line 18 in close-up

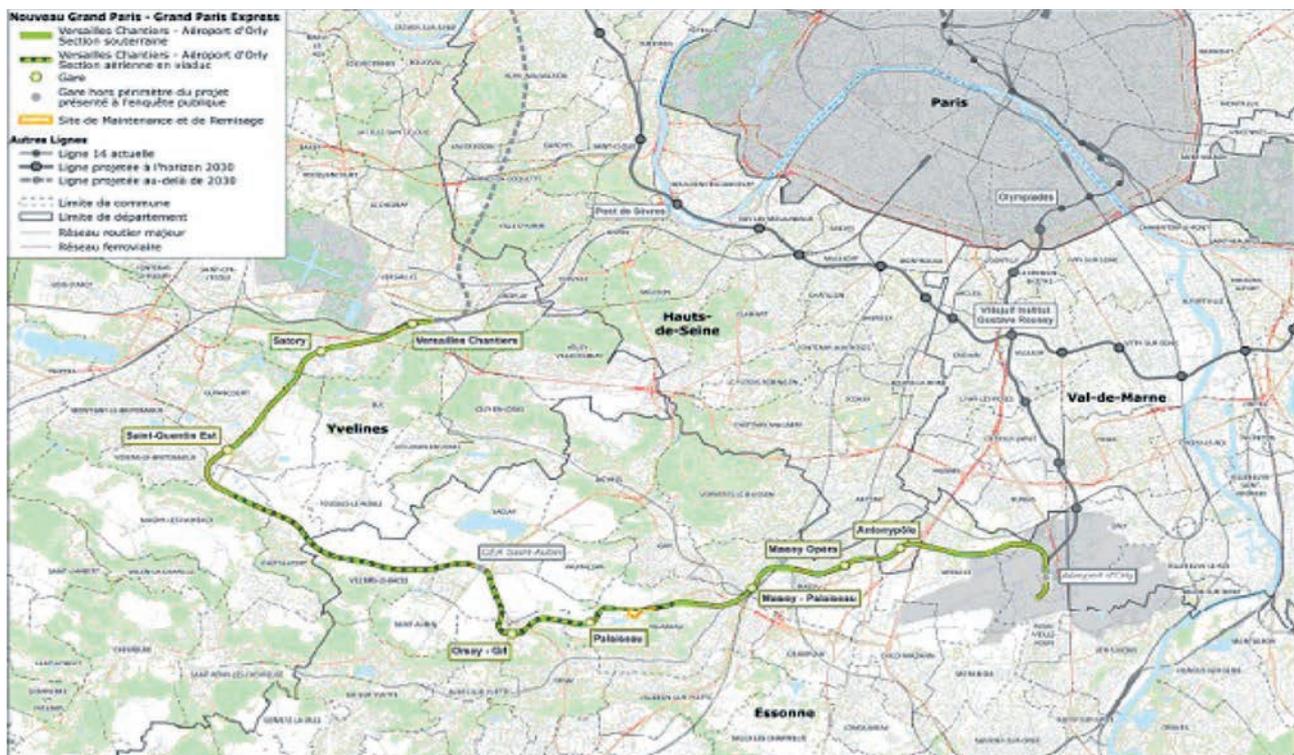
Line 18 of the Grand Paris Express was the subject of an Ae opinion of 21st October 2015. This project consists of the creation of a new 35 km underground line from “Orly Airport” station to the Saclay Plateau in the first phase (announced for 2024), and then to “Versailles Chantiers” station in the second phase (announced for 2030). This line, known as the “green line”, concerns areas lying in the departments of Yvelines (78), Val-de-Marne (94), Essonne (91) and Hauts-de-Seine (92).

When the first phase goes into service line 18 will be operated with trains travelling at four minute intervals at peak times. With the addition of the second phase the interval between trains may be reduced to 2 minutes 30 seconds at peak times. The declared investment is about €3.1 billion ex.tax (including rolling stock).

Ae’s recurring observation that the impact studies for these new lines were not at the usual level of precision of public enquiry documents submitted to it is particularly valid for the elevated part of this line (justification of the choice of this variant, route and connection with other developments, impacts on the landscape, biodiversity, etc.). Under these conditions, for this section, Ae wondered about the file’s capacity to give full meaning to the public enquiry, with full information on the various costs and impacts, both positive and negative, which should be taken into account in the context of the “balance-sheet theory” for assessing the public utility of the project.

Grand Paris Express (Orly Airport – Versailles Chantiers section)

Source: public enquiry file



42 \ Kyoto Protocol, European climate policies, Grenelle Environmental Round table, etc.

43 \ This point is the subject of particular attention by SGP which produces a master plan for rubble removal (SDED) for each impact study, on which the EA issues recommendations if it deems fit.

In particular, contrary to the other GPE lines previously examined by Ae, this project includes a large viaduct section, which raises a new, but localised, landscape issue and a significant section of it affects areas that have not to date been subject to dense urbanisation.⁴⁴ In this respect, it is intimately linked to current or planned urban developments, in particular on the Saclay Plateau (initially around the Palaiseau and Orsay-Gif stations) and in the longer term, around Saint-Quentin Est and Satory stations.

These zones are currently highly dependent on road transport. The metro line will have two antagonistic effects: firstly, encouraging their development, secondly, greatly improving the public transport service in the area. There is no guarantee that the arrival of this single heavy public transport infrastructure will be sufficient to remove the current dependence on road transport. The line's effective contribution to achieving the objectives of reducing urban sprawl and greenhouse gas emissions therefore merits sound argument. Furthermore, good synchronisation of urban development and construction of the underground line constitutes a major environmental issue: a situation in which the setting up of businesses or institutions would be encouraged by the announcement of the metro project, and in which a delay in putting it into service would be particularly unfavourable.

In the case of line 18, the file was referred to Ae after it had examined the environmental assessments of the CDTs for the regions concerned. Due consideration of the information presented in these assessments was therefore necessary, but this was not the case. Generally speaking, the connection between line 18 and other projects located in the region (RD 36, announcement of changes to the facilities of the French atomic energy and alternative energies commission (CEA) leading to the scheduled closure of several nuclear facilities, development of joint development zones (ZAC), etc.) were in fact scarcely dealt with.

The recommendations made by Ae in its opinion generally reiterate those already issued in the context of the investigation of previous applications (cf. above). The opinion on line 18 was nevertheless an opportunity to insist on certain specific points, related to the elevated part of the line:

- the connection and consistency of assessment of the project with information resulting from environmental assessments carried out under the territorial development contracts of the regions crossed by the line;
- nuisance generated by the construction work (work site compound, noise, water pollution, etc.) which were not sufficiently described;
- the impacts of the project on the landscape and biodiversity, which were not described in enough detail.

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Testimony

Bernard CATHELAIN,

Member of the board of directors of the Société du Grand Paris

The Société du Grand Paris (SGP) is a public corporation in charge of the construction of a new automated metro line, the Grand Paris Express (GPE). This substantial project includes the creation of 200 kilometres of new lines consisting of 4 new lines, 2 extended lines and 68 new stations, the vast majority of which will connect with the existing transport network (metro, RER, Transilien, etc.). Strategic for the future of the Ile-de-France, it is intended to improve the daily lives of residents and promote the equality of the regions within the Ile-de-France by increasing the density of the built-up area and promote the attractiveness of the capital region in the global competition of large metropolitan areas.

Construction of each line requires a large number of administrative procedures, particularly to ensure control of ownership of the land affected by the construction work and to manage water interacting with the structures (water tables, areas liable to flooding, etc.). These procedures for the most part require referral to the Autorité environnementale (Ae) of the General Council of the Environment and Sustainable Development (Conseil général de l'environnement et du développement durable - CGEDD). Since 2010 therefore, Ae and SGP have had a rich shared history with the production of nine opinions, four of them in 2015 alone, testifying to the dynamic nature of the implementation of the Grand Paris Express.

By inclusion in the public enquiry files, each opinion actually is a significant factor in the information and dialogue process with the public, local actors and partners. Since the start of the project, SGP has been part of a continuous voluntary consultation procedure on the Grand Paris metro. For example, for line 15 South alone (33 km and 16 stations), nearly 140 meetings were held with elected representatives and partners, and 21 public information and dialogue meetings were organised to bring residents together.

It may be recalled that Ae's first opinion concerning SGP on 26th August 2010, related to the development plan for the whole Grand Paris public transport network, prior to a public debate. Ae revealed that it had never yet been in a position to give an opinion prior to a public debate. It then chose to formulate the majority of its remarks in the form of questions



Point where motorway (A6) and railway (RER B) cross at Gentilly

submitted to the debate, rather than critical analysis or recommendations.

In this context, SGP anticipated Ae's opinions more confidently and calmly but also expecting a degree of disappointment. Confidence and calmness with regard to experience acquired over time and the largely positive perception of the Grand Paris Express shared by the elected representatives, residents and socio-economic actors. But also disappointment, since, despite the progress revealed, each opinion issued almost exclusively states points for improvement, in the form of recommendations, which leads to a recurrent tone perceived as negative.

While this project or each file can obviously be improved, we should ask ourselves, in spite of the presence of a sizeable summary at the start of an opinion, whether the public are really given an opportunity to get a full and balanced assessment of the quality of the impact study and consideration of the environment by the project, and whether these opinions contribute to emphasising the positive measures taken by project owners.

All the recommendations undeniably help the Société du Grand Paris (SGP) to improve the project and capitalise on it for later files, as each recommendation is an invitation to do better. Thus, the desire for constant improvement has led to the proposal to give a response to each opinion, and to develop the substance and form of applications.

Environmental issues and the measures proposed are the subject of ever more detailed information. Simpler organisation of files and the addition of summaries has helped to improve readability for the public.

SGP considers that holding site visits followed by a discussion with Ae for each line has been very positive. This approach makes for better separation of the issues of the areas concerned by the project, the choice of techniques and the nuisance reduction measures.

Some recommendations may be received with some frustration, since for technical or schedule reasons, related to the ambitious objectives of the Grand Paris Express (GPE), it is not yet possible to respond fully.

Concerning the subjects raised, such as the large number of project owners, SGP was questioned about the project concept and specification of the works schedule. While the issue of the combined effects of a project is of course included, it may be difficult to give a shared definition of the analysis area, in particular for the Grand Paris Express, which acts as a trigger for future projects around it. Holding seminars on these different topics could be useful.

Finally, SGP is very pleased that Ae validates the relevance of its approach of including all the environmental issues in a single file, and then updating all the topics over the course of the project's development, regardless of the procedure to which the file relates. The impact study is thus a common framework for all the procedures to which the project is submitted. This approach will facilitate transition to the single planning application procedure recently established in the Île-de-France.

While this regulatory change represents a new challenge for large infrastructure projects, it is obviously hoped it will lead in turn to simplification of the investigation process and generally make things clearer for the public, with respect to the shared aim of constructing a public transport network for the Ile-de-France that becomes operational within the allotted time and is integrated in its environment.

44 \ These characteristics are partly shared by line 17, on which an opinion was subsequently issued.

STRATEGIC PLANS FOR MAJOR SEAPORTS

Between July 2014 and September 2015 Ae was asked to give an opinion on the 2014-2019 strategic plans for France's eleven major seaports. The French Environment Code specifies that two sections of these strategic plans (sections 4 and 5), devoted to the planning and sustainable development policy and port access policy for encouraging intermodality, should be the subject of an environmental assessment and Ae opinion.

Strategic plans are planning documents which have major economic and environmental effects, due to the importance of ports for structuring the economic activities of their region and their hinterland, the modal shift to forms of transport with lower levels of energy consumption and pollutant emissions, the considerable expansion of the port area on land and sea, and the footprint of port facilities and structures. Port facilities are situated on ecotones, transition areas between ter-

restrial and aquatic ecosystems, which play a key role in the functioning of ecosystems and biodiversity dynamics.

Ae set out to understand the connection between economic development issues and their environmental impacts, at the scale of the areas covered by the major seaports. It has often recommended that project owners should enlarge the scope of their spatial and temporal vision in order to get a better appreciation of the ecological dynamics at the points where their footprints intersect with natural areas, and in relation to connections with other activities and interfaces with towns and cities.

It also suggested generalising the first steps made by the major ports with their trusteeship for sponsoring shared strategies and projects, which should lead to a reduction of pressure and impact on the environment,



Nantes major sea port

while optimising the economic effectiveness of the whole French port system.

Ae's analysis does not fundamentally challenge the order of priority of the major seaports, except where it has had reason to question the connection between the strategies of neighbouring ports, which could lead to better synergies and optimised investment choices and reduce their environmental effects. The main environmental issues of these strategic initiatives are:

- conserving biodiversity and ecological continuities, in an overall approach to the port area;
- improving air quality and reducing its effects on health;
- preventing technological and natural risks;
- managing sediment, which may be more or less sensitive depending on the port, whether during dock and channel maintenance, or when creating new port facilities;
- cutting greenhouse gas emissions, related to access and intermodality policy projects.

Ae regularly issued reminders of the pressing need to take into account the ecological functioning of natural environments potentially influenced by the major seaports and the activities that take place either within the port area or in the neighbouring areas connected with them.

This includes controlling the loss of terrestrial and marine spaces, and reducing direct or indirect impacts and nuisance caused by the various projects and activities. For Ae, a strategic vision of the structure of populations and habitats is not enough to conserve nature: complex links between the biological characteristics⁴⁵ of living species and the use of natural and developed areas need to be considered, taking into account the long term and spatial scales consistent with the dynamics of the populations concerned. Sites in the European Natura 2000 network merit particular mention: environmental assessment of the strategic plans and impact studies of their planned projects should anticipate their impacts on the state of conservation of the habitats and species on which their designation was justified, by taking into account the effects produced by certain heavy projects in the last 10 years or so, from a perspective that can go beyond the end of the strategic project submitted.



Mourepiane Container Terminal

Connections between ports and urban areas and their potential impacts on the environment are unequally treated in the strategic vision of the major seaports. In recent decades, since decentralisation, new dialogues have been established between ports and neighbouring towns and cities. Ports are often perceived as separate and sometimes compartmentalised places and a source of employment and wealth, and on the other hand, as generators of pollution, risks and nuisances, some of which can threaten the health of residents. These issues require active, transparent and rigorous consultation with all stakeholders. A single file submitted to Ae included an assessment of the health risks in the initial state.

Within their territories ports also accommodate hazardous industrial activities and generate considerable transit of hazardous materials, yet this last issue is very rarely described and developed. Ae recommended not restricting environmental assessment to a presentation of the collection of risks listed in the studies of dangers



Guadeloupe major Sea Port

⁴⁵ \ In ecology and evolution, the biological characteristics of a species or a species community are quantitative or ecological, biological and behavioural descriptors studied at the spatial

stage of the habitat and landscape. They are a product of natural selection. (According to Wikipedia).

of the classified facilities which they accommodate. On the basis of a recent circular from the Minister of Ecology⁴⁶, it considered that a strategic plan could be an opportunity to refer technological risk issues in the early stages of the projects. A contribution to risk prevention would be made by better coordination between hazardous activities, and thinking about the management of space, enabling the land use of the area to be optimised in the light of interactions and incompatibilities between the different activities, in terms of hazards and vulnerability.

Ae also recommended giving greater importance to natural risks, especially the risk of coastal flooding, aggravated by the effects of climate change on sea levels, since environmental assessments do not at present seem to include much analysis of the vulnerability of port facilities. Yet, this particular vulnerability, as distinct from the direct consequences of an exceptional surge, or a even a tsunami, could weaken the economy of territories extending into the hinterland and significantly alter the coastline. These risks are particularly great in the French overseas territories.

The issue of dredging and the destination of removed sediments is another of the problems encountered in all the various strategic plans. Dredging is considered necessary for maintaining the navigability of docks and channels and for different works. The situation most commonly encountered is the need for new wharfs or the maintenance and modification of existing facilities in order to accommodate larger ships. Some major seaports have established a comprehensive long-term vision of their needs and the destination of sediments in view of a number of environmental issues: sedimentary budgets, risks of the release of toxic chemical substances when the sediments have been polluted in the past, risks of clogging benthic habitats. Such an approach is nevertheless absent from several strategic plans.

The major seaports can at last play a major role in the transfer of goods to inland waterways and railways, which are more economical in terms of energy and greenhouse gas emissions. The majority of them have started discussions with Réseau ferré de France⁴⁷ (French railways) in order to coordinate the development and availability of the railway network and port facilities. Ae recommended enlarging the vision of greenhouse gas emissions and nuisances to the hinterland scale in the light of effects on traffic for all modes of transport used, since these positive impacts are rarely assessed and highlighted in environmental reports.

Ae also thought it would be useful, in this first wave of environmental assessments and opinions, to make methodological recommendations. Even though it was unlikely that they could find a satisfactory translation within time-scales compatible with the approval of strategic initiatives, these comments could clarify their implementation, and then the preparation of their updates for the next period.

The main recommendations related to:

- connection with other planning documents concerning their territory. Ae thus insisted on improving the consideration of development plans and water management plans, marine environment action plans, regional ecological coherence plans and regional climate, air and energy plans. Considerable interaction with future long-term energy plans is also expected particularly in the French overseas territories, where ports are now the only points of entry for energy resources in a context of the growth of renewable energies and increased energy efficiency.
- the environmental assessment process as a whole: defining a reference scenario as rigorously as possible, assessing the specific impacts of the strategic plan in relation to this scenario, specifying and prioritising measures taken to prevent, reduce and compensate for the impacts. In fact, in view of the difficulty of making a clear distinction between a new strategic plan and the previous one, in a context in which new projects are sometimes started before submission of the strategic plan, Ae pointed out some examples of good practice, serving as a rigorous and transparent reminder of the schedules and progress reports of each project, the consultation process and preliminary decisions. Under this condition, it would be possible to indicate how the strategic plan makes these processes irreversible;
- measures to provide for: Ae issues a reminder that it expects a selection of precise measures, proportionate to the environmental issues of the strategic project and each of these projects, rather than a compilation of undifferentiated measures, with no possibility of assessing their scope or efficacy.

Ae's advice on the strategic project of the port of Marseilles

The port of Marseilles is France's main port, with annual traffic of 80 million tonnes. It includes two very contrasting sites with different issues. To the East, the port has a historic site within France's second largest city, after Paris, where the main issue is to provide development consistent with port activities and the neighbouring urban districts, at the heart of European and Mediterranean operations, by developing activities and jobs while reducing nuisances. To the West, the Fos industrial port complex, situated in a fragile natural area, was developed 40 years ago, in view of the fact that large areas of land were available for industrial and transport activities. It has a sometimes difficult relationship with neighbouring urban areas, as consultation with stakeholders has not yet enabled them to build a shared vision of the development and sustainable development of the zone.

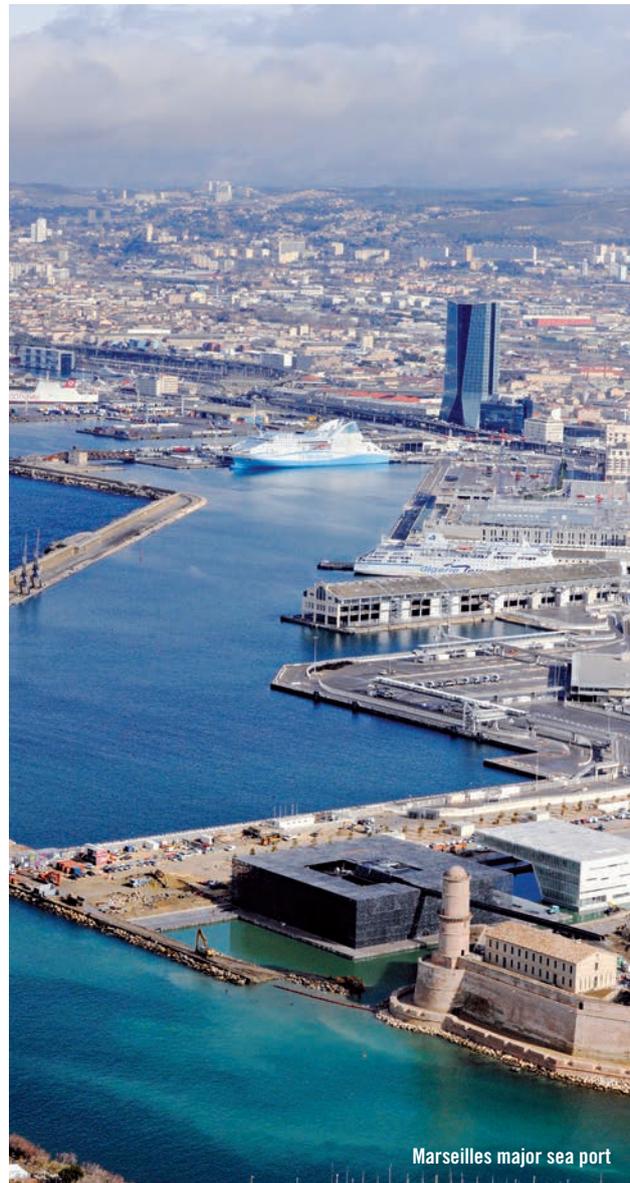
Ae revealed that, in general, even if the issues of the East and West basins are different, the main difficulty of the strategic plan is how to offer economic and development directions that are on the whole consistent, in a historical context in which the sites of port activities were decided on an ad hoc basis without really making the best use of space, and when relationships with stakeholders are sometimes delicate.

While pointing out a new scope for this strategic plan, the majority of the Ae's recommendations emphasised the need for more strategic guidelines, and if necessary, significant details, in several sections, in terms of planning and the environment: management and conservation of all the natural areas within its territory, while including the issues of ecological continuities and measures to compensate for habitat destruction and protected species and taking neighbouring territories into account; implementation of a platform approach, in view of including industrial risk in the planning policy of the West basin; comprehensive sediment management; access to port activities, as many transport infrastructure projects of different kinds (road, rail, water) are planned in the port district, both for transit and for access to the west of the Bouches-du-Rhône.

The issue of the destination of sediments is raised for both the East and West basins. A referral was submitted to the Ae for an opinion on a project in the East basins, which did not provide a long term answer to this question. In the case of the West basins, the issue was referred for management on a project by project basis.

As regards the environmental assessment of the strategic plan itself, Ae recommended that the Grand Port Maritime of Marseilles (GPMM) should quantify the direct and indirect impacts of the strategic plan, particularly those related to its main projects, and also those related to the increase in terrestrial and maritime passenger and goods transport. This is mainly the case for air quality as the Marseilles and Fos regions are subject to considerable air pollution, which moreover contributes to proceedings brought against France by the European Commission. This is also the case for the assessment of Natura 2000 impacts. For Ae, the matter needs to be referred back in order for it to properly assess the temporary or permanent, direct or indirect, and cumulative effects on the state of conservation of natural habitats and species which justified the designation of the site(s).

The GPMM produced a detailed response, which testifies to its involvement in environmental matters and the necessary methodological fine-tuning on the occasion of this initial environmental assessment.



Marseilles major sea port

46 \ Circular of 25th June 2013 on the treatment of economic platforms in the context of technological risk prevention plans.

47 \ Réseau ferré de France now SNCF Réseau.

NOISE MANAGEMENT IN TERRESTRIAL TRANSPORT INFRASTRUCTURES

In 2014 Ae decided to produce “notes”, discussed according to the same arrangements as its opinions, in which it provides a general collection of its analyses and recommendations on a topic regularly appearing in the files referred to it. After the first note on agricultural and forest land development (AFAF, corresponding to old land re-groupings), the second, discussed and published in July 2015 related to the treatment of noise in road and railway projects, whether in new infrastructure (road bypasses, new railway lines) or in changes to existing networks.

In the first part of the note Ae refers to the regulation applying to these projects and sets the limits of the sound levels these projects can cause to residents. Demonstration of the project’s compliance with this regulation represents the main part of the “noise” sections of the impact studies submitted to Ae.

Nevertheless, the regulation presents a complexity which makes it difficult and it includes ambiguities which sometimes lead to differences of opinion. Ae therefore delivers its understanding of these rules. Among other points, it recalls⁴⁸ that the strict reading of the regulation should lead to dealing not only with the infrastructure sections (road or railway) forming the subject of construction work, but also possible adjacent sections on which the traffic is significantly⁴⁹ increased by the project, although a circular proposes a more flexible interpretation. It also tackles⁵⁰ the case of successive projects (for example, a conglomeration bypass constructed in several phases), in which the breakdown of a group of developments into several projects should not lead to a lower level of protection for residents.

However, implementation of the regulation should not rule out the search for ways for improving the proper



Route Nationale 10 equipped with a noise barrier

management of impacts and the definition of appropriate measures, according to the approach promoted by the Projects directive⁵¹. The regulation therefore uses averaged noise measurements, without taking into account isolated louder noises (“emergence” or noise differential); health effects and inconvenience linked to noise can appear at levels below the thresholds specified by the regulation, depending on various context factors; as the regulatory reasoning does not necessarily correspond to a working basis enabling information and discussions to be made accessible to the general public; etc.

For this reason the second part of the note sets out to identify the terms of a comprehensive approach to be followed by impact studies. These particularly include:

- carrying out a detailed and full assessment of the initial state, by a proportionate combination of measures and modelling;
- improving the way data and reasoning are presented to the public ;
- managing noise differentials and unusual noises;
- fully adopting the “prevent, reduce, compensate” (PRC) sequence by exploring all noise abatement methods in the early stages, including effects of speed, in the case of roads, and certain technical provisions (see below), in the case of railways;
- making a better link with the reduction of noise black spots on existing networks;
- raising the issue of implementing a monitoring procedure, which in particular leads to questioning of the strategy used to fulfil the requirement to produce results raised by the regulations.

The note also raises the issue of environmental inequality. It notes that the most disadvantaged populations are most exposed to noise, and this exposure is liable to mount up with other environmental exposures. It is therefore probable that their situation calls for particularly



RER train in a Paris suburb

careful treatment, especially through the identification of these cumulative effects.

In conclusion, the note points out that on the whole the succession of applications examined since 2009 show a trend towards better noise management, and formulates the wish that it can contribute to the continuation of this progress dynamic.



Car traffic on the Paris ring road

48 \ § 1.2.2.1 of the note.

49. \ In the sense specified by the regulations.

50 \ § 1.2.2.2 of the note.

51 \ Directive 2011/92/EU of the European Parliament and the Council of the 13th December 2011 concerning the assessment of the effects of certain public and private projects on the environment.

Opinion on the Serqueux - Gisors project

The Serqueux - Gisors project, sponsored by SNCF Réseau, responds to an assessment of saturation of the historic Le Havre - Rouen - Mantes-la-Jolie - Paris main line along the Seine valley, which has struggled to offer competitive “furrows” for rail freight since the development of heavy passenger traffic on this route and probably requires heavy maintenance work in the medium term. Its main aim is to improve railway access to the port of Le Havre, by constructing an alternative route. The port plans to develop its container traffic and wants to enlarge its hinterland by using means of mass transport. By reducing traffic on the historic main line the project should also have a beneficial effect on the port of Rouen’s freight trains

The creation of a new main line means levelling 50 kilometres of line between Serqueux and Gisors, corresponding to a section of the Paris - Dieppe line which had been gradually abandoned. This section is mostly situated in the area around Bray, which offers a relatively well preserved bocage (hedged farmland) landscape, contrasting with the large areas of cultivated land usually encountered in the Paris basin. On both sides of this section the route to be constructed uses lines currently in service for various purposes.

The project’s impacts are probably positive on the whole, in terms of greenhouse gas emissions and air quality, by enabling modal shift to the railway. But for

all that, noise appears to be a core environmental issue for the project: in fact, its main disadvantage is the creation of additional noise for residents who usually enjoy a relatively quiet living environment. Protest emerged locally on the subject of noise, when a public enquiry was announced.

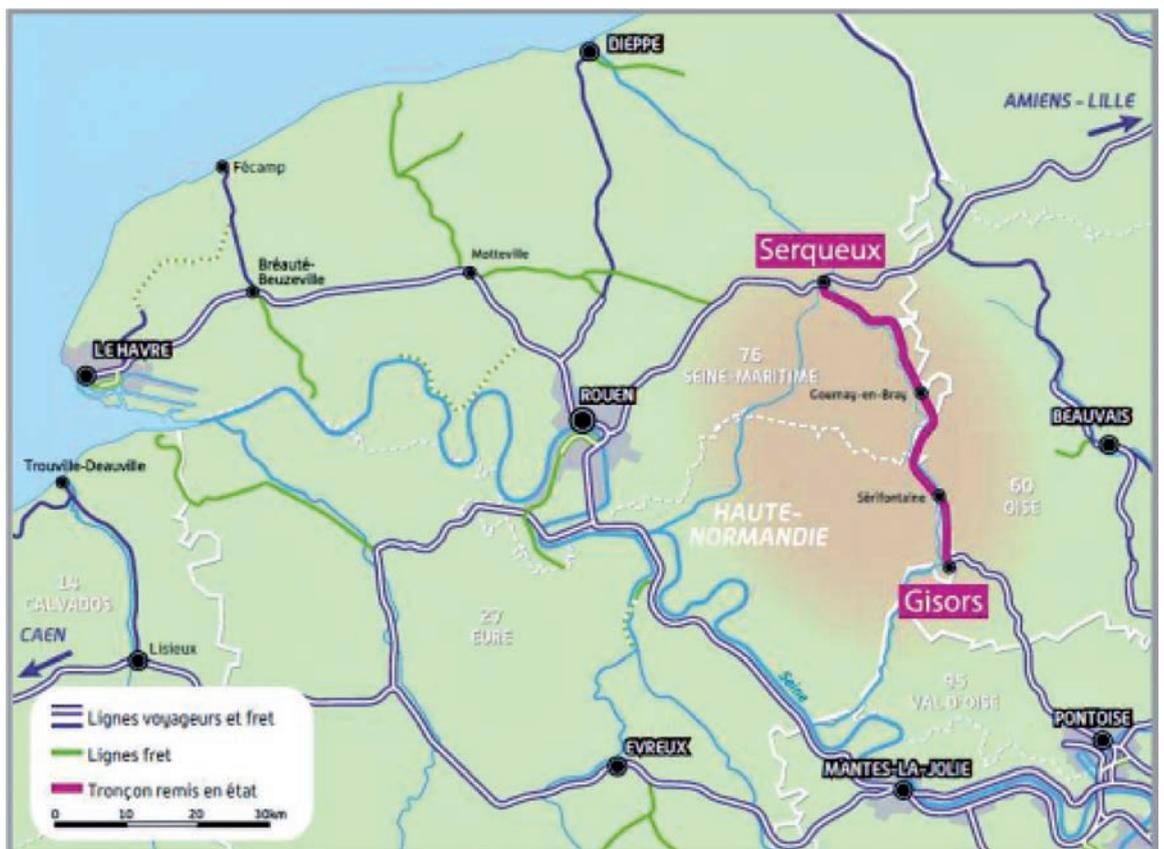
The Serqueux - Gisors project illustrates the different points raised by Ae’s note:

- the very specific nature of the noise produced (25 trains going through per day at most) shows the limitations of regulatory responsibilities based on averaged noise values. Yet, a question naturally springs to mind: “Are the planned provisions sufficient to prevent disturbing the sleep of residents?”; The data supplied in accordance with the regulations unfortunately does not provide an answer to this.
- the construction work is localised in a single central 50 km section, but enables a freight route to be activated: the line on which the now non-existent or infrequent freight trains will run is about three times as long. This led Ae to issue a reminder, as a consequence of the regulation and in the interests of equity, that the line should be treated homogeneously.

Ae also noted that if measures initially planned for the just the central section were extended to the whole line as it progresses it would significantly increase the cost of the project⁵². This note led it to re-examine the prevention, reduction and compensation (PRC) approach implemented for noise impacts.

Location of the Serqueux - Gisors line in the railway network

Source: impact study



This project prompted Ae to echo alternative techniques that enable the noise of carriages to be considerably reduced at a reasonable cost. In view of a problem combining noise hotspots where trains pass and averaged noise, the responses are additional and costly. The use of composite brake shoes, already supported by Germany and the Netherlands in expectation of a decision at European scale⁵³, would merit consideration as one of the alternatives proposed by project owners of this type of project.

The Serqueux - Gisors example confirms the problems of acceptability of railway freight, but also the cost of even minimal implementation of their noise-prevention regulations. Ae wonders whether sound protection is capable of dealing with noise hotspots caused by a small number of noisy trains going past, and consequently how effective it is at protecting the sleep and health of local residents.

As a result it imagined that the only response to these issues, raised for a specific case, that would satisfy the population and freight development, would be found in reducing the noise at source on a far larger scale.

An innovation to reduce railway noise

The use of composite brake shoes, as opposed to the old cast iron brake shoes fitted to most freight wagons currently in service, is the subject of a CGEDD report published in 2014. It was found that the use of cast iron brake shoes actually creates irregularities on the rolling surfaces of the wheels, which in turn create vibrations that cause the rumbling noise. Composite brake shoes, on the other hand smooth these bumps. Replacing one by the other would lead to noise reduction in the order of 10dB, which is considerable. This result is however only obtained if all the wagons are fitted with them. European and French studies on the subject consider this modification to the existing equipment to be the most financially effective method of reducing the noise of railway freight, far more so that installing sound barriers. The cost for France is estimated at no more than €50M, in the case of rapid implementation. The corresponding decisions are largely at the European scale; the aforementioned report indicates that a ban on cast iron brake shoes from 2020 is supported by Germany and the Netherlands, and favours introduction of this ban by 2022-2025.



52 \ As presented to Ae the project includes 19 MA of protection on the central section and 8 MA in respect of partial treatment

of the surrounding sections, but these latter areas are much more heavily populated.

53 \ CGEDD 2014 report: http://www.cgedd.developpement-durable.gouv.fr/IMG/pdf/009254-01_rapport_cle2bc97a.pdf

Ae AT THE 2015 IAIA⁵⁴ CONFERENCE IN FLORENCE

Ae was briefly introduced to the attendees at the European Forum of this conference, at the invitation of the European Commission. The salient points developed by the various participants are stated below.

In the United States, Canada and Australia, ever greater numbers of critics of impact studies emphasise the following points:

- solidly argued questioning of their benefits/advantages ratio for the businesses and local authorities;
- growing public scepticism of impact studies considered “unobjective”, and the observation that the greening strategies of businesses are less and less “profitable” for the public;
- growing disaffection of non-governmental organisations which insistently ask how any projects have been stopped on or profoundly altered as the result of an impact study (objectively a tiny minority, according to the speaker), and consider that from now on their battles should to be carried out in parallel and independently;

- increasing numbers of decisions taken by the authorities on the basis of opinions (increased number of debates based on a priori assumptions, not manageable by technical and scientific information) and “intuitive” local discussions between actors at the expense of objective analysis.

But two persuasive arguments in favour of impact studies are not disputed: firstly, anticipating problems within the planning application process thus enabling savings to be made on reduction or compensation measures; secondly, securing major investment strategies (apart from the single project).

Concerning project impact studies, discussions during the conference raised questions on certain characteristics of the French model:

- the case-by-case decision only exceptionally comes under the environmental authorities: it mainly comes under the decision-making authorities, with guidelines sometimes prepared with the assistance of the environmental authorities, and, rarely, with consultation of the environmental authority by the decision-making authority on the most difficult cases. The general feeling is that this system works well, in spite of emphasis on the lack of environmental competence of many decision-making authorities. This can then result in two contrary effects: non-submission to an impact study for non-environmental reasons or submission to an impact study for fear of subsequent legal challenges based on the absence of an impact study;
- virtually everywhere we note a net change towards a reduction in the lists of projects systematically subject to impact study, in favour of case-by-case examinations, manifested by a fairly considerable overall reduction in the number of impact studies. With each of the speakers on this matter, the Commission emphasised that this was the spirit of the directive and the declared policy direction of the Juncker Commission: the aim is to target impact studies towards projects that raise real problems, while reducing the overall administrative burden for project owners and environmental authorities;
- in many cases in which the impact study raises problems, responsibility is placed on the absence of preliminary scoping, or on preliminary scoping that was unable to prioritise the issues;



Bimont Dam (13)

- two subjects are considered of growing importance for impact studies in Europe: human health and risk management (particularly in the context of climate change). In this respect the majority of environmental authorities are considered inefficient.

Concerning environmental assessments of plans or programmes, an initial assessment of the implementation of the 2001 directive was outlined:

- an environmental assessment ought to provide an analytical framework for impact studies of projects planned by plans and programmes, in order to determine the conditions projects should meet in order to be authorised: identify the most important issues, tailor approaches to the most complex issues (human health, risks, biodiversity and cumulative effects);
- for this purpose, an environmental assessment ought to determine the reference scenario (i.e. what would happen without adoption of a new plan), prioritise issues, examine interactions and compatibilities with the objectives of the various policies which interfere with the territory or the theme, categorise the types of impacts on health and the environment (not forgetting cross-border impacts), determine the types of reduction measures that impact studies should envisage, specify uncertainties, and define the general environmental monitoring framework which cannot be left to the assessment of impact studies of each project;
- in these circumstances, in many countries of the European Union, the environmental assessment would become a “deterrent procedure”, excessively unwieldy, purely formal and not very strategic, transforming a virtuous process into a more or less useful administrative procedure;
- the environmental authorities would participate in this drift by always asking more⁵⁵ and forgetting the strategic dimension of an environmental assessment: the needs and reasonable alternatives (of three different kinds⁵⁶) should be at the heart of analyses and comments. Yet, we note that the majority of environmental assessment do not devote any energy to understanding and reformulating needs (taken for granted), and frequently, fail to envisage reasonable alternatives.

A number of German, Austrian, Danish and Swedish universities have insisted on the need to clarify the objectives pursued by a plan or programme: building roads or high speed railway lines, for example, can never be considered an objective in itself. The environmental assessment should go up a notch, and it is difficult to consider it a pertinent tool for transport schemes, as understood by a Ministry of Infrastructure, apart from accepting a more strategic way of thinking on environmental assessment, which is not common. Most of the time, the environmental assessment of a plan or programme should reformulate the objectives before starting any assessment procedure, from the perspective of identifying reasonable alternatives. Some Swedish universities have insisted on the need for a hierarchy of issues, in preliminary scopings and in the opinions of the environmental authority.



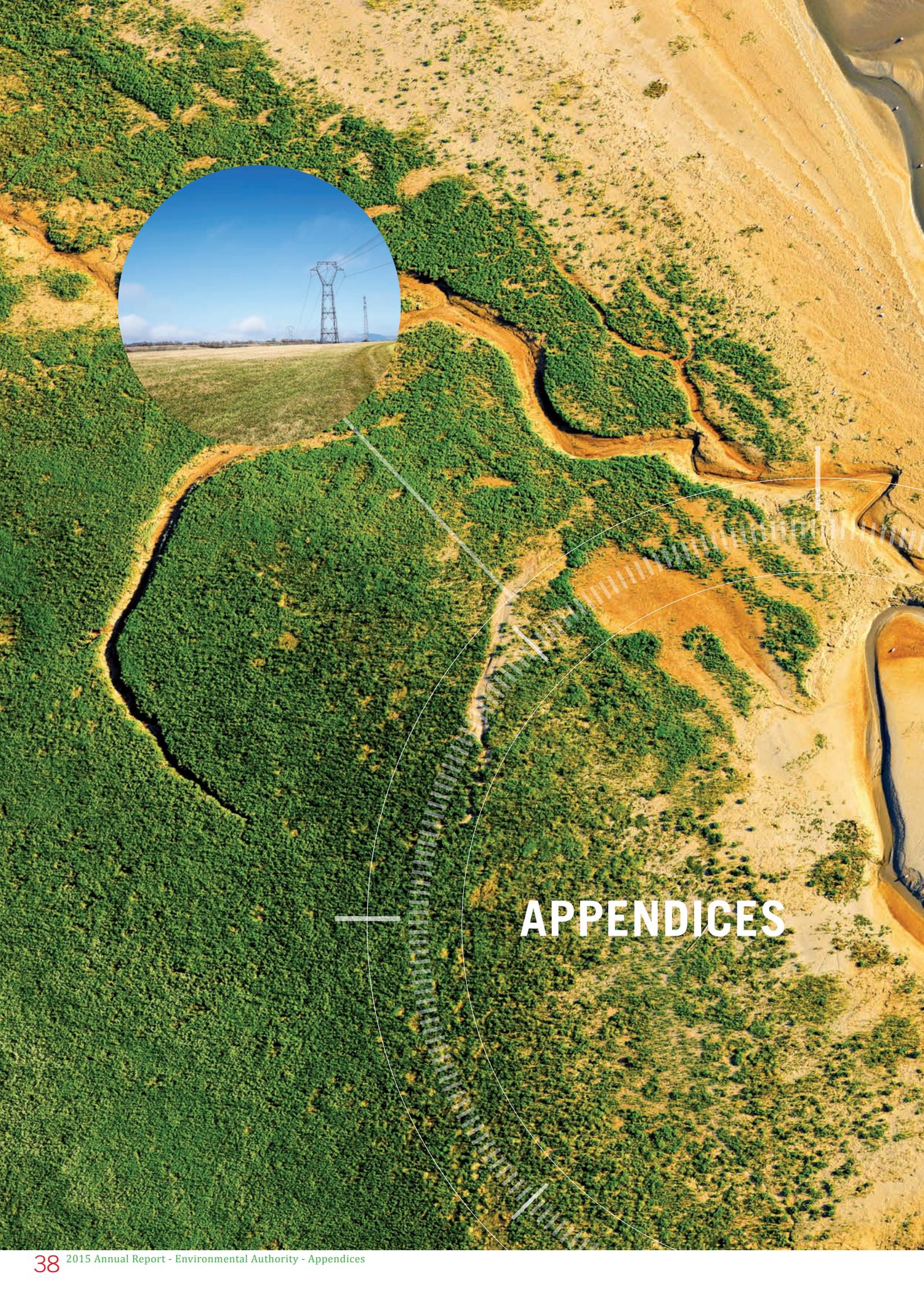
225 kV electricity line between Cergy and Persan (95)

54 \ The International Association for Impact Assessment (IAIA), founded 35 years ago by three Americans, now has 1783 members in 120 countries, but with heavy concentration in the United States, Canada, Australia and the United Kingdom. About 40 % of members work in a research department, 20 % are members of universities, 15 % are employees of big industries (involved in corporate stewardship or strategic environmental assessment), and 15 % are public service employees (government departments, agencies, regional and

municipal government). In Europe, the IAIA is strongest in the United Kingdom, Portugal, Italy, etc. The conference was attended by 1019 members.

55 \ German and Austrian universities have testified to the fact that environmental authorities, in the absence sufficient powers, are often afraid of forgetting something in their opinion, and always ask for more detail or more analysis on subjects that are seemingly of secondary importance.

56 \ 1: alternatives to the creation of what is planned in the plan or programme through analysis of needs and objectives, reformulated if necessary;
2: analysis of planned sites or routes;
3: analysis techniques to be used.



APPENDICES



APPENDICES



You can find all the opinions issued and the case-by-case decisions made by Ae in 2015 at the following addresses:

OPINIONS ISSUED

<http://www.cgedd.developpement-durable.gouv.fr/les-avis-deliberes-de-l-autorite-environnementale-a331.html>



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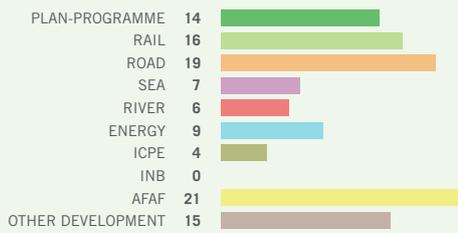
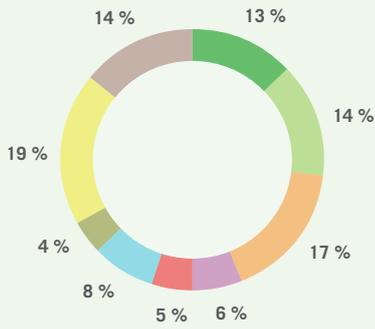
DECISIONS MADE

<http://www.cgedd.developpement-durable.gouv.fr/2015-en-cours-d-examen-et-decisions-rendues-r488.html>

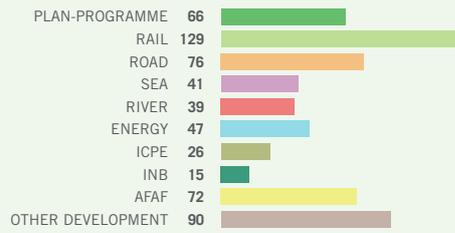
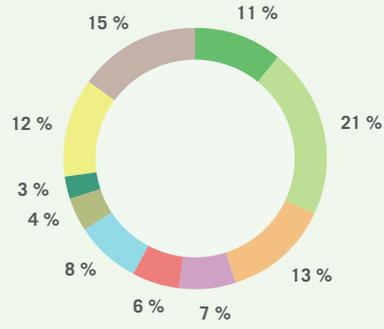


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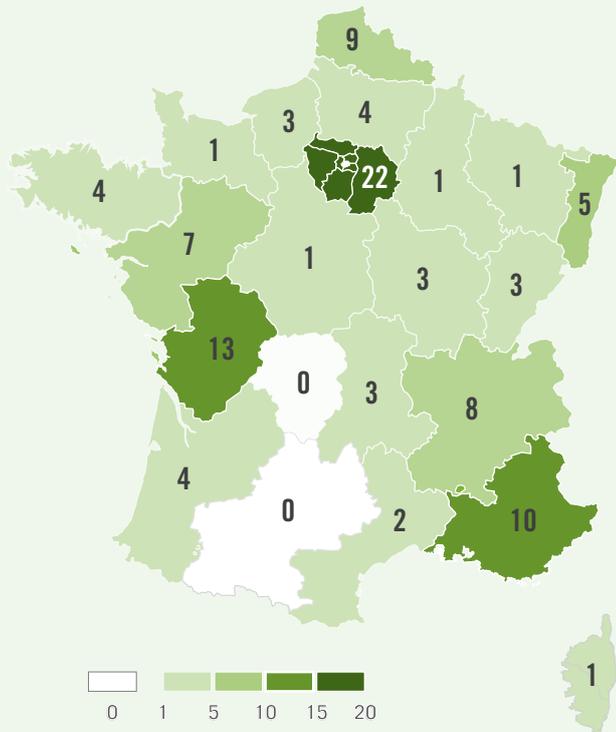
2015 OPINIONS BY TOPIC
(in % and in numbers)



OPINIONS ISSUED SINCE 2009 BY TOPIC
(in % and in numbers)



GEOGRAPHICAL DISTRIBUTION OF OPINIONS IN 2015 (in numbers)



EXAMPLES OF “CASE-BY-CASE” DECISIONS ISSUED IN 2015



DECISIONS N° F-091-15-C-0003 AND F-091-15-C-0003 AR dated 9th March and 10th June 2015



Airport technology park entrance in Mauguio (Hérault)

On 3rd February 2015 “Montpellier Méditerranée Airport” filed a “case-by-case” application with Ae concerning permission to develop an area of 44,000 m², with accompanying rights to build on about 17,600 m² with the aim of redeveloping and providing mains services for five plots intended to house business premises and small capacity warehouses (project known as “airport technology park entrance”).

In parallel, the same company also presented a second “case-by-case” application at the same time, consisting of restructuring the entrance to the airport platform of Montpellier Méditerranée Airport and redeveloping a 45,000 m² area consisting of six plots intended for 21,000 m² of tertiary businesses (project known as “Parc Aérospace”⁵⁷).

Several weeks earlier, the chairman of the Pays de l’Or conurbation had asked Ae for an opinion on a file entitled “Montpellier Airport - technology park”⁵⁸. This project, entrusted to “Thalium Promotion” and built next to the existing freight zone of Montpellier Airport, consisted of developing a 17 hectare plot for the development of logistics activities. The planned developments permitted two 25,000 m² warehouses to be

built, together with a logistics building and a 700 m² building comprising technical premises and offices.

Noting the already built-up nature of the environment and the absence of a listed habitat or species in the area of the “Aerospace Park” project, Ae exempted this project from the need for an impact study by decision of 9th March 2015.

On the other hand, noting that the impacts of the “Airport technology park entrance” project might have possible cumulative effects with the “Montpellier Airport logistics platform”, in terms of increased traffic on the small access roads, loss of land and consumption of natural spaces, particularly the habitats of little bustards confirmed to be in this sector, Ae decided to submit the project to an impact study.

Ae confirmed its decision on the 10th June 2015 after the applicant made a mandatory preliminary administrative appeal as provided in article R. 122-3 V of the French Environment Code.

57 \ Decision n° F-091-15-C-0004 dated 9th March 2015.

58 \ Ae opinion n° 2014-101 of 11th February 2015.



DECISION N°F-073-15-C-0012

dated 15th June 2015

Creation of 400,000 volt and 225,000 volt connections to the new “Sud Aveyron” sub-station in the municipality of Saint-Victor-et-Melviou (12)

On 4th March 2015 Réseau de transport d'électricité (RTE)⁵⁹ applied for a case-by-case review in relation to the creation of 400,000 volt and 225,000 volt electrical connections to the new “Sud-Aveyron” electrical transformer sub-station in the municipality of Saint-Victor-et-Melviou⁶⁰, in Aveyron⁶¹. Ae then send a letter to RTE indicating that it considered that the operations covered by this application were inseparable from the “Sud-Aveyron” electricity sub-station, as they were entirely and exclusively designed to serve the main structure of this project. In this Ae relied on the interpretive note of the European Commission in relation to work associated with or adjacent to a project⁶² published on the 5th March 2012 and on decision C-300/13 of the 27th March 2014 of the Court of Justice of the European Union⁶³.

Analysis of information presented in the form sent to the Autorité environnementale led it to note that these operations are subject to a systematic impact study in accordance with section 28°C) of the table appended to article R. 122-2 of the French Environment Code: “Transformer sub-stations which have a maximum transformer voltage equal to or greater than 63 kilovolts, apart from operations not leading to an increase in the area of transformer sub-stations”.

Ae's letter particularly specified that operations to which the RTE's application related did not have characteristics that should lead to an autonomous impact study and that, consequently, this application did not come under a case-by-case decision.

On 13th May 2015 a mandatory preliminary administrative appeal⁶⁴ against the letter, considered a decision by the RTE, was served on Ae. After investigation, Ae confirmed its interpretation of the regulations in a letter dated 15th June 2015, as the appeal presented by the RTE did not provide any element that would justify it changing its position.

59 \ Supplemented on 9th March 2015 by a new letter.

60 \ According to the regional plan for connection to the renewable energy grid of the Midi-Pyrénées region of January 2013 approved by a decision of the prefect of the Midi-Pyrénées region dated 7th February 2013: “The East of region is also affected by a grid development project started by the RTE: the creation of the 400/225 kV “Sud - Aveyron” sub-station at St-Victor-et-Melviou in Aveyron, a sub-station equipped with two 400/225 kV autotransformers of 300 MVA. This is going to free up the hosting capacity of this currently highly restricted zone. This project, decided in 2009 at a cost of about €90M

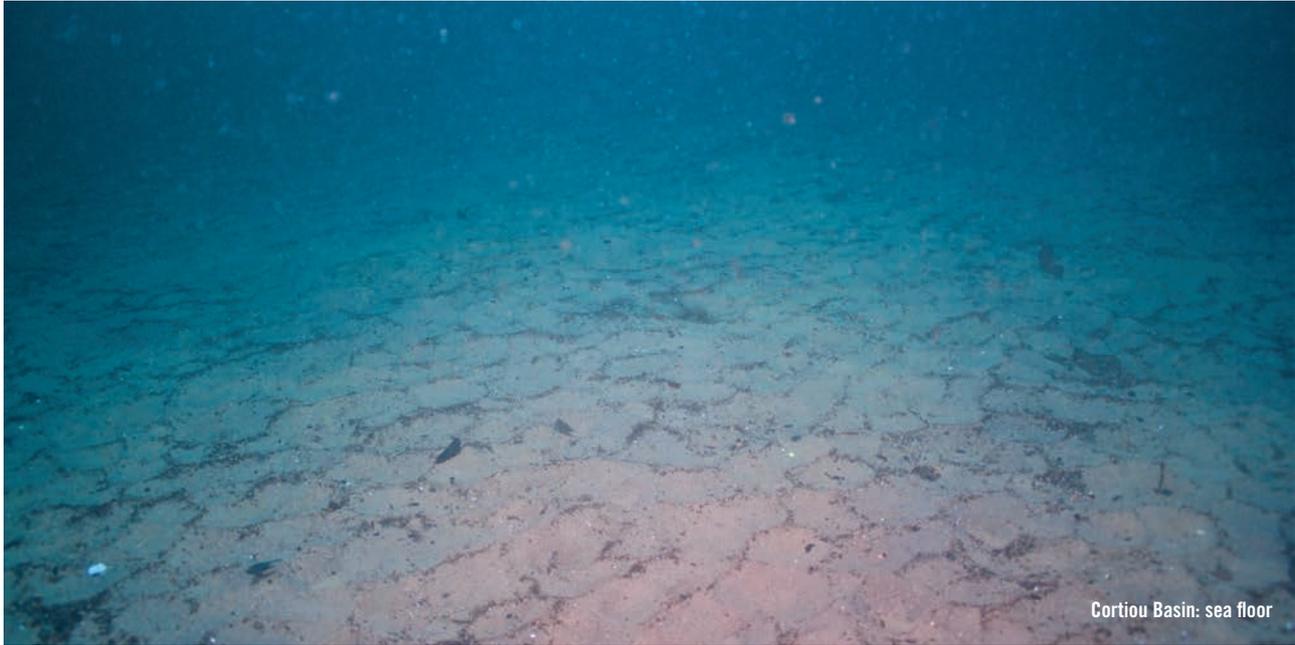
and financed by the RTE should be implemented in 2016. A 225/63 kV transformation improvement project of the St-Victor sub-station is also planned by 2016”.

61 \ • http://www.francetvinfo.fr/societe/aveyron-un-projet-de-transformateur-electrique-fait-polemique_1079615.html
• http://www.lemonde.fr/planete/article/2015/09/02/dans-le-sud-de-l-aveyron-un-projet-de-transformateur-fait-monter-la-tension_4743334_3244.html
• <http://www.centrepresseaveyron.fr/2015/03/18/un-projet-de-transformateur-divise-la-population-de-st-victor-et-melviou,952770.php>

62 \ <http://ec.europa.eu/environment/eia/pdf/Note%20-%20Interpretation%20of%20Directive%2085-337-EEC.pdf>

63 \ <http://curia.europa.eu/juris/liste.jsf?td=ALL&language=fr&jur=C,T,F&num=c-300/13>

64 \ Article R 122-3 V of the French Environmental Code: “Any appeal against a decision ordering the completion of an impact study should, on penalty of inadmissibility, be preceded by a preliminary administrative appeal before the competent State administrative authority for environmental matters which took the decision”.



Cortiou Basin: sea floor

DECISION N° F-093-15-C-0052

dated 7th October 2015



Rexcor: Experimental ecological restoration of the coastal sea floor of the Cortiou basin (13)

“The sewage pipe of the city of Marseilles has flowed into the Cortiou inlet to the south of the city since 1896. In 1979 a second pipe was built to divert the waters of the Huveaune and Jarret to this outlet in dry weather. The creation of a physical and chemical treatment centre in 1987 and its biological extension in 2008, treating sewage from 16 other municipalities of the drainage basin, led to a significant improvement in the water quality at the outlet. Nevertheless, this discharge had a lasting impact on the sea floor of this sector of the Calanques which has been in the listed area in the heart of the National Marine Park of the Calanques since April 2012. [...] In partnership with the Rhône Méditerranée Corse water board and the Mer Méditerranée centre the Calanques National Park launched a call for ideas, in 2013. At the end of this process the institutional partners accepted a project sponsored by a consortium of three companies: CDC Biodiversité, Egis eau and Architheutis. This experimental project consists of submerging artificial habitats in the zone historically influenced by discharge from these two outlets in the Cortiou Calanque.”⁶⁵

The project, as presented to Ae, is still of relatively modest size: 36 artificial reefs occupying a total area of only 220 m², within a much larger sector made sterile by past pollution. If this experiment is successful, any larger scale implementation, not currently planned, would have to be referred to Ae again. Consequently, the probable impacts to be taken into account by Ae decision are of modest size.

Furthermore, these probable impacts are mainly positive: if the experiment is successful, it would mean the start of restoration of the site, and above all the collection of data and useful feedback for continuing the restoration, or to start that of other similar sites; in case of failure, the very damaged situation of the site will not have been aggravated by the experiment.

Possible negative environmental impacts might be contamination of the trophic chain⁶⁶, or the spread of invasive species⁶⁷. The small size of the experiment however ensures that these possible impacts would be extremely limited. Moreover, the planned monitoring will undoubtedly enable us to determine whether the technique used is susceptible to such impacts, which will be useful for possible deployment at a larger scale. For these reasons Ae exempted the Rexcor project from an impact study.

65 \ Copy of the case-by-case application lodged with the Ae by the applicant.

66 \ Risk of pollutants present in the sludge which currently covers the site being transmitted to the organisms that might settle them, the alimentary chain and man.

67 \ The artificial reefs have nevertheless been designed to reduce this risk.



DECISION N° F-052-15-C-0063

dated 14th December 2015

Repair of La Gachère (Vendée) dykes and dam

The Olonnes mixed marsh union lodged a “case-by-case” file with the Ae on the 10th November 2015, relating to the La Gachère dykes and dam in the Vendée department. This dam, situated at the sea outlet of two water courses (the Auzance and the Vertonne) helps to protection the land of several municipalities and Olonnes marshes from sea flooding. It is included in a flood prevention action programme (Programme d’actions de prévention des inondations - PAPI) and in this respect forms part of a works programme. Ae therefore also considered the outline and impacts of the works programme.

The file also indicated that the Olonnes Marsh PAPI, submitted for an opinion of the Mixed Flood Commission (Commission mixte inondation - CMI) at national level, would be the subject of an environmental assessment. Ae nevertheless verified that in reality analysis was required for investigation of the project by the CMI and it was not equivalent to an environmental assessment.

The planned work mainly aims to repair damage observed in the structure, protect the dykes from marine and river erosion, improve protection of the adjacent dykes and thus ensure stability of the structures. They are situated in a listed site (“Olonne Forest”) in the middle of a Natura 2000 zone (SPZ and SCZ “Olonnes Natura 2000 dunes, forest and marshes”).

Ae first noted that the project mainly consisted of work to consolidate the existing structure and reinforce the

adjacent dykes directly above the structure and within the PAPI. These are the main works liable to affect the environment. It then noted that the footprint of the public maritime area, due to the installation of a new berm at the foot of the structure, was of limited size. It finally revealed that the dam’s current operating conditions would not be changed once the work was carried out.

Ae therefore considered that the project’s impacts on the environment did not appear to be significant. Moreover, on the basis of the file presented and the confirmation contributed by the Pays de la Loire regional environment, development and housing department, the impact of this work is liable to be assessed and considered, for the programme of works as a whole, as part of various applicable environmental procedures (“Law on Water” provisions, protected species, Natura 2000, listed site).

Ae consequently took a decision not to submit the site to an impact study on 14th December 2015.

ACRONYMS AND INITIALISMS

Ae	Autorité environnementale (Environmental authority of the CGEDD)
AFAF	Aménagement foncier agricole et forestier (agricultural and forest land development)
AFDI	Agriculteurs français et développement international (French farmers and international development)
ASN	Autorité de sûreté nucléaire (French nuclear safety authority)
CDT	Contrat de développement territorial (Territorial development contract)
CGAAER	Conseil général de l'alimentation, de l'agriculture et des espaces ruraux (General Council for Food, Agriculture and Rural Spaces)
CGDD	Commissariat général au développement durable (General Commission for Sustainable Development)
CGEDD	Conseil général de l'environnement et du développement durable (General Council for the Environment and Sustainable Development)
CMI	Commission mixte inondation (Mixed flood commission)
CNPN	Conseil national de protection de la nature (French national council for nature protection)
CSPNB	Conseil scientifique du patrimoine naturel et de la biodiversité (Scientific Council for Natural Heritage and Biodiversity)
DCSMM	Directive cadre stratégique pour le milieu marin (Marine Strategy Framework Directive)
DUP	Déclaration d'utilité publique (Declaration of Public Utility)
FEAMP	Fonds européen pour les affaires maritimes et la pêche (European fund for maritime affairs and fisheries)
GHG	Greenhouse gas
GPE	Grand Paris Express
GPM	Grand port maritime (Major seaport)
IAIA	International Association for Impact assessment
ICPE	Installation Classified for the Protection of the Environment
LGV	High speed railway line
MEEM	Ministère de l'environnement de l'énergie et de la mer (French Ministry of the Environment, Energy and the Sea)
MLHD	Ministère du logement et de l'habitat durable (French Ministry of Housing and Sustainable Development)
PAPI	Programme d'actions de prévention des inondations (Flood prevention programme)
PGPOD	Plan de gestion pluriannuel des opérations de dragage (Long term management plan for dredging operations)
PLU	Plan local d'urbanisme (Local town plan)
PNFB	Programme national de la forêt et du bois (French national forestry and wood industry programme)
PPE	Programmation pluri-annuelle de l'énergie (Long term energy plans)
PSR	Plan de submersions rapides (Rapid flooding plan)
RAPO	Recours administratif préalable obligatoire (obligatory pre-trial administrative appeal)
RTE	Réseau de transport d'électricité (Electricity Transport Network)
SCOT	Schéma de cohérence territoriale (Territorial Cohesion Plan)
SDAGE	Schéma directeur d'aménagement et de gestion des eaux (Master Plan of the Development and Management of Water)
SDDED	Schéma directeur d'évacuation des déblais (Rubble removal master plan)
SDRIF	Schéma directeur de la région Île-de-France (Île-de-France regional development plan)
SGP	Société du Grand Paris
SRCE	Schéma régional de cohérence écologique (Regional ecological coherence plan)
SRCAE	Schéma régional climat-air-énergie (Regional Climate Air and Energy Plan)
IUCN	International Union for Conservation of Nature
VNF	Voies navigables de France (French Inland Waterways Public Authority)
ZAC	Zone d'aménagement concerté (Joint Development Zone)
ZNIEFF	Zone naturelle d'intérêt écologique, faunistique et floristique (Natural areas of ecological, faunistic and floristic interest)
SPZ	Special protection zone
SCZ	Special conservation zone



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