



# Implementing Natura 2000 and the Water Framework Directive to coal power plants in Spain: A legal analysis

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# Index

1.	Introduction .....	1
2.	Brief explanation of the WFD regime for the analysis of the status of surface waters .....	3
3.	Analysis of Spanish coal-fired LCPs.....	5
3.1	Soto de Ribera LCP .....	5
3.1.1	Identification of protected sites.....	6
3.1.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems .	6
3.2	Litoral de Almería LCP .....	9
3.2.1	Identification of protected sites.....	9
3.2.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	11
3.3	Alcúdia LCP .....	15
3.3.1	Identification of protected sites.....	15
3.3.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	17
3.4	Los Barrios LCP.....	21
3.4.1	Identification of protected sites.....	21
3.4.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	22
3.5	Anllares LCP .....	25
3.5.1	Identification of protected sites.....	25
3.5.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	26
3.6	La Robla LCP.....	28
3.6.1	Identification of protected sites.....	28
3.6.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	28
3.7	Aboño I and II LCP.....	30
3.7.1	Identification of protected sites.....	31
3.7.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	31
3.8	Lada IV LCP.....	33
3.8.1	Identification of protected sites.....	33
3.8.2	Analysis of recipient surface waters : its status and impacts on water dependent ecosystems	34
3.9	Meirama LCP.....	35
3.9.1	Identification of protected sites.....	35
3.9.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	36
3.10	Puentenuevo LCP .....	37
3.10.1	Identification of protected sites.....	37
3.10.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	38
3.11	Velilla LCP .....	39
3.11.1	Identification of protected sites.....	39
3.11.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	40
3.12	Narcea I, II and III LCP.....	41
3.12.1	Identification of protected sites.....	41
3.12.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	42
3.13	LCP As Pontes.....	43
3.13.1	Identification of protected sites.....	43
3.13.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	45
3.14	Andorra LCP .....	46
3.14.1	Identification of protected areas .....	46
3.14.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	47
3.15	Compostilla II LCP .....	48
3.15.1	Identification of protected areas .....	49

3.15.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	49
3.16	La Pereda .....	51
3.16.1	Identification of protected sites .....	51
3.16.2	Analysis of recipient surface waters: its status and impacts on water dependent ecosystems	51
4.	Legal implications.....	53
4.1	Natural Protected Areas.....	53
4.1.1	Legal venues at EU level under the Habitats Directive .....	53
4.2	Surface waters and water-dependent protected areas.....	59
4.2.1	Legal venues at EU level under the Water Framework Directive and the Habitats Directive..	59
Annex I-	Spanish legislation on protected areas.....	63
Annex II-	Location of Natura 2000 Network Sites in the surroundings of Spanish coal-fired LCPs .....	74
Annex III-	Programmes of measures adopted in River Basin Management Plans under article 11 of the WFD-concerning Natura 2000 sites and industrial discharges .....	75

## Acronyms

C.A	Autonomous Community
EC	European Commission
ELV	Emission Limit Values
EQS	Environmental Quality Standards
EU	European Union
IED	Industrial Emissions Directive
IPPC	Integrated Pollution Prevention and Control
LLD	Limited Lifetime Derogation
LCP	Large Combustion Plant
LCPD	Large Combustion Plants Directive
MAPAMA	Ministry of Agriculture and Fishing, Food and Environment
MINETAD	Ministry of Energy, Tourism and Digital Agenda
NO <sub>x</sub>	Nitrogen oxides
RDPH	Public Water Domain Regulation
RIE	Regulation on Industrial Emissions
SAC	Special Areas of Conservation
SCI	Sites of Community Interest
SEA	Strategic Environmental Assessment
SISD	Small Isolated System Derogation
SO <sub>2</sub>	Sulphur dioxide
SPA	Special Protection Area
SPAMI	Special Area of Mediterranean Importance
TNP	Transitional National Plan
RBMP	River Basin Management Plan
WFD	Water Framework Directive

## 1. Introduction

By 31 December 2016, the use of coal as fossil fuel represented 10.004 MW of the total national installed power 105.308 MW. That coal capacity corresponds to 9,5% of the installed power in the Peninsular Spain (9.536 MW), and 20,4% in the non-peninsular system (468 MW) which only includes the Balearic Islands.<sup>1</sup> In 2017, there are 167 large combustion plants (LCPs) registered,<sup>2</sup> of which 18 LCPs (corresponding to 33 production units) use coal as their main source of fuel to produce electricity.<sup>3</sup>

A number of Spanish LCPs operate near or within protected areas of national and international recognition, mostly declared as Natura 2000 Network sites which deserve an effective protection. Likewise, water pollution derived from LCPs discharges can entail a significant pressure not only for surface waters, but also for the conservation of protected sites whose habitats and species directly depend on the status of those recipient waters. For these reasons, it is firstly necessary to identify those protected areas located within or nearby coal fired power plants in Spain, and secondly to examine the status of those surface water bodies in which plants discharge as well as their implications, where appropriate, to water-dependent protected areas, focusing on Natura 2000 sites.

A wide number of legal instruments have been adopted at the international, EU and its Member States levels to ensure the protection of habitats and wildlife, setting the basis for the achievement of specific conservation objectives. Special attention has to be given to international agreements such as the Convention of Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)<sup>4</sup> or the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (“SPA and Biodiversity Protocol”) to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (“Barcelona Convention”).<sup>5</sup>

At the EU level, the ecological network is shaped through the application of the Council Directive 92/43/CEE of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive),<sup>6</sup> and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive)<sup>7</sup>. Both legal instruments were transposed into the Spanish legal order by Law 42/2007, of 13 December, on Natural Heritage and Biodiversity<sup>8</sup>. Spanish law reflects the EU demands for the achievement of an effective conservation of protected Natura 2000 sites through its three main categories: Sites of Community Importance (SCIs), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). In addition, rivers, lakes and

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<sup>1</sup> REE, Report “El sistema eléctrico español, Avance 2016”, (“The Spanish electricity system, Preview 2016”) available at [http://www.ree.es/sites/default/files/downloadable/avance\\_informe\\_sistema\\_electrico\\_2016.pdf](http://www.ree.es/sites/default/files/downloadable/avance_informe_sistema_electrico_2016.pdf) p. 5 and 13.

<sup>2</sup> State Pollutant Release and Transfer Register (PRTR-Spain), Ministry of Agriculture and Fishing, Food and Environment (MAPAMA). Last verification on 27.02.2017.

<sup>3</sup> Two of these 18 LCPs (Cogecan and Solvay I) belong to the industrial sector. Therefore, there are 16 coal-fired power plants operating within the power sector, which are analyzed in this report.

<sup>4</sup> United Nations Convention of Wetlands of International Importance especially as Waterfowl Habitat adopted on 2 February 1971, UNTS 14583 (“Ramsar Convention”).

<sup>5</sup> United Nations Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean adopted on 16 February 1976, 1102 UNTS 27 (“Barcelona Convention”).

<sup>6</sup> OJ L 206, of 22.07.1992.

<sup>7</sup> OJ L 20, of 26.01.2010.

<sup>8</sup> BOE num. 299, of 14.12.2007 Amended by Law 33/2015, of 21 September, amending Law 42/2007, of 13 December, on Natural Heritage and Biodiversity (BOE num. 227, of 22.09.2015).

coastal waters where LCPs discharge are subject to a general requirement for ecological protection and a general minimum chemical standard. In some cases, these surface waters are also vital natural resources for crucial habitats of many different types of wildlife and aquatic ecosystems deserving additional protection.

In this regard, Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (“Water Framework Directive/or WFD”)<sup>9</sup> marked an important trend towards an ecosystem-based approach for water policy and water resource management at EU level. The WFD was partially transposed into the Spanish legal order through an amendment<sup>10</sup> to Royal Legislative Decree 1/2001, of 20 July on the approval of the Consolidated Water Law (“Royal Legislative Decree 1/2001”)<sup>11</sup>. In particular, the provisions of the WFD concerning the protection of surface water bodies are contained in Title V of Royal Legislative Decree 1/2001, and further developed in other domestic regulations such as Royal Decree 849/1986, of 11 April approving the Regulation on the Water Public Domain (“RDPH”),<sup>12</sup> and Royal Decree 907/2007, of 6 July, approving the Hydrological Planning Regulation (“Royal Decree 907/2007”).<sup>13</sup> Furthermore, the obligations introduced through Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013<sup>14</sup> were transposed into Spanish law by Royal Decree 817/2015, of 11 September approving the monitoring and assessment criteria on the status of surface waters and environmental quality standards (“Royal Decree 817/2015”).<sup>15</sup>

This report has two main purposes. Firstly, to identify the designated protected areas and their potential impacts resulting from the operation of coal power plants, with particular attention to Natura 2000 Network sites. A throughout review of the sites Management Plans has been undertaken. From that review, different loopholes in those plans have been identified. Thus, IIDMA will carry out in a second phase a more detail review of those plans. To assess the impacts of Spanish LCPs on protected sites, information provided at the Nature Databank official viewer of the Spanish Ministry of Agriculture and Fishing, Food and Environment has been used.<sup>16</sup> While this database identifies the different protected areas with a recognized national or international protection status, this report specially focuses on the conservation status<sup>17</sup> of Natura 2000 sites at risk of being affected by nearby LCPs and

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<sup>9</sup> OJ L 327, of 22.12.2000. Amended by Decision No 2455/2001/EC of the European Parliament and of the Council of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC (OJ L 331, of 15.12.2001).

<sup>10</sup> That amendment was introduced by Article 129 of Law 62/2003 on Fiscal, Administrative and Social Policy Measures (BOE num. 133, of 31.12.2003).

<sup>11</sup> BOE num. 176, of 24.07.2001.

<sup>12</sup> Royal Decree 849/1986, of 11 April on the approval of the Public Water Domain Regulation, developing the introductory titles I, IV, V, VI y VII of Law 29/1985, of 2 August, on Water (BOE num. 30.04.1986), modified by Royal Decree 606/2003, of 23 March (BOE num. 135, of 06.06.2003) “RDPH” Spanish acronym for Public Water Domain Regulation.

<sup>13</sup> BOE num. 162, of 07.07.2007.

<sup>14</sup> Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy (OJ L 226, of 24.08.2013).

<sup>15</sup> BOE num. 219, of 12.09.2015. This legal instrument repealed Royal Decree 60/2011, of 21 January, regarding environmental quality standards in the field of water policy.

<sup>16</sup> Ministry of Agriculture and Fishing, Food and Environment of Spain, Nature Databank official viewer (“Banco de Datos de la Naturaleza - BDN”), available at <http://www.mapama.gob.es/es/biodiversidad/servicios/banco-datos-naturaleza/bdn-visores.aspx>

<sup>17</sup> According to article 1 of the Habitats Directive, Member states have an objective to ensure the maintenance or restoration, at a favourable conservation status, of the natural habitats and species of wild fauna and flora. The conservation status of Natura 2000 Network sites is evaluated according to a standardized methodology

the legal obligations to which Spain is subject to.

Secondly, it identifies those surface water bodies where coal-fired LCPs are authorized to discharge in accordance with its environmental permits (IPPC permits), considering their status (chemical and ecological status/potential), and the achievement of the environmental objectives provided in article 4 of the WFD. In addition, it is necessary to identify those water bodies which are protected areas under the WFD (art. 6), focusing in particular on the implications for water-dependent Natura 2000 sites' habitats and species. For this purpose, a throughout analysis of the River Basin Management Plans (RBMPs) (hydrological cycle 2015-2021) corresponding to each river basin district where LCPs discharge has been undertaken, together with the information included in the Registers for Protected Areas and the Programmes of Measures included within the RBMP.

Finally, this report provides a detailed analysis of the legal implications and possible courses of action for the protection of protected areas in Spain, and for the protection of surface water bodies and water-dependent protected areas, in particular, Natura 2000 sites' habitats and species that may be affected by coal plants' discharge activity.

## 2. Brief explanation of the WFD regime for the analysis of the status of surface waters

The scope of protection of surface waters under the WFD extends to different types of water bodies: rivers, lakes (inland waters), transitional waters<sup>18</sup> and coastal waters<sup>19</sup>. The surface water types are divided into water bodies which form the basic unit for water management under the WFD.

In making operational the programmes of measures specified in the corresponding RBMPs, article 4.1 of the WFD states the obligation to achieve specific environmental objectives, which must be included in the corresponding RBMPs pursuant to article 13 of the WFD. With regard to surface waters, article 4.1 paragraphs a) points ii) and iii) of the WFD provides an obligation to protect, enhance and restore all bodies of surface water<sup>20</sup> (including artificial and heavily modified bodies of water) **with the aim to achieve a good surface water status as a rule by 2015**.<sup>21</sup> However, under article 4.4 of the WFD Member States are allowed to apply for **derogations to extend the deadline for the achievement of the environmental objectives** “*provided that no further deterioration occurs in the status of the*

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based on (A) “excellent conservation” (B) “Good conservation” and (C)

“Average or reduced conservation”. Source: Natura 2000 Standard Data Form, Explanatory Notes, available at [http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/standarddataforms/notes\\_en.pdf](http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/standarddataforms/notes_en.pdf)

<sup>18</sup> According to article 2.6 of the WFD, “*Transitional waters are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows*”.

<sup>19</sup> According to article 2.7 of the WFD Coastal waters means: “*surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.*”

<sup>20</sup> Article 4.1.a) point ii) of the WFD provides that: “(ii) Member States shall **protect, enhance and restore all bodies of surface water**, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, **with the aim of achieving good surface water status at the latest 15 years after the date of entry into force of this Directive**, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;”

<sup>21</sup> The initial deadline for the attainment of the WFD environmental objectives set in Article 4 has been extended to 2021 (end of the second management cycle) and to 2027 (end of the third management cycle).

*affected body of water when all of the following conditions are met*". Such extensions must be justified for reasons of technical feasibility, disproportionate costs, and/or natural conditions.<sup>22</sup> However, under Spanish law these extensions shall not exceed the deadline of 31 December 2027.

The general requirement for ecological protection and a general minimum chemical standard provided in article 4.1 of the WFD shall apply to all surface waters. It must be taken into account that a good surface water status is achieved under the WFD "when both its ecological status and its chemical status are, at least, good".<sup>23</sup> This has been taken into account when analysing the status of the water bodies where plants discharge.

On the one hand, surface water bodies will achieve a "**good ecological status**" (or ecological potential in case of artificial or heavily modified water bodies), when are classified as such in accordance with the provisions set in Annex V of the WFD. The ecological status of a water body is understood as the expression of the quality of the structure and functioning of aquatic ecosystems which are associated to surface waters.<sup>24</sup> In this regard, Annex V provides quality elements consisting on biological, hydro-morphological and physicochemical parameters which must be followed to classify the ecological status of surface waters as follows: i) high status<sup>25</sup>, ii) good status<sup>26</sup>, iii) moderate status<sup>27</sup>; iv) poor status<sup>28</sup>, or v) bad status<sup>29</sup>. In case of artificial or heavily modified water bodies, the

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<sup>22</sup> Article 4.4 of the WFD provides that:

*"(a) Member States determine that all necessary improvements in the status of bodies of water cannot reasonably be achieved within the timescales set out in that paragraph for at least one of the following reasons:*  
*(i) the scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility;*  
*(ii) completing the improvements within the timescale would be disproportionately expensive;*  
*(iii) natural conditions do not allow timely improvement in the status of the body of water."*

In addition, the WFD provides **other possibilities for making use of exemptions** if certain conditions are met. The following additional exemptions are possible:

- 1) less stringent objectives (article 4.5)
- 2) temporary deterioration (article 4.6)
- 3) new modifications/new sustainable human developments (article 4.7).

<sup>23</sup> Definition of "good surface water status" provided in Article 2 (18) of the WFD. See also Article 2 (17) which defines "surface water status" as: "the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status".

<sup>24</sup> Definition provided in article 2 (21) of the WFD.

<sup>25</sup> A surface water body will achieve a high ecological status when: "There are no, or only very minor, anthropogenic alterations to the values of the physico-chemical and hydromorphological quality elements for the surface water body type from those normally associated with that type under undisturbed conditions. The values of the biological quality elements for the surface water body reflect those normally associated with that type under undisturbed conditions, and show no, or only very minor, evidence of distortion."

<sup>26</sup> A surface water body will achieve a **good ecological status** when: "The values of the biological quality elements for the surface water body type show low levels of distortion resulting from human activity, but deviate only slightly from those normally associated with the surface water body type under undisturbed conditions."

<sup>27</sup> A surface water body will achieve a **moderate ecological status** when: "The values of the biological quality elements for the surface water body type deviate moderately from those normally associated with the surface water body type under undisturbed conditions. The values show moderate signs of distortion resulting from human activity and are significantly more disturbed than under conditions of good status".

<sup>28</sup> A surface water body will achieve a **poor ecological status** when: "Waters showing evidence of major alterations to the values of the biological quality elements for the surface water body type and in which the relevant biological communities deviate substantially from those normally associated with the surface water body type under undisturbed conditions, shall be classified as poor."

<sup>29</sup> A surface water body will achieve a **bad ecological status** when: Waters showing evidence of severe alterations to the values of the biological quality elements for the surface water body type and in which large portions of the relevant biological communities normally associated with the surface water body type under

ecological potential is classified as: i) good and above, ii) moderate, iii) poor, or iv) bad.

On the other hand, **good chemical status**<sup>30</sup> is defined in terms of compliance with all the environmental quality standards (EQS) established for chemical substances at EU level, in particular those established in Annex IX of the WFD. These EQS are defined as “*the concentration of a particular pollutant or group of pollutants in water, sediment or biota which should not be exceeded in order to protect human health and the environment*”.<sup>31</sup> The chemical status of surface waters is classified as: i) good, or ii) failing to achieve good.

This analysis attends to both the chemical and ecological status (potential) of each surface body of water where Spanish coal plants are authorized to discharge. The information provided at the corresponding RBMPs has been used for this purpose, giving special attention to those cases of water bodies that do not achieve a good status as required under article 4.1.a) of the WFD. The identified pressures and significant impacts affecting the quality of those bodies of water has been taken into account in order to identify whether the failure in the achievement of a good status can be related to the coal plants` discharges.

Interaction between the WFD and the Habitats Directive is also necessary in the fact that **good ecological status in surface waters is an important parameter of favourable conservation status for a protected site**. This requires attending to the **ecological status** of each water body that can have an influence on the possibilities of a Natura 2000 site to contribute to the achievement or maintenance of a favourable status. However, it must be taken into account that the achievement of a favourable status in Natura 2000 habitats and species may not only depend on the ecological status of a surface water body, but also on human pressures (over-fishing or tourism) taking place in a specific site.<sup>32</sup>

Lastly, protected areas under Annex IV of the WFD must be reported in RBMPs Under article 6.1 of the WFD Member States are required to establish a Register of Protected Areas,<sup>33</sup> (lying within each river basin district), “*which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water*”.<sup>34</sup> This Register shall cover any Natura 2000 site (SACs, SPAs and SCIs) with water-dependent Annex I habitat types or Annex II species under the Habitats Directive or with water-dependent bird species of Annex I or migratory bird species of the Birds Directive, and, where the presence of these species or habitats has been the reason for the designation of that protected area.

### 3. Analysis of Spanish coal-fired LCPs

#### 3.1. Soto de Ribera LCP

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undisturbed conditions are absent, shall be classified as bad.

<sup>30</sup> According to Article 2 (24) of the WFD, **good surface water chemical status** must be understood as: “the chemical status required to meet the environmental objectives for surface waters established in Article 4(1)(a), that is the chemical status achieved by a body of surface water in which concentrations of pollutants do not exceed the environmental quality standards established in Annex IX and under Article 16(7), and under other relevant Community legislation setting environmental quality standards at Community level.”

<sup>31</sup> Definition provided in article 2.35 of the WFD.

<sup>32</sup> EC Guide “Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions” (2011), p. 22 and 29.

<sup>33</sup> The obligation provided in article 6 of the WFD has been effectively transposed into article 99 bis of the Royal Legislative Decree 1/2001, and articles 24 and 25 of Royal Decree 907/2007.

<sup>34</sup> Article 6.1 of the WFD.

This LCP is located in the municipality of Ribera de Arriba in the C.A of Asturias. With a total net electric installed power of 346,3 MW (rated thermal capacity 830MW), the LCP Soto de Ribera started its activity in 1984 (thermal group III) and is operated by the group Hidroeléctrica del Cantábrico, S.A (HC Energía), EDP.

### 3.1.1. Identification of protected sites

The LCP of Soto de Ribera is operating inside the boundaries of the protected site “Río Nalón”. It was declared as SAC<sup>35</sup> by Decree 125/2014, of 17 December, declaring as **SAC Nalón River**, and approving its first management plan<sup>36</sup>. The Nalón River includes an important population of salmon<sup>37</sup>, an extensive riparian forests and a wide estuary with many characteristic species<sup>38</sup>. Furthermore, the site holds 6 protected habitats and 15 protected species under the Birds and Habitats Directives.

Figure 1.-Location of LCP Soto de Ribera III inside the boundaries of Nalón River SAC



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.1.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

According to the IPPC permit<sup>39</sup> of Soto de Ribera, this LCP is authorized to discharge in **Río Nalón III**,<sup>40</sup> water body which is also used for refrigeration purposes. This is a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

<sup>35</sup> Type B, Code ES1200029. Standard Data Form Natura 2000 Network, available at: <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES1200029>

<sup>36</sup> Decreto 125/2014, de 17 de diciembre, por el que se declara la Zona Especial de Conservación Río Nalón y se aprueba su I Instrumento de Gestión (BOPA núm. 295 of 23.12.2014). It entered into force on 12 January 2015.

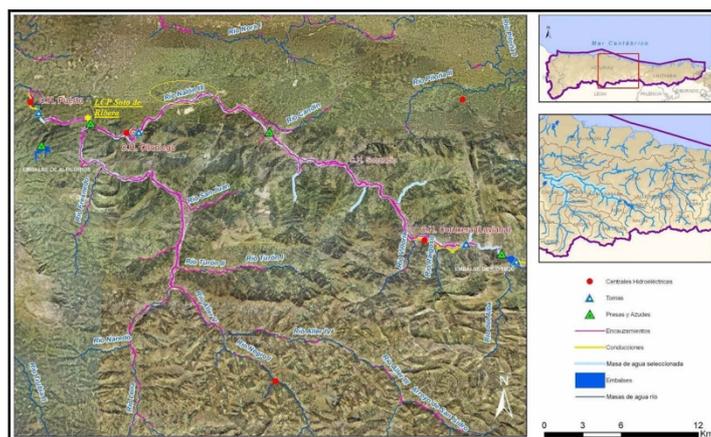
<sup>37</sup> Specie of Community Interest, Salmon Salar (code 1106).

<sup>38</sup> ES1200029, Standard Data Form point 4.2.

<sup>39</sup> Resolution issued on 16th July 2015 of the Department of Development, Land Planning and Environment, modifying and updating the environmental permit of the combustion plant Soto de Ribera (“Resolución de 16 de julio de 2015, de la Consejería de Fomento, Ordenación del Territorio y Medio Ambiente, por la que se modifica y actualiza la autorización ambiental integrada de la instalación térmica de carbón Soto de Ribera”) (BOPA num. 184, of 08.08.2015).

<sup>40</sup> Río Nalón surface water body code ES171MAR001380.

Figure 2.- Location of the water body Río Nalón III (code ES171MAR001380)



Source: Cantábrico Occidental River Basin Management Plan

According to the Cantábrico Occidental RBMP,<sup>41</sup> the Río Nalón status is severely affected. It presents an **overall status failing to achieve good, with a “good” ecological potential, and a chemical status “failing to achieve good”**. The LCP IPPC permit identifies the substances authorized to discharge.<sup>42</sup> However, the River Management Plan does not provide information regarding the priority substances which prevent the attainment of a good chemical status at Río Nalón impeding to analyze whether the LCP discharges can impact that water body.

In addition, refrigeration waters with a volume greater than 100.000 m<sup>3</sup>/year, including those derived from the LCP Soto de Ribera, are identified in the RBMP as a main pressure for Río Nalón III water body.<sup>43</sup> Likewise, the plan refers to the high temperatures of thermal discharges from the coal plant as a significant impact.<sup>44</sup>

With regard to the environmental objectives provided in Article 4.1 of the WFD, the deadline for the achievement of a good status in the water body Río Nalón III has been extended until 2021 for technical feasibility reasons, which is a case of exemption provided in article 4.4 paragraph a) i) of the WFD.<sup>45</sup> The Plan foresees different measures for the achievement of the WFD environmental objectives such as: consolidation measures, regenerative stations,

<sup>41</sup> Cantábrico Occidental River Basin Management Plan (2015-2021), available at <http://www.chcantabrico.es/index.php/es/actuaciones/planificacionhidrologica/planes-hidrologicos-2015-2021/plan-hidrologico-de-la-demarcacion-hidrografica-del-cantabrico-occidental-2>

<sup>42</sup> The IPPC permit granted to the LCP Soto de Ribera III authorizes 3 different water discharge points at Nalón River, allowing to discharge the following substances: Suspended solids, Total Ammonium, Total Phosphorus, oils and greases, Chlorides, Suphates, Iron, Copper and Total residual chlorine. However, the permit does not allow the discharge of hazardous substances (except Copper), and in particular those contained in Annexes I and II of Royal Decree 60/2011, of 21 January, regarding environmental quality standards in the field of water policy (amended by Royal Decree 817/2015).

<sup>43</sup> Cantábrico Occidental River Basin Management Plan, Inventory of Pressures (Annex VII), available at [http://www.chcantabrico.es/images/pdf/actuaciones/planificacion\\_hidrologica/plan\\_2015\\_2021/aprobado/occidental/anejos/25\\_ANEJO\\_VII.pdf](http://www.chcantabrico.es/images/pdf/actuaciones/planificacion_hidrologica/plan_2015_2021/aprobado/occidental/anejos/25_ANEJO_VII.pdf)

<sup>44</sup> The Cantábrico Occidental River Basin Management Plan includes in the inventory of pressures on surface waters: “g) *Thermal discharges originating from the refrigeration waters with a volume higher than 100.000 m3/year: It has been identified 20 discharges, out of which 5 derive from public service electric power generation plants corresponding to the thermal power plants of Aboño, Lada, La Pereda, Soto de Ribera and Narcea. The other 15 discharges correspond to other type of self-producers industries (...).*”

<sup>45</sup> Río Nalón III water body sheet, available at: [http://www.chcantabrico.es/images/pdf/actuaciones/planificacion\\_hidrologica/plan\\_2015\\_2021/aprobado/occidental/anejos/34\\_ANEJO\\_XII.pdf](http://www.chcantabrico.es/images/pdf/actuaciones/planificacion_hidrologica/plan_2015_2021/aprobado/occidental/anejos/34_ANEJO_XII.pdf)

elaboration of emergency plans or detailed studies for the determination of water needs.

The SAC Nalón River is located in the surface water body Río Nalón where this LCP discharges. This protected site has been included in the Register of Protected Areas within the Cantábrico Occidental River Basin, pursuant to the obligation provided under article 6 of the WFD.<sup>46</sup> This category of protected area under the WFD is regulated in article 4.7 of the Spanish Order ARM/2656/2008, of 10 September, approving the hydrological planning instruction.<sup>47</sup>

According to the information provided at the Register, the SAC Nalón River is not associated with the water body of Río Nalón III, despite the fact that the SAC is located in this section of the river where the coal plant discharges. IIDMA has informed the Cantábrico Hydrographic Confederation about this matter, and as confirmed by such authority, the SAC is a protected area associated to Río Nalón. The rectification of such error at the Register is, thus, pending. In addition, the Register for Protected Areas of the Cantábrico Occidental river district does not provide information concerning the conservation status of the SAC habitats and species.

Taking into account the conditions for water discharges in the IPPC permit, the discharge do represent a source of disruption to this Natura 2000 area's flora and fauna.

The IPPC permit of Soto de Ribera allows the discharge of 7.920 m<sup>3</sup> of refrigeration waters to Río Nalón at a temperature lower to 28°C. With regard to the permit conditions the water discharge may not entail an increase of the temperature of the river below the area beyond 21, 5°C nor exceed 1, 5°C in respect to the natural temperature of the water. However, there is evidence showing that these water reach a temperature higher than 21, 5 C° caused by Soto de Ribera LCP discharges which are significantly affecting the living conditions of endemic species such as the “Salmon Salar”.<sup>48</sup>

Such an impact is reflected in the Management Plan of SAC Nalón River<sup>49</sup>, which identifies the pollution caused by water discharges from industrial activities among the main pressures and threats to the fauna of this protected site.

The threat to the salmon population of the Nalón River has also been raised by regional groups such as the Royal River Fishing Association of Asturias (“Real Asociación de Pesca de Asturias”). According to this Association, the water temperature of the river in the surroundings of Soto de Ribera LCP may reach up to 33°C. This group has stated “at this point when the water is so hot, the fish cannot bear the temperature and moves to colder watercourses”.<sup>50</sup>

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<sup>46</sup> Cantábrico Occidental River Basin Management Plan Protected Areas (Annex IV) available at [http://www.chcantabrico.es/images/pdf/actuaciones/planificacion\\_hidrologica/plan\\_2015\\_2021/aprobado/occidental/anejos/14\\_ANEJO\\_IV.pdf](http://www.chcantabrico.es/images/pdf/actuaciones/planificacion_hidrologica/plan_2015_2021/aprobado/occidental/anejos/14_ANEJO_IV.pdf)

<sup>47</sup> BOE num. 229, of 22.09.2008.

<sup>48</sup> According to the Iberian Peninsula Salmon Rivers Atlas (“Atlas de los Ríos Salmoneros de la Península Ibérica”)-a publication which provides data on the status of the water temperature in 12 Spanish salmon rivers of significant relevance- “every year almost in all river basins the water exceeds 21,5 °C temperature during 20 or 30 days per year. In particular, the basins of Rivers Miño, **Nalón**, Pas and Oria have recorded the highest temperatures with an increase of 21,5°C up to 70 or 80 days per year. This publication is available online at [http://mediorural.xunta.gal/fileadmin/arquivos/publicacions/pesca/atlas\\_salmon/Castellano\\_baja\\_resolucion.pdf](http://mediorural.xunta.gal/fileadmin/arquivos/publicacions/pesca/atlas_salmon/Castellano_baja_resolucion.pdf)

<sup>49</sup> Decree 125/2014, of 17 December, declaring as SAC Nalón River, and approving its first management plan, see note 19.

<sup>50</sup> News published at the newspaper La Nueva España on 7.03.2016, entitled “Los Pescadores y el Principado ven viable que el salmón pase la térmica de Soto” available at

As a result, the discharge carried out by the LCP beyond the temperature limit of 21,5°C, being the maximum considered as appropriate for the salmon species, is causing significant effects on the SAC Nalón River. However, the granted IPPC permit did not envisage the existence of the SAC near the plant nor the fact that it was used as a point of water discharge. This involves the lack of adoption of appropriate measures to ensure the effective conservation of the SAC.

Such significant impact caused by this LCP on the SAC Nalón River strictly requires the adoption by the competent authorities of the C.A of Asturias of all appropriate measures to avoid the disturbance of the species “Salmon Salar” already effected, pursuant to the legal obligation established in Article 6 (2) of the Habitats Directive and Article 46 (2) of Spanish Law 42/2007.

In addition, Río Nalón III is an area designated for abstraction of water intended for human consumption. This category of protected area is provided by article 7 and Annex IV, paragraph 1, i) of the WFD. It is included in the inventory of protected areas of the Cantábrico Occidental Basin with EU code 1801100062,<sup>51</sup> and regulated in section 4.1 of Spanish Order ARM/2656/2008.

### 3.2. Litoral de Almería LCP

This LCP is located in the municipality of Carboneras (Almería) in the C.A of Andalucía. With a total net electric installed power of 1.119,6 MW (rated thermal capacity 2.490 MW), this combustion plant started its activity in 1985 (thermal group I) and in 1997 (thermal group II), operated by Endesa, Generación S.A.

#### 3.2.1. Identification of protected sites

The Litoral de Almería LCP is located at an average distance of around 2 kilometres of three remarkable protected sites part of the Natura 2000 Network. These sites are: Islote de San Andrés which is a SAC<sup>52</sup>, Cabo de Gata-Níjar which is a SAC<sup>53</sup> and SPA<sup>54</sup>, and the SAC Fondos Marinos del Levante Almeriense<sup>55</sup>. The main characteristics of these protected sites are the following:

- **Islote de San Andrés:** it is a SAC located at an average distance of 2.02 kilometers from the LCP Litoral de Almería. This site has a surface of 41,78 ha, and was declared as SAC by Decree 368/2015, of 4 August, declaring certain special conservation areas with marine habitats of the Andalusia coastline.<sup>56</sup>

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<http://www.lne.es/cuencas/2016/03/07/pescadores-principado-ven-viable-salmon/1893228.html>

<sup>51</sup> Cantábrico Occidental River Basin Management Plan, Protected Areas (Annex IV).

<sup>52</sup> Type B, ES6110020. Standard Data Form Natura 2000 Network available at

<http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES6110020>

<sup>53</sup> Type C, ES0000046. Standard Data Form Natura 2000 Network available at

<http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES0000046>

<sup>54</sup> Type C, ES0000046. It was declared as such by Decree 493/2012, of 25 September, declaring certain sites of community interest as special conservation areas of Natura 2000 in Andalucía (“Decreto 493/2012, de 25 de septiembre, por el que se declaran determinados lugares de importancia comunitaria como Zonas Especiales de Conservación de la Red Ecológica Europea Natura 2000 en la Comunidad Autónoma de Andalucía”) (BOJA num. 200, of 11.10.2012).

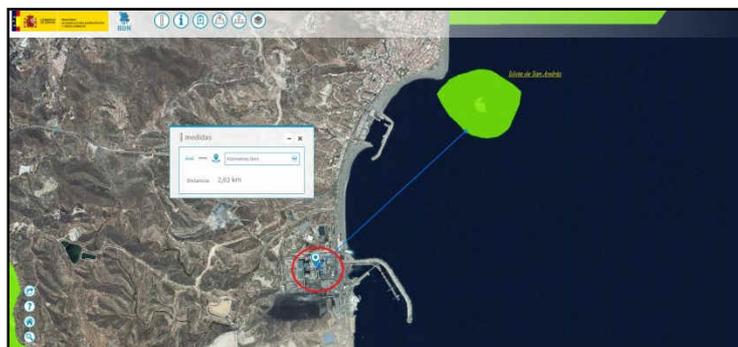
<sup>55</sup> Type E, ES6110010. Standard Data Form Natura 2000 Network available at

<http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES6110010>

<sup>56</sup> Decreto 368/2015, de 4 de agosto, por el que se declaran determinadas zonas especiales de conservación con hábitats marinos del litoral andaluz (BOJA num. 153, of 07.08.2015). This site was declared as SCI by Decision of the European Commission of 19 July 2006.

According to its standard data form, this is an important Natura 2000 site due to the presence of the Posidonia beds (1120) which is a priority habitat included in Annex I of the Habitats Directive, and reefs (1170).<sup>57</sup> Furthermore, Isla de San Andrés has been nationally declared as a Natural Monument<sup>58</sup> (Code ES611013) in 2003.<sup>59</sup> This SAC holds 3 protected habitats under the Habitats Directive.<sup>60</sup>

Figure 3. Location of LCP Litoral next to Islote de San Andrés SAC (Distance from the LCP: 2.02 kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

- **Fondos Marinos del Levante Almeriense.** It is a marine SAC located at a very short distance of 2,78 kilometers from the Litoral de Almería plant. With an overall surface of 10.692,22 ha, it was declared as such by Order AAA/1366/2016, of 4 August.<sup>61</sup> This site is of national importance due to the presence of Posidonia beds (1120) which are the most extensive and best preserved in the Spanish coast<sup>62</sup>. Furthermore, it was also declared as Special Area of Mediterranean Importance (SPAMI) in 2005 with a surface of 6.310,75 ha. It holds 2 protected habitats under the Habitats Directive.

<sup>57</sup> According to Article 1 (d) of the Habitats Directive, “priority natural habitat types means natural habitat types in danger of disappearance, which are present on the territory referred to in Article 2 and for the conservation of which the Community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2 (...)”.

<sup>58</sup> It is protection regime provided by art.34 paragraphs 1 and 2 of Law 42/2007. It is defined as “(...) areas or elements of the environment basically constituted by formations of notorious singularity, peculiarity or beauty, deserving special protection. 2. It shall be also considered natural monuments the singular and monumental trees, geological formations, paleontological and mineralogical deposits, “estratotipos” and other elements which have a key interest due to the singularity or relevance of its scientific, cultural or landscape values”.

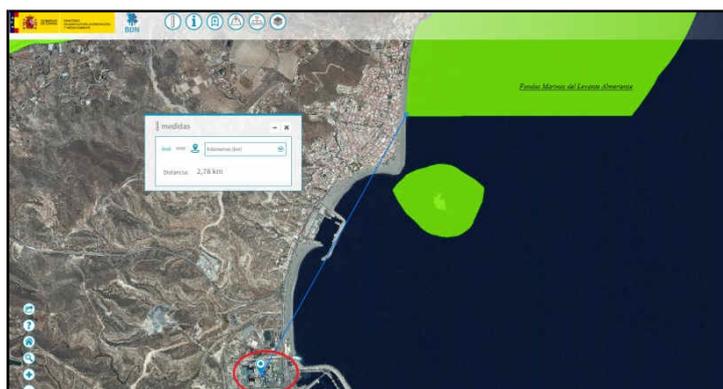
<sup>59</sup> Decree 250/2003, of 9 September, declaring certain Natural Monuments of Andalucía (“Decreto 250/2003, de 9 de septiembre por el que se declaran determinados Monumentos Naturales de Andalucía”) (BOJA num. 188, of 30.09.2003)

<sup>60</sup> Protected habitats at SAC Islote de San Andrés: Posidonia beds (Code 1120), Reefs (Code 1170) and Submerged or partially submerged sea caves (Code 8330). This site does not hold any protected species under the Birds and Habitats Directives.

<sup>61</sup> Order AAA/1366/2016, of 4 August declaring special areas of conservation of sites of community importance of the Marine Mediterranean Region part of Natura 2000 Network, approves its corresponding conservation measures and it is proposed the extension of geographical limits of two sites of community importance ((BOE num. 193, of 11.08.2016).

<sup>62</sup> Type E, ES6110010, Standard Data Form point 4.2.

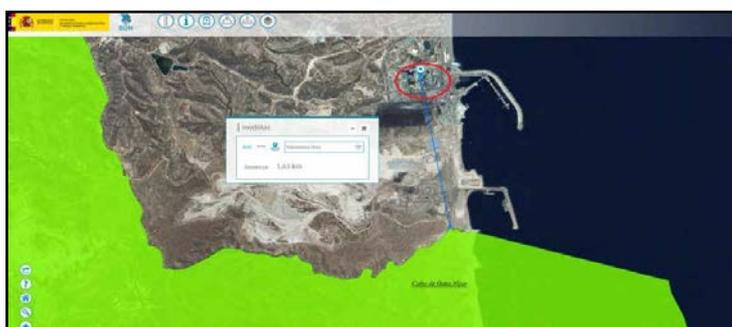
Figure 4.- Location of LCP Litoral next to Fondos Marinos del Levante Almeriense SAC (Distance from the LCP: 2, 78 kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

- Cabo de Gata-Níjar:** Designated as a SAC and SPA by Decree 493/2012, of 25 september<sup>63</sup>, this site is located at an average distance of 1,63 kilometers from the LCP Litoral de Almería. With overall surface of 49.512,19 ha, this area is a very characteristic Natura 2000 site, holding a large amount of interesting species of flora and fauna at European level. Its Natura 2000 standard data form specifies that a part of this area is also marine holding also rare species. The different habitats and sceneries are one of its main features. 17% of its surface is highly or very highly menaced. This site has been also designated under other categories of protected areas, such as Natural Park<sup>64</sup> (1988)<sup>65</sup>, Geopark (2001), SPAMI (2001), Biosphere Reserve (1997) and Ramsar wetland under the Ramsar Convention. In addition, this site holds 23 protected habitats and 136 protected species under the Birds and Habitats Directives.

Figure 5. - Location of LCP Litoral next to Cabo de Gata Níjar SAC and SPA (Distance from the LCP: 1, 63 kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.2.2. Analysis of recipient surface waters: its status and impacts on water dependent

<sup>63</sup> Decree 493/2012, of 25 september, declaring specific sites of community importance as Special Areas of Conservation of the European Natura 2000 Network in the Autonomous Community of Andalucía (BOJA num.200, of 11.10.2012).

<sup>64</sup> Parks are a protection figure provided by art.31.1 of Law 42/2007, and are defined as: “(...) natural areas which, due to the beauty of its landscapes, the representativeness of its ecosystems or the singularity of its flora, its fauna or its geological diversity, including geomorphologic formations, have ecological, esthetic, educative and scientific values whose conservation deserves special attention.”

<sup>65</sup> Decree 314/1987, of 23 December, declaring the Natural Park Cabo de Gata-Níjar (“Decreto 314/1987, de 23 de diciembre, de declaración del Parque Natural del Cabo de Gata-Níjar”) (BOJA num. 6, of 26.01.1988).

## ecosystems

The IPPC permit<sup>66</sup> granted to this LCP authorizes 5 different water discharge points all into coastal waters (Mediterranean Sea) at “**Puerto de Carboneras.**”<sup>67</sup> This is a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

Figure 6.-Location of the water body Puerto de Carboneras (code ES060MSPF610037)



Source: Andalusia Mediterranean River Basin Management Plan (2015-2021)

Based on the information provided at the Andalusia Mediterranean RBMP (2015- 2021)<sup>68</sup>, this water body is severely affected. It presents an **overall status worse than good, with a chemical status “failing to achieve good” and a “poor” ecological potential.** The non-achievement of a good chemical status on this water body is due to high concentrations of the substance “*Tributilestaño*” (tributyltin), known as a hazardous priority substance associated to the port industry and the use of antifouling agents in boats. The failure in the achievement of a good ecological potential is due to the presence of “*Fitoclorofila A*” (chlorophyll ficto).

Pursuant to the environmental objectives provided in article 4.1 of the WFD, the deadline for the achievement of a good status in the water body Puerto de Carboneras has been extended until 2021, for reasons of technical viability concerning the biological indicator

<sup>66</sup> Resolution issued on 1 June 2011, of the Provincial Delegate of the Department of Environment in Almería, amending and consolidating the text of 22nd April 2008 granting the environmental permit with N° AAI/AL/020/07, in favor of Endesa Generación, S.A. for carrying out the activity of the Thermal Power Plant Litoral de Almería, Carboneras (Almería), referenced with N° AAI/AL/020/08/MNS 1/11 (“Resolución de 1 de junio de 2011 de la Delegada Provincial de la Consejería de Medio Ambiente en Almería, por la que se modifica (MNS 1) y refunde el texto de la de 22 de abril de 2008, que otorgó autorización ambiental integrada con el N° AAI/AL/020/08, a la empresa Endesa Generación, S.A. para las instalaciones y el ejercicio de la actividad de la central térmica Litoral de Almería, en el término municipal de Carboneras (Almería), quedando referenciada con el N° AAI/AL/020/08/MNS 1/11”).

<sup>67</sup> Puerto de Carboneras water body code ES060MSPF610037.

<sup>68</sup> Andalusia Mediterranean River Basin Management Plan (2015-2021), Summary sheets of water bodies status (Annex 0), p. 101, available at

[http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/agua/planes\\_hidrologicos/plan\\_hidrologico2015\\_2021\\_cma/anejo\\_0\\_fichas\\_resumen\\_cma.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/agua/planes_hidrologicos/plan_hidrologico2015_2021_cma/anejo_0_fichas_resumen_cma.pdf)

“*Clorofila*” (chlorophyll) (case of exemption provided in article 4.4.a) i) of the WFD).<sup>69</sup> The plan foresees measures for the achievement of the WFD environmental objectives in Puerto de Carboneras: program for identifying and recovering pollution sources for heavy metals and other substances.

The overall status of Puerto de Carboneras is specially affected by the port industry and the pollution from this sector. Despite the fact that the LCP of Litoral is authorized to discharge a number of hazardous priority substances such as mercury or cadmium, among others<sup>70</sup> (these are the substances listed in table B Annex I<sup>71</sup> of Law 18/2003 of 29<sup>th</sup> December)<sup>72</sup>. However it does not discharge tributyltin which is the substance preventing the achievement of a good chemical status in Puerto de Carboneras.

The surface water body of Puerto de Carboneras is very close to the SAC Islote de San Andrés. The map below shows the short distance between the 5 water discharge points authorized to the plant and the Natura 2000 site.

Figure 7.- Location of water discharge points at LCP Litoral  
(Average distance to the SAC Islote de San Andrés: 1, 77 kilometers)



Source: Google Map Tools (Map Coordinate Converter)<sup>73</sup>

Pursuant to the obligation provided in article 6 of the WFD, the SAC Islote de San Andrés has been included in the Register for Protected Areas<sup>74</sup> of the Andalusia Mediterranean RBMP. This SAC is a protected site dependent on the water body Puerto de Carboneras and has three main habitats whose conservation depends on the good status of that water body: Reefs (1170), Submerged or partially submerged sea caves (8330) and Posidonia beds

<sup>69</sup> Andalusia Mediterranean River Basin Management Plan, Extensions (Appendix 8.1), available at: [http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/agua/planes\\_hidrologicos/plan\\_hidrologico2015\\_2021\\_cma/apendice\\_8\\_1\\_fichas\\_exenciones\\_spf\\_cma.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/agua/planes_hidrologicos/plan_hidrologico2015_2021_cma/apendice_8_1_fichas_exenciones_spf_cma.pdf)

<sup>70</sup> Among the different substances authorized for discharge, the following are priority substances: Cadmium, Mercury, Nickel, Plumb, Benzene, Dichloroethane, Chloroalkanes, Diclorometano (DCM), Dicloro Dyphenil Ttrychloroethane (DDT), Hexachlorobenzene (HCB), Hexachlorobutadiene (HCBd), Hexachlorocyclohexane (HCH), Pentaclorophenol and Tricloroetilerio (TRI).

<sup>71</sup> The IPPC permit authorizes: “Other parameters included in table B of Annex I of Law 18/2003, contained within the water discharge from number 7 (included) onwards, the monthly average may not exceed 5% of the reference value expressed in units at that table”.

<sup>72</sup> Law 18/2003, of 29th December, on the approval of Fiscal and Administrative Measures (“Ley 18/2002, de 29 de diciembre, por las que se aprueban medidas fiscales y administrativas”) (BOJA num. 251, of 31.12.2003), modified by Law 3/2004, of 28th December, on Tax, Administrative and Financial Measures (Ley 3/2004, de 28 de diciembre, de Medidas Tributarias, Administrativas y Financieras”) (BOJA num. 255, of 21.12.2004).

<sup>73</sup> Google Maps Tools (Map Coordinate Converter) available at: <http://tool-online.com/en/map-tools.php>

<sup>74</sup> Andalusia Mediterranean River Basin Management Plan, Protected Areas (Annex IV), available at: [http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/agua/planes\\_hidrologicos/plan\\_hidrologico2015\\_2021\\_cma/anejo\\_4\\_zonas\\_protegidas\\_cma.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/agua/planes_hidrologicos/plan_hidrologico2015_2021_cma/anejo_4_zonas_protegidas_cma.pdf)

(*Posidonium oceanicae*) which is a priority habitat under Annex I of the Habitats Directive (1120).

However, the Register for Protected Areas of the Andalusia Mediterranean River District does not provide information concerning the conservation status of the SAC habitats and species. SAC and SPA Cabo de Gata Níjar and Fondos Marinos del Levante Almeriense are also included in the Register. The latter, only as a SPAMI and not as a SAC given its recent designation as such in 2016. These protected areas are not associated to the water body of Puerto de Carboneras where this plant discharges.

The Management Plan<sup>75</sup> of the SAC Islote de San Andrés recognizes industrial discharges, and mostly those from Litoral de Almería LCP, as one of the main threats and pressures for the conservation of the SAC and its habitats. Among the types of threats affecting this SAC, the plan refers to marine pollution<sup>76</sup> which represents a high challenge for the conservation of the two main elements of priority conservation in the SAC; the preserved Posidonia beds and reefs. The map below shows the extension of the habitat Posidonia beds along the coastline of Carboneras (Almería) where the Litoral de Almería plant operates nearby the ZEC Islote San Andrés.

Figure 8.- Habitat Posidonia Oceanic along coastline of Carboneras



Source: Atlas of Spanish Marine Beds (2015)<sup>77</sup>

Although such marine pollution can result from different pollution sources (oil spills into the sea, introduction of liquids or gas), the plan also refers to the presence of toxic chemicals in the water. Despite the diversity of factors, as said, the LCP Litoral de Almería is

<sup>75</sup> Order issued on 10 August 2015, on the approval of the Management Plan of certain Special Areas of Conservation with marine habitats in the Andalusian coastline, Annex II Management Plan of the SAC Islote de San Andrés (ES6110020), p. 45 available at [http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/espacios\\_protegidos/planificacion/pg\\_aprobados/d\\_369\\_2015\\_zec\\_marinos/al\\_islote\\_san\\_andres/anexo\\_2\\_islote\\_s\\_andres.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/espacios_protegidos/planificacion/pg_aprobados/d_369_2015_zec_marinos/al_islote_san_andres/anexo_2_islote_s_andres.pdf)

<sup>76</sup> According to the SAC Management Plan, there is marine pollution (H30) graded A, meaning high level of importance. List of pressures and threats (Annex 3) of the Guidelines for monitoring and evaluation of the conservation status of endangered and special protection species (Committee on Flora and Wild Fauna on the State Commission for Natural Heritage and Biodiversity), available at [http://www.mapama.gob.es/es/biodiversidad/publicaciones/doc\\_directrices\\_vigilancia\\_evaluacion\\_v10\\_tc\\_m7-336433.pdf](http://www.mapama.gob.es/es/biodiversidad/publicaciones/doc_directrices_vigilancia_evaluacion_v10_tc_m7-336433.pdf), p.51.

<sup>77</sup> Ruiz, J.M., E. Guillén, A. Ramos Segura & M. Otero (2015) Atlas de las praderas marinas de España “Atlas of Spanish Marine Beds”, IEO/IEL/UICN, Murcia-Alicante-Málaga, available at <http://www.ieo.es/atlas-praderas-marinas>

authorized to discharge priority hazardous substances such as Cadmium and Mercury, which are toxic and persistent substances representing, *per se*, a significant risk to the aquatic environment and to the water-dependent habitats associated to the water body Puerto de Carboneras.<sup>78</sup>

Although the conservation status of the priority habitat Posidonia beds is nowadays favorable<sup>79</sup>, the industrial discharges from this LCP do however represent a pressure for the conservation of the SAC, being a risk to cause significant effects on the priority habitats for which this site was designated. Such a probability or risk to significantly impact the SAC Islote de San Andrés requires the adoption of all appropriate measures in the terms provided in Article 6 (2) of the Habitats Directive and Article 46 (2) of Spanish Law 42/2007.

The other Natura 2000 Sites located nearby the LCP (SAC Fondos Marinos del Levante Almeriense, and SAC/SPA Cabo de Gata Níjar) are also included in the Register for Protected Areas of the Andalusia Mediterranean RBMP as water-dependent protected areas. However, these sites are not associated to the water body of Puerto de Carboneras where the plant discharges.

### 3.3. Alcúdia LCP

The Alcúdia LCP, also known as “Es Murterar” is located in the municipality of Alcudia (Mallorca) in the C.A of Balearic Islands. With a total net electric installed power of 468,4 MW (rated thermal capacity 1.420 MW), this combustion plant started its activity in 1981 (group I), in 1984 (group II) and in 1997 (groups III and IV). It is operated by Endesa, S.A under the small isolated system (SIS) derogation provided in Article 34 of the IED.

#### 3.3.1. Identification of protected sites

This combustion plant is operating nearby three Natura 2000 Sites:

- **S´Albufera de Mallorca** is a SAC since 2015<sup>80</sup> and SPA since 2006<sup>81</sup> declared as such by Agreement of the Government Council of 27 March 2015.<sup>82</sup> It is located at a distance of 220 meters from the combustion plant with a surface of 2.135,12 ha (SAC) and 2.214,69 ha (SPA). It holds 128 protected species and 25 protected habitats under the Habitats and Birds Directives. According to its standard data form, this Natura 2000 site holds the largest and best preserved reeds of the Balearic Islands, characteristic of the coastal dune vegetation. Furthermore, it represents a site of special importance for migratory birds and wintering water birds. In addition, this site has been declared as Important Bird Area (IBA), Ramsar Wetland (1989)<sup>83</sup> and Natural Park (1988).

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<sup>78</sup> The Management Plan of Islote de San Andrés SAC sets conservation measures and objectives for the SAC priority habitats concerning uses and activities relating to tourism, fishing and shellfish.

<sup>79</sup> Information on the conservation status is provided in both the Management Plan and the site Standard Data Form.

<sup>80</sup> This Natura 2000 Site was proposed as SCI in 2007.

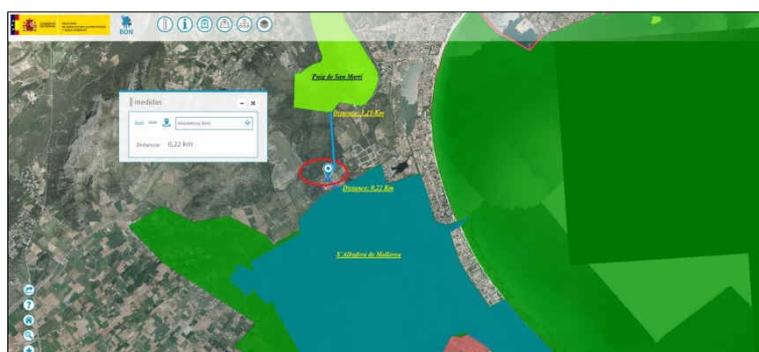
<sup>81</sup> Type B, ES5310125. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES5310125>

<sup>82</sup> Agreement of the Government Council of 27 March 2015, declaring special conservation areas (SAC) forty six sites of community importance (SCI) of the Balearic Islands (“Acuerdo del Consejo de Gobierno de 27 de marzo de 2015 por el que se declaran zonas especiales de conservación (ZEC) cuarenta y seis lugares de importancia comunitaria (LIC) de las Illes Balears”), (BOIB num.5564, of 28.03.2015)

<sup>83</sup> Convention on Wetlands of International Importance, especially as Waterfowl Habitat made in Ramsar on 2 February 1971. Designation of new wetlands by Spain (“Convenio relativo a humedales de importancia

- **Puig de Sant Martí** is an SCI<sup>84</sup> with an overall surface of 225.86 ha declared in 2006. The LCP operates at a distance of 1,19 kilometers from the site. This SCI was designated as a site of community importance for the Mediterranean biogeographical region.<sup>85</sup> According to its standard data form, the most valuable feature of this Natura 2000 site is the underground habitat represented by the cave “Cueva de San Martí” providing a sanctuary for bats species. It is also significant due to its function as natural corridor between two humid SPA areas (“S’ Albufera y l’ Albufereta) located in a very urbanized environment. In addition, this SCI was declared as a Protected Area of Special Nature Interest<sup>86</sup> by Decree 1/1991, of 30 January.<sup>87</sup> Finally, it holds 9 protected species and 4 habitats under the Habitats and Birds Directives.

Figure 9.- Location of LCP Alcudia next to S’ Albufera de Mallorca SPA, SAC, Natural Park and Ramsar Wetland, and Puig de San Martí SCI  
(Distance from the LCP: 0,22 Kilometers/1,19 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

- **Badies de Pollença i Alcúdia**, is an SCI<sup>88</sup> with a surface of 30.752,57 ha declared by Agreement of the Government Council of 3 March 2006.<sup>89</sup> The LCP operates at a distance of 2,18 kilometers from the site. This Natura 2000 site

internacional, especialmente como hábitat de aves acuáticas, hecho en Ramsar el 2 de febrero de 1971. Designación de nuevos humedales por parte de España”) (BOE, núm. 110, de 08.05.1990).

<sup>84</sup> Type B, ES5310015. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES5310015>

<sup>85</sup> Commission Decision of 19 July 2006 adopting, pursuant to Council Directive 92/43/EEC, the list of sites of Community importance for the Mediterranean biogeographical region (OJ L 259, of 21.09.2006).

<sup>86</sup> It is a protection figure provided by art. 2.2 of Law 1/1991, of 30 January, on natural areas and the planning regime on special protected areas of the Balearic Islands (C.A Islas Baleares), and defined as: “(...) those sites designated as such in this law given its singular natural values”.

<sup>87</sup> Law 1/1991, of 30 January, on natural areas and the planning regime on special protected areas of the Balearic Islands (“Ley 1/1991, de 30 de enero, de espacios naturales y de régimen urbanístico de las áreas de especial protección de las Islas Baleares”) (BOIB num. 31, of 09.03.1991).

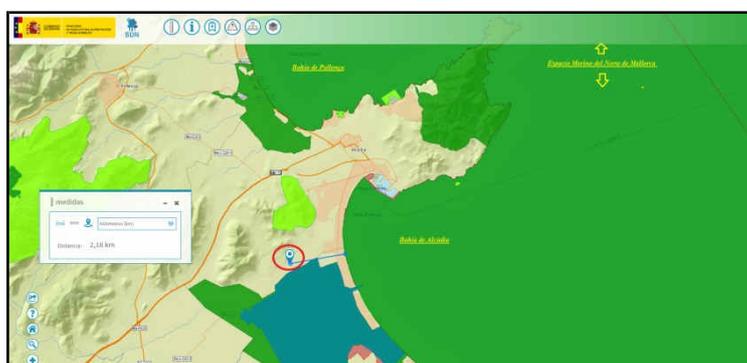
<sup>88</sup> Type B, ES5310005. Standard Data Form Natura 2000 Network, disponible en <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES5310005>

<sup>89</sup> Agreement of the Government Council of 3 March 2006, on the approval, after submission to hearing and public participation procedure, of the list of sites of Community Importance (SCI) approved by the Government Council of 28 July 2000 within the Balearic Islands (“Acuerdo del Consejo de Gobierno de 3 de marzo de 2006, por el que se aprueba definitivamente, una vez sometido al trámite de audiencia e información pública, la lista de lugares de importancia comunitaria (LIC) aprobada por el Consejo de Gobierno de 28 de Julio de 2000 en el ámbito de las Islas Baleares”), (BOIB num. 4138, DE 16.03.2006). See also Decree 31/2007, of 30 March, on the approval of the Management Plan of the Site of Community Importance (SCI) Badies de Pollença i Alcúdia (ES5310005) (“Decreto 31/2007, de 30 de marzo, por el cual se aprueba el Plan de Gestión del Lugar de Importancia Comunitaria (LIC) Badies de Pollença i Alcúdia (ES5310005)” (BOIB num. 6930, of 24.04.2007).

holds large beds of *Posidonia oceanica* (1120). Furthermore the water of both bays represents an important feeding area for priority species of sea birds such as the *Pardela Balear*, among others. This SCI holds 21 protected species and 18 habitats under the Habitats and Birds Directives.

- **Espacio Marino del Norte de Mallorca** is an SPA<sup>90</sup> declared by Order AAA/1260/2014, of 9 July<sup>91</sup> with an overall surface of 98.374,60 ha. This is a significant marine site due to the high presence of birds, and combines two important feeding areas for birds species such as Cory's Shearwater (A010) and Manx Shearwater (Balearic subspecies) (A384). Furthermore, it represents the most important population of Shag (Mediterranean subspecies) in Spain. Overall, this SPA holds 15 protected species under the Habitats and Birds Directive. This SPA covers all marine area highlighted in green, as shown in the map below.

Figure 10.- Location of LCP Alcúdia next to Badies de Pollença i Alcúdia (SCI) and Espacio Marino del Norte de Mallorca (SPA)  
(Distance from the LCP: 2,18 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.3.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The IPPC permit<sup>92</sup> of this LCP authorizes to discharge in “**Bahía de Alcúdia**”<sup>93</sup> (area “Port d’Alcúdia y la gola de s’Estany Gran”), which is a natural surface water body.

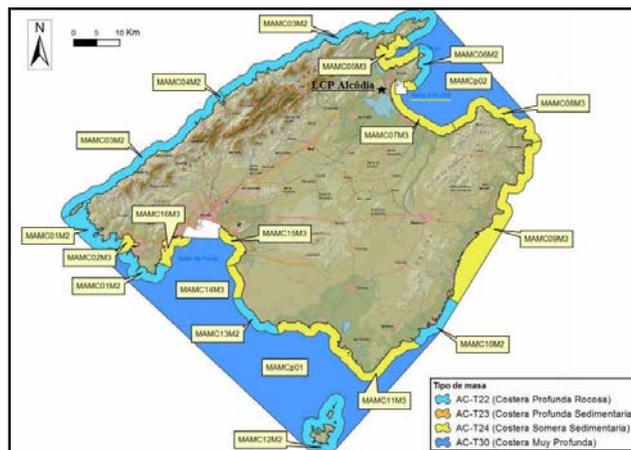
<sup>90</sup> Type A, ES0000520. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES0000520>

<sup>91</sup> Order AAA/1260/2014, of 9 July declaring Special Protected Areas in Spanish marine waters (“Orden AAA/1260/2014, de 9 de julio, por la que se declaran Zonas de Especial Protección para las Aves en aguas marinas españolas”), (BOE num. 173, of 17.07.2014).

<sup>92</sup> Agreement of the Balearic Islands Plenary of the Commission on the Environment regarding the adaptation of the environmental permit of the thermal plant Alcúdia to the Directive 2010/75/CE on industrial emissions (“Acuerdo del Pleno de la Comisión de Medio Ambiente de las Illes Balears de la Adaptación a la Directiva 2010/75/CE sobre emisiones industriales de la autorización ambiental integrada de la CT de Alcúdia”) (BOIB, num. 70, of 22.05.2014).

<sup>93</sup> Bahía de Alcúdia water body code MAMC07M3.

Figure 11.-Location of the water body Bahía de Alcúdia (code MAMC07M3)



Source: River Basin Management Plan of Islas Baleares (2009-2015)

According with information provided by the regional authority “Directorate General of Water Resources Management of the Government of Islas Baleares”, the RBMP of Islas Baleares<sup>94</sup> is currently under revision.<sup>95</sup> The information available online refers to the RBMP of the first planning cycle (2009-2015). Although this information does not represent the current situation, at that time the **ecological status** of the water body was “**moderate**”.<sup>96</sup> The Plan did not provide information concerning the chemical status of coastal water bodies in the Balearic Islands. Likewise, there is not available information regarding the compliance with the environmental objectives set in article 4.1 of the WFD and the adoption of exemptions or other measures.

The reviewed version of the RBMP of Islas Baleares (second planning cycle 2015- 2021) is expected to be approved and published in the middle of 2018. Until then, the lack of updated information makes unfeasible to analyze to which extent the plant discharges could be affecting the status of the surface water body “Bahía de Alcúdia”. Bahía de Alcúdia is a surface water body designated as a protected area under different WFD categories.

Firstly, this water body where the plant discharges hosts two Natura 2000 sites: the SCI Bahías de Pollença i Alcúdia and the SPA Espacio Marino del Norte de Mallorca. While the plant IPPC permit recognizes the existence of the SCI in the water discharge point, and sets specific discharge conditions,<sup>97</sup> it does not refer to the SPA Espacio Marino del Norte de Mallorca. While the last update of the IPPC permit of the LCP Alcúdia was granted in May 2014, the Espacio Marino del Norte de Mallorca was designated as SPA afterwards in July

<sup>94</sup> River Basin Management Plan of Islas Baleares (2009-2015), available at:

<http://www.caib.es/sacmicrofront/contenido.do?cont=79759&mkey=M080801112185729323&&lang=es>

<sup>95</sup> According to the information provided by the Directorate General of Water Resources Management of the Government of Islas Baleares, the European Commission opened an infringement procedure against the Kingdom of Spain (the C.A Islas Baleares) due to the failure to comply with the obligation to undertake the analysis and monitoring of surface water status at Islas Baleares. Accordingly, the regional authority is currently working on the update of the River Basin Management Plan (2015-2021).

<sup>96</sup> This data is not updated because it corresponds to samplings carried out at the water bodies in 2010.

<sup>97</sup> The IPPC permit sets specific conditions to be met by the LCP: i) The discharge may not exceed the limits on total nitrogen and total phosphorus provided at Decree 49/2003, which regulates in its Article 4 specific quality standards on discharges; ii) The overall annual discharge may not exceed 550 Hm<sup>3</sup>/year; and iii) The temperature in receiving waters may not exceed 3°C in a radius of influence of 100 meters around the discharge point. The difference in temperature from the effluent to the receiving medium may not be beyond 5°C; iv) the discharge is required to be subject to the quality objectives for receiving waters established at Royal Decree 1341/2007, of 11 October regarding the management of bathing waters, as well as in relation to those set in Annex I of the Final Fifth Provision of Law 42/2007, of 13 December on Natural Heritage and Biodiversity.

2014.

Pursuant to the obligation contained in article 6 of the WFD, the SCI Bahías de Pollença i Alcúdia, and Puig de San Martí (SPA and wetland) were included in the Register for Protected Areas of the previous RBMP (2009-2015).<sup>98</sup> However, the SCI Bahías de Pollença i Alcúdia does not appear associated to the water body Bahía de Alcúdia, but to Bahía de Pollença located (adjacent bay).

At the moment it is only available a draft of the Management Plan SAC Áreas Marinas de Mallorca which includes information of the SCI Bahías de Pollença i Alcúdia<sup>99</sup> According to this draft, the SCI presents an “acceptable” status of conservation. However, it recognizes the pollution derived from the LCP of Alcúdia as a factor affecting the conservation of the site.<sup>100</sup> In particular, the priority habitat *Posidonia Oceanic* which extends all over the coastline, presents a regular conservation status in Bahía de Alcúdia i Pollença (the map below shows the extension of the habitat *Posidonia Oceanica* along the coastline of Bahía de Alcúdia where the LCP discharges).<sup>101</sup>

Figure 12.- Habitat *Posidonia Oceanic* along the coastline of Bahía de Alcúdia i Pollença



Source: Atlas of Spanish Marine Beds (2015)

While water pollution is identified as one of the pressures affecting this habitat,<sup>102</sup> the SCI Management Plan does not provide concise data regarding the impacts caused by the LCP on the site nor the adoption of objectives and conservation measures concerning water

<sup>98</sup>Basin District Management Plan of Islas Baleares, Protected Areas (Annex 8), available at:

<http://www.caib.es/sacmicrofront/archivopub.do?ctrl=MCRST259ZI190905&id=190905>

<sup>99</sup> Information available at:

[http://xarxanatura.es/wp-content/uploads/2014/07/Borrador\\_PG\\_Areas\\_Marinas\\_de\\_Mallorca\\_26.11.14.pdf](http://xarxanatura.es/wp-content/uploads/2014/07/Borrador_PG_Areas_Marinas_de_Mallorca_26.11.14.pdf)

<sup>100</sup> The SCI Management plan literally states that: “**This site is in an acceptable status of conservation, although it is been affected by different factors such as the fishing activity, maritime traffic (commercial, touristic and sportive) and pollution (ex. Thermal power plant Es Murterar)**” (“*Este lugar se encuentra en un estado de conservación aceptable, si bien se ve afectado por varios factores como la actividad pesquera, tráfico marítimo (comercial, turístico y deportivo) y contaminación (ej. central térmica de Es Muterar)*”).

<sup>101</sup> The SCI Management Plan literally states: “According to the assessment of the Standard Data Form, the conservation status of the *Posidonia* bed is “Excellent” in almost all the area of the Management Plan (...). The conservation status of the *Posidonia* beds in the bays of Alcúdia and Pollença is highly variable due to the immense length of the beds and the different impacts suffered. In general, the conservation status in this bays is considered as “Regular (...)”. Original text: “*Según la valoración de los FDN, el estado de conservación de las praderas de P. oceanica es "Excelente" en casi todo el ámbito del PG (...)"El estado de conservación general de las praderas de Posidonia oceanica en la bahía de Alcudia y Pollença es muy variable a causa de la enorme extensión de las praderas y los diversos impactos que sufren. En general, se considera que el estado de conservación en estas bahías es "Regular" (...)*”, p. 32

<sup>102</sup> The main pressures recognized in the Plan are: overfishing, anchor recreational boats, the existence of invasive seaweeds and water pollution.

pollution.<sup>103</sup> In addition, the Management Plan of the SPA Espacio Marino del Norte de Mallorca also recognizes discharges from the LCP of Alcúdia as a source of pollution directly impacting the marine area of Bahía of Alcúdia, but does not provide further information of such an impact either.<sup>104</sup>

Despite of this, this plant is authorized to discharge directly into two Natura 2000 sites. Thus, the obligation contained in Article 6 (2) of the Habitats Directive and Article 46 (2) of Law 42/2007 shall apply to ensure the conservation of both the SCI and the SPA.

Although the Alcúdia plant does not discharge into SAC and SPA S'Albufera de Mallorca, the refrigeration water conveyance system drives the water from the plant to Bahía de Alcúdia through an emissary crossing the Natural Park S'Albufera. According to the environmental group GOB (Group Balear d'Ornitología i Defensa de la Naturalesa), this is affecting the conservation of the site, and have required the operator Endesa, S.A to improve the refrigeration water conveyance system in order to avoid further impacts on the SAC and SPA.<sup>105</sup>

Secondly, Bahía de Alcúdia is also designated as a sensitive area under Directive 91/271/EEC<sup>106</sup> (category of protected area listed in annex IV of the WFD, and regulated in article 4.6 of Spanish Order ARM/2656/2008). It is included in the Register for Protected Areas of the previous RBMP, with code ES110ZPROTESCA711, as a sensitive area subject to eutrophication by means of Decree 49/2003, of 9 May, declaring sensitive areas of the Balearic Islands.<sup>107</sup> Furthermore, this category of protected area is subject to additional monitoring measures in order to assess the magnitude and impact of all relevant significant pressures. In particular, pursuant to Decree 49/2003, Bahía de Alcúdia is subject to secondary additional treatments for the removal of nutrients, in order to achieve the required quality standards. Furthermore, discharges into sensitive waters must comply with certain criteria for quality discharges provided in Article 4, part 1 Type A and C of Decree 49/2003.<sup>108</sup>

<sup>103</sup> See Management Plan SAC Áreas Marinas de Mallorca, p. 33.

<sup>104</sup> Management and Monitoring Guidelines, Management Plan of SPA Espacio Marino del Norte de Mallorca, available online at:

[http://www.indemares.es/sites/default/files/0613apendice\\_mediterraneo\\_es0000520\\_norte\\_mallorca.pdf](http://www.indemares.es/sites/default/files/0613apendice_mediterraneo_es0000520_norte_mallorca.pdf).

The Plan literally states that “*The existence of the termal power plant Es Murterar in Bahía de Alcúdia is causing pollution in the marine area. (...) there exists a termal power plant in Bahía de Alcúdia whose discharges have a direct impact on the coastal area and its marine environment (...).*” Pags. 4 and 10.

<sup>105</sup> News published at the newspaper El Mundo on 15.10.2016, entitled “El GOB alerta del desplome en la presencia de aves acuáticas en S'Albufera”, available online at:

<http://www.elmundo.es/baleares/2016/10/15/580269a0ca4741ff298b458c.html>

<sup>106</sup> OJ L, 30.5.91. Council Directive 91/271/EEC, of 21 May 1991, concerning urban waste water treatment. Partially amended by Commission Directive 98/15/EC of 27 February 1998 amending Council Directive 91/271/EEC with respect to certain requirements established in Annex I thereof (OJ L 67, of 07.03.1998).

<sup>107</sup> (“Decreto 49/2003, de 9 de mayo, por el cual se declaran las zonas sensibles de las Illes Balears”) (BOIB num. 76, of 29.05.2003). According to Article 2 (1) of Decree 49/2003, eutrophication means “the enrichment of water by nutrients especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned”.

<sup>108</sup> The IPPC permit granted to the LCP Alcúdia does not specify the substances authorized for discharge by the plant. However, having regard to the conditions for discharge in sensitive areas set in Decree 49/2003, the following substances are envisaged: suspended solids, Phosphorus, Nitrogen, Nitrates, Phosphates, cyanides, heavy metals (arsenic, cadmium, chromium IV, plumb and mercury), ammonia and pesticides. [The request of environmental information regarding the monitoring of water discharges from 2013 to 2015 on this LCP is still pending to be answered. Once we receive such information, an analysis of the parameters and ELVs discharged must be provided in order to ensure that the LCP is not discharging beyond the limits legally required.]

### 3.4. Los Barrios LCP

The LCP of Los Barrios is located in the municipality of Los Barrios (Cádiz) in the C.A of Andalucía. In operation since 1985 (one thermal group), this LCP has 570,1 MW of total net electric installed power (rated thermal capacity 1.420 MW) and is operated by Viesgo, S.A.

#### 3.4.1. Identification of protected sites

This LCP operates at an average distance of 1, 46 kilometers from two protected sites part of the Natura 2000 Network:

- i) **SAC and SPA Marismas del Río Palmones:** It was declared as SAC and SPA<sup>109</sup> by Decree 221/2013, of 5 November<sup>110</sup>, and has a surface of 113.12 ha. According to its standard data form, this is a significant Natura 2000 site due to the existence of taxa flora and its function as an area frequented by migratory birds. It has also been declared as a Natural Landscape<sup>111</sup> (1989) and a wetland.<sup>112</sup> This site holds 5 protected habitats and 41 protected species under the Birds and Habitats Directives.
- ii) **SAC Fondos Marinos Marismas del Río Palmones:** With a surface of 87,17 ha of marine area, it was declared as SAC<sup>113</sup> by Decree 639/2015, of 4 August<sup>114</sup>. It represents another significant Nature 2000 Site for the conservation and recovery of the Posidonia beds (1120) in the Andalusian Mediterranean coastline, as well as for the conservation of the flat sandy soils habitats. This SAC is also relevant for the conservation of different species of ichthyofauna, which are reproduced in the sea using the marshland zones for rearing young fish<sup>115</sup>. It holds 3 protected habitats under the Habitats Directives.

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<sup>109</sup> Type C, ES6120006. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES6120006>

<sup>110</sup> Decree 221/2013, of 5 November, on the declaration of the special areas of conservation Marismas del río Palmones (ES6120006) and Estuario del río Guadiaro (ES6120003), broadens the territorial scope of the natural landscapes of Marismas del Río Palmones and Estuario del río Guadiaro and approves the Natural Resources Ordinance Plan of those natural areas (BOJA num. 7, of 13.01.2014).

<sup>111</sup> It is a protection figure provided by article 2 paragraph a) of Law 2/1989, of 18 June, on the approval of the Inventory of Andalusian Natural Protected Areas and on the establishment of additional protection measures (C.A Andalucía), defined as: “ (...) those areas declared as such by an Andalusian Parliament Law, in attention to the exceptional requirements qualifying its singular values, and in order to attend to the conservation of its flora and fauna, geomorphologic constitution, special beauty or other components of very high natural range”.

<sup>112</sup> Law 2/1989, of 18 June, on the approval of the Inventory of Andalusian Natural Protected Areas and on the establishment of additional protection measures (“Ley 2/1989, de 18 de julio, por la que se aprueba el Inventario de Espacios Naturales Protegidos de Andalucía y se establecen medidas adicionales para su protección”) (BOE num. 201, of 23.08.1989).

<sup>113</sup> Type B, ES6120033. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES6120033>

<sup>114</sup> Decree 639/2015, of 4 August, declaring certain special conservation areas with marine habitats on the Andalusian coastline (“Decreto 639/2015, de 4 agosto, por el que se declaran determinadas zonas especiales de conservación con habitats marinos del litoral andaluz”) (BOJA num.153, of 07.08.2015).

<sup>115</sup> Type B, ES6120033, Point 4.2.

Figure 13.-Location of LCP Los Barrios next to Marismas del Río Palmones SAC and SPA and Fondos Marinos Marismas del Río Palmones SAC (Distance from the LCP: 1, 46 kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.4.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The plant’s IPPC permit<sup>116</sup> authorizes discharges in four discharge points: two of them in the coastal water body of “**Puerto de Algeciras**”<sup>117</sup> (1) used for refrigeration purposes<sup>118</sup> and (2) water processes, a third one in “**Desembocadura del Río Guadarranque**”<sup>119</sup> (3) used for clean rain waters, and a fourth discharge point in “**Cachón del Río Guadarranque**” (4) for potentially polluting rainwaters derived from the coal park.<sup>120</sup> The latter has the same water body code of Desembocadura del Río Guadarranque.

Both Puerto de Algeciras and Desembocadura del Río Guadarranque are classified as heavily modified water bodies, substantially changed in character as a result of physical alterations by human activity.

<sup>116</sup> Resolution of 30 October 2007 of the Territorial Delegation of the Department for Environment in Cádiz granting IPPC permit to Endesa Generación, S.A. for the T.P.U. Los Barrios, located in Los Barrios (Cádiz) File N°: AAI/CA/020 (“Resolución de 30 de octubre de 2007 de la Delegación Provincial de la Consejería de Medio Ambiente de Cádiz por la que se otorga autorización ambiental integrada a Endesa Generación, S.A. para la U.P.T. Los Barrios, sita en Los Barrios (Cádiz)”. Expediente N°: AAI/CA/020”) (BOJA num. 68, of 07.04.2008).

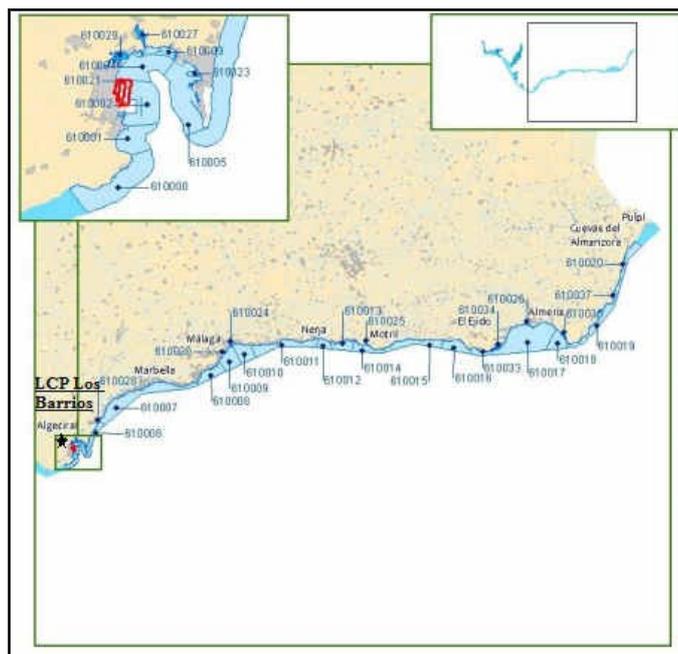
<sup>117</sup> Puerto de Algeciras coastal surface water body code 610021.

<sup>118</sup> According to the IPPC permit, the refrigeration water point at Puerto de Algeciras is subject to the following condition: “**temporarily, the increase of temperature allowed will not exceed 3° C at a distance of 350 meters from the coast and 1 meter depth**”.

<sup>119</sup> Desembocadura del Río Guadarranque, surface water body code 610003.

<sup>120</sup> Resolution of 7 July 2013, of the Territorial Delegation of the Department for Agriculture, Fishing and Environment confirming the non substantial modification in relation to the request of a new water discharge point by EON Generación, S.L., for its installations at the power plant Los Barrios (“Resolución del Delegado Territorial en Cádiz de la Consejería de Agricultura, Pesca y Medio Ambiente por la que se acuerda la consideración de “modificación no sustancial” para la solicitud de “Nuevo punto de vertido” de EON Generación, S.L., para sus instalaciones de central térmica de Los Barrios”).

Figure 14.-Location of the water body Puerto de Algeciras (code 610021)



Source: Andalusia Mediterranean River Basin Management Plan (2015-2021)

Likewise in the case of the LCP Litoral de Almería, this combustion plant is authorized to discharge in water discharge points 2 and 4 a number of polluting substances, including the hazardous priority substances mercury, cadmium and Total Phosphorus.<sup>121</sup>

According to the Andalusia Mediterranean RBMP (2015-2021)<sup>122</sup> the overall status of Puerto de Algeciras water body of is classified as “worse than good”. **While it has a “moderate” ecological potential, the chemical status of this water body is severely affected classified as “failing to achieve good”.** The main pressures affecting this water body are pollution derived from urban wastewaters, chemical pollution and pollution by nutrients linked to agriculture.

Pursuant to the environmental objectives provided in article 4.1 of the WFD, the deadline for the achievement of a good overall status in the water body Puerto de Algeciras has been extended until 2021, due to technical viability regarding the priority substance tributyltin (extension provided in article 4.4.a) i) of the WFD). However, this coal plant does not discharge that priority substance.

With regard to the water body “Desembocadura del Río Guadarranque”, the discharges from the LCP (discharge point 4) could be one of the non-achievement causes of a good ecological potential. According to the Andalusia Mediterranean RBMP, Desembocadura del Río Guadarranque presents a “good” chemical status, but a “moderate” ecological potential due to concentrations of Total Phosphorus.<sup>123</sup> As pointed out, this plant is authorized to discharge

<sup>121</sup> The substances authorized for discharge are those listed in table B Annex I of Law 18/2003, contained within the water discharge from number 7 (included) onwards, which are: Dichloroethane, Dichloromethane, Aldrin and derivatives, Aluminum, AOX, Arsenic, Cyanides, Chloroform, Copper, Chrome, **Total Phosphorus**, Total Nitrogen, Selenium, Aromatic Hydrocarbons, Phenols, Cadmium, Mercury, Nickel, Plumb, Benzene, Dichloroethane, Chloroalkanes, Diclorometano (DCM), Dichloro Dyphenil Ttrychloroethane (DDT), Hexachlorobenzene (HCB), Hexachlorobutadiene (HCBd), Hexachlorocyclohexane (HCH), Pentaclorophenol and Tricloroetilerio (TRI).

<sup>122</sup> See note 68.

<sup>123</sup> The increase of this substance in surface waters entails the growth of organisms dependent on phosphorus, such as seaweeds, which consume a great deal of oxygen leading to a deficit of it in rivers. Source: PRTR

in Cachón del Río Guadarranque potentially polluting rainwaters derived from the coal park, which may include all those substances listed in Table B Annex I of Law 18/2003, which includes *Total Phosphorus*.

Under article 4.4 of the WFD, an extension for the achievement of a good status in the water body Desembocadura del Río Guadarranque until 2021 has been provided for reasons of technical viability. This extension is motivated on the need for an additional period to set up the necessary measures for achieving the WFD environmental objectives.<sup>124</sup>

Figure 15.-Location of the water body Desembocadura del Río Guadarranque (code 610003)



Source: Andalusia Mediterranean River Basin Management Plan (2015-2021)

Although urban wastewaters are identified as the main significant pressure affecting this water body, the Andalusia Mediterranean RBMP also refers to industrial discharges from IPPC facilities and included in the Spain-PRTR (which is the case of the LCP Los Barrios). Even though that plan does not provide concise information, the discharge of Total Phosphorus by the coal plant could be one of the activities contributing to the failure to achieve a good ecological potential at Desembocadura del Río Guadarranque.

The municipality of Los Barrios concentrates a high industrial activity likely to affect the conservation of two Natura 2000 sites located nearby described above. This makes somehow difficult to assess whether the existing environmental impacts on the area are or not directly attributable to Los Barrios plant.

The water body Puerto de Algeciras is very close to the SAC Fondos Marinos Marismas del Río Palmones which is a marine area located at just 1,46 kilometers. However, this site is mainly affected by the intensive industrial activity of the area of Algeciras.

This SAC is included in the Register for Protected Areas of the Andalusia Mediterranean RBMP,<sup>125</sup> as a protected site with two main habitats whose conservation depend on the status of surface waters: Posidonia Beds (1120-priority habitat) and submerged or partially submerged sea caves (8330). This SAC is however not associated to the water body Puerto

Spain, available at <http://www.prtr-es.es/Fosforo-total.15600.11.2007.html>

<sup>124</sup> Andalusia Mediterranean River Basin Management Plan, Extensions (Appendix 8.1), available online at: [http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/agua/planes\\_hidrologicos/plan\\_hidrologico2015\\_2021\\_cma/apendice\\_8\\_1\\_fichas\\_exenciones\\_spf\\_cma.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/agua/planes_hidrologicos/plan_hidrologico2015_2021_cma/apendice_8_1_fichas_exenciones_spf_cma.pdf)

<sup>125</sup> Ibid, Protected Areas (Annex IV).

de Algeciras where the plant discharges. The Register for Protected Areas of the Andalusia Mediterranean River District does not provide information concerning the conservation status of the SAC habitats and species.

The SAC Management Plan<sup>126</sup> names the plant Los Barrios among the different industries nearby the protected site. However, it refers to intense maritime traffic, port industry, sport fishing or oil spills into the sea as the main pressures affecting the SAC. There is, thus, no evidence pointing out the existence of impacts from the LCP on the conservation of the protected site.

Lastly, the SAC and SPA Marismas del Río Palmones is included in the Register, but not associated to the water body of Puerto de Algeciras either.

### 3.5. Anllares LCP

This LCP is located in the municipality of Páramo del Sil (León) in the C.A of Castilla y León. With a total net electric installed power of 346, 8 MW (rated thermal capacity 1.002 MW), this combustion plant initiated its activity in 1982 (one thermal group), and is jointly operated by Gas Natural Fenosa, S.A (66, 66%) and Endesa, S.A.(33,33%). This plant is the only one in Spain that opted for the Limited Life time Derogation (LLD) of article 33 of the IED.

#### 3.5.1. Identification of protected sites

This LCP operates inside the Natura 2000 site “**Sierra de los Ancares**” which is a SAC and SPA<sup>127</sup> declared as such by Decree 57/2015, of 10 September.<sup>128</sup> This Natura 2000 Site is characteristic for the presence of scrubland formations, with significant presence of habitats such as the European dry heaths (4030) and the Alpine and Boreal heaths (4060). According to its standard data form, this site is home to many endangered endemic species of flora of high interest. Apart from the species of flora listed in Annex II of the Habitats Directive, it includes those provided in its Annexes IV (needed of a strict protection) and V (subject to management measures). Furthermore, it holds species of flora listed in the national Red List of Threatened Species.<sup>129</sup> This site is also included within the scope of the Recovery plan for

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<sup>126</sup> Order issued on 10 August 2015, on the approval of the Management Plans of certain Special Conservation Areas with marine habitats of the Andalusian coastline (“Orden de 10 de agosto de 2015, por la que se aprueban los Planes de Gestión de determinadas Zonas Especiales de Conservación con hábitats marinos del litoral andaluz) (BOJA num 193, of 02.10.2015) Annex IV-Management Plan of SAC Fondos Marinos Marismas del Río Palmones (ES6120033), available at

[http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/espacios\\_protegidos/planificacion/pg\\_aprobados/d\\_369\\_2015\\_zec\\_marinos/ca\\_fm\\_marismas\\_palmones/anexo\\_4\\_fm\\_marismas\\_rio\\_palmones.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/espacios_protegidos/planificacion/pg_aprobados/d_369_2015_zec_marinos/ca_fm_marismas_palmones/anexo_4_fm_marismas_rio_palmones.pdf)

<sup>127</sup> Type C, ES4130010. Standard Data Form Natura 2000 Network, available at

<http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES4130010>

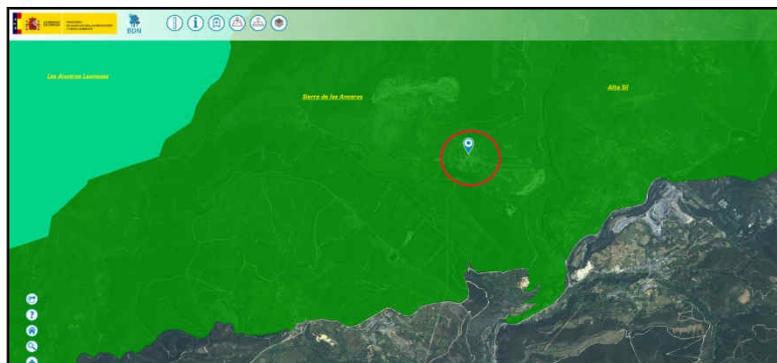
<sup>128</sup> Decree 57/2015, of 10 September on the declaration of special areas of conservation and special protected areas, and regulating the basic planning for the management and conservation of the Natura 2000 Network in the Autonomous Community of Castilla y León (“Decreto 57/2015, de 10 de septiembre por el que se declaran las zonas especiales de conservación y las zonas de especial protección para las aves, y se regula la planificación básica de gestión y conservación de la Red Natura 2000 en la Comunidad de Castilla y León (BOCyL num. 178, of 14.09.2015).

<sup>129</sup> This list is elaborated in accordance with the IUCN Red List of Threatened Species. Information on endangered species of flora in Spain is available at

[http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/ieet\\_flora\\_vascular.aspx](http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies-terrestres/ieet_flora_vascular.aspx)

the brown bear.<sup>130</sup> In addition, it was declared a Biosphere Reserve “Los Ancares Leoneses” in 2006.<sup>131</sup> The SAC and SPA holds 22 protected habitats and 48 protected species under the Habitats and Birds Directive.<sup>132</sup>

Figure 16.- Location of LCP Anllares inside SAC and SPA Sierra de los Ancares (Distance from the LCP: inside the protected site)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

According to the Management Plan of Sierra de los Ancares<sup>133</sup>, this site is mainly affected by forest fires, intensive livestock industry or the construction of large hydro- electric projects. Nonetheless, among the list of pressures and threats affecting the site the Plan also stresses “atmospheric pollution” from the LCP of Anllares. Although this pressure is classified as “less relevant”, it already has a negative impact on the site’s conservation.<sup>134</sup> This would require undertaking all appropriate measures to avoid further deterioration or disturbance of the site’s habitats and species, pursuant to Article 6 (2) of the Habitats Directive and Article 46 (2) of Law 42/2007.

### 3.5.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

According to its IPPC permit<sup>135</sup>, the LCP of Anllares is authorized to discharge in “**Río**

<sup>130</sup> Decree 108/1190, of 21 June, on the establishment of a status of protection of the brown bear in the Castilla y León Community and approval of the Recovery Plan of the brown bear “Decreto 108/1990, de 21 de junio, por el que se establece un estatuto de protección del oso pardo en la Comunidad de Castilla y León y se aprueba el Plan de Recuperación del oso pardo” (BOCyL num. 65, of 26.06.90).

<sup>131</sup> Biosphere Reserve Spanish Network, available at <http://rerb.oapn.es/index.php/red-espanola-de-reservas-de-la-biosfera/las-reservas-de-la-biosfera-espanolas/1-2-1-mapa/ancares-leoneses/ficha>

<sup>132</sup> According to the site form, the status of conservation of the habitats is in general qualified as excellent or good, except the habitat **Mediterranean Temporary Ponds (code 3170) which presents an average of reduced conservation status.**

<sup>133</sup> Management Plan of the SAC and SPA Sierra de los Ancares, available at

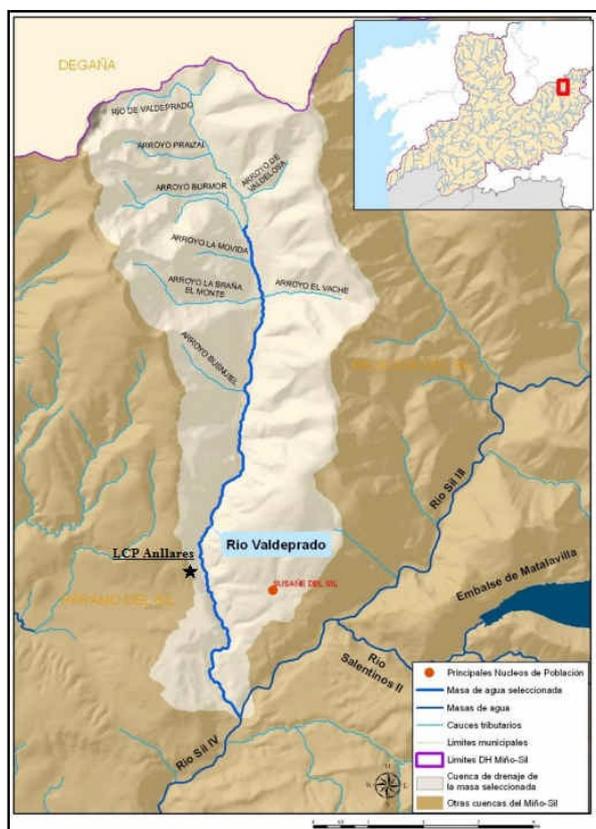
<http://www.medioambiente.jcyl.es/web/jcyl/MedioAmbiente/es/Plantilla100/1284375759659/ / />

<sup>134</sup> The SAC and SPA Management Plan does not provide the adoption of any objective or conservation measures in relation to the atmospheric pollution affecting the site.

<sup>135</sup> Resolution of 27 November 2008 of the Directorate General of Environmental Prevention and Land Planning, publishing the IPPC permit of Anllares, A.I.E for the coal power plant and the waste management facilities for non-hazardous through its deposit in the landfill, at the municipality of Páramo del Sil (León), (“Resolución de 27 de noviembre de 2008, de la Dirección General de Prevención Ambiental y Ordenación del Territorio, por la que se hace pública la Autorización Ambiental a Central Térmica de Anllares, A.I.E., para la central térmica y las instalaciones de gestión de residuos no peligrosos mediante su depósito en vertedero, en el término municipal de Páramo del Sil (León)”) (BOCyL num. 239, of 11.12.2008).

**Valdeprado**”, which is a natural surface water body.<sup>136</sup>

Figure 17.-Location of water body Río Valdeprado (code ES414MAR000570)



Source: Miño-Sil River Basin Management Plan

Included in the Miño-Sil RBMP (2016-2021),<sup>137</sup> the water body presents a “**good**” overall status, with a chemical status classified as “**good**” and “**high**” ecological status. Pursuant to the environmental objectives provided in article 4.1 of the WFD, this water body has thus achieved a good status, and is subject to maintain this status over time. There is no evidence of impacts from the coal plant due to water pollution.

This river flows inside the SAC Sierra de los Ancares borderline with the SCI Alto Sil.<sup>138</sup> Pursuant to article 6 of the WFD, both Natura 2000 Sites are included in the Register for Protected Areas of the Miño Sil River Basin District<sup>139</sup>; as protected areas partly coincidental with Río Valdeprado water body, among others. However, there is no evidence of impacts on the conservation of these sites due to the discharges from the coal plant.

<sup>136</sup> Río Valdeprado surface water body code ES414MAR000570.

<sup>137</sup> Miño-Sil River Basin Management Plan (2016-2021) available online at: <http://www.chminosil.es/es/chms/planificacionhidrologica/plan-hidrologico-2015-2021-vigente-rd-1-2016/80-chms/1359-plan-hidrologico-2015-2021-rd-1-2016> Also see sheets of surface waters status, available at: [http://www.chms.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/02\\_04\\_CAP%C3%8DTULO\\_II\\_ANEXO\\_III.pdf](http://www.chms.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/02_04_CAP%C3%8DTULO_II_ANEXO_III.pdf)

<sup>138</sup> Type C, ES0000210. Standard Data Form Natura 2000 Network, available at [http://www.mapama.gob.es/es/biodiversidad/temas/espacios-prottegidos/ES0000210\\_tcm7-154995.pdf](http://www.mapama.gob.es/es/biodiversidad/temas/espacios-prottegidos/ES0000210_tcm7-154995.pdf)

<sup>139</sup> Miño-Sil River Basin Management Plan, Identification and maps of Protected Areas (Chapter 5) p. 99, Available online at: [http://www.chms.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/05\\_CAP%C3%8DTULO\\_V.pdf](http://www.chms.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/05_CAP%C3%8DTULO_V.pdf)

### 3.6. La Robla LCP

The LCP of La Robla is located in the municipality of La Robla (León) in the C.A of Castilla y León. With a total net electric installed power of 619,1 MW (rated thermal capacity 1.642 MW), this combustion plant initiated its activity in 1971 (thermal group I) and in 1984 (thermal group II). It is operated by Gas Natural Fenosa, S.A.

#### 3.6.1. Identification of protected sites

This LCP is located at an average distance of 640 meters from the protected site “Riberas del Río Esla y afluentes”<sup>140</sup> designated SAC by Decree 57/2015, of 10<sup>th</sup> September.<sup>141</sup> This Natura 2000 site has a surface of around 1.947 ha, covering four discontinuous sections (two corresponding to the Esla River- “Río Esla”) and the other two to the Bernesga River (“Río Bernesga”). According to its standard data form, this SAC is a characteristic site due to the presence of poplars and white willows, as well as to the presence of protected species like otters (code 1355) and pond terrapins (1221). The SAC holds 9 protected species and 7 habitats under the Birds and Habitats Directives.<sup>142</sup>

Figure 18.- Location of LCP La Robla next to Riberas del Río Esla y afluentes SAC



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

#### 3.6.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The LCP La Robla IPPC permit<sup>143</sup> authorizes water discharge in two points: i) “Río

<sup>140</sup> Type B, ES4130079. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES4130079>

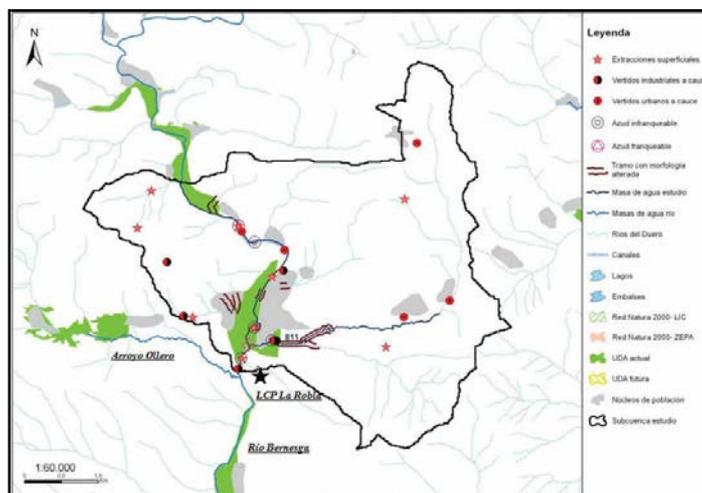
<sup>141</sup> Decreto 57/2015, de 10 de septiembre, por el que se declaran las zonas especiales de conservación y las zonas de especial protección para las aves, y se regula la planificación básica de gestión y conservación de la Red Natura 2000 en la Comunidad de Castilla y León (BOCyL num. 178, de 12.09.15).

<sup>142</sup> According to the Standard Data Form, the **species under protection in the site present a conservation status graded C (“average or reduced conservation”)**, and the protected habitats a “good conservation” status graded B.

<sup>143</sup> Resolution of 1 December 2008 of the Directorate General of Environmental Prevention and Land Planning, publishing the IPPC permit granted to Unión Fenosa Generación, S.A. for the coal power plant and its installations for the management of non-hazardous wastes through deposit in a landfill, located at the municipality of La Robla (León), (“Resolución de 1 de diciembre de 2008, de la Dirección General de Prevención Ambiental y Ordenación del Territorio, por la que se hace pública la Autorización Ambiental a Unión Fenosa, S.A. para la Central Térmica y las instalaciones de gestión de residuos no peligrosos mediante su depósito en vertedero (sellado y nuevo vaso de vertido), ubicadas en el término municipal de La Robla (León)”) (BOCyL num. 240, of 12.12.2008); and Resolution of 13 July 2010 of the Directorate General of Environmental Prevention and Land Planning, publishing the Order modifying the IPPC permit granted

**Bernesga**<sup>144</sup> for “industrial with hazardous substances”<sup>145</sup> and ii) **“Arroyo Rebocán/Ollero”**<sup>146</sup> for refrigeration purposes.<sup>147</sup> Both are classified as natural surface water bodies.

Figure 19.-Location of the water body Río Bernesga (code DU-811)



Source: Duero River Basin Management Plan (2015/2021)

According to the Duero RBMP (2015/2021),<sup>148</sup> the “Río Bernesga” water body presents an **overall status “worse than good”, with a “good” chemical status and a “moderate” ecological status.**<sup>149</sup> Among the main pressures identified affecting this water body is the chemical pollution from IED (Industrial Emissions Directive) industries, as it is la Robla LCP.

The water body Arroyo Rebocán/Ollero<sup>150</sup> presents an **overall status “worse than good”, with a “good” chemical status and a “poor” ecological status.**<sup>151</sup> The main pressures affecting this surface water body are related to urban wastewaters, agriculture and dams or waterwheels.

Pursuant to the environmental objectives provided in article 4.1 of the WFD, the deadline

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by Order of 19 November 2008 to Gas Natural SDG,S.A (the former Unión Fenosa Generación, S,A), for the coal power plant and its installations for the management of non-hazardous wastes through deposit in a landfill, located at the municipality of La Robla (León) (“ Resolución de 13 de Julio de 2010, de la Dirección General de Prevención Ambiental y Ordenación del Territorio, por la que se hace pública la Orden por la que se modifica de oficio la autorización ambiental integrada otorgada por Orden de 19 de noviembre de 2008 a Gas Natural SDG, S.A. (antes a Unión Fenosa Generación, S.A), para la Central Térmica y las instalaciones de gestión de residuos no peligrosos mediante su depósito en vertedero (sellado y nuevo vaso de vertido), ubicadas en el término municipal de La Robla (León)”) (BOCyL num. 142, of 26.07.2010)

<sup>144</sup> Río Bernesga surface water body code DU-811.

<sup>145</sup> According to the IPPC permit, the substances authorized for discharge at Río Bernesga are the following: suspended solids, ammonia, nitrites, total phosphorus, iron, zinc, copper and aluminum.

<sup>146</sup> Arroyo Rebocán/ Ollero surface water body code DU-810.

<sup>147</sup> The water discharge point at Arroyo Rebocán/Ollero is only authorized to discharge suspended solids.

<sup>148</sup> Duero River Basin Management Plan (2015-2021), available online at:

<http://www.chduero.es/Inicio/Planificaci%C3%B3n/Planhidrol%C3%B3gico20152021/PlanHidrol%C3%B3gico/tabid/734/Default.aspx>

<sup>149</sup> The cause for the non-achievement of a good ecological status is not provided in the Duero River Basin Management Plan.

<sup>150</sup> This surface water body is the same than the section of the River Bernesga declared as SAC with code DU-810.

<sup>151</sup> The cause for the non-achievement of a good ecological status is not provided in the Duero River Basin Management Plan.

for the achievement of a good status in both water bodies has been extended until 2027, for reasons of disproportionate costs (exemption provided in article 4.4.a) ii) of the WFD).<sup>152</sup> The plan foresees different measures for the achievement of the WFD environmental objectives such as: recovering actions within Natura 2000 Network sites, and a 2022-2027 strategy for the improvement of connectivity (fish passage).

The discharge point in Río Bernesga is adjacent to a section of the river designated SAC “Riberas del Río Esla y afluentes”, which is a salmonid area. The water body of Río Bernesga where the SAC is located (code DU-810) coincides with the water body of Arroyo Reboacán (same code), used by the plant for refrigeration purposes. Since this river flows from north to south of León district, the plant discharges flow downriver towards the SAC being likely to cause impacts on the site conservation.

The SAC Riberas del Río Esla y afluentes (tributaries) is included in the Register for Protected Areas of the Duero River Basin.<sup>153</sup> The water-dependant habitats associated to the water body code DU-810 are the following: Alpine rivers and their ligneous vegetation with *Salix elaeagnos* (3240), Constantly flowing Mediterranean rivers with *Glaucium flavum* (3250), Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (3260), and the priority habitat Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (91E0), among others. However, the Register for Protected Areas of the Duero river basin district does not provide information concerning the conservation status of the SAC habitats and species.

Water dependant species listed in Annex II: *Coenagrion mercuriale* (insects), *Chondrostoma polylepis* (fish), *Marsilea strigosa* (plants), *Icthyophaga lutra*, *Galemys pyrenaicus* (mammals), and *Discoglossus galganoi* (amphibians), among others.

The conservation status of some sections of the SAC Riberas del Río Esla y Afluentes presents a moderate deterioration, as provided in its Management Plan.<sup>154</sup> Although it mainly refers to agricultural-livestock discharges, nutrient balances, pesticide use, and the lack of adequate urban treatment systems among the main pressures, the Management Plan also identifies water pollution from industrial discharges. In particular, “pollution of surface waters caused by industrial facilities” is classified as a relevant threat already causing a negative impact on the site’s conservation.<sup>155</sup> Although there is not specific mention to the La Robla plant, such an impact would require the application of all appropriate measures pursuant to Article 6 (2) of the Habitats Directive and Article 46 (2) of Law 42/2007.

### 3.7. Aboño I and II LCP

This LCP is located in the municipality of Carreño in the C.A of Asturias. This coal plant initiated its activity in 1974 (thermal group I), and in 1985 (thermal group II) and has a total net electric installed power of 877,7 MW (rated thermal capacity 2.283 MW). It is operated by HC Energía, EDP.

<sup>152</sup> Duero River Basin Management Plan, Extensions (Annex 8.3).

<sup>153</sup> Duero River Basin Management Plan, Protected Areas (Annex 3).

<sup>154</sup> Management Plan of the SAC Riberas del Río Esla y Afluentes, available at

<http://www.medioambiente.jcyl.es/web/jcyl/MedioAmbiente/es/Plantilla100/1284375759659/ / />

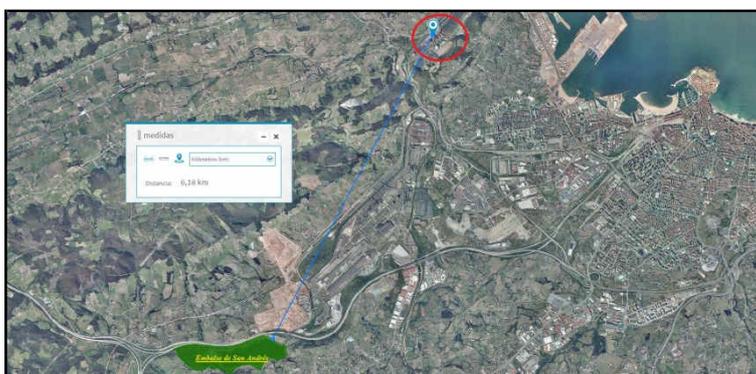
<sup>155</sup> The SAC Riberas del Río Esla y Afluentes Management Plan envisages some transversal measures for the improvement of the SAC conservation status, consisting on i) the control of urban and industrial water discharges, ii) and the control of the water quality status.

### 3.7.1. Identification of protected sites

This LCP operates at an average distance of **6,18 kilometres** from the protected site **Embalses del Centro (San Andrés, La Granada, Trastona y La Furta)**. This site is an SPA<sup>156</sup> corresponding to 4 basins with 267, 73 ha, declared as such in 2003 by Agreement of the Government Council of Principado de Asturias on 29 January 2003.<sup>157</sup> “Embalse de San Andrés” is the nearest protected site to the combustion plant. According to the SPA form, this site is characterized by the presence of artificial wetlands, and entails a significant value as an area for birds wintering and shelter. Overall, this SPA holds 68 protected species and 2 protected habitats under the Habitats and Birds Directives.

Given the large distance from the LCP to this Natura 2000 site it is feasible to think that this coal plant does not affect the conservation of the SPA.

Figure 20. - Location of LCP Aboño in the surroundings of Embalse del Centro (San Andrés, La Granada, Trastona y La Furta) SPA  
(Distance from the LCP: 6,18 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.7.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The Aboño IPPC permit<sup>158</sup> authorizes eleven points for water discharge all them into the “**Ría de Aboño**” surface water body (**Río Aboño II**).<sup>159</sup> This is a heavily modified water body due channels and river banks protection.

According to the Cantábrico Occidental RBMP,<sup>160</sup> the **status of the surface water body of**

<sup>156</sup> Type A, ES0000320. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES0000320>

<sup>157</sup> See also Decree 135/2014, of 17 December, on the approval of the I Management Instrument of the SPA Embalses del Centro (San Andrés, La Granada, Trastona y La Furta) (ES0000320) (“Decreto 135/2014, de 17 de diciembre, por el que se aprueba el I Instrumento de Gestión de la ZEPA Embalses del Centro (San Andrés, La Granada, Trastona y La Furta) (ES0000320)”), (BOPA num. 297, of 26.12.2014)

<sup>158</sup> Resolution of 10 November 2014, of the Department for Development, Land Planning and Environment, amending and updating the IPPC permit of the industrial installation “Coal Power Plant Aboño”, which occupies lands of the municipalities of Carreño and Gijón. File. AAI-20/13 (“Resolución de 10 de noviembre de 2014, de la Consejería de Fomento, Ordenación del Territorio y Medio Ambiente, por la que se modifica y actualiza la autorización ambiental integrada de la instalación industrial “Central Térmica de Carbón de Aboño”, ocupando terrenos de los términos municipales de Carreño y Gijón. Expte. AAI-20/13”) (BOPA num. 280, of 3.12.2014)

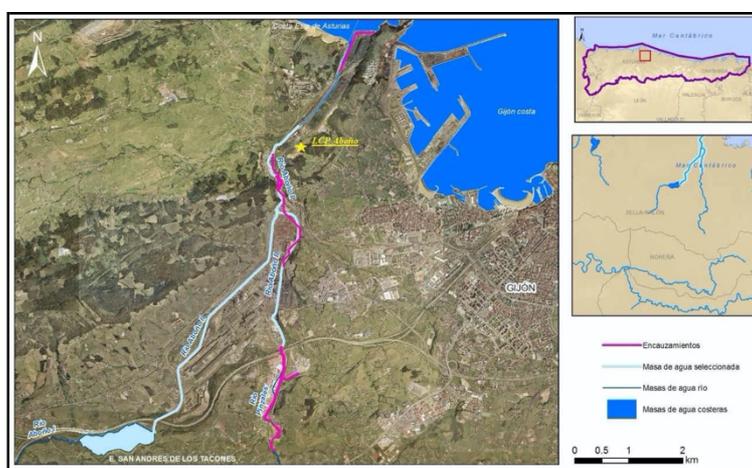
<sup>159</sup> Ría de Aboño surface water body code ES145MAR000862.

<sup>160</sup> See note 41.

**Ría de Aboño is adversely affected.** It presents an **overall status “failing to achieve good”**, with a **chemical status “failing to achieve good”** and a **“bad” ecological potential**. The failure to achieve a good chemical status is due to concentrations of the following priority substances: alacloro, benzo (b) fluoranthene, benzo (k) fluoranthene, plumb and fluoranthene. In addition, the failure to achieve a good ecological potential is due to concentrations of macro-invertebrates, conductivity, copper, zinc, selenium and cyanide.

Pursuant to the environmental objectives provided in Article 4.1 of the WFD, the deadline for the achievement of a good status in the water body Ría de Aboño has been extended until 2021 for reasons of technical feasibility (exemption provided in article 4.4 paragraph a) i) of the WFD).<sup>161</sup> The plan foresees measures for the achievement of the WFD environmental objectives such as: elaboration of emergency plans and detailed studies for the determination of water needs, adaptation of infrastructure to the ecological flow regime, sanitation and the Villabona wastewater treatment plant.

Figure 21.-Location of the water body Ría de Aboño (Río Aboño II) (code ES145MAR000862)



Source: Cantábrico Occidental River Basin Management Plan

The IPPC permit authorizes to discharge some of the substances<sup>162</sup> as well as “other parameters”<sup>163</sup> which already prevent the achievement of a good chemical status at Ría

In addition, the Cantábrico Occidental RBMP identifies thermal discharges from refrigeration waters with a volume greater than 100.000 m<sup>3</sup>/year as a source of pollution of surface waters, including those from Aboño LCP. Likewise, the Plan refers to the high temperatures of thermal discharges as a significant impact on surface waters.<sup>164</sup> The IPPC permit of Aboño allows the discharge of refrigeration water in two points with a maximum

<sup>161</sup> Cantábrico Occidental River Basin Management Plan, Extensions (Annex VIII), available at [http://www.chcantabrico.es/images/pdf/actuaciones/planificacion\\_hidrologica/plan\\_2015\\_2021/aprobado/occidental/anejos/34\\_ANEJO\\_XII.pdf](http://www.chcantabrico.es/images/pdf/actuaciones/planificacion_hidrologica/plan_2015_2021/aprobado/occidental/anejos/34_ANEJO_XII.pdf)

<sup>162</sup> The authorized substances are: oils and grease, suspension solids, sedimentable solids, ammonium, total phosphorus and hypochloric acid (“Cl2 libre”).

<sup>163</sup> Among these parameters and according to Annex to Title IV, Table 3 of the RDPH, the LCP is authorized to discharge a broad list of polluting substances classified as priority and/or preferential in Annexes IV and V of Royal Decree 817/2015, which are: Aluminum, Arsenic, Barium, Boron, Cadmium, Chromium III, Chromium IV, Iron, Manganese, Nickel, Mercury, **Plumb**, **Selenium**, Tin, **Copper**, **Zinc**, Metal toxics, **Cyanides**, Chlorides, Sulphides, Sulphites, Sulphates, Fluorides, Total Phosphorus, Ammonia, Nitrate Nitrogen, Phenols, Aldehydes, detergents and pesticides. The discharge of these parameters (except for chlorides and sulphates) must not exceed the limit values set in Table 3 of said RDPH.

<sup>164</sup> Cantábrico Occidental River Basin Management Plan, Inventory of Pressures (Annex VII), p. 18.

total annual flow of 230.000.000 m<sup>3</sup> and 430.000.000 m<sup>3</sup>, respectively. The latter discharge can be a support to prove a link (cause-effect) between the plant discharges and the affected status of Ría de Aboño.

The SPA Embalses del Centro (San Andrés, La Granada, Trastona y La Furta) is included in the Register of Protected Areas of the Cantábrico Occidental River Basin.<sup>165</sup> However, this protected area is not associated to the water body of Ría de Aboño.

Given the large distance from the LCP to this Natura 2000 site, 6,18 kilometers, the discharges from this coal plant are not likely to affect the conservation of the SPA.

### 3.8. Lada IV LCP

The LCP of Lada IV is located in the municipality of Langreo in the C.A of Asturias. It started its activity in 1949 (thermal group IV) and represents a total net electric installed power of 347,7 MW (rated thermal capacity 986 MW). It is operated by Iberdrola, S.A.

#### 3.8.1. Identification of protected sites

At distance of around 4,14 kilometers from that LCP the **SAC Cuencas Mineras**<sup>166</sup> is found. It covers an area with a total surface of 13.225 ha declared as such in 2014<sup>167</sup> by Decree 157/2014, of 29 December.<sup>168</sup> This SAC holds 23 protected species and 13 protected habitats under the Habitats and Birds Directives. In addition, part of this SAC constitutes a Protected Landscape since 2002, with a total surface of 13.156,08 ha.

Given this LCP operates from the referred distance to the SAC Cuencas Mineras, it seems feasible that it does not affect on the site's conservation.

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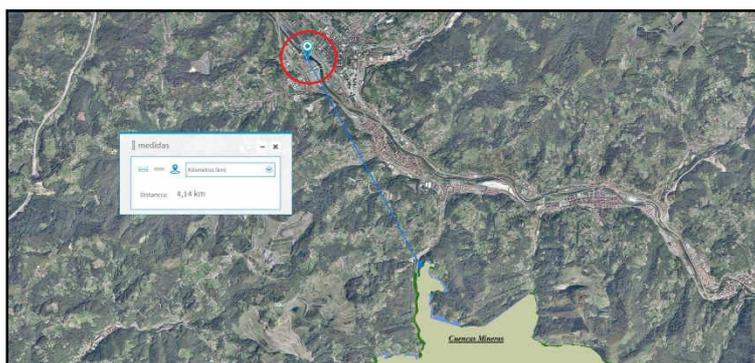
<sup>165</sup> Cantábrico Occidental River Basin Management Plan, Protected Areas (Annex IV).

<sup>166</sup> Type B, ES1200039. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES1200039>

<sup>167</sup> This Natura 2000 site was proposed as SCI in February 2004.

<sup>168</sup> Decree 157/2014, of 29 December, on the declaration of the Special Area of Conservation Cuencas Mineras (ES1200039) and approves the I Integrated Management Instrument of the protected sites in the municipalities of Laviana, Mieres, San Martín del Rey Aurelio y Langreo (“Decreto 157/2014, de 29 de diciembre, por el que se declara la Zona Especial de Conservación Cuencas Mineras (ES1200039) y se aprueba el I Instrumento de Gestión Integrado de los espacios protegidos en los concejos de Laviana, Mieres, San Martín del Rey Aurelio y Langreo”), (BOPA num. 2, of 03.01.2015)

Figure 22.- Location of LCP Lada in the surroundings of Cuencas Mineras SAC  
(Distance from the LCP: 4,14 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.8.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The Lada IV IPPC permit<sup>169</sup> authorizes to discharge in the water body “Río Nalón III”<sup>170</sup> flowing next to the combustion plant. This is a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

The Cantábrico Occidental RBMP<sup>171</sup> states that the Río Nalón III surface water presents an **overall status “failing to achieve good”, with a chemical status “failing to achieve good” and a “good” ecological potential**. There is no information available on the cause for the failure to achieve a good chemical status.

According to Article 4.1 of the WFD, the deadline for the achievement of a good status at Río Nalón III has been extended until 2021 for reasons of technical feasibility (exemption provided in article 4.4 paragraph a) i) of the WFD). The Plan foresees different measures to achieve the WFD environmental objectives such as: consolidation measures, regenerative stations, elaboration of emergency plans or detailed studies for the determination of water needs.

Its IPPC permit’s does not authorize to discharge any hazardous substance contained in Annexes IV of Royal Decree 817/2015.<sup>172</sup> While the permit authorizes the discharge of substances such as chlorides, suspended solids and aluminum, it also allows the discharge to contain “other polluting parameters characteristic of the type of wastewater, as far as the concentration of those parameters will not entail a breach of the EQS in Río Nalón III”.<sup>173</sup>.

<sup>169</sup> Resolution of 7 January 2014, of the Department of Development, Land Planning and Environment, amending the IPPC permit of the Coal Power Plant of Lada, owned by Iberdrola Generación, S.A.U, as a consequence of the amendment of the authorization of water discharges into P.W.D. File. AAI-047/06- M2/12 (“Resolución de 7 de enero de 2014, de la Consejería de Fomento, Ordenación del Territorio y Medio Ambiente, por la que se modifica la autorización ambiental integrada de la instalación industrial denominada Central Térmica de Lada, del titular Iberdrola Generación S.A.U., como consecuencia de la modificación de la autorización de vertido a D.P.H. Expte. AAI-047/06-M2/12”) (BOPA num. 30, of 06.02.2014)

<sup>170</sup> Río Nalón III surface water body code ES171MAR001380.

<sup>171</sup> See note 41.

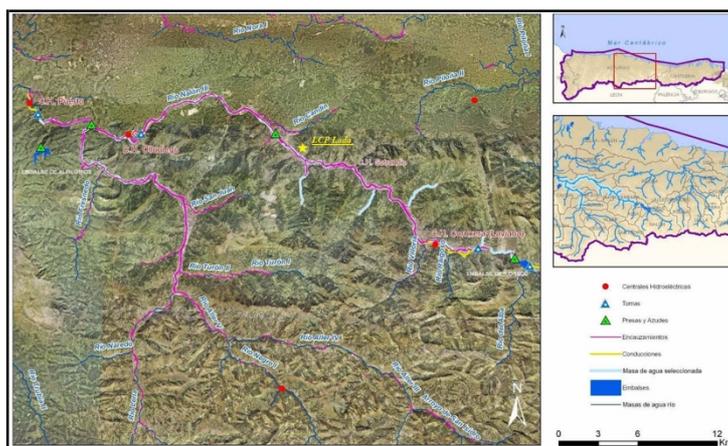
<sup>172</sup> The IPPC permit does not allow the substances contained in Annexes I and II of Royal Decree 60/2011, of 21 January, regarding environmental quality standards in the field of water policy (amended by Royal Decree 817/2015, previously referred)

<sup>173</sup> The IPPC permit literally states: “Asimismo, los vertidos **podrán contener otros parámetros contaminantes característicos del tipo de agua residual**, en concentraciones tales que no sean causa del incumplimiento de las normas de calidad ambiental del medio receptor, que deberán cumplirse para todos los parámetros. En

These polluting parameters are not identified at the IPPC permit, making unfeasible to analyze whether the plant discharges may or not impact on the status of Río Nalón III.

In addition, the RBMP identifies as a source of water pollution thermal discharges for refrigeration purposes with a higher volume of 100.000 m<sup>3</sup>/year from the LCP Lada IV. It also refers to the high temperature of thermal discharges of this plant as a significant impact for surface waters.<sup>174</sup> It is important to mention that the closed thermal group III of Lada plant was authorized to discharge for refrigeration purposes at Río Nalón III up to 210.240 m<sup>3</sup> volume/day, at a temperature less than 30°C. However, since the closure of group III in 2014, this LCP uses a closed circuit for refrigeration purposes at the cooling tower in thermal now. Thus, the refrigeration waters are no longer discharged into Río Nalón III.

Figure 23.-Location of the water body Río Nalón (code ES171MAR001380)



Source: Cantábrico Occidental River Basin Management Plan

The SAC Cuencas Mineras is included in the Register of Protected Areas of the Cantábrico Occidental River Basin.<sup>175</sup> However, this protected area is not associated to the water body Río Nalón III where the plant discharges.

Given the large distance from the LCP to this Natura 2000 site, 4,14 kilometers, the discharge activity of this coal plant is not likely to affect the conservation of the SAC.

### 3.9. Meirama LCP

This LCP is located in the municipality of Cerceda (La Coruña) in the C.A of Galicia. With a total net electric installed power of 557,2 MW (rated thermal capacity 1.437 MW), this combustion plant started its activity in 1980 (one thermal group). It is operated by Gas Natural Fenosa, S.A.

#### 3.9.1. Identification of protected sites

This LCP operates in the boundaries of the Biosphere Reserve “Mariñas Coruñesas e Terras do Mandeo” declared as such by Resolution of 20 November 2013.<sup>176</sup> This type of protected

*caso contrario, el titular estará obligado a complementar las instalaciones de depuración para que el vertido no sea causa del incumplimiento de dichas normas”.*

<sup>174</sup> Cantábrico Occidental River Basin Management Plan, Inventory of Pressures (Annex VII), p. 18.

<sup>175</sup> Cantábrico Occidental River Basin Management Plan, Protected Areas (Annex IV).

<sup>176</sup> Resolution issued on 20 November 2013 of National Parks, regarding the publication by the UNESCO of three Spanish biosphere reserves: Biosphere Reserve Las Mariñas Coruñesas y Terras de Mandeo, Galicia (...)

area is regulated in Article 50 of Law 42/2007. According to its instrument of designation, this site is home to a high richness of wildlife species of flora and fauna representative of the marine, coastal and continental environment of the Atlantic Biogeographical Region. It holds 49 types of habitats (12 designated as priority), and plenty of “*sebes arbóreas*” acting as secondary habitats for the conservation of many species of wildlife flora and fauna.

Figure 24.-Location of the LCP Meirama in the boundaries of Mariñas Coruñesas e Terras do Mandeo (Biosphere Reserve)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

There is no available information evidencing the existence of impacts on the habitats and species under protection in the Biosphere Reserve.

### 3.9.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

This coal plant is authorized to discharge in two water bodies: i) “**Río Pórtigo de Vilasenín**”<sup>177</sup> and ii) “**Río Lenguelle**”<sup>178</sup>. Both are classified as natural surface water bodies.

Figure: -25.- Location of water bodies Río Pórtigo de Vilasenín/Río Lenguelle



Source: River Basin Management Plan of Galicia Costa (2015-2021)

(“Resolución de 20 de noviembre de 2013, de Parques Nacionales, por la que se publica la aprobación por la UNESCO de tres reservas de la biosfera españolas: Reserva de la Biosfera de Las Mariñas Coruñesas y Terras de Mandeo, Galicia; Reserva de la Biosfera de Terres de l’Ebre, Cataluña; Reserva de la Biosfera del Real Sitio de San Ildefonso-El Espinar, Castilla y León, y la ampliación de la Reserva de la biosfera Ordesa-Viñamala, Aragón”), (BOE num. 312, of 20.12.2013)

<sup>177</sup> Río Pórtigo de Vilasenín surface water body code ES.014.MR.204.038.05.01.

<sup>178</sup> Río Lenguelle surface water body code ES.014.NR.204.038.07.00.

As provided in the IPPC permit<sup>179</sup>, the wastewater discharge permit was granted to a company named LIGNITOS DE MEIRAMA, S.A. Thus, the plant IPPC permit does not provide information concerning the discharge conditions.<sup>180</sup> Accordingly, this coal plant is not directly responsible for the management and control of the water discharge at Río Pórtigo de Vilasén and Río Lenguelle.

Both rivers where the plant discharges flow inside the Biosphere Reserve Mariñas Coruñesas e Terras de Mandeo. However, this site is not under the scope of protection of annex IV of the WFD, and it is not included in the Register for Protected Areas of the Galicia Costa basin district.

### 3.10. Puentenuevo LCP

This LCP is located in the municipality of Espiel (Córdoba) at the C.A of Andalucía. With a total net electric installed power of 299,8 MW (rated thermal capacity 976 MW), this combustion plant started its activity in 1981 (one thermal group). It is operated by Viesgo, S.A.

#### 3.10.1. Identification of protected sites

This LCP operates at an average distance of 530 meters from the protected site **Guadiato-Bembézar**<sup>181</sup> designated SAC by Decree 110/2015, of 17<sup>th</sup> March.<sup>182</sup> This Natura 2000 site has an overall surface of around 114.738 ha, holding 16 protected species and 17 habitats under the Birds and Habitats Directives.<sup>183</sup> Although it is important to take into account the proximity of the LCP of Puentenuevo to the protected site, as stated at the SAC Guadiato-Bembézar Management Plan,<sup>184</sup> there is no evidence of impacts on its conservation derived from the industrial activity.

<sup>179</sup> Resolution of 29 February 2008, of the Directorate General for Environmental Assessment and Quality, granting the environmental permit to the thermal power plant Meirama at the municipality of Cerceda (A Coruña) Owner: Unión Fenosa Generación, S.A. 2006/0319\_NAA/IPPC (“Resolución de 29 de febrero de 2008, de la Dirección General de Calidad y Evaluación Ambiental, por la que se otorga autorización ambiental integrada para la central térmica de Meirama, en el municipio de Cerceda (La Coruña). Titular: Unión Fenosa Generación, S.A. clave: 2006/0319\_NAA/IPPC.

<sup>180</sup> The IPPC permit of the LCP Meirama states that: “*Later on these wastewaters, after being purified in the treatment systems (...) are sent to the company LIGNITOS DE MEIRAMA, S.A. which holds the wastewater authorization granted by Aguas de Galicia, dated on 28 July 2005. With regard to the above, it is not appropriate to set limit values for the discharge in this installation.*”

<sup>181</sup> Type B, ES6130007. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES6130007>

<sup>182</sup> Decreto 110/2015, de 17 de marzo, por el que se declaran las Zonas Especiales de Conservación Sierras de Gádor y Énix (ES6110008), Sierra del Alto de Almagro (ES6110011), Sierras Almagrera, de los Pinos y el Aguilón (ES6110012), Sierra Líjar (ES6120013), Suroeste de la Sierra de Cardeña y Montoro (ES6130005), Guadalmellato (ES6130006), Guadiato-Bembézar (ES6130007), Sierra de Loja (ES6140008), Sierras Bermeja y Real (ES6170010), Sierra Blanca (ES6170011), Sierra de Camarolos (ES6170012), Valle del Río del Genal (ES6170016) y Sierra Blanquilla (ES6170032) (BOJA num 87, de 08.05.2015).

<sup>183</sup> According to the Standard Data Form (Site assessment), the protected habitats present a conservation status graded A and B (“excellent and good”). The species under protection present an overall excellent/good status of conservation, except the following species with an “average or reduced conservation” status: Spined loach (1149), Iberian painted frog (1194), Bonelli's Eagle (A093), Eurasian otter (1355), Iberian lynx (1362) and Spanish terrapin (1221).

<sup>184</sup> Management Plan of the SAC Guadiato-Bembézar, available at [http://www.juntadeandalucia.es/medioambiente/portal\\_web/web/temas\\_ambientales/espacios\\_protegidos/planificacion/pg\\_aprobados/d\\_110\\_2015\\_gador\\_y\\_otros/anexo5\\_cardena\\_otros.pdf](http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/espacios_protegidos/planificacion/pg_aprobados/d_110_2015_gador_y_otros/anexo5_cardena_otros.pdf).

Figure 26.-Location of LCP Puentenuevo next to Guadiato-Bembazar SAC (Distance from the LCP: 520 meters)

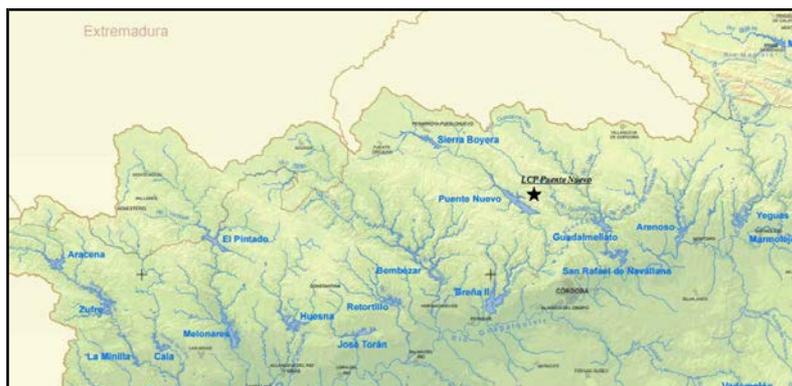


Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.10.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

The Puentenuevo IPPC permit authorizes to discharge in the water body “**Embalse Puente Nuevo**”.<sup>185</sup> This is a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

Figure 27.-Location of water body Puente Nuevo (code ES050MSPF011100015)



Source: Guadalquivir River Basin Management Plan (2016-2021)

According to the Guadalquivir RBMP (2016-2021)<sup>186</sup>, this water body presents a **“good” overall status, with a “good” chemical status and a “high” ecological status**. The environmental objectives provided in article 4.1 of the WFD for surface waters have been achieved by 2015 at Embalse Puente Nuevo, now subject to maintain this status overtime.

The SAC Guadiato-Bembézar borders with the Embalse Puente Nuevo water body where the plant discharges. This Natura 2000 site is included in the Register for Protected Areas of the Guadalquivir RBMP,<sup>187</sup> and it is associated to different water bodies such as Embalse de

<sup>185</sup> Embalse Puente Nuevo surface water body code ES050MSPF011100015.

<sup>186</sup> Guadalquivir River Basin Management Plan (2016-2021) available online at:

<http://www.chguadalquivir.es/demarcacion-hidrografica-guadalquivir>

<sup>187</sup> Guadalquivir Basin District Management Plan, Identification and maps of protected areas (Annex V) available online at: <http://www.chguadalquivir.es/documents/10182/238324/ANEJO+N%C2%BA+5.-+IDENTIFICACI%C3%93N+Y+MAPAS+DE+LAS+ZONAS+PROTEGIDAS.pdf/dc14488c-8854-4167-86d2-9cc3a877adb8>

Puente Nuevo.

Embalse Puente Nuevo water body is also subject to other protection figures under Annex IV of the WFD. On the one hand, it is a water body used for the abstraction of drinking water under article 7 of the WFD and article 4.1 of Spanish Order ARM/2656/2008. This protected area is included in the referred Register with EU code ES050ZPROTZCCM000002208.

On the other, Embalse Puente Nuevo is also a sensitive area under the Council Directive 91/271/CEE, and therefore under protection by Annex IV of the WFD. This protected area was designated by Resolution of 30 June 2011, of the Secretary of State for Rural Water, declaring sensitive areas in inter-community basins,<sup>188</sup> and included in the Register with EU code ES050ZPROTZSEN000000467.

### 3.11. Velilla LCP

The LCP of Velilla is located in the municipality of Velilla del Río Carrión (Palencia) in the C.A. of Castilla y León. With a total net electric installed power of 485,8 MW (rated thermal capacity 1.440 MW), this combustion plant started its activity in 1964 (thermal group I) and in 1986 (thermal group II). It is operated by Iberdrola, S.A.

#### 3.11.1. Identification of protected sites

This LCP operates at an average distance of 2,13 kilometres from the protected site **Fuentes Carrionas y Fuente Cobre (Montaña Palentina)**, which is an SPA since 2000 and a SAC<sup>189</sup> since 2015<sup>190</sup> declared as such by Decree 57/2015, of 10 September.<sup>191</sup>

This site has an overall surface of 78.224,61 ha, and represents an interest value due to extensive forests of diverse type; from beechwoods to Galicio-Portuguese oak woods (9230) or Endemic forests with *Juniperus* spp (9560). Furthermore, it holds numerous species of fauna, being especially relevant the populations of forests birds of prey and Picidae birds. The presence of the brown bear (1354) remains the most relevant feature of this site, given the threatened status and the high level of insulation of this specie. Overall, this SAC and SPA holds 62 protected species and 32 habitats under the Habitats and Birds Directive. In 2000, it was also declared as Natural Park.

It seems there are no evidences of impacts on the conservation of the Natura 2000 site derived from the LCP activity.

<sup>188</sup> BOE num. 180, de 28.07.2011.

<sup>189</sup> This Natura 2000 site was proposed as SCI in January 1998.

<sup>190</sup> Type C, ES4140011. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES4140011>

<sup>191</sup> Decree 57/2015, of 10 September on the declaration of special areas of conservation and special protected areas, and regulating the basic planning for the management and conservation of the Natura 2000 Network in the Autonomous Community of Castilla y León (“Decreto 57/2015, de 10 de septiembre por el que se declaran las zonas especiales de conservación y las zonas de especial protección para las aves, y se regula la planificación básica de gestión y conservación de la Red Natura 2000 en la Comunidad de Castilla y León (BOCyL num. 178, of 14.09.2015).



According to the Duero RBMP (2015-2021)<sup>194</sup>, Río Carrión presents a **“worse than good” overall status, with a “good” chemical status and a “moderate” ecological potential**. The failure to achieve a good ecological status is due to the compartmentalization index. The main pressures identified in this body of water are urban wastewaters, mining and landfills, the presence of dams and waterfalls, as well as IED industries.<sup>195</sup> Nonetheless, the plan refers to the adequate treatment of discharges from the Velilla coal plant.

In accordance with article 4.1 of the WFD, the achievement of a good status at the water body Río Carrión has been extended until 2027 due to disproportionate costs (exemption provided at art.4.4.a) ii) of the WFD). The plan foresees measures for the achievement of the WFD environmental objectives such as: a 2022-2027 strategy for the improvement of connectivity and measures for improving the inspection, control and monitoring of discharges.<sup>196</sup>

The Carrión River does not flow inside the Natura 2000 Site Fuentes Carrionas y Fuente Cobre. This Natura 2000 Site is included in the Register for Protected Areas of the Duero River Basin.<sup>197</sup> However, it is not associated to the water body where the plant discharges.

There is no evidence of impacts on the conservation of these Natura 2000 sites by the plant discharges.

### 3.12. Narcea I, II and III LCP

This LCP is located at the municipality of Tineo (Asturias) in the C.A of Asturias. It initiated its activity in 1965 (thermal group I), in 1969 (thermal group II) and in 1984 (thermal group III) with a total net electric installed power of 501,8 MW (rated thermal capacity 1.452 mw); group I was closed in February 2016.<sup>198</sup> The combustion plant is operated by Gas Natural Fenosa, S.A.

#### 3.12.1. Identification of protected sites

This LCP operates in the surroundings of two protected sites part of the Natura 2000 Network:

- **Cuenca del Alto Narcea**, which is a SAC<sup>199</sup> located at a distance of 2,48 kilometers from the LCP, and declared as such by Decree 136/2014, of 17 December.<sup>200</sup> This Natura 2000 site is in the upper section of the River Narcea (Río Narcea) and holds species of fauna such as otters and outrages. Overall, it holds 14 protected species and 5 protected habitats under the Habitats and Birds Directives.

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<sup>194</sup> See note 148.

<sup>195</sup> Duero River Basin Management Plan, Inventory of pressures (Annex VII).

<sup>196</sup> Ibid, Extensions (Annex 8.3).

<sup>197</sup> Ibid, Protected Areas (Annex 3).

<sup>198</sup> BOE num. 278, de 17.11.2016.

<sup>199</sup> Type B, ES1200050. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES1200050> This Natura 2000 site was proposed as SCI in February 2004.

<sup>200</sup> Decree 136/2014, of 17 December declaring the Special Area of Conservation Cuenca del Alto Narcea ((ES1200050) and approving its I Management Instrument (“Decreto 136/2014, de 17 de diciembre, por el que se declara la Zona Especial de Conservación Cuenca del Alto Narcea (ES1200050) y se aprueba su I Instrumento de Gestión”), (BOPA num. 297, of 26.12.2014).

- **Peña Manteca-Genestaza**, which is also a SAC<sup>201</sup> located at an approximate distance of 4,80 kilometers from the LCP and declared as such by Decree 159/2014, of 29 December.<sup>202</sup> It is important to recall that this Natura 2000 site holds a broad spectrum of threatened species of land vertebrates such as the Eurasian otter (1355), Urogallo (A108) or brown bear (1354). Overall, the site holds 29 protected species and 15 protected habitats under the Habitats and Birds Directives.

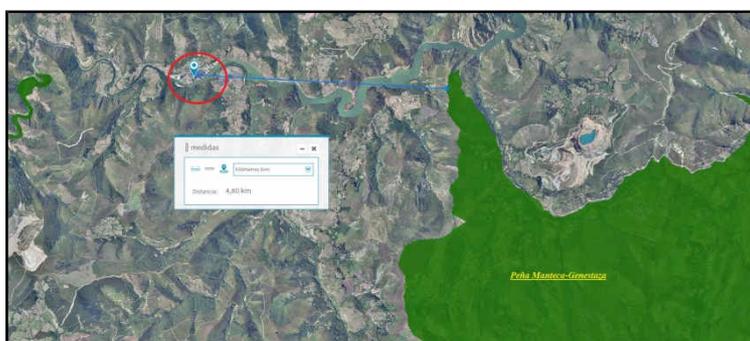
Given the large distance from the LCP to these Natura 2000 Sites, there is no evidence of impacts affecting their conservation.

Figure 30.- Location of LCP Narcea II and III in the surroundings of Cuenca del Alto Narcea (Distance from the LCP: 2,48 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

Figure 31.- Location of LCP Narcea II and III in the surroundings of Peña Manteca-Genestaza SAC (Distance from the LCP: 4,80 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

### 3.12.2. Analysis of recipient surface waters: its status and impacts on water dependent

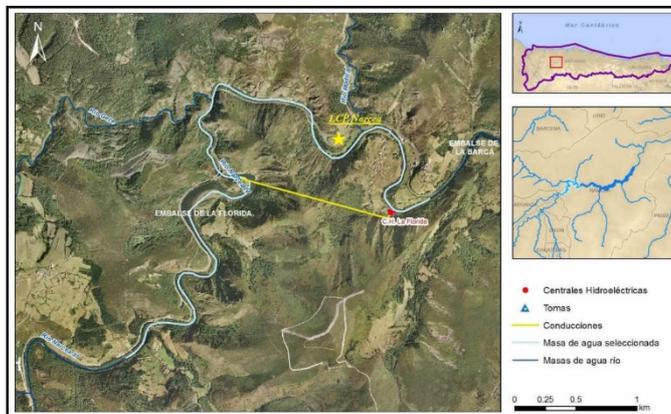
<sup>201</sup> Type B, ES1200041. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES1200041>. This Natura 2000 site was proposed as SCI in February 2004.

<sup>202</sup> Decree 159/2014, of 29 December on the declaration of the Special Areas of Conservation Aller-Lena (ES1200037), Caldoveiro (ES1200012), Montovo-La Mesa (ES1200010), Peña Manteca-Genestaza (ES1200041), Peña Ubiña (ES1200011) y Valgrande (ES1200046) and approves the I Integrated Management Instrument regarding diverse protected sires of the Central Asturian Mountain (“Decreto 159/2014, de 29 de diciembre, por el que se declaran las Zonas Especiales de Conservación Aller-Lena (ES1200037), Caldoveiro (ES1200012), Montovo-La Mesa (ES1200010), Peña Manteca-Genestaza (ES1200041), Peña Ubiña (ES1200011) y Valgrande (ES1200046) y se aprueba el I Instrumento de Gestión Integrado de diversos espacios protegidos de la Montaña Central Asturiana”), (BOPA num. 2, of 3.01.2015).

## ecosystems

This combustion plant is authorized<sup>203</sup> to discharge in the surface water body “**Río Narcea IV**”.<sup>204</sup> This water body is classified as heavily modified water body due to physical alterations.

Figure 32.-Location of the water body Río Narcea (code ES189MAR001660)



Source: Cantábrico Occidental Basins District Management Plan

According to the Cantábrico Occidental RBMP,<sup>205</sup> Río Narcea presents a **“good” overall status, with a “good” chemical status and a “good” ecological potential**. Pursuant to the environmental objectives provided in article 4.1 of the WFD, this water body achieved a good status by 2015, now subject to maintain this status overtime. There is no evidence of impacts through water pollution derived from the coal plant.

Both Natura 2000 sites SACs Cuenca del Alto Narcea and Peña Manteca-Genestaza are included in the Register of Protected Areas of the Cantábrico Occidental River Basin.<sup>206</sup> Given the large distance from the LCP to these Natura 2000 sites, 2,48 and 4,80 kilometers, respectively, the plant discharge activity is not likely to affect the sites conservation.

### 3.13.LCP As Pontes

This LCP is located in the municipality of Puentes de García Rodríguez (La Coruña) in the C.A of Galicia. It started its activity in 1976 and has four thermal groups with a total net electric installed power of 1.403,3 MW (rated thermal capacity 3.800 MW). It is operated by Endesa Generación, S.A.

#### 3.13.1. Identification of protected sites

The LCP of As Pontes operates in the surroundings of two protected sites part of the Natura

<sup>203</sup> Resolution issued of 11 June 2014, of the Department of Development, Land Planning and Environment, regarding the modification of the IPPC permit granted to the industrial facility Thermal Power Plant Narcea, located in Soto de la Barca, Tineo, as a result of the modification of the water discharge authorization on water public domain (“Resolución de 11 de junio de 2014, de la Consejería de Fomento, Ordenación del Territorio y Medio Ambiente por la que se modifica la autorización ambiental integrada de la instalación industrial Central Térmica del Narcea, ubicada en Soto de la Barca, Tineo, como consecuencia de la modificación de la autorización de vertido a D.P.H. Expte. AAI-036/06- M1/14”) (BOPA num. 267, of 18.11.2014)

<sup>204</sup> Río Narcea IV surface water body code ES189MAR001660.

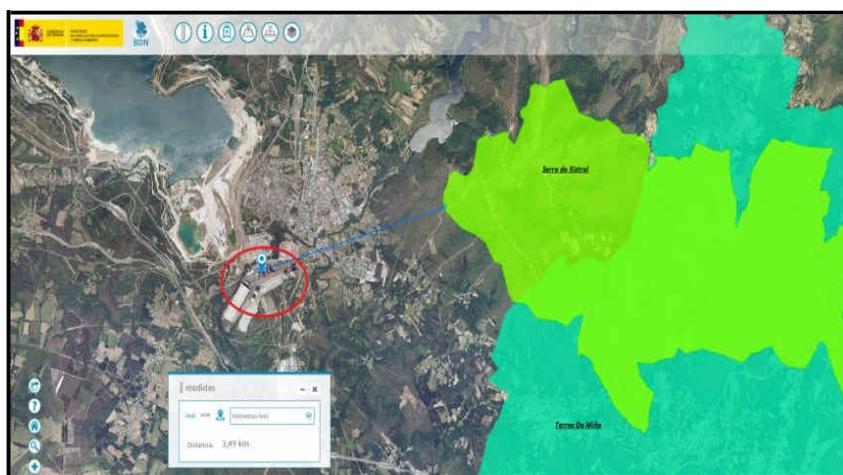
<sup>205</sup> See note 41.

<sup>206</sup> Cantábrico Occidental River Basin Management Plan, Protected Areas (Annex IV).

2000 Network, although from a considerable distance. These sites are:

- **Serra Do Xistral**, which is a SAC<sup>207</sup> located at an average distance of 3, 49 kilometers from the LCP and declared as such by Decree 37/2014, of 27 March.<sup>208</sup> According to its form, this site is a valuable area due to the presence of Lepidopteron species which are considered as endemic glacier relics. Overall, this site holds 36 protected species and 12 protected habitats under the Habitats and Birds Directives. In addition, Serra Do Xistral was declared in 2004 as an Area with Special Protection of Natural Values (“Zona de Especial Protección de los Valores Naturales”)<sup>209</sup> by Decree 72/2004, of 2 April.<sup>210</sup>
- **Terras do Miño**, declared in 2002 as a Biosphere Reserve.<sup>211</sup> Given the large distance from the LCP to the protected areas, it is highly unlikely that its operation affects the conservation of both sites.

Figure 33.- Location of LCP As Pontes next to Serra do Xistral  
(Distance from the LCP: 3,49 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

<sup>207</sup> Type B, ES1120015. Standard Data Form Natura 2000 Network available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES1120015>. This Natura 2000 site was proposed as SCI in February 1999, and confirmed as such in December 2004.

<sup>208</sup> Decree 37/2014, of 27 March, declaring special areas of conservation of sites of community importance of Galicia and approving the Master Plan of Natura 2000 Network in Galicia (“Decreto 37/2014, de 27 de marzo, por el que se declaran zonas especiales de conservación los lugares de importancia comunitaria de Galicia y se aprueba el Plan director de la Red Natura 2000 de Galicia”), (DOG num. 62, of 31.03.2014).

<sup>209</sup> This protection figure is provided by art.1 of Decree 72/2004, of 2 April declaring certain sites as areas with special protection of natural values (C.A Galicia). It does not provide a definition in itself, but states that: “*Are declared as areas with special protection of natural values the natural sites listed below, and identified with the annexes of this Decree: a) Annex I: areas proposed as Sites of Community Interest to be part of the Natura 2000 Network; and b) Annex II: sites designated as Special Protection Areas for Birds pursuant to Directive 79/409/CEE, on the conservation of wild birds*”

<sup>210</sup> Decree 72/2004, of 2 April declaring certain sites as areas with special protection of natural values (“Decreto 72/2004, de 2 de abril, por el que se declaran determinados espacios como zonas de especial protección de los valores naturales”), (DOG num. 69, of 12.04.2004)

<sup>211</sup> Biosphere Reserve Spanish Network, available at <http://rerb.oapn.es/index.php/red-espanola-de-reservas-de-la-biosfera/las-reservas-de-la-biosfera-espanolas/1-2-1-mapa/terras-do-mino/ficha>

### 3.13.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

This plant is authorized<sup>212</sup> to discharge in “Río Eume”,<sup>213</sup> classified as a natural surface water body.

Figure 34.- Location of the water body Río Eume (code ES014NR1010000400)



Source: River Basin Management Plan of Galicia Costa (2015-2021)

According to the RBMP of Galicia Costa,<sup>214</sup> this surface water body presents an overall status **“worse than good” with a “good” chemical status and a “moderate” ecological status**. The failure to achieve a good ecological status is due to the presence of macro-invertebrates<sup>215</sup>

According to article 4.1 of the WFD, the deadline for the achievement of a good status at this water body has been extended until 2021 (reason for extension not identified). The failure to comply with the WFD environmental objectives is due to the existence of habitat disruption motivated by hydrological changes (hydro morphological/dam construction) and enrichment in organic material (urban waste waters).<sup>216</sup> The following measures are foreseen

<sup>212</sup> Resolution of 10 July 2012 of the General Secretariat of Quality and Environmental Assessment, regarding the renewal of the IPPC permit granted to the Thermal Production Unit and controlled non-hazardous waste deposit in the municipality of Pontes de García Rodríguez (A Coruña) (“Resolución de 10 de Julio de 2012 de la Secretaría General de Calidad y Evaluación Ambiental, por la que se renueva la autorización ambiental integrada otorgada a Unidad de Producción Térmica y vertedero controlado de residuos no peligrosos situados en el municipio de Pontes de García Rodríguez (A Coruña). Titular: Endesa Generación, S.A (nº registro AAI: 2005/0479\_025; clave expediente renovación 2011-IPPC-M- 58)”) (DOG num. 148, of 03.08.2012).

<sup>213</sup> Río Eume surface water body code ES014.10.0004.00.

<sup>214</sup> River Basin Management Plan of Galicia-Costa (2015/2021) available online at:

[http://augasdegalicia.xunta.gal/c/document\\_library/get\\_file?file\\_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap07\\_PGHC20152021\\_gl.pdf](http://augasdeg Galicia.xunta.gal/c/document_library/get_file?file_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap07_PGHC20152021_gl.pdf)

<sup>215</sup> The River Basin Management Plan does not provide specific data regarding the main pressures affecting surface water bodies on an individual basis.

<sup>216</sup> River Basin Management Plan of Galicia-Costa, Extensions (Chapter 8), available online at:

[http://augasdegalicia.xunta.gal/c/document\\_library/get\\_file?file\\_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap08\\_PGHC20152021\\_es.pdf](http://augasdeg Galicia.xunta.gal/c/document_library/get_file?file_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap08_PGHC20152021_es.pdf)

in the plan to achieve the environmental objectives: restoration measures at Río Eume: implementation of environmental measures at the AG-64”.

Serra Do Xistral SAC and Area with Special Protection of Natural Values, and Terras do Miño Biosphere Reserve are included in the Register for Protected Areas of the RBMP of Galicia Costa.<sup>217</sup> This SAC is a protected area under annex IV of the WFD associated to the water body Río Eume where the plant discharges. Río Eume (Embalse Río Eume Pontes de García Rodríguez) is also classified as a continental bathing area (recreation zone) under annex IV of the WFD, Directive 2006/7/EC of the European Parliament and of the Council, of 15 February, concerning the management of bathing water quality and repealing Directive 76/170/EEC,<sup>218</sup> and article 4.4 of Spanish Order ARM/2656/2008. According to the RBMP, this bathing area complies with the additional requirements on protected areas required under Annex V section 1.3.5 of the WFD.

There is no evidence pointing out impacts on the conservation of the protected areas due to the plant discharge activity.

### 3.14.Andorra LCP

This LCP is operating in the municipality of Andorra (Teruel) in the C.A of Aragón. It initiated its activity in 1981, consisting in three thermal groups with a total net electric installed power of 1.055,7 MW (rated thermal capacity 3.000 MW) and it is operated by Endesa Generación S.A.

#### 3.14.1. Identification of protected areas

At an average distance of 9,60 kilometers from the LCP, are found two protected sites part of the Natura 2000 Network:

- **Desfiladeros del Río Martín**, which is an SPA<sup>219</sup> with a surface of 44.786,08 ha, declared in 2001. This site holds a high ornithological influence with the presence of significant populations of birds of prey of national importance such as the *Gyps fulvus* (A078). Overall, this site holds 115 protected species, mostly birds, and 13 habitats under the Habitats and Birds Directives.
- **Parque Cultural del Río Martín**, which is an SCI<sup>220</sup> with a surface of 25.389,32 ha, declared in 2006. This site is particularly significant given its function as biological corridor between the Iberian mountains and the Valley of Ebro. The SCI holds 103 protected species and 13 habitats under the Habitats and Birds Directives.

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<sup>217</sup> River Basin Management Plan of Galicia Costa, Protected Areas (Chapter 5), available online at [http://augasdeg Galicia.xunta.gal/c/document\\_library/get\\_file?file\\_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap05\\_PGHC20152021\\_es.pdf](http://augasdeg Galicia.xunta.gal/c/document_library/get_file?file_path=/portal-augas-de-galicia/plans/PHGC-2015-2021/Cap05_PGHC20152021_es.pdf)

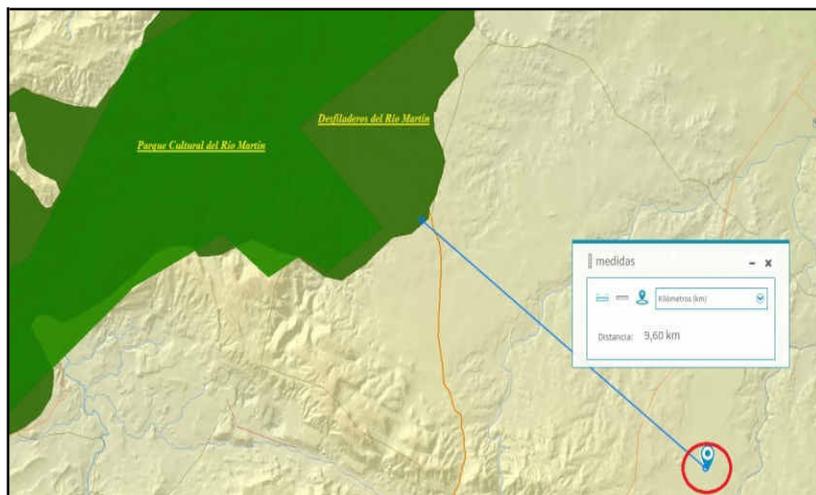
<sup>218</sup> OJ L 64, of 04.03.2006. Directive 2006/7/EC has been transposed into Spanish legal order by Royal Decree 1341/2007, of 11 October, concerning the management of the quality of bathing waters (BOE num.257, of 26.10.2007).

<sup>219</sup> Type A, ES0000303. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES0000303>

<sup>220</sup> Type B, ES2420113. Standard Data Form Natura 2000 Network, available at <http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ES2420113>

Figure 35.- Location of LCP Andorra in the surroundings of Desfiladeros del Río Martín and Parque Cultural del Río Martín

(Distance from the LCP: around 9,60 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

Given the large distance from the LCP, it is highly unlikely that it causes any affection to the conservation of the two Natura 2000 Sites.

### 3.14.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

Its IPPC permit<sup>221</sup> allows to discharge in “**Arroyo Regallo**” (Cuenca del Guadalope) through a superficial evacuation system.<sup>222</sup> It is classified as a natural surface water body.

According to the information provided in the Ebro RBMP,<sup>223</sup> this surface water body presents a “**good**” overall status, with a “**good**” ecological and chemical status.

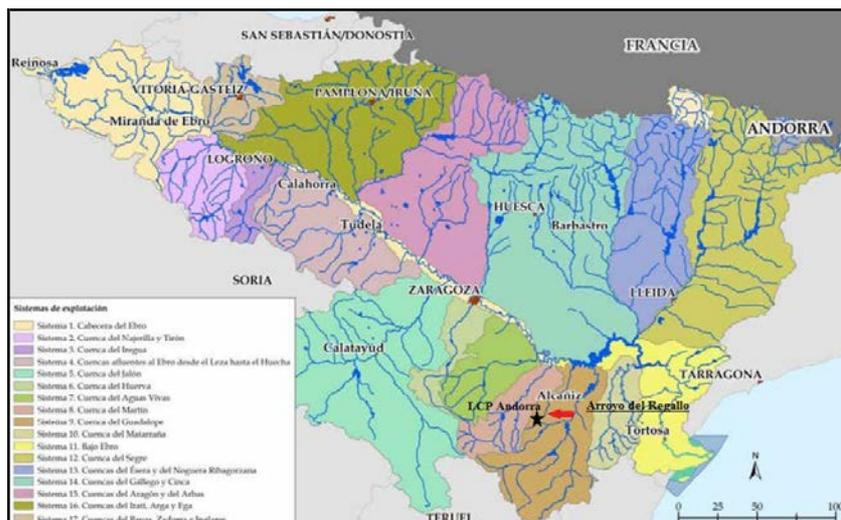
<sup>221</sup> Resolution of 2 May 2013, of the Aragon Institute of Environmental Management, renewing and updating the environmental permit of the thermal power plant Teruel and its associated landfill, located at the municipality of Andorra (Teruel) promoted by Endesa Generación, S.A. (Nº. File: INAGA/500301/02/2011/12057) (“Resolución de 2 de mayo de 2013, del Instituto Aragonés de Gestión Ambiental, por la que se renueva y actualiza la autorización ambiental integrada de la central térmica Teruel y de su vertedero asociado, ubicados en el término municipal de Andorra (Teruel) promovidos por Endesa Generación, S.A. (N.º Expte: INAGA/500301/02/2011/12057)”) (BOA num. 102, of 28.05.2013).

<sup>222</sup> Arroyo Regallo surface water body code ES091MSPF914.

<sup>223</sup> Ebro River Basin Management Plan (2015/2021) available online at:

<http://www.chebro.es/contenido.visualizar.do?idContenido=42695&idMenu=4780>

Figure 36.-Location of the water body Arroyo del Regallo (code 914)



Source: Ebro River Basin Management Plan (2015-2021)

According to article 4.1 of the WFD, the water body Arroyo del Regallo achieved a good overall status by 2015, now subject to maintain this status overtime. According to the plan, the construction of a pond in the water body of Arroyo del Regallo is projected.<sup>224</sup> This measure falls within the scope of the exemption provided in article 4.7 paragraph c) of the WFD which allows for modifications or alterations in the water body conditions when specific conditions are met; specifically for reasons of public interest and/or benefits to the environment or society.<sup>225</sup>

The Natura 2000 Sites SCI Parque Cultural del Río Martín and the SPA Desfiladeros del Río Martín are included in the Register for Protected Areas of the Ebro River Basin.<sup>226</sup> However, these sites are not associated to the water body Arroyo del Regallo where the plant discharges.

Accordingly, and given to the large distance of the sites to the Andorra plant, 9,60 kilometers, there is no evidence of impacts on the sites conservation due to the LCP discharges.

### 3.15.Compostilla II LCP

This LCP is located in the municipality of Cubilos del Sil (León) in the C.A of Castilla y León. With a total net electric installed power of 1005,2 MW (rated thermal capacity 2.886 MW), this combustion plant initiated its activity in 1966 (thermal group II) 1972 (group III), 1981 (group IV) and 1985 (group V). In November 2015, the closure of the thermal group

<sup>224</sup> The pond construction aims to ensure the availability of water resources during the whole year along the riverbed.

<sup>225</sup> According to article 4.7.c) of the WFD: “Member States will not be in breach of this Directive when: **failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities and all the following conditions are met:** (...) (c) **The reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development (...)**”

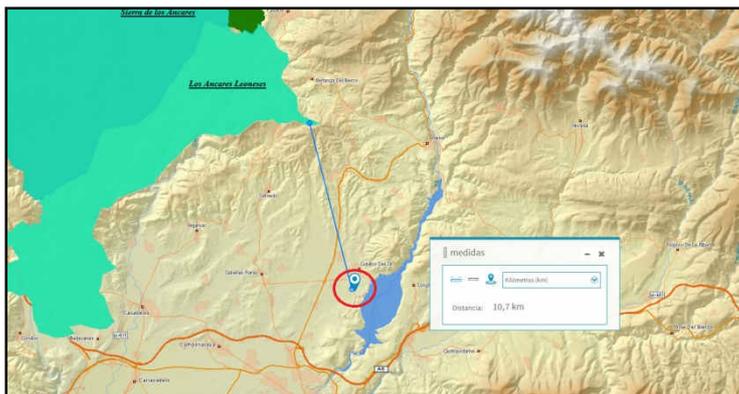
<sup>226</sup> Ebro River Basin Management Plan, Protected Areas, available online at: <http://www.chebro.es:81/Plan%20Hidrologico%20Ebro%202015-2021/2%20Revisi%C3%B3n%202015-21%20del%20Plan%20Hidrol%C3%B3gico%20del%20Ebro/2.3%20Memoria/2.3.6.-%20Anexo%205/Anexo%205.2.-%20Informe%20Objetivos%20Zonas%20Protegidas.pdf>

II was authorized<sup>227</sup>. This combustion plant is operated by Endesa, Generación S.A.

### 3.15.1. Identification of protected areas

This LCP operates at an average distance of 10,7 kilometres from the protected site **Los Ancares Leoneses**. As previously said, this site is a Biosphere Reserve declared in 2006 with an overall surface of 56.871,09 ha.<sup>228</sup> Next to it is found the SAC and SPA Sierra de los Ancares.<sup>229</sup>

Figure 37.- Location of LCP Compostilla II in the surroundings of Los Ancares Leoneses (Distance from the LCP: around 10,7 Kilometers)



Source: Nature Databank Official viewer-Ministry of Agriculture and Fishing, Food and Environment

Given the large distance from the LCP, there is no evidence of impacts affecting the conservation of this protected area.

### 3.15.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

This coal plant is authorized<sup>230</sup> to discharge in two water bodies: i) “**Arroyo de los Barredos (Reguera de Naraya)**”,<sup>231</sup> which is a natural surface water body and ii) “**Embalse de Bárcena**”<sup>232</sup> classified as a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

As provided at the Miño-Sil RBMP (2016-2021)<sup>233</sup> Arroyo de los Barredos presents an

<sup>227</sup> BOE num. 311, of 29.12.2015

<sup>228</sup> Biosphere Reserve Spanish Network, available at <http://rerb.oapn.es/index.php/red-espanola-de-reservas-de-la-biosfera/las-reservas-de-la-biosfera-espanolas/1-2-1-mapa/ancares-leoneses/ficha>

<sup>229</sup> See section 2.5 regarding the LCP of Anllares, for a detailed explanation of these Nature 2000 Sites.

<sup>230</sup> Resolution of 17 February 2009, of the Directorate General for Environmental Prevention and Land Planning, publishing the environmental permit granted to Endesa Generacion, S.A. for the electricity generation energy installations (Thermal Power Plant of Compostilla) located in the municipality of Cubillos del Sil (León) and for the associated non-hazardous waste disposal facilities, located in the municipalities of Cubillos del Sil (León) and Ponferrada (León) (“Resolución de 17 de febrero de 2009, de la Dirección General de Prevención Ambiental y Ordenación del Territorio, por la que se hace pública la Autorización Ambiental a Endesa Generación, S.A. para las Instalaciones de Generación de Energía Eléctrica (Central Térmica de Compostilla) ubicadas en el término de Cubillos del Sil (León) y para las instalaciones asociadas de depósito de residuos no peligrosos, ubicadas en los términos municipales de Cubillos del Sil (León) y Ponferrada (León)”) (BOCyL num. 44, of 5.03.2009).

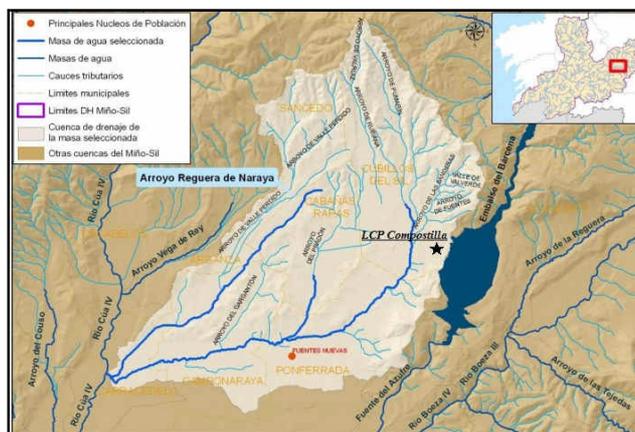
<sup>231</sup> Arroyo de los Barredos surface water body code ES425MAR000880.

<sup>232</sup> Embalse de Bárcena surface water body code ES414MAR000650.

<sup>233</sup> See note 137.

overall status **“worse than good”**, with a **“good”** chemical status and **“poor”** ecological status. The failure to achieve a good ecological status is due to the presence of macro-invertebrates. According to article 4.1 of the WFD, the deadline to achieve a good ecological status at Arroyo de los Barredos has been extended to 2027, and is subject to maintain the good chemical status overtime (the reason for the extension of article 4.4 of the WFD is not provided in the plan).

Figure 38.-Location of the water body Arroyo Barredos (Reguera de Naraya) code ES425MAR000880



Source: Miño-Sil River Basin Management Plan (2016-2021)

The Miño-Sil RBMP identifies as a pressure the refrigeration waters discharges from the LCP Compostilla II of a volume higher than 100.000 m<sup>3</sup> /year. This LCP is authorized to discharge a maximum volume of 203.294.000 m<sup>3</sup> per year.<sup>234</sup> In this regard, the RBMP stresses the need to take into consideration the thermal plant Compostilla for that high volume. The plan also identifies as a significant impact the concentration of nutrients in the basin district surface waters, causing anoxia<sup>235</sup>, and identifies several significant discharges likely to cause an increase of nutrients in those surface waters, such as the Compostilla plant, among others.<sup>236</sup>

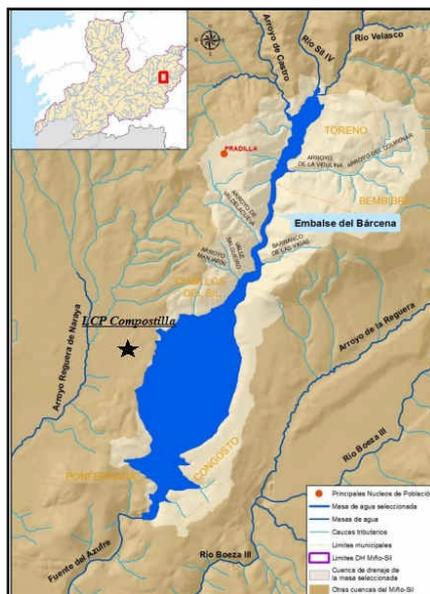
The water body Embalse de Bárcena presents a **“good” overall status, with a “good” chemical status and a “good” ecological potential**. This water body has achieved a good status by 2015, now subject to maintain this status overtime.

<sup>234</sup> The IPPC permit of Compostilla coal plant does not allow discharges to exceed 30° degrees at any time, subject to compliance with the rates established at section D, Annex IV of the RDPH.

<sup>235</sup> Anoxia entails the absence of oxygen which is likely to cause impacts (mainly death) on mollusks species, as well as the migration of fish and crustaceans. It may also entail the appearance of invasive species used to habitats with low oxygen.

<sup>236</sup> Miño-Sil River Basin Management Plan, Description of uses, demands and pressures (Chapter 3), pages 295, 299, 587 and 590, available online at: [http://www.chminosil.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/03\\_CAP%C3%8DTULO\\_III.pdf](http://www.chminosil.es/images/planificacion/proyecto-ph-2015-2021-rd/01.%20Memoria%20y%20Anexos/03_CAP%C3%8DTULO_III.pdf)

Figure 39.-Location of water body Embalse de Bárcena code ES414MAR000650



Source: Miño-Sil River Basin Management Plan (2015-2021)

The Biosphere Reserve Los Ancares Leoneses is included in the Register of Protected Areas of the Miño-Sil River Basin.<sup>237</sup> However, this protected site is not associated to any of both water bodies where the plant discharges, not subject to the WFD protection regime under annex IV.

In addition, given the long distance of this Biosphere Reserve 10,7 kilometers from the coal plant, there is no evidence of impacts due to the LCP.

### 3.16. La Pereda

This LCP is located in the municipality of Mieres, in the C.A of Asturias. It initiated its activity in 1995 (one thermal group) and is operated by Hulleras del Norte, S.A (Hunosa). Compared to the other 15 LCPs, this combustion plant represents a singular case given: i) it has 50 MW of net electric installed capacity (rated thermal capacity 50 MW), and ii) it is intended to produce electricity through the simultaneous burning of coal, waste (from slag heaps) and biomass (wood).

#### 3.16.1. Identification of protected sites

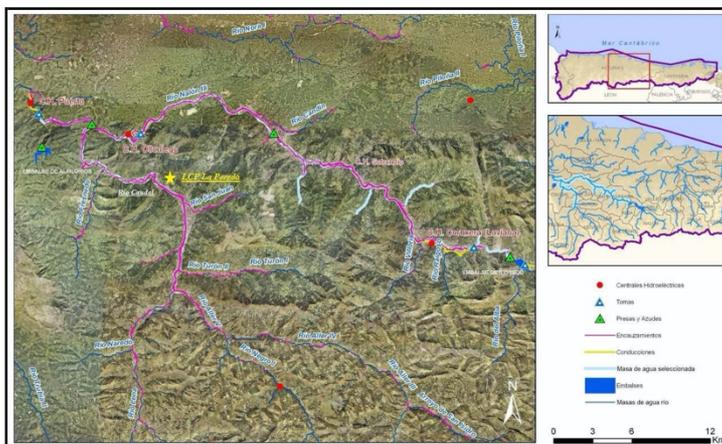
This LCP does not operate in the surroundings of any protected site.

#### 3.16.2. Analysis of recipient surface waters: its status and impacts on water dependent ecosystems

<sup>237</sup> Miño-Sil River Basin Management Plan, Identification and maps of protected areas (Chapter 5).

This plant is authorized<sup>238</sup> to discharge in “Río Caudal”<sup>239</sup> which runs into River Nalón III water body. It is classified as a heavily modified water body substantially changed in character as a result of physical alterations by human activity.

Figure 40.-Location of the water body Río Caudal/Río Nalón III (code ES171MAR001380)



Source: Cantábrico Occidental Basin District Management Plan (2015-2021)

According to the Cantábrico Occidental RBMP,<sup>240</sup> the surface water status of Río Nalón is severely affected. It presents an **overall status failing to achieve good, with a “good” ecological potential, and a chemical status “failing to achieve good”**. However, the Plan does not provide information regarding the priority substances which prevent to achieve a good chemical status at Río Nalón. While the IPPC permit identifies the substances authorized to discharge,<sup>241</sup> the lack of information on the priority substance preventing compliance with a good surface water status makes not feasible to analyze whether La Pereda plant discharges could impact on the Río Nalón III water body.

As provided by Article 4.1 of the WFD, the deadline to achieve a good status at Río Caudal/Río Nalón III has been extended until 2021 due to technical feasibility, which is an exemption provided in article 4.4 paragraph a) i) of the WFD.<sup>242</sup> The Plan foresees different measures to achieve the WFD environmental objectives such as: consolidation measures, regenerative stations, elaboration of emergency plans or detailed studies for the determination of water needs.

Finally, refrigeration waters with a volume greater than 100.000 m<sup>3</sup> /year, including those from La Pereda plant are identified in the RBMP as a main pressure for Río Nalón III water body.<sup>243</sup> The plan also refers to the high temperatures of thermal discharges from the coal

<sup>238</sup> Resolution issued on 7 January 2014, of the Department of Development, Land Planning and Environment regarding the modification of the environmental permit of the industrial facility Thermal Power Plant La Pereda, owned by Empresa Nacional Hulleras del Norte, S.A., as a result of the modification of the water discharge authorization to Public Water Domain (“Resolución de 7 de enero de 2014, de la Consejería de Fomento, Ordenación del Territorio y Medio Ambiente, por la que se modifica la autorización ambiental integrada de la instalación industrial denominada Central Térmica de La Pereda, del titular Empresa Nacional Hulleras del Norte, S.A., como consecuencia de la modificación de la autorización de vertido a D.P.H. Expte. AAI-069/06-M1/12”) (BOPA num.24, of 30.01.2014)

<sup>239</sup> The surface water body code of Río Caudal corresponds to the body of water Río Nalón III.

<sup>240</sup> See note 41.

<sup>241</sup> The IPPC permit granted to the LCP La Pereda authorizes one water discharge point at Caudal River, allowing to discharge the following substances: Suspended solids, Total Phosphorus, oils and greases, Chlorides, Sulfates, Iron and Nitrates. However, the permit does not allow the discharge of hazardous substances contained in Annexes I and II of Royal Decree 60/2011 (amended by Royal Decree 817/2015).

<sup>242</sup> Río Nalón III water body sheet, see note 28.

<sup>243</sup> Cantábrico Occidental River Basin Management Plan, Inventory of Pressures (Annex VII), p. 18

plant as a significant impact.<sup>244</sup> This coal plant is authorized to discharge 330 m<sup>3</sup> volume/day for refrigeration purposes at a temperature lower than 30°C.

## 4. Legal implications

### 4.1. Natural Protected Areas

The main purpose of this section is to analyse the applicable legal regimes at European Union (EU) and international levels, and the existing legal venues for ensuring the protection of protected areas in Spain whose conservation may be at risk given its proximity to coal-fired LCPs in operation. Firstly, special attention is given to those areas which enjoy a protection status under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora<sup>245</sup> (the Habitats Directive), which are those areas part of the Natura 2000 Network. Article 6 of the Habitats Directive provides, in fact, a strong legal framework for the protection of sites through a number of obligations on conservation to which Spain is subject to and must comply with.

Secondly, attention is paid to other legal venues at international level given the existence of other kind of protected areas nearby coal-fired LCPs such as those designated as Special Areas of Mediterranean Importance (SPAMIs) under the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean<sup>246</sup> or Ramsar wetlands under the Convention of Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention).<sup>247</sup> Spain is a contracting Party to both international instruments as well as the Barcelona Convention.

#### 4.1.1. Legal venues at EU level under the Habitats Directive

In order to assess the implications of Spanish coal-fired LCPs currently operating near or within Natura 2000 Network Sites, it is necessary to attend to the obligations under the Habitats Directive, in particular, those on conservation provided by article 6.

Article 6 is a key provision as it establishes the framework for site conservation and protection, including specific proactive, preventive and procedural requirements through three main sets of provisions. Based on the general conservation regimen contained in article 6 paragraph 1, Member States have an obligation to take the necessary conservation<sup>248</sup> measures in SACs to maintain and restore natural habitats and species listed in Annexes I and II to a favourable conservation status. The conservation measures to be taken shall consist on “appropriate statutory, administrative or contractual measures”, and, *if need be*<sup>249</sup>,

<sup>244</sup> The Cantábrico Occidental River Basin Management Plan includes in the inventory of pressures on surface waters: “g) *Thermal discharges originating from the refrigeration waters with a volume higher than 100.000 m<sup>3</sup>/year: It has been identified 20 discharges, out of which 5 derive from public service electric power generation plants corresponding to the thermal power plants of Aboño, Lada, La Pereda, Soto de Ribera and Narcea. The other 15 discharges correspond to other type of self-producers industries (...).*”

<sup>245</sup> OJ L 206, of 22.07.1992.

<sup>246</sup> This is a Protocol to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, known as the Barcelona Convention.

<sup>247</sup> Convention on wetlands of international importance especially as waterfowl habitat, 1971. En el nombre del convenio pon el siguiente enlace;

<https://www.ramsar.org/about/the-convention-on-wetlands-and-its-mission>

<sup>248</sup> According to Article 1, point (a) of the Habitats Directive: “: (a) conservation means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status as defined in (e) and (i)”.

<sup>249</sup> According to the European Commission (EC) Guidelines “Managing Natura 2000 Sites. The Provisions of

on “appropriate management plans specifically designated for the sites or integrated into other development plans”.<sup>250</sup> This will often require the adoption of positive and proactive measures which aim to contribute to the achievement of the general objective of the Habitats Directive; to reach a favourable conservation status of its habitats and species.<sup>251</sup> According to Spanish law 42/2007, the obligation to adopt all necessary conservation measures provided in article 6.1 applies not only to SACs, as required by the Habitats Directive, but also to SPAs.<sup>252</sup> However, it is not necessary to establish specific conservation objectives or measures for species or habitats types whose presence on the site is non-significant according to its Natura 2000 Standard Data Form.<sup>253</sup>

However, the Habitats Directive imposes obligations on conservation that go beyond the simple management measures covered by article 6.1. On the one hand, Member States are required under article 6.2 to adopt preventive steps for ensuring the conservation of protected sites (particularly, in SACs) to avoid the deterioration of natural habitats and the significant disturbance of the species for which the site was designed. Accordingly, article 6.2 of the Habitats Directive provides:

“Member States shall **take appropriate steps to avoid, in the special areas of conservation, the**

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Article 6 of the “Habitats” Directive 92/43/EEC”, “(...) The words ‘if need be’ indicate that management plans may not always be necessary”, p. 19 available online at: [http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision\\_of\\_art6\\_en.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf).

However, following the Commission Note on establishing conservation measures for Natura 2000 Sites (2013), “the implementation of Article 6 (1) is not optional: the necessary conservation measures must be established for all SACs.” When interpreting the implications of article 6.1 of the Habitats Directive in Case C-508/04 *Commission of the European Communities vs Republic of Austria*, the ECJ recognized that a Member State cannot escape from taking all the necessary conservation measures in Natura 2000 sites-, “*It is apparent from Article 6(1) of the Directive that the ‘necessary conservation measures’ must be adopted in all cases, and not ‘if need be’.* In Article 6(1) **the words ‘if need be’ concern only management plans and cannot be understood as a general restriction on the obligation to adopt the necessary statutory, administrative or contractual measures...** (...) *The Directive requires the adoption of necessary conservation measures, a fact which excludes any discretion in this regard on the part of the Member States...*” p. 2 available online at: [http://ec.europa.eu/environment/nature/natura2000/management/docs/commission\\_note/comNote%20conservation%20measures\\_EN.pdf](http://ec.europa.eu/environment/nature/natura2000/management/docs/commission_note/comNote%20conservation%20measures_EN.pdf)

<sup>250</sup> Article 6.1 of the Habitats Directive provides: “For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites.” This provision has been effectively transposed into article 46.1 of Spanish Law 42/2007 when provides that:

“*With regard to SACs and SPAs, the National State Administration and the autonomous communities, in the field of their respective competencies, will laid down the necessary conservation measures which correspond to the ecological requirements of the natural types of habitats and the species present on the sites, entailing:*

- a) *Appropriate management plans or instruments, specifically designed for the sites or integrated into other development plans, at least including, the conservation objectives of the site and the appropriate measures to maintain the sites at a favourable status of conservation. (...)*
- b) *Appropriate statutory, administrative or contractual measures.*”

<sup>251</sup> According to the Commission Note on establishing conservation measures for Natura 2000 Sites (2013), “Article 6.1 is distinguished from the three other paragraphs of Article 6, which focus instead on preventive measures to avoid deterioration, and significant disturbance (Article 6.2) and procedural safeguards to deal with plans and projects that may have significant effects on the Natura 2000 sites (Articles 6.3 and 6.4)”, p.1.

<sup>252</sup> Although article 6.1 of the Habitats Directive exclusively refers to SACs when requiring the adoption of appropriate measures of conservation, an analogous obligation applies to SPAs by virtue of Article 4.1 and 4.2 of the Birds Directive which require that Member States ensure the species mentioned in Annex I and regularly occurring migratory bird species are subject to special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

<sup>253</sup> EC Guide “Establishing conservation measures for Natura 2000 Sites” (2014), available online at <http://ec.europa.eu/environment/nature/natura2000/management/docs/conservation%20measures.pdf>

**deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.”**

It is necessary to point out that, pursuant to Article 4.5 of the Habitats Directive, the obligation provided in Article 6.2 is also applicable to those protected sites declared as SCIs prior to their designation as SACs.<sup>254</sup> Thus, article 6.2 applies permanently in SACs and SCIs exclusively concerning those “habitats and species for which the areas have been designated”, which are those identified in the corresponding Natura 2000 standard data forms.

The terms “avoid” and “could be significant” used in article 6.2 stress the **anticipatory nature of the measures to be taken**, notwithstanding whether it concerns past, present or future activities. This clearly reflects the relevance of the principle of prevention as a starting point when applying the obligation provided in article 6.2.<sup>255</sup> Therefore, if an already existing activity such as the coal-fired LCPs in operation, causes or may cause deterioration of natural habitats or disturbance of species for which a SAC or SCI has been designated, appropriate conservation measures must be taken. It is not acceptable to await until such deterioration or disturbances occurs.<sup>256</sup>

The meaning and scope of the obligation provided in article 6.2 of the Habitats Directive has been explained in many judgments of the Court of Justice of the European Union (CJEU). For example, in Case C-404/09 held on 24 November 2011, the CJUE has recognized that **it is sufficient to establish the existence of a probability or risk** for an operation to cause a significant deterioration or disturbance of the site’s habitats or species **to require compliance with the obligation provided in article 6.2.**<sup>257</sup>

At Spanish level, article 6 (2) of the Habitats Directive has been transposed by article 46.2 of Law 42/2007. Spanish law requires the adoption of such appropriate conservation measures but only with regard to SACs and SPAs. National law does not foresee the conservation measures of article 6.2 concerning sites designated as SCIs<sup>258</sup> what represents a case of incorrect transposition. In addition, article 46.2 focuses on measures consisting on management plans or instruments. In particular, article 46.2 of Law 42/2007 provides:

“(…) the competent Administrations shall adopt appropriate measures, in particular withinsaid the

<sup>254</sup> Article 4.5 of the Habitats Directive, when referring to the list of Sites of Community Importance, provides that: “As soon as a site is placed on the list referred to in the third subparagraph of paragraph 2 it shall be subject to Article 6 (2), (3) and (4).”

<sup>255</sup> See EC Guidelines “Managing Natura 2000 Sites” p. 24.

<sup>256</sup> Ibid.

<sup>257</sup> Judgment of the Court of Justice of the European Union, in Case C-404/09 *European Commission v Kingdom of Spain [2011]* ECLI:EU:C:2011:768; para 124, “(…) *Since Article 6(2) and (3) of the Habitats Directive are designed to ensure the same level of protection, it is sufficient for the Commission to establish the existence of a probability or risk that that operation might cause significant disturbances for that species*”. For other relevant pronouncements by the Court see also para. 124: “(…) *it should be noted that Article 6(2) of the Habitats Directive applies to the ‘Feixolín’, ‘Fonfría’ and ‘Salguero- Prégame-Valdesesgadas’ open-cast mines, notwithstanding the fact that operation of the latter was authorised before the system of protection laid down by the Habitats Directive became applicable to the ‘Alto Sil’ site by reason of its classification as an SP*”; and para 87: “*Moreover, even if that operation is situated outside the SCI, it is undisputed that it is immediately adjacent to that site, so that it is possible that it may have impacts on the latter*”.

<sup>258</sup> Article 4.5 of the Habitats Directive has been incorrectly transposed into Article 46.8 of Spanish Law 42/2007, which states that: “As soon as a site is placed on the list of SCIs approved by the European Commission, it shall be subject to the provisions of paragraph 4, 5 and 6 of this article”. Thus, national law does not refer to the application of the obligation contained in article 6.2 of the Habitats Directive (article 46.2 of Law 42/2007) when concerning SCIs.

referred management plans or instruments, to avoid in protected sites of the Natura 2000 Network the deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designed, in so far as such disturbance could be significant in relation to the objectives of this law”.<sup>259</sup>

In any case, Spain has to comply with the obligation in article 6.2 which, in terms of this analysis, is particularly relevant given the number of coal-fired LCPs operating not only in the surroundings of Natura 2000 Network Sites, but also inside these protected areas such are the cases of the LCPs of Soto de Ribera III and Anllares. Consequently, in those cases of LCPs in which a mere probability or risk to cause a deterioration of the habitats or a significant disturbance of the species for which the sites have been designated exist, the adoption of all appropriate preventive measures pursuant to the obligation provided in article 6.2 of the Habitats Directive is required.

In light of that obligation, and given the weakness and loopholes identified in the protected sites' Management Plans, IIDMA is going to undertake an in-depth review to check whether appropriate steps have been taken to avoid deterioration of the Natura 2000 areas in accordance with article 6.2 of the Habitats Directive.

On the other hand, Article 6.3 of the Habitats Directive provides another obligation on conservation of a procedural nature: to undertake an **appropriate assessment** concerning plans or projects that, although not directly connected with or necessary to the management of the site, are likely to have a significant effect on the conservation of Natura 2000 sites, its habitats and species.<sup>260</sup> In this regard, article 6.3 states that:

“Any plan or project not directly connected with or necessary to the management of the site **but likely to have a significant effect** thereon, either individually or in combination with other plans or projects, shall **be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives**. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

This provision, which exclusively applies to plans and/or projects subject to an authorization procedure, has been effectively transposed into article 46.4 of Spanish Law 42/2007.<sup>261</sup> The

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<sup>259</sup> The original text of Article 46 (2) of Law 42/2007 provides that: “Igualmente, las Administraciones competentes tomarán las medidas apropiadas, en especial en dichos planes o instrumentos de gestión, para evitar en los espacios de la Red Natura 2000 el deterioro de los hábitats naturales y de los hábitats de las especies, así como las alteraciones que repercutan en las especies que hayan motivado la designación de estas áreas, en la medida en que dichas alteraciones puedan tener un efecto apreciable en lo que respecta a los objetivos de la presente ley.”

<sup>260</sup> In the Wadden Sea Case C-127/02 *Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij* [2004], the ECJ stated that: “such an (appropriate) assessment of the implications implies that, prior to the approval of the plan or project, all the aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field”, para. 54, ECLI:EU:C:2004:482.

<sup>261</sup> Article 46.4 of Law 42/2007 literally provides that: “Any plan, programme or project not directly connected with or necessary to the management of the site but likely to have a significant impact on the species or habitats of those areas, either individually or in a combination with other plans, programmes or projects, shall be subject to **appropriate assessment** of its implications for the area, **to be carried out according to the applying legislation, following the basic State legislation and additional rules for protection approved by the Autonomous Communities**, taking into consideration the conservation objectives of the area. In light of the conclusions on the assessment of the implications in the area and subject to the provisions of paragraph 5, the competent bodies for approving and authorizing the plans, programmes and projects shall express their conformity with them only after having ascertained that it will not adversely affect the integrity of the area concerned and, if appropriate, after having obtained the opinion of the general public”.

16 Spanish coal-fired LCPs obtained their authorization more than 20 years ago. However, 14 out of these 16 LCPs are, since 1 January 2016, operating under the Transitional National Plan (TNP) of article 32 of the Industrial Emissions Directive (IED).<sup>262</sup> The Spanish TNP is a plan which must be subject to an appropriate assessment according to article 6.3 of the Habitats Directive. In this regard, article 6.1.b) of Spanish Law 21/2013, of 9 December, on Environmental Assessment<sup>263</sup> requires to subject to an Strategic Environmental Assessment (SEA) those plans affecting Natura 2000 Network sites in line with the provisions set in article 46.4 of Spanish Law 42/2007 (which transposes article 6.3 of the Habitats Directive).

Given the Spanish TNP was approved last 25 November 2016 without having been subject to an appropriate assessment (SEA), the Kingdom of Spain has failed in compliance with its obligation under article 6.3 of the Habitats Directive. As a result, IIDMA has already initiated a judicial procedure against the Spanish TNP. Other legal venues under international instruments.

Some Natura 2000 Network Sites located nearby coal-fired plants have been also protected under international regimes:

- i. **SPAMIs:** This category of protected area was established under article 8 of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (“SPA Protocol, 1995”)<sup>264</sup> to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (“Barcelona Convention, 1976”).<sup>265</sup> Two protected areas located nearby Spanish coal-fired LCPs have been designated as SPAMIs: these are, Fondos Marinos del Levante Almeriense and Cabo de Gata-Níjar both in the C.A Andalucía.

Under article 3.1 of the SPA Protocol, the Parties have a general obligation to adopt the necessary measures in order to: (a) protect, preserve and manage in a sustainable and environmentally sound way areas of particular natural or cultural value, notably by the establishment of specially protected areas; and (b) protect, preserve and manage threatened or endangered species of flora and fauna”.<sup>266</sup> To promote the management and conservation of these protected areas, Parties shall draw up a List of SPAMIs. In addition, as provided in article 8.3 of the SPA Protocol, the Parties have agreed to recognize the particular importance of these areas for the Mediterranean<sup>267</sup>, as well as to comply with the measures applicable to the SPAMIs and not to authorize nor undertake any activity that might be contrary to the objectives for which the SPAMIs were established.<sup>268</sup> The protection and management measures concerning SPAMIs, as well as the means for their implementation are those established by each Party at the time of submitting a proposal for its inclusion in the SPAMI List. Those proposed measures shall be effectively implemented as established in article 9.5 of the

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<sup>262</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) OJ L 337, of 17.12.2010

<sup>263</sup> Ley 21/2013, de 9 de diciembre, de evaluación ambiental (BOE num. 296 of 11.12.2013).

<sup>264</sup> Spain ratified the SPA Protocol on 23.11.1998 and entered into force on 12.12.1999. Ratification instrument BOE num. 302, of 18.12.1999.

<sup>265</sup> United Nations Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean adopted on 16 February 1976, 1102 UNTS 27 (“Barcelona Convention”), ratified by Spain on 17.02.1999, and entered into force on 09.07.2004. Ratification instrument Instrumento de ratificación, BOE num. 173, of 19.06.2004.

<sup>266</sup> Article 3, paragraph 1, points a) and b).

<sup>267</sup> Article 8, paragraph 3 (a).

<sup>268</sup> Article 8, paragraph 3 (b).

SPA Protocol.<sup>269</sup>

To promote compliance with the obligations under the Barcelona Convention and the SPA Protocol, a Compliance Committee was established following the adoption of Decision IG.17/2 on Compliance Procedures and Mechanisms by the 15th Meeting of the Contracting Parties and the creation of the Compliance Committee (the Committee) in July 2008 (modified by Decision IG. 21/1) as well as Decision IG.19/1 containing the Rules of Procedure adopted by the 16th Meeting of the Contracting Parties in November 2009. According to section V paragraphs 1 and 2 of Decision IG 17/2 the Committee is empowered to consider cases of alleged non-compliance following the submissions made by individual Parties (regarding its own failure in compliance, or by a Party in respect to another Party's situation) and through the Secretariat of the Convention if it becomes aware of potential difficulties of the Parties to comply with the Convention and Protocols provisions. In addition, the consolidated text of Decision IG.17/2 recognizes in its section V 2.bis) the legitimacy of the Committee to initiate a non-compliance procedure by its own initiative "*on the basis of the biennial activity reports or in the light of any other relevant information.*"<sup>270</sup> Therefore, this may entail a venue of legal action for IIDMA to inform the Committee about any possible non-compliance of the Kingdom of Spain regarding its obligations on conservation of SPAMIs under the SPA Protocol. But this firstly requires analyzing if any non-compliance exists.

- ii. **Ramsar Wetlands:** This category of protected area was established under the Convention of Wetlands of International Importance especially as Waterfowl Habitat (or Ramsar Convention), ratified by Spain on 18 March 1982 and in force since 4 September 1982.<sup>271</sup> Following the obligation provided in article 2.1 of the Convention, until now Spain has designated 74 wetlands within the national territory which are included in the List of Wetlands of International Importance ("The List").<sup>272</sup> Among them, two protected areas located nearby Spanish coal-fired LCPs have been included in that List<sup>273</sup>: these are, Salinas del Cabo de Gata in the C.A of Andalucía, and S'Albufera de Mallorca in C.A Islas Baleares.<sup>274</sup>

Among the general obligations contained in the Ramsar Convention, State Parties are required to formulate and implement their planning in order to promote the conservation of wetlands and its wide use.<sup>275</sup> However, it must be stressed that the Ramsar Convention is not a regulatory regime and has no

<sup>269</sup> Article 9.5 of the SPA Protocol provides that: "The Parties which proposed the inclusion of the area in the List shall implement the protection and conservation measures specified in their proposals in accordance with paragraph 3 of this Article".

<sup>270</sup> Section V part 2.bis) provides: "23. Bis The Committee may examine, on the basis of the biennial activity reports or in the light of any other relevant information, any difficulties encountered by a Contracting Party in the implementation of the Convention and its Protocols. The Committee may ask the Party concerned to provide all additional information. The Party concerned shall have a period of two months to respond".

<sup>271</sup> Instrument of accession, BOE num. 199, of 20.08.1982.

<sup>272</sup> According to article 2 paragraph 1 of the Ramsar Convention, "Each Contracting Party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance".

<sup>273</sup> Article 1 paragraph 1 of the Ramsar Convention defines wetlands as: "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres."

<sup>274</sup> Map of Spain identifying the wetlands included in the List of Wetlands of International Importance, available online at: [http://www.mapama.gob.es/es/biodiversidad/temas/ecosistemas-y-conectividad/ramsar\\_mapa\\_espana\\_sep\\_14\\_tcm7-157919.pdf](http://www.mapama.gob.es/es/biodiversidad/temas/ecosistemas-y-conectividad/ramsar_mapa_espana_sep_14_tcm7-157919.pdf)

<sup>275</sup> Article 3, paragraph 1 of the Ramsar Convention.

punitive sanctions for violations of or defaulting upon the treaty commitment<sup>276</sup>. For this reason this Convention does not count with a compliance mechanism and procedure regarding cases of non-compliance by the Parties of the Convention provisions. However, this Convention is part of the Spanish legal order as provided in article 96 of the Spanish Constitution<sup>277</sup>. Therefore, any case of non-compliance could be raised before a Spanish Court of Law.

## 4.2. Surface waters and water-dependent protected areas

This section analyzes the EU legal regime and the existing legal venues to ensure the protection of the status of surface waters which may be affected by discharges from Spanish coal plants. Special attention is given to the strong framework provided under the WFD and its intimate link with the Habitats Directive provisions.

There are a number of environmental objectives in respect of which the quality of water is protected under the WFD. The EU Directive mainly pursues towards the general protection of the aquatic ecology concerning both surface and underground waters. However, the WFD also requires the protection of protected areas dependent on the status of surface waters for its effective conservation, including a protection regime for Natura 2000 sites habitats and species.<sup>278</sup>

Both the WFD and the Habitats Directive aim at ensuring healthy aquatic ecosystems while at the same time ensuring a balance between water/nature protections. The objectives pursued by both directives are closely related, making necessary to provide a coordinated legal analysis, in particular, when focusing on the implementation by Spain of the obligations on conservation regarding water-dependant Natura 2000 sites habitats and species.

### 4.2.1. Legal venues at EU level under the Water Framework Directive and the Habitats Directive

When concerning water bodies, article 4.1.a) of the WFD provides an obligation on Member States to protect, enhance and restore all bodies of surface waters **with the aim to achieve a good surface water status by 2015**. This obligation has been effectively transposed into Spanish law through article 92 bis of Royal Legislative Decree 1/2001 and articles 35-39 bis of Royal Decree 907/2007.<sup>279</sup> Under article 36 of Royal Decree

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<sup>276</sup> The Ramsar Convention Manual, A Guide to the Convention on Wetlands (Ramsar, Iran, 1971) 6<sup>th</sup> edition, p. 14 available online at: <http://www.ramsar.org/sites/default/files/documents/library/manual6-2013-e.pdf>

<sup>277</sup> Article 96 of the Spanish Constitution requires that: “1. Validly concluded international treaties, once officially published in Spain, shall form part of the internal legal order. Their provisions may only be repealed, amended or suspended in the manner provided in the treaties themselves or in accordance with the general rules of International Law.”

<sup>278</sup> Natural habitats are defined in article 1.b) of the Habitats Directive as: “*terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural*”. This includes open sea and tidal area habitats as well as freshwater habitats (standing waters and running waters).

<sup>279</sup> Article 92 bis of Royal Legislative Decree 1/2001 and article 35 of Royal Decree 907/2007 provide:

“For the achievement of an adequate protection of waters, the following environmental objectives shall be achieved:

*a) For surface waters:*

*a') To prevent deterioration of the status of surface waters.*

*b') To protect, enhance and restore all bodies of surface water with the aim of achieving a good surface status.*

907/2007 Spain was required to comply with the environmental objectives provided in article 4.1 of the WFD by 31 December 2015, the latest. However, as explained above, several surface water bodies where LCPs discharge have been granted with derogations (article 4.4 of WFD), allowing them to extend the deadline to comply with a good surface waters status to 2021 or even 2027. These LCPs are: Soto de Ribera, Litoral de Almería, Los Barrios, La Robla, Aboño, Lada, Velilla, As Pontes, Compostilla and La Pereda.

In any case, pursuant to article 4.9 of the WFD, steps must be undertaken to ensure that the application of all derogations provided in article 4 of the WFD "*guarantees at least the same level of protection as the existing Community legislation*". In particular, according to the EC Guide "Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions", the WFD does not allow derogating from the requirements set under the Habitats Directive.<sup>280</sup>

As showed, there are many cases of LCPs discharging within or adjacent to surface water bodies linked to Natura 2000 habitats and species; these are the LCPs of Soto de Ribera (SAC Nalón River), Alcúdia (SCI Badíes de Pollença i Alcúdia and SPA Espacio Marino del Norte de Mallorca), Litoral de Almería (SAC Islote de San Andrés), La Robla (SAC Riberas del Río Esla y Afluentes) and Puentenuevo (SAC Guadiato- Bembézar). All surface waters where these LCPs discharge, except in the case of Puentenuevo plant, do not achieve a good status as required under article 4.1.a) of the WFD. Furthermore, these surface water bodies are water-dependent Natura 2000 sites habitats and species whose effective conservation depends directly on the status of those waters.

In this regard, when concerning water-dependent Natura 2000 sites, the Kingdom of Spain is bound by the obligations provided at both the WFD and the Habitats Directive, as follows:

Article 4.1.c) of the WFD states an environmental objective to be met concerning protected areas:

"Member States shall achieve **compliance with any standards and objectives** at the latest 15 years after the date of entry into force of this Directive, **unless otherwise specified in the Community legislation under which the individual protected areas have been established.**"

The protected areas falling within the scope of the WFD are those contained in its Annex IV, as follows:

- (i) areas designated for the abstraction of water intended for human consumption; (regulated in article 7 of the WFD)
- (ii) areas designated for the protection of economically significant aquatic species;
- (iii) bodies of water designated as recreational waters, including areas designated as bathing waters under Directive 76/160/EEC;
- (iv) nutrient-sensitive areas, including areas designated as vulnerable zones under Directive 91/676/EEC and areas designated as sensitive areas under Directive 91/271/EEC; and
- (v) **areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites designated under Directive 92/43/EEC and Directive 79/409/EEC.**

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c') *To progressively reducing pollution from priority substances and removing or phasing out discharges, emissions and losses of priority hazardous substances.*"

<sup>280</sup> EC Guide "Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions" (2011), p. 23.

This means that all standards and objectives of the relevant EU legislation, including water related objectives linked to the achievement of a favourable conservation status of Natura 2000 sites' water-dependant habitats and species (under the legal regime of the Habitats Directive) had to be implemented by 2015. Although the exemptions provided in article 4 paragraphs 4, 5, 6 and 7 of the WFD apply to all environmental objectives of article 4.1 (including protected areas) **such exemptions cannot be used to deviate from the objectives and obligations of the Birds and the Habitats Directive, and vice-versa. (...) The impact of the use of an exemption under article 4 of the WFD must take account of the possible impact on the objectives pursued under the Habitats Directive**".<sup>281</sup> In fact, as provided in article 4.2 of the WFD, when two or more environmental objectives apply to a given body of water "*the most stringent shall apply*".<sup>282</sup> Article 4.1.c) of the WFD has been transposed into the Spanish legal order through article 92 bis paragraph 1.c) of Royal Legislative Decree 1/2001 and article 35 paragraph c) of Royal Decree 907/2007. Under both provisions, the Kingdom of Spain is required to:

"c) protected areas: *compliance with the requirements set in protection regulations applicable to an area and the achievement of the specific environmental objectives established therein*".

Article 4.1.c) of the WFD and its transposition into national law stresses once again the obligation of Spain to apply the appropriate preventive measures provided in article 6.2 of the Habitats Directive (apart from the general conservation measures derived from article 6.1) where there is a risk or probability of deterioration of the habitats or disturbance of the species for which the site was designed, and where those habitats and species are dependent of the status of surface waters for attaining the final objective of the Habitats Directive; that is, to ensure their 'favourable conservation status'.

In this regard, the referred EC Guide recognizes that a plan or project within the meaning of Article 6.3 of the Habitats Directive or a management measure as referred to in Article 6.1 or 6.2 of that Directive could have an impact on a water body. Measures needed to avoid deterioration of the Habitats or Birds Directives targeted natural elements must be implemented **as soon as** the sites are classified as SPA or designated as SCI, according to the EC Guide.<sup>283</sup>

Another important obligation under article 11 of the WFD refers to the elaboration of a programme of measures to be included in RBMPs. Member States are required to identify in such programmes the necessary measures to reach the environmental objectives concerning all waters of each river basin district. This includes the adoption of "basic measures" when concerning any regulation listed in Part A of Annex VI of the WFD, which includes the Habitats and Birds Directives. Therefore, the Kingdom of Spain also has an

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<sup>281</sup> EC Guide "Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions" (2011), p. 23.

<sup>282</sup> According to the EC Guide "Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions" (2011), p. 13: "Where habitats or species are not characteristic of a water body type, their protection should not prevail over the restoration of the water body, unless they are important for the conservation status of a habitat or species of Community interest in the national biogeographical region. In order to achieve integration of provisions of WFD and BHD it is therefore recommended to use the water body type and its characteristics as guidance for setting joint objectives and agreeing on the management of the water bodies / Natura 2000 sites in order to achieve good/favourable status. (...) the occurrence of species and habitats of community interest outside Natura 2000 sites should be considered as well as they also contribute to the overall conservation status."

<sup>283</sup> EC Guide "Links between the Water Framework Directive and Nature Directives-Frequently Asked Questions" (2011), pages 15 and 25.

obligation to include at those RBMPs programmes of measures **any measures necessary to achieve compliance with standards and objectives for Natura 2000 sites listed in the register of protected areas as far as their ecological status is concerned.**<sup>284</sup>

Annex III below provides information on the RBMPs programmes of measures corresponding to each river basin where Spanish coal plants discharge, and identifies those measures adopted in relation to Natura 2000 sites' habitats and species and other general measures on industrial discharges which could be related to the plants activity. IIDMA is going to undertake an in-depth review to check the suitability of the measures included at that programmes in coordination to those measures adopted at the corresponding Natura 2000 sites' management plans.

Finally, under annex V section 1.3.5 of the WFD, Member States are required to adopt additional monitoring concerning habitats and species protection areas when:

“Bodies of water forming these areas shall be included within the operational monitoring programme referred to above where, on the basis of the impact assessment and the surveillance monitoring, **they are identified as being at risk of failing to meet their environmental objectives under Article 4. Monitoring shall be carried out to assess the magnitude and impact of all relevant significant pressures on these bodies and, where necessary, to assess changes in the status of such bodies resulting from the programmes of measures.** Monitoring shall continue until the areas satisfy the water-related requirements of the legislation under which they are designated and meet their objectives under Article 4.”

This obligation has been effectively transposed into article 8.1 of Royal Decree 817/2015, which requires the undertaken of additional monitoring measures concerning Natura 2000 sites where the maintenance or improvement of the water status constitutes an important factor for the protection of its habitats and species. IIDMA is going to check whether this obligation on monitoring is being effectively implemented by the regional competent authorities in relation to those habitats and species dependent on the status of surface waters where LCPs discharge.

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<sup>284</sup> Ibid, p.29.

## Annex I- Spanish legislation on protected areas

National legislation			
Law 30/2014, of 3 December on National Parks <sup>285</sup>			
Law 42/2007, of 13 December on Natural Heritage and Biodiversity <sup>286</sup>			
CC.AA Legislation			
CC.AA	Coal-fired power plants	Legislation	Categories of protected areas
Andalucía	<p><b>LCP Litoral I y II</b> (Almería)</p> <p><b>LCP Los Barrios</b> (Cádiz)</p> <p><b>LCP PuenteNuevo</b> (Córdoba)</p>	<ul style="list-style-type: none"> <li>- <b>Law 2/1989</b>, of 18 July, approving the Inventory of Andalusian Protected Areas and establishing additional protection measures.<sup>287</sup></li> <li>- <b>Decree 95/2003</b>, of 8 April, on the regulation of the Protected Areas Network of Andalucía and its Registry.<sup>288</sup></li> </ul>	<p>Parks</p> <p>Natural reserves/ concerted natural reserves</p> <p>Natural monuments</p> <p>Protected landscapes</p> <p>Natural landscapes</p> <p>Peri-urban parks</p> <p>SCIs, SACs and SPAs</p>
Aragón	<b>LCP Andorra</b> (Teruel)	<ul style="list-style-type: none"> <li>- <b>Legislative-Decree 1/2015</b>, of 29 July, of the Government of Aragón, on the approval of the consolidated text of the Law on Protected Areas of Aragón.<sup>289</sup></li> <li>- <b>Decree 27/2015</b>, of 24 February, of the Government of Aragón, regarding the regulation of the Catalogue of trees and groves of Aragón.<sup>290</sup></li> </ul>	<p>National parks</p> <p>Natural parks</p> <p>Natural reserves (integrated y managed “dirigidas”)</p> <p>Natural monuments</p> <p>Protected landscapes</p> <p>Network of Protected Areas of Aragón:</p> <p>6.1. Singular natural areas:</p> <p>a) Sites part of Natura 2000 Network</p> <p>b) Biosphere Reserves</p> <p>c) Places of geological interest</p> <p>d) Geo-parks</p>

<sup>285</sup> BOE num. 293, of 04.12.2014.<sup>286</sup> BOE num. 299, of 14.12.2007.<sup>287</sup> BOE num. 201, of 23/08/1989.<sup>288</sup> BOJA num. 79, of 28.04.2003.<sup>289</sup> BOA num. 151, of 06.98.2015.<sup>290</sup> BOA num. 43, of 04.03.2015.

			<ul style="list-style-type: none"> <li>e) Natural goods of the World Heritage List</li> <li>f) Singular wetlands of Aragón, including the Ramsar Convention wetlands of international importance</li> <li>g) Singular trees of Aragón</li> <li>h) Waterways natural reserves</li> <li>i) Singular areas of cultural interest</li> <li>j) Singular natural areas of local or regional interest</li> </ul>
Castilla y León	<p><b>LCP Velilla I, II</b> (Palencia)</p> <p><b>LCP La Robla I y II</b> (León)</p> <p><b>LCP Compostilla I y II</b> (León)</p> <p><b>LCP Anllares</b> (León)</p>	- <b>Law 4/2015</b> , of 24 March, on the Natural Heritage of Castilla y León. <sup>291</sup>	<p>Network of Protected Areas:</p> <ul style="list-style-type: none"> <li>1) Natura 2000 Network (SCI, SAC, SPA)</li> <li>2) Network of natural protected areas: <ul style="list-style-type: none"> <li>a) Parks (national, regional o natural)</li> <li>b) Natural reserves.</li> <li>c) Natural monuments.</li> <li>d) Protected landscapes</li> </ul> </li> <li>3) Network of natural areas of special interest: <ul style="list-style-type: none"> <li>a) Mounts classified as public utility</li> <li>b) Mounts (“montes protectores”)</li> <li>c) Wetland areas of special interest</li> <li>d) Livestock trails of special interest</li> <li>e) Recreational</li> </ul> </li> </ul>

<sup>291</sup> BOE num. 91, of 16.04.2015.

			natural areas f) Micro-reserves of flora and fauna g) The remarkable trees (“árboles notables”) h) Geological and paleontological places of special interest
Asturias	<b>LCP La Pereda</b> (Asturias)  <b>LCP Lada IV</b> (Asturias)  <b>LCP Aboño I y II</b> (Asturias)  <b>LCP Soto de Ribera III</b> (Asturias)  <b>LCP Narcea I, II, III</b> (Asturias)	- <b>Law 5/1991</b> , of 5 April, on the Protection of Natural Areas. <sup>292</sup>	1) Natural park 2) Natural reserve: integral and partial 3) Natural monuments 4) Protected landscapes
Galicia	<b>LCP As Pontes</b> (La Coruña)  <b>LCP Meirama</b> (A Coruña)	- <b>Law 9/2001</b> , of 21 August, on the conservation of nature. <sup>293</sup>  - <b>Law 7/2008</b> , of 7 July, on the protection of the Galician landscape. <sup>294</sup>	1) Natural reserves 2) Parks (natural o national) 3) Natural monument 4) Protected wetland 5) Area with special protection of natural values 6) Protected landscape 7) Natural area of local interest 8) Private area of natural interest
Balearic Islands	<b>LCP Alcudia</b> (Mallorca)	- <b>Law 1/1991</b> , of 30 January, on natural areas and the urban regime of areas of	1) National park 2) Natural park 3) Natural area

<sup>292</sup> BOE num. 121, of 21.05.1991.

<sup>293</sup> BOE num. 230, of 25.09.2001.

<sup>294</sup> BOE num. 201, of 20.08.2008.

		<p>special protection of the Balearic Islands<sup>295</sup>,</p> <p>- <b>Law 7/1992</b>, of 23 December, on the amendment of certain articles of Law 1/1991, of 30 January, on natural areas and the urban regime of areas of special protection of the Balearic Islands.<sup>296</sup></p>	<p>4) Natural reserve, (integral or special).</p> <p>5) Natural monument</p> <p>6) Protected landscape</p> <p>7) Area of scientific interest and micro-reserve.</p> <p>Areas of Special Interest for the Autonomous Community:</p> <p>8) Natural area of special interest</p> <p>9) Rural area of scenic interest</p> <p>10) Settlement area in landscape of interest</p>
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<sup>295</sup> BOE num. 92, of 17.04.1991.

<sup>296</sup> BOE num. 42, of 18.02.1993.

## Annex II- Location of Natura 2000 Network Sites in the surroundings of Spanish coal-fired LCPs



List of Natura 2000 Network Sites	
A	Islote de San Andrés (SAC)
B	Fondos Marinos del Levante Almeriense (SAC)
C	Cabo de Gata-Níjar (SAC/SPA)
D	Marismas del Río Palmones (SAC/SPA)
E	Fondos Marinos Marismas del Río Palmones (SAC)
F	Guadiato-Bembézar (SAC)
G	S'Albufera de Mallorca (SAC/SPA)
H	Puig de San Martí (SCI)
I	Badies de Pollença i Alcúdia (SCI)
J	Espacio Marino del Norte de Mallorca (SPA)
K	Desfiladeros del Río Martín (SPA)
L	Parque Cultural del Río Martín (SCI)
M	Fuentes Carrionas y Fuente Cobre (Montaña Palentina) (SAC/SPA)
N	Riberas del Río Esla y afluentes (SAC)
O	Cuencas Mineras (SAC)
P	Embalses del Centro (San Andrés, La Granada, Trastona y La Furta) (SPA)
Q	Río Nalón (SAC)
R	Sierra de los Ancares (SAC/SPA)
No.	Coal-fired LCPs
1	Litoral I y II
2	Los Barrios
3	Puentenuevo
4	Alcúdia II
5	Andorra I y II
6	Velilla I y II
7	La Robla I y II
8	La Pereda
9	Lada IV
10	Aboño I y II
11	Soto de Ribera III
12	Anllares
13	Compostilla II
14	Narcea II y III
15	As Pontes I, II, III y IV
16	Meirama

Source: Natura 2000 Network Viewer. Own elaboration

## Annex III- Programmes of measures adopted in River Basin Management Plans under article 11 of the WFD-concerning Natura 2000 sites and industrial discharges

RBMPs (hydrological cycle (2015/2021))	Measures adopted for compliance with the WFD environmental objectives (protected areas/Natura 2000 sites)	Competent authority/ deadline for accomplishment (where established)	Other measures: industrial discharges	Competent authority/ deadline for accomplishment
<b>Cantábrico Occidental RBMP</b> <a href="#">Programme of measures Annex 10.5</a>	<b>Measures for conservation and improvement of biodiversity</b>		<b>Measures for reducing pollution from industrial sources</b>	
	<u>Relation between protected areas and hydrological planning:</u> <ul style="list-style-type: none"> <li>Incorporation of Natura 2000 objectives to hydrological management.</li> </ul>	Several CC.AA /2015	<ul style="list-style-type: none"> <li>Reducing pollution from industrial sources by the Cantábrico Hydrological Confederation (C.H.C).</li> </ul>	Several CC.AA/2015
	<ul style="list-style-type: none"> <li>Actions for the protection and control of protected areas.</li> </ul>	Principado de Asturias/ 2015	<ul style="list-style-type: none"> <li>Reducing pollution from industrial sources by private operators within the C.H.C.</li> </ul>	Private operators-several CC.AA/ 2015
<b>Andalusia Mediterranean RBMP</b> <a href="#">Programme of measures (Annex 10)</a> <sup>297</sup>	<u>Measures concerning environmental matters:</u> Discharges concentration, and new wastewater treatment plant (in Puerto de Carboneras water body).	Andalusian Water Agency (AAA) (2015)	<u>General measures:</u> <ul style="list-style-type: none"> <li>Programme for discharges monitoring and control.</li> </ul>	AAA (2015/2021/2027)
			<ul style="list-style-type: none"> <li>Programme for the conservation of the water public domain.</li> </ul>	AAA (2015/2021/2027)

<sup>297</sup> The Programme of measures of the Andalusia Mediterranean RBMP literally states: “It is necessary to stress the discharges of IPPC activities included within Directive 96/61/EC of 24 september 1996, regarding integrated pollution prevention and control, and Law 16/2002 which transposes such Directive into the Spanish legal order. (...) Among some of the most relevant sectors at this group it can be found petrochemical, oil refinery, steel and thermal power plant industries, such as those located in Bahía de Algeciras which can be identified as the largest focus of discharge of this type in the river basin. (...). There exist other industries affected by IPPC which are spread among the coastline such are the thermal plants in Almería. [“It refers to the coal plant Litoral de Almería”] (...) The main industrial discharges are concentrated in the area of the estuary Río Palmones (protected natural landscape and designated as SCI) (...), p.55.

	<ul style="list-style-type: none"> <li>• Environmental improvement, restoration and integration of the banks and riversides of Palmones River and its basin.</li> </ul>	Ministry of Agriculture and Fishing, Food and Environment (MAPAMA)(2021)	<ul style="list-style-type: none"> <li>• Measures concerning hazardous substances (Cádiz).</li> </ul>	AAA-local administration (2015)
	<ul style="list-style-type: none"> <li>• Extension of San Roque wastewater treatment plant and collectors in Palmones and other areas of Campo de Gibraltar (in Desembocadura del Río Guadarranque water body).</li> </ul>	MAPAMA (2015)	<ul style="list-style-type: none"> <li>• Measures for water bodies with low probabilities to achieve the environmental objectives (in Puerto de Algeciras water body).</li> </ul>	C.A Department for environment (2015)
			<ul style="list-style-type: none"> <li>• Control and monitoring of wastewater discharges within the Duero River Basin.</li> </ul>	C.A Department for environment (2015)
<b>Duero RBMP</b> <a href="#">Programme of measures (Annex 12)</a>	<ul style="list-style-type: none"> <li>• Control of urban-industrial discharges.</li> <li>• Control of water quality.</li> <li>• Protection and control of water public domain.</li> <li>• Control of alterations in water dynamics and levels.</li> <li>• Control of ecological flows in river systems.</li> <li>• Measures for maintenance of river ecosystems.</li> <li>• Measures for the establishment of fish practices linked to conservation.</li> <li>• Planning of fish management.</li> <li>• Prevention of biodiversity loss processes.</li> <li>• Control of industrial and commercial activities with risk of spread of invasive alien species.</li> <li>• Measures for “ex-situ” conservation of fish species.</li> <li>• Specific actions for the improvement of the habitats of aquaticbird fauna.</li> <li>• Specific actions for the improvement of amphibians and reptiles populations.</li> <li>• Measures for the improvement of connectivity between populations.</li> <li>• Measures for reinforcing fish populations.</li> <li>• Restoration of degraded wetlands.</li> </ul>			Duero Hydrological Confederation (D.H.C)
<b>Miño-Sil RBMP</b>	<b>Measures to comply with EU regulations on water protection:</b>			

<p><a href="#">Programme of measures (Chapter 12)</a></p>	<ul style="list-style-type: none"> <li>Measures for the improvement of the conservation status of habitats formed by water communities.</li> <li>Management measures of the SAC Serra do Xistral contained in the Galicia Master Plan Natura 2000 Network and related to the water environment.</li> <li>Control of introductions and eradication of invasive alien species in river ecosystems and wet areas, within the SCI and SPA Sierra de los Ancares.</li> <li>Control of introductions and eradication of invasive alien species in river ecosystems and wet areas, within the Alto-Sil.</li> <li>Studies and works for improving knowledge on the relationship between surface and underground waters and associated ecosystems, regarding the dynamics of water dependency between them.</li> </ul>	<ul style="list-style-type: none"> <li>Protection and control of water public domain.</li> <li>General programme for the conservation of water bodies.</li> <li>Control of implementation of ecological flows.</li> </ul>		
<p><b>Guadalquivir RBMP</b> <a href="#">Programme of measures (Annex 12)</a></p>	<ul style="list-style-type: none"> <li>Implementation of a monitoring protocol and specific indicators for assessing the implementation of measures and the conservation status of water-dependent species and/or habitats.</li> <li>Conservation and maintenance of flows. Area of Córdoba.</li> <li>Water-forestry restoration. Adaptation of Guadalquivir Hydrological Confederation forests heritage woodlands to global change in Córdoba (Promotion of Biodiversity protection and Nature).</li> <li>Actions for water-forestry restoration within the Guadalquivir basin area of Córdoba.</li> <li>Promotion of River Natural Reserves and its inclusion within the Protected Areas Network.</li> <li>Study and control of ecological flows.</li> </ul>	<p>Guadalquivir Hydrological Confederation (G.H.C)</p>	<ul style="list-style-type: none"> <li>Regulatory modifications to adapt the sanctions regime of industrial discharges.</li> <li>Review and update of industrial discharges authorizations.</li> <li>Discharge control programme.</li> <li>Increase of maritime-terrestrial public domain monitoring services. Control measures on punctual discharges and other activities with an impact on the status of water.</li> <li>Management regulations on dams' exploitation with a significant impact on the hydrological regime. Writing, approval and/or update of exploitation regulations on state-owned dams.</li> </ul>	<p>Local authorities</p> <hr/> <p>G.H.C</p> <hr/> <p>Junta de Andalucía- Department for Agriculture, Fishing and Rural Development</p> <hr/> <p>G.H.C</p>
<p><b>Galicia-Costa RBMP</b></p>	<p><b>Measures for the conservation and improvement of the structure and functioning of aquatic ecosystems</b></p>	<p>Directorate General for</p>	<ul style="list-style-type: none"> <li>Sewage treatment plant of As</li> </ul>	<p>Galician</p>

<a href="#">Programme of measures (Chapter 12)</a>	<ul style="list-style-type: none"> <li>• Service for the assistance and analysis of the sanitary quality of ichthyofauna (fish) in Galician rivers. Exclusively for salmon repopulation.</li> <li>• Elaboration of the Chioglossa lusitánica conservation plan in Galicia.</li> <li>• Conservation plan of Galemys pyrenaicus (mammals).</li> </ul>	Nature Conservation	Pontes de García Rodríguez. <ul style="list-style-type: none"> <li>• Measures for environmental recovery of Rfo Eume: Implementation of environmental measures in AG-64 (measure of the first hydrological planning cycle transferred to the second cycle).</li> <li>• Determination of the ecological flows within river water bodies of the Galicia-Costa river basin district.</li> <li>• Quality modeling of rivers and basins.</li> </ul>	Hydraulic Authority
	<p><b>Improvement of morphological conditions:</b></p> <ul style="list-style-type: none"> <li>• Improvement of river infrastructures and ecosystems of the Natura 2000 Network in A Coruña province.</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>• LIFE Margal Programme (new creation and restoration of wetlands)</li> </ul>	Galician Hydrological Authority		
<b>Ebro RBMP</b> <a href="#">Programme of measures (Annex 5.1)</a>	<ul style="list-style-type: none"> <li>• Study of ecological impacts on species within the habitats of the Ebro river basin.</li> </ul>	Ebro Hydrological Confederation (E.H.C)	<ul style="list-style-type: none"> <li>• Discharge control network of Ebro river basin district.</li> <li>• Control network on water quality of the Ebro river basin (surface waters (biological control in rivers and basins).</li> <li>• Habitats studies to determine the ecological flows in gauging points at Ebro river basin.</li> <li>• General improvement plan of discharges in the Ebro river basin.</li> </ul>	E.H.C
	<ul style="list-style-type: none"> <li>• Protection measures within conservation plans of protected areas in Ebro river basin.</li> </ul>	CC.AA authorities		Ministry for Agriculture, Fishing, Food and Environment (MAPAMA)
<b>Balearic Islands RBMP</b>	Under review			