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ANNUAL REPORT OF THE COHESION FUND

1995

ANNEX I – PORTUGAL – ENVIRONMENT

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PORTUGAL
ENVIRONMENT

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 93.10.61.007

1. **Name of project:**

Enxoé dam and supply system

2. **Authority making the application**

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Av. D. Carlos I 126-7*, 1200 Lisbon

3. **Body responsible for implementation**

3.1. Name: Instituto da Água

3.2. Address: Av. Almirante Gago Coutinho 30, 1000 Lisbon

4. **Location**

4.1. Member State: Portugal

4.2. Region: Alentejo

5. **Description**

This project concerns the Enxoé dam and related structures, water treatment plant, lift station, supply system and access.

The dam will have a maximum height of 20.5 m and will create a reservoir with a total capacity of 10.4 hm³ and an active storage capacity of 9.5 hm³. The flooded area will cover 2 km² at full storage capacity level.

The other related works involve a temporary diversion, a spillway, an intake tower and a submerged weir.

Water for public supply will be collected in the reservoir, channelled to the treatment plant by gravity and pumped to the supply system.

The supply system, consisting of two autonomous circuits, will be around 120 km long and made up of buried pipelines of not more than 300 mm in diameter. The system will also include two storage tanks.

The planned access routes will replace the roads which are no longer usable because of the dam and the reservoir.

6. **Objectives**

The main purpose of the project is to provide an efficient and lasting supply of water to the communes of Serpa and Mértola, thereby correcting the serious shortage from which they currently suffer.

These communes are situated in Alentejo, a region with scarce water resources subject to prolonged droughts, where it is necessary to exploit surface resources by creating reservoirs such as the one planned for the Enxoé river.

The new system will substantially increase the percentage of the population served, particularly in Mértola, where the rate of supply will increase from 12% to 50%.

Water supplied by the system must comply with the quality requirements of Directive 80/778/EEC relating to the quality of water intended for human consumption.

Thanks to the project it will also be possible to regulate the flow of water, thereby maintaining the life cycle and water quality.

7. **Work schedule**

Category of work	Commencement	Completion
Studies	1.10.1994	31.12.1997
Purchase of land	1995	31.12.1995
Construction	15.10.1995	31.12.1997
Operational phase	1.1.1998	

8. **Economic and social cost-benefit analysis**

At 6.6%, the internal economic rate of return is considered satisfactory for this type of investment, in view of the context in which the project is situated.

9. **Assessment of environmental impact**

The negative effects on the flora and fauna which have been identified are deemed acceptable in the construction phase and negligible in the operational phase.

Since this region is subject to prolonged droughts and suffers badly from erosion, an overall positive environmental impact can be expected. Measures to optimize the project's impact have already been identified.

10. Cost and assistance (in ECU)

Total cost: 25 656 111

Eligible costs (after 1.1.1993): 25 527 111

Rate of assistance: 85%

Cohesion Fund assistance: 21 698 045

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

Project No: 94.10.61.015

1. Title of project

Odeleite-Beliche water supply system: Odeleite dam, connecting tunnel, conduit and treatment station at Tavira.

2. Body responsible for the application:

- 2.1 Name: Direcção Geral do Desenvolvimento Regional
2.2 Address: Av D. Carlos I, 126-7º, 1200 Lisbon, Portugal

3. Authority responsible for implementation:

- 3.1 Name: Instituto da Água
3.2 Address: Av Almirante Gago Coutinho 30, 1200 Lisbon, Portugal

4. Location:

- 4.1 Member State: Portugal
4.2 Administrative district: Algarve

5. Description

The Odeleite-Beliche water system is intended to supply seven municipalities in the 'Sotavento', the eastern Algarve, the population of which over the life of the project (2027) is estimated at between 600 000 and 700 000.

Water will be taken from the Odeleite and the Beliche, both tributaries of the Guadiana. The system will comprise:

- the Beliche dam (already built)
- the Beliche treatment station (already built)
- the Odeleite dam
- the tunnel connecting the two reservoirs
- the conduit from the Beliche to Tavira
- a treatment station at Tavira
- an irrigation system
- a system for drying out the edge of the irrigated area.

The first two items, which have already been completed, and works forming part of the irrigation system are not included in the project approved by this decision.

The Odeleite dam consists of an embankment with rock filling and will reach a maximum height of 65 m. The crest of the dam, will be 12 m wide with a span of about 347 m at a height of 55 m.

The dam will create a reservoir which, when full, will have a depth of 52 m, flooding an area of 720 ha. It will store a total of 130 cu hm with a useful volume of 117 cu hm.

The Odeleite reservoir will be linked to the Beliche reservoir by a 3 km tunnel built to carry 25 cu m per second with the two reservoirs having the same level. The tunnel will have isolating facilities so that either of the reservoirs can operate independently without use of the tunnel.

The conduit system includes the uptake tower, the conduit tunnel, two lifting stations and two sections of conduit 2.5 m wide and 28 km long.

The Tavira water treatment station will have a capacity of 2.2 cu m per second and operate in four modules. Only two of these have so far been built and a further application will be made in respect of the other two. The station is the last element in the system before distribution to the municipal networks.

The first phase of construction of this water treatment station received assistance from the ERDF under the operational programme for the Sotavento Algarvio. The last expenditure recorded under this Programme, which finished that phase of the project, was dated 21 July 1994.

It should also be noted that the phase of the Tavira treatment station now being financed accounts for 8% of the total investment covered by this decision.

6. Main objectives

The project is intended to provide a secure supply of drinking water to the eastern Algarve to meet the steep increase in demand generated by the expansion of tourist activity.

At present, the area is supplied from underground resources whose over-exploitation is resulting in poorer-quality water, lowering of the water table and the incursion of salt water.

The use of surface water from the two tributaries of the Guadiana will meet the two fundamental objectives of providing the population with a regular supply of high-quality water and enabling the aquifers to recover by reversing the process of salinization through the incursion of sea water.

The introduction into service of the system will provide a full guarantee of supplies and increase the rate of service from 50% to 65% in the low season and from 68% to 80% in the high season.

7. Work schedule:

Schedule	Starting date	Finishing date
Technical projects	in progress	31 December 1994
Purchase of land	in progress	31 December 1995
Main works	in progress	31 December 1996
Operational	April 1996	

8. **Assessment of economic and social costs and benefits**

The overall internal economic rate of return of the project is 9.04% and the internal rate of return 8%. These rates are regarded as acceptable for this type of project and the investment may be considered justified.

These results are not very sensitive to changes in the parameters: the internal economic rate of return would fall only to 7.4% if all the following happened at once:

- 15% increase in the costs of the investment still to be carried out;
- 10% increase in maintenance and running costs;
- 10% fall in the benefits expected.

9. **Environmental impact assessment**

Analysis of the use to be made of the water flows regulated by the two dams in the Odeleite-Beliche system suggests that the project will confer significant environmental benefits. Of the resources available, 64% will be used for environmental purposes (39% to provide drinking water, 20% to replace water taken from aquifers and 5% to maintain watercourses of ecological importance).

The environmental impact assessment on the undertaking demonstrated that construction of the dam would have only a minimal impact since there would be no displacement of people and only about 40 ha of agricultural land would be flooded.

The impact downstream will be controlled through the discharges from the two reservoirs in order to ensure conservation of the flora and fauna. The discharges could also be used to control water problems in the Castro Marim salt marsh, an area of great ecological importance.

The impact on the ecosystems of the Guadiana and its estuary is expected to be slight.

It should also be noted that the measures to reduce impact noted in the environmental study were taken into account in designing the projects for implementation of the works and the costs of implementing them were included in the total costs of the project.

10. **Cost and contribution (in ECU):**

Total cost:	154 037 354
Eligible cost (after 9 August 1994):	101 679 860
Cost taken into account for calculation of contribution (after deduction of revenue):	89 478 277
Rate of contribution:	80%
Contribution from Cohesion Fund:	71 582 622

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

PROJECT No: 94.10.61.017

Brief description

1. Title of project

Treatment of waste water from Portimão - network of collectors and treatment station

2. Authority responsible for the application

- 2.1. Name: Direcção Geral do Desenvolvimento Regional
2.2. Address: Av D. Carlos I, 126-7º, 1200 Lisbon, Portugal

3. Authority responsible for implementation

- 3.1. Name: Municipality of Portimão
3.2. Address: Largo 1º de Maio, 8500 Portimão, Portugal

4. Location

- 4.1. Member state: Portugal
4.2. Administrative district: Algarve

5. Description

The project includes construction of a waste water treatment station in Portimão and connecting infrastructure.

The station will serve 135 000 people and treat effluent in three stages:

- preliminary treatment
- secondary treatment (biological)
- tertiary treatment (settlement ponds)

The connecting infrastructure includes two lifting stations and the necessary conduits, storm drains and discharge pipes.

This project forms part of the wider basic drainage scheme Barlavento (western Algarve), which was intended to provide integrated solutions and achieve economies of scale.

Total investment in the Barlavento system is estimated at about ECU 80 million and fresh applications to the Cohesion Fund will be made in the next few years.

6. Main aims

The aim of this project is to reduce discharges of pollution from Portimão and ensure that the final quality of the effluent is compatible with the receptor, the river Arade and the Alvor inlet, and with the criteria laid down in Directive 91/271/EEC on waste water.

The measure is intended to preserve particularly sensitive ecosystems and make beaches in the area suitable for bathing and the raising of molluscs.

The overall objective of the Barlavento system, which includes protected areas and areas of considerable ecological value, is to ensure preservation of the environment in the face of increasing pressure from urban development and tourism.

7. Schedule

Schedule	Start	End
Technical projects	August 1993	June 1994
Purchase of land	-	-
Main works	June 1994	June 1997
Operational	1995	2010

8. Environmental assessment

The most significant impact of the project will be the substantial improvement in water quality, which will be helpful to biotopes, activities requiring the use of water resources and water-based recreational activities.

The solution adopted is regarded as compatible with the characteristics of the area in which it is being built and the level of purification obtained will permit the reuse of effluent, so improving management of water resources.

9. Economic assessment

The cost/benefit analysis shows gross value added of ESC 2 197 million. in view of the type of project concerned, the investment may be regarded as justified.

10. Cost and assistance (in ecus)

Total cost	8 071 855
Eligible cost (after 3 October 1994)	7 793 855
Rate of assistance	85%
Assistance from the Cohesion Fund	6 624 777

**Publication of main points of decisions to grant financial assistance under
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

1. PROJECT TITLE

Tip for Almada, Seixaland Sesimbra

2. AUTHORITY RESPONSIBLE FOR THE APPLICATION

- 2.1. Name: Direcção Geral do Desenvolvimento Regional
2.2. Address: Av. D. Carlos I, 126-7*, 1200 Lisbon, Portugal

3. AUTHORITY RESPONSIBLE FOR IMPLEMENTATION:

- 3.1. Name: Câmara Municipal do Seixal
3.2. Address: R. Fernando de Sousa, 2, 2840 Seixal, Portugal

4. LOCATION:

- 4.1. Member State: Portugal
4.2. Administrative district: Lisbon metropolitan area, southern bank of Tagus

5. DESCRIPTION

The aim is to find a solution for the treatment of the 310 tonnes of solid urban waste generated each day by some 320 000 people.

The project comprises the tip, works on the approach areas, fencing, support facilities, protection systems and external networks.

The technical approach to construction of the tip is as follows:

- in each area designated for a phase of the tip, "cavities" respecting the existing lie of the land will be constructed. In the early years, these will be filled until the level of the surrounding land has been reached;
- in subsequent phases, filling will take the form of layers 1 m deep separated by trenches where trees can be planted. Ditches will be constructed for liquids to reach the basic drainage system;

- when filling is completed, each layer of the tip will be finally sealed.

This project forms part of the major system for treating solid waste from southern Greater Lisbon which, when completed, will include two other subsystems shared by a number of municipalities and a final treatment centre for incineration and/or composting.

Total investment for this large system, which will continue to require assistance from the Cohesion Fund, is currently estimated at about ECU 65 million.

6. MAIN OBJECTIVES

The objective of the project is to treat and dispose of all the solid waste produced in three municipalities.

The project has been planned to meet the appropriate requirements, standards and rules for the utilization and operation of works of this type and the tip is designed to be integrated into the landscape.

Integration of this project into the major system to be undertaken in the metropolitan area of Lisbon south of the Tagus will ensure a consistent approach to development and greater technical and financial efficiency.

7. SCHEDULE

Schedule	Start	Finish
Technical projects	September 1992	February 1995
Purchase of land		
Main works	September 1994	June 1995
Operational phase	June 1995	2006

8. ENVIRONMENTAL ASSESSMENT

The project has taken account of the impact study carried out and includes preventative measures and provisions to protect existing environmental conditions, including systems to avoid seepages and extract gases.

The solution adopted will also permit restoration of the original earth and future conversion into a green area.

In view of the precautions taken in drawing up the project and the fact that the tip is not close to an environmentally sensitive area, there is not expected to be any significant negative impact. -

9. ECONOMIC ASSESSMENT

The project is regarded as an effective means of achieving the objectives set and is required to comply with the relevant Community legislation. The investment may therefore be regarded as justified.

10. TOTAL COST

Total cost	Expenditure prior to eligibility	Total eligible cost
8 952 699	30 081	8 922 618

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95/10/61/001-002-005-007

1. Name of project:

Water supply to Grande Porto-Sul

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Av. D. Carlos I, 126-7°, 1200 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal do Porto

Address: Rua Barão de Nova Sintra, 285 Porto

3.2. Name: Câmara Municipal de Vale de Cambra

Address: Av. Camilo de Matos, 3730 Vale de Cambra

3.3. Name: Câmara Municipal de Vila Nova de Gaia

Address: Rua 14 de Outubro, 343 Vila Nova de Gaia

3.4. Name: Câmara Municipal de Valongo

Address: Rua 5 de Outubro, 160 4440 Valongo

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto-Sul

5. Description

A set of measures to be implemented in four municipalities in Porto south

5.1. Porto

Work to improve Porto's collection system to remedy the current shortcomings: recharge wells close to the Lever intake and connection to the Vila Nova de Gaia lifting system for reception of surplus water. There will also be a study for a cleansing system for the area around the intakes.

5.2. Vale de Cambra

Work to improve the Caima intake, creation of a new intake at Padastros and construction of seven reservoirs with supply and lift conduits.

5.3. Vila Nova de Gaia

Work to increase the production capacity of Vila Nova de Gaia's collection systems, which also supply water to several surrounding municipalities. Seven recharge wells will be drilled and the pressure surge control will be strengthened so that a larger volume of water can be lifted.

5.4. Valongo

Work to improve the water delivery and storage capacity, including construction of two new reservoirs, pipelines and an auxiliary flow acceleration system.

All these operations contribute to the large intermunicipal system of greater Porto south, which includes large infrastructures for collection, treatment and distribution serving 14 municipalities in the suburbs of Porto south. The system will also be financed by the Cohesion Fund and will require total investment of almost ECU 200 million.

6. Objectives

This set of measures is intended to secure the supply of water to areas which have experienced water shortages or interrupted supply, and to prepare the water transport and storage networks of the municipalities for successful integration into the intermunicipal system which will serve the region of Porto south.

The water supplied by the system will have to meet the quality standards laid down in Directive 80/778/EEC relating to the quality of water intended for human consumption.

7. Work schedule

Category of work	Commencement	Completion
Studies	1.8.1994	30.6.1995
Purchase of land	1.5.1995	30.6.1995
Construction	1.5.1995	31.7.1998
Operational phase	1.8.1998	

8. Economic and social cost-benefit analysis

The internal rates of return, determined on the basis of real prices which are lower than the economic price of water, are very low.

These rates become satisfactory if account is taken of the real value of water in the target region.

9. **Assessment of environmental impact**

The measures to be implemented do not concern environmentally sensitive areas nor areas adjacent to such and will therefore have no substantially negative effects. In all, these measures will have a positive impact on the management of water resources and will help improve the rates of supply to the population, in terms of both quality and quantity.

10. **Cost and assistance (in ECU)**

<u>Cost per project:</u>	Total	Eligible
Porto	490 714	490 714
Vale de Cambra	2 705 351	2 679 351
Vila Nova de Gaia	273 832	273 832
Valongo	2 658 839	2 613 539
<u>Total cost:</u>	6 128 736	
<u>Eligible costs:</u>	6 057 436	
<u>Rate of assistance:</u>	85%	
<u>Cohesion Fund assistance:</u>	5 148 821	

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.003

1. Name of project:

Sewage system for Grande Porto Sul - Vale de Cambra subsystem

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Vale de Cambra

3.2. Address: Av. Camilo de Matos 3730, Vale de Cambra

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto

5. Description

Installation of the drainage and waste-water treatment network for Grande Porto Sul requires the implementation of a set of projects, grouped by subsystems for the 14 municipalities situated in the area served by the Porto Sul/Águas do Douro e Paiva supply system.

Each municipality's subsystem has been designed on the basis of the lie of the local catchment areas or coastline. Solutions involving more than one municipality have been chosen whenever the orographic conditions permit.

The total investment for the 14 municipalities will be around ECU 200 000 000. The Cohesion Fund has already provided assistance to a number of projects, particularly work on the Douro basin and the southern part of the Leça basin.

The Vale de Cambra subsystem in the Caima basin which is the subject of this Decision involves the following:

- the regional outlet channel at São Pedro de Castelão, 7 500 m long, to cater for a population of 21 000 inhabitants, to be linked to the treatment plant to be built at Ossela;
- two treatment plants and their respective lifting systems for the drainage of liquid waste and its transport to the outlet channel.

6. Objectives

The project will increase the coverage of the population with regard to treatment of waste water and will reduce the pollution of the region's watercourses. It will also contribute to the implementation of Directive 91/271/EEC on the treatment of waste water. To that end it will soon be supplemented by the construction of the Ossela treatment plant.

Meanwhile, the outlet channels must not be used until the treatment plant is operational.

7. Work schedule

Category of work	Commencement	Completion
Technical projects	1.7.1994	31.5.1995
Construction	1.6.1995	31.12.1997
Commissioning	1.1.1998	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project and the fact that it is part of a larger-scale operation. It is also needed to comply with the Community rules on the treatment of waste water.

The rates applied will make it possible to cover running costs.

9. Assessment of environmental impact

The project will have a positive effect on soil quality and surface and ground water quality.

The project is far from any ecologically sensitive areas and will have no negative impact on the environment.

10. Cost and assistance (in ECU)

Total cost: 2 479 919

Eligible costs (after 5.5.1995): 2 433 919

Rate of assistance: 85%

Cohesion Fund assistance: 2 068 831

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.004

1. Name of project:

Integrated solution for the collection and treatment of liquid waste discharged into the Ria de Aveiro - Preparatory studies

2. Authority making the application

2.1 Name: Direcção Geral do Desenvolvimento Regional

2.2 Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1 Name: AM Ria - Association of communes of the Ria de Aveiro

3.2 Address: Av. Dr Lourenço Peixinho, 15 - 2nd floor - 3800 Aveiro

4. Location

4.1 Member State: Portugal

4.2 Region: Centre

5. Description

A set of studies as the preparatory phase in the project to clean up the Ria d'Aveiro:

- study of the management model;
- intercommunal plan;
- study to quantify liquid waste;
- preparation of tendering procedure for carrying out the works involved in the integrated solution;
- technical assistance and monitoring.

The first set of studies, chiefly concerned with analysing the situation and assessing the environmental impact of the solutions to be implemented, has already received assistance from the ERDF under the Envireg programme.

6. Objectives

The studies must define the solutions to be applied in the context of the project to clean up the Ria d'Aveiro, a coastal wetland zone of great ecological importance, and must pinpoint the effects of the various measures on the environment.

7. **Work schedule**

Category of work	Commencement	Completion
Studies and projects	1.3.1992	31.12.1997

10. **Cost and assistance (in ECU)**

Total cost: 1 180 849

Eligible costs: 670 267

Rate of assistance: 85%

Cohesion Fund assistance: 569 729

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.006

1. Name of project:

Sewer system for Grande Porto Sul - Valongo subsystem

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Valongo

3.2. Address: Av. 5 de Outubro, 160 - 4440 Valongo

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto

5. Description

Installation of the drainage and waste-water treatment system for Grande Porto Sul requires the implementation of a set of projects, grouped by subsystems, for the 14 municipalities situated in the area served by the Porto Sul/Águas do Douro e Paiva system.

Each municipality's subsystem has been designed on the basis of the lie of the local catchment areas or coastline. Solutions involving more than one municipality have been chosen whenever the orographic conditions permit.

The total investment for the 14 municipalities will be around ECU 200 000 000.

The Valongo subsystem to which this Decision refers covers the Leça and Ferreira river basins and involves the following:

Ferreira

- a general interceptor of a total length of around 12 km, made up of three interceptors and linked to the Valongo treatment plant;

Leça

- Valongo treatment plant, for secondary treatment to cater initially for a population of 30 000 inhabitants;
- a general interceptor of a total length of around 5 km, made up of two interceptors and linked to the Ermesinde treatment plant;
- Ermesinde treatment plant, for secondary treatment to cater initially for a population of 50 000 inhabitants.

This project supplements other operations carried out in the Leça basin and part-financed by the Cohesion Fund under Decisions C(93) 3977 and C(94) 3603.

6. Objectives

The project aims to put an end to the discharge of untreated effluents into that part of the river basins situated in Valongo and to improve the quality of surface and ground water.

It will substantially increase the level of service to the population and will contribute to the implementation of Directive 91/271/EEC as regards the quality of the final effluent.

7. Work schedule

Category of work	Commencement	Completion
Technical projects	1.4.95	31.7.95
Purchase of land	1.5.95	31.11.95
Construction	1.5.95	30.11.97
Operational phase	1.12.95	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project and the fact that it is part of a larger-scale operation. It is also needed to comply with the Community rules on the treatment of waste water.

The rates applied will make it possible to cover running costs.

9. Assessment of environmental impact

The project will have a positive effect in ensuring integrated pollution control and substantially improving water quality.

The project is far from any ecologically sensitive areas and will have no negative impact on the environment.

10. Cost and assistance (in ECU)

Total cost: 8 674 450

Eligible costs (after 25.5.1995): 8 622 450

Rate of assistance: 85%

Cohesion Fund assistance: 7 329 083

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.009

1. Name of project:

Multimunicipal water-supply system for northern Grande Porto

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Av. D. Carlos I 126-7º. 1200 Lisbon

3. Body responsible for implementation

3.1. Name: Águas do Cávado, S.A.

3.2. Address: R. Elias Garcia, 245-1º 4750 Barcelos

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto

5. Description

The intermunicipal system of northern Grande Porto must supply drinking water to seven municipalities with a total population of 600 000 inhabitants and an annual consumption of 35 million m³.

It is a supply system for the collection and treatment of water and for transporting drinking water to the reservoirs of each of the user municipalities, which are responsible for further distribution to the consumer.

The system has been designed and will be implemented in an integrated fashion and will all be financed by the Cohesion Fund. It is made up of:

- surface collection from the Cávado;
- a treatment plant with a capacity of 230 000 m³/day at Areias de Vilar;
- a storage reservoir;
- a distribution network consisting of 122 km of pipeline of various diameters up to 1 400 mm
- three control reservoirs;

- five lift stations.

The first phase of the work, covered by this Decision, involves:

- the storage reservoir, with a capacity of 20 000 m³, to be built close to the collection point;
- a pilot treatment plant with a nominal capacity of 50 m³/hour to test the treatment method to be used in the treatment station at Areias de Vilar, since treatment will probably require rather complex operations;
- the supply systems which will feed the reservoirs for incoming water for four municipalities (Póvoa do Varzim, Vila do Conde, Maia/norte and St Tirso), including: two control reservoirs, four lift stations, 77 km of gravity-flow and riser pipeline, of various diameters from 300 to 1 400 mm.

Installation of the electromechanical equipment of the lift stations and treatment plant for the intermunicipal system will be scheduled on the basis of trends in demand and the life of the equipment.

6. Objectives

The project is intended to afford a global, integrated solution to the problem of providing a permanent supply of good-quality water to a heavily populated region.

The choice of an intermunicipal system will allow substantial economies of scale in the production and treatment of raw water, rationalizing existing means and improving resource management.

The gains to water quality are expected to be great, since improved public supply will discourage recourse to water from uncontrolled sources.

Water supplied by the system must comply with the quality requirements of Directive 80/78/EEC relating to the quality of water intended for human consumption. A study will therefore be needed to define the conditions required for controlling the quality of water upstream of the system.

7. Work schedule

Category of work	Commencement	Completion
Purchase of land	1.2.96	31.12.96
Construction	1.9.96	31.3.97
Operational phase	1.6.97	31.12.2020

8. Economic and social cost-benefit analysis

On the basis of an analysis covering a thirty-year period, consumption, currently at 35 million m³, will increase by around 85%.

The price for supplying treated water is Esc 50/m³ (1994 prices); this rate covers running and maintenance costs.

The internal rate of return is 12.3% and the cost/benefit ratio is 1.38.

9. Assessment of environmental impact

The measures to be implemented do not concern environmentally sensitive areas nor areas adjacent to such and will therefore have no environmentally negative effects.

The project will have a positive effect on the quality of the water distributed and will help correct the current over-exploitation of groundwater

10. Cost and assistance (in ECU)

Total cost: 37 277 275

Eligible costs (after 24.8.1995): 37 227 275

Rate of assistance: 8.4%

Cohesion Fund assistance: 31 270 910

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.010

1. Name of project:

Intermunicipal water-supply system for the Sotavento Algarvio

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Av. D. Carlos I 126-7°, 1200 Lisbon

3. Body responsible for implementation

3.1. Name: Águas do Sotavento, SA

3.2. Address: R. Cândido Guerreiro, 43-4°, 8000 Faro

4. Location

4.1. Member State: Portugal

4.2. Region: Algarve

5. Description

The intermunicipal water-supply system for the Sotavento Algarvio must supply drinking water to the coastal area consisting of seven municipalities in eastern Algarve.

The region has a population of 177 000 inhabitants. However, since its main activity is tourism, the population rises to 468 000 in the high season.

Annual consumption is of 21 million m³, but the scale of the system will allow it to cater for the 218 000 m³ daily consumption expected in the high season by the time the work is completed.

It is a supply system for the collection and treatment of water and for transporting drinking water to the reservoirs of each of the user municipalities, which are responsible for further distribution to the consumer.

The system has been designed and will be implemented in an integrated fashion and is made up of:

- two reservoirs, on the Odeleite and the Beliche, linked by a tunnel;
- an intake in the Beliche reservoir;

- two lift stations;
- a pipeline 28 km long with a diameter of 2.5 m;
- two treatment plants, at Beliche and Tavira.

This Decision concerns the following work:

- phase two of the extension of the Tavira treatment plant: two modules for the production of 1.1 m³/s;
- renovation and extension of the Beliche treatment plant, with a capacity of 150 l/s, so that it can be integrated into the system;
- a distribution network consisting of 105 km of pipeline of various diameters up to 1 500 mm
- renovation of the supply facilities of the Beliche subsystem which comprises 15 km of pipeline and the Caldeirão lift station;
- four new lift stations.

A previous phase of the work on this system has already been financed by the Cohesion Fund, to the tune of ECU 45.6 million (Decision C(95) 1530 of 30.6.1995).

6. Objectives

This project is designed to provide a lasting solution, with full quality assurances, to the supply shortfalls in an area with limited underground resources. In addition, the irregularity of the public water supply is holding back the development of tourism, which is the region's economic mainstay.

The choice of an intermunicipal system will allow substantial economies of scale in the production and treatment of raw water, rationalizing existing means and optimizing resource management.

Water supplied by the system must comply with the quality requirements of Directive 80/778/EEC relating to the quality of water intended for human consumption.

7. **Work schedule**

Category of work	Commencement	Completion
Purchase of land	1.6.95	31.3.98
Construction	1.9.95	31.10.98
Operational phase	1.1.98	2024

8. **Economic and social cost-benefit analysis**

On the basis of an analysis covering a thirty-year period, consumption, currently at 21 million m³, will increase by around 80%.

The price for supplying treated water is Esc 54/m³ (1994 prices); this rate covers running and maintenance costs.

The internal rate of return is 13.6% and the cost/benefit ratio is 1.49.

9. **Assessment of environmental impact**

The measures to be implemented do not concern environmentally sensitive areas nor areas adjacent to such and will therefore have no environmentally negative effects.

Once the system is in operation it will no longer be necessary to use water from alternative sources, thereby preventing overexploitation of the groundwater, which already has rather high chloride levels, and providing better quality water.

10. **Cost and assistance (in ECU)**

Total cost: 49 246 542

Eligible costs (after 24.5.1995): 49 246 542

Rate of assistance: 84%

Cohesion Fund assistance: 41 367 095

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.011-014

1. Name of project:

Supply of water to the region of Grande Porto Norte

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Av. D. Carlos I 126-7°, 1200 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Esposende

Address: Praça do Municipio, 4740 Esposende

3.2. Name: Câmara Municipal de Fafe

Address: Av. 5 de Outubro, 4820 Fafe

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto Norte

5. Description

The project involves work to be carried out in two municipalities in the region of Porto Norte.

Esposende

Installation of 14 km of gravity-flow pipeline for connection to the main supply pipeline of the Grande Porto Norte intermunicipal system.

Fafe

Installation of a water intake in the Queimadela reservoir, a lift station, a water treatment plant for a throughput of 280 l/s, 12 km of gravity-flow pipeline and four interception and regulating tanks.

The peripheral location of part of the municipality requires continued partial autonomy in relation to the intermunicipal network.

All these operations contribute to the large intermunicipal system of Grande Porto Norte, which includes large infrastructures for collection, treatment and 'wholesale' distribution serving seven municipalities in the suburbs of Porto Norte. The system will also be financed by the Cohesion Fund and will require total investment of more than ECU 60 million.

6. Objectives

Esposende

The purpose of the project is to improve the quality of the water distributed once the link to the main intermunicipal pipeline replaces the current water intakes, which are already showing signs of contamination.

Fafe

The main purpose of the project is to rationalize the existing system, which is very dispersed, and to increase the rate of supply to 95% of the population.

In both cases, the aim is also to prepare the water transport and storage networks of the municipalities for successful integration into the intermunicipal system which will serve the region of Porto Norte.

The water supplied by the system must meet the quality requirements laid down in Directive 80/778/EEC on the quality of water for human consumption.

7. Work schedule

Category of work	Commencement	Completion
Studies	1.7.95	31.12.96
Purchase of land	1.10.95	31.12.96
Construction	1.8.95	31.12.98
Operational phase	1.1.99	

8. Economic and social cost-benefit analysis

The internal rates of return, determined on the basis of real prices which are lower than the economic price of water, are very low.

These rates become satisfactory if account is taken of the real value of water in the target region.

9. Assessment of environmental impact

The measures to be implemented do not concern environmentally sensitive areas nor areas adjacent to such and will therefore have no environmentally negative effects.

These measures will have a positive impact on the management of water resources and will help improve the rates of supply to the population and water quality.

10. Cost and assistance (in ECU)

<u>Cost per project:</u>	Total	Eligible
Esposende	1 030 371	1 030 371
Fafe	5 259 164	5 259 164
<u>Total cost:</u>	6 289 535	
<u>Eligible costs (after 13.7.95):</u>	6 289 535	
<u>Rate of assistance:</u>	85%	
<u>Cohesion Fund assistance:</u>	5 346 105	

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.012

1. Name of project:

Sewerage system for greater Oporto north - Maia subsystem

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Maia

3.2. Address: Praça do Municipio, 4470 Maia

4. Location

4.1. Member State: Portugal

4.2. Region: Greater Oporto

5. Description

Construction of the drainage and waste-water treatment system for greater Oporto north requires the implementation of a set of projects, grouped by subsystems, for the seven municipalities situated in the area served by the Porto-Norte/Águas do Cávado water-supply system.

Each municipality's subsystem has been designed on the basis of the lie of the local catchment area or coastline, and intermunicipal solutions have been chosen whenever the relief permits.

The total investment for the seven municipalities will be around ECU 150 000 000.

The Maia subsystem which is the subject of this Decision involves the following:

- the outlet channel at Leandro, 6 km long, to cater for around 15 000 inhabitants;
- the final stretch of the Arquinho outlet channel, 5 km long, to cater for 10 000 inhabitants;

- the outlet channel at Silva Escura, 8 km long, to cater for 12 000 inhabitants;
- the outlet channel at Avioso, 8 km long, to cater for 20 000 inhabitants;
- the outlet channel at Barca, 8 km long, to cater for 15 000 inhabitants;
- the outlet channel at Milheirós, 8 km long, to cater for 18 000 inhabitants;
- the Rio Leça outlet channel, 6 km long, to cater for 12 000 inhabitants;

These outlet channels will transport untreated liquid waste to two treatment stations, one of which is already operational and the other nearing completion.

6. Objectives

The aim of the project is to ensure treatment of almost all the waste water of the Maia municipality and to increase the rate of service to the population from 55% to 95%.

The project is part of a larger-scale operation covering the Leça basin and thus complements projects already financed by the Cohesion Fund (Decisions (C(93) 3977 and C(94) 3603).

7. Work schedule

Category of work	Commencement	Completion
Technical projects	1.6.1995	31.12.1995
Purchase of land	1.10.1995	31.12.1997
Construction	1.11.1995	31.12.1999
Operational phase	1.1.2000	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project and the fact that it is part of a larger-scale operation. It is also needed to comply with the Community rules on the treatment of waste water.

The charges applied will cover running costs.

9. Assessment of environmental impact

The project will contribute greatly to cleaning up the Leça and, together with the other measures currently underway, will help restore its self-healing capacity and rebalance its ecosystem.

The project will also contribute to the application of Directive 91/271/EEC on the treatment of waste-water and, since it is not situated in an ecologically sensitive area, it will have no negative impact on the environment..

10. Cost and assistance (in ECU)

Total cost: 9 328 261

Eligible costs (after 13.7.1995): 9 328 261

Rate of assistance: 85%

Cohesion Fund assistance: 7 929 022

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.013

1. Name of project:

Collection and treatment of liquid effluent discharged into the Ria de Aveiro - phase 1

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: AM Ria - Association of municipalities of the Ria de Aveiro

3.2. Address: Av. Dr Lourenço Peixinho, 15 - 2nd floor - 3800 Aveiro

4. Location

4.1. Member State: Portugal

4.2. Region: Centre

5. Description

The integrated system for the collection, treatment and discharge into the Ria de Aveiro of liquid waste involves:

- a network of collectors made up of three raw effluent collectors and one treated effluent collector linked to the underwater outlet channel;
- two waste-water secondary treatment plants;
- an underwater outlet channel 3 000 m long for discharging treated residual water into the sea.

The system is to cater for a population of 300 000 and a population equivalent of around 700 000 units and is to be submitted to the Cohesion Fund as a whole.

This Decision concerns the following group of projects:

- 5.1. a 3 000 m long underwater outlet channel of 1 600 mm in diameter fitted with a 300 m diffuser at a depth of 20 m;
- 5.2. the "general collector", which includes the general collector and an additional outfall, the Torreira outfall.

The general collector, for transporting only waste water which has already been subjected to secondary treatment, is made up of a main segment which begins at the northern treatment plant and finishes at the entry to the underwater outlet, and a secondary segment running from the southern treatment plant, which joins the main segment at Gafanhas.

The main segment is made up of:

- a buried pipeline 12 km long with a diameter of 1 400 mm running alongside the IP5 main road;
- a second buried pipeline 5 km long with a diameter of 1 600 mm, inside the harbour area of the port of Aveiro;
- a third buried pipeline 2 km long with a diameter of 1 600 mm, situated parallel to the S. Jacinto air base.

The secondary segment is made up of a buried pipeline about 4.6 km long and 1 000 mm in diameter running alongside a road in the town of Gafanha da Nazaré.

The Torreira outfall is made up of a buried pipeline about 6.2 km long and varying in diameter from 250 to 350 mm, running alongside the EN 327 road in an area which is about 50% occupied by buildings for tourism.

- 5.3. A treatment plant for the central and southern areas (ETAR-SUL), to cater for a population of 220 000 inhabitants and providing secondary activated sludge treatment; the sludge will then be treated for agricultural use.

A series of outfalls and additional work to link up the various existing subsystems.

6. Objectives

Broadly speaking, the project is designed to divert all the domestic and industrial liquid waste previously discharged into the Ria de Aveiro and ensure that it is adequately

treated before being discharged into the sea.

The choice of an integrated, intermunicipal solution will permit economies of scale and ensure an overall coherent design which will comply with the criteria laid down in Community legislation, particularly Directive 91/271/EEC.

The project also aims to protect the Ria de Aveiro as a wetland area necessary for the protection of aquatic birdlife and fauna, being a protected zone within the meaning of Directive 79/409/EEC on the conservation of wild birds.

The positive effects of the project will include an increase in the biodiversity of the Ria and the recovery, protection and development of its ecosystem in accordance with Directive 92/43/EEC on the conservation of natural habitats.

7. Work schedule

Category of work	Commencement	Completion
Purchase of land	1.6.1995	1.12.1995
Construction	1.9.1995	31.12.1998
Operational phase	1.1.1999	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project, because it is part of a larger-scale operation, and because the measure is necessary for compliance with Community rules on waste-water treatment.

The charges applied will cover the running costs.

9. Assessment of environmental impact

The project will have an overall positive environmental impact. By eliminating sources of pollution, the system will substantially improve the quality of the water in the Ria de Aveiro and the Vouga basin.

Since the project is located in a special protection zone for birds, a detailed inventory must be made of possible negative effects, particularly during the construction phase, so that the necessary corrective measures can be taken.

The effects on the most sensitive areas still require further study and some of the work included in this Decision and in the second phase of the project (currently being

prepared) will depend on the results of the study. (See Article 5(2) and Annex III(5)).

The Portuguese authorities, particularly those responsible for the environment, will ensure that the measures resulting from the studies are properly implemented and will make regular reports thereon to the Commission.

10. Cost and assistance (in ECU)

Total cost: 68 731 338

Eligible costs: 68 731 338

Rate of assistance: 85%

Cohesion Fund assistance: 58 421 636

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95/10/61/015

1. Name of project:

Sewage system for Grande Porto-Norte: Esposende subsystem

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Esposende

3.2. Address: Praça do Municipio - 4740 ESPOSENDE

4. Location

4.1. Member State: Portugal

4.2. Region: Grande Porto

5. Description

Installation of the drainage and waste-water treatment network for Grande Porto-Norte requires the implementation of a set of projects, grouped by subsystems, for the seven municipalities situated in the area served by the Porto-Norte/Águas do Cávado supply system.

Each municipality's subsystem has been designed on the basis of the lie of the local catchment area or coastline, and solutions involving more than one municipality have been chosen whenever the orographic conditions permit.

The total investment for the seven municipalities will be around ECU 150 000 000. The Cohesion Fund has already provided assistance to a number of projects, particularly work on the Ave basin and treatment of waste water at Barcelos.

The Esposende subsystem which is the subject of this Decision involves the following:

- the treatment plant at Marinhas, which will provide secondary activated sludge treatment for around 14 000 inhabitants;

- the treatment plant at Antas, in the Neiva basin, which will serve 2 800 inhabitants;
- extension of the secondary activated sludge treatment plant at Esposende, which will serve some 20 000 inhabitants;
- a treatment plant for the sludge produced by the different treatment plants serving some 70 000 inhabitants;
- interceptors and force mains of different diameters and a total length of about 20 km;
- six lift stations with electro-mechanical equipment.

6. Objectives

The project will provide a sewage system for the northern coastal area of Esposende, serving 75% of domestic users (compared to 50% previously) and 90% of the small industrial units situated on the outskirts of the town (compared to 32% previously).

7. Work schedule

Category of work	Commencement	Completion
Purchase of land	1.6.1995	31.12.1995
Construction	1.10.1995	31.12.1998
Commissioning	1.1.1999	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project and the fact that it is part of a larger-scale operation. It is also needed to comply with the Community rules on the treatment of waste water.

The rates applied will make it possible to cover running costs.

Assessment of environmental impact

The project is far from any ecologically sensitive areas and will have no negative impact on the environment. Once operational, the network will contribute to the implementation of Directive 91/271/EEC on the treatment of waste-water.

9. Cost and assistance (in ECU)

Total cost: 4 121 481

Eligible costs (after 13.7.1991): 4 121 481

Rate of assistance: 85%

Cohesion Fund assistance: 3 503 259

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.017

1. Name of project:

Sewerage system for greater Oporto south - Gondomar subsystem

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Gondomar

3.2. Address: Praça do Municipio - 442 S. Cosme de Gondomar

4. Location

4.1. Member State: Portugal

4.2. Region: Greater Oporto

5. Description

Construction of the drainage and waste-water treatment system for greater Oporto south requires the implementation of a set of projects, grouped by subsystems, for the 14 municipalities situated in the area served by the Porto Sul/Águas do Douro e Paiva water-supply system.

Each municipality's subsystem has been designed on the basis of the lie of the local catchment areas or coastline and intermunicipal solutions have been chosen whenever the relief permits.

The total investment for the 14 municipalities will be around ECU 200 000 000.

The Gondomar subsystem which is the subject of this Decision involves the following:

- collectors at Jovim, around 5 km long, and their connection to the Valbom treatment plant;
- the 8 km long outlet channel along the Torto, for connection to the Freixo and Rio Ferreira treatment plants;

- the Rio Ferreira outlet channel, to receive waste water from the Ferreira basin and transport it to the treatment plant;
- the outlet channel on the bank of the Parada, 5 000 m long, for connection to the Rio Ferreira treatment plant;
- the Rio Ferreira treatment plant, currently able to cater for 35 000 inhabitants, could be expanded to cater for 55 000 inhabitants and will provide secondary waste-water treatment.

6. Objectives

The project aims to clean up the municipality's four catchment basins and put an end to the discharge of untreated waste water.

The project will increase the rate of coverage of the population from 40-50% to 85-90% and contribute substantially to implementation of Directive 91/271/EEC on the treatment of waste water by applying the parameters laid down for the quality of the end product.

7. Work schedule

Category of work	Commencement	Completion
Technical projects	1.1.1996	30.6.1996
Land	1.8.1995	30.6.1999
Construction	1.12.1995	31.12.1999
Operational phase	1.1.2000	

8. Economic and social cost-benefit analysis

The investment is warranted in view of the type of project and the fact that it is part of a larger-scale operation. It is also needed to comply with the Community rules on the treatment of waste water.

The charges applied will cover running costs.

9. Assessment of environmental impact

The project will have a positive effect on the quality of surface and ground water.

The project is not located in or close to an environmentally sensitive area and will have no negative impact on the environment.

10. Cost and assistance (in ECU)

Total cost: 12 879 627

Eligible costs (after 13.7.1995): 12 879 627

Rate of assistance: 85%

Cohesion Fund assistance: 10 947 683

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.019

1. Name of project:

Collection and treatment of waste water at Lagoa, Barlavento, Algarve

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Câmara Municipal de Lagoa

3.2. Address: Largo do Municipio - 8400 Lagoa

4. Location

4.1. Member State: Portugal

4.2. Region: Algarve

5. Description

Creation of the waste-water drainage and treatment system for Barlavento requires the implementation of a set of projects by the eight municipalities situated in the area covered entailing a total investment of around ECU 60 000 000.

The Cohesion Fund has already financed the studies to define the system and on the construction of the Portimão waste-water treatment plant.

This Decision concerns the following measures involving the municipality of Lagoa:

- the technical projects required to construct the collection system and treatment plant for Carvoeiro;
- the technical projects required to construct the collection system for Alporchinhos/Portches;

- the Ferragudo system: technical projects and construction of a system made up of gravity-flow and lifting pipelines and five lift stations to be connected to the Portimão treatment plant.

The works relating to the above-mentioned technical projects will be the subject of future applications for Cohesion Fund assistance.

6. Objectives

The aim of this assistance is to increase the rate of coverage of the population and ensure that waste water is treated to a standard suited to the receiving medium, i.e. the Lagoa coastal strip and the Arade basin.

Taken as a whole, the measures envisaged for Barlavento will contribute to the application of Directive 91/271/EEC on the treatment of waste water.

7. Work schedule

Category of work	Commencement	Completion
Technical projects	1.6.1995	31.12.1996
Construction	1.3.1996	31.12.1997
Commissioning	1.1.1998	

8. Economic and social cost-benefit analysis

The cost-benefit analysis covered the entire Barlavento region and was based on the impact of improved water quality on the local economy, particularly in terms of savings in costs and hence in terms of general impact on the environment.

The project has an internal economic rate of return of 28% and a cost/benefit ratio of around 2.28.

9. Assessment of environmental impact

The project will make a substantial contribution to the fight against pollution and the improvement of surface and bathing water in the region, particularly the water of the Arada into which untreated liquid waste is currently being discharged.

The project is not taking place in or close to an environmentally sensitive area and will have no negative impact on the environment.

10. Cost and assistance (in ECU)

Total cost: 2 081 880

Eligible costs (after 26.7.1995): 2 081 880
Rate of assistance: 85%
Cohesion Fund assistance: 1 769 598

**Publication of main points of decisions to grant financial assistance under Regulation
(EC) No 1164/94 establishing a Cohesion Fund**

No 95.10.61.025

1. Name of project:

Catchment basin plans and national water plan

2. Authority making the application

2.1. Name: Direcção Geral do Desenvolvimento Regional

2.2. Address: Rua de São Julião 63, 1100 Lisbon

3. Body responsible for implementation

3.1. Name: Instituto da Água

3.2. Address: Av. Almirante Gago Coutinho 30, 1000 Lisbon

4. Location

4.1. Member State: Portugal

4.2. Regions: All

5. Description

Sixteen studies to prepare for a national water plan and fifteen catchment-basin plans, i.e. four plans concerning international catchment basins (Minho, Douro, Tagus, Guadiana) and eleven plans concerning the main national basins (Lima, Cávado, Ave, Leça, Vouga, Mondego, Lis, Ribeiras do Oeste, Sado, Mira, Ribeiras do Algarve).

The studies for the water resource plans for the catchment basins are all of the same kind and will provide a set of results to be included in the national water plan.

6. Objectives

This set of studies must define priorities and set out the objectives for investments in hydraulic infrastructure, drainage and the development of water resources, together with the improvement and protection of water quality.

These studies will contribute to the preparation of plans for the different catchment basins which will take account of the specific character of each water course and the dynamics of development in each region in the country, and will

therefore play a part in the creation of a consistent national water plan which will ensure that all the catchment-basin plans are compatible with each other.

7. Work schedule

Commencement	Completion
1.10.95	31.12.97

10. Cost and assistance (in ECU)

Total cost: 8 830 961

Eligible costs (after 23.10.95): 8 830 961

Rate of assistance: 85%

Cohesion Fund assistance: 7 506 317