1. Basic Information

1.1 Project Number         CZ 01.13.01
1.2 Project Title          Pradid Euroregion –
1.3 Communal Waste Water Treatment
1.4 Sector                 Environment

1.5 Project Location
Euroregion:    Pradid
Cross-border region: Czech Republic - Poland
District:      Bruntálp, Jeseník
Municipality: Místo Albrechtice, Javorník, Úvalno, Mikulovice, Krnov,
               Bernartice, Bruntálp, Zlaté Hory.
Cadastral territory: Místo Albrechtice, Javorník, Úvalno, Mikulovice, Krnov,
                      Bernartice, Bruntálp, Zlaté Hory.

2. Objectives

2.1 Overall Objective(s)
The project is in compliance with the Joint Programming Document (JPD), Czech Republic - Poland medium-
term strategy and priorities for the Phare CBC programmes. The project meets the objectives of the
environmental protection Priority. The project aims at:

- Improvement of the quality of surface water feeding into border rivers and protection of cross-border
  waterways;
- Stricter underground water protection measures on both sides of the border, especially in Protected
  Landscape Areas, and more rigorous protection of underground drinking water sources;
- Disposing of the problem of surface water cross-pollution by municipal waste water discharges into
  border rivers.

2.2 Project Purpose
Reduced contamination of watercourses flowing to Poland
The implementation of the project shall provide for reduced contamination of waters flowing directly to Poland
and being used as water supply sources on the Polish side of the border.

Reduced pollution of underground waters in the Jeseníky Protected Landscape Area
If implemented, the project shall reduce the load substance amounts in wastewater in and around the towns
and villages of Albrechtice, Javorník, Úvalno, Mikulovice, Krnov, Bernartice, Bruntálp and Zlaté Hory, thus
improving the Jeseníky Protected Landscape Area underground water protection since the above
municipalities are located either within or very close to this area. The following reduction in wastewater
pollutants quantity shall be achieved through the project's implementation.
<table>
<thead>
<tr>
<th>Unit (mg/l)</th>
<th>Before project implementation</th>
<th>After project implementation</th>
<th>Czech standards (max.)</th>
<th>EU standards (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>375</td>
<td>20</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>COD</td>
<td>800</td>
<td>90</td>
<td>130</td>
<td>125</td>
</tr>
<tr>
<td>NL</td>
<td>344</td>
<td>20</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>N-total</td>
<td>50</td>
<td>20</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>P-total</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Reduced pollution of surface water for drinking water supply

Refurbishing and increasing the treatment capacity of the wastewater treatment plant in Bruntál shall contribute to the reduction of the contamination by municipal wastewater of Ėerný potok and, effectively, the Moravice river feeding into the Slezská Harta water reservoir which, along with the Kružberk reservoir, is the major drinking-water supply source for the entire Ostrava agglomeration as well as for some towns and villages in Poland.

Increased attractiveness of the region providing for tourism development

Reduced surface water pollution and sufficient capacity to provide services to new entities shall improve the conditions for tourism business development, creating a favourable environment for SMEs service development.

2.3 Accession Partnership and NPAA Priority

Enhanced quality of the environment and partial compliance with EU environmental standards as well as economic development promotion belong to the set of the country's pre-accession priorities.

The project is in line with the Accession Partnership and National Programme for the Adoption of the Acquis (NPAA) objectives relating to environment protection.

2.4 Cross-border Impact of the Project

All watercourses within the area belong to the Odra river basin provide drinking water to the population, industry and agriculture on the Polish side of the border. The original biotope of the region waters has been disturbed by the contamination of Bílá, Javorník, Opavice and Opava feeder rivers feeding directly to the Polish river basin on the Polish side of the region.

The project proposal comes in response to the critical need to tackle environmental protection issues as a major problem in Czech-Polish cross-border relations.

3. Description

3.1 Background and Justification

Albrechtice, Javorník, Úvalno, Mikulovice, Krnov, Bernartice, Bruntál and Zlaté Hory are small towns and villages spanning an area of 41,531 ha (all within the Jeseníky Protected Landscape Area); their total population amounts 59,813 inhabitants. These towns and villages have had no or only partial wastewater management solutions in place. Consequently, surface and underground waters (from Morava, Opavice and Opava river quarter layers providing drinking water for both border populations) in the Protected Landscape Area suffer from the contamination problem.

The current environmental conditions, both on the Czech and Polish side of the border, fail to comply with the Czech as well as the EU environmental law. Upon the project's completion, all community and industry discharges from the mentioned localities shall be directed to and treated in wastewater treatment plants in line with EC standards while storm water shall typically flow directly to watercourses, by-passing wastewater treatment plants.
Sewage system and wastewater treatment plant condition in individual municipalities:

**Albrechtice (town)** - population: approx. 3,651. All buildings in the village are connected to the public water system. A 3,965 equivalent units wastewater treatment plant (WWTP) has already been built in the town, compliant with EU standards and providing for primary and secondary treatment of sewer system waters from the entire right bank of the Opavice river. Only 1-part sewerage serves the population of the left-bank part of the town.

**Úvalno (village)** – population: approx. 899. All buildings in the village are connected to the public water system. The village has a separate sewer system and a 2,133 equivalent units primary and secondary WWTP, compliant with EU standards. Only some buildings are connected to the sewage systems with water passing through a WWTP.

**Krnov (town)** – population: approx. 26,049. All buildings in the town are connected to the public water system. The town has a sewer system and a 58,123 equivalent units primary and secondary WWTP, compliant with EU standards. The whole sewer system, except for the sewerage serving the Hluběice suburbs and an adjoining industrial zone Vrbina, is connected to the WWTP. Wastewater from these two (sub) urban localities is discharged into the Opava river with no pre-treatment.

**Bruntál (town)** – population: approx. 18,084. All buildings in the town are connected to the public water system. The town has a sewer system and a 40,697 equivalent units primary and secondary WWTP, compliant with EU standards but lacking capacity. The existing technology is not capable of providing a stable treatment process. Aeration jets need be made operative and the WWTP activation system must be changed to ensure that the effluents meet EU standards.

**Zlaté Hory (town)** – population: approx. 4,593. All buildings in the town are connected to the public water system. The town has a sewer system and a 3,500 equivalent units primary and secondary WWTP, compliant with EU standards. One part of the sewerage has become obsolete and insufficient by now. Also, storm sewage is often run through the combined sewerage, effectively overloading the WWTP.

**Javorník (town)** - population: approx. 2,913. All buildings in the town are connected to the public water system. The town has a combined sewer system and a 2,567 equivalent units primary and secondary WWTP, compliant with EU standards. Storm sewage is often run through the combined sewerage, effectively overloading the WWTP.

**Mikulovice (village)** - population: approx. 2,696. All buildings in the village are connected to the public water system. The town has some parts of a combined sewer system built and a construction of a 3,600 equivalent units primary and secondary WWTP, compliant with EU standards is underway.

**Bernartice (village)** - population: approx. 928. All buildings in the village are connected to the public water system. Wastewater from the village’s obsolete and inadequate sewer system is discharged directly to a local watercourse. There is no WWTP in the village.

<table>
<thead>
<tr>
<th>Implementation Locality</th>
<th>Existing/new WWTP capacity (p.e.) – population and industry</th>
<th>Affected p.e. (population and industry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albrechtice (town)</td>
<td>3,965</td>
<td>1,200</td>
</tr>
<tr>
<td>Úvalno (village)</td>
<td>2,133</td>
<td>1,600</td>
</tr>
<tr>
<td>Krnov (town)</td>
<td>58,123</td>
<td>5,784</td>
</tr>
<tr>
<td>Bruntál (town)</td>
<td>40,697</td>
<td>40,697</td>
</tr>
<tr>
<td>Zlaté Hory (town)</td>
<td>3,500</td>
<td>3,500</td>
</tr>
<tr>
<td>Javorník (town)</td>
<td>2,567</td>
<td>2,567</td>
</tr>
<tr>
<td>Mikulovice (village)</td>
<td>3,600</td>
<td>3,600</td>
</tr>
<tr>
<td>Bernartice (village)</td>
<td>-</td>
<td>410</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>114,585</strong></td>
<td><strong>59,358</strong></td>
</tr>
</tbody>
</table>

3.2
3.3 3.2. Linked Activities

Development of a robust technical infrastructure - sound wastewater management, in particular - seems to be the absolute pre-requisite providing for all related projects focusing on regional economic development. The following related activities were or have been undertaken in the Pradìd Euroregion:

Gas systems serving some parts of the villages, recovery and renovation of water sources, repair of local roads, renovation of tourist facilities.

3.4 3.3 Results

The project provides for the completion of the local sewerage and WWTP development in the below Pradìd Euroregion towns and villages. The project shall deliver the following results:

Albrechtice – a new separate sewage system serving 1,200 equivalent units on the left bank of the Opavice river connected to the existing WWTP.

Úvalno – 292 local building sewers for 1,600 equivalent units.

Krnov – a new “E” inceptor and new separate sewage system serving 3,504 equivalent units of the Vrbina industrial zone, and a modified sewage system serving 2,280 equivalent units in the Hlubèice suburb with an outfall sewer providing discharge into the existing “A” inceptor.

Bruntál – advanced and more effective primary and secondary WWTP, complying with EU standards and serving 40,697 equivalent units and a renovated and extended A23 inceptor providing for the connection of Staré Mìsto sewage system.

Zlaté Hory – a new separate sewer system serving 3,500 equivalent units

Mìsto Javorník - a new separate sewer system serving 2,567 equivalent units

Mikulovice – a new separate sewer system serving 3,600 equivalent units connected to the existing WWTP.

Bernartice – a new primary and secondary WWTP serving 837 equivalent units complying with EU standards and a new separate sewer system.

3.5 3.4. Activities

The project implementation as planned shall include all construction works required and technology supplies related to the overall reduction in the pollution of both surface and underground water. The implementation shall include the following:

Albrechtice – the construction of a 2,459 m long separate sewage system with DN 300 – 500 cross-sections and PVC pipes.

Úvalno – the construction of 292 building sewers; total PVC pipeline length: 2,610 m , cross-section: DN 150.

Mìsto Krnov - the construction of a 2,189 m long separate sewage system of vitrified-clay and PVC pipes with DN 200 – 800 cross-sections serving the Vrbina industrial zone and a renovation of the existing Hlubèinské suburb sewerage.

Bruntál – renovation of a primary and secondary WWTP serving 40,697 equivalent units (repair of the secondary treatment systems, measuring and control equipment and replacement of boilers - 242 kW) and extension of the main sewer to the total final length of 1,001 m (DN 300 – 500 cross-section).

Zlaté Hory - the construction of a new 2,186 m long separate sewer system with DN 300 – 500 cross-sections and PVC pipes.

Javorník - the construction of a new 3,800 m long separate sewer system with DN 200 – 300 cross-sections and PVC pipes.

Obec Mikulovice - the construction of a new 3,800 m long separate sewer system with DN 50 – 300 cross-sections and PVC and vitrified-clay pipes.

Bernartice – the construction of a new central primary and secondary WWTP serving 837 equivalent units and additional construction of new part of the existing separate sewer system in the total length of 2,614 m with DN 250 cross-section and vitrified-clay pipes. This activity represents the first stage of a complete village sewerage project.
4. Institutional Framework

The National Aid Co-ordinator (NAC) has an overall responsibility for programming, monitoring and implementation of the Phare programme. The National Fund (NF), managed by the National Authorising Officer (NAO), will supervise financial management of the programme and will be responsible for reporting to the European Commission. The Ministry for Regional Development, in co-operation with the Centre for Regional Development, is the programme Implementing Agency (IA) with the overall responsibility for the project implementation. The NF will be transferring funds from the Phare resources to accounts managed by IA as authorised by the Financing Agreement signed between the MF/NF and IA. The IA is managed by the Programme Authorising Officer (PAO) nominated by the Ministry for Regional Development and approved by the NAO and agreed by NAC. The PAO is responsible for all activities of the IA. 

The investor is responsible for the Czech contribution to co-financing, for acquiring a land-use decision and a building permit, for preparing and launching the tender for a contractor, preparing a contract, supervising the works and for the final acceptance.

Investor: EUROREGION PRADÎD, represented by Krnov
Address: Hlavní námìstí 1, 794 01 Krnov
Represented by: Ing. Jaroslav Vrzal, Deputy Mayor of Krnov
Phone: +420-652 797214
Fax: +420-652 710418
E-mail: jvrzal@mukrnov.cz

Ing. Ivo Vykopal, Mayor of Albrechtice
Phone: +420-652 752106
Fax: +420-652 752144
E-mail: mualbrechtice@krnovsko.cz

An authorised person shall be indicated and become responsible for building supervision. The Pradid Euroregion (i.e. local towns and villages) shall become the owners of the installations. The following entities shall be given responsibility for the operation of the project’s facilities:

Albrechtice Albrechtice Town Services
Úvalno Úvalno municipality
Krnov Krovské vodovody a kanalizace, s. r. o (Krnov water and sewage)
Bruntál Jan Strádal – JAST, 01- Bruntál sewer system administration
Zlaté Hory Zlaté Hory Town Services
Javorník Javorník City Council
Mikulovice Mikulovice municipality
Bernartice Bernartice municipality
5. Detailed Budget (MEUR)

<table>
<thead>
<tr>
<th>Phare</th>
<th>Investment</th>
<th>Institution</th>
<th>Total Phare (I+IB)</th>
<th>National co-financing</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction works</td>
<td>2,300</td>
<td>0.000</td>
<td>2,300</td>
<td>1,792</td>
<td>4,092</td>
</tr>
<tr>
<td>Total</td>
<td>2,300</td>
<td>0.000</td>
<td>2,300</td>
<td>1,792</td>
<td>4,092</td>
</tr>
</tbody>
</table>

The project’s co-financing shall be provided from own funds of the towns and villages involved, evidenced by a joint statement of the representatives of the towns and villages on their co-financing capacity in respect of the project’s activities. The contributions of the respective towns and villages shall be credited to a common Pradìd Euroregion investment account to keep the Czech co-financing share in a single and safe place.

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>Contributions from municipalities (MEUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albrechtice (town)</td>
<td>0.290</td>
</tr>
<tr>
<td>Úvalno (village)</td>
<td>0.039</td>
</tr>
<tr>
<td>Krnov (town)</td>
<td>0.202</td>
</tr>
<tr>
<td>Bruntál (town)</td>
<td>0.482</td>
</tr>
<tr>
<td>Zlaté Hory (town)</td>
<td>0.124</td>
</tr>
<tr>
<td>Javorník (town)</td>
<td>0.114</td>
</tr>
<tr>
<td>Mikulovice (village)</td>
<td>0.241</td>
</tr>
<tr>
<td>Bernartice (village)</td>
<td>0.301</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.792</strong></td>
</tr>
</tbody>
</table>

6. Implementation Arrangements

6.1 Implementing Agency
The Ministry for Regional Development in conjunction with the Centre for Regional Development CR.
PAO: RNDr. Jiøí Horáèek, director, Department of EU programmes, MRD CR
Address: Staromìstské nám. 6, 110 15 Praha 1
Phone: + 420-2 2486 1398
Fax: + 420-2 2486 1415
Implementing Agency:
Director: RNDr. Ivo Ryšlavý
Address: Centre for Regional Development, Vinohradská 46, 120 00 Praha 2
Phone: + 420-2 21 580 285
Fax: + 420-2 21 580 229

6.2 Non-standard Aspects
The project will be managed using the methodology specified for Candidate Countries in the manual for the management of programmes supported from the EU sources – “Practical Guide for Phare, Ispa and SAPARD”.
6.3 Contracts (MEUR)

<table>
<thead>
<tr>
<th>No.</th>
<th>Type of contract</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Works contract</td>
<td>Construction and renovation of the sewer system, discharge pipes and wastewater treatment plants</td>
<td>4,092</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>4,092</td>
</tr>
</tbody>
</table>

7. Implementation Schedule

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Start of tendering*</td>
<td>09/2002</td>
</tr>
<tr>
<td>Start of project activities:</td>
<td>03/2003</td>
</tr>
<tr>
<td>Project completion:</td>
<td>09/2004</td>
</tr>
</tbody>
</table>

* The tender dossier shall be submitted to the European Commission six months after the signature of the Financing Memorandum at the latest (see FM, Chapter Implementation Arrangements).

8. Equal Opportunity

Principles and procedures applied during the project implementation will ensure equal opportunities for all participants of the project.

9. Environment

An Environmental Impact Assessment (EIA) study under S. 6 of Act No. 244/1992 Coll., was developed in February 2001 by a licensed expert - Ing. Jan Gemela, Lichnov 147. The study is available from the investor, i.e. the Pradìd Euroregion.

Summary of EIA Results

The project in its current format and extent is recommended for implementation with no reservations and as soon as possible for the following reasons:

The option proposed is in line with the long-term regional development concept and the priorities identified.

The project's implementation shall ensure reduced pollution of surface and underground waters in the border region which requires special environmental protection measures (The Jeseníky Protected Landscape Area, a natural underground water accumulation). The project's location includes upper river areas with direct influence upon the Poland's surface and underground water quality.

The project's implementation shall also help to meet the statutory environmental limits set down by both the Czech and EU law providing for water protection.

The extent of the project shall be suitable for the existing facilities in operation, both technically and economically.

Infrastructure quality enhancement shall create favourable environment for the development of tourism and related services.

10. Rates of Return

The economic rate of return is based on a prepared feasibility study. The appraisal set a 22-year project time horizon.

**IRR = 7.97 %.

The feasibility study was developed by: Institut rozvoje podnikání (The Institute of Business Development), s.r. o., Podibradova 16, 700 39 Ostrava - Moravská Ostrava. The study is available from the investor, i.e. the Pradìd Euroregion.
11. **Investment Criteria**

11.1 **Catalytic Effect**

The project is of public nature and complies with the regional priorities. In the years to come, the action could not be implemented without support from the EU sources.

11.2 **Co-financing**

The co-financing share of the Czech party equals 44% of the total project investment costs. The co-financing funds shall include own funds of the individual investors, i.e. municipal funds of the towns and villages below:

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>Address</th>
<th>Represented by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albrechtice</td>
<td>Námìstí ÈSA 10, 793 95</td>
<td>Ing. Ivo Vykopal – Mayor</td>
</tr>
<tr>
<td></td>
<td>Mìsto Albrechtice</td>
<td></td>
</tr>
<tr>
<td>Uvalno</td>
<td>OU Uvalno, 793 91 Uvalno</td>
<td>Ing. Vítìzslav Odložilik – Chairman of the Village Council</td>
</tr>
<tr>
<td>Krmov</td>
<td>Hlavní námìstí 1, 794 01 Krmov</td>
<td>Ing. Jaroslav Vrzal – Deputy Chairman of the Village Council</td>
</tr>
<tr>
<td>Bruntál</td>
<td>nám. Míru 1, 792 01 Bruntál</td>
<td>Ludmilà Navaróva – Deputy Mayor</td>
</tr>
<tr>
<td>Zlaté Hory</td>
<td>Nám. Svobody 80, 793 76 Zlaté Hory</td>
<td>Ing. Milan Rác – Deputy Mayor</td>
</tr>
<tr>
<td>Javorník</td>
<td>Nám. Svobody 134, 790 70 Javorník</td>
<td>Mgr. Petr Polášek – Mayor</td>
</tr>
<tr>
<td>Mikulovice</td>
<td>Hlavní 202, 790 84 Mikulovice</td>
<td>Ivan Král – Chairman of the Village Council</td>
</tr>
<tr>
<td>Bernartice</td>
<td>OU Bernatice, 790 57 Bernartice</td>
<td>Ing. Mojmír Michálek – Chairman of the Village Council</td>
</tr>
</tbody>
</table>

11.3 **Additionality**

The project is of public nature and is not suitable for funding from private sources due to the low financial rate of return of the funds invested. Should the co-financing be provided from a bank loan, the implemented works would not generate resources sufficient for their renewal after their lifetime.

11.4 **Project Readiness and Size**

Planning and, in some cases, also building permits have already been issued for individual construction works. All of the activities proposed meet the technical criteria required. Both feasibility study and an environmental impact analysis (EIA) have been developed. The remaining building permits shall be issued by November 2001. The tender dossier shall be prepared and submitted to the European Commission six months after signature of the Financing Memorandum at the latest.

11.5 **Sustainability**

Results of the feasibility study proved that the draft project is of a sustainable nature as it meets all the European norms and standards and complies with the EU legislation in the relevant area.

Operating and maintenance costs shall be disbursed by individual facility operators and covered fully from sewage levy, providing also funds to finance any future renovation works which may be necessary at the end of the installations' life-cycle.

11.6 **Compliance with State Aid Provisions**

The project and the award of the Phare subsidy are in compliance with the relevant rules on state aids as defined in the European Agreement; its implementation is not going to harm the market environment or the competition rules.
11.7 Contribution to National Development Plan
The project respects short-term and medium-term priorities of the National Development Plan with the aim of balancing and improving the quality of the environment in border areas. The project is in compliance with regional priorities and measures laid down in the cross-border regional development strategy defined in the Joint Programming Document (JPD) Czech Republic – Poland for the CBC Phare programmes.

**Priority:** II - Environment

**Measure No.:** 1.A – appropriate sewage systems and waste water treatment plants

12. Conditionality and Sequencing
The investor is responsible for the preparation of studies and project dossiers necessary for the execution of works, and for the preparation of documents for the selection of a contractor for the works. The investor must observe its commitment of financial participation in the project and is responsible for the quality of the works executed. He must also provide for the activities the contractor is not qualified to execute.

After the completion of the project the investor shall ensure the launching of full operation of the works with a view to its use. He shall ensure regular maintenance and repairs in compliance with the international standards.

13. Annexes to Project Fiche

1. Logframe matrix in standard format
2. Detailed project implementation time chart
3. Contracting and disbursement schedule for full duration of the programme
4. Reference to the feasibility study and environmental impact assessment
### LOGFRAME PLANNING MATRIX FOR

**Phare CBC 2001, Czech Republic - Poland**

#### Project: **Pradìd Euroregion – Communal Waste Water Treatment**

<table>
<thead>
<tr>
<th>18.</th>
<th>16. Contracting period expires</th>
<th>17. Disbursement period expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall objective</td>
<td>Project purpose</td>
<td>Assumptions</td>
</tr>
</tbody>
</table>
| Improved quality of water in rivers and streams along the border and water courses crossing the border | • Improved quality of effluents from waste water treatment plants  
• Quality of water at Slezská Harta reservoir used for drinking water supplies  
• Water quality of Odra, Bílá, Javorník, Opavice and Opava rivers | • Amount of waste water to be treated at the WWTP will correspond to the calculated amount  
• Stable price of waste water treatment  
• Stable and reasonable regional economy |
| More stringent protection of ground waster at both sides of the border, particularly where sources of ground water are located and used for drinking water supplies | • BOD and COD reduced by 94.7% and 88.75% respectively  
• NL reduced from 344 to 20 mg/l | • Laboratory measurements carried out by waste water treatment plants operators and by the funder  
• Measurements and analyses  
• Project evaluation reports  
• Statistic data about the number of visitors |
| Elimination of surface water pollution at both sides of the border caused by discharges of communal waste water into water courses along the border | • Environment quality indicators of the area positively affected | • Government bodies and environment agencies at both sides of the border  
• Statistic data, statistics of municipalities  
• monitoring reports and regular surveys of the Ministry of Environment |

**Sources of Verification**

- Monitoring reports and regular surveys of the Ministry of Environment
- Laboratory measurements carried out by waste water treatment plants operators and by the funder
- Statistic data about the number of visitors
- Laboratory measurements carried out by waste water treatment plants operators and by the funder
- Stable price of waste water treatment
- Stable and reasonable regional economy

**Total budget:** 4,092 MEUR  
**Phare budget:** 2,300 MEUR
### Results
- Albrechtice municipality – a new drainage and sewage system in one part of the town
- Úvalno municipality – connections to the sewage system
- Krmov municipality – a new drainage and sewage system for Vrbina industrial zone and refurbishment of sewage system at Hluběín quarter
- Bruntál municipality – upgraded WWTP with the capacity of 40 697 equivalent units
- Zlaté Hory municipality – a new drainage and sewage system in one part of the town
- Javorník municipality - a new drainage and sewage system in one part of the town
- Mikulovice municipality - a new drainage and sewage system in one part of the community
- Bernartice municipality – a new mechanical and biological WWTP for 837 equivalent units including a new sewage system

### Objectively verifiable indicators
- A new mechanical and biological WWTP with the total capacity of 840 equivalent units
- One upgraded WWTP with a higher treatment capacity of 40 697 equivalent units
- 22,036 m of a new sewage system

### Sources of Verification
- Project Final Evaluation Report
- As-built documentation provided as part of the project acceptance procedure
- Individual works turn-over and acceptance documents

### Assumptions
- Work delivered by an experienced, reliable and well performing contractor
- Efficient co-ordination between the project funder, sub-contractors and IA
- Appropriate monitoring and supervision of civil work

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<table>
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<th>Activities</th>
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<td>The following civil work and equipment must be</td>
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<td>Existence and interest of</td>
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delivered for sewage system and WWTPs:

- Albrechtice municipality – construction of a new drainage and sewage system 2 459 m
- Úvalno municipality – construction of sewage connection 2 610 m
- Krnov municipality – construction of a new drainage and sewage system and refurbishment of the existing sewage system in total length 2 189 m
- Bruntál municipality – upgrade of the mechanical and biological WWTP for 40 697 equivalent units
- Zlaté Hory municipality – construction of a new drainage and sewage system 2 186 m
- Javorník municipality – construction of a new drainage and sewage system 3 800 m
- Mikulovice municipality – construction of a new drainage and sewage system 3 800 m
- Bernartice municipality – construction of a new mechanical and biological WWTP with the capacity of 837 equivalent units including a new sewage system 2 614 m

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<tr>
<th>Construction resources</th>
<th>Materials, equipment</th>
<th>Design documentation</th>
<th>Engineering supervision</th>
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Preconditions

- Signature of the Financial Memorandum

building companies with required experience and qualified staff
- Efficient co-ordination between the project funder, subcontractors and IA
- Smooth and timely funding
ANNEX 2

18.1.1.1.1

18.1.1.1.2 Implementation Time Chart

|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|

T: Tendering
C: Contracting
I: Implementation
D: Disbursement
### ANNEX 3

#### Commitment Schedule

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#### Disbursement Schedule

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18.3 ANNEX 4

18.4 Reference to Feasibility Study

The project is aimed at waste water treatment at 8 municipalities in the Pradìd Euroregion. Its implementation includes upgrading the WWTP Bruntál (ca 40 700 equivalent units), the construction a new local WWTP (ca 840 equivalent units) and of a new sewage system with the aggregate length of 22 036 m. The project is driven by the regional need to reduce surface and ground water pollution and increase the efficiency of waste water treatment to the EU levels.

Market Analysis

The target group is formed by ca 60 000 eq. units at 8 municipalities in the Pradìd Euroregion. The treatment of waste waters from municipalities is in line with the regional development strategy with its main priority of economic development, especially in the spheres of tourism and agro-tourism. The increased efficiency of waste water treatment at the WWTP Bruntál (40 700 equivalent units) at lower operating costs will have a favourable impact on the consumers’ sewerage fees. The survey carried out at other municipalities demonstrated that a majority of households are interested in being linked to the public sewage system. The results of an analysis demonstrated the project sustainability.

Organisation of Operations

After the project implementation, the title to the facilities constructed and upgraded will be transferred from the investor (EUROREGION PRADID) to the respective municipalities in ratios equal to their ownership participation in the project. The municipalities will operate their respective facilities by themselves, only the towns of Krnov and Bruntál will let them out on lease to the current operators of the water supply and sewage plants. The operating costs will be covered from the revenues from sewage treatment and their coverage therefore does not pose any project risk.

Results of Financial Analysis

The financial analysis result based on a 22 year period is IRR = 7.97%. The analysis demonstrated that the project revenues will generate sufficient funds to cover both the operating costs and financial provisions for the necessary project renewal after the end of its life provided the price paid for sewage treatment will go up as currently planned. This is a typical public service project and therefore it is not suitable for funding by private capital due to a low rate of return on the capital engaged.

Results of Economic Analysis

The waste water treatment efficiency compliant with the EU standards will be achieved (decrease in BOD by 94.7 %, in COD by 88.75 %). This will reduce ground water pollution in the Jeseníky Protected Landscape Area, the pollution of surface water used for drinking water supplies, decrease the contamination of water courses flowing to Poland and increase the attractiveness of the region for tourism. The project is in line with the national and regional medium-term strategies to reduce environmental loads and risks contributing thus to sustainable development.

Pradìd Euroregion - Communal Waste Water Treatment

The results of the study demonstrated project feasibility without any significant risks that could threaten its implementation. The Project can be recommended for inclusion into a relevant programme supported by the EU funds.

Environmental Impact Assessment

The EIA was carried out in compliance with Directive 97/11/EC of 3rd March 1997. It includes both environmental impacts during the project construction and operation. The assessment results have proved that when the technological discipline is adhered to both during the implementation and the operation proper the project will clearly contribute to the environmental improvement of the border area affected in 1996 and 1997 by catastrophic floods. Based on the assessment performed the project was recommended for implementation.