

**Standard Summary Project Fiche – IPA 2010 centralised programmes**

**Project fiche: 6**

**1. Basic information**

**1.1 CRIS Number:** 2010/022-154

**1.2 Title:** Upgrading the Pljevlja waste water treatment system

**1.3 ELARG Statistical Code:** 02.27 - Environment

**1.4 Location:** Pljevlja, Montenegro

**Implementing arrangements:**

**1.5 Contracting Authority (EC):**

Delegation of the European Union to Montenegro

**1.6 Implementing Agency:**

European Investment Bank (EIB) through a contribution agreement with Delegation of the European Union to Montenegro

**1.7 Beneficiary (including details of project manager):**

Municipality of Pljevlja  
Kralja Petra 48

Contact person and project manager: Igor Golubovic, City Manager  
Tel.: +382 52 356 049

JP Vodovod i Kanalizacija (JP ViK)  
Kralja Petra 79

Montenegro.

Contact person: Milan Lekic (Director, JP ViK)

**1.8 Overall cost (VAT excluded)<sup>1</sup>:**

€11 million

**1.9 EU contribution:**

€3.5 million

**1.10 Final date for contracting:**

Two years following the date of the conclusion of the Financing Arrangement

**1.11 Final date for execution of contracts:**

Two years from the final date for contracting

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<sup>1</sup> The total cost of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated.

### **1.12 Final date for disbursements:**

One year from the final date for execution of contract

## **2. Overall Objective and Project Purpose**

### **2.1 Overall Objective:**

To enhance Montenegro's ecological development by ensuring that economic development is environmentally sustainable and that citizens are protected from health risks linked to pollution of air, water and soil.

### **2.2 Project Purpose:**

To improve the quality of Pljevlja environmental wastewater infrastructure base, in particular targeting the protection of environmentally sensitive receiving waters e.g. Cehotina river and its tributaries.

### **2.3 Link with AP/NPAA/EP/SAA:**

The project's objective is consistent with the Stabilization and Association Agreement (Article 111) which highlights the need to develop and strengthen co-operation in the environmental field in order to halt further degradation, and start improving the environment situation with the aim of sustainable development.

### **2.4 Link with MIPD:**

The Montenegro 2009-2011 **MIPD** identifies as a main priority the implementation of activities and investment in key environmental infrastructure and equipment, particularly in the areas of wastewater, solid waste and air pollution.

### **2.5 Link with National Development Plan**

N / A

### **2.6 Link with national/sectoral investment plans**

The National Strategy for Sustainable Development of Montenegro highlights the importance of developing infrastructure, including wastewater treatment, as a pre-condition of implementing its strategy. The absence of such infrastructure directly inhibits the country's economic growth by jeopardizing its natural resources, by limiting the potential for foreign investment and restricting the development of tourism.

Sewage and Wastewater Strategic Master plan (central and Northern Region) Montenegro (EAR/03/MTG01/04/001) defined Pljevlja wastewater system in the first phase for project implementation with high priority for designing and construction of main wastewater collector and wastewater treatment plant.

The Government has adopted strategic investment master plans to ensure the rational development of its environmental infrastructure system. The proposed project is the main priority of this investment strategy.

### **3. Description of project**

#### **3.1 Background and justification:**

Montenegro have serious problem with the water distribution system. Water consumption levels are too high, especially during the summer when water resources are limited. This water shortage exacerbated by the poor condition of the water distribution network, which loses about half of the drinking water before it reaches the consumer – over 90 per cent of households have access to tapped water.

Wastewater discharges to the water bodies is another serious and overlooked problem. In almost all municipalities, wastewater either drains into rivers or infiltrate it into the ground.

Montenegro's existing wastewater infrastructure is limited to one wastewater treatment plant in Podgorica (WWTP). According to the Strategic investment plan which is adopted by Government of Montenegro 2005 identified priorities from Sewage and Wastewater Strategic Master plan (central and Northern Region) Montenegro (EAR/03/MTG01/04/001). One of the top priorities is upgrading wastewater system in Pljevlja municipality.

In order to address the investment needs in the water sector, particularly wastewater, the government has negotiated a long-term framework loan of €7 million with the European Investment Bank. This loan based on the wider strategic investment plan mentioned above and intended to facilitate the implementation of a wide range of top priority investment projects throughout the country. The Government's access to this loan facility will be strictly limited within the overall borrowing ceiling imposed by the IFI. The construction of main wastewater collector and WWTP in Pljevlja will be the part of complete waste water system upgrading in Pljevlja, which consists also reconstruction of riverbeds of Cehotina River.

Construction of WWTP will be financed through long term framework loan from EIB (€5 million), IPF Municipal window (€1,8 million) and €3,5 million from this IPA 2010 project. These €3,5 million from IPA 2010 National funding are complementary to the IPF MW and are crucial for activating the first phase of EIB loan. The Pljevlja municipality together with Danube Investment Support Facility (DISF) has jointly funded the preparation of a Feasibility Study named "Pljevlja Water Supply and Wastewater Services".

The Feasibility Study (Jacobs, 2007) includes cost benefit analysis and preliminary environmental impact assessment (EIA) report.

Pljevlja is the principal town in North-West of municipality in Montenegro, bordering Serbia to the north and Bosnia to the west. With a long history as a regional centre and set in a mountainous area of great beauty, Pljevlja location is now dominated by an open cast lignite mine supplying a thermal electricity generating station. The geographical location of the town means that transport links are poor, especially in winter, and the local economy is heavily dependent on the coalmine and the power station for employment and income. The population of Pljevlja town is reasonably constant around 21,000 but the municipality as a whole has lost a substantial

proportion of its population in the last 20 years to outward migration to other parts of Montenegro and to former Yugoslavia.

One of the reasons for Pljevlja's longevity as a town must be its abundant water supply, from karstic mountain streams and springs. A municipally owned company, Vodovod, created in 2001, runs the water supply and sewerage systems.

In the last eight years, Vodovod has made considerable progress in reducing leakage, providing a 24-hour supply, increasing tariffs, collections and revenue and installing modern IT systems for billing and mapping. Despite this, non-revenue water and the revenue collection ratio are both at about 70%, leaving room for significant further efficiency improvements. Vodovod's supply area consists of the town itself and a number of surrounding villages. 95% of the supply area is connected to the Vodovod water supply system and about 80% to the sewer system.

The sewerage system operates by gravity. Although separate systems for sewage and rainwater exist in some areas of the town, the separation has not been enforced. As a result, the systems have become interconnected and the main sewers can become surcharged in wet weather. There is no sewage treatment and sewage is discharged directly to the Cehotina River, and its tributaries. The river system also receives discharges from the mine, the power station, the abattoir and other local industries, similarly untreated. These discharges and relatively uncontrolled tipping of solid waste mean that the Cehotina River is some way from meeting the environmental standards that the Government of Montenegro has set. The Cehotina River discharges into the Drina River and thence to the Sava and the Danube.

According to Pljevlja Water Supply and Wastewater Services Development Programme after finalization of proposed actions waste water system in Pljevlja will have:

- Fully equipped and operational WWTP, including belonging collector pipelines, having the capacity to treat 90% of effluent quantities projected to the year 2030, constructed in full compliance with the contractual technical requirements and increased quality of discharge waters.
- The treatment of municipal wastewaters will have positive effects on the public in general, on surface and ground water quality, on aquatic ecosystems in the Cehotina River, Drina River, Sava River and the Danube River.

For the successful project implementation, Pljevlja Municipality also included in overall project reconstruction of Cehotina riverbeds, which is necessary for construction of main sewage collector.

The quality of construction of the WWTP depends largely on adequate technical supervision being provided during the construction phase, which will be proposed to be done by international experienced company.

### **3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact**

The project's main impact will be the measurable and tangible improvement of water quality in the receiving rivers Cehotina and tributaries.

The project itself and complete programme of wastewater investments successful implementation and conclusion will act as a catalyst for additional investment in the sector. IPA grant funding should be used to maximize the leverage effect by blending grants with IFI long-term loan finance.

Sustainability of the investment will be promoted through the adoption of treatment technology having a degree of sophistication commensurate with the potential technical and financial capacity of the beneficiary institution responsible for its operation and maintenance. Tariff charges will be increased, taking into account affordability, in order to make available sufficient financial resources to cover projected operating costs.

Cross border impact will manifest itself in improved water quality in Cehotina River, whose waters directly impact to quality water of Drina River, Sava River and the Danube River, which are across lot of country.

### **3.3 Results and measurable indicators:**

#### **Result 1**

Fully equipped and operational WWTP, including belonging collector pipelines, having the capacity to treat 90% of effluent quantities projected to the year 2030, constructed in full compliance with the contractual technical requirements and increased quality of discharge waters.

##### *Measurable indicators:*

Number of residents, commercial and industrial units having wastewater effluent connected to a WWTP (equivalent to a population of 42,000).

5200 meters of newly installed sewage collector pipeline (main sewage collector).

Quality of discharge waters in accordance to the projected national and EU standards;  
Final acceptance of the works performed provided by the Contracting Authority;

#### **Result 2**

Reconstructed Cehotina riverbeds with protection for floating surrounding areas and conditions for the construction of the main sewage collector.

##### *Measurable indicators:*

5000 meters of reconstructed riverbeds of Cehotina river

70 ha protected land

#### **Result 3**

Technical staff of the beneficiary institution is fully trained in the operation and maintenance of the WWTP equipment, ensuring long-term sustainability of the investment.

*Measurable indicator:*

Minimum of 15 technical staff, in charge for WWTP operations, received training certification by the equipment suppliers.

### **3.4 Activities:**

The activities will have a total cost of €11 million. The European Commission will conclude a contribution agreement for €3.5 million with the European Investment Bank (EIB). The contract for the activities will be deployed according to the rules of EIB. EIB contributes to the whole project €5 million in a form of loan, IPF Municipal Window contributes indicatively with €1.8 million as grant and the Government of Montenegro with €0.7 million.

*Activities related to Result 1*

- Procurement of works contract will be organized in accordance with the PRAG procedure (for the part of the project financed by IPA). FIDIC conditions of contracting will be used.
- Procurement of works and supplies contract in accordance with the other financing institutions procedure (for the remaining part of the project, EIB and local and national budget).

1.1 Implementation of the works and supplies contract by the selected contractor; Construction of WWTP, installation of equipment in WWTP, construction of main sewage collector. Construction of connecting points from old sewage river outflows in Cehotina river to new main sewage collector.

1.2 Supervision of construction and installation activities by contracted supervisor.

1.3 Assistance to beneficiary institution in the review and approval of technical designs, tender evaluation process and contract award by contracted supervisor;

1.4 Support of the contracted Supervisor, as the Engineer (FIDIC), in management and monitoring of technical and financial aspects; issuing of required approvals; contract administration including the issuing of variation orders; final inspection and handing over of WWTP.

1.5 Complete approval and acceptance test (Hand over of the WWTP to the final beneficiary);

*Activities related to Result 2*

2.1 Reconstruction of Cehotina riverbeds according to technical design done by the Municipality of Pljevlja, revised and approved.

*Activities related to Result 3*

3.1 Formal on-site training provided by suppliers of specialized equipment installed within the WWTP.

### **3.5 Conditionality and sequencing:**

Municipality of Pljevlja together with Government of Montenegro will provide all necessary technical documentation (preliminary and main design) for WWTP construction and provide all necessary permission and EIA reports according to Montenegrin and EU standards.

Before launching the tender for work contracts, the beneficiary will provide the documentary proof that the site is available and ready to be handed over to the Contractor

The Supervision service contract will be signed before the works contracts signature.

The supervisor team (at Least the Team leader) will be fluent in English.

The ECD will be involved (at least as observer) in the selection of the service contractor for Supervision.

The Construction Permit available before launching the tender procedure for works contract.

The beneficiary should also provide an action plan for assuring the provision of adequate funding for operation and maintenance of the completed facility; such plan should detail planned phased tariff increases and the procedures for ensuring increased collection rates.

### **3.6 Linked activities**

The proposed project is a culmination of various activities funded under national CARDS programmes. Under the CARDS 2003 programme (*Preparation of a Sewerage and Wastewater Strategic Master Plan (Central and Northern Region) Montenegro* prepared by consortium of Safege-Tebodin-LDK, contract number 03MTG01/04/00 with amount of 765,000.00 €), a strategic investment plan for the central and northern regions of Montenegro was developed and subsequently adopted by the Government. The Pljevlja WWTP and sewage system construction was identified as a high priority.

Based on that plan, the EIB agreed to provide the €57 million framework loan to address the urgent needs. The EIB also co-funded the feasibility study and EIA for the proposed Pljevlja project.

Under CARDS 2005 (*Support to the Ministry of Environment*, contract number 05MTG01/06/002 with amount of 1,119,308.08 €) and 2006 (*Support to the development of environment sector*, contract number 06MON01/07/001 with amount of 1,364,000.00 €), support has been provided to the Ministry of Environment to establish a Project Implementation Unit (PIU) and an Environmental Protection Agency (EPA). Although not yet fully operational, it is anticipated that the PIU will be have capacity to provide technical support during the construction phase; and that the

EPA will ensure that permitting and enforcement procedures relating to the discharge of industrial wastewater to the new WWTP are complied with.

Under European Investment Bank – Danube Investment Support Facility, job number J24085A6/601 from 2007, Jacobs completed Pljevlja Water Supply and Wastewater Services Development Programme and provided Feasibility Study for Wastewater Treatment Plant with proposed technology and all activities connected to construction of WWTP.

### **3.7 Lessons learned**

Technical expertise with municipal service providers is inherently weak. However, the public enterprise responsible for wastewater service provision in Pljevlja (JP Vodovod i Kanalizacija) has demonstrated itself to be a reliable and, technically, relatively competent. During preparation of the Feasibility Study and EIA it assumed a monitoring role to ensure an acceptable standard of finished product.

However, given the relatively sophisticated technical nature of the project, there is concern that there is insufficient in-house capacity to effectively monitor and supervise construction of the facility. A combination of an externally appointed consultant to manage the project, together with the use of in-house engineers to undertake day-to-day supervision duties, will ensure an adequate overall level of supervision. It also very important to stress that experiences and lessons learned from rehabilitation of Podgorica WWTP which was financed under the CARDS 2006 programme (Rehabilitation of wastewater treatment plant, contract number 06MON01/07/002 with amount of 1,615,404.00 €) will be used in implementation of this project. Municipality of Niksic got in 2008 IPA financing support for building WWTP and already some valuable lessons from the procurement and tender process have been learnt.

Regarding the securing of adequate funding to maintain and operate the facility, the feasibility study concludes that the required phased increase of tariff charges will be in line with the projected growth in disposable income and will, therefore, not result in increased reluctance to pay.

#### 4. Indicative Budget (amounts in €)

			SOURCES OF FUNDING									
			TOTAL EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					OTHER SOURCES OF GRANTS	
ACTIVITIES	IB	INV	EUR (a)=(b)+(c)+(d)	EUR (b)	%	Total EUR (c)=(x)+(y)+(z)	%	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (d)	%
Activity 1												
contract 1 (works- WWTP)		X	5,500,000	3,500,000	63.6	200,000	3.6		200,000		1.800.000 (IPF-MW)	32.8
contract 2 (works, Cehotina river bed)		X	3,000,000			3,000,000	100			3,000,000 (EIB)		
contract3 (works, Main collector)		X	2,000,000			2,000,000	100			2,000,000 (EIB)		
contract 4 (services, supervision)	X		500,000			500,000	100		500,000			
TOTAL IB			500.000			500,000	100		500,000			
TOTAL INV			10,500.000	3,500,000	33.3	5.200.000	49.5		200,000	5,000,000	1.800.000	17.2
<b>TOTAL PROJECT</b>			<b>11,000,000</b>	<b>3,500,000</b>	<b>31,8</b>	<b>5,700.000</b>	<b>51,8</b>		700,000	5,000,000	<b>1,800.000</b>	<b>16.4</b>

Amounts net of VAT

## 5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Start of Tendering	Signature of contract	Project Completion
Contract 2- Cehotina river bed (NC works)	Q1 2010	Q3 2010	Q4 2013
Contract 3 –Main sewage collector (NC works)	Q1 2010	Q3 2010	Q2 2013
Contract 1 – WWTP (IPA works – contribution to EIB)	n.a.	Q1 2011	Q3 2012
Contract 4 – Supervision (NC service)	Q3 2010	Q1 2011	Q4 2013

Project funded by EU (works contract) should in principle be ready for tendering in the 3<sup>st</sup> Quarter, following the signature of the FA.

## 6. Cross cutting issues:

### 6.1 Equal Opportunity

Extensive legislation exists in Montenegro related to equal opportunity issues. The Project will ensure, as far as is practicable, that the internal policies, structure or operating procedures of the beneficiary will conform to relevant EU directives and/or laws related to the promotion of equal opportunity.

### 6.2 Environment

The project directly addresses the promotion of improved environmental conditions in Montenegro and the project will comply with relevant EU Directives.

### 6.3 Minorities

There are current legislative provisions for the protection of minority rights. The proposed project will, as far as is practicable, take the required steps to assure that the internal policies, structure or operating procedures of the beneficiary will conform with or promote the minority issues.

## ANNEXES

- 1 - Log frame in Standard Format
- 2 - Amounts contracted and Disbursed per Quarter over the full duration of Programme
- 3 - Description of Institutional Framework
- 4 - Reference to laws, regulations and strategic documents:  
Reference list of relevant laws and regulations  
Reference to AP /NPAA / EP / SAA  
Reference to MIPD  
Reference to National Development Plan  
Reference to national / sector investment plans
- 5 - Details per EU funded contract

**Logical framework matrix – Pljevlja WWTP**

Logframe Planning Matrix for <b>Upgrading of Pljevlja waste water system, Montenegro</b>	Programme name and number	
•	Contracting period expires: two years from the conclusion of the Financing Agreement	Disbursement period expires one year after the final date for execution of the contract
	Total budget: € 11 million	IPA budget: € 3.5 million

<b>Overall objective</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	
To ensure that, in line with Montenegro's ecological development concept, economic development is environmentally sustainable and that citizens are protected from health risks linked to pollution of air, water and soil.	<p>Improved economic growth in Pljevlja region.</p> <p>Reduced levels of water and soil pollution of Cehotina river and its tributaries.</p>	<p>World Bank/IFI reports</p> <p>National statistical reports on Republic's economic performance, including GDP and employment statistics.</p> <p>Environmental condition monitoring reports (Hydro Meteorological Institute reports, Center for Eco-toxicological Research reports).</p>	
<b>Project purpose</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
To improve the quality and sustainability of Montenegro's environmental wastewater infrastructure base, in particular targeting the protection of environmentally sensitive receiving waters e.g Čehotina river and its tributaries.	<p>Infrastructure construction completed to the specified quality.</p> <p>Human and financial resources in place to ensure adequate operation and maintenance of the WWTP.</p> <p>Measurable pollution loads (BOD, COD, TSS) within the limits prescribed by Montenegro water quality standards (Regulations related to the quality of wastewaters and manner of their discharge into the public sewers and</p>	<p>Final Acceptance Certificate issued by the Contracting Authority.</p> <p>Inspection of beneficiary's staff register and annual operating budget commitments.</p> <p>Contractor's progress reports and internal/external monitoring reports.</p> <p>Test reports performed by Center for Eco-</p>	<p>The Government of the Montenegro remains committed to its sustainable development policy.</p> <p>The Government of Montenegro and the international community remain committed to the adopted strategic investment strategy.</p>

	receiving waters, Official Gazette of Montenegro no. 10/97 and 21/97) and Urban Waste Water Treatment Directive (91/271/EEC, 98/15/EEC).	toxicological Research. Reports generated from WWTP monitoring equipment.	Timely provision of IFI and other donor funding.  Full implementation of the national environmental legislation
<b>Results</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
<p>1. Fully equipped and operational WWTP, including belonging collector pipelines, having the capacity to treat 90% of effluent quantities projected to the year 2030, constructed in full compliance with the contractual technical requirements and increased quality of discharge waters.</p> <p>2. Reconstructed Cehotina riverbed, having protection for floating surrounding areas and having condition for main sewage collector construction</p> <p>3. Technical staff of the beneficiary institution is fully trained in the operation and maintenance of the WWTP equipment, ensuring long-term sustainability of the investment.</p>	<p>Number of residents, commercial and industrial units having wastewater effluent connected to a WWTP (equivalent to a population of 42,000).</p> <p>5200 meters of newly installed sewage collector pipeline (main city collector).</p> <p>5000 meters of reconstructed riverbeds of Cehotina river</p> <p>70 ha protected land</p> <p>Final acceptance certificate of the works performed provided by contracted Supervisor.</p> <p>Quality of discharge waters in accordance to the projected parameters.</p> <p>Minimum of 15 technical staff, in charge for WWTP operations, received training certification by the equipment suppliers.</p>	<p>Sewerage system physical asset survey.</p> <p>Effluent quality sampling and testing reports before (baseline) and after WWTP is operational.</p> <p>Final technical acceptance certification.</p> <p>Quality certificates for installed equipment.</p> <p>Training certification.</p>	<p>Adequate capacity of international and/or local construction contractors to undertake the construction works.</p> <p>Beneficiary institution is able to maintain adequate qualitative and quantitative counterpart staff through provision of the adequate budget resources.</p> <p>The beneficiary is able to meet its co-financing and debt servicing obligations.</p> <p>The beneficiary implements its commitments relating to tariff increases.</p> <p>External budgetary constraints remain stable.</p>

<b>Activities</b>	<b>Means</b>	<b>Costs</b>	<b>Assumptions</b>
- Procurement of works contract in accordance with the PRAG procedure (for the part of the	1.works contract for construction of WWTP according to specified technical requirements.	Works contract 1 WWTP 5.5 million  Works contract 3 main collector: € 2 million	Works permits and licences secured by beneficiary timely.

<p>project financed by IPA).</p> <p>- Procurement of works and supplies contract in accordance with the other financing institutions procedure (for the remaining part of the project).FIDIC conditions will be used.</p> <p>1.1 Implementation of the works and supplies contract by the selected contractor; Construction of WWTP, installation of equipment in WWTP, construction of main sewage collector. Construction of connecting points from old sewage river outflows in Cehotina river to new main sewage collector</p> <p>1.2 Supervision of construction and installation activities by contracted supervisor.</p> <p>1.3 Assistance to beneficiary institution in the review and approval of technical designs, tender evaluation process and contract award by contracted supervisor;</p> <p>1.4 Support of the contacted Supervisor, as the Engineer (FIDIC), in management and monitoring of technical and financial aspects; issuing of</p>	<p>3. works contract on construction of main collector according to specified technical requirements.</p> <p>2. works contract on river bed reconstruction according to specified technical requirements.</p> <p>4. supervision services contract for all works contracts according to specified requirements.</p>	<p>Works contract 2 river bed € 3 million</p> <p>Supervision services contract 4 : €0.5 million</p>
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required approvals; contract administration including the issuing of variation orders; final inspection and handing over of WWTP.

1.5 Complete approval and acceptance test (Hand over of the WWTP to the final beneficiary);

2.1 Reconstruction of Cehotina riverbeds according to technical design done by the Municipality of Pljevlja, revised and approved;

3.1 Formal on-site training provided by suppliers of specialised equipment installed within the WWTP.

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**Preconditions:**

Municipality of Pljevlja together with Government of Montenegro will provide all necessary technical documentation (preliminary and main design) for WWTP construction and provide all necessary permission and EIA reports according to Montenegrin and EU standards.

**ANNEX 2: IPA Amounts (in €) Contracted and disbursed by quarter for the project:**

<b>Contracted</b>	<b>Q3 2010</b>	<b>Q4 2010</b>	<b>Q1 2011</b>	<b>Q2 2011</b>	<b>Q3 2011</b>	<b>Q4 2011</b>	<b>Q1 2012</b>	<b>Q2 2013</b>	<b>Q3 2013</b>
Contract 1 (IPA)			3.500.000 *						
<b>Cumulated</b>			<b>3.500.000</b>						
<b>Disbursed</b>	<b>Q3 2010</b>	<b>Q4 2010</b>	<b>Q1 2011</b>	<b>Q2 2011</b>	<b>Q3 2011</b>	<b>Q4 2011</b>	<b>Q1 2012</b>	<b>Q2 2012</b>	<b>Q3 2013</b>
Contract 1 (IPA)				1.000.000		700.000	750.000	700.000	350.000
<b>Cumulated</b>				<b>1.000.000</b>		<b>1.700.000</b>	<b>2.450.000</b>	<b>3.150.000</b>	<b>3.500.000</b>

### **ANNEX 3: Description of Institutional Framework**

The beneficiary of the proposed investment is JP Vodovod i Kanalizacija Pljevlja, a public service company of Pljevlja Municipality. The company's responsibilities comprise the operational management, development and maintenance of infrastructure relating to water supply, wastewater collection and disposal, and surface water drainage.

The Company has a total of 79 employees and is directed by a Management Board which controls the functions of two sectors; the Technical Unit and a Financial/Legal Unit.

## **ANNEX 4: Reference to laws, regulations and strategic documents**

### **1. Reference list of relevant laws and regulations**

#### **Laws:**

Law on coastal zone (OG RM No. 14/1992)  
Law on Municipal Activities (OG RM No. 7/4 1995)  
Law on Environment (OG RM No. 12/1996)  
Regulations on environmental impact assessment (OG RM No. 14/1997)  
Guidelines on EIA Study content (OG RM No. 21/1997)  
Law on the Basic Principles of Environmental Protection (OG FRY No. 24/1998)  
Law on Local Self-Government (OG RM No. 42/2003)  
Law on Environmental Impact Assessment (OG RM No. 80/2005)  
Law on Strategic Environmental Assessment (OG RM No. 80/2005)  
Law on Integrated Pollution Prevention Control (OG RM No. 80/2005)  
Law on Waste Management (OG RM No. 80/2005)  
Law on Environmental Noise (OG RM No. 45/2006)  
Law on Public Procurement (OG RM No. 46/2006)  
Law on Water (2007)

#### **Plans, Programmes, and Strategies**

Strategy for Development of Food Production and Rural Areas (2006)  
Strategic Framework for Development of Sustainable Tourism in Northern and Central Montenegro (2006)  
Tourism Development Strategy until 2020 (2006)  
Foreign direct investment incentives strategy of Montenegro (2006)  
National Strategy for Sustainable Development (2007)

### **2. Reference to other strategic documents**

Master Plan for Sewerage and Wastewater in Central and Northern Region (2004)  
National Strategy of Sustainable Development, Action Plan 2006 – 2009 (2006)

- **Reference to EP / SAA**

#### **The European Partnership Document**

##### *Short-term priorities*

- Continue approximating Montenegrin legislation to EU legislation and standards, notably environmental protection framework legislation. Develop the administrative capacity to implement and enforce adopted legislation.
- Develop an overall environment protection strategy (water, waste, air). Adopt the land use plan; adopt the sustainable development strategy and sector strategies (integrated

coastal zone management, biodiversity, climate change). Strengthen environmental management administrative capacity.

*Medium-term priorities*

- Begin implementing the land use plan and the overall environment protection strategy. Begin implementing the sustainable development strategy and other sector strategies (integrated coastal zone management, biodiversity, climate change). Ensure a viable financial framework for implementing a mid- to long-term environmental protection policy.
- Ratify and start implementing the Kyoto protocol.
- Continue strengthening the administrative capacity of ministries and bodies in charge of environmental planning, permitting, inspecting, enforcement and monitoring, as well as project management.

**The Stabilisation and Association Agreement (SAA, March 2007)**

*Article 111:*

The Parties shall develop and strengthen their co-operation in the environmental field with the vital task of halting further degradation and start improving the environmental situation with the aim of sustainable development.

The parties shall, in particular, establish co-operation with the aim of strengthening administrative structures and procedures to ensure strategic planning of environment issues and co-ordination between relevant actors and will focus on the alignment of Montenegro's legislation to the Community *acquis*. Co-operation could also centre on the development of strategies to significantly reduce local, regional and trans-boundary air and water pollution, to establish a framework for efficient, clean, sustainable and renewable production and consumption of energy, and to execute environmental impact assessment and strategic environmental assessment. Special attention will be paid to the ratification and the implementation of the Kyoto Protocol.

• **Reference to MIPD**

*Main Priorities and objectives (environment-related)*

Strengthening the competitiveness of the Montenegrin economy and improve the business environment via, *inter alia*, the introduction of key environmental legislation and its enforcement, including environmental impact assessment; implementation of activities and investments in the areas of waste water, solid waste and air pollution.

• **Reference to EC Montenegro 2007 Progress Report**

*Relating to administrative capacity:*

The environmental protection agency has not yet been established. Overall, administrative capacity is weak and suffers from lack of staff and of satisfactory coordination between the bodies involved in environmental protection issues, in particular inspection activities. The lack of implementation capacity at local level and poor coordination between central and local government further limit enforcement capability.

Overall, some progress has been achieved in terms of alignment with the EU environmental standards and harmonisation seems to be on track. However, further efforts are needed, in particular on implementation and enforcement which pose a significant challenge. Particular attention needs to be paid to strengthening administrative capacity.

- **Reference to National Development Plan**

Not applicable

- **Reference to national / sector investment plans**

Not applicable

The Government's **National Strategy for Sustainable Development** identifies the following priority tasks to improve environmental management:

the establishment of the efficient legislative and institutional framework for environmental protection (particularly relating to free access to information, implementation of EIA, SEA and IPPC legislation and strengthening other regulatory and market instruments for environmental management). The measures to achieve this include further harmonisation with EU legislation, building capacities of administration at all levels, particularly relating to efficient application of the new legislation, establishment of the Environmental Protection Agency and the eco-fund, alignment of monitoring programmes and reporting systems with EEA standards, activities to enable free access to information and more significant public participation in decision-making, etc. Certain measures relevant for the achievement of this objective are given also within other sectors and topics – in industry, new technologies, water, air, waste, governance and participation, etc.

## **ANNEX 5: Details per EU funded contract**

### **ACTIVITY 1 (Works Contract – Construction of WWTP)**

#### **Available Feasibility Studies:**

- *Preparation of a Sewerage and Wastewater Strategic Master Plan (Central and Northern Region) Montenegro* dated November 2004 (prepared by consortium of Safege-Tebodin-LDK and financed under the CARDS 2003 national programme);
- *Feasibility Study for Pljevlja Wastewater Project* dated 2007 (prepared by Jacobs financed by DISF)
- *Environmental Impact assessment for Pljevlja WWTP* dated 2007 (prepared by Jacobs, financed by DISF)

It is envisaged that whole project will be implemented through four different contracts. Works contract for construction of Waste water treatment plant will be funded by IPA National funds, IPF Municipal Window and local contribution. Two works contracts for construction of main collector and reconstruction of Cehotina river bed will be funded by EIB loan. Service contract funded by local contribution will cover expert supervision of construction works, selection, supply and installation of waste water treatment equipment and final technical approval and certification.

Contract for construction of Waste water treatment plant is planned to be implemented through "design and build" methodology. This actually means that contracted company will do the technical design first and on the base of prepared design perform construction works. Consequently, precise technical specification and technical drawings will be available after designing phase of the project is completed. Detailed design and technical specifications for two works contracts for construction of main collector and reconstruction of Cehotina river bed are already prepared.

#### **Rate of Return**

(As identified in the above "*Feasibility Study for Pljevlja Wastewater Project*")

"*Feasibility Study for Pljevlja Wastewater Project*" has plan of tarif sistem. Cost-benefit ratio is calculated as the ratio of discounted revenues to discounted expenses. An economic analysis of the costs and benefits of the proposed PIP suggests that he benefits exceed the costs of the project from the point of view of the economy of the whole at the discount rate chosen.

The economic evaluation gives an economic internal rate of return (EIRR) of 6.0% for the project and an NPV of €1,049,000 in 2007 constant prices. Results demonstrate that the EIRR exceeds the opportunity cost of capital for the sector (5%) and that the project is expected to have a positive economic impact on the economy as a whole. It should be noted that this positive economic impact is constrained by the level to which water and wastewater tariffs can be raise (because of the affordability threshold of 4% of household incomes). These limit the amount of revenue that can be directly recovered from household customers. In as far as indirect benefits are concerned no attempt has been made to value the environmental benefits of that part of the project which will bring an end to sewer overflows and help improve the general attractiveness of the town.

**Ownership of assets (current and after project completion)**

The land upon which the facility is to be constructed is within the ownership of Pljevlja Municipality. Upon completion of the works, the physical assets will come under the ownership of “JP Vodovod i Kanalizacija Pljevlja”, a public service company of Pljevlja Municipality.