REPUBLIC OF CROATIA

Adriatic Sea Environmental Pollution Control Project (I).
Croatia and Bosnia and Herzegovina

Environmental and Social Management Framework

November 2016

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List of Abbreviations

ASEP	Adriatic Sea Environment Programme
ASEPCP	Adriatic Sea Environmental Pollution Control Project
BAT	Best Available Technologies
CP	Construction Permit
CWMC	County Waste Management Centre
EA	Environmental Assessment
EC	European Commission
EcAp	Ecosystem Approach
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EIS	Environmental Impact Study
EMP	Environmental Management Plan
ESMF	Environmental Management and Social Framework
EPEEF	Environmental Protection and Energy Efficiency Fund
EU	European Union
FS	Feasibility Study
GEF	Global Environment Facility
GIIP	Good International Industry Practice
HV	Croatian Waters
IBRD	International Bank for Reconstruction and Development
ICZM	Integrated Coastal Zone Management
IEP	Integrated Environmental Permit
IEP	Integrated Environmental Permits
IFI	International Financial Institutions
IPPC	Integrated Pollution Prevention and Control
LP	Location Permit
MAP	Mediterranean Action Plan
MEPE	Ministry of Environmental Protection and Energy
MPPC	Ministry of Physical Planning and Construction
NIA	Nature Impact Assessment
OG	Official Gazette
OP	Operational or Use Permit
OP/BP	Operational Policies / Bank Procedures
PE	Population Equivalent
PPAH	Pollution Prevention and Abatement Handbook
PPE	Personal Protective Equipment
SAP	Strategic Action Programme
SEA	Strategic Environmental Assessment
TA	Technical Assistance
TOR	Terms of Reference
UNEP MAP	United Nations Environment Programme Mediterranean Action Plan
WB	World Bank

1 BACKGROUND AND PROJECT INFORMATION

This document presents the Environmental and Social Management Framework (ESMF) for the Adriatic Sea Environmental Pollution Control Project (I) (ASEPCP) that serves as a tool to screen the sub projects (investments and technical assistance) and based on the screening guides the client: Environmental Protection and Energy Efficiency Fond (EPEEF), municipalities and municipal companies on the environmental due diligence procedures aligned with the World Bank safeguards procedures and Croatian national legislation.

The Republic of Croatia together with Bosnia and Herzegovina applied for the GEF grant to support the nutrient pollution reduction in selected hot-spots of the Eastern Adriatic Sea. The Republic of Croatia through EPEEF applied for a GEF grant in the amount of 6.810.000 $ to support above mention objectives. The indicated amount is envisaged for both Croatia and Bosnia and Herzegovina.

The proposed Project seeks to accelerate the implementation of the Mediterranean SAPs (SAP BIO and SAP MED) adopted under the Barcelona Convention in the Adriatic, and of Croatia's and Bosnia and Herzegovina's National Action Plans, in coherence with EU accession policies and Directives, in synergy with EU investment facilities, and UNEP MAP actions and policies. As such, it is a constitutive component of the wider Adriatic Sea Environment Programme (ASEP), whose ultimate objective is to reduce pollution loads in hotspots of the Adriatic Sea to restore ecosystem functioning.

The Project will promote accelerating and scaling up partnership investments of the World Bank and other IFIs that aim to support sustainable development and protection of the Adriatic Sea. The proposed project is consistent with national priorities and plans. The Project will also facilitate the progress of Croatia towards the compliance with relevant EU Directives and policies. The Project fully adheres to the principles, requirements and targets of the Mediterranean Strategy for Sustainable Development, adopted in 2005, in particular objectives of the priority area "Promoting sustainable management of the sea and coastal zones and taking urgent action to put an end to the degradation of coastal zones," and to the initiatives to introduce the Ecosystem Approach (EcAp) adopted by the parties to the Barcelona Convention.

The Project's development objectives are to reduce the discharge of pollutants with transboundary importance, particularly nitrogen, in selected hot-spots of the Eastern Adriatic Sea, and improve regional capacity for project preparation and environmental monitoring of sensitive areas.

The proposed Project would be implemented as a pilot under the broader Adriatic Sea Environment Program, focusing on supporting preparation and implementation of already identified priority pollution reduction measures and strengthening the institutional framework for protection of the ecological balance in target hotspots on the Eastern shore of the Adriatic, in this case mainly in Croatia. It would involve implementation of selected demonstrative priority pollution control investment sub-projects and regional Technical Assistance, to address key issues affecting the environmental sustainability of the Adriatic Sea, including: municipal wastewater and solid waste treatment; protection of karstic groundwater; improvement of coastal water monitoring, and preparation of investments. The project has two main components.

Component 1

(i) Provision of equipment to enhance the capacity of MEPE to monitor coastal water quality;

(ii) Building of integrated leachate management system at the Landfill Sitnica in Blato and Vela Luka, Croatia to reduce the transfer of pollution to the sea through karstic groundwater systems; and

(iii) Upgrading a current solid waste leachate treatment lagoon in Bosnia and Herzegovina (the one in Mostar's landfill, in Bosnia and Herzegovina, has been proposed) to high load activated sludge to reduce the transfer of pollution to the sea through karstic groundwater systems and the Neretva River basin.

Component 2

(i) An assessment of nutrient discharges in selected areas of Croatia's coast (to assess relative sources of nutrients, including point and non-point sources, and draft proposals for their reduction in the Croatian Adriatic Coast (Dubrovnik-Neretva County), and in the Neretva Delta area, in Dubrovacko-Neretvanska County and Bosnia and Herzegovina Neretva's basin), as well as to provide an analysis of the policy, legal and/or institutional reforms that are needed to address related water quality problems, incorporating ICZM principles, and contributing to national plans for implementation of ICZM protocol to Barcelona Convention and EU Marine Framework Directive;

ii) Preliminary designs and project documentation, including preparation of tender documentation to access EU funds, for investments in wastewater and leachate treatment to comply with EU requirements in Croatia (cities considered are Zadar in Zadarska County, and Blato and Vela Luka in Dubrovacko-Neretvanska County); and

(iii) Preliminary designs and project documentation, including preparation of tender documentation to access EU funds, for investments in wastewater and solid waste leachate treatment to comply with EU requirements in Bosnia and Herzegovina (cities considered are Trebinje and Gacko in Eastern Herzegovina, Livno, Glamoc and Posusje in Western Herzegovina, and Neum on the Adriatic coast).

Although above indicated components include sub projects in Bosnia and Herzegovina, the ESMF will only deal with the Croatian investments and technical assistance. A separate ESMF will be prepared for Bosnia and Herzegovina investments and technical assistance.

2 NATIONAL AND WB ENVIRONMENTAL POLICIES RELEVANT FOR THE PROJECT

2.1 RELEVANT NATIONAL ENVIRONMENTAL LEGISLATION

This section will provide basic information on EIA process according to national legislation as well as WB safeguards procedures. In addition, the section will provide basic information on main provision of waste and wastewater legislation.

2.1.1 National EIA process

The Croatian Environmental Protection Act (OG 80/13, 78/15) and the associated EIA Regulation (OG No. 61/14) have been drafted to comply fully with the EU's EIA Directive (97/11/EC), which has the same objectives and follows the same basic principles as the Bank's EA policy, including matching EA requirements to the level of environmental risk presented by the proposed project and requirements for the public (and other affected countries) to be informed and consulted. Under the Regulation on EIA, determination of EIA requirements is based on a specific (not illustrative) list of project types, divided into three categories:

- Annex I = Mandatory EIA: i.e., a list of projects for which EIA is mandatory, based on the expectation that they are likely to have significant effects on the environment. In some cases specific thresholds of scale are included.

- Annex II = presents a list of projects for which the national authorities will decide whether an EIA is needed, through a screening procedure, either on a case-by-case basis or by establishing suitable criteria and thresholds (or both). Again, some types of projects are listed with minimum thresholds of scale to qualify as Annex II.

- Annex III = similarly as Annex II presents a list of projects for which the County Administration rather than MEPE authorities will decide whether an EIA is needed or not. Again, some types of projects are listed with minimum thresholds of scale to qualify as Annex III.

Any project which does not fall under Annex I, II or III does not require an EIA. This includes projects of types which are listed under Annexes but below the minimum threshold of scale.

More specifically for wastewater investments and landfill investments the situation is as follows:

	Annex I – SUO mandatory	**Annex II –** EVALUATION OF THE NEED FOR ENVIRONMENTAL IMPACT ASSESSMENT **(MEPE)**	**Annex III –** EVALUATION OF THE NEED FOR ENVIRONMENTAL IMPACT ASSESSMENT **(County)**
County and regional waste management centers	Yes		
Wastewater treatment plant, capacity of 50,000 PE (population equivalent), or more, with associated drainage system	Yes	-	
Facilities for hazardous waste management	Yes		

Facilities for thermal waste treatment, capacity of 10 tons / day and more	Yes		
Facilities for the disposal of non-hazardous waste, capacity of 100 t / day or more	Yes		
All projects for which it is necessary to obtain integrated environmental protection requirements, according to special legislation, which are not contained in this Appendix.	Yes		
Wastewater treatment plant, capacity of 10,000 PE and more with associated drainage system	-	Yes	
Facilities for waste treatment: - Thermal waste treatment, capacity of 1 t / day or more - Biological treatment and other methods for waste processing, capacity of 100 t / day or more	-	Yes	
Waste disposal facilities	-	Yes	
Remediation and reconstruction of landfills	-	Yes	
Modification of procedures in Annex I. and II. which could have a significant negative impact on the environment. Significant environmental impact is evaluated, on the developer's request, by the Ministry, that is – Ministry gives an assessment whether environmental impact assessment is necessary.		Yes	
Reconstruction of the existing plants and equipment, for which integrated environmental protection requirements are established, which could have a significant negative impact on the environment. Significant environmental impact is evaluated, on the developer's request, by the Ministry, that is – Ministry gives an assessment whether environmental impact assessment is necessary.		Yes	

Annex V of the EIA regulation provides criteria for determining the need for environmental assessment. In addition to aspects of the project itself (size, use of natural resources, generation of waste, etc.) these include (i.e.) the sensitivity (absorptive capacity) of the environment at the site with particular attention to areas of high ecological/nature importance or high population, potential for trans boundary effects and potential for cumulative effect in combination with other projects.

Minimum requirements for the contents of the EIA report (Environmental Impact Study) are set out in Annexes IV and VI the EIA Regulation, but these can be amplified or supplemented in the instructions which are issued by the competent authority following a process involving input from relevant sectorial authorities and the public. The project proponent is responsible for having an Environmental Impact Study (EIS) carried out by a firm which is certified and licensed by MEPE as qualified for this purpose. The firm must also be independent from the project proponent but there is no provision to exclude firms involved in project design. The EIA study is then evaluated by an Advisory Expert Committee appointed by the competent authority from a published list of eligible people (however, some stakeholders consulted for this review indicated that the selection of Committee members for a given EIS is not transparent). Once the Committee has determined that the report is satisfactory it is presented for public debate and may be revised based on input received. Based on the final EIA, the Committee issues its Opinion / Decision on the environmental

acceptability of the proposed project, which also includes an explanation of the opinion and recommendations on required environmental protection and monitoring measures. Finally, the competent authority issues an EIA Decision taking into account the opinion of the Advisory Committee, the results of the nature impact assessment (where required), opinions submitted by the public. The EIA decision is not limited to a simple approval or rejection but is a substantive, public document which specifies the necessary environmental protection measures to be taken, relevant pollution abatement standards and an associated environmental monitoring program.

In Croatia the objectives and principles for environmental assessment set out in OP 4.00 are addressed not solely through the EIA process but through a system which involves a combination of spatial planning, EA (including Strategic Environmental Assessment, or SEA) permitting, application of sectoral laws, regulations and standards (e.g. laws on water, cultural heritage, nature protection, etc.), and the application of specific mitigation and monitoring requirements determined through these mechanisms. In addition to MEPE, other Ministries and agencies also play a significant role, including: the Ministry of Construction and Physical Planning, the Ministry of Agriculture and its associated Public Institution "Hrvatske vode" (Croatia Waters) which is responsible for awarding and monitoring water use permits, the Ministry of Labor and Pension System for noise regulation and chemicals, Ministry of the Interior for fire protection, etc. The main elements are described in Annex 2 of the ESMF.

While quite comprehensive on the environmental side, there is little reference to assessment of social impacts. The only specific reference is:

"4. Description of the effects impacts on the environment during the development and/or use of the project, including in particular: description of potentially reduced natural values (losses) of the environment in relation to the potential social and environmental benefits [and] … effects on population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors and in relation to the project…"

In harmonizing the Nature Protection Act with relevant EU Directives, Croatia has recently instated a process of assessment of impacts on the National Ecological Network (referred to herein as Nature Impact Assessment or NIA) which is equivalent to the EU "Appropriate Assessment". The NIA complements the EIA and SEA processes for investments, plans and programs within or affecting areas included in the National Ecological Network.

Disclosure and Consultation: The Law on Spatial Planning (OG No. 153/13) calls for public participation in the spatial planning processes. Provisions for informing and involving the public in decisions about environmental protection are set out in the Regulation on Information and Participation of the Public and Public Concerned in Environmental Matters (OG No. 64/08) under the Environmental Protection Act. The public is involved in determining the need for an EIA or SEA (screening), the content of these studies (scoping) and reviewing the reports prior to approval of an EIA or SEA, as well as on the final Decision on EIA. There is also public involvement in the preparation of laws and regulations which may have a significant impact on the environment, determination of IEPs and safety reports. EIS Advisory Committee meetings are also open to the public. The Regulation prescribes the manner and timeframes for conducting a "public debate," which includes "public inspection" (making documents available to the public for review—i.e. disclosure), receipt and handling of comments, and "public display" (a question and answer meeting with the project proposer, EIA/SEA authors and relevant authorities). Disclosure Information is posted on authorities' websites and, where appropriate other media are also used.

While in most cases the period given to authorities to review EIS and related documents is 30 days, the Regulation on Information and Public Participation calls for only eight days from the notification of a public display meeting to the meeting itself. The manner of public participation is also specified; for example for determining the contents of an SEA it is through submitting written opinions, while review of the Minutes of meetings are prepared by the organizer (competent body) and include questions/opinions from the public and responses provided, and people can also register questions and opinions through other means such as submission of written comments to the competent authority. At the end of the process the competent body prepares a report on the public debate including list of invited participants, list of proposals and objections which were accepted; summary of those partially or not accepted with explanation of reasons, documentation of notifications, invitations, minutes and the book of comments." If accepting proposals and comments results in a significant change in the proposal, the public debate is repeated up to two times; if further debate is still required preparation of the new proposal must start again from the beginning.

Monitoring and Enforcement: The permits issued for construction and operation of a facility specify procedures to be followed and environmental standards to be met. During the construction phase, the investor is responsible for ensuring construction supervision through engaging a Supervising Engineer whose responsibilities include ensuring compliance with environmental aspects of the construction and location permit. During operation, the operator of the facility has the responsibility to monitor emissions into soil, air, water, sea, etc. and to report immediately any unforeseen event which has a significant environmental impact. The key institutional mechanism for monitoring and enforcement is the MEPE Directorate for Inspection Services, Department for Inspection Control of Environmental Protection. In addition, there are a number of sectorial inspection services (e.g. water management, forestry, agriculture, culture etc.) which have the responsibility for monitoring and enforcement of their respective regulations, including environmental aspects such as water quality. The MEPE is responsible for establishing mechanisms for cooperation among the various inspection services in the field, a task which is being facilitated by the introduction of the Integrated Environmental Permit (IEP) mechanism.

Inspectors carry out spot inspections to verify that a facility is operating in accordance with its Operational Permit, including that required environmental protection measures are being taken, technical standards are being met, worker safety measures are in place, required environmental monitoring is being done, etc. Where a situation is identified which presents a health or environmental threat but the specific source of the pollution is not known, the Inspector can require remedial action to be taken by the city or the county.

2.1.2 World Bank procedures

The World Bank's environmental and social safeguard policies are a cornerstone of its support to sustainable poverty reduction. The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. These policies provide guidelines for Bank and borrower staffs in the identification, preparation, and implementation of programs and projects.

According to the World Bank Safeguards policies, the objective of environmental assessment (EA) is: "to help ensure the environmental and social soundness and sustainability of investment projects [and] to support integration of environmental and social aspects of projects into the decision

making process." This is achieved through a requirement to "Assess potential impacts of the proposed project on physical, biological, socio-economic and physical cultural resources, including trans-boundary and global concerns, and potential impacts on human health and safety. The policy specifies that an EA should take into account the natural environment (air, water and land); human health and safety, social aspects (involuntary resettlement, indigenous peoples and cultural property), and consider natural and social aspects in an integrated way. The policies also calls for measures to link the EA process and findings with studies of economic, financial, institutional, social and technical analyses of a proposed project.

The EA policy provides criteria to guide the determination of when a full EIA or a partial EIA is required, based on factors such as type and scale of the investment, potentially sensitive environmental features of the proposed location, potential transboundary impacts, etc. Projects which do not meet any of these criteria (i.e., are expected to have minimal or no negative environmental impacts) are classified as Category C (no EA required).

Under the Bank's policy, the EA covers all aspects, from "upstream" analysis of possible alternatives (different sites, technologies, even fundamentally different approaches such as developing roads vs. railways) through identification of potential impacts and mitigation measures and monitoring of their implementation and results. These mitigation and monitoring measures are typically set out in an Environmental Management Plan (EMP) which may be part of the EA, a free-standing document, or incorporated into other documents such as a Project Implementation Manual. An EIA is best suited to the analysis of impacts for a given project concept, while the environmental implications of broad development options for a region or sector are best addressed through a regional EA or a sectoral EA, respectively (which are defined as "strategic forms of EA" in the 1993 Environmental Sourcebook Update on Environmental Screening).

According to World Bank policies, this particular project has assigned Environmental Category B. Under ASEPCP (I) **solely category B and C subprojects would be considered for financing**.

Category B sub projects would include sub-projects which may have significant, negative and/or short-term environmental impacts, the magnitude of which are difficult to determine at the sub-project identification stage.
Category C sub projects would include sub-projects whose environmental impacts are expected to be negligible, for which no EA would be required.

During the assessment of the project several World Bank safeguards policies were triggered.

OP/BP 4.01, (Environmental Assessment) is triggered. An overall ESMF is prepared, following World Bank policies on consultation and disclosure, in advance of project appraisal. EAs/EMPs would be prepared for the sub-projects to be financed that would be classed as category B. This imply that for both the direct investments and technical assistance documentation that will be prepared for future investments only upgrades of the existing structures will be included.

OP/BP 4.11 (Physical Cultural Resources) is triggered as the project recognizes that the historical richness of Croatia creates a higher than usual likelihood of cultural "chance finds" in any construction activity. The sub-projects will comply with local legislation, including advance consultation with the Ministry of Culture and allowing the local permitting process. ESMF include provisions on chance finds.

OP/BP/GP 7.50 Projects on International Waterways
The Adriatic Sea and its tributaries, including the Neretva, Krka and Cetina Rivers are international waterways. The project therefore triggers the Bank's Policy on International Waters. The notification letter was send to MAP on 11 April 2013.

OP 17.50, (Disclosure Policy) is triggered with reference to the ESMF and EAs/EMPs for the Sub-projects to be financed.

Safeguard Policies Restrictions

Category A activities will not be financed through the project
A proposed sub-project is classified in this category, if it is likely to have highly significant, diverse, and/or long-term adverse impacts on human health and natural environment the magnitude of which is difficult to determine at the sub-project identification stage. These impacts may also affect an area broader than the sub-project sites. Measures for mitigating such environmental risks may be complex and costly.

OP/ BP 4.12 Involuntary Resettlement
The project would not trigger OP 4.12. Therefore, no potential beneficiaries can participate in the project if they would need land acquisition for the activities to be supported under this project even if obtained before the loan for the specific purpose of the loan. Rehabilitation and reconstruction (which could involve demolition of no longer suitable structure and construction of a new one) of existing buildings within the same footprint would be permissible. If reconstruction would exceed footprint of existing structure in any way, the EPEEF and municipalities must ascertain that any additional land used is unencumbered (i.e. no squatters or encroachers or not requiring the eviction of anyone resident in such property) and provide proof in form of pictures and ownership title. The municipalities should verify for each sub-project the unencumbered status of the property prior to approving any sub-project which could raise such issues.

2.1.3 Differences between National and WB

Many of the features of the Croatian EIA system are generally compatible with the corresponding features of World Bank procedures (OP 4.01), and are also consistent with European Union Directive (97/11/EC). However, there are differences in certain features, which need to be addressed.

During 2011, the Bank conducted a Safeguards Diagnostic Review which compared the legal and regulatory framework for environmental and social compliance with the Bank's Safeguard policy 4.00. The review (Equivalency Analysis) found acceptable equivalence between the Croatian system and World Bank policies on Environmental Assessment (EA) and Natural Habitats.

The objectives and principles of the Croatian system for environmental protection closely match those set out in OP 4.00, including aspects such as applying the precautionary approach, comparing alternative options, considering cumulative impacts, applying international standards, expert analysis and public participation.

The Croatian system for identification, assessment and management of environmental impacts is comprehensive and is designed to achieve the same outcomes as the World Bank's policies with

respect to EA, and can be considered equivalent under most circumstances. However, gap-filling measures will be required in some specific situations.

These include the facts that Croatian law has provisions to exempt investments from the usual EA requirement under certain circumstances, that there may not be sufficient analysis of alternatives particularly for investments associated with spatial and sectoral plans which did not undergo Strategic Environmental Assessment, that the EA even for high risk projects need not necessarily be prepared by an independent party, and that the methods and time period for public consultation are variable and may not always be consistent with the WB policy. To meet its "due diligence" requirements the WB under this project reserves the right to require the Borrower to take incremental action to fill such gaps on a case-by-case basis as required. As Croatian EIA law does not require assessment of the cost of propose mitigation measures or of the project proponent's capacity to implement them, these aspects would need to be addressed as well, perhaps through sectorial reviews and support programs. For sectors and activities where the relevant secondary legislation to implement EU technical standards (such as emissions limits) has been adopted this can be treated as equivalent to the PPAH/EHS. However, as Croatia has not yet completed this process for all sectors and activities this would need to be reviewed in the context of the Acceptability Assessment for any given sector. Finally, it is noted that both the WB EA policy and Croatian Environmental Act and EA Regulation mention the assessment of social impacts but neither provides sufficient detail regarding the nature or extent of assessment to be carried out or required mitigation measures.

During the process of reviewing the existing documents, preparing ToRs for EIAs and other environmental documents, EPEEF will make sure that the identified gaps in preparation and process itself are identified and appropriate actions taken / envisaged to rectify the procedures and to align them with the World Bank safeguards procedures.

2.2 TECHNICAL GUIDELINES

The national (aligned with the EU) wastewater and waste technical guidelines are described in the following sub legislations:

Waste:

- The Law on Sustainable Waste Management (OG No. 94/13)
- Water Act (OG No.153/09,130/11); Act on agricultural land (OG No. 63/11) partly repeals particular provisions of Water Act
- Water Management Financing Act (OG No. 153/09, 90/11), Act on Physical Planning and Construction (OG No. 90/11) partly repeals particular provisions of the Water Financing Act
- Decision designating sensitive areas (OG No. 81/10)
- Regulation on water quality standards (OG No. 89/10)
- Rulebook on emission limit values for the waste waters (OG No. 87/10)
- Decision designating vulnerable areas (OG No. 130/12)
- Waste Management Strategy of the Republic of Croatia (OG No. 130/05)
- Ordinance on waste management (OG No. 23/14, 51/14, 121/15, 132/15)
- Ordinance on construction waste and waste containing asbestos (OG No. 69/16)
- Waste Management Plan of the Republic of Croatia for 2007-2015 (OG No.85/07,126/10, 31/11, 46/15)
- Ordinance on the methods and conditions for the landfill of waste, categories and operational requirements for waste landfills (OG No. 114/15)

- Ordinance on management of wastewater treatment sludge when used in agriculture (OG No. 38/08)

Waste water:

- Water Act (OG, No. 153/09 and 130/11), Law on Amendments to the Law on Agricultural Land (OG, No. 63/11) partially abolished individual provisions of the Water Act
- Decision on determining sensitive areas (OG, No. 81/10)
- Regulation on the quality of bathing water (OG, No. 51/10)
- Regulation regarding fees for water protection (OG, No. 82/10 and 83/12)
- Regulation of water quality standards (OG, No. 89/10)
- Regulation on Issuing Water Acts (OG, No. 78/10)
- Regulation on the calculation and payment of fees for water protection (OG, No. 83/10)
- Regulation on the emission limit values of waste water (OG, No. 87/10)
- Regulation on special conditions for performing activities of testing on water resistance of structures for drainage and wastewater treatment (OG, No. 1/11)
- Regulation on special conditions for performing activities of preventing the spread and elimination of consequences of emergency and accidental water pollution and water goods (OG, No. 1/11 and 118/12)
- Regulation on technical requirements for the buildings for wastewater collection and deadlines for mandatory safety control of wastewater collection and wastewater treatment buildings (OG, No. 3/11)
- Regulation on special conditions for performing activities of sampling and testing of water (OG, No. 20/11)
- Regulation on special conditions for performing public drainage (OG, No. 28/11)

The World Bank Group, which includes IBRD and IFC has developed Environmental, Health and Safety (EHS) Guidelines. The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). These contain the performance levels and measures that are normally acceptable to the Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets with an appropriate timetable for achieving them. The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to the Bank, become project- or site-specific requirements.

Main link to the EHS website is:

http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Sustainability/Sustainability+Framework/Environmental,+Health,+and+Safety+Guidelines/

Specific to ASEPC project following guidelines should be used when and if applicable:

General EHS Guidelines (full document)
1. Environmental
    1.3 Wastewater and Ambient Water Quality

1.6 Waste Management
2. Occupational Health and Safety
2.1 General Facility Design and Operation
2.7 Personal Protective Equipment (PPE)
2.9 Monitoring
4. Construction and Decommissioning
4.1 Environment
4.2 Occupational Health and Safety

Industry Sector Guidelines
Waste Management Facilities
Water and Sanitation

3 SUMMARY OF CURRENT STATUS OF POTENTIAL (KNOWN) INVESTMENTS AND TA

Preliminary designs and project documentation, including preparation of tender documentation to access EU funds, for investments in wastewater and leachate treatment to comply with EU requirements in Croatia will be prepared for Zadar in Zadarska County and Blato and Vela Luka in Dubrovačko-Neretvanska County. These are tentative investments and their participation in the project will be confirmed during project negotiations.
In addition to TA the project will finance a demonstration investment (integrated leachate management system) in Blato and Vela Luka Sitnica landfill.

The current status of preparedness of these projects is as follows:

ZADAR DIKLO

Current state of investment (closure) – landfill is still operational at the moment. Closure will be carried out after necessary permit (operating permit) has been acquired and after the regional center for waste management in Biljane Donje has been opened. After waste management center has been opened, all landfills in its area must be closed within a year, in accordance with legal requirements and Waste Management Plan.

The following environmental due diligence documents have been prepared:
Plan of closure and remediation of landfills Zadar - Diklo (APO, February 2006)
EIA for closure and remediation of landfills Zadar - Diklo (APO, May 2007)
A request for evaluation of the impact assessment procedure changes on the environment of remediation and closure of landfills "Diklo" (City of Zadar), the continued use by the beginning of operation of the County Waste Management (APO, June 2012)

Status of technical documentation and licenses (with the date of preparation, who made them / issued by) – After preparation, EIA is submitted to the Department of Environmental Protection, Physical Planning and Construction for verification, which issues a ruling on the 17th April 2007. , Class: UP / I 351-03/06-02/57, Ref: 531-08-301-DR/AK-07-12 by which it is accepted. Pursuant to the ruling of the State administration office in Zadar County, Office for Planning, Environment protection, Construction and Property Affairs, issued a location permit on the 12th of November 2007., Class: UP/I-350-05/07-01/798, Ref: 2198-05-01-07-12 for remediation and closure of

landfill Diklo. Company Čistoća submitted a request on 16th February 2012., through the company APO d.o.o. to MEPE to implement the evaluation of the need for environmental impact assessment concerning landfill remediation changes and closure until the regional waste management center has become operational. The MEPE issued a resolution on 22nd of August 2012. (Class: UP/I-351-03/12-08/13; Ref: 517-06-2-1-2-12-13) which states that it is necessary to conduct the environmental impact assessment, and to consider the project alternatives and by appropriate methodology to assess which is the most acceptable variant within the EIS.

Information about public consultations related to the project - EIS was on public review prior to approval. Public review was conducted in the city of Zadar, in the duration of 14 days, with the beginning of public review on the 17th of January 2007. Department of Planning, Environmental Protection and Municipal Affairs of Zadar County coordinated the public review. On 29th of June 2012. MEPE website published information on the application for the implementation of the evaluation of the need for environmental impact assessment procedure.

NOVIGRAD

Current state of investment of Municipality Novigrad in Zadar County, encompasses the town of Novigrad located in Novigradsko more and Pridraga located in Karinsko More. Phase I drainage system (pipe length of 500 m, 1 CS) has been built for Novigrad, II. phase drainage system (pipe length 456 m, CS 2) has been built for Novigrad and III. phase drainage system (pressure pipeline, length 550 m, CS 3, mechanical wastewater treatment plant and undersea discharge, length 1000 meters) has been built for Novigrad. The system currently works and 80% of Novigrad is is connected to the drainage system.

List of all documents prepared for IV. phase of the drainage system (pipe length 600 m), Crnopalj and CS Most Obtained confirmation of the main project from 22. September 2011.g made by the company Hidroprojekt ING Zagreb. The value of this project is around HRK 7,000,000.00, this is also the final stage of the drainage system for Novigrad.

Regarding other documentation, main wastewater collection design for the connection of wastewater from hotel and auto camp on the Novigrad drainage system has been made. Main design is currently awaiting confirmation (Water contributions are paid. The expected value of the investment with VAT is around HRK 1,000,000.00. Preparation of project documentation for drainage and connection to the water purifier is planned for settlement Pridraga (through this project). Expected necessary funds in the amount of approximately HRK 150,000.00.

BLATO AND VELA LUKA

Current state of investment (closure) – landfill is still operational at the moment. Closure will be carried out after necessary permit (operating permit) has been acquired and after the regional center for waste management in Lučino Razdolje has been opened. After waste management center has been opened, all landfills in its area must be closed within a year, in accordance with legal requirements and Waste Management Plan.

The following environmental due diligence documents have been prepared:

EIA for remediation and closure of landfill Sitnica (Ecoina, September 2005);

Report for obtaining a location permit for remediation and closure of landfill Sitnica – Conceptual Design (Ecoina, November 2006);

Main Design for remediation and closure of landfill Sitnica (Ecoina, August 2005);

Report of groundwater's tracing of the area of Sitnica landfill on the island of Korčula (Ecoina, October 2007.)

A request for evaluation of the impact assessment procedure changes on the environment of remediation and closure of landfills Sitnica on the island of Korčula (Ecoina, October 2013.)

Conceptual Design for amendments of location permits (Hidropan, December 2015.)

On the bases of the aforementioned documents the following permits are being issued:

EIA Decision dated 21.9.2006.

Location Permit dated 29.4.2008

Confirmation of the main design - Building Permit dated 29.6.2010.

Extension of the Confirmation of the main design dated 4.5.2012.

Decision on screening procedure dated 10.4.2014.

Amendments of location permits dated 6.9.2016.

Documentation that is to be prepared in this project:

Main design with bill of quantities

Environmental Management Plan (EMP);

Technical Basis for Obtaining the Environmental Permit

Report on Assessment Of Nutrient Contribution Prior To Remediation Activities;

Report on Assessment Of Nutrient Contribution After Remediation Activities.

SKRADIN

Skradin has a mechanical biological wastewater treatment plant built through the CARDS program, which has been in operation for six years. Besides that, procurement procedure for the selection of contractors and the procurement of equipment for the construction of wastewater treatment plants in the zone of mixed-use (commercial and residential area), KOSA, is in progress. All the necessary documentation is already made and funds are secured from the IPA pre-accession fund. For other wastewater treatment plants (per some settlements of town of Skradin) that could possibly be built, for now we do not have any documentation.

4 DETERMINING ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

All sub-projects to be financed under the ASEPCP (I) should be subjected by EPEEF to an environmental review process consisting of the procedures described in this ESMF. The EPEEF and municipal companies should use these procedures in reviewing and appraising sub projects, and to inform municipalities or municipal companies of environmental requirements for subproject appraisal, so that sub-projects can be implemented in an environmentally sound manner. These procedures and requirements incorporate Croatian environmental legislation[1], construction laws and sub laws[2] and the World Bank's safeguard policies[3].

The project will finance two types of sub – projects: a) technical assistance sub projects and b) investments sub-projects. The project will solely finance two direct demonstration investments due to rather small amount of the GEF grant. One will be in Croatia and other on in Bosnia and Herzegovina.

At this stage of the project preparation some of the sub-projects are already known and some are tentative. The list bellow indicates sub-projects to be included in the project.

Table 1 List of specific sub-projects to be financed under the project

	Sub project	Certainty of sub project location
Component 1 - Investments		
Equipment for monitoring sea water quality	different land laboratories or on sea laboratories (research ships)	Confirmed
Solid waste leachate treatment facility in Croatia	new: Blato and Vela Luka landfill Sitnica	Confirmed
Solid waste leachate treatment facility in Bosnia and Herzegovina	upgrade: Mostar landfill	Proposed
Component 2 - Technical assistance		

[1] Environmental Protection Act (Official Gazette of the Republic of Croatia No. 80/13, 153/13, 78/15) and Regulation on the Assessment of the Effects of Projects on the Environment (Official Gazette of the Republic of Croatia No. 61/14) provide for the implementation of procedure for the assessment of the impact of projects on the environment. By the passing of the above legislation, the procedure has been systematized and harmonized with the respective EU Directives: Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment as amended by Council Directive 97/11/EC of 3 March 1997, and Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003. In addition, the adopted legislative instruments are based on the provisions of the international agreement ratified by the Republic of Croatia by passing the Act on the Ratification of the Convention on Environmental Impact Assessment in a Transboundary Context (Official Gazette of the Republic of Croatia Nos. 6/96, 7/08 and 1/09).

[2] Law on Spatial Planning (Official Gazette of the Republic of Croatia No. 153/13), and Law on Construction Act **(**Official Gazette of the Republic of Croatia No. 153/13)

[3] World bank Safeguard Policies - Environmental Policies, Social Policies, Legal Policies and Bank Disclosure Policy; www.worldbank.org/safeguards

Assessment of nutrient discharges	different type of studies	Partially confirmed, opened for new applications
Technical documentation (EU financing) and supporting studies for wastewater and solid waste leachate treatment in Croatia	upgrades: Ploce, Novigrad, Skradin	Partially confirmed, opened for new applications
Technical documentation (EU financing) and supporting studies for wastewater and solid waste leachate treatment in Bosnia	upgrades of wastewater treatment plant and leachate treatment system	Not yet proposed

The procedures essentially consist of Environmental Screening process, Environmental Assessment document preparation and consultation, Environmental Management Planning and Monitoring of compliance with the plan of actions recommended for controlling and mitigating environmental risks.

1) The Environmental Screening will be carried out by the EPEEF at an early stage in sub-projects review to determine the appropriate environmental due-diligence documents required for the proposed sub-projects. Based on the outcome of screening, the scope of an Environmental Assessment (EA) will be determined for the sub-projects.

2) The municipalities/municipal company will be responsible for preparing the required EA and for confirming that any clearances necessary for the proposed sub-projects are obtained from the relevant authorities as prescribed by the national legislation and that is in line with the World Bank procedures as described in this document. The municipalities/municipal company will firstly comply with the national legislation and then based on the gap analysis update the documents to align with WB safeguards procedures described in this ESMF. Once the EA is performed, public consultation done and recommendations incorporated into the sub-project, the EPEEF will appraise the proposed sub-project package and allow its financing.

3) The EMPs will be implemented by the contractor and supervised directly by municipalities/municipal company supervising engineer. The implementation of the EMPs will also be monitored by the EPEEF which will be in charge for review, approval, and supervision process.

The scope of EIA, where needed is prescribed by the Croatian Law set forth in Ordinance[4] and will be defined by MEPE. The EIA scope defined by the relevant ministry would be supplemented with the EMP. EMP should be prepared according to the WB safeguards policy OP 4.01 (see annex 6).

The overall environmental procedures applied to the sub-project cycle and responsibilities of key parties are described in detail below.

[4] Regulation on the Assessment of the Effects of Projects on the Environment (Official Gazette of the Republic of Croatia No. 61/14)

4.1 ENVIRONMENTAL SCREENING

Environmental Screening is the first step in the environmental due diligence process of reviewing the sub-projects. Its purpose is to determine the environment risk associated with the proposed sub-project, reject sub-projects which are unacceptable due to the nature of the proposed activities, define environmental due-diligence documents. EPEEF would closely work with municipalities and municipal companies on environmental due-diligence documents and provide suggestions / advices accordingly. Whether a full-scale EIA or a simplified EA (EIA, EMP, EMP checklist) is required will be determined by EPEEF or MEPE screening process. IBRD will provide required support to EPEEF for every sub project, due to the small amount of supported sub-projects.

In the discussion with the representatives of potential sub-projects, the EPEEF will first determine the sub-project category and environmental category of the sub-project. Depending on the type, location, sensitivity, and scale of the sub-project and the nature and magnitude of its potential environmental impacts, the proposed sub-project should be classified.

Any project that would fall under category A (not envisaged) would be excluded from the financing. These would be projects that would have highly significant, diverse, and/or long-term adverse impacts on human health and natural environment the magnitude of which is difficult to determine at the sub-project identification stage. These impacts may also affect an area broader than the sub-project sites. As the project is planning to support solely upgrades of existing waste water treatment plant or landfills, category A projects are not envisaged.

The proposed categorization of sub-projects is presented in table below.

Table 2 The proposed categorization of sub-projects

Sub-project category	**Project component**	Environmental category	Description
	Component I - Investments		
1	Equipment for monitoring sea water quality	category C	equipment that does not present significant safety or environmental risk
		category B	equipment that presents significant safety or environmental risk
2	Solid waste leachate management	category B	includes upgrades on existing landfills
	Component II - Technical assistance		
3	Assessment of nutrient discharges	category C	the analysis of different sources and pollutants to comply with EU directives
4	Technical documentation (EU financing) and supporting studies for	category B	technical documentation (feasibility study design, EIA, permits) for specific investment project financing for waste water treatment plants and leachate treatment plants

	wastewater and solid waste leachate treatment	category C	supporting documentation that include different reviews of existing documentation, updating plans, etc.

Sub-project category 1 - Equipment for monitoring sea water quality:

The laboratory will submit the list of equipment indicating its purpose to EPEEF, and based on the assessment of the equipment, EPEEF will propose either category C or category B for the sub project. In this case **category C** would include equipment that does not present significant safety or environmental risk, while **category B** would equipment that presents significant safety or environmental risk.

Sub-project category 2 - Solid waste leachate treatment

No more than two proposed subprojects (Blato/Vela Luka and Mostar) would be financed under this category / sub-project category and those would fall under **category B** as the impacts are expected to be beneficial for the environment and the adverse impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed easily. The sub projects would only finance leachate treatment construction or rehabilitation on the existing landfills, therefore minimizing the impact of the whole landfill on the environment. New construction of landfills with leachate treatment plant would be excluded. Following steps are envisaged:

a) Municipal company and/ or municipality would request opinion of the MEPE whether for this upgrade of the landfill EIA is required or not.
b) If EIA is required by MEPE, the municipal company or municipality would engage in hiring a licensed consultant to prepare EIA according to national procedures. The Municipality or the municipal company will share the ToR for EIA, which will be updated to comply with the OP 4.01. i.e. to include EMP.
c) If EIA is not required by MEPE, the municipal company or municipality would prepare EIA with the EMP according to World Bank procedures.

At this stage of project preparation, the municipal company / municipality requested opinion form the MEPE on the need for EIA. The opinion of the Ministry was that EIA is not required.
The demonstration draft Blato and Vela Luka EMP will be prepared as sole document based on the available information and will be financed by this project under technical assistance component.

Sub-project category 3 - Assessment of nutrient discharges
The type of analysis envisaged under this component which would include of analysis of different sources and pollutants along the coastal line to comply with EU directives would fall under category C. Although environmental impacts are expected to be negligible, the ToRs for each sub project would have strong emphasis on improving environmental quality and sustainability of the assignment. EPEEF will participate in preparation of the ToRs while WB environmental specialist will do a prior review and advise accordingly.

Sub-project category 4 - Technical documentation (EU financing) and supporting studies for wastewater and solid waste leachate treatment

The project would finance both technical documentation and supporting documents for the waste water investments and leachate treatment plants. This documentation would be prepared together with the application for EU financing. Under this sub-project category B and category C projects are expected.

Category B projects would include preparation technical documentation (feasibility study design, EIA, permits) for specific investment project financing for waste water treatment plants and leachate management systems.

a) The municipality or municipal company would provide information presented in Form 1 (see Annex 3) on the proposed project to EPEEF.
b) Municipal company and/ or municipality would request opinion of the MEPE whether for this investment requires preparation of EIA.
c) If EIA is required by MEPE, the municipal company or municipality would engage in hiring a licensed consultant to prepare EIA according to national procedures. The Municipality will share the ToR for EIA, which will be updated to comply with the OP 4.01. i.e. to include EMP.
d) If EIA is not required by MEPE, the municipal company or municipality would prepare EIA with the EMP according to World Bank procedures.

Category C projects would include supporting documentation that contains different reviews of existing documentation, updating plans, possible preparation of strategic environmental assessment etc. In this case, the EPEEF would make sure that project would have strong emphasis on improving environmental quality and sustainability of the assignment. EPEEF will participate in preparation of the ToRs while WB environmental specialist will do a prior review and advise accordingly.

4.2 ENVIRONMENTAL DUE DILIGENCE DOCUMENTATION

Based on the screening process the following documentation is expected for the project components:

Table 3 Environmental due diligence required for the project

Project component	Sub project and Environmental category	Due diligence documentation
Component I - Investments		
Equipment for monitoring sea water quality	category 1 C	no due diligence document expected
	category 1 B	a) equipment safety data sheets; and or b) material safety data sheets
Solid waste leachate management	category 2 B	a) opinion of the MEPE if EIA is required or not b) if positive opinion, EIA prepared according to national regulation and EMP according to the WB safeguards procedures c) if negative opinion, EIA and EMP prepared solely according to WB safeguards procedures
Component II - Technical assistance		

Assessment of nutrient discharges	category 3 C	no due diligence documents required
Technical documentation (EU financing) and supporting studies for wastewater and solid waste leachate management	category 4 B	a) opinion of the MEPE if EIA is required or not b) if positive opinion, EIA prepared according to national regulation and EMP according to the WB safeguards procedures c) b) if negative opinion, EIA and EMP prepared solely according to WB safeguards procedures
	category 4 C	no due diligence documents required

An EA is a process conducted by the municipality/municipality company to identify, predict, evaluate, and mitigate the environmental impacts and risks which may arise from the proposed sub-project. The purpose of the EIA is to recognize environmental impacts/consequences early in the sub-project preparation process, so that they can be incorporated into the sub-project design.

The scope of EA will depend on the screening process for each sub-project, though the purpose of any type of assessment is to identify ways of improving the proposed activities by minimizing, mitigating, or compensating for their adverse environmental impacts.

An environmental assessment should be presented in form of report which lists environmental risks related to the specific types of sub-project activities and prescribes mitigation measures. EAs identify ways of improving sub-projects environmentally by minimizing, mitigating or compensating for adverse impacts. An EA would also describe the steps that were taken for public consultation.

Depending on the decision of the MEPE or representative body in the county, a scope and the need for due diligence document would be defined. If the MEPE or county representative body decides that EIA is required, the sub project will proceed with the preparation of EIA according to Croatian procedures enriching the document with the EMP. However if the MEPE or representative body decides that EIA is not required the sub-project will proceed with the preparation of the EIA and EMP according World Bank procedures to the proposed content in Annex 4 and 5.

The scope of the EIA will vary widely depending on the nature and location of a sub-project; thus, it is difficult to give clear guidance on the length of time required for an EIA or the associated costs. The preparation and financing of the EIA, including the role of public participation, is the responsibility of the municipality / municipal company and normally closely linked to the feasibility study of the proposed activities.

Annex 4 and 5 propose content of the EIA for waste water treatment plants and landfills with leachate management system. The content is tentative and will change according to specific site and treatment characteristics.

The EMP template and scope is presented in annex 6.

The quality of documents will be checked by EPEEF and WB environmental specialist.

4.3 DISCLOSURE AND CONSULTATION

The original ESMFs along with an announcement of the public consultation workshop were disclosed on June 14, 2013 on the website of the MoFTER and hard copies were available on municipal companies' info boards in Mostar and Zadar. The draft and final documents were also disclosed on World Bank InfoShop. Both EPEEF and MoFTER called for written comments and have provided both postal and email address for sending comments and suggestions. All written comments and questions raised in the public consultation were addressed, then summarized and attached to ESMF as annex.

The ESMF has been revised to reflect the change in the project design, where the landfill Diklo in Zadar was replaced by the landfill Sitnica of Blato and Vela Luka. This revised document has been disclosed on the website of the EPEEF and through the World Bank Infoshop in November 14, 2016.

The environmental due diligence documents for the project will be disclosed at minimum in the manner presented in the table below. All documents will be prepared and disclosed in Croatian language. ToRs, EMPs and EIA executive non-technical summaries will be prepared in English as well.

Table 4 Disclosure requirements for the project

Project component	Environmental category	Due diligence documentation	Disclosure requirements
Component I - Investments			
Equipment for monitoring sea water quality	category 1 C	no due diligence document expected	No disclosure
	category 1 B	equipment safety data sheets; and or	Equipment safety data sheets available on laboratory info board
		material safety data sheets	material safety data sheets available on laboratory info board
Solid waste leachate management	category 2 B	opinion of the MEPE if EIA is required or not	- opinion disclosed on the website of the MEPE, EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments
		if positive opinion, EIA prepared according to national regulation and EMP according to the WB safeguards procedures	- ToR for EIA disclosed on the website of the MEPE, EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of ToR - Draft EIA and EMP[5] disclosed on the website of MEPE and EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of EIA and EMP

[5] In case, MEPE would not disclose the EIA with the EMP, EMP should be disclosed on the EPEEF website and Municipality / municipal company info board.

			- After at least two weeks of disclosure, public consultation on the EIA should be held - Opinion of MEPE disclosed on the website of MEPE - Revised EIA that includes addressed comments from the public, minutes of public consultation and opinion of MEPE disclosed on the website of EPEEF and in hardcopy on the info board of municipality
		if negative opinion, EIA and EMP prepared solely according to WB safeguards procedures	- ToR for EIA disclosed on the website of the EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of ToR - Draft EIA and EMP disclosed on the website of EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of EIA and EMP - After at least two weeks of disclosure, public consultation on the EIA should be held - Revised EIA that includes addressed comments from the public, minutes of public consultation disclosed on the website of EPEEF and in hardcopy on the info board of municipality
Component II - Technical assistance			
Assessment of nutrient discharges	category 3 C	no due diligence documents required	No disclosure
Technical documentation (EU financing) and supporting studies for wastewater and solid waste leachate management	category 4 B	opinion of the MEPE if EIA is required or not	- opinion disclosed on the website of the MEPE, EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments
		if positive opinion, EIA prepared according to national regulation and EMP according to the WB safeguards procedures	- ToR for EIA disclosed on the website of the MEPE, EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of ToR - Draft EIA and EMP disclosed on the website of MEPE and EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of EIA and EMP - After at least two weeks of disclosure, public consultation on the EIA should be held - Opinion of MEPE disclosed on the website of MEPE

			- Revised EIA that includes addressed comments from the public, minutes of public consultation and opinion of MEPE disclosed on the website of EPEEF and in hardcopy on the info board of municipality
		if negative opinion, EIA and EMP prepared solely according to WB safeguards procedures	- ToR for EIA disclosed on the website of the EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of ToR - Draft EIA and EMP disclosed on the website of EPEEF as well in hardcopy on info board of the municipality or municipal company at least for two weeks - an email and postal address provided for sending comments of EIA and EMP - After at least two weeks of disclosure, public consultation on the EIA should be held - Revised EIA that includes addressed comments from the public, minutes of public consultation disclosed on the website of EPEEF and in hardcopy on the info board of municipality
	category 4 C	no due diligence documents required	No disclosure unless the project is financing preparation of EIA, SEA or other environmental assessment document - If project finances preparation of EIA, SEA or other environmental assessment document, the ToR will be disclosed on the EPEEF website for at least two weeks and public will be asked to comment - an email and postal address provided for sending comments - the preparation of specific document will follow the procedure described under category 4B

4.4 SOCIAL ASSESSMENT

4.4.1 SOCIAL ASSESSMENT FRAMEWORK

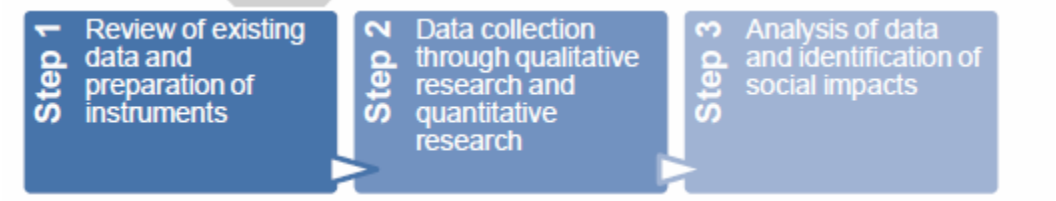
The social assessment framework provides the procedures to be used during the preparation and implementation of the Project in order to verify whether the Project has social impacts and risks, and analyze the potential influence and social issues. Any potential adverse social impacts should be timely identified and actions must be taken to avoid or mitigate such impacts. In such cases, specific public consultation and disclosure procedures must be put in place (through the development of specific Stakeholder Engagement Plans), including differentiated measures in consultation with the affected people to ensure that potential social impacts on and risks to them are avoided or mitigated. The social impact assessment will be started in the early phase of the planning process through initial social screening, so that all potential impacts are identified and the level of participation of the local population is increased to a maximum. The objectives of social assessment are:

- to determine the social baseline condition at project sites through gathering socio-economic data, i.e. assess the socio-economic characteristics of the population on sub-project locations, and identify the relevant stakeholders;
- to identify and analyze the impacts of the Project on local population.

Specifically, the social assessment procedures shall be implemented through:
1. reviewing the proposed sub-projects and determining the potential socio-economic issues, including the potential need for land acquisition and/or resettlement;
2. identifying all Project affected people (local communities, local businesses, local NGOs);
3. gathering representative data on Project affected people, including factors such as household characteristics, land use, ethnicity, dependence on unique natural resources, by means of social survey instruments;
4. identifying the extent and complexity of potential social impacts of the Project.

4.4.2 SOCIAL ASSESSMENT METHODOLOGY

Social assessment is carried out in three steps:



Step 1. Review of existing data and preparation of instruments

This step includes the review of the socio-economic context through:

- review and analysis of the available sources of information on the socio-cultural, historic, institutional and political context of the Project, aimed at assessing the socio-economic characteristics of the Project affected people;
- review of available documentation, studies and reports relevant to the Project;
- identification of stakeholders and potential social issues/risks with regards to the Project.

Full coordination with the relevant institutions is necessary to obtain data on the population in all sub-project sites.

Step 2. Data collection through qualitative and quantitative research

This step is aimed at identifying the representative sample of the affected communities and carrying out interviews, focus groups and household surveys when necessary, as well as meetings with the representatives of the key institutions. Qualitative research requires data collection by means of the focus group meetings and interviews. Interviews/focus group meetings are held with the affected population, industry representatives, local NGOs and the representatives of the local communities. This method is aimed at the following:

- Identification of the relevant stakeholders (local communities, local entrepreneurs, government representatives and other interested groups);

- Gathering data on the structures (commercial and residential) affected by the Project, the land surrounding the Project area (private/public land, land use types) and sites of cultural heritage, historical heritage and nature preserved areas;
- Identification of any public infrastructure and social services;
- Assessment whether there will be any land acquisition and/or resettlement requirements (if yes, identification of such cases, including the manner in which they will be affected);
- Identification of the population's expectations which can be used as indicators;
- Identification of the main social issues and risks with regards to the Project;
- Assessment of the roles and capacities of key (formal and informal) institutions which will be involved in the implementation of mitigation measures.

Quantitative research is carried out by means of a socio-economic survey of directly affected people (both households and businesses), if the need for more detailed data arises. It is used to collect data on the affected population (household characteristics of affected people, income sources and levels of income, land ownership and use, vulnerability, the expectations of the affected population with regards to the Project, etc.). The survey is carried out using a designed and approved questionnaire, on a sample to be decided on a case-by-case basis, i.e. depending on the characteristics of each sub-project[6].
Finally, survey results are entered, processed and analyzed professional software packages, such as SPSS.

Step 3. Analysis of data and identification of social impacts

The data collected through the above described research methods will be analyzed for the purpose of identifying all potential social impacts and risks with regards to the Project, including both negative and positive impacts, as well as direct and indirect impacts. Legal analysis will be carried out in this phase in connection to the identified social impacts, with a focus on land use and resettlement/land acquisition requirements. Special attention will be paid to the requirements for institutional arrangements including the mechanisms and responsibilities for social impact screening and the review of social assessment results. Based on the results of the social impact assessment and identified social impacts, mitigation measures for these impacts are designed as part of a Mitigation Plan and Monitoring Plan within the EMP for each sub-project. The Mitigation Plan provides mitigation measures related to preventing or reducing the likely social impacts. The Monitoring Plan provides a plan of feasible actions to monitor the implementation of the mitigation measures and the social impacts of the project.

4.5 RETROACTIVE FINANCING

In many instances the World Bank projects would include support to subprojects that are already in phase of preparation.

[6] While it may be sufficient to conduct a socio-economic survey of a certain percentage of affected households/businesses for some sub-projects, it may have to be necessary to interview all available directly affected households/businesses for other sub-projects.

In this case, a good practice would be to review the environmental due diligence documents, identify gaps with the ESMF and propose updates of the existing documents and procedures to fit the guidelines set in this ESMF.

5 ENVIRONMENTAL REVIEW PROCESS (ROLE OF EPEEF, MUNICIPALITIES/MUNICIPAL COMPANY AND IBRD)

All sub-projects will follow the environmental review process presented systematically below.

STEP 1: The municipalities prepare an initial sub-project concept. Following informal discussion with the EPEEF, in which the EPEEF alerts the municipalities of its environmental assessment requirements. At this time, it is the responsibility of the municipalities to initiate discussions with the MEPE or the county office in order to fulfill any local and national environmental review requirements (such as opinion on EIA procedure and/or other official approval/permits). Response of the MEPE should be sent to the EPEEF. It will be the responsibility of the municipalities to obtain the appropriate permits and licenses as required by national law in order to facilitate the clearance process with the MEPE or the county office. These requirements are considered separate, but parallel, to those presented here and satisfying them is the responsibility of the municipalities.

STEP 2: If there are any differences between national and WB categorization, EPEEF informs the municipalities on due diligence.
The EPEEF assists municipalities in preparation of environmental due-diligence documents prior to appraisal of the sub project and subsequent follow-up requirements.

STEP 3: The municipalities, or its consultants, submits the environmental assessment report prepared according to ESMF (if applicable) to EPEEF. At this stage, the municipality has already obtain a positive EIA report, given by the MEPE, in conformity with applicable Environmental Regulations, and will send EMP prepared according to the WB procedures.

STEP 4: The EPEEF reviews the EA that has been submitted and reports its findings to the municipalities. The EPEEF provides its clearance once the analysis is judged to be satisfactory. At this stage the report is disclosed and consulted with the public.

STEP 5: The municipalities incorporates the recommendations and comments provided during consultation in EA and also includes recommendations of the assessment into the sub-project design and implementation plan, including associated estimated costs.

STEP 6: The municipalities finalize the subproject package, including the relevant environmental documentation, and submits it to EPEEF for its appraisal.

STEP 7: The EPEEF monitors the implementation of the EIA mitigation plan (if necessary)

6 MONITORING ENVIRONMENTAL COMPLIANCE

Environmental screening, assessment, and approval procedures described above are part of the procedures of selecting and approving the sub-projects. In the course of a sub-project implementation the municipalities are responsible for carrying out their daily activities in compliance with the recommendations of the environmental assessment reports and for applying mitigation measures as prescribed by EMPs. Municipalities will be expected to monitor sub-projects compliance with EMPs and report to the EPEEF on the environmental performance as an integral part of their regular reporting on the status of projects.

The IBRD will assist EPEEF and municipalities/municipal companies in screening procedures. EPEEF will be responsible for overall quality of environmental due-diligence documents and its compliance with the WB safeguards policies. It is recommended the EPEEF periodically take random visits to sub-project implementation sites to ensure that municipalities' reporting on compliance with EMPs realistically reflects situation on the ground. The review of evaluations will ensure that: the work was of satisfactory quality, community participation took place when appropriate, the appropriate recommendations were made, all documentation was properly filed and recorded, and that the conditions of approval by the MEPE and Ministry of Physical Planning and Construction (MoPPC) or the county office were met.

The prior site visits will be done by IBRD and EPEEF for all the sub-projects.

The EPEEF will inform the IBRD on the environmental due diligence applied through the general reporting on the project progress. The IBRD will track environmental performance of the EPEEF and the municipalities by regular review of their reports as well as by supervision of the overall screening process and implementation of environmental recommendations for the selected sub-projects, including random visits to the sub-project sites. Such practice of supervision is aimed at ensuring that: the work was of satisfactory quality, community participation took place when appropriate, the appropriate recommendations were made, all documentation was properly filed and recorded, and that the conditions of approval by the authorized bodies were met. Therefore, municipalities/municipal company shall properly keep all sub-project documentation on file and make it available for the EPEEF and the IBRD as needed.

7 ENVIRONMENTAL MANAGEMENT PLAN – BLATO AND VELA LUKA LANFILL SITNICA WITH INTEGRATED LEACHATE MANAGEMENT SYSTEM

The Environmental Management Plan for Blato and Vela Luka Lanfill Sitnica with integrated leachate management system will be prepared based on the available information, re-disclosed and consulted with the public as separate document.

8 ANNEXES

8.1 ANNEX 1 – ROLES AND RESPONSIBILITIES OF KEY PARTICIPANTS

Responsibilities of Key Participants

Participant	Activity	Supporting Documentation
Municipality/municipality company	• Submission of sub-project concept to EPEEF • Arrangement and financing of EA and/or EMP • Obtain clearance from MEPE / local/county authority if required • Obtain required permits/licenses • Implementing and financing of EA • Prepares initial environmental screening from	• Copies of permits, licenses • Clearance statement • Periodic reports and sub-project completion report • Decision on the need for EIA from the MEPE
EPEEF	• Finalize the environmental screening form • Review of sub-loan application package for required environmental documentation and licenses/permits from the State authorities • Proposing environmental category • Maintain complete files of environmental documentation for review by the IBRD • Monitoring compliance with mitigation plans (if necessary) • Co approving EIA category • Ensuring that environmental due diligence documents are in compliance with WB requirements • Disclosure of EA documents	• Include environmental information with subprojects • Include environmental category and EA status in normal periodic reporting activities • Semiannual monitoring • Semiannual monitoring reports (if necessary)
IBRD	• Organize training for EPEEF staff regarding environmental review procedures • Carry out prior and post reviews (for first four Category B+ projects) • Identification of problems/ issues and proposal of solution	• Document status of project implementation in Implementation Status and Results reports and the mission Aide-Memoires

8.2 ANNEX 2 - THE MAIN ELEMENTS OF THE WIDER CROATIAN PROCESS FOR ENVIRONMENTAL PROTECTION (EXCLUDING EIA PROCESS)

(i) Spatial Planning: The entry point for the regulatory system in Croatia are the Law on Spatial Planning (2013) – hereafter the Planning Law (or Act)- Law on Construction (2013) - hereafter the Construction Law (or Act) - which provide the legal basis for planning and permitting. Environmental aspects are emphasized throughout the Planning Law and Construction Law, which states that land uses and spatial distribution of different types of development activities is to be based on (among other factors) "…meeting spatial protection and environmental quality requirements," and includes among its specific objectives the rational use of natural resources, protection of biological diversity, prevention of pollution, protection of cultural assets, integrity of coastal ecosystems, etc., and identifies public participation and access to information as key principles. Any investment with a physical footprint must be in compliance with relevant spatial plans and (except for very small installations) must obtain Location, Construction and Operating Permits. Based on the national planning strategy, "strategic" spatial plans are prepared at regional and county level and city level, and detailed/urban "implementation level" plans. There are also spatial plans for "areas with special characteristics" such as National Parks.

The spatial plans identify appropriate land uses and allowable locations for particular types of facilities. At the highest level, the Spatial Planning Strategy of the Republic of Croatia sets out long-term objectives and strategies regarding spatial development, including among other aspects, guidelines, priorities and goals for protecting and improving the environment and promoting sustainable development. The process of preparing a spatial plan involves investigation, analysis and consultation aimed at, among other things, ensuring that different types of development are located in suitable environmental conditions (e.g. waste disposal facilities not be too near sensitive water bodies or on permeable soils, road alignments to avoid protected areas, etc.). Thus, in the Croatian system, the analysis of alternative locations for a given facility is likely to be undertaken "upstream" at the planning stage rather than as part of an Environmental Assessment. Where sectorial strategies and plans conflict with spatial plans, the spatial plans are revised as needed to accommodate them.

(ii) Permitting: The main instruments for implementing spatial plans are permits which set out the environmental and other requirements and standards which must be met during construction and operation (e.g. regarding air emissions, effluents, noise, worker and public safety, etc.). Developers are required to obtain these permits in order to proceed with the detailed design, construction and operation of all but the smallest public or private physical investment:

- A Location Permit (LP) (conceptual design stage) can only be obtained only if a proposed investment is compatible with relevant spatial plans and with the Environmental Impact Assessment and/or Nature Impact Assessment if required. The LP includes a description of any required environmental protection measures, based on EIA, NIA and/or specific regulations and conditions set by authorities responsible for management of water, wastes, traffic, culture, etc., as well as associated obligations such as requirements for safety and for rehabilitation of construction sites. The LP may specify requirements directly or refer to compliance with relevant laws, regulations, ordinances and rule books. There is a requirement for public consultation on an LP, but participation is limited to owners or holders of rights to the affected real estate and other directly affected parties (e.g. neighbors)

- A Construction Permit (CP) follows a review of detailed designs, ensuring that they are consistent with achieving the specifications and standards set out in the LP. The CP also includes an obligation for good construction practice, which is well defined under Croatian law, including aspects such as handling and disposal of hazardous and non-hazardous wastes, protection of surface waters, etc.

- An Operational or Use Permit (OP) follows a technical inspection of the completed construction to verify that it complies with the CP. The OP incorporates environmental protection requirements specified in relevant regulations, such as emissions limits, permissible noise levels, etc. (drawn from the Environmental Protection Act and other legislation such as the Waste Act) and can be invalidated if the requirements are not met. Most of these requirements and standards have been harmonized with the EU environmental acquits. In accordance with the EU Integrated Pollution Prevention and Control (IPPC) Directive, Croatia recently adopted (2009) and is in the process of implementing a Regulation on Procedures for Establishing Integrated Environmental Protection Requirements, which requires Integrated Environmental Permits (IEP) for installations with a significant pollution potential and specifies conditions for protection of soil, air, water and sea, based on the application of Best Available Technologies (BAT).

In 2008-2009 a PHARE project ("Enhanced Environmental Inspection for Enforcement of the New Environmental Legislation") supported enhancement of the administrative capacities of the environmental protection system through the improvement of procedures and coordination role of environmental inspection as preparation for full EU membership.

In addition, permits from sectorial authorities are required for many activities which involve use of or potential impact on environmental resources, such as abstraction from or emissions into water bodies

WATER RIGHTS ACTS are issued to ensure a uniform water regime and to establish water management in accordance with the provisions of the Water Act. They include: water rights terms, water rights approval, water rights permit and permit ordinance.

Water rights permits are issued by Croatian Waters (Hrvatska Voda) and are required for:

- Discharging of wastewater (sanitary, communal, industrial, leachate, cooling water) into a natural water body;
- Discharging of industrial water into public sewerage systems or collecting tanks
- Putting chemicals and their derivatives into circulation which, after the use, may get into water;
- Any use of water that exceeds the extent general use, except where a concession is required.
- The excavation of sand, gravel, and rocks in areas of the importance to the water regime (where excavation involves inland waterways approval of the Agency for Inland Waterways is also required).

Permits for the discharge of water and circulation of chemicals and derivatives are issued for a definite period, no longer than 15 years. Permits for the use of water are issued for no longer than 5 years.
Permit Ordinance: is issued along with the water rights permit in order to adjust the behavior and activities of the permit holder to comply with the conditions and responsibilities of the permit. It requires the holder of the water rights permit to take or abstain from action as needed to eliminate the risk of possible or already existing disturbance, or noncompliance with the conditions and responsibilities under the water rights permit, and to establish the conditions in compliance with the Water Act.

8.3 ANNEX 3 – QUESTIONNAIRE FOR TA'S FOR WWTP AND LEACHATE TP

To be filled out by the final beneficiary

Instructions for completing the questionnaire The questionnaire shall be completed by a highly ranked representative of your company, who submits the questionnaire, together with other requested documents, for assessment to the EPEEF. The questionnaire shall be signed by a person authorised to represent the company. Please, whenever possible, provide a complete answer to all questions. The questionnaire has been divided into sections as follows: Section 1: Main data Section 2: General Section 3: Site location Section 4: Technical documentation / Permits / state of the environment In case of any doubts, or should help be needed when completing the questionnaire, feel free to contact EPEEF's contact point: Predrag Culjak, Phone:01/5391-923 e-mail: predrag.culjak@fzoeu.hr

SECTION I: Main data on applicant (please write in block letters)

Applicant's name (crafts business/company):
Address (street and number, postal code and city):
Phone & Fax: **E-mail:**
Main activity of the company / beneficiary (description of activity):
First name, last name and signature of responsible person completing the questionnaire: Questionnaire completion date:

SECTION II: GENERAL

1.1 Nature of sub project

2.1.1. Name of sub project:
2.1.2. Purpose of the sub project: ❑ Waste water treatment plant ❑ Landfill Leachate treatment plant ❑ Other, please specify_____
2.1.3. Please provide a description of current situation on site (existing structure) (**here in after parent project**). Provide brief technical process description f the parent project.
2.1.4. Describe provide brief technical description of the proposed sub project and how it would fit to the current situation on site, i.e. relate to parent project.

SECTION III: SITE LOCATION

2.1. Planned activities at site

2.1.1. Is the parent project and planned sub project located in or affects a protected area?[7] *(national park, nature park, nature reserve, monument of nature and horticultural monument, important landscape, protected woodland)*	❑ Yes	❑ No
2.1.2. Is the parent project and planned sub project located in or affects an ecological network?[8] If YES, please enclose a respective document (certificate, opinion, decision) of a responsible body about the Assessment of Project Acceptability for the Ecological Network.	❑ Yes	❑ No
2.1.3. Is the parent project and planned sub project located in or affects a cultural site?*[9] *(potentially archaeologically significant site/in the vicinity of a historical site)*	❑ Yes	❑ No
2.1.4. Have any complaints of the public been filed against your current or planned activities? If YES, please describe the respective complaints.	❑ Yes	❑ No
2.1.5. Is parent project and planned sub project located in the forest area and as such would cause damage to the forest or cutting of forest? If YES, please describe the impact.	❑ Yes	❑ No
2.1.6. Will the sub project cause changes in the quantity of quality of international waterway or its tributary? If YES, please describe how.	❑ Yes	❑ No
2.1.7. Will the project construct any kind of dam or involve dam rehabilitation? If YES, please describe how.	❑ Yes	❑ No

[7] Overview of protected areas in the Republic of Croatia can be downloaded from the website of the State Institute for Nature Protection: www.dzzp.hr/zpodrucja_zpodrucjarh.html

2.2. Profile of site

2.2.1. Please indicate the nature of location of your site parent project and sub project (according to physical plan):

- ❑ Industrial area/business zone
- ❑ Developed part of construction area
- ❑ Urban area
- ❑ Agricultural area
- ❑ Protected natural area - ecological network
- ❑ Coastal area
- ❑ Other: _____

Please describe in brief describe the nature of the site (land ownership, distance from households, distance from agricultural land in use, etc.) If possible, provide map of the area:

2.2.2. Who is the current owner of the plot / real estate, on which the project is planned to be carried out?

Please provide the number of cadastral plot and land register plot, state the cadastral municipality, the number of land register file and the name of the owner *(address, contact person and telephone number if the owner is not the investor)*

Please submit a copy of a land register excerpt.

2.2.3. Is the property being used by any other person besides the owner, i.e. does any other person (besides the owner) receive income from the use of land / site / plot? *(Lease, contract, concession, protected lease-holder etc.)*	❑ Yes	❑ No
2.2.4. Are there any illegal users of the land / estate? If YES, please provide details	❑ Yes	❑ No

[8] In accordance with the *"Manual for Plan, Programme and Project Acceptability with regard to Ecological Network",* Official Gazette of the Republic of Croatia, no 118/09 or *"Manual for Project Acceptability with regard to Nature",* Official Gazette of the Republic of Croatia, no 89/07

[9] Cultural Property Register of the Republic of Croatia can be downloaded from the website of the Ministry of Culture: www.min-kulture.hr

SECTION IV: TECHNICAL DOCUMENTATION, PERMITS, STATE OF THE ENVIRONMENT

2.3. Parent project (current state)

2.3.1. Is the parent project envisaged / recorded in the physical plan *Please provide details / explain*	❑ Yes	❑ No

2.3.2. Have you obtained the below listed permits for the facilities already constructed (parent project). Please indicate those you have obtained:

- ❑ Location permit
- ❑ Building permit
- ❑ Operation / use permit
- ❑ Water rights / environmental permit
- ❑ EIA decision

Please, enclose the copies of all permits with the questionnaire.

If not, please provide reasoning for each individual permit: _____

2.4. Proposed sub project

2.4.1. Have you obtained the below listed permits for the facilities you plan to construct. Please indicate those you have obtained:

- ❑ Location permit
- ❑ Building permit
- ❑ Confirmation of main design
- ❑ Decision on construction requirements
- ❑ EIA decision

Please, enclose the copies of all permits with the questionnaire.

2.4.2. Please indicate projects documents already prepared:

- ❑ Feasibility study
- ❑ EIA
- ❑ Conceptual design
- ❑ Preliminary design
- ❑ Main design
- ❑ Final design
- ❑ Other: _____

Please provide basic data on the: a) company that prepared it, b) date of approval/ preparation

2.5. Environmental due diligence for planned sub project

2.3.1. Is it necessary to carry out an environmental impact assessment procedure according to national legislation with regard to your project?	❑ Yes	❑ No
2.3.2. Have you already obtained the "DECISION" on environmental impact assessment acceptability? *Please, enclose a copy of the "DECISION" with this questionnaire.*	❑ Yes	❑ No
2.3.3. Is it, for your project, necessary to carry out a procedure of establishing the need to assess the environmental impact?	❑ Yes	❑ No
2.3.4. If the "establishment" procedure has been carried out, has the "DECISION" on the need to assess the environmental impact already been obtained? *Please, enclose a copy of the "DECISION" with this questionnaire.*	❑ Yes	❑ No

Instructions for completing of this questionnaire

The questionnaire is to be filled out by the sub project proposer (municipality or municipal company). The questionnaire must be signed by an authorised person.

In case of possible doubts and for assistance in filling out this questionnaire, please contact Sofija Petrinec, tel. 01/5391-846; e-mail: sofija.petrinec@fzoeu.hr .

8.4 ANNEX 4 – TENTATIVE CONTENTS OF THE EIA FOR LANDFILL CLOSURE AND LEACHATE TP

A. Description of the project

1. Preface

- The reason for starting the project with a very brief review of the existing and planned state
- The purpose of undertaking the project
- Provide basic regulations relating to the project, in accordance with "National Waste Management Strategy in Croatia", "Waste Management Plan in the Republic of Croatia for the period of 2007. – 2015.", " Regulations on Waste Management", " Regulations on the methods and conditions for the landfill of waste, categories and operational requirements for the landfill" and other regulations in the field of waste.

2. Scope of the project

2.1. Location of the project
2.2. Current state
2.3. Planned state

3. Description of the main characteristics of the project

3.1. Construction phases
3.2. Project components and their spatial organization
3.3. Necessary infrastructure
3.4. Estimate of the necessary machinery and equipment
3.5. Assessment of manpower needs

3.6. Estimate the amount of waste disposed, current and former landfill border; disposal procedure; types, composition and basic characteristics of the disposed waste, waste streams, present and future energy consumption and efficiency;

3.7. Estimated costs for the repairs, work, maintenance, operating costs, annual operating costs, calculation of the annual capital costs based on the total cost of construction, consulting, legal and administrative services, interest during construction and land costs.

3.8. Present the annual operating costs for the annual capital, operating and maintenance costs. When estimating annual capital costs in accordance with the assumptions in the financial study, define those parts of the construction costs relating to grants, loans and own funds. Present the calculated operating costs as separate costs: for example, per cubic meter of waste, per population equivalent, all the average annual values.

3.9. Description of investors relations with the public prior to the preparation of the Study - Describe the steps taken in informing the public about the project before preparing the EIA, using sociological studies (if any).

B. Variant solutions

- Description of the considered project variants and their impact on the environment
- The development of each variant solution (in the form of table)
- Reasons for choosing a particular variation

C. Description of the project location and environmental data

1. Certified excerpts from zoning documents

- Data from the spatial planning documents
- Spatial Plan of the county
- Spatial plan of the municipality
- Project compliance with the spatial planning documents

2. Description of the current state of the environment

2.1. Meteorological data

- *Basic weather types, air temperature, average monthly temperatures, absolute maximum and minimum temperatures, number of cold days in the year, etc.*
- *Rainfall: annual and monthly amount, assessment of the maximum daily amount, estimated maximum annual amount*
- *Relative humidity*
- *Air circulation, wind speed and direction, the number of days with strong winds and storm*
- *Evapotranspiration*
- *Chemical properties of air*

2.2. Soil characteristics

2.3. Geologic characteristics

- *Describe geological conditions on the wider and narrower research areas according to the existing available data, including land recognition*
- *Specify the MCS class of seismological distribution according to the operation area*
- *Annex: The main geological map*
- *Chemical properties of soil*

2.4. Hydrological characteristics

- *State the data on groundwater on the basis of existing data, particularly if groundwater is used for water supply (water protection zones).*
- *In case there are permanent or periodical watercourses on the operation site, state the basic hydrological features of the watercourses and their maximum and minimum flows on the basis of measured data (if any), or make an assessment according to one of the hydrological models.*

2.5. Biodiversity

- *Describe the state of flora and fauna, especially in the area of the project.*

2.6. Landscape data

- *On the basis of data from Biodiversity of Croatia mark the landscape unit which the project site belongs to, and describe the basic landscape features of the project area.*

2.7. Cultural and historical heritage

- *List of protected cultural heritage in the project area, based on data from the spatial planning documents.*
- *Annex: Map of protected cultural heritage with spatial planning documents.*

2.8. Protected natural values
2.9. Settlements, population, infrastructure

- *Based on data from the spatial planning documents and the projected number of residents, tourist facilities and other major waste producers describe existing and planned traffic and utility infrastructure.*

- *Annex: Map of the area and its intended purpose, roads, map of municipal infrastructure (water supply, power supply, etc.) from the county or urban / municipal spatial plan.*

3. Impact analysis on existing and planned projects and the protected areas of the ecological network

4. Collected data and conducted measurements on the location of the project

5. Description of location environment for the variant "Do Nothing"

D. Description environmental impact

1. Impacts on the environment during the preparation and construction (reconstruction)

1.1. Impact on soil
1.2. Impact on water
1.3. Emissions to air
1.4. Impact of noise
1.5. Impact of fire
1.6. Impact on flora and fauna
1.7. Impact on the landscape
1.8. Impact on the cultural and historical heritage
1.9. Impact on human health

2. Environmental impacts during the use

2.1. Impact on soil
2.2. Impact on water
2.3. Impact on air
2.4. Impact of noise
2.5. Impact on flora and fauna
2.6. Impact on natural resources
2.7. Impact on the landscape
2.8. Impact on human health
2.9. Impact on the environment in the event of accidental situations

3. Environmental impacts after termination of operations

4. Evaluation of environmental impact

5. Demand for natural resources

6. Likely significant transboundary impacts

7. Impacts in the event of environmental accidents

- Describe the state of the environment in the event of environmental disasters caused by "force majeure" (major earthquake, war, etc.), and during the time of breakdown (unprofessional maintenance, equipment failure, power failure, etc.).

8. Description of possible reduction of natural environmental values and in relation to the potential benefits to society and the environment

9. Description of used forecasting methods

E. Proposed environmental measures and environmental monitoring program

1. Proposal of environmental protection measures

1.1. Protection measures during the preparation the project
1.2. Protection measures during project construction
1.3. Protection measures during use

2. Environmental monitoring program

2.1. Monitoring program for water

- *Measuring the quality of the groundwater*
- *Measuring the quality of wastewater before discharge*

2.2. Monitoring program for soil

2.3. Monitoring program for air

- *Monitoring of meteorological parameters*
- *Measurements of air emissions*

3. Measures in case of accidents (e.g. floods))

4. Proposed plan of implementation of environmental protection measures

5. Proposed plan of implementation of environmental monitoring

6. Proposed impact assessment for the environment

7. Environmental Policy of investors and their plan of cooperation with the public

- Provide basic plans and programs of environmental protection of investors and how they cooperate with the public.

8. Cost estimate of environmental protection measures

F. Conclusion of the study

1. Explanation of the most appropriate solution (variant)

- Describe the rationale for the proposed project (according to feasibility study).

2. Impact of chosen solution on the environment

- Very briefly describe the most significant environmental impacts that occur during the construction, use, after use, and in the case of environmental accidents. Indicate only the essential conclusions of the risk assessment.

3. Proposal of environmental protection measures

- For each measure of environmental protection (during construction and operation, after use, and in the case of environmental accidents), briefly state the planned measures based on legislation.

4. Environmental monitoring program

- Offer a concise review of the environmental monitoring program (what is monitored, where, when, what, how).

G. Summary of Study

Reflect on all the chapters of the study in a way that is understandable to the general public. It is important to note the following things: what will be done, how much it will cost - per year and per population equivalent, impacts on human health and the environment in case the project is not built, and the case it is built, explaining the proposed environmental measures and monitoring plan. Summary of studies should be available in Croatian and English.

H. Indication of any difficulties

I. List of References and Regulations

1. Spatial planning and strategy documents

2. Laws and regulations

- Specify all laws and regulations, international conventions and treaties and protocols that have been cited in the study.

3. Studies and projects

- List all studies and projects that underpin this study, which are quoted in the previous chapters.

4. Books, papers and other literature

- List all the references that were used for explanation of certain terms, proposals and recommendations.

J. Other data and information

1. Appendix - excerpt from Municipality spacial and zoning plan

2. List of appendices, authors and co-workers, abbreviations, etc.

8.5 ANNEX 5 – TENTATIVE CONTENTS OF THE EIA FOR WASTE WATER SYSTEMS

DESCRIPTION OF OPERATION

1. The purpose of undertaking the operation
2. Data from physical planning documents
3. Operation description
   - Effluent standard
   - Input data

4.2.1 Hydraulic load
4.2.2 Waste matter load
4.2.3 Industrial wastewater

- Proportions of operation facilities
- Main collectors
- Pumping stations
- Wastewater treatment plant
- Submarine outfall
- Checking the total impact of wastewater treatment
- Energy consumption
- Analysis of other designs
- Treatment and final disposal of waste

4. Assessment of construction and operating costs
   - Construction costs
   - Operating and maintenance costs
   - Annual operational expenses
5. Description of the relation of the Investor with the public prior to the preparation of the Study

A. ALTERNATIVE ANALYSIS

B. LOCATION AND ENVIRONMENTAL BASELINE DATA

1. A review of state of the environment prior to the preparation of the Study
2. Description of environment and location
   - Meteorological and climatic conditions
   - Air temperature
   - Precipitation
   - Relative air humidity
   - Air circulation
   - Evapotranspiration
   - Geological and seismological data
   - Geological conditions on the wider research area
   - Geological conditions on the narrower research area
   - Seismological data
   - Hydrogeological data
   - Hydrological data
   - Oceanological data
   - Hydrographic features
   - Dynamic features
   - Physical features of the sea
   - Chemical features
   - Biological features
   - Sanitary beach water quality
   - Ecological data
   - Landscape data
   - Data on settlements and infrastructure
   - Data on the protected natural and cultural heritage

C. POTENTIAL ENVIRONEMNTAL IMPACTS DURING CONSTRUCTION AND OPERATION

1. Review of potential environmental impacts
   - 1.1. Unfavourable impacts during construction
   - 1.1.1. Noise
   - 1.1.2. Atmosphere pollution
   - 1.1.3. Soil pollution
   - 1.1.4. Seawater pollution
   - 1.1.5. Impact on flora and fauna
   - 1.1.6. Impact on existing structures
   - 1.1.7. Impact on traffic conditions
   - 1.2. Impacts during use
   - 1.2.1. Odours
   - 1.2.2. Wastewater infiltration
   - 1.2.3. Development of insects
   - 1.2.4. Noise
   - 1.2.5. Impact on flora and fauna
   - 1.2.6. Decline in land value
   - 1.2.7. Impacts on the use of coast
   - 1.2.8. Impacts on the use of the sea
   - 1.2.9. Impacts during disposal of waste matter
   - 1.3. Impacts after use
   - 1.4. Impacts in case of ecological accidents
   - 2. Impact of the operation on existing and/or planned projects and vice versa
   - 3. Risk assessment
3. Cost-benefit analysis of the operation
   - 4. Compliance of the operation with international obligations of the Republic of Croatia
   - 5. Proposal of the most appropriate design

D. ENVIRONMENTAL PROTECTION MEASURES AND MONITORING PLAN WITH THE EMP

1. Proposal of protection measures
   - 1.1. Protection during construction
     - Protection from noise
     - Atmospheric quality protection
     - Soil protection
     - Sea protection
     - Protection of flora and fauna
     - Protection of existing facilities
     - Protection of traffic flows in inhabited areas
   - 1.2. Protection during use
   - 1.2.1 Protection from odours
   - 1.2.2 Seawater protection
   - 1.2.3 Protection from insects
   - 1.2.4 Protection from noise
   - 1.2.5 Protection of flora and fauna
   - 1.2.6 Measures for maintaining land value
   - 1.2.7 Coast protection
   - 1.2.8 Sea protection
   - 1.2.9 Measures for the mitigation of impact of waste matter disposal
   - 1.3. Protection measures after use
   - 1.4. Prevention and mitigation of the consequences of potential accidents
2. Environmental monitoring programme
   - 2.1. Seawater quality monitoring programme
   - 2.2. Air monitoring programme
   - 2.3. Monitoring of noise level
   - 2.4. Monitoring of flora and fauna
3. Investor's environmental protection policy
4. Investor's organizational structure with a review of overall practice

5. Presentation of the planned cooperation between the Investor and the public
6. Cost estimate of environmental protection measures

E. STUDY CONCLUSION

1. Explanation of the most appropriate operation design
2. Presentation of environmental impact of the selected operation
   - Impacts during plant construction
   - Impacts during plant use
   - Impacts after use
   - Impacts in case of ecological accidents
   - Risk assessment
3. Proposal of environmental protection measures
   - Protection during construction
   - Protection measures during use
   - Protection measures after use
   - Protection measures in case of ecological accidents
4. Environmental monitoring programme

F. STUDY SUMMARY

G. SOURCES OF DATA

1. Acts and other regulations
2. Studies and projects
3. Books, papers and other literature

STUDY PREPARATION DESCRIPTION

An environmental impact study of the public drainage system with an output over 50.000 PE and between 10.000 – 50.000 ES systems 10,000 – 50,000 PE for which the Ministry estimated that there is a need for EIA by the Ministry and which are prepared according to the Ordinance on Environmental Impact Assessment (*64/08*).

A. DESCRIPTION OF OPERATION

1. The purpose of undertaking the operation
   State the purpose of constructing the public drainage system with a very short reference to the existing and planned condition of the drainage system.

2. Operation description
   Effluent standards
   Indicate the basic provisions relating to the project operation from the National Water Protection Plan (including The Implementation Guidelines – Hrvatska vodoprivreda, Special Edition, January 2002), the County Water Protection Plan (if any), the Regulation on Water Classification, the Ordinance on Beach Water Quality Standards, the Regulations on Limit Values of Indices, Hazardous and Other Substances in Waste Water (including the Regulations on Amendments to the Regulations), the Ordinance on Waste Types, and the Ordinance on Requirements for Handling Waste.
   Input data
   According to the Feasibility Study of the selected public drainage system, indicate the data on the following:
   - hydraulic load
   - waste matter load
   - conditions for connecting industrial wastewater to the public drainage system, in case there are industrial plants with technological wastewater

   Proportions of operation facilities
   Indicate the proportions of the following facilities of the selected public drainage system:
   - main collectors
   - pumping stations
   - wastewater treatment plant
   - submarine outfall

   Annex: A map of the public drainage system and a chart of the wastewater treatment plant.

Checking the total impact of wastewater treatment

Present the expected concentration of waste matter in the sea at a distance of 300 m from the diffuser, and on the edge of the "defended zone" (at least 200 m from the coastline) on the basis of the calculated impact of wastewater treatment in the plant, and on the basis of calculation results of wastewater self-treatment in the sea by discharge through the submarine outfall diffuser (hydraulic dilution, wastewater diffusion, and die-off of microorganisms in the sea). When assessing the concentration of waste matter, take into account the amount of existing concentration of waste matter in the "pure sea" (according to the results of measurement).

Energy consumption

Present the consumption of energy by the wastewater treatment plant and prepumping stations: daily load in the summer period and a mean annual load.

Treatment and final disposal of waste

According to the Feasibility Study, present the type and amount of waste from the plant on a summer day, and mean annual type and amount of waste. According to the Ordinance on Waste Types and the Ordinance on Requirements for Handling Waste, indicate the processing manner of final waste disposal. The location of final disposal of waste shall be determined on the basis of the physical planning documents.

3. Assessment of construction and operating costs

Construction costs

Indicate (in table form) the construction costs for each facility in the operation according to the data from the Feasibility Study. If a multi-stage construction is planned, indicate separately the costs of each stage.

Operating and maintenance costs

Present operating costs (workforce, energy, possibly of chemical substances and waste disposal) and maintenance costs (investment maintenance of facilities and equipment, costs of consumables) for each stage in the system development according to the Feasibility Study.

Annual operational expenses

Calculate annual capital costs on the basis of total construction costs, consulting services, legal and administrative services, interest during construction, and costs for land.

Present annual operational expenses for annual capital, operating and maintenance costs. When assessing the annual capital costs in accordance with the suppositions in the Feasibility Study, i.e. Financial Study, define those parts of construction costs relating to grants, loans and own funds. Present the calculated annual operational expenses as separate expenses: for a cubic metre of consumed water, for one population equivalent, all mean annual values.

4. Description of the relation of the Investor with the public prior to the preparation of the Study

Describe the actions undertaken by the Investor prior to the preparation of the Environmental Impact Study, using the results of the Sociological Study, if any.

B. ALTERNATIVE ANALYSIS

- Brief description of considered variant solutions for the project, with considerations of their environmental impacts,
- Elaboration of the reasons for selecting a certain variant of the project

Analysis of other designs

Present other potential designs of the public drainage system considered in the Feasibility Study, indicating the acceptability of each design, as well as the final selection of the public drainage system, for the purpose of which this Environmental Impact Study is being conducted.

C. LOCATION AND ENVIRONMENTAL BASELINE DATA

5. Data from physical planning documents

Describe and potentially comment on those parts of the physical planning documents relating to the considered public drainage system, starting with the physical plan of the Republic, County, Town and/or Municipality. Apart from the parts of the documents relating to public drainage, describe also those parts of the physical planning documents relating to the final disposal of waste on the grounds of final disposal of sludge.

Annexes: Layout plans of the public drainage system location and waste disposal sites from the accompanying physical plans.

6. Description of the environment and the location

Meteorological and climatic conditions

According to data from the nearest (authorized) weather station, process the following data on a 30-year basis:

- the basic types of weather, air temperature, mean monthly temperatures, absolute maximum and minimum temperatures, and the number of cold and bitterly cold days in a year;
- precipitation: yearly and monthly amounts, assessment of maximum daily amounts, assessment of maximum yearly amounts;
- relative air humidity;
- air circulation, speed and direction of winds, number of days with strong and gale-force winds;
- evapotranspiration

Geological and seismological data

- Describe geological conditions on the wider and narrower research areas according to the existing available data, including land recognition
- Specify the MCS class of seismological distribution according to the operation area.

Annex: The main geological map

Hydrogeological data

State the data on groundwater on the basis of existing data, particularly if groundwater is used for water supply (water protection zones).

Hydrological data

In case there are permanent or periodical watercourses on the operation site, state the basic hydrological features of the watercourses and their maximum and minimum flows on the basis of measured data (if any), or make an assessment according to one of the hydrological models.

Oceanological data

- Hydrographic features

  Present the morphological, sedimentological and engineering-geological features on the basis of hydrographic measurement (basis for the main design of the submarine outfall).

  Annex: A sea chart and a layout plan, and a longitudinal section of the location of the submarine outfall.
- Dynamic feature

  Present sea currents on the area of a submarine outfall diffuser on the basis of measurements of sea currents per the depth of sea column, particularly in the summer period.

  Present long-term oscillations in the sea level according to the data obtained at the nearest authorized tide-gauge station. Present surface waves caused by winds per yearly periods on the basis of observations or assessments of one of the mathematical models.

Annex: A map of research posts.

- Physical features of the sea

  On the basis of research results, present sea temperature, salinity, density (all per the depth of water column), transparency and colour of the sea. The stated data shall particularly refer to the summer period.

  Annex: A map of research posts.
- Chemical features

  Present results of the research conducted on the wider operation area, particularly for the summer period, regarding the amounts of the following: oxygen (including saturation), ammonia, nitrites, nitrates, total nitrogen, phosphates, total phosphorus, silicates, BOD-5.
- Biological features

  On the basis of the existing research data obtained at the nearest authorized area (as well as on the basis of researching physical and chemical features of the sea), assess the trophic level of the sea and the potential condition of plankton and benthos communities. A monitoring programme shall include a more detailed research of biological features of the sea, bearing in mind that the "zero state" has to be determined one year prior to the commencement of the construction in the sea.

  Annex: A map with the existing research posts.

Sanitary beach water quality

Present the condition of beach water quality within the wider operation area on the basis of beach water quality research programme, including research results obtained in the last three years.

Annex: A map of beach water quality research posts (within operation site).

Ecological data

Describe in short the condition of flora and fauna, particularly on the location of the plant, and possibly on other larger locations of project facilities.

Landscape data

On the basis of data from *Biodiversity of Croatia* mark the landscape unit which the operation site belongs to, and describe the basic landscape features of the project area.

Data on settlements and infrastructure

On the basis of data from the physical planning documents indicate the purpose of settlement areas for which the public drainage system is planned, indicating the existing (The 2001 Census) and planned number of population, tourist facilities and other larger water consumers. Describe the existing and planned traffic and municipal infrastructure from the physical planning documents.

Annex: A map of the area with its intended purpose, a road map, and a map of municipal infrastructure (water supply, power supply) from the County or Urban/Municipal Physical Plan.

Data on protected natural and cultural heritage

Indicate the sites of protected natural and cultural heritage on the operation area on the basis of data from the physical planning documents.

Annex: Maps of protected natural and cultural heritage from the physical planning documents.

D. POTENTIAL ENVIRONEMNTAL IMPACTS DURING CONSTRUCTION AND OPERATION

1. A review of potential environmental impacts

Very briefly state favourable environmental impacts during the planned construction. Then state potential unfavourable environmental impacts during construction, use, termination of use, or in case of accidents.

1.1. Unfavourable impacts during construction

Briefly describe potential unfavourable environmental impacts during construction: creation of noise, pollution of atmosphere, soil and seawater, impact on flora and fauna, impact on traffic conditions on the project area, impact on the existing facilities, including municipal infrastructure.

1.2. Impacts during use

Describe impacts of the public drainage system, particularly of the wastewater treatment plant, prepumping stations and submarine outfall, relating to odours, potential wastewater infiltration, development of insects and noise, impact on flora and fauna, decline in the value of construction land, potential impact on the use of coast and sea, and impact during disposal of waste matter.

1.3. Impacts after use

In principle, the public drainage system is durable (apart from extension and reconstruction), and it makes no impact when its use is terminated.

1.4. Impacts in case of ecological accidents

Describe the condition of the environment, particularly of the sea, in case of ecological accidents caused by "force majeure" (devastating earthquakes, ravages of war and the like) and during termination of operation (unprofessional maintenance, equipment failure, power failure, etc).

1.5. Risk assessment

Indicate the consequences of an unwanted event or incident in the functioning of the public drainage system on the ecosystem and human health. Assess the likelihood of occurrence and the period of exposure to unfavourable consequences, indicating measures for the prevention and mitigation of consequences.

2. Cost-benefit analysis of the operation

Analyse the following two scenarios: not to construct the proposed public drainage system, and to construct it. Include the costs of water protection charge into the costs of construction, operation and maintenance. Calculate the benefits from the development of tourism, improvement of the costal sea for bathing and recreation, and enhancement of marine biodiversity as construction benefits.

3. Compliance of the operation with international obligations of the Republic of Croatia

State and comment on the provisions of the Convention for the Protection of the Mediterranean Sea against Pollution with the accompanying Protocols.

4. Proposal of the most appropriate design

State very briefly the basic characteristics of the proposed design of the public drainage system.

E. ENVIRONMENTAL PROTECTION MEASURES AND MONITORING PLAN WITH THE EMP

1. Proposal of protection measures

1.1. Protection during construction

State protection measures during construction for mitigating the consequences of increase in noise, pollution of atmosphere, soil and sea, for the protection of flora and fauna, the existing facilities and municipal infrastructure, and for mitigating the consequences of traffic disruption within the settlement and when approaching it.

1.2. Protection during use

State protection measures based on subordinate legislation for the protection against pollution of atmosphere, soil and water, against the increased development of insects and noise; state the measures for maintaining the value of the surrounding land, measures for protecting the coast and the sea, and measures for reducing the impact of disposing waste matter from the plant.

1.3. Protection measures after use

The public drainage system is durable, so one can only mention measures for the disposal of worn-out pieces of equipment that are refitted during use.

1.4. Prevention and mitigation of consequences of potential accidents

Describe the measures that need to be undertaken when designing, constructing and using the public drainage system in order to prevent and mitigate the consequences of potential accidents at each facility group of the public drainage system.

2. Environmental monitoring programme

2.1. Seawater quality monitoring programme

Prepare a seawater monitoring programme on at least two measuring posts:

- at a 300-meter distance from the outfall towards the coast
- at a borderline of the "defended zone" (at least) 200 m from the coastline.

The monitoring is to start at least one year prior to the construction of the submarine outfall.

2.2. Air monitoring programme

Propose a programme for researching the potential impact of the operating wastewater treatment plant at a station located on the edge of the plant area nearest to the existing (planned) zone of housing and/or tourist construction. The five-day measuring is to be performed once in the warm period and once in the cold period. The measuring is to be conducted one year prior to the construction of the plant and two years after the complete plant has started operating.

2.3. Noise level monitoring

Prepare a noise measuring programme at a station on the edge of the plant located nearest to the existing or planned settlement construction. The measuring is to be conducted one year prior to the construction of the plant and two years after the complete plant has started operating.

2.4. Monitoring of flora and fauna

Prepare a monitoring programme of plankton and benthos communities on the location of the submarine outfall. Monitoring is to be conducted on at least three stations located on the area of the submarine outfall.

The research is to encompass the four seasons, and it shall end a year prior to the commencement of the construction of the submarine outfall-plant. Once the plant-submarine outfall has started operating, plankton and benthos research is to be conducted every five years at the same stations. The results of such research will be used for controlling the effect of wastewater treatment-discharge, and for potential additional demands for improving the condition of seawater quality on the area of the discharge of treated wastewater.

3. Investor's environmental protection policy

State the basic environmental protection plans and programmes of the Investor.

4. Investor's organizational structure with a review of overall practice

Describe the organizational structure, including available equipment and experience in managing the public drainage system. Indicate potential needs for additional workers and equipment for performing wider activities..

5. Presentation of the planned cooperation between the Investor and the public

Describe the manner of cooperation between the Investor and the public regarding the public drainage system management, particularly the impacts of constructing and operating the system.

6. Cost estimate of environmental protection measures

State the costs of those environmental protection measures which are not included in the common measures and procedures of construction and operation of the public drainage system. State the costs of environmental monitoring.

The mitigation measures and the monitoring plan should be laid out in the form of the World Bank Environmental Management Plan described in annexes 6 and 12

F. STUDY CONCLUSION

1. Explanation of the most appropriate design

   Describe reasons for the selection of the proposed design (according to the Feasibility Study).

2. Environmental impact of the selected design

   Very briefly describe the most significant environmental impacts occurring during construction, during use, after use, and in case of ecological accidents. State only the main conclusions about risk assessment.

3. Proposal of environmental protection measures

   For each environmental protection measure (during construction and use, after use, and in case of ecological accidents), state very briefly the planned measure based on statutory regulations.

4. Environmental monitoring programme

   Present in a concise manner the environmental monitoring programme (what is being monitored, where and when).

G. STUDY SUMMARY

Summarize all the chapters of the Study (in up to 20 pages) in a manner that will make it comprehensible to the wider public.

It is important to emphasize the following: what will be done, how much will it cost per year per population equivalent, what will be the impact on human health and the environment if the system is not constructed and if it is constructed, explaining the proposed environmental protection measures and monitoring plan..

The study summary should be available in Croatian and English language

H. SOURCES OF DATA

1. Acts and other regulations

   State all the statutory regulations and subordinate legislation, international conventions, protocols and treaties quoted in the Study.

2. Studies and projects

   Enumerate all the studies and projects on which this Study is based, and which have been quoted in the preceding chapters.

3. Books, papers and other literature

   Enumerate all the quoted literature used in the Study for the explanation of certain terms, proposals and recommendations.

8.6 ANNEX 6 – ENVIRONMENTAL MANAGEMENT PLAN CONTENT

Template for Environmental Management Plan

A project's environmental management plan (EMP) consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures.

1. Management plans are essential elements of EA reports for Category A projects; for many Category B projects, the EA may result in a management plan only. To prepare a management plan, the borrower and its EA design team (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

More specifically, the EMP includes the following components.

Mitigation

2. The EMP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EMP;
(a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement);
(b) describes with technical details each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
(c) estimates any potential environmental impacts of these measures; and
(d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

Monitoring

3. Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP. Specifically, the monitoring section of the EMP provides(a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Implementation Schedule and Cost Estimates

5. For all three aspects (mitigation, monitoring, and capacity development), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the total project cost tables.

Mitigation Plan

Construction Phase					
Activity	Expected Environmental Impact	Proposed Measure for Mitigation	Responsibility for Implementing Mitigation Measure	Period of Implementing Mitigation Measure	Cost associated with implementation of mitigation measure
1.					
2.					
Operation Phase					
1.					
2.					
…					

Monitoring Plan

Construction Phase					
What *parameter is to be monitored?*	**Where** *is the parameter to be monitored?*	**How** *is the parameter to be monitored (what should be measured and how)?*	**When** *is the parameter to be monitored (timing and frequency)?*	**By Whom** *is the parameter to be monitored–(responsibility)?*	**How much** *is the cost associated with implementation of monitoring*
1.					
2.					
…					
Operation Phase					
1.					
2.					
…					

8.7 ANNEX 7 – ENVIRONMENTAL MANAGEMENT PLAN FOR BLATO AND VELA LUKA LANFILL SITNICA WITH INTEGRATED LEACHATE MANAGEMENT SYSTEM