# **Environmental Management Plan**

# **ZEMUN**

Construction of new Archive Depot Building for permanent storage and preservation of archival cadastral documents

**Belgrade – Municipality of Zemun** 

**March 2017** 

## 1. Introduction

During the funding period 2004 - 2012 The World Bank supported Real Estate Cadastre and Registration Project (RECRP) that helped Serbia to establish the Real Estate Cadastre (REC), a single system for real property rights registration, which is under the authority of the Republic Geodetic Authority. The main aim of this Project was to extend support to the development and general advancement of the real estate market on the territory of the Republic of Serbia through formation of a unique real estate cadastre on its territory. Project had two components - Technical and Operational Development and Support (development of a methodology and formation of a real estate cadastre, as well as its maintenance combined with the quality services extended to the customers) and Institutional Development and Capacity Building of RGA. Also, as achievements of this project, the time required to register transactions has been reduced, cadastral offices have been renovated, important geodetic infrastructures have been built and customer satisfaction has improved.

Although results of the RECR Project and improvements in Serbia's real property services were significant, the Government of Republic of Serbia recognized that "there is a whole set of additional reforms in the land sector that need to be undertaken. They relate to building a unified and transparent mass property valuation system to improve property taxation, streamlining and simplifying the process of issuing construction permits, strengthening the egovernance system by enabling on-line use of data related to land and real estate, and most importantly, building the institutional capacities for implementing these reforms." In response to that, a new World Bank's funded project in the land sector has been prepared in Serbia – The Real Estate Management Project.

The development objective of new Project is to improve the efficiency, transparency and reliability of Serbia's real property management systems. The primary beneficiaries of the project are the general population, within Serbia, and internationally, with a special focus on women and vulnerable members of society to ensure that the benefits are more equally distributed.

The main focus of the project is to ensure accurate, complete and electronically available information for the improvement of services and greater transparency. Beneficiaries also include the land market professionals (lawyers, surveyors, appraisers) and organizations associated with mortgaging, who will benefit from more accurate and accessible real estate data and who will be able to provide better services to the public. Further, government agencies and local government will benefit as they will be able to easily access information about real estate for: planning and property tax purposes; for providing social and other local government services; and through improvements in the use of the real estate that they manage.<sup>1</sup>

The Project, which has been approved on March 16<sup>th</sup>, 2015 and is operational since October 8<sup>th</sup>, 2015 has four components:

- 1. Component A Valuation and Property Taxation (US\$ 6 million);
- 2. Component B E-governance for Enabling Access to Real Estate Information (US\$ 24 million);

<sup>&</sup>lt;sup>1</sup> Adlington, Gavin P. 2013. Project Information Document (Concept Stage) - Real Estate Management Project - P147050. Washington, DC: World Bank.

- 3. Component C Institutional Development of the Republic Geodetic Authority (US\$ 17 million);
- 4. Component D Project Management and Supporting Activities (US\$ 3 million).

Component A provides all the information required about lands and buildings so that a complete record is available for local government use and improve the methodology for valuing and using that property. In order to make use of this information it must be available on-line. Component B focuses on provision of on-line services relating to real estate in an egovernment environment. The key agency responsible for providing the information about real estate is RGA. Component C focuses on the collection of data and institutional support to RGA. Component D provides the necessary support for this project in various aspects, from training to conducting the necessary studies and project management activities.

**Subcomponent of Component B:** *Central Analogue and Digital Archives* supports the further implementation of a digital archive by digitizing and indexing land book folios and registration and cadastre documents, using the established Digital Archive Center in Belgrade. The subcomponent provides additional equipment to speed up the scanning process and individual consultants are hired for scanning and indexing of documents and for verification and quality control of digitized documents.

Mentioned Subcomponent supports financing of the subject of this Environmental Management Plan (EMP) document - the construction of a Central Archive Building, which would be used for permanent storage and preservation of analog archival cadastral documents, and would also provide an area for scanning of documents. Beside construction of the building, necessary furniture, equipment, software and licenses would be procured, and training of staff to manage the central archive would be provided as well under this Subcomponent.

# 2. RGA Archive Depot Building

Serbia Real Estate Management Project, as a part of its activities, envisages support to RGA in preparation of the Main Design for construction of the Archive Depot Building in Zemun, and its subsequent execution. Currently there are no existing designs for this facility and only the basic information is available. Consequently, the attached Environmental Mitigation Plan is prepared on the basis of current information and may be further refined and finalized during the design process.

The new RGA's Archive Depot building is envisaged to be at the cadastral parcel no.98/27, Cadastral Municipality Zemun Polje, Municipality Zemun, address line Ekonomija no.1. The parcel surface is 6,000.00m2, the building is planned to have total surface of 4.000,00m<sup>2</sup> and will consist of 3 underground floors surface of 1.000,00m<sup>2</sup> per floor and one floor above ground surface of 1000 m<sup>2</sup>. The location of the new building is a part of the large business area stretching between housing estates Galenika and Batajnica.

The parcel where the Archive Depot is to be constructed is bordered by street Batajnicki Drum (old motorway Belgrade-Novi Sad), location is around 500m from the existing ring road connection to highway Belgrade-Novi Sad which provides excellent traffic connectivity. Also, there is an inner access street to access the parcel (Photo No.1). The parcel has been previously used as agriculture land and is not fenced (see Photo No.2).



Photo No.1



Photo No. 2



Photo No.3

Following infrastructure exists on the location: electric lighting installation; telephone installations; city's gas pipeline; public water supply system; fire hydrants as well as wastewater system. (Photo No.3)

Design and subsequent construction activities related to construction of RGA Depot Archive building will be governed by a set of the national and local legislation that regulate civil works construction of "large scale" objects. The related requirements are contained in the Law on spatial planning and object building, Official Gazette of Serbia, no.72/2009, 81/2009 -corr., 64/2010-resolution US, 24/2011, 121/2012, 42/2013-resolution US, 50/2013-resolution US, 98/2013-resolution US, 132/2014 and 145/2014 and related sub-legislation. The responsible institution for issuing the location and building permit is the Municipality of Zemun. The land where the facility is to be located is state owned – the owner is the Republic of Serbia. The Government of the Republic of Serbia provided consent to the RGA to perform, on its behalf, the rights of investor on the construction of the Depot Archive facility by the conclusion no.464-6433/2016. Currently the site where the facility is to be located is under agricultural crops. (Photo No.4)



Photo No.4

Regarding the geographical context of the site - Zemun is an urban municipality part of the Greater Belgrade area geographically located at 45.00°N 19.83°E. Parcel is located in the business area with a variety of commercial and production activities (Mikroelektonika – software and hardware production; Visaris d.o.o - digital radiography equipment; N Sport d.o.o – sport equipment; Retail Park "Zemun"; Metro Cash & Carry; Coca Cola HBC Serbia; Ball Packaging Europe; Elopak d.o.o- packaging; Karan Co- Fashion fabrics and textiles etc.) The location currently possesses major infrastructure connections: drinking water, fire hydrants, waste collection and disposal service; electric lighting installation; telephone installations and city's gas pipeline.

Since the construction site is located in the existing and operational business area, the environmental impacts during execution of civil works will be limited to the ones which are common to all construction activities – air, dust and noise pollution, vibrations and local soil and possibly groundwater disturbance. The negative impacts will be felt only temporarily (during the works execution) and their impacts will be limited. However, application of good engineering practices and proper site and contract control will contribute to minimize or avoid negative impacts altogether.

In order to avoid, prevent or mitigate the potential occupational and community health and safety risks, potential environmental impacts on air quality, underground waters, noise disturbance, waste generation and management, the good demolition/construction practice implementing several mitigation measures is proposed within the following Environmental Mitigation Plan - EMP (Table A).

The main responsibility for implementation of EMP related measures lays on the Contractor/Sub-contractor, who needs to take into account and applies on daily basis all proposed preventive and mitigation measures. The Site Supervisor needs to perform the

supervision on the practical implementation of the mitigation measures by the Contractor/Sub-contractor, and issue corrective instructions and/or orders, if necessary.

The main inspection responsibility is, according to national legislation, given to the municipal staff (Environmental Inspector and Communal Inspector) that will be involved in monitoring the implementation of the mitigation measures and proposed Monitoring Plan (Table B).

The Project Implementation Unit within RGA will also coordinate the overall working plan related to RGA Depot Archive, construction schedules, implementation progress and implementation of proposed measures for avoidance and/or minimization of environmental, health and safety risks.

During the operational phase, when the RGA Archive Depot is completed and operational, the main activity related to environmental protection will be related to preparation of the Fire Protection Plan and Plan for Regular and Preventive Maintenance of the object (sewer and water supply systems, heating devices, equipment).

# A. ENVIRONMENTAL MITIGATION PLAN

<b>Project activity</b>	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	b) Waste management	Local/ short term/	➤ Preparation of the Waste Management Plan for the expected waste streams during the construction phases of the project;	Contractor – Bidder
	Possible adverse environmental impact and health		➤ Identify the hazardous and non-hazardous waste and separate them at the construction site;	Supervisor
	effects could occur due to inappropriate waste management with various waste streams		Very small quantities of glue, paint, packaging waste from paints and glue, aluminum profiles, screws and other construction material could be found after the finalization of the project and manage in accordance with national HW legislation (collection of hazardous materials, label as hazardous waste and give to the authorized company);	
			➤ The contract with the company for waste collection and transportation should be signed for collection and transport of waste;	
			➤ The materials should be covered during the transportation to avoid waste dispersion;	
			➤ Burning of construction waste is prohibited;	L
	c) Water quality a) Possible	Local/Short term/probable	> Transportation vehicles should be enclosed to avoid potential leakage;	Contractor – Bidder
	environmental impact on the underground water could occur due to ground contamination from the spillage of materials such	Low	➤ Possible hazardous waste (motor oils, vehicle fuels, lubricants) should be collected separately and authorized company should be sub-contracted to transport and finally dispose the hazardous waste;	Supervisor

Project activity	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	as vehicle fuel, motor oils, lubricants			
	d) Noise  a) The construction activities and traffic will cause noise and vibration due to the machinery and vehicles used for transport of construction materials, transport of workers, and transport of waste	Local/Short term/	<ul> <li>The equipment should be fitted with appropriate noise devices that will reduce sound level;</li> <li>The level of noise should not exceed more than 55 dB during the day and evening and 45 dB during the night;</li> <li>The construction work should be not permitted during the nights, the operations on site shall be restricted to the hours 7.00 -19.00;</li> <li>The vehicles that are excessively noisy shall not be operated until corrective measures have been taken.</li> </ul>	Contractor – Bidder Supervisor  Communal Inspector/ Environmental Inspector
	e) Air quality The construction activities will initiate emissions from the mobile sources (vehicles and construction machinery) of	Local/Short term/Low significance/	<ul> <li>Usage of protective masks for the workers;</li> <li>Vehicles and construction machinery will be required to be properly maintained and to comply with relevant emission standards;</li> <li>Conduction of regular maintenance of the vehicles and construction machinery in order to reduce the leakages of motor oils, emissions and dispersion of pollution;</li> <li>Vehicle loads have to be covered to prevent emission of dust;</li> </ul>	Contractor – Bidder Supervisor

<b>Project activity</b>	Potential impact	Impact scale	Proposed mitigation measures	Responsibility
	CO2, NOx, PAH, SO2 and suspended particulates (PM10, PM 2.5).  The airborne dust will be caused by dismantling of the equipment, excavation, vehicle movement and handling with materials, particularly around the construction site		<ul> <li>Construction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days;</li> <li>Construction materials should be stored in appropriate covered places to minimize dust;</li> <li>Open burning of debris will not be permitted;</li> <li>Restriction of the vehicle speed within the construction location;</li> </ul>	Communal Inspector/ Environmental Inspector
Operational phase	needed to limit fast The Plan for regula	Plan should be prifire and smoke dever	repared addressing the identification of fire risks and ignition sources, as elopment.  naintenance should be prepared to ensure proper operation of all infrastructurates supply system, heating devices, etc) and to ensure keep records	cture components

# B. MONITORING PLAN

What parameter	Where is the	How	When	Why	Co	ost	Respon	sibility
is to be monitored?	parameter to be monitored?	is the parameter to be monitored?	is the parameter to be monitored (frequency of measurement)?	is the parameter to be monitored?	Construction	Operations	Construction	Operations
Project stage: Sta	art up of the constru	ction activities						
The community safety regulation and protection measures applied  The OH& S protection	Around the project sites  On the project sites	Visual checks  Visual checks	Every working day during the project activities  Every working day during the project	To ensure minimization of health and safety risks  To minimize the risks on occupational health and safety			Contractor - Bidder Supervisor Municipality RGA Contractor - Bidder /Supervisor/	RGA
measures applied for the workers at the sites	Sites		activities	of the workers			Municipal staff (Communal and Environmental Inspector)/	
Level of dust – fine particulate matters	At the construction site	Visual monitoring and measurement devices	On the sunny, dry days only (once a week at the peak working hour)	To avoid and minimize the dust concentration into the air and to minimize the health risks for the workers			Contractor – Bidder and authorized company for dust measurements	

What parameter	Where is the	How	When	Why	Co	ost	Respons	sibility
is to be monitored?	parameter to be monitored?	is the parameter to be monitored?	is the parameter to be monitored (frequency of measurement)?	is the parameter to be monitored?	Construction	Operations	Construction	Operations
Collection and transport as well storage of hazardous waste (if any occur).	On safety temporary storage	Review the transportation list and conditions at the storage facility	Before the transportation of the hazardous waste (if there is any)	To improve the waste management practice on municipality and national level.			Authorized Contractor for collection and transportation of hazardous waste (if there is any occur) subcontracted by the Contractor- Bidder	
							Environmental inspector	
Noise level	On the site	Monitoring of the noise levels  dB (A) with appropriate monitoring devices	On regular basis during the work, in accordance with the national legislation	To monitor if the noise level is above/or below the acceptance noise level for that type of area			Contractor – Bidder  Authorized Company for performing noise levels measurements sub- contracted by the Contractor – Bidder	
							Environmental Inspector to collect the noise level measurements	

What parameter	Where is the	How	When	Why	Cost		Responsibility	
is to be monitored?	parameter to be monitored?	is the parameter to be monitored?	is the parameter to be monitored (frequency of measurement)?	is the parameter to be monitored?	Construction	Operations	Construction	Operations
Exposure of loud noise from vehicle machine, mechanization and equipment	On the construction site	Review the noise level technical specifications of the used vehicle, mechanization and equipment for their usage outside	Before the beginning of the work (first day) for all vehicles and equipment	To protect the workers against exposure to loud noise taking into account the technical specifications of the equipment and time duration of the work outside			Contractor - Bidder Supervisor Environmental Inspector /Inspector for communal work	
Project stage: Op	perational phase  Before the	Laboratory	Before the start	To ensure the distribution of				RGA officials
quality	distribution through the new water supply system, the water sample should be analyzed by the Authorized laboratories – Public Health institute Accredited laboratories	equipment for physical- chemical and microbiologi cal water quality analysis	with operation	high quality drinking water, minimizing the health risks of waterborne diseases				Public Enterprise "Vodovod i kanalizacija"
Fire Protection Plan	Before the start of RGA Depot	Review of the Plan	At the beginning of RGA Depot work	To ensure that all fire protection measures are				Municipal staff (Communal and Environmental

What parameter	Where is the	How	When	Why		ost	Responsibility	
is to be monitored?	parameter to be monitored?	is the parameter to be monitored?	is the parameter to be monitored (frequency of measurement)?	is the parameter to be monitored?	Construction	Operations	Construction	Operations
	operation			implemented				Inspector) RGA
Plan for regular and preventive maintenance of the object	Before the start of building operation	Review of the Plan	At the beginning of RGA Depot work	To ensure maintenance of the object				(Communal and Environmental Inspector)
								RGA



Phone: +381 11 715 26 00

# REAL ESTATE MANAGEMENT PROJECT (REMP)

# REPORT ON PUBLIC CONSULTATION for ENVIRONMENTAL MANAGEMENT PLAN

Construction of new Archive Depot Building
for
Permanent storage and preservation of archival cadastral
documents
Belgrade – Municipality of Zemun

- Environmental Category B -

Belgrade, February 2017

# 1. Background

During the funding period 2004 - 2012 The World Bank supported Real Estate Cadastre and Registration Project (RECRP) that helped Serbia to establish the Real Estate Cadastre (REC), a single system for real property rights registration, which is under the authority of the Republic Geodetic Authority (RGA). The main aim of this Project was to extend support to the development and general advancement of the real estate market on the territory of the Republic of Serbia through formation of a unique real estate cadastre on its territory. Project had two components - Technical and Operational Development and Support (development of a methodology and formation of a real estate cadastre, as well as its maintenance combined with the quality services extended to the customers) and Institutional Development and Capacity Building of RGA. Also, as achievements of this project, the time required to register transactions has been reduced, cadastral offices have been renovated, important geodetic infrastructures have been built and customer satisfaction has improved.

Although results of the RECR Project and improvements in Serbia's real property services were significant, the Government of Republic of Serbia recognized that "there is a whole set of additional reforms in the land sector that need to be undertaken. They relate to building a unified and transparent mass property valuation system to improve property taxation, streamlining and simplifying the process of issuing construction permits, strengthening the egovernance system by enabling on-line use of data related to land and real estate, and most importantly, building the institutional capacities for implementing these reforms." In response to that, a new World Bank's funded project in the land sector has been prepared in Serbia – The Real Estate Management Project.

The development objective of new Project is to improve the efficiency, transparency and reliability of Serbia's real property management systems. The primary beneficiaries of the project are the general population, within Serbia, and internationally, with a special focus on women and vulnerable members of society to ensure that the benefits are more equally distributed.

The main focus of the project is to ensure accurate, complete and electronically available information for the improvement of services and greater transparency. Beneficiaries also include the land market professionals (lawyers, surveyors, appraisers) and organizations associated with mortgaging, who will benefit from more accurate and accessible real estate data and who will be able to provide better services to the public. Further, government agencies and local government will benefit as they will be able to easily access information about real estate for: planning and property tax purposes; for providing social and other local government services; and through improvements in the use of the real estate that they manage.<sup>2</sup>

The Project, which has been approved on March 16<sup>th</sup>, 2015 and is operational since October 8<sup>th</sup>, 2015 has four components:

- 1. Component A Valuation and Property Taxation (US\$ 6 million);
- 2. Component B E-governance for Enabling Access to Real Estate Information (US\$ 24 million);
- 3. Component C Institutional Development of the Republic Geodetic Authority (US\$ 17 million);
- 4. Component D Project Management and Supporting Activities (US\$ 3 million).

\_

<sup>&</sup>lt;sup>2</sup> Adlington, Gavin P. 2013. Project Information Document (Concept Stage) - Real Estate Management Project - P147050. Washington, DC: World Bank.

Component A provides all the information required about lands and buildings so that a complete record is available for local government use and improves the methodology for valuing and using that property. In order to make use of this information it must be available on-line. Component B focuses on provision of on-line services relating to real estate in an egovernment environment. The key agency responsible for providing the information about real estate is RGA. Component C focuses on the collection of data and institutional support to RGA. Component D provides the necessary support for this project in various aspects, from training to conducting the necessary studies and project management activities.

Subcomponent of Component B: Central Analogue and Digital Archives supports the further implementation of a digital archive by digitizing and indexing land book folios and registration and cadastre documents, using the established Digital Archive Center in Belgrade. The subcomponent provides additional equipment to speed up the scanning process and individual consultants are hired for scanning and indexing of documents and for verification and quality control of digitized documents.

Mentioned Subcomponent supports financing of the subject of this Environmental Management Plan (EMP) document - the construction of a Central Archive Building, which would be used for permanent storage and preservation of analog archival cadastral documents, and would also provide an area for scanning of documents. Beside construction of the building, necessary furniture, equipment, software and licenses would be procured, and training of staff to manage the central archive would be provided as well under this Subcomponent.

# 2. Report on Public Consultation, Belgrade February 22<sup>nd</sup>, 2017.

In accordance with OP/BP 4.01, Project Implementation Unit (PIU) has prepared EMP document for Construction of new Archive Depot Building for Permanent storage and preservation of archival cadastral document Belgrade – Municipality of Zemun.

The in-country disclosure of the EMP document started on the February 3<sup>rd</sup>, 2017 when invitation to the interested parties was published in the daily newspaper "Vecernje Novosti", inviting the public, authorities and relevant institutions to have an insight into the proposed construction of the Archive Depot Building and environmental impact of the project with presented mitigation and monitoring measures. Prior to the announcement in the newspaper, the EMP documents (English and Serbian language versions) were made publicly available on the RGA's website:

(http://www.rgz.gov.rs/template1a.asp?PageName=2016 01 19 01&LanguageID=1).

Official disclosure of draft EMP document has been organized on the February 22<sup>nd</sup>, 2017 at RGA's headquarters in Belgrade in form of the public consultation meeting. There were 3 attendees<sup>2</sup> on the meeting.

On behalf of the RGA, the meeting was chaired by Mr. Predrag Đermanović, Project Implementation Unit's (PIU) Project Engineer/Procurement Assistant, responsible for environmental issues of the project.

The meeting was attended by:

- 1. Mr Jovan Obradović, RGA's Digital Archive Department
- 2. Mr Petar Jovanov, PIU
- 3. Mr Zvonimir Stanković, PIU

<sup>&</sup>lt;sup>2</sup> List of the participants is presented within the Chapter 3.

The meeting started according to schedule at 10:00AM. The EMP document was presented in details to the interested attendees by the PIU's representative. During the public consultations there were no significant remarks or comments made in regards to the environmental protection issues.



Photo No.1 Public Consultation meeting at RGA's headquarters in Belgrade.

In the term of 14 days from the publishing of the invitation (period aimed for insight into the EMP document), no interested groups or other stakeholders visited the RGA/PIU's premises in order to have insight into the EMP document.

During disclosure period there was no telephone or e-mail made contacts related to the proposed EMP.

Consultations ended at 11:00AM, local time.

# 3. List of the participants



# ЈАВНА РАСПРАВА О ПЛАНА УПРАВЉАЊА ЖИВОТНОМ СРЕДИНОМ - ИЗГРАДЊА НОВОГ АРХИВСКОГ ДЕПОА ЗА ТРАЈНО СКЛАДИШТЕЊЕ И ЧУВАЊЕ АРХИВСКИХ ДОКУМЕНАТА КАТАСТРА, БЕОГРАД- ОПШТИНА ЗЕМУН

ПРОЈЕКТ: "УНАПРЕЂЕЊЕ ЗЕМЉИШНЕ АДМИНИСТРАЦИЈЕ У СРБИЈИ"

6.	5.	4	3.	2.	1.	Редни бр.
			ZYONIHIE STABEONC	PETAR JOVANOV	JOBAH OBPAAOBUT	Редни         Име и Презиме         и
			262- PIG	RGZ-JEOMPCA ZA	PENJEAN YEC- AYRICHMA 60/3117400	Институција-радно место
			660 10 100 833	062/334810	260/3117400	Телефон
			ELCZ. COULES	062/334810 PJONGHON @ 172. Jan. 0	objavaneguata	Е-мејл
			1	SAR	" Offend	Потпис
			V		1.	

# 4. Documentation



