# **ENVIRONMENTAL MONITORING REPORT**

# # 8 Semi-annual Report

(Reporting Period: January-June 2021) Project Number: 43405-027

# GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 5) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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- For: The Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

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# ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPP	Department of Environmental protection and Permit
PMD	Projects Management Department
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental
	Management Plan
ES/ EMS	Environmental Specialist/ Environmental Monitoring Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IPMO	Investment Program Management Office
USIIP	Urban Services Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoEPA	Ministry of Environment Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sanitation

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# I. INTRODUCTION

# 1.1 Preamble

- 1. This report represents the Semi Annual Environmental Monitoring Review (SAEMR) for the Urban Services Improvement Investment Program, Tranche 5 for the period of January-June 2021.
- 2. This report is the 8<sup>th</sup> Environmental Monitoring Review (EMR) of Tranche 5 under USIIP.

# **1.2 Headline Information**

- 3. In the reporting period, civil work within the framework of the USIIP/T5 was not carried out, since all construction activities under REG-03a and ZUG-02 sub-projects have already been completed and construction activities under REG-03b sub-project: Construction of WWTP in Mestia has not yet been launched due to the fact that the design of the project has not yet been commenced.
- 4. As mentioned above, the final design of the wastewater treatment plant in Mestia under REG-03b was not commenced during the reporting period. No teams have been mobilized to Mestia, no site establishments for the contractor have been erected. The only site activity was Geotechnical Soil investigations for the bridge foundations which was completed in July 2020, so far, no site activities at all are ongoing.

# II. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

# 2.1 **Project Description**

- 5. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
- 6. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
- 7. Tranche 5 of the Investment Program includes:
  - Construction of Sewage System in Zugdidi (ZUG-02);
  - Construction of Wastewater Treatment Plants in Zugdidi (A) REG-03a
  - Construction of Waste Water treatment Plant in Mestia (B) REG-03b

## The following projects are financed under Tranche 5:

- 8. Construction of Sewage System in Zugdidi (ZUG-02). The Zugdidi wastewater project envisages the rehabilitation and extension of the sewer network with gravity sewers and pressure lines and the construction of wastewater pumping stations. The project measures for the sewer network comprise the laying of 160 km new gravity pipes (DN 100 to DN 800) and 9.7 km new pressure pipes (OD 110 and OD 630). There will be 24 new wastewater pumping stations. The new network will convey the wastewater to a new wastewater treatment plant, which will be constructed under Reg-03 Zugdidi (A) WWTP project.
- 9. The contract No P43405-ICB-Zug-02 was signed on February 1, 2017 with Ludwig Pfeiffer Hoch-und Tlefbau GmbH & Co.KG, initial completion date 31st Jan 2020. The Contract has been extending to 2nd August 2020 through contract addendum no. 07 and was substantially completed by that date. At this stage the construction activities are completed and only the network testing works are to be implemented.
- **10.** Post Construction Audit will be conducted under ZUG-02 sub-project by SC and audit report will be submitted to UWSCG and ADB during the next reporting period July-December 2021.
- **11. Construction of Wastewater Treatment Plant in Zugdidi (REG-03a).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 22,000 m<sup>3</sup>/day.
- 12. The contract No UWSCG-USIIP-ICB-REG-03a was signed on February 1, 2017 with "JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeifer Hoch – and Tiefbau Gmbh7Co. KG (Germany)" and "EMIT |Group – Ercole Marelli Impianti Tecnologici S.r.I. (Italy)", completion

date: September 2020. Construction activities on REG-03a sub-project are completed. At this stage commissioning works are on-going.

- **13.** Post Construction Environmental Audit will be conducted under ZUG-03a sub-project by SC and audit report will be submitted to UWSCG and ADB during the next reporting period July-December 2021.
- 14. Construction of Wastewater Treatment Plant in Mestia (REG-03b). The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 3,200 m<sup>3</sup>/day.
- 15. The contract No UWSCG-ICB-MES-03-2019 was signed on 5 November 2019 with "JV of Toshiba Water Solutions Pvt.Ltd and IN-SI" LLC (India/Georgia)". Contract completion date was April 2021. The contract became formally effective by 12th Dec 2019 after the Contractor agreed to postpone one of the preconditions for effectiveness, the "irrevocable confirmed letter of credit" to be submitted later (e.g. after design phase). The resulting initial contractual completion date was 04th June 2021. Change Order for extension ttime is under preparation. Considering this suspension period, the revised theoretic completion period would be January 2022.

# 2.2 **Project Contracts and Management**

- **16.** The main institutions that are involved in implementation of the EMP are UWSCG executing agency (EA), Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment and Natural Resources Protection (MoENRP).
- **17.** Investment Program Management Office (IPMO) established within UWSCG is responsible for the day to day management of the project including implementation of the EMP. The IPMO have an Environmental Specialist who is responsible for management of the environmental aspects of USIIP.
- **18.** The IPMO (Environmental Specialist) responsibilities in respect of implementation of the EMP are as follows:
  - (i) Approve the Site-Specific Environmental Management Plan (SSEMP) before Contractor takes possession of construction site;
  - (ii) Monitor implementation of EMP and ensure the environmental safeguards compliance;
  - (iii) Review the updated IEE and/or SEMP and send it for clearance to ADB;
  - (iv) Ensure that contractors have access to the EMP and IEE report;
  - (v) Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website;
  - (vi) Review and approve the Corrective Action Plan and provide to ADB for review and comments if any;
  - (vii) Participate in public consultations during project implementation;
  - (viii) In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints;
  - (ix) Assist in organizing trainings for the Contractors in coordination with ADB/RETA consultant;
  - (x) Participate in external trainings in environmental management and environmental auditing
  - **19.** The SC include a full time Environmental Specialist to assist the IPMO supervise and monitor implementation of the EMP during construction.
  - 20. The Contractor also appoint a full time Environmental specialist to be a senior member of the construction management team based on site for the duration of the contract. The ES shall have a university degree (preferably at Masters level) in Environmental Science or related discipline and have at least 10 years work experience in environmental management of infrastructure project
  - 21. Department of Environmental Protection and Permits of UWSCG work together with IPMO on addressing the Environmental Safeguard issues of USIIP sub-projects. More detailed description of implementation arrangements; responsibilities and staffing are provided in the Table 1 below.

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
1	Environmental planning and management Contractors Environmental Management Plan (site-specific EMP)	Prepare Specific EMP (SEMP) with supplemented Topic Specific EMPs at pre- construction stage based on IEE/EMP Implement SEMP approved by IPMO.	Review and endorse the SEMP; Monitor implementation of SEMP on daily basis; Monitor monthly environmental monitoring reports or results prepared by the Contractor and report to IPMO.	Review and approve the SEMPs; Monitor implementation of EMP and ensure the environmental safeguards compliance.	Work together with IPMO on addressing the environmental non- compliance issues, if any.
2	Changes in design	Provide details of design changes to CSC required to update IEE/EIA, or SEMP; Implement updated SEMP.	Approve the design change to be submitted to IPMO; Make environmental assessment of the change and update the IEE and/or SEMP.	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP; Upload the approved IEE/SEMP provided by IPMO to UWSCG website for Public Disclosure.
3	Unanticipated impacts	Inform CSC about unanticipated impact and follow the instructions received from IPMO.	Make environmental assessment of the unanticipated impact and update the IEE and/or SEMP	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP

# Table 1: Institutional Arrangement, Responsabilités and Staffing

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
4	Reporting	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	<ol> <li>Prepare inputs to environmental part of quarterly construction progress reports;</li> <li>Prepare inputs to semi-annual environmental monitoring report (SAEMR) to be submitted to IPMO for further review, comments and improvement.</li> <li>Conduct Post-Construction Final Environmental Audit and prepare final environmental audit report.</li> </ol>	<ol> <li>Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure;</li> <li>Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website.</li> </ol>	Upload the approved reports (ENG and GEO) provided by IPMO to UWSCG website for Public Disclosure
5	Permits and clearances	NA	NA	NA	Obtaining environmental permits and clearances
6	Non-compliances	Prepare a corrective action plan (CAP)	Assist contractor in preparing the CAP.	Review and approve the CAP and provide to ADB for review and comments if any.	
7	Public consultations	Participate in public consultations during project implementation	Organize public consultations: inform people about activities and prepare the record of consultations.	Participate in public consultations during project implementation	UWSCG & IPMO host PCs, CSC will present the topics related to environmental issues

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
8	Grievance Redress Mechanism	Project site Focal person to record environmental grievances in the logbook and follow up with UWSCG established practice for grievance redress	<ol> <li>Ensure that grievances, if any, are being properly documented and addressed timely and effectively.</li> <li>Assist IPMO to develop consolidated GRM database and consolidation of GRM cases both for ENV and Social safeguards</li> </ol>	In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints; Assist IPMO Social/Resettlement Consultant in GRM database consolidation and data analysis.	UWSCG maintains GRM applicable to all projects. UWSCG will ensure IPMO information on grievances is consolidated into the UWSCG grievances (both - environmental and social) without duplication.
9	Trainings	Attend on-site trainings organized by IPMO and ADB/RETA Consultant	Assist the IPMO in organization of trainings for the Contractors on environmental safeguards requirements.	Organize trainings for the Contractors in coordination with ADB/RETA consultant. Participate in external trainings in environmental management and environmental auditing	Participate in external trainings in environmental management and environmental auditing

- **22.** During the reporting period, changes were made in the management of the UWSCG, Mr. Alexander Tevdoradze was appointed a director of the company.
- **23.** Main organizations involved in the USIIP/T5 and related to environmental safeguard are presented in the table 2 below:

Type of project	Name of Agency/Company	Environmental Staff	Name and contact details	
participant				
Lender	Asian Development Bank	Country Environmental Focal	Ninette R. Pajarillaga	
		i ocai	E-mail: npajarillaga@adb.org	
		Associate Safeguards	Nino Nadashvili	
		Officer Georgia Resident	Tel: +995 595 070442	
		Mission Asian Development	nnadashvili@adb.org	
		Bank		
		ADB RETA International-	Keti Dgebuadze	
		Regional Environmental Consultant	Tel: +995 577232937	
			ketdgeb@yahoo.com	
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili	
			Tel: +995 599 229925	
			E-mail:	
			m.goderdzishvili@water.gov.ge	
		UWSCG/IPMO		Ms. Ana Onashvili
		Department of Projects Management, Head	Tel: +995 599 692090	
			E-mail:	
			ana.onashvili@water.gov.ge	
Borrower	UWSCG/USIIP/T5	Environmental Specialist	Ms. Ketevan Chomakhidze	
			Tel: +995 577 380309	
			E-mail:	
			Chomakhidzek@yahoo.com	
Supervision Consultant	. Posch&Partners	Environmental Specialist:	Mr. Tinatin ZhiZhiashvili	
Consultant	Consulting Engineers	•	Tel: +995 577 380113	
			E-mail:	
		-	tikozhizhiashvili@yahoo.com	
			-	

# Table 2: List of Main Organizations under USIIP/T5

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Contractor	. Ludwig Pfeiffer Hoch-und Tlefbau	Environmental H&S Specialist	Mr. Nikoloz Neparidze
ZUG-02	GmbH & Co.KG	opecialist	Tel: +995 599 346821
			E-mail:
			nikoloz.nepharidze@ludwigpfeiffer.c om
Contractor	. JV "Pfeiffer -	Environmental H&S	Mr. Nikoloz Neparidze
REG-03a	by "Ludwig Pfeifer Hoch – and	Specialist	Tel: +995 599 346821
			E-mail:
	Tiefbau Gmbh7Co. KG (Germany)"		nikoloz.nepharidze@ludwigpfeiffer.c
	and "EMIT  Group – Ercole Marelli Impianti		om Mr. Irakli Abuladze
	Tecnologici S.r.l. (Italy)	H&S Specialist	Tel: +995 568 012858
			E-mail:
			irakli.abuladze.1974@gmail.com
Contractor	. JV of Toshiba		
REG-03b	Water Solutions Pvt.Ltd and IN-SI" LLC (India/Georgia)		

# 2.3 **Project Activities During Current Reporting Period**

24. In the reporting period, construction works under USIIP/T5 were not carried out, since all construction works under REG-03a and ZUG-02 have already been completed, and construction works on REG-03b: Construction of WWTP in Mestia has not yet been started due to the fact that the design of the project has not yet been completed.

# 2.4 Description of Any Changes to Project Design

**25.** As mentioned already, the final design of the wastewater treatment plant in Mestia under REG-03b was not completed during the reporting period and will be finalized during the next reporting period, and accordingly these changes will be reflected in the next SAEMR, July-December 2021.

# 2.5 Description of Any Changes to Agreed Construction methods

# III. ENVIRONMENTAL SAFEGUARD ACTIVITIES

## 3.1 General Description of Environmental Safeguard Activities

- 26. No construction activities have been implemented during the reporting period under USIIP/T5.
- 27. No site audit was carried out during the reporting period, since all construction activities under REG-03a and ZUG-02 were already completed and construction activities under REG-03b has not been started as yet. In early March 2020 restrictions were imposed by the Government of Georgia on site visits in connection with the outbreak of the new Coronavirus COVID-19 and then resumed in May 2020.
- 28. The Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) which applies to all sectors of economic activity.
- **29.** The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector (Please see Annex B of this report).
- **30.** Additional measures were carried out by Supervision Company Posch based on the requirements of the UWSCG and Emergency Response Plan of COVID 19 was developed for construction activities carried out under USIIP-T5 (please see Annex A).
- **31.** Environmental Monitoring Specialist hired under the ZUG-02 and Reg-03/a sub-projects Mr.Nikoloz Meparidze conducted the day-to-day monitoring of the construction sites, filled the weekly checklist forms developed the monthly monitoring reports and submitted to SC/Posch during the previous reporting period.
- **32.** Environmental Monitoring Specialist, Ms.Tinatin Zhizhiashvili developed quarterly monitoring reports for UWSCG/USIIP based on the monthly reports submitted by Contractor, and on regular site inspections during the previous reporting before January-June 2021.
- **33.** ES of USIIP performed monitoring of contractor's performance with the approved EMPs and SSEMPs, environmental standards and other environmental commitments of the contractor. ES developed Semi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

## 3.2 Site Audit

34. No site audit was carried out during the reporting period, since all construction activities under REG-03a and ZUG-02 were already completed and construction activities under REG-03d has not been started as yet.

## 3.3 Issues Tracking (Based on Non-Conformance Notices)

N/A

3.4 Trends

# 3.4 Unanticipated Environmental Impacts or Risks

# IV. RESULTS OF ENVIRONMENTAL MONITORING

## 4.1 Overview of Monitoring Conducted during Current Period

- **35.** During the reporting period no Environmental quality measurements of Noise level and ambient air Quality were carried out by contractor under USIIP/T5.
- **36.** Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 3 and 4 below.

Noise	dBA		dBA	
	National Regulations		s WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

## Table 3: Noise Level Guidelines

5 Air pollution standards by IFC/WHO 1999, are presented in the Table 4 below.

# Table 4: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit) mg/m <sup>3</sup> ))		
1	2		
Inorganic dust	(*IFC does not have a standard for "inorganic dust". Instead IFC applies standards for PM2.5 and PM10). PM10 – 0,02/1 Year 0,05/24 Hour		
	PM2,5-0,01/1 Year		
	0,025/24 Hour		
Carbonic monoxide	n/a		
Nitrogen dioxide (NO <sub>2</sub> )	0,2/ 1 Hour 0,04/1 Year		
Aldehyde	n/a		

**37.** No Environmental quality measurements were carried out during the reporting period and therefore nothing is reported here.

# 4.2 Trends

N/A

- 4.3 Summary of Monitoring outcomes N/A
  - 4.4 Material resources Utilization
  - 4.4.1 Current Period

N/A

4.4.2 Cumulative Resources Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

N/A

# 4.5.2 Cumulative Waste Generation

N/A

# 4.6 Health and Safety

4.6.1 Community Health and Safety

N/A

# 4.6.2 Worker Safety and Health

N/A

# 4.7 Training

# V. FUNCTIONING OF THE SEMP

## 5.1 SEMP Review

- **38.** SSEMP for Zugdidi WWTP under Reg-03/a sub-project was prepared by Contractor, endorsed by SC and approved by UWSCG in 13 March 2018. SSEMP was reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 Ms. Keti Dgebuadze.
- 39. SSEMP for ZUG-02 sub-project was updated in January 2020 due to the changes to the project design defined under the Variation Order #5: construction of two new sewage pumping stations, construction steel bridge structure across the river Chkhoushia for 200 mm diameter steel casing pipe and construction of 500 mm pipe including steel casing for the western collector river crossing and reinstatement asphalt works, demolition and removal of existing manholes, connection of new pipelines to existing sewer manholes and replacing non-functional manhole covers on old lines. SSEMP was prepared by Contractor, endorsed by SC, approved by UWSCG and reviewed/commented by the RETA Regional Environmental Consultant of ADB under RETA 8663 Ms. Keti Dgebuadze.
  - VI. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT
  - 6.1 Good Practice

N/A

6.2 **Opportunities for Improvement** 

# VII. SUMMARY AND RECOMMENDATIONS

#### 7.1 Summary

- **40.** During the reported period no construction activities were implemented under ZUG-02 and REG-03/a sub-projects, since all construction activities under these sub-projects have been already completed.
- **41.** Construction work under the REG-03b subproject has not started as yet, as the design project of the WWTP in Mestia was not completed during the reporting period.

#### 7.2 Recommendations

- **42.** Post Construction Audit will be carried out under REG-03a sub-projects and audit report will be submitted to UWSCG and ADB during the next reporting period, July-December 2021.
- **43.** The main findings and recommendations of this report will be reflected in the next SAEMR, July-December 2021.
- **44.** Post construction Audit will be carried out under ZUG-02 sub-project and audit report will be submitted to UWSCG and ADB during the next reporting period, July-December 2021.
- **45.** The main findings and recommendations of this report will be reflected in the next SAEMR, July-December 2021.
- 46. SEMP will be prepared under REG-03b sub-project before starting the excavation works, after finalization of design project. SEMP will be prepared by contractor, endorsed by SC and approved by UWSCG/PIU after review/comment by the RETA International Environmental Consultant of ADB Ms. Keti Dgebuadze. All issues related to the COVID-19 infection will be reflected in this SEMP.
- **47.** Baseline monitoring of Ambient Noise and Air quality will be conducted under REG-03b subproject at the nearest sensitive receptors before starting excavation works. More detailed information is provided in the Table 5 below.

Parameters	Quarterly measurement
Dust	August 2021
PM <sub>2.5</sub>	August 2021
PM <sub>10</sub>	August 2021
Vibration	August 2021
Carbon monoxide	August 2021
Nitrogen dioxide	August 2021
Noise	August 2021

#### Table 5: Conduct Monitoring of Environmental Quality under REG-03b sub-project

# **ANNEXES**

# ANNEX A: AMERGENCY RESPONSE PLAN

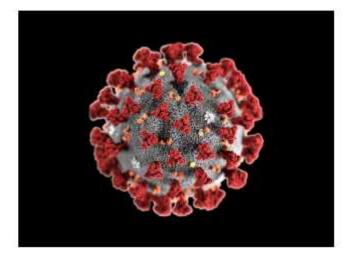




Construction Supervision of Projects under Urban Services Improvement Investment Program (USIIP), Tranche 5

Zugdidi (ZUG02 and REG03a), Mestia (MES-03-2019)

#### COVID-19 Emergency Management Plan for Construction Sites



Project No.: 43405-027 Contract No.: UWSCG/USIIP/QC85/03-2016







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#### 1. Introduction

#### 1.1 project description

- The Consultant "Posch and Partners", Austria, in cooperation with "Hydro Ingenieure Consulting and Engineerins" of Georgia, as Sub-Consultant, also "Wardrop & Alexander" of Georgia, as Sub-Consultant, are assuring supervision of the following Works contracts:
  - The Construction of the Sewage System in Zugdidi (ZUG-02);
  - The Civil, Mechanical and Electrical Works for STP Construction in Zugdidi (REG-03a);
  - The Civil, Mechanical and Electrical Works for STP Construction in Mestia (MES-03-2019);
- The overall aim of the project is to improve the health condition of residents by addressing the problems
  associated with poor sewerage services in the towns Zugdidi, Mestia. The objective of the project is to
  solve the most urgent public health problems through the installation of new sewerage networks and
  waste water treatment plants.
- 3. The civil works contracts award sequence is as follow:

#	Contract	Contractor	Start date	Completion date
1	Zug_02	Ludwig Pfeiffer Hoch-und-Tiefbau GMBH&Co.KG	01.02.2017	02.08.2020
2	Reg -03a	JV Ludwig Pfeiffer - Emit	15.01.2018	14.05.2020
3	Mes – 03 - 2019	JV of Toshiba Water Solutions Pvt. LTD; IN-SI LLC	12.12.2019	04.06.2021

- 4. Project Management Organisation
  - Executing Agency (EA) Ministry of Regional Development and Infrastructure (MoRDI)
  - Implementing agency (IA) United Water Supply Company of Georgia (UWSCG);
  - Supervision Consultant "Posch and Partners";

#### 1.2 What is Covid - 19?

 Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, China, and has since spread globally, resulting in an ongoing pandemic. As of 11 May 2020, more than 4.14 million cases have been reported across 187 countries and territories, resulting in more than 284,000 deaths. More than 1.42 million people have recovered;

- Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste. While the majority of cases result in mild symptoms, some progress to acute respiratory distress syndrome (ARDS), multi-organ failure, septic shock, and blood clots. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days;
- 3. The virus is primarily spread between people during close contact, most often via small droplets produced by coughing, sneezing, and talking. The droplets usually fall to the ground or onto surfaces rather than travelling through air over long distances. Less commonly, people may become infected by touching a contaminated surface and then touching their face. It is most contagious during the first three days after the onset of symptoms, although spread may be possible before symptoms appear, or from people who do not show symptoms. The standard method of diagnosis is by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab. Chest CT imaging may also be helpful for diagnosis in individuals where there is a high suspicion of infection based on symptoms and risk factors;
- 4. Recommended measures to prevent infection include frequent hand washing, maintaining physical distance from others (especially from those with symptoms), quarantine, covering coughs, and keeping unwashed hands away from the face. In addition, the use of a face covering is recommended for those who suspect they have the virus and their caregivers.

#### 1.3 Who is at risk for coronavirus?

- The virus that causes COVID-19 infects people of all ages. However, evidence to date suggests that two
  groups of people are at a higher risk of getting severe COVID-19 disease. These are older people (that is
  people over 60 years old); and those with underlying medical conditions (such as cardiovascular disease,
  diabetes, chronic respiratory disease, and cancer). The risk of severe disease gradually increases with
  age starting from around 40 years. It's important that adults in this age range protect themselves and in
  turn protect others that may be more vulnerable;
- WHO has issued advice for these two groups and for community support to ensure that they are protected from COVID-19 without being isolated, stigmatized, left in a position of increased vulnerability or unable to access basic provisions and social care.

#### 2. The purpose of the document

1. The purpose of these document for the Construction sector, is to:

- Provide direction to employers and workers;
- · Outline the steps to be taken to best provide a safe and healthy environment, and
- Identify the action available in the event of interruption to building and construction work, as a
  result of the coronavirus (COVID-19) pandemic.
- The Document is intended to have application across all sectors of the building and construction sector. Construction sites are diverse and vary in complexity. To allow for flexible interpretation of these guidance, it is recommended that employers apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site;
- This Document have been developed to maintain the safe operation of construction sites, ensuring the safety of workers;
- Following of these recommendations these is necessary to minimize and avoid the closure of any construction site;
- The recommendations apply to all personnel attending on a building and construction site or project, whether management, staff, employees, contractors or service providers.

#### 3. Risk controll on the construction site

To assist with providing and maintaining safe operations during coronavirus (COVID-19) the below measures should be implemented to assist in providing a safe and healthy environment at work.

- Screening workers coming to site
- Workplace Mapping
- Physical Distancing
- Hygiene
- Shared Tools, Plant and Equipment
- Cleaning and Disinfecting
- Personal Protective Equipment
- Inspections
- Travel
- General Communications
- Other measures
- Vulnerable workers

#### 4. The main requirements for workers and for contracors

- Workers should not come to site if they display symptoms of coronavirus, which include a high temperature and a persistent cough. They should then self-isolate for two weeks. Onsite work should not take place at all if it is non-essential work that requires close contact or skin-to-skin contact between workers;
- A staggered schedule in all areas of operation is a key measure that sites should take so that workers
  minimise any contact with each other on site. This applies to arriving and leaving the site, as well as
  for changing rooms and lunch breaks. Face-to-face meetings should only include "absolutely
  essential" participants, who should remain two metres apart at all times;
- All areas of sites should be cleaned much more regularly such surfaces in communal areas before and after they are used. Reusable PPE should be thoroughly cleaned after use and not shared between workers, while single-use PPE should be disposed of after use.

#### 5. Screening procedure

- To minimize the risk of transmission of coronavirus (COVID-19) on site, employers must implement a screening process;
- Temperature is measured for all staff on site three times a day, records are kept and submitted to UWSCG daily;
- Initial declaration is to be conducted by all workers (this includes any person who attends site), including current and new-starters. Each worker must provide a declaration that they to the best of their knowledge:
  - have not been diagnosed with coronavirus (COVID-19) in the last 14 days, or
  - are not in a period of 14-day quarantine as directed by a health professional, or
  - have not been overseas in the last 14 days, or
  - have not been in contact with anyone who has coronavirus (COVID-19), or
  - have not been in contact with anyone who is currently being tested for coronavirus (COVID19), or
  - do not have anyone in their household who has symptoms consistent with COVID-19.
- If a worker is experiencing symptoms consistent with COVID-19 or had close contact with a confirmed case, they must:
  - not attend work;
  - contact their employer for further advice and;
  - Not return to work until they have been cleared by a medical practitioner

#### 6. Workplace mapping

- In the event of an employee being confirmed as having COVID-19, those who are potentially affected need to be quickly identified;
- Employers should implement processes to record the schedule and work locations for workers that enables tracing of those who have come into contact with the confirmed case;
- 3. The record should include:
  - · day and time work was undertaken
  - · members of teams that worked together
  - specific work area on the construction site
  - · any breaks taken, including time and location
- 4. Movement between sites, or areas within large sites, should be minimized as much as possible;
- Where attending multiple sites is necessary (e.g. for HSRs, first aiders, emergency wardens) movement between sites should be recorded in the workplace mapping.

#### 7. Physical Distancing

- 1. Physical distancing of at least 1.5-2 meters should be implemented wherever possible;
- Employers should consider each work task and whether there is a safe alternative way to undertake the work with an increased distance between workers;
- 3. Mark safe distances in work, transit and break areas (e.g. on floors and walls);
- 4. Consider different shift patterns to minimize the number of workers onsite (e.g. AM/PM shifts);
- Stagger start times, breaks and finish times to avoid congestion in high traffic areas and minimize workers coming into contact with each other as they move around the site;
- Plan for how physical distancing will be maintained during inclement weather (e.g. use of lunch or crib rooms and amenities);
- 7. Install temporary physical barriers (e.g. fences, screens) between work areas, where appropriate;
- Where it is not possible to undertake work tasks and maintain physical distancing, other control measures need to be implemented. For example: Minimize the number of worker to worker interactions that need to be completed within 1.5 meters;
- Minimize the number of workers involved in activities that need to occur within 1.5 meters of each other;
- 10. Provide personal protective equipment (PPE) (e.g. gloves, masks, glasses);
- 11. Where essential work activities need to be undertaken in restricted spaces.



#### 8. Hygiene

- Good hygiene practices and general cleaning helps with minimizing the spread of coronavirus (COVID-19). Employers should review general hygiene requirements and the cleaning regimes in place;
- Employers should display health information in prominent locations on the construction site such as tea rooms, site offices, toilets, foyers and site entrances;
- Every effort must be made by employers to upgrade personal hygiene and minimize worker to worker contact and all workers must co-operate in all necessary measures to achieve these objectives. These measures need to include:
  - Promote regular hand washing with soap for at least 20 seconds. Employers must facilitate regular hand washing by providing ease of access/additional facilities where possible. Communicate to all workers where hand sanitizers are located and encourage their regular use;
  - Promote good cough etiquette by covering your cough and sneeze, or cough into your elbow or shoulder;
  - Avoid touching your nose, eyes or mouth;

- Provide hand sanitizer and/or hand washing facilities with soap in all site entrances and exits hoists, amenities and areas/levels of the site.
- Employers must ensure that workers have access to appropriate amenities. Employers should review and revise the number and locations of amenities, to reduce movement around the site.
- 5. Amenities need to include:
  - Hand washing facilities (whether permanent or temporary), such as a wash basin, clean running water, soap and paper towels, placed in strategic locations to ensure employees can access them in a timely manner;
  - Access to hand sanitizer;
  - Rubbish bins with touch-free lids (e.g. foot pedal bins);
  - Thorough and regular sanitation;
  - Appropriate waste management systems

#### How do I wash my hands properly?





opposing palms with fingers interlocked

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Palm to palm

Rotational rubbing of right thumb clasped in Jeft palm and vice versa

Jug

Right palm over back of left hand and left palm over back of right hand

Palm to paint, fingues, interfaced

3



Rotational rubbing, backwards, and forwards, with clasped fingers of right hand in left paim and vice versa

#### Rinse and dry your hands thoroughly

#### 9. Cleaning and Disinfecting

- Cleaning and disinfecting of surfaces is to be conducted using cleaning products as per DHHS Cleaning and Disinfection guidelines to reduce coronavirus (COVID-19) Transmission – the specific guidance is available here:
  - Cleaning and disinfection of amenities and meal areas must occur between work group breaks;
  - Cleaning and disinfection of Personnel Hoists should occur at the end of each hoist operator shift;
  - Implement regular cleaning and disinfection (minimum of twice daily) to 'Frequently Touched Surfaces', surfaces such as toilets, door handles, stair handrails, light switches, table tops;
  - Additional cleaning/disinfecting on-site. There must be an increased frequency of industrial grade cleaning/additional cleaning/disinfecting on sites across all areas including particular emphasis on commonly touched/communal surfaces;

#### 10. Personal Protective Equipment (PPE)

- Employers must provide information, instruction and training on the safe use, decontamination and maintenance of any PPE provided;
- Any PPE provided needs to be practical for the work environment (e.g. allowing the necessary visibility and mobility) and properly decontaminated or disposed of at the end of every shift;
- Employers should monitor and encourage correct use of PPE, for example providing information on posters and digital screens about:
  - Washing or sanitizing hands before putting PPE on, and putting face protection on before gloves;
  - Removing gloves before face protection, washing or sanitizing hands after removing PPE and decontaminating or disposing of used PPE safely.

#### 11. Common areas

 Common areas on sites such as the amenities pose risks, and these are reduced by ensuring the following measures are adopted;

- The time spent in those areas must be limited so as not to breach time constraints recommended by DHHS;
- Staggering of meal breaks and separation of work groups to achieve maximum personal space and reduce the number of workers accessing those areas at any one time consistent with the Government requirements;
- 4. Sanitization must occur between occupation of amenities by different work groups;
- 5. Spread out furniture to ensure physical distancing measures in common areas;
- There must be an increased frequency of industrial grade cleaning/additional cleaning with specific emphasis on cleaning after each meal breaks in those areas;
- 7. Workers electing to minimize amenity access;
- Staggered working hours must be considered on sites with appropriate consultation (consideration must be given to Construction Management Plans, and workers must be given adequate notice of a change in hours).

#### 12. Inspections

 During inspections of the sites everyone should ensure all measures are in place to ensure compliance. Employers and Health and Safety Representatives are encouraged to work together to assist in this important objective.

#### 13. Travel

- Adequate arrangements are to be made by workers to ensure their travel to and from work is conducted safely in accordance with Government advice, and that adequate sanitization facilities are in place for workers upon attending the work site and when returning to the work site during work;
- Workers should ensure that for transport to and from work that they adhere to the hygiene and cleaning guidance, and the physical distancing;
- Work vehicles that are shared should be regularly cleaned to ensure adequate hygiene and protection.

#### 14. General Communication

 Ensuring everyone is informed is fundamental to managing this pandemic and ensuring the safe operations of construction sites; ANNEX B: GENERAL GUIDELINES RELATED TO INFECTION (COVID-19) CAUSED BY NOVEL CORONAVIRUS (SARS-CoV-2) FOR CONSTRUCTION SECTOR



Labour Conditions Inspection Department Create Together Safe Working Environmenti

Annex Nº2

# General Guidance Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) for Construction Sector

Note: In accordance with Order N281/N of the Minster of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia on "the rule for Examination for Short-term Employment Disability and Issuance of Doctors Note", the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia will issue an equivalent document to the doctors excuse note (Medical Certificate) to persons quarantined in order to prevent the spread of coronavirus. The document will serve as the basis to receive monthly payment and therefore, the working days spend in quarantine or in self-isolation will be legitimate and fully paid to the employees. In order to get the certificate, an interested person has to apply to the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia at -

For further information, please contact: 🔍 15 05 📞 116 001



The job of builders involves constantly changing work places and work activity existing in open-air conditions. For this reason, in terms of virus spread, construction falls within the medium risk sector because its specificity covers ratural ventilation. Nevertheless, it is important to consider the following preventive measures at construction work.



#### The staff must not appear in the workplace if they :

- Left the affected country over the past 14 days;
- Were in close contact with infected person/persons for the past 14 days (they must be selfisolated/quarantinec as per the rule);
- Have symptoms of respiratory infection (coughing, temperature sneezing, difficulty in breathing, general weakness etc.);
- Are among the ones who have high risk of getting infected with COVID-19 or serious complications: over 70 years of age people suffering from chronicle diseases (cardio-vascular diseases, diabetes, bronchial asthma and other respiratory diseases.

#### Employer's responsibilities

- Whether or not the incidence of infection is detected, employer should develop an emergency action plan to support reduction of working days missed due to illness, and in case of detection – prevention of spread;
- Provide employees with information about safe working procedures and about prevention of virus spread (guide with the recommendations defined by LEPL L. Sakvarelidze National Center for Disease Control and Public Health of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia);
- Inside the working space post announcements about COVID-19 and about the preventive measures that have been identified by LEPL L. Sakvarelidze National Center for Disease Control and Public Health;
- In relation to the employees who can perform job remotely (administrative personnel) ensure as much as possible use of such working mode;
- At the entrances of break room/dining room, place disinfecting rugs with relevant mandatory sign marking;
- Provide hand-washing facility with scap and other disinfectants. If hand-washing facility is not feasible, at least 70% alcohol based hand cleansing liquid should be used:
- Visibly place the hand sanitizers and post the rules of their proper use;
- Make sure that employees have access to hand sanitizers and are aware of their use with proper rules;
- Provide all employees and contractors, personnel responsible for cleaning with information about relevant preventive measures to avoid spread of coronavirus in the working environment;
- Train the employees in proper use and further storage/removal of personal protective equipment and disinfectants;



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- Depending on their work specificity, provide the employees with necessary personal protective equipment (protective clothing, protective shoes, helmet, gloves, respirator) and establish control on their use;
- Periodically, several times a day ensure natural ventilation of closed spaces/facilities;
- At certain periodicities disinfect frequently used working equipment and working places;
- Maintain ergonomics at construction site. Ensure timely cleaning of working space and timely disposal of construction waste.
- For employees and visitors ensure closed containers for used disposable tissues and other used hygienic waste in the working space.

#### Employees' responsibilities

Ensuring proper hand hygiene regularly and thoroughly is the best way to be protected from most of the viruses. Therefore, it is necessary to take the following measures in the workplace:

- Follow hygiene rules in your workplace;
- Carry out the working process in accordance with emergency situations action plan defined by employer/occupational safety manager;
- When greeting do not shake hands and avoid contact with others (touching etc.);
- Avoid gatherings, it is recommended not more than 10 people in one working platform by keeping a safe distance (at least 2 m);
- While performing your work, fully use personal protective equipment provided by the employers;
- Treat with disinfectants the working places and tools used in the course of the work;
- Before and after taking meals, before and after using the restrooms thoroughly wash your hands with soap and water. After washing dry your hands well;
- If you can not wash and dry your hands, use alcohol-based hand sanitizers;
- Keep safe distance (at least 2 m);
- While coughing or sneezing, cover the face with a clean tissue or elbow and place used dispensable tissue in the waste bin:
- > Avoid touching your eyes, nose and mouth with your hands.





- These recommendations have been developed to be communicated to all employers, workers and stakeholders. Everyone is urged to regularly promote and adhere to this document;
- Site inductions should be updated as required to include information on coronavirus (COVID-19) potential risks and workplace specific controls that have been implemented such as daily screening, health checks and symptoms of coronavirus (COVID-19), staggered start, finish and meal times, good hygiene practices and cleaning regimes and PPE requirements;
- 4. Toolbox talks should be regularly conducted, and workers are to be encouraged to put forward practical ideas for changing work practices to avoid the spread of coronavirus (COVID-19). Toolbox talks should also provide clarity to workers on leave arrangements for those that cannot work, and to encourage self-reporting and minimize the spread of risk;
- Toolbox talks should also include updates from the responsible Health Officer as they occur and additional information on the severity of the pandemic and the importance of physical distancing at toolbox meetings.

#### 15. Other measures

- Construction sites are diverse and vary in complexity, employers must apply a riskbased approach and implement reasonably practical controls based on the environment and specific hazards at each construction site. In addition to the aforementioned measures and controls mentioned in this section, employers should consider other measures for implementation such as:
  - Using alternatives to face to face meetings where practicable;
  - Reducing the length and size of meetings, especially for critical employees, by requiring some or all to dial in;
  - consider off-site fabrication;
  - ensuring working from home arrangements are enabled where feasible;
  - Structuring management teams to ensure contingency in the event of team members needing to be isolated or quarantined at home.

#### 16. Vulnerable workers

 Has been identified the following groups of people as vulnerable workers in relation to coronavirus (COVID-19):

- people over the age of 70;
- people with chronic diseases (cardiovascular disease, diabetes, bronchial asthma and other respiratory diseases)
- 2. Where practical, reasonable action should be taken to minimize vulnerable workers

from conducting higher risk roles.

#### 17. Summary of recommendations and responsibility

#	Activity	Responsible for implementation
1.	To provide employees with the information about the work safety procedures and prevention of virus spread (guided by the recommendations of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia and LEPL L. Sakvarelidze National Center for Disease Control and Public Health)	Employer
2.	To place ads in the workspace about the COVID-19 and its preventive measures defined by the LEPL I. Sakvarelidze National Center for Disease Control and Public Health	Employer
3.	To ensure maximum use of remote work in relation to those employees who can perform work remotely (administrative personnel)	Employer
4.	To put mattings at the entrance of the lounge room / dining room, with the relevant sign of indication	Employer
5.	To ensure hand washing at the workspace with appropriate soap and other hygiene products. In case of inability to wash hands, to provide with at least 70% alcohol-based hand cleaning liquids	Employer
6.	To place hand sanitizers and the instruction for their proper use in a prominent place	Employer
7.	To ensure that employees have access to hand sanitizers and know how to use them in accordance with the relevant instructions	Employer
8.	To provide information to all staff and contractors, as well as cleaning staff, on appropriate preventive measures to avoid the spread of coronavirus in the work environment	Employer
9.	To train the employees on the proper use of personal protective equipment and its subsequent storage / disposal	Employer
10,	To provide employees with the necessary personal protective equipment (overalls, special shoes, helmet, gloves, medical mask) based on the specifics of their job and establish control over their use	Employer
11.	Periodically, several times a day ensure natural ventilation of indoor spaces/closets	Employer
12.	Periodically ensure disinfection of workplaces and frequently used equipment	Employer
13.	To keep ergonomics in order at the construction site. To ensure the prompt cleaning of workspace and removal of construction waste	Employer
14,	To ensure placement of closed containers for the disposable napkins and other hygiene waste used by both employees and visitors	Employer
15.	Follow the rules of hygiene at your workplace	Employee

16.	Carry out the work process in accordance with the Emergency Action Plan defined by the employer / work safety manager	Employee
17.	Avoid shaking hands and direct contact with others (touch, etc.) while saluting	Employee
18.	Avoid gathering, the work of more than 10 people on one work platform at a safe distance (less than 2 m) is not recommended	Employee
19.	When performing the work, make full use of the personal protective equipment provided by the employer	Employee
20.	Clean the workplaces and the tools and equipment used during the work process with disinfectants	Employee
21.	Thoroughly wash your hands with soap and water before and after eating, as well as before and the bathroom. Dry your hands thoroughly after washing	Employee
22.	Use alcohol-based hand sanitizers in case if you are unable to wash and dry your hands	Employee
23.	Keep a safe distance (not less than 1.5 m);	Employee
24.	Cover your mouth with clean napkin or elbow when coughing and sneezing and then throw the used disposable napkin in the trash	Employee
25.	Avoid touching your eyes, nose, or mouth with your hands.	Employee

#### 18. Informational banners for COVID -19

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