

Environmental Monitoring Report

Semi-annual Report (July - December 2019)
February 2020

GEO(COL): Urban Services Improvement Investment Program – Tranche 1

Prepared by United Water Supply Company of Georgia LLC for the Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank.

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SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-023

Reporting Period: July-December 2019

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 1) (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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February, 2020

ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPP	Department of Environmental Protection and Permit
DPM	Department of Project Management
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/ SES	Environmental Specialist/ Senior Environmental 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
MEPA	Ministry of Environmental 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 & Sewerage

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I. INTRODUCTION

1.1 Preamble

1. This report represents the Semi-Annual Environmental Monitoring Review (SAEMR) for “Urban Services Improvement Investment Program” (USIIP), Tranche 1 and describes the period of July-December 2019.
2. This report is the 12th Semi-Annual EMR for the T1 of USIIP.

1.2 Headline Information

3. N/A During the reporting period no changes took place to the project design and accordingly nothing has been updated or prepared.

II. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

4. 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.
5. 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. Sewerage improvement works will include construction and/or rehabilitation of sewer network, pumping stations, main collectors and Waste Water Treatment Plants.
6. Tranche 1 of the Investment Program includes:
 - Construction of Mestia Headworks (MES-01)
 - Improvement of Water Supply Infrastructure in Anaklia, Kutaisi and Poti (REG-01)
 - Construction of Mestia Water Treatment Plant and Reservoirs (REG-02)
 - UWSCG Office Building (TBI-01)
 - Construction of the Water Supply Network in Ureki (Ure-01)

Projects financed under Tranche 1:

7. **Mestia Water Supply Headworks (Contract MES-01).** The project comprises of the construction of a Tyrolean Weir as intake structure on Mestia Chala River for the capture of

raw water. The discharge is estimated at minimum 1,000 liters/second in dry seasons. The location has been chosen for its altitude and the possibility to supply the water treatment plant, the adjoining reservoir and from there the largest part of the distribution network, by gravity. Apart from the intake, the scope of work comprises 10.75 km transmission lines to the site of Water Treatment Plant and a reservoir and the connection of this location to the distribution network.

8. The contract MES-01 was signed on October 10, 2011 with Joint Venture of Dagi LTD – Georgia and Enguri 2006 LTD – Georgia (which changed its corporate name to Enguri - New Construction LTD on 11 April 2013), the contract was completed on October 31, 2013. Post Construction Audit Report was prepared by UWSCG and approved by ADB.
9. **Kutaisi, Poti & Anaklia water supply infrastructures (contract Reg-01).** The scope of works includes improvement of water supply infrastructure in Anaklia, Kutaisi and Poti, in particular, reservoirs and pumping stations, transmission lines and distribution lines of water supply systems as well as a water treatment plant in Poti. The project envisages installation of water pipelines on 96 km. Concrete water reservoirs will be built on 5 places with total capacity of 35,000m³. The project also covers construction of 4 pumping stations (with total capacity of 4,516 m³/h) as well as construction of water treatment facility.
10. United Water Supply Company of Georgia signed a contract (#UWSCG/ICB/CW-2013-REG-01) with Spanish Cobra Instalaciones y Servicios for implementation of Reg-01 project. The Contract was made effective on September 19, 2013.
11. Construction work was completed on May 16, 2016. Post Construction Environmental Audit was conducted in January 2017 by independent consultant and relevant report was submitted to ADB.
12. **Construction of Office Building of UWSCG in Tbilisi (TBI-01).** A detailed project for the construction of a new UWSCG head office was prepared and funded by the Government of Georgia. The contract (# CW/ICB / Office-01) for the construction of the above-mentioned head office was signed between the United Water Company of Georgia and the Georgian construction company DAGI Ltd on December 1, 2015. Date of commencement of civil works is December 29, 2015. The initial completion date for the above contract was 21.06.2017 and further extended until September 2020.
13. **MESTIA Water Supply Facilities (Contract REG-02).** The scope of works includes: a new water treatment plant (WTP); the rehabilitation of Tsrniaschi spring catchment; a new reservoir at Lanchvali (1,000 m³); a new reservoir at Shgedi (1,000 m³); transmission pipes of approximately 9,200 meters.
14. The Contractor had to design and build a Water Treatment Plant with a treated water standard that complies with the European standard for the drinking water quality and is defined in the Council Directive 98/83/EC. The WTP has a design capacity of 80 l/s to serve the projected population in 2040. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and Protecno Srl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014. Contract completion date was May 2019. No Post-construction Audit report conducted as yet under REG-02 sub-project.
15. **Construction of Water Supply and Wastewater Network in Ureki/Phase I (URE-01).** The project is simultaneously financed from Tranches I, II and III and therefore might be some overlap of T1-T3 Semi-Annual EMRs. The planned works under Tranche I included construction of Res-01 and Res-02 (2 x 3,000 m³ and 1 x 1,200 m³) and one water supply pumping station (78m³/h and 676 m³/h).
16. The Contract is signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Initial Completion date was scheduled on November 22, 2018 but due to changes in the design of

project, which include the construction of an Aqueduct across the Natanebi River, the construction of Gabion wall to protect well fields from flooding and erosion, and the construction of an additional deep well No. 8 along the banks of the Natanebi River, completion date was extended to September 2019. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040. Post Construction Audit will be conducted by independent consultant during the next reporting period and Post-construction Audit Report will be prepared and submitted to ADB.

2.2 Project Contracts and Management

- 17.** The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.
- 18.** Ministry of Environmental Protection and Agriculture of Georgia (MEPA). MEPA has the overall responsibility for protection of environment in Georgia. The Department of Permits of MEPA is responsible for reviewing EIAs and for issuance of the Environmental Permits. MEPA is the main state body pursuing state policy in the sphere of environment. Their functions for regulating economic or development activities with regard to environmental protection include:
 - Issuing permits for project development (Environmental Decision)
 - Setting emission limits and issuing surface water intake and discharge consents
 - Responding to incidents and complaint
- 19.** United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. Since September 2018, the Investment Program Management Office (IPMO) under UWSCG is Project Management Department, the Head of Department is Mr. Giorgi Archaia. Environmental issues are followed by the Department of Environmental Protection and Permits (DEPP) of UWSCG. The head of the department is Ms. Maka Goderdzishvili. Ms. Ketevan Chomakhidze is the Environmental Specialist of USIIP under the Department of Environmental Protection and Permits of UWSCG.
- 20.** UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) – Eptisa under T1. The national and international team of consultants assists UWSCG in the supervision of the construction of subprojects under the USIIP. The SC also provides capacity building training to contractor staff in the management and operation and maintenance of the subprojects. The SC assists UWSCG in ensuring that the subprojects are implemented according to the specified standards. SC assignment also includes the supervising of the implementation of the environmental management plans.
- 21.** All mitigation measures during construction are implemented respectively by the contractor company: Dagi. All construction works under URE-01, MES-01, REG-01 and REG-02 projects are completed. Contractor Company DAGI has Environmental and Health and Safety officer responsible for EH&S issues during construction process. Construction companies are monitored by the environmental specialist of supervision consultant (Eptisa), Irakli Legashvili and Environmental Specialist of UWSCG/USIIP Ms. Ketevan Chomakhidze. Environmental Specialists of SC and UWSCG/USIIP conduct routine observations and surveys of project sites, issues non-compliance notes. ES of Eptisa prepares quarterly environmental reports and submits to UWSCG.

- 22.** The Contractor, prior to the onset of the construction, is obliged to conduct a number of studies and develop environmental plans, including “Site Environment Management Plan” (SEMP). Such plans can be further subdivided into Topic Specific or Site Specific EMP’s. The number of such plans will depend upon the type of project, complexity and sensitivity of the receiving environment.
- 23.** Topic Specific EMPs are developed on a topic by topic basis. For example:
- Waste Management Plans;
 - Traffic Management Plans;
 - Protected Species Management Plans;
 - Water Management Plans.
- 24.** These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented. A topic specific environmental management plan will cover all of the project.
- 25.** The environmental specialist of UWSCG/USIIP, Ms. Ketevan Chomakhidze assists and advise the Department of Environmental Protection and Permits of UWSCG for implementation of USIIP in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of CCs and SCs in safeguards compliance. She supports DEPP in implementation of Environmental Assessment and Review Framework (EARF), in particular, reviewing IEE/EIA Reports, overseeing implementation of EMPs, Reviewing and approving SEMP’s and carrying out training and capacity-building activities in cooperation with Supervision Company “EPTISA”. The ES prepares Semi-annual and annual environmental monitoring reports and submits to ADB.
- 26.** Department of Environmental Protection and Permits of UWSCG is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPP is staffed with a Head of Department and 5 specialists, those are responsible for environmental safeguard and construction permission issues.
- 27.** ADB is the donor financing the Investment Program. Environmental management organization is shown in Figure 1 and Figure 2.

Figure 1: Structure Diagram of the Environmental Management Unit of UWSCG

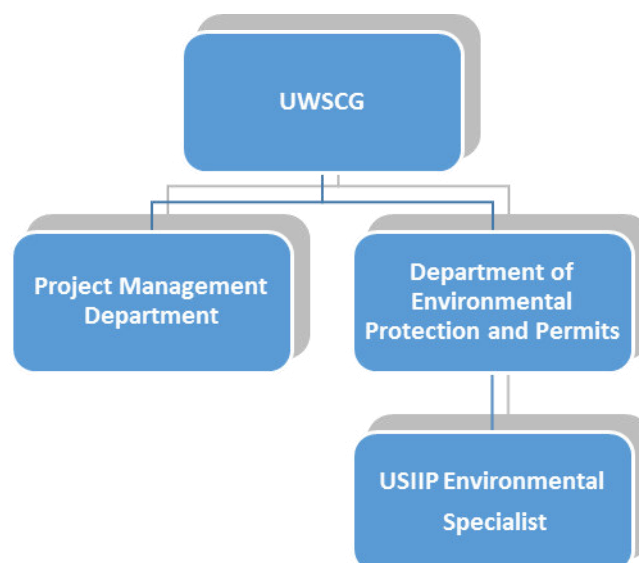
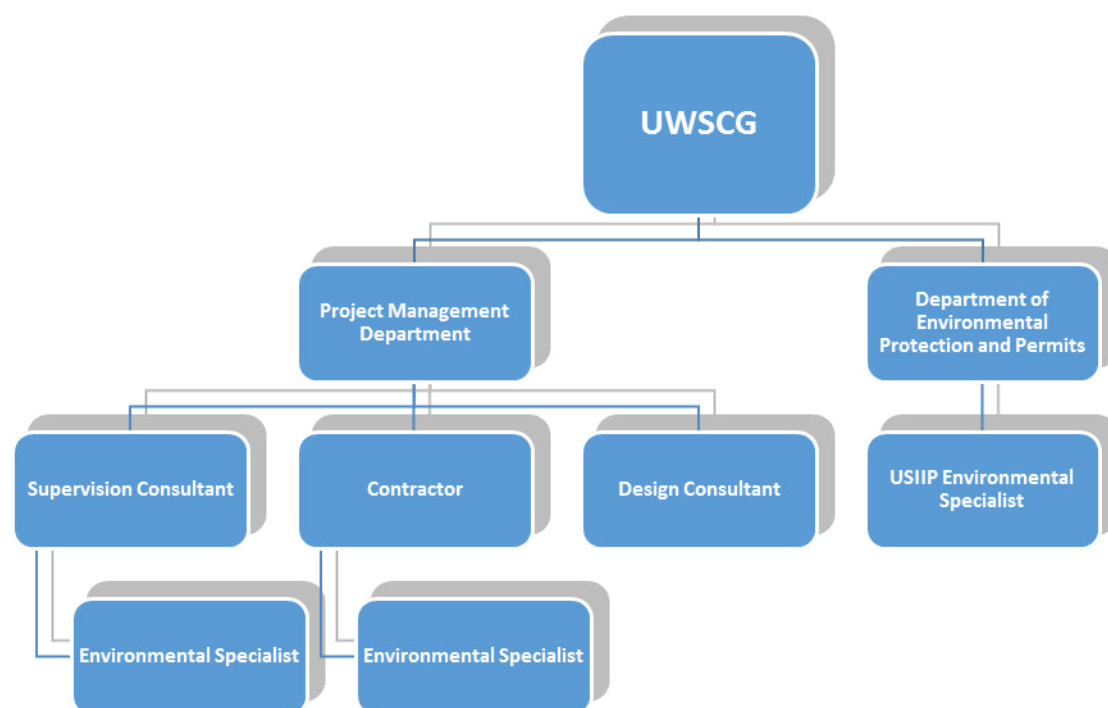


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



28. A list of main organizations involved in the USIIP/T1 and relating to environmental safeguards is presented in Table 1 below.

Table 1: List of Main Organizations under USIIP/T1

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Head Office, Environmental Specialist, Portfolio, Results, Safeguards and Gender Unit (PSG), CWRD.	Nurlan Djenchuraev E-mail: ndjenchuraev@adb.org
		ADB RETA International-Regional Environmental Consultant	Keti Dgebuadze +995 577232937 E-mail: ketdgeb@yahoo.com

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 E-mail: nnadashvili@adb.org
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
Borrower	UWSCG	UWSCG/IPMO Department of Projects Management, Head	Mr. Giorgi Archaia E-mail: G.Archaia@water.gov.ge Tel: +995 577 380213
Borrower	UWSCG/USIIP/T3	Environmental Specialist	Ms. Ketevan Chomakhidze Tel: +995 577 380309 E-mail: Chomakhidzek@yahoo.com
Supervision Consultant	A Consortium of Consulting Firm led by Eptisa Servicios de Ingenieria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)	Environmental Specialist:	Mr. Irakli Legashvili Tel: +995 577 177 016 E-mail: chem_ira@yahoo.com
Contractor TBI-01	Dagi LTD (Georgia)	Environmental H&S Specialist Specialist	Mr. Aleksandre Chumburidze Tel: +995 597 744 164 E-mail: a.tchumburidze@dagi.ge

2.3 Project Activities During Current Reporting Period

29. During the reported period construction activities were implemented only under TBI-01 sub-project, therefore only TBI-01 is reported in this Semi-annual EMR. Contractor DAGI intensified all activities to improve the progress of the works on sites. The Supervision Consultant “EPTISA” gave processed frequent instructions to the Contractor for the planning and outstanding documents preparation which shall ensure steady improvement of the works progress.

2.3.1 Project Activities under TBI-01:

TBI-01:

30. The following construction activities were carried out during the reporting period under TBI-01 sub-project:

- Concrete casting for the 12th floor beams, slab and stairs;
- Reinforcement for the 12th floor walls, columns, pylons and stairs;
- Formworks for 12th floor walls, columns, pylons and stairs;
- Concrete casting for the 12th floor walls, columns, pylons and stairs;
- Formworks for 13th floor slab and beams
- Concrete block laying works on 10th and 11th floors.

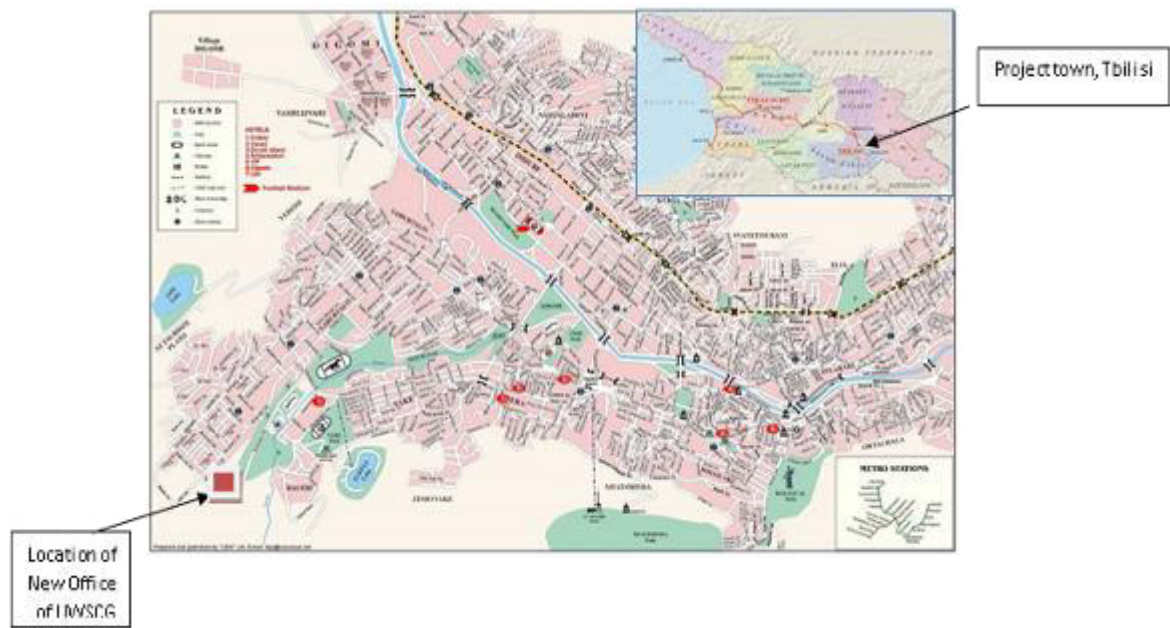
31. The overall progress of the contractor during July-December 2019 for the project TBI-01 is presented in table 2 below:

Table 2: TBI-01, project progress during the July-December 2019

<i>Tbilisi University Street, Construction of New Office Building for United Water Supply Company of Georgia (TBI-01)</i>	
Site TBI-01	Concrete works
Works undertaken during July-December-2019	1161m ³ pouring concrete / 793m ³ pouring concrete for slab/ 368m ³ pouring concrete for wall, columns.
Site TBI-01	Formwork Mounting works
Works undertaken during July-December-2019	5350m ² mounting formwork for elevator shaft wall, concrete columns and slab.
Site TBI-01	Formwork dismantling works
Works undertaken during July-December-2019	4130m ² dismantling formwork.
Site TBI-01	Masonry block works
Works undertaken during July-December-2019	308m ²
Site TBI-01	Reinforcement Works
Works undertaken during July-December-2019	169 ton the used armature.

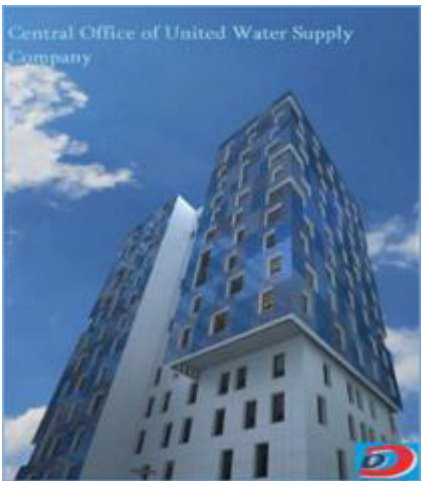
32. Map of Project Town and Location of Tbilisi Head Office is presented in the Fig.3 below:

Fig.3 Location of Head Office and Map of Project Town



33. Image No1 below represents the building of the UWSCG's Head Office in Tbilisi after the completion of the TBI-01 project.

Image 1: Design of Tbilisi head office:



34. During the reporting period, no construction work under the contracts - MES-01, MES-02, REG-01 and URE-01 were conducted.

2.4 Description of Any Changes to Project Design

No changes.

2.5 Description of Any Changes to Agreed Construction methods

N/A

III. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

35. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC, Mr. Irakli Legashvili and Environmental Specialist of USIIP Ms. Ketevan Chomakhidze on a regular basis, during the reporting period. Also unscheduled monitoring visits were carried out and non-compliance notes have been issued to the contractor as needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.
36. The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under TBI-01 sub-project.
37. Environmental Monitoring Specialist hired under the TBI-01 project Mr. Aleksandre Chumburidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Eptisa.
38. Environmental Monitoring Specialist of Eptisa, Mr. Irakli Legashvili conducted monthly monitoring of project sites under T1 and developed Non-Conformance Notices were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG/USIIP.
39. Environmental Specialist of UWSCG/USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMP, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
40. In accordance with the requirements of IEEs, Contractor is required to undertake parametric measurements and observations on air quality and noise and socio-cultural resources. The monitoring guidelines were set as shown in the Table 3 below for TBI-01 sub-project.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
TBI-01		
Air Quality	Air Quality Every 3 months UWSCG/Office Construction Site	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, Every 3 months Mukhnari Reservoir, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8

Parameters	Frequency & Location	Remarks
TBI-01		
		am – 6 pm
Incorrect surplus/waste soil management		Utilize surplus/waste soil for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality

41. There are no protected areas, wetlands, mangroves, or estuaries. Trees, vegetation (mostly shrubs and grasses) in the subproject sites are those commonly found in built-up areas. The geological structure of the area is stable and no potential land subsidence is foreseen.

3.2 Site Audit

42. Regular inspection and monitoring of construction sites under TBI-01 was conducted by Environmental Specialists of USIIP and Eptisa. The schedule of Joint inspection and audit under TBI-01 sub-project is provided in the Table 4 below.

Table 4: The Schedule of Conducted Audits and Monitoring of TBI-01 sub-project during the Reporting Period

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
Continuously during reporting period July – December 2019	DAGI Ltd	Environmental and H&S Specialists of Contractor Mr. Aleksandre Chumburidze	Day-today monitoring of sites	Poor housekeeping H&S issues of workers	Environmental Specialists of CC fill out the checklists and develop monthly monitoring reports and Near Missis reports Please see Annex D (Checklists) and Annex F (Near Missis)
17 July 2019		Environmental and H&S Specialists of Contractor Mr. Aleksandre Chumburidze	Monthly monitoring of construction sites	Site internally should be arranged properly and cleaned regularly	Verbal instructions are given to contractor

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
		Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili			
8 August 2019		Environmental specialists of USIIP Ms.Ketevan Chomakhidze Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili	Monthly monitoring of sites	Construction area and wooden materials should be freed from big nails to avoid personnel damage. Used nails should be collected regularly to avoid workers damage.	Verbal instructions were given to contractor
20 September 2019		Environmental specialists of USIIP Ms.Ketevan Chomakhidze Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili	Monthly monitoring of sites	Safety norms during works at the height should be respected to avoid workers damage Jacks fixator should be properly installed to avoid damage of workers. High risk of workers health damage	Verbal instructions were given to contractor
10 October 2019		Head, Department of Environmental Protection and Permits of UWSCG Maka Goderdzishvili Environmental specialists of USIIP Ms.Ketevan Chomakhidze Environmental monitoring	Monthly monitoring of sites	Daily presence of HSE officer at the construction territory is necessary High visible safety signs/tapes, grids and barriers should be installed at the each floor of the building to avoid incidents of workers falling Trees at the construction area drying at visual observation. Needs proper	Non-Compliance issued (Please see Annex C)

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
		specialists of SC/EPTISA Mr.Irakli Legashvili		<p>investigation. In case trees are dried it should be replaced with new once</p> <p>Safety norms during works at the height should be respected to avoid workers damage</p> <p>Special equipment during working at heights should be used</p> <p>Safety rules during electrical equipment use should be respected</p> <p>Construction waste should be removed timely and proper disposed</p> <p>All workers should be equipped with complete PPE</p> <p>Site internally should be arranged properly and cleaned regularly</p>	
2 December 2019		<p>Environmental specialists of USIIP Ms.Ketevan Chomakhidze</p> <p>Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili</p>	Monthly Monitoring of sites	Site internally should be arranged properly and cleaned regularly	Verbal instructions were given to contractor

3.3 Issues Tracking (Based on Non-Conformance Notices)

43. Several Non-Conformances have been observed during the site visits under TBI-01 sub-projects. The contractor were always informed on the detected non-conformances and were

demanding to improve on the deadline set and send photos of improvements made together with the Corrective Action Plans (Please see ANNEX E). Environmental team of EPTISA and UWSCG/USIIP monitored the improvements during the next monitoring visits. Non-conformance Notice issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.

44. A summary of the identified environmental issues for July-December 2019 is presented in table 5 below.

Table 5: Summary Table TBI-01

Total Number of Issues for Project	9
Issues Opened This Reporting Period	1
Issues Closed This Reporting Period	8
Percentage Closed	89%

3.4 Trends

45. To identify trends in environmental issues information from previous Semi-Annual EMR (January-June 2019) is used. The summary of the issues is provided in the table 6 below.

Table 6: Summary of identified trends in environmental issues, TBI-01

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
January-June 2019	56	87%	13%
July-December 2019	8	89%	11%

46. All major Non-Conformances under USIIP/T1 during the reporting period are provided in an Annex C of this report.

3.5 Unanticipated Environmental Impacts or Risks

N/A

IV. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

47. Noise standards and air pollution guidelines defined by IFC/WHO 1999, are presented in the Table 7 and 8 below.

Table 7: Noise Level Guidelines

Noise	dBA		dBA	
	National Regulations		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

48. Air pollution standards by IFC/WHO 1999, are presented in the Table 8 below.

Table 8: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit mg/m ³))
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 ₂)	0,2/ 1 Hour 0,04/1 Year
Aldehyde	n/a

49. Monitoring measurements under TBI-01 project were conducted by the National Environmental Agency under the Ministry of Environmental Protection and Agriculture in the nearest sensitive receptors to construction sites in 30 September 2019 (See Table 9 and Annex A). Location and data are included in the Table below. The next monitoring measurements will be conducted in March 2020 and results will be reflected in the next January-June EMR 2020.

50. According to data received in 30 September 2019 under TBI-01 project, ambient air quality and noise level do not exceed the standards required by National Regulations and World Health Organization (IFC/WHO),1999, and therefore no additional mitigation measures are required. IFC/WHO standards for Noise and Air pollution are presented in Table 7 and 8 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 13:45pm to 14:30pm and no complaints were received from the local population about the noise during the reporting period.

Table 9: Monitoring Measurements under TBI-01 Project

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	Noise dBA (1-hour)
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
30 September 2019							
1	University Street N 41°43'05.9" EO 44°43'05.9"		0.038	0.71	0.002	<0.1	53.7

4.2 Trends

51. Environmental Quality standards of ambient noise and air pollution is within the national and international regulations and no further deterioration is expected.

4.3 Summary of Monitoring outcomes

52. According to data received during the reporting period noise level and ambient air quality do not exceed the standards required by National Regulations and World Health Organization (IFC/WHO),1999, therefore no additional mitigation measures are needed.

4.4 Material resources Utilization

4.4.1 Current Period

TBI-01 sub-project

53. The table 10 below provides utilization of water and electricity during the reporting period under TBI-01 project only.

Table 10: Material Resources Utilization under TBI-01 project

Water and Electricity meters indication use on the UWSCG's Head Office Construction Site Tbilisi University Street No 006/003 July-December 2019	
Water M ³ Indication	235 M ³
Electricity KV Indication	5620 KW

4.4.2 Cumulative Resources Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

TBI-01 sub-project

54. The contract was signed between LLC Dagi and the LTD Tbilservice Group for waste disposal (Agreement № 2/18-1167). Amount of Waste and Disposal Schedule is provided in the table 11 below: An Acceptance-Delivery Act signed by CC and sub-contractor is available at construction site.

Table 11: Waste Disposal Schedule

Table for Waste July-December-2019							
Site NOBUWSCG Tbilisi University Street № 006/003							
<i>Waste Code</i>	<i>Waste Name</i>	<i>Household Yes/No</i>	<i>Quantity Piece / kg / T/ M³</i>	<i>Hazardous Yes/No</i>	<i>Hazardous Specification</i>	<i>Recovery operations</i>	<i>Basel Convention Code (Y)</i>
20 01 07	Wood Waste	No	18/ M³	No		R1	
20 01 01	Cardboard	No	10KG	No		D1	

4.5.2 Cumulative Waste Generation

N/A.

4.6 Health and Safety

4.6.1 Community Health and Safety

55. During the reporting period no incidents have occurred under TBI-01 sub-projects which will result or could have resulted in Community Health and Safety issues.

4.6.2 Workers Health and Safety

TBI-01 project

56. DAGI LTD's HSE Manager is performing every day monitoring, induction and supervision of ongoing works according to HSE standards and by requirements of ADB/UWSCG/EPTISA and providing relevant reports on a regular basis taking into account any recommendations given by ADB/UWSCG/EPTISA engineers.

57. Health & safety and environment issues which were covered during the reporting period are as follows:

- PPE;
- Housekeeping;
- Reinforcement;
- Protected all trees nearby construction to avoid its damage;
- Ground works;
- Manual works;
- Removal waste;
- Induction all visitors
- Toolbox Talk
- Dust and Noise Measurements
- Upgrade Safety Hard and Warning Barricade

58. Summary of the workers H&S Statistics including new misses for the reporting period (July-December 2019) are presented in table 12 below:

Table 12: Summary of Workers Health and Safety

SHE Statistic	July	August	September	October	November	December	Total
Number of Personnel	15	16	15	14	15	15	90
Working Hours Performed	3555	3264	3136	3136	3136	3100	19327
First Aid Injuries	0	0	0	0	0	0	0
Near Misses	4	5	3	4	7	3	26
Serious Dangerous Occurrence /Significant Near Miss	0	0	0	0	0	0	0
Complaints	0	0	0	0	0	0	0
Stop working	0	0	0	0	0	0	0
Lost of working days	0	0	0	0	0	0	0
Restricted workday	0	0	0	0	0	0	0

Incident and Accident Summary

59. H&S specialist of contractor Mr. Aleksandre Chumburidze keeps a register of incidents/Accidents/Near Misses. The summary of Incidents and Accidents during the reporting period is provided in the table 13 below:





Table 13: Incident and Accident Summary






ITEM	Current Month
Fatality	0
Accident	0
Property Damage	0



ITEM	Current Month
Type	Current h
First aid	0
Near Miss	26

60. Summaries findings of monitoring of Near Misses during the reporting period – July-December 2019 is presented in the table 14 below.

Table 14: Main findings of Near Miss undertaken in the reporting period.

Near Miss Description of Near Miss (Include Details of Operations & activities)	D.M.Y.	Corrective/Preventive, Action Taken or Recommendation
<p>Danger open hole on the roof</p> 	07.09.19.	<p>Close all open hole, with solid materials and set the warning signs e.g.(Don't step).</p> 
<p>Worker not used fall arrest system (safety belt). Not installed safety hard barricade, High risk of workers health damage</p> 	09.10.19.	<p>Stop work. All person must use fall arrest or (safety belt) arrest who works at the Height (need to be fined, so as not to be repeated again) timely installed safety hard barricade.</p> 

Near Miss Description of Near Miss (Include Details of Operations & activities)	D.M.Y.	Corrective/Preventive, Action Taken or Recommendation
		
<p>On the wooden material there are nails, which can damage the all personals on the site. Construction rubbish, all site need housekeeping and removal waste.</p> 	15.11.19.	<p>Must be cleaned all wood materials or sealed separately storage. Need housekeeping. All rubbish must be removed, housekeeping all site and timely discharge waste.</p> 
<p>Saw tool is dangerous, working personal damage. All site need housekeeping and removal waste.</p> 	27.11.19.	<p>Use a safe protected saw tool</p>  <p>Must be cleaned Green zone, timely discharge waste</p>

Near Miss Description of Near Miss (Include Details of Operations & activities)	D.M.Y.	Corrective/Preventive, Action Taken or Recommendation
<p>Concrete stationary pump, the hose not quality is a dangerous, when concrete casting, to be Damage to workers</p> 	<p>15.11.19.</p>	<p>Concrete stationary pump hose must be replaced before work begins Techniques should be checked.</p> 

4.7 Training

61. TBI-01: The EH&S specialist of contractor DAGI, Mr. Alexander Chumburidze, conducted regular trainings for workers on Health and Safety Issues, as part of ongoing efforts to improve health and safety and reduce the number of accidental injuries occurring during the construction, DAGI has developed Near Misses reports in accordance with the ADB requirements. This form has been developed to be simple and easy to fill out so that workers and supervisors can quickly complete and submit them in a time-effective manner.

V. FUNCTIONING OF THE SEMP

5.1 SEMP Review

62. No SEMP has been prepared under USIIP/T1 during the reporting period.

63. The following SSEMPs were prepared by contractor, endorsed by SC/EPTISA and approved by UWSCG/USIIP within the framework of Ure-01, Reg-02 and Office-01 projects during the previous reporting periods:

URE-01:

- SSEMPs for Ureki Well Fields (May 2016)
- Reservoir#1 (November 2016)
- Water Supply Pumping Station (November 2016)
- Reservoir #2 (Laituri Reservoir) (August 2018);

REG-02/Mestia Water Supply Component

- Zargashi Reservoir
- Lanchvali Reservoirs
- Water Treatment Plant in Zargashi

TBI-01:

- Construction of Tbilisi Head Office

64. All above mentioned SEMP's were prepared by Contractor before commencement of construction activities and reviewed/commented by the RETA International-Regional Environmental Consultant of ADB under RETA 8663 - Ms. Ketil Dgebuadze.

65. It should be mentioned that SEMP prepared under TBI-01 for construction of UWSCG head office sub-projects is effective.

VI. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

N/A

6.2 Opportunities for Improvement

N/A

VII. SUMMARY AND RECOMMENDATIONS

7.1 Summary

66. During the reported period construction activities were implemented only under TBI-01 sub-project. Contractors have intensified all activities to improve the progress of the works on sites. Individual and Joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC/EPTISA and UWSCG/USIIP on a regular basis.

67. Day-to-day monitoring of the construction sites were carried out by the environmental Specialists of Contractor, weekly checklists were filled out (Annex D) and monthly monitoring reports were developed and sent to Supervision Consultant.

68. Environmental Monitoring Specialist of Eptisa, Mr. Irakli Legashvili conducted monthly monitoring of project sites under T1 and developed Non-Conformance Notice were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.

69. The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under TBI-01 sub-project.

70. Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMP's, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

71. Also unscheduled monitoring visits were carried out and non-compliance notes has been issued to the contractor as needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.

72. In accordance with the IEE, and the accompanying Environmental Monitoring Plan (EMP), the Contractor is required to undertake parametric measurements and observations on air

quality, noise and socio-cultural resources. Locations for the measurements were initially identified in the IEE.

73. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SSEMP's requirements under TBI-01 sub-project.

7.2 Recommendations

74. During the reporting period, Tranche-1 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.
75. More detailed recommendations for the implementation of T1 during the next reporting period January-June 2020 are provided in the table 15 below:

Table 15: Recommendations to Address Environmental Issues under TBI-01 sub-project

Recommendations TBI-01 sub-project	
TBI-01 Construction site	
Daily presence of HSE officer at the construction territory is necessary	The contractor has been given strict instructions to improve the situation and to constantly maintain improved standards at the sites
High visible safety signs/tapes, grids and barriers should be installed at the each floor of the building to avoid incidents of workers falling	
Trees at the construction area drying at visual observation. Needs proper investigation. In case trees are dried it should be replaced with new once	
Safety norms during works at the height should be respected to avoid workers damage	
Special equipment during working at heights should be used	
Safety rules during electrical equipment use should be respected	
Construction waste should be removed timely and proper disposed properly.	
All workers should be equipped with complete PPE	
Site internally should be arranged properly and cleaned regularly	

76. Conduct Post-Construction Environmental Audit and prepare corresponding Audit report under Reg-02/Mestia Water Supply sub-project.
77. Conduct monitoring of Ambient Noise and Air quality under TBI-01 project at the nearest sensitive receptors in March 2020.

Table 16: The Specific Plan for Environmental Measurement under TBI -01 Project


Parameters	Quarterly measurement
Dust	March 2020, June 2020
Vibration	March 2020, June 2020
Carbon monoxide	March 2020, June 2020

Nitrogen dioxide	March 2020, June 2020
Sulfur dioxide	March 2020, June 2020
Noise	March 2020, June 2020

ANNEX A: ENVIRONMENTAL QUALITY MEASUREMENT DATA

TBI-01 Sub-project, 30 September 2019

საქართველოს გარემოს დაცვისა და სოფლის მეურნეობის სამინისტრო
MINISTRY OF ENVIRONMENT PROTECTION AND AGRICULTURE OF GEORGIA

 სსიპ გარემოს ეროვნული სააგენტო
LEPL NATIONAL ENVIRONMENTAL AGENCY

N 12/1-1020 30 09 2019


შპს "დაგი"-ს დირექტორს
ბ-ნ მიხეილ შარანგიას

ბატონო მიხეილ,


საქართველოს გარემოს დაცვისა და სოფლის მეურნეობის სამინისტროს სსიპ „გარემოს ეროვნულ სააგენტო“-სა და შპს „დაგი“-ს შორის 2019 წლის 18 სექტემბერს გაფორმებული ფასიანი მომსახურების შესახებ №ფმ-3/896 ხელშეკრულების შესაბამისად, გაწვდით, ქ. თბილისში, უნივერსიტეტის ქუჩაზე, თქვენს მიერ მითითებული ატმოსფერული ჰაერის ერთ წერტილში ჩატარებული გაზომვების შედეგებს.

დანართი: 1 გვ.

პატივისცემით,

სააგენტოს უფროსი  ანდრო ასლანიშვილი

თ. აგმაშენელი ბ-მ 150, 0112, თბილისი, საქართველო
150 D. AGMASHENELI AVE., 0112, TBILISI, GEORGIA

 Tel.: +995 32 2439503 Fax: +995 32 2439502
E-mail: info@nea.gov.ge Web: www.nea.gov.ge

ქ. თბილისი, უნივერსიტეტის ქ. №2-ის მიმდებარე ტერიტორიაზე

ჩატარებული გაზომვების შედეგები

24.09.2019წ.

ხელშეკრულება №3/640 14.09.2018წ, პასუხის დანართი

№	გაზომვის ადგილი	კოორდინატები	CO მგ/მ³	მტვერი მგ/მ³	NO₂ მგ/მ³	ხმაური დბ
1	შპს „გაგი“-ს სამშენებლო ეზოს ტერიტორია	N 41°43'05.9'' EO 44°43'05.9''	0.71	0.038	0.002	53.7
ზღვრულად დასაშვები ნორმები			5.0	0.5	0.2	55

შემსრულებლები:

გარემოს დაბინძურების მონიტორინგის დეპარტამენტის

მთ. სპეციალისტი:



სერგო ხაჩავა

შეთანხმებულია:

გარემოს დაბინძურების მონიტორინგის

დეპარტამენტის უფროსი



მ. არაბიძე

ANNEX B: PROJECT PHOTOS

Photo: UWSCG Office Building, TBI-01





ANNEX C: NON-COMPLIANCE NOTICES

TBI-01 Projects









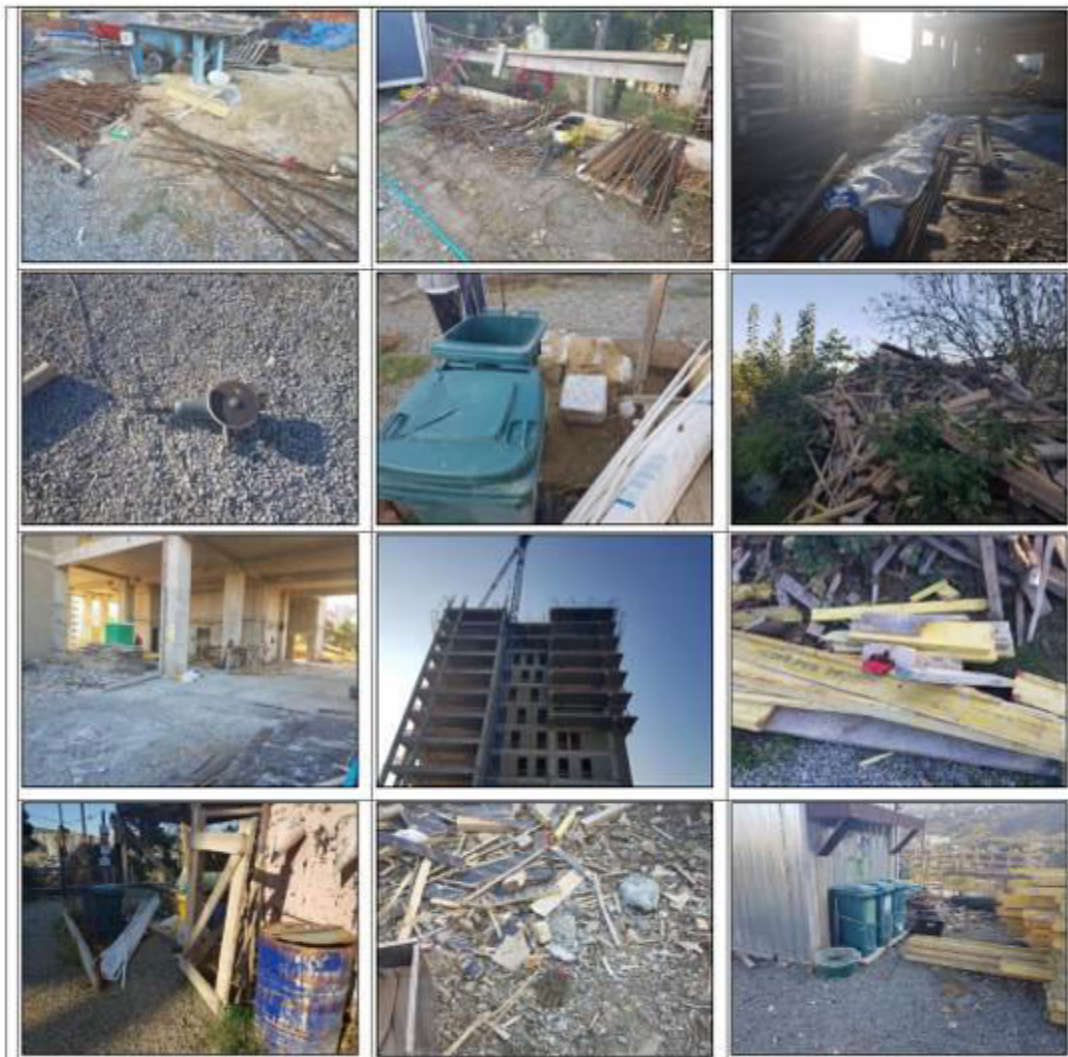
Urban Services Improvement Investment Project - Georgia

Date: 03/10/2019

Page 1 of 2

Non-Compliance Notice

Project: USIIP	Non-compliance Notice TBILISI
Contract No: TBI-01	
Contractor: DAGI	
Reference: Tbilisi – NEW OFFICE BUILDING FOR UWSCG	
This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .	
<u>NON-COMPLIANCE IN TBILISI</u>	
Construction of New Office Building for UWSCG	
<ul style="list-style-type: none">- Daily presence of HSE officer at the construction territory is necessary- High visible safety signs/tapes, grids and barriers should be installed at the each floor of the building to avoid incidents of workers falling- Trees at the construction area drying at visual observation. Needs proper investigation. In case trees are dried it should be replaced with new once- Safety norms during works at the height should be respected to avoid workers damage- Special equipment during working at heights should be used- Safety rules during electrical equipment use should be respected- Construction waste should be removed timely and proper disposed- All workers should be equipped with complete PPE- Site internally should be arranged properly and cleaned regularly	
	
	
	



All these conditions have to be remedied within three days (by the 7 October 2019) by the prime Contractor (Dagi).

Date of site visits: 27.09.2019

Irakli Legashvili

EPTISA - Environment

ANNEX D: WEEKLY MONITORING CHECK-LIST (DAGI)

N	Documents and Facts to be Examined შესამოწმებელი დოკუმენტები და ფაქტები	კ/პ yes	არა/ no	ნაწილად Partially	არ ცხატა N/A	შენიშვნა/ Comment
1 EMPs/SSEMPs, Protocols and Reports						
1.1	Contractor's Site-specific Environmental Management Plan (SSEMP) is prepared, reviewed and approved by PIU prior to contractor commencing the works. შემუშავებული და დამტკიცებულია საიტ-სპეციფიკური გარემოსდაცვითი მართვის გეგმა.	✓				Construction of Head office for United Water Supply Company of Georgia", March 2016
1.2	Construction contractor has National Environmental Specialist in staff. შემუშავებული კონტრაქტორის დადგენილი აქვს ხელშეკრულება ადგილობრივ გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.	✓				ხელშეკრულება გაფორმდა პროექტის დაწყებისთანავე
1.3	Construction contractor has International Environmental Specialist in staff. შემუშავებული კონტრაქტორის დადგენილი აქვს ხელშეკრულება საერთაშორისო გარემოსდაცვითი საკითხების მართვის სპეციალისტთან.		✓			ხელშეკრულება არა გაფორმებული
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to the Supervision Consultant. მთვლიური გარემოსდაცვითი მართვის გეგმის განხორციელების ყოველთვიური ანგარიშები კონტრაქტორის მიერ და წარედგენილია კონსულტანტისათვის	✓				ყოველთვიური ანგარიშები კონსულტანტის მიერ ვეზანება კონტრაქტორს
1.5	Emergency Response Plan is prepared and approved. შემუშავებული და მიღებულია ავარიულ სიტუაციებზე რეაგირების გეგმა .	✓				მიღებულია ავარიულ სიტუაციებში მოქმედების გეგმა
1.6	Health and Safety Management Plan is prepared and approved. შემუშავებული და მიღებულია ჯანდაცვისა და უსაფრთხოების მართვის გეგმა და ჯანდაცვისა და უსაფრთხოების მართვის სისტემა შემუშავების ფაზისათვის.	✓				მიღებულია ჯანდაცვისა და უსაფრთხოების მართვის გეგმა
1.7	Complaints log exists on construction site, საიტის კომპლექსური არსებობს სამშენებლო საიტზე.	✓				სამშენებლო საიტზე არსებობს საჩივრების ჟურნალი
1.8	Site inspection non-compliance notices issued and corrective action requests implemented. შესასწავლის შემთხვევების მოძიება და წარდგენა კონტრაქტორისთვის და მკორექტირებელი ქმედების განხორციელება.	✓				ტექ-უსაფრთხოების სტანდარტის დაცვით მართვის კლდის გამოწვევით გამოყვანილი კლდეები ნაყარი ფონტით.

ყოველკვირეული გარემოსდაცვითი მონიტორინგი

Weekly Environmental Monitoring

Name of the Contractor and project number/lot მშენებელი კონტრაქტორის სახელი და პროექტის/ლოტის ნომერი	Dagi LTD (საქართველო); თბილისი საზღვრისაღის რ-5 ყაზბეგის №14 Contact: No CW/ICB/Office-01	
Contract #: Contract #:		
Description and Location of the Site სამშენებლო საიტის ადგილმდებარეობის აღწერა	This subproject is located in Tbilisi, at the University street. There is no intensive traffic on University street (no traffic lights and traffic jam). Geographically, it is situated at 41°43'07.06", latitude and 44°43'10.48" longitude, app 547m above the SL.	
Implementing Agency განმახორციელებელი სააგენტო	შპს „საქართველოს გაერთიანებული წყალმომარაგების კომპანია“ „United Water Supply Company of Georgia“, LLC	
Supervisor's Identity (name, last name, contact information and signature) საზედამხედველო კომპანიის წარმომადგენლის სახელი, გვარი, საკონტაქტო ინფორმაცია და ხელმოწერა	Supervisor's company: LLC Eptina საზედამხედველო კომპანიის : შპს ეპტინა სახელი გვარი: ვახტანგ ლომიძე ხელმოწერა/ Signature:  მობილურის ნომერი: 577 177 096 Mobile Phone: 577 177 096	
Current Stage of Civil Works სამშენებლო სამუშაოების მიმდინარე სტადია	მიმდინარე On-going	
Weather Conditions ამინდის პირობები	Good კარგი	
Staff responsible for environment/safety at the site (contractor) ინჟინერის ვარემოს დადგენილი პასუხისმგებელი პირი (კონტრაქტორი)	სახელი: ალექსანდრე ტუმბურიძე Name: Alexandre Tchumburidze	ხელმოწერა/ Signature: 
გარემოს დაცვის სპეციალისტი (კონტრაქტორი) Environmental Specialist (contractor)	სახელი: ალექსანდრე ტუმბურიძე Name: Alexandre Tchumburidze	ხელმოწერა/ Signature: 

Date/თარიღი: 21.10.2019.

1.9	Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings გაფორმებული და ხელმოწერილია მუშახელის ტრენინგის ოქმი განცხადების და უსაფრთხოების საკითხებზე. ტრენინგის ანგარიშები მომზადებულია და ინახება საიტის კვანძზე.	✓				უსაფრთხოების საკითხებზე ტარდება ტრენინგები. იცემა ტექნიკური უსაფრთხოების ჟურნალი, სამუშაო პოზიციდან გამომდინარე და ტარდება სამუშაოზე მიღებისას პირველადი ინსტრუქტაჟი. ყოველდღიურად იცემა სამუშაოს დაწყებამდე (toolbox talk)
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2 Permits, Licenses and Contracts						
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste/კონტრაქტორს მიღებული აქვს სამშენებლო ნარჩენების საბოლოო განთავსების ნებართვა ან შესაბამისი კონტრაქტი ადგილობრივ ორგანიზაციასთან.	✓				ადგილობრივ ორგანიზაციასთან არსებობს სამშენებლო ნარჩენების ტრანსპორტირება საბოლოო განთავსების ნებართვა.
2.2	The Contractor has a permit for final disposal of municipal waste. კონტრაქტორს მიღებული აქვს საყოფაცხოვრებო ნარჩენების საბოლოო განთავსების ნებართვა.	✓				ადგილობრივ ორგანიზაციასთან არსებობს საყოფაცხოვრებო ნარჩენების განთავსების ნებართვა.
2.3	The Contractor has executed the contract with the licensed organization on the hand-over and disposal of hazardous waste. კონტრაქტორს გაფორმებული აქვს სახიფათო ნარჩენების გადაცემისა და გატანის ხელშეკრულება ლიცენზირებულ ორგანიზაციასთან.	✓				საიტზე მოწყობილია სახიფათო ნარჩენების განთავსების დროებითი საწყობი.
2.4	The Contractor has a license for tree felling/კონტრაქტორს გააჩნია ლიცენზია ხის ჭრისთვის.				✓	კონტრაქტორი არ აწარმოებს ხეების ჭრას
3 Performance of civil works						
3.1	სამშენებლო ტერიტორიის სრულად შემოღობვა Adequate fencing of construction area from all sides	✓				სრულად შემოღობილია
3.2	საკეტანი შესასვლელი კარის მოწყობა, სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნებით აღჭურვა Arrangement of lockable gate with standard warning and information signs	✓				საკეტანი კარი მოწყობილია
3.3	სამშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების განთავსება Placement of standard warning and information signs at the perimeter and inside of construction area	✓				სამშენებლო ტერიტორიაზე არსებობს გამაფრთხილებელი და საინფორმაციო ნიშნები

3.4	ღიად დატოვებულ თხრილებზე და ჭებზე უსაფრთხოების ლენტების, ბარიერების და გამაფრთხილებელი ნიშნების განთავსება Installation of safety signs/tapes and trench side barriers around of open trenches	✓				საიტზე ღიად დატოვებულ თხრილებზე არ არის
3.5	1.5 მეტრზე მეტი სიღრმის ტრანშეებში კედლების გამაგრება Strengthening of walls of the deep trenches (>1.5m) by boards	✓				1.5 მეტრზე მეტი სიღრმის ტრანშეები ითხრება შესაბამისი წესების დაცვით
3.6	დასახლებულ ადგილებში ღიად დატოვებულ თხრილებზე დროებითი გადასასვლელების მოწყობა Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas				✓	დასახლებულ ადგილებში ღიად დატოვებული თხრილები არ არის
3.7	სამშენებლო ტერიტორიაზე, სამუშაოების ზონაში არსებული ხეების შეპირაგვა (დაზიანების თავიდან აცილების მიზნით) Protect all trees nearby construction zone to avoid its damage	✓				თხილქვების ტერიტორიაზე ხეები დაცულია შემორჩენილია დაზიანებისგან და აღნიშნულია შესაბამისი გამაფრთხილებელი ნიშნებით.

3.8	ექსკავაციის დროს, წიადაგის ნაყოფიერი (დაახლოებით 20-30 სმ სისქის) ფენის მოხსნა და განვალკვებულად გროვებად შენახვა Removal of top soil (about 30 cm depth) and separately storing in appropriate place				✓	ამ დროისთვის ექსკავაცია არ არის საიტზე.
3.9	სამშენებლო ნარჩენების და ჭარბი ნარჩენი გრუნტების დროული გატანა/განთავსება Timely removal/disposal of construction waste and surplus waste soil	✓				საიტის მწვეანე ზოლიდან სადავო იყო განთავსებული ჭარბი ნარჩენი გრუნტი, მოხდა მისი უკუუსვრა.
3.10	სამშენებლო ტერიტორიის დამის საათებში განათება Provide adequate lighting of construction territory	✓				სამშენებლო ტერიტორია განათებულია მიუღ პერიმეტრზე
3.11	სამშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დანადგარების ორგანიზებული განთავსება (საჭიროებისგან გამომდინარე) Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)			✓		ტერიტორიაზე არსებობს მასალებისა და მოწყობილობების განსათავსებელი ადგილები
3.12	სამშენებლო ტერიტორიაზე საწვავის და საპოხი მასალების დაღვრის შედეგების სალიკვიდაციო ნაკრების (ტეიმა, ნახერხი, მეორე ზომის ავზი და სხვა) ხელმისაწვდომობა Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	✓				ტერიტორიაზე ხელმისაწვდომია ტეიმა ნახერხი ავზი და სხვა.
3.13	საწვავის და საპოხი მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადახურულ ადგილებში Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)	✓				ინახება სპეციალურ გამოყოფილ გადახურულ შემორჩენილ ბეტონის მოწყობილ ფილაზე, სად განთავსებულია ცეცხლმაქრები (ABCE კატეგორიის)

4.1	Monitoring measurement data (air, water, soil, erosion, noise, dust, vibration, etc). წყლის, ჰაერის, ეროზიის, ხმაურის, მტვრის და ნიადაგის მონაცემების გაზომვების მონიტორინგი.	✓			მონიტორინგის განხორციელება ხდება სემპ-ის მონიტორინგის გეგმის შესაბამისად (კვარტალური, სამ თვეში ერთხელ) მონიტორინგი ჩატარდა 12 ივლის 3:34 PM
5 Top Soil Protection					
5.1	Topsoil is stripped and stored according to standard procedures and used further for landscaping and reinstatement. ნიადაგის ბიოკომპოსტის ფენის დაგება			✓	ნიადაგის ბიოკომპოსტის ფენის მოჭრა, ექსპოზიცია არ მიმდინარეობს საიტზე
6 Safety Measures					
6.1	The workers use all personal safety equipment required for individual technological processes (hard hats, gloves, respirators, glasses, etc). მუშახელი იყენებს ცალკეული ტექნოლოგიური პროცესებისათვის აუცილებელ პირად დამცვე საშუალებებს (წაფხუტები, ხელთათმანები, რესპირატორები, სათვალავები და სხვ.)	✓			გამოიყენება მტვრის დამცვე რესპირატორი, ყურის დამცვეი საშუალებები, უსაფრთხოების დამცვეი სათვალავი.
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lightning, signs are installed, etc . სამშენებლო ობიექტზე განთავსებულია ხანძარსაწინააღმდეგო და სასწრაფო სამედიცინო დახმარების საბაზისი ნაკრები. საიტი შემოღობილია, განათება დამონტაჟებულია, საინფორმაციო დოკუმენტი/პრეზენტი გაკრულია და სხვ...	✓			საიტი შემოღობილია, განათება დამონტაჟებულია, ხანძარსაწინააღმდეგო და სასწრაფო სამედიცინო დახმარების საბაზისი ნაკრები მოწყობილია.
7 Works Completion					
7.1	After completion of main works, the site undergoes final cleanup, harmonization with outward landscape and landscaping. ძირითად სამუშაოთა დასრულებისას წარმოებს ობიექტის საბოლოო დასუფთავება, გარე ლანდშაფტთან კარმონიზება და გამწვანება.			✓	შესრულდება სამშენებლო სამუშაოების დასრულების შემდეგ
7.2	After completion of the operations in the quarry or its certain section, the idle material is backfilled, compacted, terraced and harmonized with the landscape. კარიერის ან მისი ცალკეული უბნის ექსპლუატაციის დასრულებისას წარმოებს ფლკი მასალის უკუწყვრა, კომპაქტირება, ტერასირება, და ლანდშაფტთან კარმონიზება.			✓	შესრულდება სამშენებლო სამუშაოების დასრულების შემდეგ
7.3	Final Post Construction Environmental Audit/monitoring is conducted and Final Environmental Audit Report is prepared /საბოლოო გარემოს დაცვის მონიტორინგი/აუდიტი ჩატარებულია და საბოლოო გარემოსდაცვის აუდიტის ანგარიში მომზადებულია.			✓	შესრულდება სამშენებლო სამუშაოების დასრულების შემდეგ

3.14	სამშენებლო ტერიტორიაზე საყოფაცხოვრებო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓			თავსახურიანი კონტეინერები განთავსებულია ობიექტის გამოყოფილ პერიმეტრზე, შესაბამისი წარწერებით და მარკირებით.
3.15	სამშენებლო ტერიტორიაზე საშიშვლო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი წარწერებით აღჭურვა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the special dedicated places with relevant indication signs (for example "Hazardous Waste")	✓			ობიექტის ტერიტორიაზე არის სამივე ნარჩენების კონტეინერი, და შესაბამისი წარწერით.
3.16	სამშენებლო ტერიტორიაზე ან მის გარეეთ ტრანსპორტისთვის პარკირების ადგილის მოწყობა და ნიშნით აღჭურვა (მაგ. P) Arrangement of proper Parking area at the adequate place inside/outside of construction territory with relevant sign (for example P)	✓			ობიექტის ტერიტორიაზე მოწყობილია პარკინგის ადგილი
3.17	სამშენებლო მასალების და ნარჩენების ტრანსპორტირების დროს ავტოტრანსპორტის სპეციალური საფარი (ბრეზენტით, ტენტითდასხვა)	✓			სატვირთო მანქანები იხურება ბრეზენტით

	აღჭურვა Use tarpaulins cover during materials transportation				
3.18	საჭიროებისდას გამომდინარე მტვრის წარმოქმნის პრევენცია Dust generation prevention activities (when needed)	✓			საიტი მოხრეშილია ქვის ლორთი მიმდინარეობს მორწყვა მშპ-ს ამინდში.
3.19	მუშების და ინჟინერ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (წაფხუტი, ფილტი, ხელთათმანი, ჩექმები, დამცვეი სათვალავი, და სხვა) სრულად გამოყენება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓			მუშები ინჟინერ-ტექნიკური პერსონალი და ვიზიტორები სრულიად გამოიყენებენ ინდივიდუალური დაცვის საშუალებებს
3.20	სიმაღლეზე მუშაობის დროს სპეციალური დამცვეი აღჭურვილობის გამოყენება Use of special safety equipment during working at heights	✓			გამოიყენება სპეციალური დამცვეი უსაფრთხოების ჭამარი
3.21	სამშენებლო ტერიტორიის მუდმივად დალაგება და დასუფთავება Regularly cleaning of construction territory	✓			მიმდინარეობს საიტის მუდმივი მეთვალყურეობა ინჟინერ-ტექნიკური პერსონალის მიერ დალაგება და დასუფთავებაზე.

4 Monitoring Measurements					
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					შესრულდება სამშენებლო სამუშაოების დასრულების შემდეგ
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შენიშვნა/Comment:

შესაბამისი ფოტომასალა/Photo materials:



ANNEX E: CORRECTIVE ACTION PLAN



Contractor: DAGI
Contract No: TBI-01
Project: Tbilisi – NEW OFFICE
BUILDING FOR UNWCSG/USIP
Date: 10.12.19.



CORRECTIVE ACTION PLAN მკორექტირებელი ღონისძიებების გეგმა

#	Non-Compliance (შეუსრულებლობა)	Corrective Action Taken (გამკორექტირებელი ღონისძიებები)	Evidence Provided (მტკიცებულებები)	Date of Corrective Action (მკორექტირებელი ღონისძიების თარიღი)	Responsible person(s) (პასუხისმგებელი პირი/პირები)
1	High visible safety signs/tapes and barriers should be installed at each floor of the building to avoid workers falling	safety warning signs/tapes and hard barriers installed at each floor.		10.12.2019.	PM, HSEFM, Site Engineer
2	High visible safety tapes should be installed around	Hard and warning fence installed around		10.12.2019.	PM, HSEFM, Site Engineer
3	Waste containers should be properly labeled (Household waste, Hazardous waste etc.)	Waste containers properly labeled		10.12.2019.	PM, HSEFM, Site Engineer
4	Waste should be placed in proper waste container and discharged timely	Waste placed in proper waste container and discharged timely		10.12.2019.	PM, HSEFM, Site Engineer
5	Site internally should be arranged properly and cleaned regularly	The construction site is cleaned regular and arranged correctly		10.12.2019.	PM, HSEFM, Site Engineer
6	Safety norms during works at the height should be respected to avoid workers damage	All workers equipped with complete PPE. When works at the height all workers use safety harness		10.12.2019.	PM, HSEFM, Site Engineer The representative of the workers
7	Construction territory and wooden materials should be freed from nails to avoid personnel damage. Regular cleaning of site from used nails is required	The site regularly cleaned from used nails and wood materials		10.12.2019.	PM, HSEFM, Site Engineer
8	Safety rules during electric equipment use should be respected	all workers use safety rules during electric equipment. Everyday toolbox talks and signature all personal.		10.12.2019.	PM, HSEFM, Site Engineer The representative of the workers
9	Daily presence of HSEFM at the construction territory is necessary	safety health environment manager is on the construction territory, briefing daily toolbox talk, when works beginning		10.12.2019.	PM, HSEFM, Site Engineer
10	Newly planted trees at the site should be checked if some of them are dried it should be replaced by new one	At this time it is not recommended for new tree planting until spring.		10.12.2019.	PM, HSEFM, Site Engineer


Corrective Action Evidence Photos: მკორექტირებელი ღონისძიებების მტკიცებულების ფოტოები







ANNEX F: NEAR MISSIS REPORTS PREPARED BY DAGI, UNDER TBI-01 PROJECT

 		Construction of New Office Building for United Water Supply Company of Georgia Tbilisi, Georgia თბილისი საქართველო		 							
Near Miss Report / შეუსაბამობის რეპორტი											
Nature of Near Miss (tick all applicable) / მინიშნული ავტომატური შეუსაბამობა		<table border="0"> <tr> <td><input type="checkbox"/> Personal Injury / პირის დაზიანება</td> <td><input type="checkbox"/> Disease / Illness / დავა / დაავადება</td> <td><input checked="" type="checkbox"/> Property Damage / საკუთრების დაზიანება</td> </tr> <tr> <td><input checked="" type="checkbox"/> Other / სხვა</td> <td><input type="checkbox"/> Environment spill / release / გარემოს დაზიანება</td> <td><input type="checkbox"/> Dangerous occurrence / საშიშროების შემთხვევა</td> </tr> </table>				<input type="checkbox"/> Personal Injury / პირის დაზიანება	<input type="checkbox"/> Disease / Illness / დავა / დაავადება	<input checked="" type="checkbox"/> Property Damage / საკუთრების დაზიანება	<input checked="" type="checkbox"/> Other / სხვა	<input type="checkbox"/> Environment spill / release / გარემოს დაზიანება	<input type="checkbox"/> Dangerous occurrence / საშიშროების შემთხვევა
<input type="checkbox"/> Personal Injury / პირის დაზიანება	<input type="checkbox"/> Disease / Illness / დავა / დაავადება	<input checked="" type="checkbox"/> Property Damage / საკუთრების დაზიანება									
<input checked="" type="checkbox"/> Other / სხვა	<input type="checkbox"/> Environment spill / release / გარემოს დაზიანება	<input type="checkbox"/> Dangerous occurrence / საშიშროების შემთხვევა									
Day of Near Miss / დღე შეუსაბამობის		15.12.19.		Time of Near Miss / დრო შეუსაბამობის T2:00:00 AM							
Exact location of Near Miss / სად შეუსაბამობა		Tbilisi street university #006/003 Construction of New Office United Water Supply Company of Georgia (NUOWSC) თბილისი საქართველოს ჩაბნობის უნივერსიტეტის № 006/003 სასტუმროს მშენებლობის საიტზე იდგა									
Description of Near Miss (include details of operations & activities) / შეუსაბამობის აღწერა (ოპერაციების და საქმიანობის დეტალები ჩაიყვანეთ)		It is forbidden to open a flame at a construction site under the law of Georgia № 370									
Description of first aid / medical treatment / პირველადი დახმარების / მკურნალობის აღწერა											
Corrective / Preventive action taken or recommendation / მკორექტირებელი ზომები / პრევენციული ღონისძიება მოგვთხოვთ რეკომენდაცია		Fire prevention, extinguisher used for open fire on the site. Necessary organize rooms in the winter, room rest for workers.									
Do we have a safety manager on site / არის თქვენს სამუშაო ადგილზე უსაფრთხოების მენეჯერი		YES / კი		ALEXANDER CHUMBURIDZE / ალექსანდრე ჭუმბურიძე							
Where any of the above boxes are ticked as "Other" please describe below: / თუ რომელიმე ზემოთ მოცემული კუთხეა აღინიშნა "სხვა" გთხოვთ აღწეროთ:											
Other:											
Reported By: ALEXANDER CHUMBURIDZE / შეამუშავა: ალექსანდრე ჭუმბურიძე											
Name: ALEXANDER CHUMBURIDZE / სახელი: ალექსანდრე ჭუმბურიძე		Position: HSE MANAGER / პოზიცია: უსაფრთხოების მენეჯერი		Date: 15.12.19. / თარიღი: 15.12.19.							
Circulation (on the day of the event) / გავრცელება (ღონისძიების დღეს)											
Original Project File:											
<table border="0"> <tr> <td> <input checked="" type="checkbox"/> Project Manager / მშენებლის მენეჯერი <input checked="" type="checkbox"/> Site Engineer / საიტის ინჟინერი <input checked="" type="checkbox"/> HSE Manager / უსაფრთხოების მენეჯერი </td> <td>   </td> <td>   </td> </tr> </table>						<input checked="" type="checkbox"/> Project Manager / მშენებლის მენეჯერი <input checked="" type="checkbox"/> Site Engineer / საიტის ინჟინერი <input checked="" type="checkbox"/> HSE Manager / უსაფრთხოების მენეჯერი	 	 			
<input checked="" type="checkbox"/> Project Manager / მშენებლის მენეჯერი <input checked="" type="checkbox"/> Site Engineer / საიტის ინჟინერი <input checked="" type="checkbox"/> HSE Manager / უსაფრთხოების მენეჯერი	 	 									