

BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

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GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 1) (FINANCED BY THE ASIAN DEVELOPMENT BANK)

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPRP	Department of Environmental protection, Resettlement and Construction Permit
DIPDR	Department of International Procurement and Donors Relations
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
SEMP	Site Environmental Management Plan
EMP	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 Sector Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MEPA	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 & Sewerage

TABLE OF CONTENTS

PART I – INTRODUCTION
1.1 Construction activities and project progress during the previous 6 months
A. General information about the program/SUBPROJECTS
B. Construction activities and project progress during the previous 6 months
1.2 Changes in Project Organization and Environmental Management Team
PART II - Environmental Monitoring
A. Monitoring Measurement Data
B. Health and Safety
PART III - Environmental management.....
3.1 The Environmental Management System, site environmental management plan (SEMP) and work plans.....
3.2 Site Inspections and Audits.....
3.3 Non-Compliance Notices
3.4 Corrective Action Plans
3.5 Actions taken to reflect the findings of ADB mission carried out on 28 September 2017 and 2 October 2017:.....
3.6 Consultations and Complaints
PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD.....
4.1 Conclusions and recommendations
4.2 Action Plan for the next period.....

ANNEX A: MONITORING MEASUREMENTS DATA

ANNEX B: PROJECT PHOTOS

ANNEX C: NON-COMPLIANCE NOTICES

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) /INITIAL ENVIRONMENTAL EXAMINATION (IEE) MITIGATION REQUIREMENTS

ANNEX E: GRIEVANCE REDRESS MECHANISM

ANNEX F: WEEKLY ENVIRONMENTAL MONITORING REPORTs

ANNEX G: CORRECTIVE ACTION PLANS

LIST OF TABLES:

Table 1:	Project Progress during the Previous 6 Months
Table 2:	List of contracts under USIIP, T1
Table 3:	Parametric Measurement Guidelines
Table 4:	Noise Level Guidelines
Table 5:	Monitoring Measurements under Ure-01 and Office -01 Projects (A,B)
Table 6:	The Schedule of Conducted Audits and Monitoring during the Reporting Period
Table 7:	Actions taken for Implementation of Mitigation Measures under Ure-01 and office -01 Projects
Table 8:	Status of Findings of ADB Mission Carried Out on 27-30 January 2018
Table 9:	Status of implementation of action plan of July-December 2017
Table 10:	Recommendations to Address Environmental Issues
Table 11:	Schedule of mitigation measures to be implemented by the contractor Under Reg-01 project
Table 12:	The Specific Plan of Environmental Measurement under Ure-01 Project
Table 14:	The Specific Plan for Environmental Measurement under Office-01 Project

LIST OF FIGURES:

Figure 1:	Structure Diagram of the Environmental Management Unit of UWSCG
Figure 2:	Structure Diagram of the Agencies Involved in Investment Program Implementation

I. PART I – INTRODUCTION

1.1 Construction activities and project progress during the previous 6 months

A. General information about the program/SUBPROJECTS

1. The present Bi-annual Environmental Monitoring Report covers January-June 2018 time period.
2. 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.
3. 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 wastewater treatment plants.
4. 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
 - Construction of the Water Supply Network in Ureki (Ure-01)

The following projects are financed under Tranche 1:

5. **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.
6. The contract MES-01 was signed on 10 October 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), and the scheduled Time for Completion was on 31 October 2013. The contract has completed the works on the reservoir, the intake, and the transmission pipeline,

including its testing and the installation of the last section in the LARP Corridor. LARP compliance report was issued by EPTISA in July 2014. Taking over of the facilities took place on 20 July 2014.

- 7. 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 mph3) as well as construction of water treatment facility.
- 8.** United Water Supply Company of Georgia under the Ministry of Regional Development and Infrastructure of Georgia signed a contract (#UWSCG/ICB/CW-2013-REG-01) with Spanish Cobra Instalaciones y Servicios. The Contract was made effective 19 September 2013.
- 9.** Construction activities were completed on 16 May 2016 and Post Construction Environmental Audit was conducted on 21-22 December 2016 by independent consultant.
- 10.** All non-compliances revealed during the Post-Construction Audit and corrective actions with deadlines to improve the situation and to be implemented by Contractor are presented in Table 11 of this report.
- 11. Construction of Office Building of UWSCG in Tbilisi.** Detailed design for construction of a new head office of UWSCG was prepared and funded by GoG. IEE for office building completed and was submitted to ADB. In 2 August 2014 the baseline survey and biodiversity study of the project area was conducted. Public Hearing meeting was held on 2 July 2014.
- 12.** The new construction area is located in the suburb area of the city in close proximity with Tbilisi State University. Number of door-to-door public consultations have been carried out with the local population. The specially developed invitation letters prior to the Public Hearing, signed by the head of UWSCG was distributed among the local population and stakeholders.
- 13.** Due to untimely issuing of permit for cutting of 9 Eldari pine trees by Ecology and Greenery Department of Tbilisi City Hall, the construction works for head office building was suspended. Finally, permission was granted and fees for tree removal was estimated by the Municipality in the amount of GEL 53,000.00. Letter of permission issued by Tbilisi City Hall is attached to this report (Annex H).
- 14.** United Water Supply Company of Georgia under the Ministry of Regional Development and Infrastructure of Georgia signed a contract (#CW/ICB/Office-01) with Georgian Construction Company DAGI Ltd on 1 December 2015. Date of commencement of civil works is December 29, 2015. The original completion date of the works was 21.06.2017. Construction activities have been delayed due to the changes in design and was renovated in October 2017. The new completion date of the works is September 2019.
- 15. MESTIA Water Supply Facilities (Contract REG-02).** The scope of works includes: a new water treatment plant (WTP); the rehabilitation of Tsrniashi 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.

- 16.** The Contractor has to design and build a WTP 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 new WTP will have a design capacity of 80 l/s to serve the projected population in 2040. Some of the components (hydrocyclone, micro-/ultrafiltration, drinking, process and backwash water pumps) to be constructed under this contract will be for half of the design population in 2040 at this stage. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and ProtecnoSrl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014.
- 17. 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 BAEMRs. 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), but currently location of Res-01 is changed. Final design and location is under consideration and will be finalized by the mid of January.
- 18.** 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. Completion date is scheduled on November 22, 2017. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040.

B. Construction activities and project progress during the previous 6 months

Construction Activities during previous 6 months under URE-01 project (January-June 2018)

Table 1: Project Progress during the Previous 6 Months

URE-01

Site	Water Mains Installation
URE-01	
Works undertaken during January-June 2018	23.502 km of PE 100 pipes OD 710, SDR 11 installed – 99% 2.482 km of Carbon Steel pipes OD 710, SDR 11 installed – 97%
Site	Water network
Works undertaken during January-June 2018	53.47 km of HDPE pipes DN 25-560 – 107%
Site	Sewerage network
Works undertaken during January-June 2018	68.417 km of PE 100 and corrugated pipes OD 110-500 mm, SDR 11 installed – 97%

Site	Water Mains Installation
URE-01	
Site	Construction of Reservoir #1
Works undertaken during January-June 2018	Excavation Works – 100% Drainage Installation Works – 90% Reinforced Concrete Works – 100%
Site	Well Field
Works undertaken during January-June 2018	Drilling Works – 100%
Site	WS Pumping Station
Works undertaken during January-June 2018	Construction Works – 100% Sewer PE Pumping Station
Works undertaken during January-June 2018	Installation Works – 80%

REG-02 – Mestia

Mestia - Section	Works
Works undertaken during January-June 2018	Lanchvali Reservoir - 100 %
	Shkedi Reservoir - 100 %
	WTP - 99%
	Transmission main - 100 %

Office-01

Site	Concrete works
Works undertaken during January- June 2018	567,5m ³ pouring concrete.
Site	Reinforcement works
Works undertaken during January- June 2018	The used 60-ton armature.

Site	Filling ballast works
Works undertaken during January- June 2018	370m ³
Site	Formwork Mounting works
Works undertaken during January- June 2018	1159m ³
Site	Hydroisolation Primer coat works
Works undertaken during January- June 2018	225m ² Hydroisolation for concrete wall. Primer coat 917m ²
Site	Drainage system works
Works undertaken during January- June 2018	work for drainage system 122m

1.1 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

- 19.** 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.
- 20.** 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
- 21.** 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. In June 2018, the Director and Deputy Director of UWSCG were changed. Ms. Ekaterina Galdava was appointed as the new director, Ms. Maia Gikoshvili became the new Deputy Director. Investment Program Management Office (IPMO) under UWSCG is an International Procurement and Donors Relations Department. Department of Environmental Protection, Resettlement and Construction Permit (DEPRP) under USIIP replaced the existing

Unit of Resettlement and Environmental Protection and consist of six staff members, including Head of Department and Head of Construction Permit Unit.

22. UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) - Eptisa. 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.
23. All mitigation measures during construction have to be implemented by the contractor and these are monitored by the supervision consultant (SC). To ensure the smooth implementation of ¹SEMPs, Site Specific EMPs and Topic Specific EMPs of subprojects, an Environmental Management Specialist (EMS) is employed by the SC/Eptisa. SC/EMS conducts routine observations and surveys of project sites, issues non-compliance notes, prepares quarterly environmental reports and submits these to UWSCG.
24. The Contractor has the following obligations:
 - to prepare Site Environment Management Plans SEMPs with further Site Specific EMPs Topic Specific EMPs;
 - to employ Environmental Consultant responsible for developing and implementing the construction phase SEMPs and for providing the corresponding information to UWSCG and SC;
 - to develop Solid Waste Disposal Plan and agreed the MEPA and Local Government
25. DC is responsible for developing and incorporation of mitigation measures in design and construction.
26. The environmental specialist (ES) is hired by UWSCG under the USIIP to assist and advise the DEPRP in USIIP program implementation in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of DCs and SCs in safeguards compliance. ES supports DEPRP in EARF implementation, in particular, reviewing IEE/EIA Reports and overseeing implementation of SEMPs and in training and capacity-building activities. The ES prepares bi-annual and annual environmental monitoring reports and submits to ADB.
27. DEPRP is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPRP is staffed with a Head of Department. Head of Construction Permission Unit and 4 specialists, those are responsible for resettlement, environmental protection and construction permission issues.
28. ADB is the donor financing the Investment Program Environmental management organization is shown in Figure 1 and Figure 2.

¹According to new Monitoring Manual of ADB for Safeguards Implementation instead of Site Specific EMP (SSEMP) a “Site Environment Management Plan” (SEMP) must be developed by the Contractor and then under SEMP they should develop further Site Specific EMPs and Topic Specific EMPs.

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

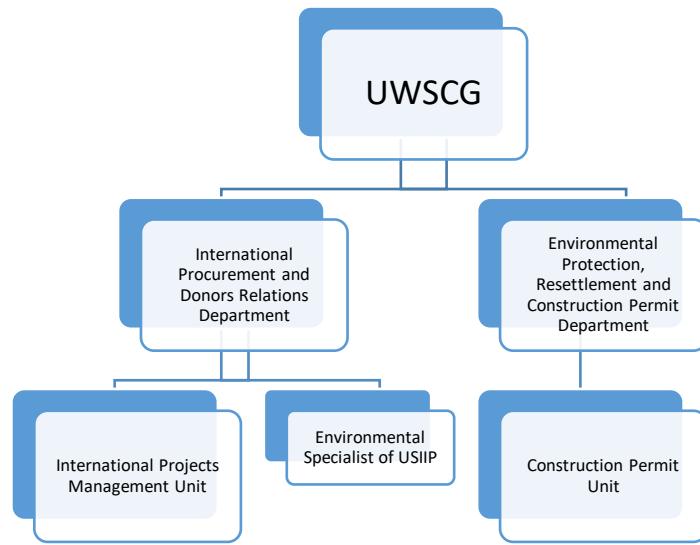
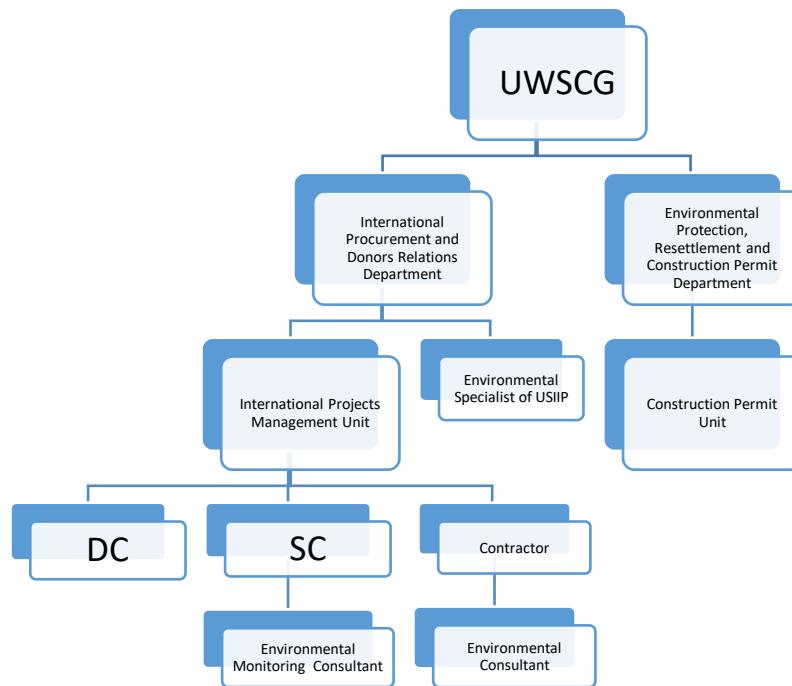


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



1.3 Relationships with Contractors, Owner, Lender, etc

- 29.** Relationships with Contractors, Owner and Lender are considered as normal working relationships. At the working level, coordination of environmental issues has been satisfactory, the government agencies, UWSCG, consultants and contractors are in frequent communication and consultation.
- 30.** Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for oversee progress and provide guidance on the Investment Program implementation; convene regular meetings in consultation with the SC and UWSCG; ensure compliance with Investment Program covenants.
- 31.** Oversight of the USIIP with regards to environmental management is the responsibility of the environmental safeguards team, in particular UWSCG/DEPRP and the Environmental Specialist of USIIP.
- 32.** The team has constant communication with the Supervision Consultant, Contractor, reviews/ comments all environmental reports submitted by DC, SC and contractors.
- 33.** All SEMPs are prepared by Contractor, endorsed by SC and approved by UWSCG/ DEPRP.
- 34.** SC is responsible for environmental capacity building, monitoring of implementation of SSEMPs and for developing quarterly reports. The Contractor has a full time Environmental Specialist who carries out day to day monitoring and submits weekly progress reports. Sample weekly report is attached to the proposed EMR (Annex F).
- 35.** ADB oversees project sites regularly and gives clear instructions for the project sites improvements with regard to environmental safeguards.
- 36.** To resolve the observed environmental safeguard issues, the regular Environmental Meetings are organized with participation of UWSCG/IPMO/DEPRP, Eptisa and Contractors. During the meetings environmental issues and implementation of the mitigation measures are discussed.
- 37.** A Grievance Redress Committee has been established within Ure-01 and Reg-02 projects, to date all grievances either have been dealt to the satisfaction of complainants or are still under discussion. The GRC under Office-01 project will be established within the next reporting period and reflected in EMR January-June 2018.
- 38.** Below are the list of subcontractors of PERI Ltd (Ure-01 project) for Disposal of Municipal Waste and extraction of minerals (gravel, ballast, etc):
 - Ureki Municipality - contract was signed for disposal of Municipal Waste from Ureki WWTP site to the Ureki landfill
 - License issued to Ltd Peri by the MoENRP for mineral extraction (gravel, ballast) on the basis of the purchase agreement signed between the Ltd “Peri” and Ltd “Anagi”.
 - Contract was signed with hazardous waste disposal company Ltd “Sanitari” in June 2017.
- 39.** Below are the list of subcontractors of “Ludwig Pfeiffer Hech und Tiefbau GmbH and Co” under the Reg-02/Mestia project:
 1. “Insta” LLC
 2. “BREKETI DESIGN” LLC

- 40.** List of Sub-contractors of Peri for disposal of Municipal Waste Water:
- “Solid Waste Management Company of Georgia” – contract was signed for disposal of Solid Waste from Ureki Construction sites.
- 41.** Below are the list of subcontractors of “DAGI” under the Office-01 project:
- “Tbiliservice Group” Ltd – Contract was signed for disposal of construction waste, inert waste and solid waste from Tbilisi Construction site.
- 42.** Monthly site meetings have taken place with all Contractors during the reporting period, with a focus on progress and technical problems as well as environmental safeguard issues.
- 43.** Under the Ure-01 and Office-01 projects, contractors have signed agreement with the National Environmental Agency for the monitoring of measurements (dust, CO, NO₂, SO₂, noise) at various construction sites.
- 44.** Project organization for the awarded contracts listed above is given in the Table 2 below.

Table 2: List of contracts under USIIP, Tranche 1 – MES-01, REG-01, REG-02, URE-01, TBI-01, SC/EPTISA

Contract #	Sub-project Title	Employer	Contractor
Contract No: UWSCG/ICB/CW/2011-MES-01	MES-01	UWSCG	Joint Venture of Dagi LTD - Georgia and Enguri 2006 LTD – Georgia (on April 2013 the name of Enguri 2006 LTD was changed to Enguri - New Construction LTD)
Contract No: UWSCG/ICB/CW-2013-REG-01	REG-01	UWSCG	Cobra Instalaciones y Servicios SA (from Spain)
Contract No: UWSCG/USSIP/ICB/CW/REG-02	REG-02	UWSCG	JV of Ludwig Pfeiffer Hoch-und Tiefbau GmbH & Co.KG (Germany) and Protechno Srl (Italy)
Contract No: P43405-ICB-URE-01	URE-01	UWSCG	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)
Contact No: No CW/ICB/Office-01	TBI-01	UWSCG	Dagi LTD (Georgia)
Contract #	SC for T1,T2, T3	Employer	Consultant
Contract No: UWSCG/USIIP	EPTISA	UWSCG	A Consortium of Consulting Firm led by Eptisa Servicios de Ingenieria S.L. (Spain) in

Contract #	Sub-project Title	Employer	Contractor
			association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)

PART II - ENVIRONMENTAL MONITORING

- 45.** Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of DEPRP under USIIP on a regular basis, during the period January-June 2018. Monitoring sheets (Mitigation Compliance & Inspection Monitoring Forms submitted by ADB) were filled in on a daily and/or weekly basis (according to a specific site). Also unscheduled monitoring visits were carried out and non-compliance notices have been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.
- 46.** The following monitoring activities were performed by EPTISA's environmental specialist during January-June 2018:
- On-site monitoring of EMP compliance during site works;
 - Preparation of environmental site inspection report and notification to Contractor by EPTISA's Environmental Specialist (Annex C – Non-compliance Notices)
 - Advised Contractor in baseline measurements conducted by National Environmental Agency at all sites;
 - Coordinate actions in general with Contractor's Environmental Representatives and UWSCG/Environmental Team, including Environmental Specialist of USIIP
- 47.** EPTISA's Site Team in particular instructed Contractor to comply for the transmission pipelines with the following (as per the agreed H&S Plan):
- Provide adequate training to staff and sub-contractors on regular basis
 - Enforce the accident prevention plan on regular basis incl. precautions for safety driving, etc.
- 48.** Environmental Monitoring Specialists hired by contractor under the URE-01, Reg-02, and Office-01 projects conducted the day-to-day monitoring of the construction sites, developed the weekly monitoring reports and submitted to SC/Eptisa.
- 49.** Environmental Monitoring Specialist of SC developed quarterly monitoring reports for UWSCG/USIIP based on the weekly reports submitted by Contractor, and based on environmental site inspection.
- 50.** Environmental Specialist (ES) of USIIP performed monitoring of contractor's performance with the approved SEMPs, Site Specific EMPs and Topic Specific EMPs, environmental standards and other environmental commitments of the contractor. ES developed bi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
- 51.** The USIIP's Environmental Impact Monitoring and Mitigation is carried out in accordance with the SEMPs, Site Specific EMPs and Topic Specific EMPs prepared by the Contractors. The construction activities affecting the environment are as follows:
- Removal of Surplus Soil
 - Backfilling of Trenches
 - Reinstatement Activities
- 52.** 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. Accordingly, the monitoring guidelines were set as shown in the table 3 below. Construction

activities have been carried out under Office-01, Ure-01 and Reg-02 projects are reported in this EMR.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
Ure-01		
Air Quality	Air Quality Every 3 months Reservoir #1, Pumping Station, Well Fields, Networks, Transmission Main	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 Reservoir #1, Pumping Station, Well Fields, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	Monthly during the site monitoring.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
Cultural heritage Disturbance to cultural resources	Every time along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.
Office-01		

Parameters	Frequency & Location	Remarks
Air Quality	Air Quality Every 3 months, 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 6 months, construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	During the site inspection and audit	Avoid tree cutting in unavoidable cases, implement the measures defined by the Georgian regulations
Dust generation	During the site inspection and audit	Use tarpaulins to cover loose material that is transported to and from the site by truck Clean wheels and undercarriage of haul trucks prior to leaving construction site

53. There are no protected areas, wetlands, mangroves, or estuaries. Trees, vegetation (mostly shrubs and grasses), and animals 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.

A. Monitoring Measurement Data

54. Noise impacts should not exceed the levels presented in Table 4, in accordance with Georgian regulations - Decree No. 297/N "On Approval of Environmental Quality Norms" (August 16, 2001 of the Ministry of Labor, Health and Social Affairs) and World Health Organization (WHO) 1999, or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.

Table 4: Noise Level Guidelines

Noise	dBA		dBA	
	National Regulations		IFC/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

- 55.** Monitoring measurements under Ure-01 was conducted in various construction sites, including nearest sensitive receptors by the National Environmental Agency under the MEPA in June 2018 (See Table 5 (A) and Annex A). Location and data are included in the table below. The next monitoring measurements will be conducted in September 2018 and results will be reflected in the next July-December EMR 2018. According to data received in June 2018 the obtained results are within the National Environmental Standard (Maximum Permissible Level) and therefore additional mitigations are not required. All measurements were carried out at construction sites, were temporary and conducted during the daytime from 13:30 pm to 16:30 pm to correspond with the project working hours. No complaints were received from the local population about the noise during the reporting period.

Monitoring measurement data:
Table 5: Monitoring Measurements under Ure-01 Project (A)

N	Place of measurement	Samples #	Results				
			Dust Mg/m ³	CO Mg/m ³	NO2 Mg/m ³	SO2 Mg/m ³	Noise dBA Daytime 07:00 - 22:00
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial <i>Note: Please see IFC/WHO in table 4 above</i>
	Pumping Station	1	0.004	0.16	0,001	<0,1	42.1

N	Place of measurement	Samples #	Results				
			Dust Mg/m ³	CO Mg/m ³	NO2 Mg/m ³	SO2 Mg/m ³	Noise dBA Daytime 07:00 - 22:00
1	X 0730383 Y 4649261	2	0.017	0.81	0,008	<0,1	43.0
		3	0.018	0.62	0,003	<0,1	43.3
		4	0.002	0.31	0,001	<0,1	42.2
2	Shekvetili X 0729754 Y 4644722	1	0.005	1.15	0,003	<0,1	50.6
		2	0.007	1.28	0,002	<0,1	51.4
		3	0.006	1.38	0,003	<0,1	50.8
		4	0.008	1.52	0,002	<0,1	51.9
3	Natanebi X 0733131 Y 4643222 X 0723511 Y 4643927	1	0.004	0.17	<0,001	<0,1	40.0
		2	0.015	0.2	0,007	<0,1	42.3
		3	0.015	0.22	0,006	<0,1	41.7
		4	0.011	0.17	<0,001	<0,1	40.2
4	Tsvermagala Reservoir#1 X 0731266 Y 4649719	1	0.004	0.25	0,001	<0,1	40.2
		2	0.017	0.30	0,001	<0,1	40.8
		3	0.018	0.27	0,003	<0,1	40.3
		4	0.002	0.32	0,001	<0,1	40.5

56. No environmental measurements were taken by the contractor during the proposed reporting period in January-June 2018 within the framework of the Reg-02/ Mestia subproject, since all construction works are located far from sensitive receptors and all concrete works are completed in 100%. The Post-Construction Environmental Audit will be carried out and a corresponding report will be prepared during the next reporting period for the sub-project Reg-02/Mestia. The main findings of this report will be presented in EMR July-December 2018.
57. Monitoring measurements under Office-01 was conducted by the National Environmental Agency under the MoENRP. The monitoring measurements were carried out in one point on the construction site, University Street, Tbilisi. Results of Total Dust, Carbon Monoxide (CO), Nitrogen Dioxide (NO2) concentrations and Equivalent Noise Level (LAeq) are provided in the Table below (See Table 5 (C) and Annex A). Measurements were carried out at the nearest sensitive

receptors on March 22, 2018 in time interval from 11:00am to 13:00pm with following devices – Элан CO-50 / NO2 (CO, NO2), CEL-712 (Dust) and CEL-63X (Noise Level).

- 58.** According to data received in March 2018 the obtained results exceed the National and International Environmental Standard (Maximum Permissible Level) of Noise – (55db - residential, institutional and educational), therefore additional mitigations are required and presented in table 10 below - schedule of mitigation measures to be implemented by the contractor Under Office-01 project.

Table 5: Monitoring Measurements under Office-01 Project (B)

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	Noise db
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	UWSCG Office Construction Site University Street		0,078	0,96	0,037		66,8

B. Health and Safety

- 59.** The EH&S specialist of contractor DAGI, Mr. Alexander Chumburidze, within the “Offoice-01” project, 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 after a mission on 27-30 January 2018 (Please see near misses reports in Annex H). 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.

Community Health and Safety

- 60.** Only one incident was reported during the period of January-June 2018, which would result in Community Health and Safety problems and was recorded during the mission on 27-30 January 2018.

61. In the east part of the construction territory of the “Ofice-01” project, there was a risk of land collapse on the border of the construction site for a residential building. Near the border was located a toilet and a guard house for the construction site. For safety reason DAGI installed wire netting gabion to stop rock falling.

Worker Safety and Health

62. On the wooden material there were nails which could damage workers during construction activities. In accordance with the instructions given to workers by EH&S Specialist of DAGI, wooden materials were cleaned from nails.

PART III - Environmental management

3.1 The Environmental Management System, site-specific environmental management plan (SSEMP) and work plans

SSEMPs prepared under Ure-01 and Reg-02 project:

63. Since June 2018 instead of SSEMPs will be prepared SEMPs with further development of Site Specific EMPs and Topic Specific EMPs.
64. Following SSEMPs were prepared within the framework of Ure-01, Reg-02 and Office-01 projects during the previous reporting periods by contractor, endorsed by SC and approved by the UWSCG/IPMO/DEPRP: SSEMPs for Well Fields, Reservoir#1 and Pumping Station under Ure-01 Project; SSEMPs for Zargashi and Lanchvali Reservoirs and Water Treatment Plant in Zargashi; SSEMP for Tbilisi Head Office for UWSCG under Office-01 project. No SEMPs have been prepared during the reporting period under proposed sub-projects.

3.2 Site Inspections and Audits

65. Regular site monitoring visits were carried out during the reporting period by the Supervision Consultant Eptisa, UWSCG/ IPMO and Environmental Specialist of USIIP for Ure-01, Reg-02 and Office-01 projects. Some monitoring visits were conducted jointly by the SC/EMS and ES of USIIP. During the field visits a number of EHS issues were noted and brought to the attention of the Environmental Consultant and the H&S manager of Ure-01, Reg-02 and Office-01 projects. Mitigation measures were then discussed with the contractor on-site and detailed instructions were given. Good Practice in compliance with Georgian and international H&S legislation were therefore enforced in accordance with the legislation and the Contractor's contract for Reg-02, Ure-01 and Office-01 projects.
66. Site inspection monitoring and audit during the reporting period have been carried out on: 26-28 January 2018; 17-18 April 2018; 23, 28 April 2018; 15 May 2018; 22 May 2018 and 29-30 June 2018. The schedule of conducted monitoring and audit during the reporting period is presented in the Table 6 below.

Table 6: The Schedule of Conducted Audits and Monitoring during the Reporting Period

#	Ure-01, Reg-02 and Tbilisi Office Building Site visits	Organization	Date
1	Day-to-Day Site Inspection	Environmental Specialists of Contractor under Ure-01 and Reg-02 Projects	1 January – 30 June 2018
	Site Monitoring and Audit	Environmental specialist of USIIP, environmental specialists of Eptisa, International-Regional Environmental Safeguards Consultant Ms. Keti Dgebuadze and Mr. Duncan Lang, Environmental Specialist, ADB	26-28 January 2018

#	Ure-01, Reg-02 and Tbilisi Office Building Site visits	Organization	Date
2	Site Monitoring and Inspection	Environmental specialist of USIIP, environmental specialists of Eptisa	17-18 April 2018
	Site Monitoring	Environmental specialist of USIIP, environmental specialists of Eptisa, International-Regional Environmental Safeguards Consultant Ms. Keti Dgebuadze and Mr. Duncan Lang, Environmental Specialist, ADB as well as about 40 participants of "Training Workshop and Regional Exchange on Monitoring of Environmental Safeguards Implementation" (Batumi, Georgia, 19-21 April, 2018) (details of this site visit is presented in Para ???? below).	21 April 2018
3	Site Monitoring	Environmental specialist of Eptisa	28 April 2018
4	Site Monitoring	Environmental specialist of USIIP and Environmental specialist of Eptisa	22 May 2018
	Site Monitoring and Inspection	Environmental specialist of USIIP and Environmental specialist of Eptisa	15 May 2018
5	Site Monitoring	Environmental specialist of USIIP	29-30 June 2018

67. On April 21 2018, a site visit was held within the framework of the "Training Workshop and Regional Exchange on Monitoring of Environmental Safeguards Implementation" (Batumi, Georgia, 19-21 April, 2018) in Ureki, Georgia. About 40 regional representatives from Azerbaijan, Armenia, Kyrgyzstan, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan participated in it. Site visit was also attended by the representatives of ADB/Manila Head Office Mr.Duncan Lang, ADB/RETA Ms.Keti Dgebuadze, Contractor, Supervision Consultant and UWSCG/USIIP/IPMO.
68. The Ure-01 sub-project have been visited by Workshop participants under the "Urban Services Improvement Investment Program, T3 (43405-023).
69. Ureki is located only 51km away from Batumi and visitors could easily get to the construction site and simultaneously see two different projects: Ure-01 and Ure-02 under USIIP. The proposed site under Ure-01 were a Reservoir No.1 and Pumping Station. Concrete works of both components are completed by 98%.
70. The WWS systems were installed to meet the demands of growing population. With the government initiative to develop Ureki as a tourist destination, the water demand is likely to grow significantly as will grow the waste water production. According to government estimates, water Supply and WWTP will meet with 30,000 equivalents of the population (PE), calculated for 2040.
71. The following main environmental issues faced during the construction phase were suggested to monitor by participants under URE-01 project:

- *Loss of topsoil due to incorrect stripping and storage*
- *Incorrect Waste Management (Hazardous Waste mixing with non-hazardous waste)*
- *Incorrect surplus soil management*
- *Inert waste management*

72. Other issues monitored by the participants included:

- *Management of occupational health and safety issues*

Major Environmental issue under Ure-01 project.

Top-Soil Management

- 73.** Small part of topsoil stockpiled according to the GEO regulations has been mixed with subsoil during backfilling and leveling activities of the territory of Pumping Station under Ure-01 project. The ADB's Mission (April 2017) requested contractor to prepare corrective action plan in cooperation with Supervision Consultant and improve non-compliance within the identified deadline.
- 74.** Status: Completed. Corrective action plan regarding incorrect disposal of topsoil was prepared by contractor. The Topsoil was separated from subsoil and stockpiled separately in accordance with Georgian regulations.

Photo 1: Improved top-soil management under Ure-01/PS



75. Following observations were made by visitors under Ure-01 project:

A. Reservoir #1 Site (URE-01)

- Separate waste containers for municipal and hazardous waste at the site with signatures, placed at special designated area with roofing and concrete base
- Trees at the construction site were properly protected and fenced to avoid its damage
- Proper warning and information signs were arranged at the perimeter of the site
- Safety signs/tapes and trench side barriers around of deep open excavation were installed from all sides to avoid accidents.

C. Pumping Station (URE-01)

- Top soil at the site were managed properly to avoid its loosing
- Piles of soil at the construction territory were managed properly
- Site internally were arranged properly with signage and cleaned regularly
- Gate is closed and locked to avoid non-authorized entrance at the site

76. During the site visit detailed presentations were carried out by the contractors on Ure-01 projects.

77. There was an open discussion, many questions asked by the visitors were answered by the project team of USIIP and its environmental specialist.

78. These issues included, but were not limited to: the population equivalent for the project; the effectiveness of existing monitoring and reporting systems; environmental standards used for the project implementation; frequency of quality control of treated water; detailed description of treatment facilities, etc.

79. Visitors were informed about the monitoring and reporting system implemented by UWSCG/IPMO and presented all relevant documents existed at contractors temporary offices such as IEE, SSEMP, non-compliance notes, corrective action plans, complaints log book, etc.

80. The following recommendation was suggested to the implementation unit on improvements in the environmental performance:

81. As the contraction activities on Reservoir #1, Pumping Station under URE-01 project is completed, major improvements can be concentrated on proper reinstatement activities.

3.3 Non-Compliance Notices

82. The contractors were always informed on the detected non-compliances and were demanded to improve on the deadline set and send photos of improvements made together with the corrective action plans. Environmental team of Eptisa and UWSCG monitored the improvements during the next monitoring visits. Unimproved environmental issues were qualified as non-compliances and notices issued to contractor (**Annex C**).

- 83.** A summary of the identified issues during the site monitoring by EMS/SC and USIIP ES, recommended mitigations and the status of implementation is presented in **Annex D**.
- 84.** Non-compliance notices have been issued by SC/Eptisa under Ure-01 and Office-01 projects in following dates: 26, 27 March 2018; 24 April, 2014 and 14 May 2015 (See **Annex C**).

3.4 Corrective Action Plans

- 85.** For the purpose of resolving the observed issues, the Corrective Action Plans have been developed by the contractor. Sample CAP prepared by Contractors are attached to the proposed EMR (**Annex G**). The regular Environmental Meetings were also carried out with the participation of UWSCG/IPMO/DEPRP, Eptisa, contractors. During the meetings environmental issues and implementation of the mitigation measures were discussed. Agreements were reached that contractors should respond to the findings of the compliance monitoring carried out by SC and UWSCG.

Table 7: Actions taken for Implementation of Mitigation Measures under Ure-01 and Office-01 Projects

URE-01

Construction Site	Environmental Issues	Action taken
Ureki/Pumping Station	Entrance door and fencing of the construction site should be in better condition and complete	Completed <i>Note: Further improvements are needed for remove surplus waste soil that is temporarily located in the Construction area.</i>
	Site internally should be arranged properly and cleaned regularly	
	All workers should be equipped with complete PPE	
	Piles of soil at the construction territory should be managed properly	
	Top soil should be separated from surplus waste soil and managed properly (fencing, signage, piling standard)	

Construction Site	Environmental Issues	Action taken
	<p>Safety tapes around open trenches should be installed</p> <p>The site access road and internal roads should be better arranged (graveling)</p>	
Ureki/Construction Materials Storage Area	<p>Construction equipment should be in good condition</p> <p>Site fencing should be completed and with visible materials on it</p> <p>Construction materials should be segregated precisely and stored properly</p> <p>Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)</p> <p>Site gate should be operational at every entrance or exit with relevant signage</p> <p>Waste should be placed at the proper standard waste containers with labeling</p> <p>Containers of lubricants should be managed properly (concrete flooring and relevant roofing)</p>	<p>Only Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)</p>
Ureki/Well Fields	<p>Protect River bank alongside the Ureki Well fields</p> <p>Contractor to install fences for Ureki Well Fields</p>	<p>SC/EPTISA working on design of river bank protection.</p> <p>Completed (Please see Annex B – Photo of well fields).</p>

Construction Site	Environmental Issues	Action taken

Office-01: TBILISI HEAD OFFICE

Construction Site	Environmental Issues	Action taken
Tbilisi Head Office	Construction territory visible fencing should be restored in some locations	Partially Completed
	All trees at the construction area and nearby should be protected on proper way (freed from surplus waste soil and stones) to avoid its damage	Completed
	Surplus waste soil should be removed from the construction territory and disposed according agreement	Completed
	Special safety equipment during working at heights should be used	Completed
	Safety norms during works at the height should be respected to avoid workers damage	Completed
	Ladder safety should be ensured	Completed
	Safety rules with electric cable use should be respected	Completed
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Completed
	The slope near of the construction area should be strengthened by special grid to avoid land/stone falling and damage	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)
	Construction territory and wooden materials should be freed from used nails to avoid personnel damage	Not Completed (Recommendations to address Environmental Issues are provided in Table 10)
	The way to the waste containers should be freed from construction materials	Completed

Construction Site	Environmental Issues	Action taken
	All construction materials should be properly segregated and stored adequately	Partially Completed (Recommendations to address Environmental Issues are provided in Table 10)
	All workers should be equipped with complete PPE	Completed
	Site internally should be arranged properly and cleaned regularly	Partially Completed

86. An Annual Environmental Compliance Safeguard Review Mission was carried out on 27-30 January 2018 to review environmental safeguards compliance of Tranche 1 project.

3.5 Actions taken to reflect the findings of ADB mission carried out on 27-30 January 2018:

Table 8: Status of Findings of ADB Mission Carried Out on 27-30 January 2018

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 27-30 January 2018			
Ure-01 Construction of Reservoir #1 in Ureki			
	<p>ADB request that the IPMO and the supervision consultants for the USIIP program employ dedicated Health and Safety personnel. These personnel must be additional to existing staff (particularly at IPMO level) to ensure that sufficient capacity is present to cover H&S on this large portfolio of projects.</p> <p>The staff personnel must have the relevant qualifications and experience.</p> <p>Contractors must start recording all H&S incidents, including near misses and provide these in a regular log to</p>		<p>All construction activities are completed now and there is no need to hire H&S Specialist under Ure-01 sub project.</p>

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
	<p>the Supervision Consultants and the PIU.</p> <p><u>No other major environmental issues were identified</u></p>		
Reg-02 Construction of Reservoir #1 in Mestia (Shkedi, Zargashi)			
	<p>Contractor to install fences for all sites (Shgedi and Zargashi) and equipped with lockable gate with proper warning and information signs to avoid unexpected access of tourists on site</p>	Q1, Q2 2018.	Partially completed, will be finalized in Q3 of 2018 and reflected in EMR July-December 2018

Actions taken regarding the action plan of the EMR July-December 2017:

Table 9: Status of implementation of action plan of July-December 2017

Specific issues: Recommendations Reg-02/Mestia	Implementation Status
<p>1. Conduct monitoring of environmental quality under Reg-02/Mestia sub-project, at Shkedi reservoir and Zargashi WTP sites by the end of March 2018.</p> <p>2. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of March 2018.</p>	Not Completed since no construction activities took place during the reporting period and also sensitive receptors are far from construction sites
<p>Recommendations: Ure-01 and Office-01</p> <p>3. Conduct monitoring of environmental quality under Ure-01 project at network site, Pumping Station and Rez-01 by the end of March 2018.</p> <p>4. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of March 2018.</p>	Completed in May 2018 Measurement data are reflected in proposed EMR January-June 2018

<p>5. Conduct monitoring of environmental quality under Office-01 project at construction site.</p>	<p>Completed in April 2018 Measurement data are reflected in proposed EMR January-June 2018</p>
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3.6 Consultations and Complaints

Public Awareness Activities:

Consultation meetings with the local population

- 87. During the reporting period Public Awareness activities have been carried out only under Ure-01 project.
- 88. The door to door campaigns were organized by SC, CC and UWSCG with the effected population to raise their awareness on project, safe water supply, sanitation and other related issues.

Trainings

- 89. On site environmental safeguard trainings were organized for URE-01 and Office-01 projects contractors on a regular basis, during the site visits. Environmental specialists of the above mentioned contractors are instructed to follow safeguard regulations of ADB/SPS 2009 and SSEMP requirements. The main issues of discussion were the site management and implementation of mitigation measures in accordance with the SSEMPs.
- 90. It is planned to conduct training for representatives of SC and CC in order to introduce a new manual developed by ADB for monitoring of environmental safeguards implementation within the next reporting period (June-December 2018) as well as new requirements of ADB for the development of Site Environmental Management Plans with further site specific and topic specific EMPs.
- 91. The H&S specialist of contractor DAGI conducted regular worker's trainings on Health and Safety Issues and developed Near Misses reports in accordance with the ADB requirements after a mission on 27-30 January 2018 (Please see near misses reports in **Annex H**).

Grievance redresses mechanism (GRM)

- 92. For the effective implementation of a GRM system under the USIIP, UWSCG issued special order (#122) on 30 April 2014. The "Establishment of GRM within the Framework of the Asian Development Bank Funded Projects" signed by the head of UWSCG gives clear instructions to every involved stakeholder how to act when affected people are impacted by the project. Detailed procedures for GRM System is provided in Annex E.
- 93. Focal Person/CLO, responsible for implementation of GRM is assigned for each sub-project by the CC.
- 94. No complaints have been received under Ure-01 and Office-01 Projects during the reporting period.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

- 95. As presented in this report, Tranche-1 of this Investment Program is being implemented in compliance with the ADB Safeguards Policy Statement, 2009, National Legislation and overall EARF.
- 96. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMPs and SSEMPs under Office-01 and Ure-01 projects.
- 97. More detailed recommendations with indication of the entities responsible for their implementation are provided in the table 10 below:

Table 10: Recommendations to Address Environmental Issues under Reg-02, Ure-01 and Office-01 projects

Recommendations Ure-01 and Office-01 projects	
Recommendations Reg-02/Mestia sub-project, Ure-01, Office-01	
Reg-02/Mestia sub-project	<p>Conduct Post-construction Audit and prepare corresponding Report.</p> <p>All main findings to be presented in EMR July – December 2018.</p>
Recommendations Ure-01 project	
Ure-01, Pumping Station	<p>Surplus waste soil should managed properly (fencing, signage, piling standard) and remove for final disposal</p> <p>Contractor is instructed to remove surplus waste soil that is temporarily located at the construction area.</p> <p>Surplus soil will be used for reinstatement purposes for Reservoir #1 under the Ure-01 sub-project.</p>
Recommendations Ure-01 project	
Ure-01, Construction Materials Storage Area	<p>Construction equipment should be in good condition</p> <p>Contractor is given strong instruction to improve the</p>

Recommendations Ure-01 and Office-01 projects	
Recommendations Reg-02/Mestia sub-project, Ure-01, Office-01	
Site fencing should be complete and with visible materials on it	situation, develop CAP and send improved photos of site.
Construction materials should be segregated precisely and stored properly	
Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)	
Site gate should be operation at every entrance or exit with relevant signage	
Waste should be placed at the proper standard waste containers with labeling	
Recommendations Office-01	
Office-01 Construction site	
The slope near of the construction area should be strengthened by special grid to avoid land/stone falling and damage	Contractor is instructed to improve the situation within the identified deadline and present improved photos to UWSCG.
Construction territory and wooden materials should be freed from used nails to avoid personnel damage	
Construction territory visible fencing should be restored in some locations	
All construction materials should be properly segregated and stored adequately	
Site internally should be arranged properly and cleaned regularly	
Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).	Instruction are given to contractor to improve the situation and to conduct following mitigation measures: Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day

Recommendations Ure-01 and Office-01 projects	
Recommendations Reg-02/Mestia sub-project, Ure-01, Office-01	
	<p>that will result in least disturbance;</p> <p>Noisy construction activities will be avoided during night time;</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions;</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise.</p>

98. Mitigation measures were implemented by the contractor under the Reg-01 project (Construction of Water Supply Infrastructure in Anaklia, Kutaisi and Poti) in accordance to the Final Audit Report are presented in the **Table 11** below.

Table 11: Schedule of mitigation measures to be implemented by the contractor Under Reg-01 project

Construction Site	Noncompliance	Corrective Action	Time
Darcheli Reservoir	As the security staff stated, there is no an office for the security staff on the territory of Darcheli reservoir where they can overnight or have a rest. Consequently, they have to overnight and rest in their own car.	Completed	Contractor has constructed Guard house for Darcheli. It's almost 100 % done already.
Nabada Reservoir Site	The site of the reservoir is not leveled and in case of abundant precipitations, large part of the reservoir area is flooded increasing the risk of pollution of the underground waters	The sewage pumping system on the site of Nabada reservoir is not complete contributing to the increased risk of pollution of underground waters	July 2016 Status: Not Completed Will be improved under Pot-01 Project (The bidding process is underway and the Real Construction will be started in February 2018).
Nabada Reservoir Site	The sewage pumping system on the site of Nabada reservoir is not complete contributing to the increased risk of pollution of underground waters	The installation and exploitation of the sewage pumping unit is to be accomplished.	Comment: Will be improved under Pot-01 Project (The bidding process is underway and the Real Construction will be started in February 2018).
Kutaisi/ Kldiashvili Pumping Station	Noise emission of the Pumping Station is obviously high and NOT acceptable and exceed standards.	Completed.	Completed. Noise level is reduced down to 45dBA.

4.2 Action Plan for the next period

- Conduct monitoring of environmental quality under Ure-01 project at network site and nearest sensitive receptors by the end of July 2018.

Table 12: The Specific Plan for Environmental Measurement under Ure-01 Project

Parameters	Quarterly measurement
Dust	July 2018
Vibration	July 2018
Carbon monoxide	July 2018
Nitrogen dioxide	July 2018
Sulfur dioxide	July 2018
Noise	July 2018

- Conduct Post-Construction Environmental Audit and prepare corresponding Audit report under Reg-02/Mestia sub-project.
- Conduct monitoring of environmental quality under Office-01 project at Head Office Construction site of UWSCG by the end of July 2018.
- Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of July 2018.

Table 13: The Specific Plan for Environmental Measurement under Office -01 Project

Parameters	Quarterly measurement
Dust	July 2018
Vibration	July 2018
Carbon monoxide	July 2018
Nitrogen dioxide	July 2018
Sulfur dioxide	July 2018
Noise	July 2018

ANNEXES:

ANNEX A: MONITORING MEASUREMENTS DATA

URE - 01

Sampling place coordinates	Sample N	Noise DB	Concentration of harmful substances in atmospheric					
			Saturated hydrocarbons	Carbon dioxide CO	Nitrogen dioxide NO ₂	Dust	Sulfur dioxide SO ₂	Hydrogen sulfide H ₂ S
Tavermagalu X 0731266 Y 4649719	1	40,2	0	0,25	0,001	0,001	<0,1	<0,1
	2	40,8	0	0,30	0,001	0,001	<0,1	<0,1
	3	40,3	0	0,27	0,001	0,003	<0,1	<0,1
	4	40,5	0	0,32	0,001	0,002	<0,1	<0,1
Sbekvetili X0729754 Y4644722	1	50,6	<1	1,15	0,003	0,005	<0,1	<0,1
	2	51,4	<1	1,28	0,002	0,007	<0,1	<0,1
	3	50,8	<1	1,38	0,003	0,006	<0,1	<0,1
	4	51,9	<1	1,52	0,002	0,008	<0,1	<0,1
Pumping station X0730383 Y4649261	1	42,1	0	0,16	0,001	0,004	<0,1	<0,1
	2	43,0	<1	0,81	0,008	0,017	<0,1	<0,1
	3	43,3	<1	0,62	0,003	0,018	<0,1	<0,1
	4	42,2	0	0,31	0,001	0,002	<0,1	<0,1
Natanebi X 0733131 Y 4643222	1	40,0	0	0,17	<0,001	0,011	<0,1	<0,1
	2	42,3	<1	0,20	0,007	0,010	<0,1	<0,1
	3	41,7	<1	0,22	0,006	0,014	<0,1	<0,1
	4	40,2	0	0,17	<0,001	0,019	<0,1	<0,1

Executors:
 Main specialist
 Main specialist
 Specialist

Agreed:
 Head Environmental Pollution Monitoring Department


 O. Kenia
 S. Katsava
 G. Margoshia
 M. Arabidze

მიზანმიზადი
ატმოსფერულ პარში დამატებულებულ ინფრადანენტთა კონცენტრაციის შესახებ
შპ „ავრი“ 12-13 ივნისი 2018წ.

სისხის დაცვის აღმდენი, კომისიაზე	სისხის N	სიაურ ი	კონცენტრაცია მუზ				
			ნავერი ნასმინდებლადე ბი	ნასმინდებ ის მუზიდა CO	ნასმინდებ ის დონეზე o NO _x	შტკერი გოგირდის დონეზე SO ₂	გაურდის დონეზე H ₂ S
ნეენიდა რეზიტაცი X 0731266 Y 4649719	1	40,2	0	0,25	0,001	0,001	<0,1
	2	40,8	0	0,30	0,001	0,001	<0,1
	3	40,3	0	0,27	0,001	0,003	<0,1
	4	40,5	0	0,32	0,001	0,002	<0,1
შეკვეთი X0729754 Y4644722	1	50,6	<1	1,15	0,003	0,005	<0,1
	2	51,4	<1	1,28	0,002	0,007	<0,1
	3	50,8	<1	1,38	0,003	0,006	<0,1
	4	51,9	<1	1,52	0,002	0,008	<0,1
ნანენე X0730383 Y4649261	1	42,1	0	0,16	0,001	0,004	<0,1
	2	43,0	<1	0,81	0,008	0,017	<0,1
	3	43,3	<1	0,62	0,003	0,018	<0,1
	4	42,2	0	0,31	0,001	0,002	<0,1
ნატები X 0733131 Y 4643222	1	40,0	0	0,17	<0,001	0,011	<0,1
	2	42,3	<1	0,20	0,007	0,010	<0,1
	3	41,7	<1	0,22	0,006	0,014	<0,1
	4	40,2	0	0,17	<0,001	0,019	<0,1

შესრულებულების

მოვალი ს. სერგეი ალექსეევი

მოვალი ს. სერგეი ალექსეევი

სერგეი ალექსეევი

შესრულებულია:

დანარი: დამატებულების მონიტორინგის დოკუმენტის
დაურისები



შპ „ავრი“
ს. სერგეი
ალექსეევი

გ. არაგვი

OFFICE – 01

საქართველოს პარიმონის დაცვისა და სოფლის მინისტრის სამინისტრო
MINISTRY OF ENVIRONMENT PROTECTION AND AGRICULTURE OF GEORGIA



სახლი მარემოს ეროვნული სააგენტო
LEPL NATIONAL ENVIRONMENTAL AGENCY

N 12/1-190

22 03 2016

შპს "დაგი"-ს დირექტორს
ბ-5 მიხეილ შარანგიას

სატონი მიხეილ,

საქართველოს გარემოსა და ბუნებრივი რესურსების დაცვის სამინისტროს სხივ
აგრემოს უროღნულ სააგენტო"-სა და მშს "დაგი"-ს შორის 2018 წლის 28 თბერვალს
გაფორმებული ფასიანი მომსახურების შესახებ №ყმ-3/127 ხელშეკრულების შესაბამისად,
გაწვდით, ქ. თბილისში, უნივერსიტეტის ქუჩაზე მდგრად სამსემებლი მოედამზე, თქვენს
მიერ მითითებული ატმოსფერული პარის ერთ წერტილში ჩატარებული გაზომვების
შედეგებს - შტაციის, ხმაურის, ნაბირეჟნისა და აზოტის დიოქსიდის შემდეღობაზე.

დანართი: 2 გვ. (ქართულ და ინგლისურ ენაზე)

პატივისცემით,

სააგენტოს უფროსი



ნინო თანდილაშვილი

10 აღმაშენებელი ავ. 100, 0112, თბილის, საქართველო
150 გ. აღმაშენებელი ავ., 0112, თბილის, საქართველო



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

ხელშეკრულება N ფმ-3/127, 28. 02. 2018 წელი

ქ. თბილისში, უნივერსიტეტის ქუჩაზე, სამშენებლო მოედანზე, დამკვეთის მიერ მითითებულ ერთ წერტილში ატმოსფერულ ჰაერში მტვრის, ნახშირბადის ღესიდის (CO), აზოტის დოზესიდის (NO_x) კონცენტრაციებისა (მგ/მ³) და ხმაურის ექვივალენტური დონის (LAeq) გაზომვების შედეგები.

გაზომვის ადგილი	მტვრი, მგ/მ ³	CO, მგ/მ ³	NO _x მგ/მ ³	ხმაური, (LAeq)
სამშენებლო მოედანი	0,078	0,96	0,037	66,8
ზდვ	2,0	20,0	5,0	80,0

ზდვ – ატმოსფერულ ჰაერში ზღვრულად დასაშუალი კონცენტრაციების /ხმაურის დონის მნიშვნელობებით.

გაზომვები ჩატარდა 2018 წლის 20 მარტს 11:00 სთ-დან 12:00 სთ-მდე დროის ინტერვალში ხელსაწყოებით ესპონ CO-50/NO_x (CO, NO_x), CEL-712 (მტვრი) და CEL-63X (ხმაურის დონე).

შემსრულებლები:

გ. ნარისა გ. სიმა

გ. ხაჩიშვილი გ. ს.

შეთანხმებულია:

გარემოს დაბინძურების მონიტორინგის
დეპარტამენტის უფროსი

მ. არაბიძე



Agreement N 3/127, 20.03.2018

Results of Total Dust , Carbon Monoxide (CO), Nitrogen Dioxide (NO₂) concentrations and Equivalent Noise Level (LAeq) measurements in one point of construction site on The University Street, Tbilisi, set by the customer.

Site	Total Dust, mg/m ³	CO, mg/m ³	NO ₂ , mg/m ³	LAeq, dB
University Street	0,078	0,96	0,037	66,8
MPC	2,0	20,0	5,0	80,0

MPC - maximum permissible concentrations/noise levels in the air of working area.

Measurements were carried out on March 20, 2018 in time interval from 11:00 am to 12:00 am with following devices – Элан CO-50 / NO₂ (CO, NO₂), CEL-712 (Dust) and CEL-63X (Noise Level).

Executors:

G.Narsia

G. Khachishvili

Agreed:

Head of Environmental
Pollution Monitoring Department

M. Arabidze



ANNEX B: PROJECT PHOTOS

Ure-01

Pumping Station



Reservoir#1



Fencing Works on Well Fileds





Reg-02/ Mestia

Reg-02: GRM Box at Shkedi Rezervoir



Reg-02: Zargashi WTP



Tbilisi Head Office: Office-01



Office-01 – Storage of construction materials



Office-01 – Waste Management



Office-01 protection of local tress

ANNEX C: NON-COMPLIANCE NOTICES

Ure-01 - 26.03.2018



Date: 26/03/2018

Page 1 of 2

Non-Compliance Notice

Project: USIP Contract No: URE-01 Contractor: PERI Reference: UREKI - UREKI PUMPING STATION	Non-compliance Notice UREKI	
This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .		
NON-COMPLIANCE IN UREKI		
PUMPING STATION <ul style="list-style-type: none">- Entrance door and fencing of the construction site should be in better condition and complete- Piles of soil at the construction territory should be managed properly- Top soil should be separated from surplus waste soil and managed properly (fencing, signage, piling standard)- Safety tapes around open trenches should be installed- The site access road and internal roads should be better arranged (graveling)- 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 four days (by the 31 March 2018) by the prime Contractor (Peri).

Date of site visits: 22.03-23.03.2018	
Irakli Legashvili EPTISA - Environment	

Ure-01: 24.04.2018



Urban Services Improvement Investment Project - Georgia

Date: 24/04/2018

Page 1 of 3

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI	
Contract No: URE-01		
Contractor: PERI		
Reference: UREKI – Camp		
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 UREKI</u>		
<ul style="list-style-type: none">- Construction equipment should be in good condition (non leakage)- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site- Construction waste (wooden, metal, plastic, etc.) should be removed from construction area completely and timely- Site gate should be operation at every entrance or exit with relevant signage- Site fencing should be complete and with visible materials on it- Oil spillage traces should not be available at the site- Waste should be placed at the proper standard waste containers with labeling- Containers of lubricants should be managed properly (concrete flooring and relevant roofing)- Construction materials should be segregated precisely and stored properly- Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)		



Urban Services Improvement Investment Project - Georgia

Date: 24/04/2018

Page 2 of 3



All these conditions have to be remedied within ten days (by the 4 May 2018) by the prime Contractor (Peri).	
Date of site visits: 17.04-18.04.2018	
Irakli Legashvili EPTISA – Environment Kate Chomakhidze Environmental Specialist – USIIP UWSCG Maka Goderdzishvili Head of Environmental Department - UWSCG	

Non-Compliance Notice

Project: USIIP Contract No: TBI-01 Contractor: DAGI Reference: Tbilisi – NEW OFFICE BUILDING FOR UWSCG	Non-compliance Notice TBILISI
<p>This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently.</p>	
<p><u>NON-COMPLIANCE IN TBILISI</u></p> <p>Construction of New Office Building for UWSCG</p> <ul style="list-style-type: none"> - Construction territory visible fencing should be restored in some locations - All trees at the construction area and nearby should be protected on proper way (freed from surplus waste soil and stones) to avoid its damage - Surplus waste soil should be removed from the construction territory and disposed according agreement - Special equipment during working at heights should be used - Safety norms during works at the height should be respected to avoid workers damage - Ladder safety should be ensured - Safety rules with electric cable use should be respected - Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents - The slope near of the construction area should be strengthened by special grid to avoid land/stone falling and damage - Construction territory and wooden materials should be freed from used nails to avoid personnel damage - The way to the waste containers should be freed from construction materials - All construction materials should be properly segregated and stored adequately - All workers should be equipped with complete PPE - Site internally should be arranged properly and cleaned regularly  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>	



All these conditions have to be remedied within four days (by the 31 March 2018) by the prime Contractor (Dagi).

Date of site visits: 27.03.2018

Irakli Legashvili
EPTISA - Environment

Office-01: 14.05.2018

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 .	

NON-COMPLIANCE IN TBILISI

Construction of New Office Building for UWSCG

- Surplus waste soil should be removed from the construction territory (especially from green zone)
- Everyday safety related instructions should be carried out with relevant signature from personnel
- Safety norms during works at the height should be respected to avoid workers damage
- High visible safety signs/tapes and strong barriers should be installed at complete perimeter and at the each floor of the construction building to avoid workers falling/damage
- Trees at the construction area and nearby should be protected on proper way to avoid its damage
- Special equipment during working at heights should be used
- Construction territory and wooden materials should be freed from nails to avoid personnel damage
- The access to the waste containers should be freed from construction materials
- Waste should be discharged timely
- All construction materials should be properly segregated and stored adequately
- Fuel/oil spill spots should be remedied promptly using special response items (sand, sawdust, special powder)
- The slope near of the construction area should be strengthened by special grid to avoid land/stone falling and workers damage
- 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 four days (by the 18 May 2018) by the prime Contractor (Dagi).

Date of site visits: 14.05.2018

Irakli Legashvili EPTISA – Environment Ketevan Chomakhidze UWSCG USIIP Environment	
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ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT

(EIA) /INITIAL ENVIRONMENTAL EXAMINATION (IEE) MITIGATION REQUIREMENTS:

Reference	Requirement	Action to date	Action required/comment
Ure-01: Pumping station			
	Entrance door and fencing of the construction site should be in better condition and complete	Completed	Contractor to ensure final removal and disposal of surpluses waste soil for the reinstatement purposes in the territory of reservoir #1.
	Site internally should be arranged properly and cleaned regularly	Completed	
	All workers should be equipped with complete PPE	Completed	
	Piles of soil at the construction territory should be managed properly	Completed	
	Top soil should be separated from surplus waste soil and managed properly (fencing, signage, piling standard)	Partially Completed	
	Safety tapes around open trenches should be installed	Completed	
	The site access road and internal roads should be better arranged (graveling)	Completed	

Reference	Requirement	Action to date	Action required/comment
Ure-01 Construction Materials Storage Area			
	Construction materials should be segregated precisely and stored properly	Partially Completed	Contractor to developed Corrective Action Plan and improved the situation within the proposed deadlines, site improvements with relevant photos will be presented in EMR July-December 2018.
	Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)	Partially Completed	
	Site gate should be operation at every entrance or exit with relevant signage	Partially Completed	
	Waste should be placed at the proper standard waste containers with labeling	Partially Completed	
	Containers of lubricants should be managed properly (concrete flooring and relevant roofing)	Partially Completed	
	Construction equipment should be in good condition	Partially Completed	
	Site fencing should be complete and with visible materials on it	Partially completed	
	Construction materials should be segregated precisely and stored properly	Partially completed	
	Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)	Partially completed	

Reference	Requirement	Action to date	Action required/comment
	Construction territory visible fencing should be restored in some locations	Partially Completed	Contractor to developed Corrective Action Plan and improved the situation within the proposed deadlines, site improvements with relevant photos will be presented in EMR July-December 2018.
	All trees at the construction area and nearby should be protected on proper way (freed from surplus waste soil and stones) to avoid its damage	Completed	
	Surplus waste soil should be removed from the construction territory and disposed according agreement	Completed	
	Special equipment during working at heights should be used	Completed	
	Safety norms during works at the height should be respected to avoid workers damage	Partially Completed	
	Ladder safety should be ensured	Completed	
	Safety rules with electric cable use should be respected	Completed	
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Completed	
	The slope near of the construction area should be strengthened by special grid to avoid land/stone falling and damage	Partially Completed	
	Construction territory and wooden materials should be freed from used nails to avoid personnel damage	Not Completed	
	The way to the waste containers should be freed from construction materials	Completed	
	All workers should be equipped with complete PPE	Partially Completed	

Reference	Requirement	Action to date	Action required/comment
	Site internally should be arranged properly and cleaned regularly		
	All construction materials should be properly segregated and stored adequately	Partially Completed	

ANNEX E: Grievance redresses mechanism (GRM)

- 99.** There was no GRM system existing under USIIP before the Reg-01 project. Therefore, there was no structured mechanism and procedure to help the affected population and stakeholders send their grievances related to project-induced environmental impacts and nuisances to UWSCG or directly to the administrative bodies responsible for environmental protection.
- 100.** For the effective implementation of a GRM system under the USIIP, UWSCG issued special order (#122) on 30 April 2014. The “Establishment of GRM within the Framework of the Asian Development Bank Funded Projects” signed by the head of UWSCG gives clear instructions to every involved stakeholder how to act when affected people are impacted by the project.
- 101.** Any affected person can apply at a UWSCG local service centre through different ways, either by going to the service centre, sending a letter to the service centre, or calling a hotline. The operators of the service centre can respond by going directly to the affected person if they are disabled to get the written grievance from them.
- 102.** During the first stage, complaints are discussed within two weeks of being received by the local service centre of UWSCG (e.g. Kutaisi office), based on the verbal or written complaint. In the first stage of grievance review and resolution, an authorized representative of the local service centre is responsible for ensuring the registration of the claim and its further processing. He/she engages in the grievance review and resolution process representatives (managers and environmental specialists) of Construction and Supervision Companies, and the representatives of UWSCG central office as required. At the local service centre, the affected person is provided with a queue number and then registers the grievance at the service desk.
- 103.** The service centre operators, who are trained² in USIIP/Reg-01 project, register all relevant grievances with support of an online task management system, which tracks information on the grievance review process and the responsible person. Moreover, the operators fill the ADB complaints log with the registered grievance that coincides with local internal forms. This electronic intranet system³ allows the UWSCG Tbilisi Office to immediately see claims. Therefore, claims submitted to any regional service centre can be monitored by the Head of the Investment Projects Management Office (IPMO), as well as the Head of the Environmental and Resettlement Division, Maka Goderdzishvili.
- 104.** When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the e-Dокумент – Task Management System.
- 105.** The grievance enters a second stage if it is not solved. In that case, the authorized representative of the local service centre will help the claimant prepare a package of grievance application documents for official submission to the Grievance Redress Committee (GRC). The package contains the following information:

² UWSCG and Supervision Consultant (Eptisa) conducted trainings for service center operators covering general procedures of GRM functioning in order to ensure proper coordination of different departments.

³The **eDocument - Task Management System** was developed by LEPL Financial-Analytical Service of the Ministry of Finance of Georgia. It is an innovative electronic document and task management mechanism for electronically processing of documents. Used by almost all the major budgetary organizations in Georgia, the eDocumentservice offers an opportunity to manage, find, and track documents for information-intensive organizations.

- Name, ID, address and contact details of the claimant
- Description of the essence of the complaint
- Supporting documents and evidences (photos, maps, drawings/sketches, conclusion of experts or any other documents confirming the claim)
- Brief description of the actions proposed for the grievance resolution at the first stage and the reasons why these actions were denied
- Minutes of meetings conducted at the first stage

106. The GRC should make a decision within two weeks after the registration of the grievance. The GRC is staffed as follows: (i) Representative of self-government – the head of committee; (ii) 99. Director/ Manager of UWSCG service centre; (iii) Investments Project Management Division representative of the company; (iv) Representative of local authoritative NGO (according to the claim reference); (v) Stakeholders' female representative;(vi) Stakeholders' informal representative; and (vii) Heads of local municipalities.

107. The GRC will review the package of grievance documents, set a date for a meeting with the claimant, discuss the claim at the meeting, and set up a plan for further actions (actions, responsible persons, schedule etc.). Upon the resolution of the case, the GRC will prepare a brief resume and protocol and the protocol signed by complainant and all parties will be registered in a grievance log.

108. There is a third stage in case there is a failure to resolve the grievance. In this case, GRC will help the claimant to prepare the documents for submission to the Rayon (municipal) court. They can also apply to ADB at the address below:

- *Complaints Receiving Officer, Accountability Mechanism*
- *Asian Development Bank Headquarters*
- *6 ADB Avenue, Mandaluyong City 1550, Philippines*
- *Email: amcro@adb.org, Fax +63-2-636-2086*

ANNEX F: WEEKLY ENVIRONMENTAL MONITORING REPORT

URE-01 – 12 February, 2018



თარიღი/Date: 12.02.2018

Weekly Environmental Monitoring

კონტრაქტის შესქმნელი			უფლებამობები: eptisa Supervisor: eptisa		
პრესტიგი/ინიციატივა: URE-1 rezervuar Project/Site:			კონტრაქტორი: Contractor: შპს „ეპტისა“		
N	მიზანი	დარღვევა/ yes/no	დანართის მიზანი მიზანი ან/ა/ზ.	მიზანი მიზანი ან/ა/ზ.	შენიშვნა/Comment
1	სამშენებლო ტერიტორიის სტრუქტურული შემონაბეჭდი. Adequate fencing of construction area from all sides	კი			
2	საკუთრივი შესასვლელი გარემონტირების, სტანდარტული გამსჭრობითი და საინფორმაციო ჩამონიშვნის აღწერა Arrangement of lockable gate with standard warning and information signs		კი		
3	სამშენებლო ტერიტორიაზე და გარემონტირებულ სტანდარტული გამსჭრობითი და საინფორმაციო ნიშანების გამოყენება Placement of standard warning and information signs at the perimeter and inside of construction area	კი			
4	ფიკ და ტარაფებულ თანიღებზე და კერზე უსაფრთხოების ღრუბლების, ბარიერების და გამსჭრობითი დანართის გამოყენება Installation of safety signs/tapes and trench side barriers around of open trenches	კი			
5	1.5 მეტრზე მეტი სიღრმის ტრანშეების კუდუნის გამოწვევა. Strengthening of walls of the deep trenches (>1.5m) by boards	კი			
6	ფისხდებულ ადგილებში დაადგინდეთ ფატულებულ თანიღებზე ყდრისობით გადასახველების მოწყობა. Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas			არ გვეხა	
7	სამშენებლო ტერიტორიაზე, სამუშაოების ზომის არამატებულ ხეების შემორჩევა (ფასოს ან მაღლის აფილობის მიზნით) Protect all trees nearby construction zone to avoid its damage			არ გვეხა	
8	ემსახურის დრის, ნიადაგის ნაყოფების (დასაღმენით 20-30 სიმილის) დანართის და გამოსაყენებულიდან დაგრძელება, შენისკა.Removal of top soil (about 30 cm depth) and separately storing in appropriate place			არ გვეხა	
9	სამშენებლო ნარჩენების და კარის ნარჩენის გრუნტის დონეზე გატაბა/განადევება. Timely removal/disposal of construction waste and surplus waste soil	კი			
10	სამშენებლო ტერიტორიის დაზის სათვალში განაცენა. Provide adequate lighting of construction territory	კი			

11	სამშენებლო ტერიტორიის შესაბამისად მოწყობა, მსალების, მოწყობილობების და დანადგარების ორგზიზებულად განთავსება. (საჭიროებიდან გამომდინარე) Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	კი				
12	სამშენებლო ტერიტორიაზე საწვავის და საპონია მსალების დალურის შედეგების საღივებიდაცით ჩატარების (ქვიშა, ნახერი, მცირე ზომის ავზი და სხვა) ხელმისაწვდომობა. Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	არა				
13	სწორი და სპეციალური მსალების კონტეინერების განთავსება მშოლმდ სპეციალურ გადასატელ აღჭურვის. Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)			არ ეხება		
14	სამშენებლო ტერიტორიაზე საყოფაცხოვრულ ნარჩენებისთვის თავისახურანი 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")	კი				
15	სამშენებლო ტერიტორიაზე სახიფათო 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")	კი				
16	სამშენებლო ტერიტორიაზე ან მის გარეთ 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)	კი				
17	სამშენებლო მასალების და ნარჩენების ტრანსპორტირების დროს ავტო ტრანსპორტის სპეციალური საფარით (ზრუნველით, ტერტიალდასხვა) აღჭურვა Use tarpaulins cover during materials transportation		კი			
18	საჭიროებიდან გამომდინარე მტკრის წარმოქნის პრივენდია. Dust generation prevention activities (whenneeded)	კი				
19	მუშების და ინერტ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის სამსალებების (ჩაფარული, ჟილეტი, ხელთათმანი, ჩუქმები, დამცავისათვალი, დასხვა) სრულადგამოყენება. Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	კი				
20	სიმაღლეზე მუშაობის დროს სპეციალური დამცავი აღჭურვილობის გამოყენება. Use of special safety equipment during working at heights	კი				
21	სამშენებლო ტერიტორიის მუდმივად დალადება და დასუფთავება. Regularly cleaning of construction territory	კი				

ობიექტის გარემოსდაცვაზე პასუხისმგებელი პირი (კონტრაქტორი)/Staff responsible for environment/safety at the site (contractor)	სახელი: Name: თემბოშ მაღლაფერიძე	ხელმოწერა/ Signature:
შენრებლობის ინსპექტორი (ზედამხედველი)/Construction site inspector (SC/Engineer)	სახელი: ნუგზარ ჩაუტაძე Name	ხელმოწერა/ Signature:
გარემოსდაცვის სპეციალისტი (კონტრაქტორი)/Environmental Specialist (contractor)	სახელი: Name:	ხელმოწერა/ Signature:

შენიშვნა/Comment:

შესაბამისი ფოტომასალა/Photo Material



TBI-01 – 26.03.2018

ყოველკვარტლო გარემოსდაცვითი მონიტორინგი Weekly Environmental Monitoring

Name of the Contractor and project number/lot მინქრელი კონტრაქტორის სახელი და პროექტის/ლოტის ნომერი	Dagi LTD (დაქროლებული); თბილისი სამეცნიეროს რ-ნ გაზაფხული №14 Contact: No CW/ICB/Office-01
Contract Number: Contract #:	
Description and Location of the Site სამშენებლო სიტუაცია დაგენერირებულის 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 განხორციელებული სამსახური	ვა. „საქართველოს გაერთიანებული წყლისა მიმდევრობის კომპანია“ "United Water Supply Company of Georgia", LLC
Supervisor's Identity (name, last name, contact information and signature) სამუშაოს მიმღების კომისიის წარმომდგენლობის სახელი, გვარი, საკონტაქტო ინფორმაცია და ხელმოწერა	Supervisor's company: LLC Eprisa სამუშაოს მიმღების კომისიის სახელი გვარი: ლომაძე ვაჟა Name: Vakhtang Lomidze ხელმოწერა/ Signature:  მობილურის ნომერი: 577 177 096 Mobile Phone: 577 177 096
Current Stage of Civil Works სამშენებლო სამუშაოების მიმღები სტატუსი	მიმღინარე, On-going
Weather Conditions ჰარიტის პირობები	Good კარგი
Responsible person for environment/safety at the site (contractor) Staff responsible for environment/safety at the site (contractor)	სახელი: ალექსანდრე ჭუმბურიძე Name: Alexandre Tchumburidze ხელმოწერა/ Signature: 
Environmental Specialist (contractor)	სახელი: ალექსანდრე ჭუმბურიძე Name: Alexandre Tchumburidze ხელმოწერა/ Signature: 

Datelorăzboin: 26.03.2018.

3	1.9 Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings. Documentation of training and capacity building activities undertaken as per EMP requirements and records kept of trainings. Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1 Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings. Documentation of training and capacity building activities undertaken as per EMP requirements and records kept of trainings. Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings.				
2	Permits, Licenses and Contracts			
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste/construction debris in accordance with the relevant regulations issued by the municipality. The Contractor has a permit or relevant contract from the Municipality for final disposal of municipal waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	The Contractor has a permit for final disposal of municipal waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3	The Contractor has executed the contract with the licensed organization on the hand-over and disposal of hazardous waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	The Contractor has a license for tree felling/woodchipping/timber cutting operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Performance of civil works			
3.1	adequate fencing of construction area from all sides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Arrangement of lockable gate with standard warning and information signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	placement of standard warning and information signs at the perimeter and inside of construction area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Installation of safety signs/stakes and side barriers around of open trenches.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4				
3.5	1.5 m high wooden or metal walls of deep trenches (>1.5m) by boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7	Protect all trees nearby construction zone to avoid its damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8	removal of topsoil, topsoil to be stored in appropriate place (depth about 20-30 cm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.9	timely removal/disposal of construction waste and surplus waste soil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10	Provide adequate lighting of construction territory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11	proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.12	availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.13	Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete floor)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

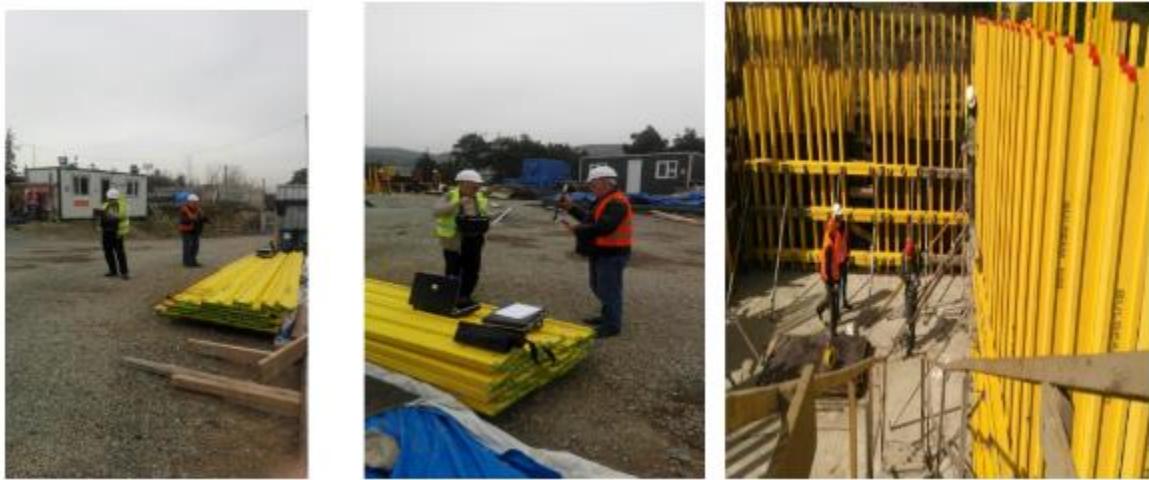
3.14	სამსახურდა ტრიტურისაზე საკონკრეტო ნარჩენებისთვის თავსაცურავი კონკრეტური გამოსახურა და შესაბამისი ნარჩენების აღმერა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")			თავსაცურავის კონკრეტური გამოსახურების დამოუკიდებლად იმპოქტის გამოყენება გრძელდება, შესაბამისი წარწერებით და მასკორებით.
3.15	სამსახურდა ტრიტურისაზე სახისაცვილის თავსაცურავის კონკრეტური გამოსახურა და შესაბამისი წარწერა აღმერა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the special dedicated place with relevant indication signs (for example "Hazardous Waste")			თავსაცურავის ტრიტურისაზე არას სახისაცვილის კონკრეტური, და შესაბამისი წარწერა.
3.16	სამსახურდა ტრიტურისაზე მას გარეთ ტრიტურისარჩევების პროცესის დაფიქსირებისა და ნიშნობის ადგენტის (მაგ. P) Arrangement of proper Parking area at the adequate place inside/outside of construction territory with relevant signs (for example P)			იმპოქტის ტრიტურისაზე მოწყვეტილია პროცესის ადგენტის დაფიქსირებისა და ნიშნობის ადგენტის (მაგ. P)
3.17	სამსახურდა მასებისთვის და ნარჩენების ტრიტურისარჩევების დაწინ ცეკვისას სპეციალური საცეკვაური საკითხი (მაგ. ტრიტურისა, ტრიტურისასთვის)			საცეკვის მასებისთვის იმუშავება მრავალი დროისა.
	დაცული Use tarpaulins cover during materials transportation			
3.18	საკორონოვან გამომონარე ტექნიკის წარმოების პრევენცია Dust generation prevention activities (when needed)			საკით შესრებილია ქაბ დორდია სამონიცირებლის მოწყვეტილი მიზანი მიზანი.
3.19	უფროს და ინგინერ ტექნიკური პრინციპების მიერ იმუშავებული დაცვის სახულებების (სახულებები, კოლექტორები, ხელისათვალი, ნეტისები, დასკვერ ხარისხი და სხვ.) მიეცეთ გამოსახურება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts			უფროს და ინგინერ ტექნიკური პრინციპების მიერ იმუშავებული და კორიტურული გამოსახურებები მიეცეთ გამოსახურება დაცვის სახულებების მიზანისთვის
3.20	სამსახურის მუსხინის დაწინ სპეციალური დამსახურების აღმერებულობის გამოსახურება Use of special safety equipment during working at heights			გამოსახურება სპეციალური დამსახურების აღმერებულობის წარმო
3.21	სამსახურდა ტრიტურისაზე მუდმივდა დაღულება და დამუჯამავებელი Regularly cleaning of construction territory			მისაღისარების საფუძვლით მუდმივდა მუდმივდასარჩევი მისაღისარების ტრიტურისაზე მუდმივდასარჩევი მისაღისარების მიზან დაღულება და დამუჯამავებელი.
4	Monitoring Measurements			

4 Monitoring Measurements

7

შენიშვნა/Comment: მიმდინარეობს საიტზე სამშეღა წელის შემთხვემითი სამუშაოები.

შესაბამისი ფოტოებისადას/Photo materials:



8





ANNEX G: Corrective Action Plan

(A) Corrective Action Plan developed by contractor “DAGI” under TBI-01 project

CORRECTIVE ACTION PLAN



Mission notes
27 -30 January 2018

I2749: usiip, tranche 1 – construction of uwscg office building

ADB recommended cc to construct concrete protective wall at the east part of the territory to avoid damaging of inhabitants living at nearby apartment buildings (fig. 1)

(Fig. 1)



For safety the east part of the territory to avoid damaging of inhabitants living at nearby apartment buildings (fig. 2)

Sample: rock fall protection (fig. 2)



After cutting for the construction NOUWSCG access road, on the rights side there is a danger of the fallen tree, that the tree did not fall, the tree was connected with ropes to the ground by anker (fig.3)
Trees protection (fig.3)



ANNEX H: Near Misses Report

Near Misses: 06.02.2018

Near Misses: 22.02.2018



ADB

Construction of New Office Building for United Water Supply Company of Georgia
Tbilisi, Georgia

episa

Near Miss Report

- Personal Disease / illness Property Damage
 Injury Environment spill / release Dangerous occurrence X
 Other

Nature of Near Miss (tick all applicable)

Day of Near Miss 22.02.18 Time of Near Miss 14:00:00 AM

Exact location of Near Miss Tbilisi street university №006/003 Construction of New Office United Water Supply Company of Georgia (NODUWSCG)

Description of Near Miss (Include details of operations & activities) On the wooden material there are nails, which can damage the all personals on the site.

Description of first aid / medical treatment

Corrective / Preventive action taken or recommendation Must be cleaned all wood materials or sealed separately storage.

Do we have a safety manager on site YES ALEXANDER CHUMBURIDZE

Where any of the above boxes are ticked as "Other" please describe below:

Other:

Reported By: ALEXANDER CHUMBURIDZE

Name: ALEXANDER CHUMBURIDZE Position HSE MANAGER Date:

Circulation (on the day of the event)

Original Project File:

- Project Manager
 Country Manager
 HS&E Manager

