

Environmental Monitoring Report

Semestral Report
July 2017

GEO: Urban Services Improvement Investment Program – Project 1

Prepared by United Water Supply Company of Georgia, LLC, Government of Georgia for the Asian Development Bank.

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-023
January-June 2017
Loan Number 2749-GEO (SF)

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
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ES/ SES	Environmental Specialist/ Senior Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IPMO	Investment Program Management Office
USIIP	Urban Sector Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoENRP	Ministry of Environment and Natural Resources Protection
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sewerage

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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 2017 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 m³/h) 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 02.08.2014 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 is 21.06.2017
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. 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 2017)

Table 1: Project Progress during the Previous 6 Months

URE-01

Site	Water Mains Installation
URE-01	
Works undertaken during January-June 2017	22.074 km of PE 100 pipes OD 710, SDR 11 installed – 99%
Site	Water network
Works undertaken during January-June 2017	36.744 km of HDPE pipes DN 25-560 – 72.77%
Site	Sewerage network
Works undertaken during January-June 2017	36.466 km of PE 100 and corrugated pipes OD 110-500 mm, SDR 11 installed – 73.95%
Site	Construction of Reservoir #1
Works undertaken during January-June	Excavation Works – 100% Drainage Installation Works – 60%

Site	Water Mains Installation
URE-01	
2017	
Site	Well Field
Works undertaken during January-June 2017	Drilling Works – 85%
Site	WS Pumping Station
Works undertaken during January-June 2017	Construction Works – 90%

REG-02 – Mestia

Site	Effluent Pipe
Works undertaken during January-June 2017	Lanchvali Reservoir – 100%
	Shkedi Reservoir – 95%
	WTP - 75%
	Transmission main - 95%

19. During the reporting period, no construction work was carried out within the sub-project of Tbilisi Head Office (TBI-01). The reason for the temporary suspension of construction works was the request of UWSCG to extend the internal office space within the proposed office building by constructing additional floors and changing the design. Currently design of amended office building is under finalization and is developed by the Design Company – The House Art.

1.2 Changes in Project Organization and Environmental Management Team

Agencies Involved in Investment Program Implementation

20. 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.
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 December 2016 the name of Investment Program Management Office (IPMO) - Strategic Planning and Donors Relation Department (DSPDR) changed and became an International Procurement and Donors Relations Department. A new Department of Environmental Protection, Resettlement and Construction Permit (DEPRP) was established under UWSCG as well. DEPRP replaced the existing Unit of Resettlement and Environmental Protection

(UREP). DEPRP will include Unit of Construction Permission and will consist of five staff members. The new structural changes enter into force from January 2017.

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 EMPs and SEMP of subprojects, an Environmental Management Specialist (EMS) is employed by the SC/Eptisa. SC/EMS conducts routine observations and surveys, prepares quarterly environmental reports and submits these to UWSCG.
24. The Contractor has the following obligations:
 - to prepare SSEMPs;
 - to employ Environmental Consultant responsible for developing and implementing the construction phase SSEMPs and for providing the corresponding information to UWSCG and SC;
 - to develop Solid Waste Disposal Plan and agreed the MoENRP 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 EMP/SSEMPs 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 3 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.

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

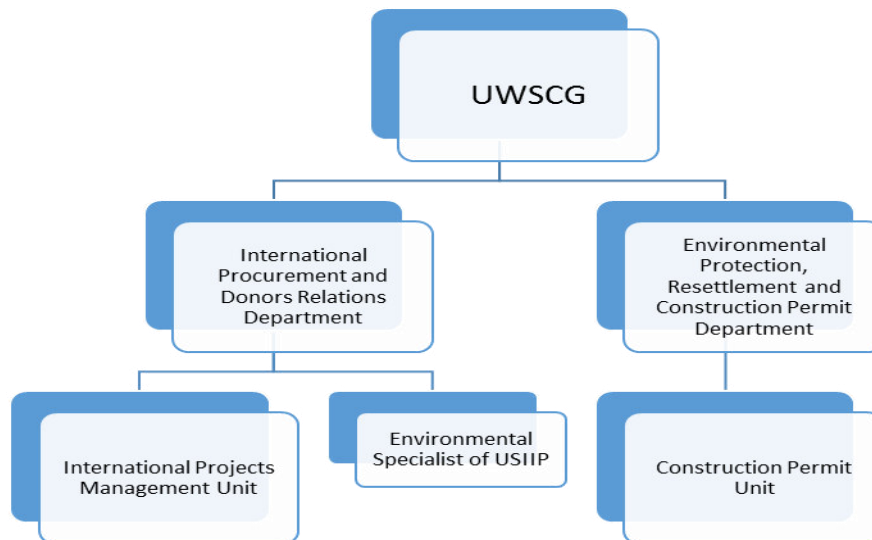
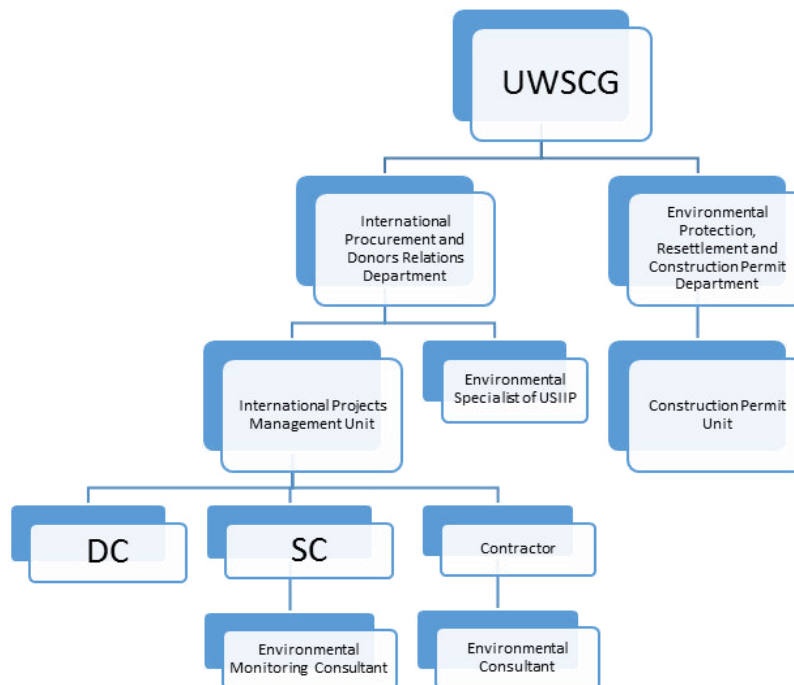


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



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 SSEMPs are prepared by Contractor, endorsed by SC and approved by UWSCG/DEPRP.
34. SC is responsible for environmental capacity building, monitoring of implementation of SEMP's 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.
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 project:
 - "Solid Waste Management Company of Georgia" – contract was signed for disposal of Solid Waste from Mestia Construction sites
40. 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.

41. Under the Ure-01 and Reg-02 projects, contractors have signed agreement with the National Environmental Agency for the monitoring of measurements (dust, CO, NO₂, SO₂, noise) at various construction sites.
42. 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 Ingeniría S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)

PART II - ENVIRONMENTAL MONITORING

43. 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 2017 (see para.60). 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 notice has been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.

44. The following monitoring activities were performed by EPTISA's environmental specialist during January-June 2017:
 - 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 Notice)
 - 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
45. EPTISA's Site Team in particular instructed Contractor to comply for the transmission pipelines with the following (as per the agreed H&S Plan):
 - H&S rules and procedures are applied at all times by all concerned staff and sub-contractors
 - Provide adequate training to staff and sub-contractors on regular basis
 - Report H&S issues in daily reports (accident reporting, etc.)
 - Enforce the accident prevention plan on regular basis incl. precautions for safety driving
 - Submit to RE a list of protective equipment delivered for all staff / sub-contractor staff
 - Submit to RE a list and content of first aid boxes deployed at all site offices, cars, etc.
46. Environmental Monitoring Specialists hired by contractor under the URE-01 and Reg-02 projects conducted the day-to-day monitoring of the construction sites, developed the weekly monitoring reports and submitted to SC/Eptisa.
47. 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.
48. Environmental Specialist (ES) of USIIP performed monitoring of contractor's performance with the approved EMPs and SSEMPs, environmental standards and other environmental commitments of the contractor. ES developed bi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
49. The USIIP's Environmental Impact Monitoring and Mitigation is carried out in accordance with the updated EMPs and Site-Specific Environmental Management Plans (SSEMPs) prepared by the Contractors. The construction activities affecting the environment are as follows:
 - Excavation works
 - Removal of Top Soil
 - Removal of Surplus Soil
 - Removal of Vegetation
 - Backfilling of Trenches
 - Reinstatement Activities

50. 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. As no construction activities have been carried out during the reporting period under TBI-01 project only Ure-01 and Reg-02 is 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

Parameters	Frequency & Location	Remarks
		its removal or protection.
Reg-02/Mestia		
Air Quality	Air Quality Every 6 months Mestia City Center	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m3; CO Mg/m3; NO2 Mg/m3; SO2 Mg/m3
Noise	Air Quality Every 6 months Mestia City Center	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
Loss of topsoil due to incorrect stripping and storage	During the site Inspection and audit	Top soil of about 15 cm depth shall be removed and stored separately in appropriate location
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
Noise	During the site inspection and audit	Ensure that all equipment & vehicles used for construction activity are in good condition; Limiting working hours to 8 am – 6 pm
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

Parameters	Frequency & Location	Remarks
		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.

51. 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.

B. Monitoring Measurement Data

52. 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	dB		dB	
	National Regulations		WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

53. Monitoring measurements under Ure-01 was conducted by the National Environmental Agency under the MoENRP. The monitoring measurements were carried out in various construction sites in May 2017 (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 2017 and results will be reflected in the next July-December EMR 2017. According to data received in May 2017 the obtained results exceed the National Environmental Standard (Maximum Permissible Level) of Noise only in Ureki “Magnito” and therefore additional mitigations are required (Please see Table 11 – Recommendations to Address Environmental Issues). All measurements were carried

out at construction sites, were temporary and conducted during the daytime from 13:00 pm to 15:00pm. No complaints were received from the local population about the noise during the reporting period.

54. In the future, during the next reporting period (July-December 2017) environmental measurements will be carried out at the nearest sensitive receptors as well at the construction site and if the noise level will exceed the noise standards provided in Table 4 and works will be carried out for a long period, additional mitigation measures will be provided.

Monitoring measurement data:

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

N	Place of measurement	Samples #	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise Db Daytime 07:00 - 22:00
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational
	Village Meria	1	0.001	0.32	<0,001	<0,1	40.3
		2	0.004	0.61	<0,001	<0,1	40.8
		3	0.002	0.52	0,001	<0,1	41.1
		4	0.002	0.42	0,001	<0,1	40.5
1.	Ureki near the River Sepa	1	0.002	0.15	<0,001	<0,1	40.3
		2	0.004	0.18	0,001	<0,1	43.4
		3	0.012	0.85	0,001	<0,1	42.0
		4	0.013	0.97	0,001	<0,1	40.9
	Ureki "Magnito" (Ureki Recreational Area)	1	0.004	0.16	0,007	<0,1	62.3
		2	0.015	2.62	0,006	<0,1	64.9
		3	0.015	2.73	0,005	<0,1	64.3
		4	0.011	1.11	0,006	<0,1	55.1
	Tsvermagala Reservoir#1	1	0.001	0.14	<0,001	<0,1	54.3

N	Place of measurement	Samples #	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise Db Daytime 07:00 - 22:00
	X 0731286 Y 4643708	2	0.004	0.13	<0,001	<0,1	57.2
		3	0.001	0.12	<0,001	<0,1	56.2
		4	0.001	0.04	<0,001	<0,1	55.1

55. Environmental measurements were carried out by the contractors under the Reg-02 /Mestia in the city center. All other project components are located far away from the sensitive receptors. Environmental measurements of air, dust and noise will be carried out in October 2017 and results will be reflected in July-December EMR 2017.

Table 6: Monitoring Measurements under Ure-01 Project (B)

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m ³	CO Mg/m ³	NO ₂ Mg/m ³	SO ₂ Mg/m ³	Noise db
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational
1.	Mestia Town	X 0311771 Y 4767121	0.015	0.37	0,002	<0,1	51.5

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:

56. No SSEMPs have been prepared within the Ure-01 and Reg-02 Projects during the reporting time and approved by the UWSCG/IPMO/DEPRP.

3.2 Site Inspections and Audits

57. Regular site monitoring visits were carried out during the reporting period by the Supervision Consultant Eptisa and IPMO - UWSCG for Ure-01 and Reg-02 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 and Reg-02 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 and Ure-01 projects.
58. Site inspection monitoring and audit during the reporting period have been carried out on: 6 January 2017, 9-10 February 2017, 13 February 2017, 1-2 March 2017, 19-21 April 2017, 29-30 May 2017, 8-9 June 2017. The schedule of conducted monitoring and audit during the reporting period is presented in the Table 7 below.

Table 7: 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 Contractors under Ure-01 and Reg-02 projects	1 January – June 30 2017
2	Site Monitoring	Environmental specialist of Eptisa	6 January 2017
3.	Site Audit	Environmental specialists of USIIP and Eptisa	9-10 February 2017
4.	Site Monitoring	Environmental specialist of Eptisa	13 February 2017
5.	Site Monitoring	Environmental specialist of Eptisa	1-2 March 2017
6.	Site Audit	Environmental specialist of USIIP environmental specialists of and Eptisa and International-Regional Environmental Safeguards Consultant Ms. Ketii Dgebuadze	19, 20, 21 April 2017
7.	Site Audit	Environmental specialist of USIIP and Eptisa environmental specialists	29-30 May 2017
8.	Site Monitoring	Environmental specialist of Eptisa	8-9 June 2017

3.3 Non-Compliance Notices

URE-01

59. 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).
60. 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.
61. Non-compliance notices have been issued by SC/Eptisa under Ure-01 project in following date: 9-10 February 2017, 13 February 2017, 1-2 March 2017, 19-21 April 2017, 8-9 June 2017 (see Annex C).

3.4 Corrective Action Plans

62. For the purpose of resolving the observed issues, the Corrective Action Plans have been developed by the contractor. Sample CAP prepared by Contractor Peri is 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 8: Actions taken for Implementation of Mitigation Measures under Ure-01 Projects

REG-01

Construction Site	Environmental Issues	Action taken
Kutaisi/ Kldiashvili Pumping Station	Noise emission of the Pumping Station is obviously high and NOT acceptable and exceed standards	Partially Completed. Contractor "Cobra" (Reg-01 project) has implemented first stage works for noise reduction, consisting only in installing noise absorbing panels in the inner parts of doors and window. While the situation has improved and accordingly noise was reduced, new noise measurements carried out by Eptisa at night time, when the threshold is the

Construction Site	Environmental Issues	Action taken
		strictest by national regulations (45dB) show that problem is not solved with only this first stage works, so the complete noise reduction works included in Variation Order #09 must be implemented, which ends 26-August-2017.

URE-01

Construction Site	Environmental Issues	Action taken
Ureki/Reservoir #1	- Trees at the construction site should be protect to avoid its damage	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Proper warning and information signs should be arranged at the perimeter of the site	Completed
	- Internal roads should be arranged properly	Completed
	- Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site	Completed
	- Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Workers always should use complete PPE	Completed
Ureki/Pumping Station	- Top soil at the site should be managed properly to avoid its losing	Completed
	- Entrance door of construction site should be in better operational condition and closed as needed	Completed
	- Piles of soil at the construction territory should be managed properly (grading/leveling)	Completed
	- The site access road and internal roads should be arranged	Completed
	- Site internally should be arranged properly with signage and cleaned	Completed

Construction Site	Environmental Issues	Action taken
	regularly	
	- Gate should be closed and locked to avoid non-authorized entrance at the site	Completed
	- Site internally should be arranged properly and cleaned regularly	Completed
Ureki/Network	- Accumulated waste soil should be removed from construction area and disposed in a proper place (Network)	Completed
	- Top soil at the site is removed and stored separately (PS)	Completed
	- High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed
	- Construction activities information signs should be installed at each construction segment	Completed
	- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	(Recommendations to address Environmental Issues are provided in Table 11)
	- Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	
	- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	
	- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	
	- Trees of nearby construction zone should be protected to avoid its damage	Completed
	- Use tarpaulins to cover during materials transportation	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Workers always should use complete PPE	Completed

REG-02 Mestia

Construction Site	Environmental Issues	Action taken
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Construction Site	Environmental Issues	Action taken
Shkedi reservoir	- Reservoirs construction sites should be fenced from all sides and equipped with lockable gate with proper warning and information signs	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Top soil at the access road should be managed properly to avoid its losing	Partially Completed (Part of the layer is mixed with soil)
	- Electricity equipment (cable) safe maintenance should be ensured	Completed
	- Trees at the construction zone and along the access road (removal of stones from trees) should be protected to avoid its damage	Completed
	- Special equipment during working at heights should be used	Partially Completed
	- Ladder safety should be ensured	Partially Completed
	- Dust prevention activities (watering of access road) should be provided	Partially completed
	- Proper warning and information signs should be arranged at the entrance, inside and perimeter of construction sites	Completed
	- Bio toilet at the site should be installed	Not completed (Recommendations to address Environmental Issues are provided in Table 11)
	- All construction materials should be properly segregated and stored adequately	Completed
	- Construction waste materials (wood, residues of iron and others) should be managed properly and disposed at the proper organized place	Partially Completed
Zargashi Reservoir	- Construction territory should be fenced from all sides properly	Partially Completed
	- Electricity equipment (transformer, cable) safe maintenance should be ensured	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Ladder safety should be ensured	Partially Completed

Construction Site	Environmental Issues	Action taken
	- Entrance of animals at the construction area categorical unacceptable and should be prevented	Partially Completed
	- Proper warning and information signs should be arranged at the inside and perimeter of construction sites	Completed
	- Bio toilet at the site should be installed	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Dust prevention activities should be provided	Partially completed
	- All construction materials should be properly segregated and stored adequately	Completed
	- Soil for backfilling purposes should be stored properly	Not completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Construction waste materials should be managed properly and disposed at the proper organized place	Completed
Lanchvali Reservoir	- Construction sites should be fenced from all sides and equipped with lockable gate with proper warning signs	Partially Completed (90% of the reservoir is fenced)
	- Ladder safety should be ensured	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Special equipment during working at heights should be used	Not Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- Dust prevention activities should be provided in windy and dry weather	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)
	- All construction materials should be properly segregated and stored	Partially Completed (Recommendations to address Environmental

Construction Site	Environmental Issues	Action taken
	adequately	Issues are provided in Table 11)
	- Construction waste materials should be managed properly and disposed at the proper organized place	Completed
	- PPE equipment should be used always and completely by all workers (even personnel of subcontractor)	Completed
	- Site internally should be arranged properly and cleaned regularly	Partially Completed (Recommendations to address Environmental Issues are provided in Table 11)

TBILISI HEAD OFFICE


Construction Site	Environmental Issues	Action taken
	- Place of fuel containers storage should be with roofing	Completed
	- Waste containers should be properly labeled (Household waste, Hazardous waste and etc.)	Completed
	- Waste should be placed in proper waste container and discharged timely	Completed
	- Parking should be arranged with relevant sign	Completed
	- Transport should be parked only at the parking area	Completed
	- Waste construction materials should be removed from the site timely and permanently	Completed

63. An Annual Environmental Compliance Safeguard Review Mission was carried out on 19-21 April 2017 to review environmental safeguards compliance of Tranche 1 project.

3.5 Actions taken to reflect the findings of ADB mission carried out on 19-21 April 2017:

Table 9: Status of Findings of ADB Mission Carried Out on 19-21 April 2017

Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
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Project	Specific Issues	Deadline for submission/Implementation	Implementation Status
Status of findings of ADB mission carried out on 29-30 September 2016			
Ure-01 Rehabilitation of the Water Supply System in Ureki			
	<p>Top-soil: Part of topsoil stockpiled according to the GEO regulations has been mixed with subsoil during backfilling and leveling activities of the territory.</p> <p>The Mission requested CC to prepare corrective action plan in cooperation with SC and improve non-compliance till the end of April 2017.</p> <p>Results to be reflected in the next Jan-Jun 2017 Bi-annual EMR.</p>	April 2017	<p>Completed. Corrective action plan regarding incorrect disposal of topsoil was prepared by contractor (See Annex G).</p> <p>Topsoil was separated from subsoil and stockpiled in accordance with Georgian regulations (May 2017).</p> 
	<p>Waste Management: There are separate waste containers for municipal and hazardous waste at the site. Construction Contractor does not have subcontractor for hazardous waste disposal. SC in cooperation with RETA Consultant will provide CC the list of companies dealing with hazardous waste. Contract will be concluded between CC and the subcontractor company till the end of May 2017.</p>	May 2017	<p>Contract with hazardous waste disposal company Ltd "Sanitari" was signed in June 2017.</p>

Actions taken regarding the action plan of the EMR January-June 2016:

Table 10: Status of implementation of action plan of January-June 2016

Specific issues: Recommendations Mes-02	Implementation Status
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Conduct monitoring of the environmental quality under REG-02 in Mestia on the following sites: Shkedi Reservoir and access road, Lanchvali reservoir and Zargashi WTP by the end of February 2017	Completed in June 2017 Measurement data are reflected in proposed EMR January-June 2017
Recommendations: Ure-01	
Contractor to develop, SC to endorse and UWSCG to approve SSEMP for Res-3 under Ure-01 projects (December 2017)	Not completed, it will be prepared after the completion of design and selection of the final locations for the construction.
Conduct monitoring of environmental quality under Ure-01 project sites (February 2017) Parameters to be measured: Dust, Carbon monoxide, Nitrogen dioxide, Sulfur dioxide, Noise	Completed in May 2017 Measurement data are reflected in proposed EMR January-June 2017

3.6 Consultations and Complaints

Public Awareness Activities:

Consultation meetings with the local population

- 64.** Within the Ureki-01 project SC/Eptisa and UWSCG/Environmental Team carried out door to door consultations with the representatives of multi-story residential houses in Ureki. The aim of the consultation meeting was to raise awareness of local population on Ureli Water Supply Project.

Recommendations identified during the meeting included:

- 65.** During public consultations held with representatives of multi-story apartment houses in February 2017, the local population stated against installing one water metering knot for all residents instead of individual meters. Eptisa and UWSCG discussed this issue with the contractor and finally decided to install individual meters.
- 66.** The local self-government representatives asked once again the UWSCG and Eptisa to take into consideration that it would be important if the water supply system will also be constructed for the population living near the Tsvermagala reservoir. Population near the reservoir is distracted by noise without having any benefits from the rehabilitation as process does not envisage water supply system rehabilitation for these settlements. The above issue was discussed within the UWSCG but there is no final decision on it.
- 67.** During meetings with the self-government, road rehabilitation issues have been raised as well, after the installation of pipes in some parts of Ureki. Improvements with proper reinstatement of roads will be done by contractor and presented in next July-December 2017.

Trainings

68. On site environmental safeguard trainings were organized for URE-01 and reg-02 project 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 EMP/SSEMP requirements. The main issues of discussion were the site management and implementation of mitigation measures in accordance with the SSEMP.
69. General Training on ADB Environmental Safeguards Requirements was held by RETA 8663 Regional Environmental Consultant of ADB - Ms. Ketí Dgebuadze on March 7, 2017. Representatives of Contractors (Ure-01 and Reg-02 projects) and Supervisor Consultant - “Eptisa” as well as USIIP implementation agency - IPMO/DEPRP participated in the training. Ms. Ketí Dgebuadze presented an updated checklist for filling by the Contractor on a daily on weekly basis. The Sample checklist filled by contractor is attached to the proposed EMR (Please see Annex F).

Grievance redresses mechanism (GRM)

70. 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. Detail procedures for GRM System is provided in Annex E.
71. During the reporting period up to 10 complains have been received under Ure-01 and Reg-02 projects. These complaints were related to the problems concerning the water supply due to the damages on the water pipes, dropping of waste soil or construction waste on the street. All complaints were resolved on the first level, by involving UWSCG/service center, contractor and supervision company.

PART IV – CONCLUSIONS AND ACTION PLAN FOR THE NEXT PERIOD

4.1 Conclusions and recommendations

72. 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.
73. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMPs and SSEMPs under Reg-02 and Ure-01 projects.
74. More detailed recommendations with indication of the entities responsible for their implementation are provided in the table 10 below:

Table 11: Recommendations to Address Environmental Issues under Reg-02 and Ure-01 projects

Recommendations Reg-02 project	
Mestia WS project	

Shkedi Reservoir		
Reservoirs construction sites should be fenced from all sides and equipped with lockable gate with proper warning and information signs		<p>Contractor to Prepare Corrective Action Plan based on the non-compliance notices issued by SC and implement mitigation measures in accordance with the EMP/SSEMP requirements, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements.</p> <p>All improvements to be presented in EMR July-December 2017</p>
Top soil at the access road should be managed properly to avoid its loosing		
Special equipment during working at heights should be used		
Ladder safety should be ensured		
Dust prevention activities (watering of access road) should be provided		
Ladder safety should be ensured		
Bio toilet at the site should be installed		
Zargashi WTP		
Construction territory should be fenced from all sides properly		<p>Contractor to Prepare Corrective Action Plan based on the non-compliance notices issued by SC and implement mitigation measures in accordance with the EMP/SSEMP requirements, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements.</p> <p>All improvements to be presented in EMR July-December 2017</p>
Electricity equipment (transformer, cable) safe maintenance should be ensured		
Ladder safety should be ensured		
Entrance of animals at the construction area categorical unacceptable and should be prevented		
Bio toilet at the site should be installed		
All construction materials should be properly segregated and stored adequately		
Soil for backfilling purposes should be stored properly		
Lanchvali Reservoir		
Construction sites should be fenced from all sides and equipped with lockable gate with proper warning signs		<p>Contractor to Prepare Corrective Action Plan how to improve the situation, SC to carry out site monitoring, UWSCG/Environmental team to audit improvements.</p> <p>All improvements to be</p>
Ladder safety should be ensured		
Special equipment during working at heights should be used		
Dust prevention activities should be provided in windy and dry		

Recommendations Reg-02 project Mestia WS project	
weather	presented in EMR July-December 2017
All construction materials should be properly segregated and stored adequately	
Site internally should be arranged properly and cleaned regularly	
High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	
Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	
Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	
Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	
Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	
Use tarpaulins to cover during materials transportation	
Recommendations Ure-01 project	
Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents	Contractor instructed to immediately install barriers from all side of open excavation of reservoirs, SC and USIIP Environmental Specialist to monitor improvements in early July 2017 and reflect improvements in EMR July-December 2017
Trees at the construction site should be protect to avoid its damage	Contractor instructed to protect trees on construction site to avoid its damage, in unavoidable cases, cut down trees in accordance with Georgian regulations (based on habitats survey within the IEE, there are

Recommendations Reg-02 project Mestia WS project	
	no red listed species on the proposed project area)
Top soil at the site should be managed properly to avoid its loosing	Contractor to ensure that top soil is removed and stored separately during excavation works (in accordance with Georgian regulations), and after the construction of the main trunk the same soil shall be replaced in the top, in unpaved areas. Environmental Specialists of SC/Eptisa and USIIP will permanently monitor the site
Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).	<p>Instruction are given to contractor to improve the situation and to conduct following mitigation measures:</p> <p>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 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>

75. Mitigation measures to be 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 12: Schedule of mitigation measures to be implemented by the contractor Under Reg-01 project

Construction Site	Noncompliance	Corrective Action	Time
Darcheli Reservoir Site	Scrap metal and wooden waste is scattered in an uncontrolled manner on the site of Darcheli reservoir	The scrap metal and wooden waste scattered in an uncontrolled manner on the site of Darcheli reservoir must be removed from the site by the Contractor	Deadline: February 2017 Status: Done Removed by the UWSCG in May 2017.
Darcheli Reservoir Site	The generator unit on the territory of Darcheli sub-station running on diesel is not placed on a secondary tank. In case of diesel spill, there is a danger of the soil and underground waters pollution	The generator must be placed on the secondary tank. The volume of the secondary tank must be at least 110% of the generator diesel capacity.	Deadline: April 2014 Status: generator that was temporarily installed in Darcheli reservoir site is removed from the territory
	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.	At the initial stage, a temporary container is absolutely necessary to install on the territory of Darcheli reservoir with the permanent building to be designed and constructed consequently	Will be finalized until the end of August 2017 in accordance of the VO#09
Nabada Reservoir Site	The site of Nabada reservoir is fenced, but it has no gate making it possible for the animals to move around the reservoir site	At the initial stage, it is necessary to install a temporary gate, or a 24-hour security service is to be introduced at the entrance to the area where the gate is to be installed later, in order to avoid the penetration of animals to the site. At the second stage, a permanent gate must be installed as it is envisaged by the project.	Construction company "Cobra" (Reg-01) has already installed motorized gate in Poti Nabada (May 2017).

Construction Site	Noncompliance	Corrective Action	Time
Nabada Reservoir Site	The project envisaged the disassembly of the existing reservoir on the territory of Nabada and removal of the construction waste from the area. At present, only the upper ground layer of the existing reservoirs is removed, while the underground part of the reservoir is untouched. As it rains, the rainwater is accumulated on the site resulting in two basin-like units on the site of the reservoir	The old reservoirs on the territory must be totally disassembled and the construction materials must be removed and disposed as per the legislative requirements.	<p>July 2017</p> <p>Status: Partially Completed, the waste is removed from the area.</p> <p>Note: The issue is discussed by UWSCG and Eptisa and final improvements will be presented in EMR July-December 2017.</p>
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	<p>July 2016</p> <p>Status: Not Completed</p> <p><i>Will be improved under Pot-01 Project</i> (The bidding process in underway and the Real Construction will be started in October 2017)</p>
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.	<p><i>Comment: Will be improved under Pot-01 Project</i> (The bidding process in underway and the Real Construction will be started in October</p>

Construction Site	Noncompliance	Corrective Action	Time
			2017)

4.2 Action Plan for the next period

1. Conduct monitoring of environmental quality under Ure-01 project at network site, Pumping Station and Rez-01 by the end of October 2017.
2. Carry out noise measurement at the nearest sensitive receptors and at the construction site by the end of October 2017.

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

Parameters	Quarterly measurement
Dust	October 2017
Vibration	October 2017
carbon monoxide	October 2017
nitrogen dioxide	October 2017
sulfur dioxide	October 2017
Noise	October 2017

3. Conduct monitoring of e environmental quality under REG-02 in Mestia on the following sites: Shkedi Reservoir and access road, Lanchvali reservoir and Zargashi WTP by the end of October 2017.
4. Carry out noise measurement at the nearest sensitive receptors and the construction sites by the end of October 2017.

Table 14: The Specific Plan for Environmental Measurement under Reg-02 Project

Parameters	Quarterly measurement
Dust	October 2017
Vibration	October 2017
carbon monoxide	October 2017
nitrogen dioxide	October 2017
sulfur dioxide	October 2017

Noise	October 2017
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ANNEXES:

ANNEX A: MONITORING MEASUREMENTS DATA

Ure-01

ინფორმაცია
ატმოსფერულ ჰაერში დამაბინძურებელ ინგრედიენტთა კონცენტრაციის შესახებ
შპს „ფერი“ 20 ივნისი 2017

სივრცის აღების ადგილი, კოორდინატები	სიმაღლის მეტრი	ხმაური დბ	კონცენტრაცია მგ/მ³					
			ნავეერი ნახშირწყალბადები	ნახშირბადის ოქსიდი CO	აზოტის დიოქსიდი NO ₂	მტვერი	გოგირდის დიოქსიდი SO ₂	გოგირდწყალბადი H ₂ S
სოფ.მერია კაბურდელი	1	40.3	<1	0.32	<0.001	0.001	<0.1	<0.1
	2	40.8	<1	0.61	<0.001	0.004	<0.1	<0.1
	3	41.1	<1	0.52	0.001	0.002	<0.1	<0.1
	4	40.5	<1	0.42	0.001	0.002	<0.1	<0.1
ურეკი მდ.სეფას მიმდებარედ	1	40.3	0	0.15	<0.001	0.002	<0.1	<0.1
	2	43.4	<1	0.18	0.001	0.004	<0.1	<0.1
	3	42.0	<1	0.85	0.001	0.012	<0.1	<0.1
	4	40.9	<1	0.97	0.001	0.013	<0.1	<0.1
ურეკი მაგნიტო	1	62.3	<1	0.16	0.007	0.004	<0.1	<0.1
	2	64.0	1	2.62	0.006	0.015	<0.1	<0.1
	3	64.3	1	2.73	0.005	0.015	<0.1	<0.1
	4	55.1	1	1.11	0.006	0.011	<0.1	<0.1
წვერმაღალა რეზერვუარი X 0731286 Y 4643708	1	54.3	<1	0.14	<0.001	0.001	<0.1	<0.1
	2	57.2	<1	0.13	<0.001	0.004	<0.1	<0.1
	3	56.2	<1	0.12	<0.001	0.001	<0.1	<0.1
	4	55.1	<1	0.04	<0.001	0.001	<0.1	<0.1

შემსრულებლები:

მთავარი საცვიალისტი

მთავარი საცვიალისტი

საცვიალისტი

შეთანხმებულია:

გარემოს დამაბინძურების მონიტორინგის დეპარტამენტის
უფროსი



ო.კენია

გ.ხაშიშვილი

გ.მორგოშია

მ. არაბიძე

Mes-01

Concentration of harmful substances in atmospheric,

Samplin place coordinates	Noise DB	Dust mg/m ³	Sulfur dioxide SO ₂ mg/m ³	Nitrogen dioxide NO ₂ mg/m ³	Carbon oxide CO mg/m ³
Anaklia X 0713640 Y 4697365	55.4	0.051	<0.1	0.003	0.55
Enterprise area X 0714137 Y 4697757	48.2	0.004	<0.1	0.002	0.43
Ureki X 0730237 Y 4650518	58.2	0.015	<0.1	0.004	0.77
Mestia X 0311771 Y 4767121	51.5	0.003	<0.1	0.002	0.37

Executors:

Main specialist

Main specialist

specialist

Agreed:

Head Environmental Pollution

Monitoring Department /



O. Kenia

G.Khachishvili

G. Morgoshia

M. Arabidze

ANNEX B: PROJECT PHOTOS

Ure-01

Network



Reservoir



Pumping Station



Reg-02/ Mestia

Reg-02: Lanchvali Rezervoir



Reg-02: Shkedi Rezervoir Access road



Reg-02: Zargashi WTP



Tbilisi Head Office



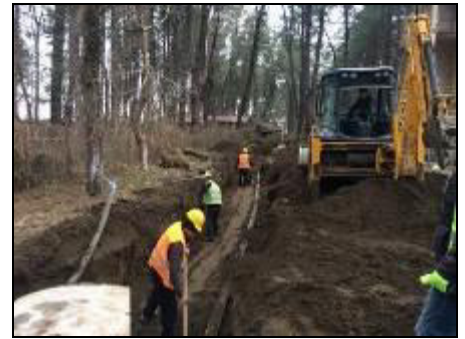
ANNEX C: NON-COMPLIANCE NOTICES

Ure-01

9-10 February Network, Reservoirs

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI
Contract No: URE-01	
Contractor: PERI	
Reference: UREKI – NETWORK, RESERVOIR	
This notice is to advice 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> NETWORK High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population Construction activities information signs should be installed at each construction segment Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents Where are necessary proper wooden/metal walkways/planks across open trenches should be installed Accumulated waste soil should be removed from construction area and disposed in a proper place Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses Trees of nearby construction zone should be protected to avoid its damage Use tarpaulins to cover during materials transportation Workers always should use complete PPE All network line construction segments should be cleaned/well organized on regular bases	



RESERVOIR

Trees at the construction site should be protect to avoid its damage

Proper warning and information signs should be arranged at the perimeter of the site

Internal roads should be arranged properly

Safety signs/tapes and trench side barriers should be installed around of deep excavation

Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents

Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site

Site internally should be arranged properly and cleaned regularly



All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (Peri).

Date of site visits: 09.02-10.02.2017

Irakli Legashvili

EPTISA - Environment

9-10 February 2017, Pumping Station

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI
Contract No: URE-01	
Contractor: PERI	
Reference: UREKI - UREKI PUMPING STATION	
This notice is to advice 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

- Entrance door of construction site should be in better operational condition and closed as needed
- Piles of soil at the construction territory should be managed properly (grading/leveling)
- The site access road and internal roads should be arranged
- Proper place for Parking with relevant sign should be arranged
- Site internally should be arranged properly with signage and cleaned regularly



All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (Peri).

Date of site visits: 09.02 – 10.02.2017	
Irakli Legashvili EPTISA - Environment	

29-30 May 2017

Non-Compliance Notice

Project: USIIP	Non-compliance Notice UREKI
Contract No: URE-01	
Contractor: PERI	
Reference: UREKI – RESERVOIR, PAMPING STATION	

This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN UREKI

RESERVOIR

Trees at the construction site and nearby deep excavation zone should be fenced protect to avoid its falling and damage

Proper warning and information signs should be arranged at the entrance and perimeter of the site

Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents

Walls of the deep trenches (>1.5m) should be strengthened to avoid landfall of the soil and accidents

Workers always should use complete PPE





PAMPING STATION

Trees at the construction site and nearby should be well protect to avoid its damage

Trenches should be fenced adequately

Gate should be closed and locked to avoid non-authorized entrance at the site

Site internally should be arranged properly and cleaned regularly



All these conditions have to be remedied within four days (by the 10 June 2017) by the prime Contractor (Peri).

Date of site visits: 29.05-30.05.2017

Irakli Legashvili

Reg-02/Mestia**8-9 June 2017, Reservoir sites****Non-Compliance Notice**

Project: USIIP	Non-compliance Notice MESTIA
Contract No: REG-02	
Contractor: PFIEFFER	
Reference: MESTIA – RESERVOIRS SITES	

This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently**.

NON-COMPLIANCE IN MESTIA**SHGEDI RESERVOIR**

- **Reservoirs construction sites should be fenced from all sides and equipped with lockable gate with proper warning and information signs**
- **Top soil at the access road should be managed properly to avoid its losing**
- **Electricity equipment (cable) safe maintenance should be ensured**
- **Trees at the construction zone and along the access road (removal of stones from trees) should be protected to avoid its damage**
- **Special equipment during working at heights should be used**
- **Ladder safety should be ensured**
- **Dust prevention activities (watering of access road) should be provided**
- Proper warning and information signs should be arranged at the entrance, inside and perimeter of construction sites
- Bio toilet at the site should be installed
- All construction materials should be properly segregated and stored adequately
- Construction waste materials (wood, residues of iron and others) should be managed properly and disposed at the proper organized place
- PPE equipment should be used always and completely by all workers (even personnel of subcontractor)
- Site internally should be arranged properly and cleaned regularly





ZARGASHI RESERVOIR

- **Construction territory should be fenced from all sides properly**
- **Electricity equipment (transformer, cable) safe maintenance should be ensured**
- **Ladder safety should be ensured**
- **Entrance of animals at the construction area categorical unacceptable and should be prevented**
- Proper warning and information signs should be arranged at the inside and perimeter of construction sites
- Bio toilet at the site should be installed
- Dust prevention activities should be provided
- All construction materials should be properly segregated and stored adequately
- Soil for backfilling purposes should be stored properly
- Construction waste materials should be managed properly and disposed at the proper organized place
- PPE equipment should be used always and completely by all workers (even personnel of subcontractor)
- Site internally should be arranged properly and cleaned regularly





LANCHVALI RESERVOIR

- Construction sites should be fenced from all sides and equipped with lockable gate with proper warning signs
- Ladder safety should be ensured
- Special equipment during working at heights should be used
- Dust prevention activities should be provided in windy and dry weather
- All construction materials should be properly segregated and stored adequately
- Construction waste materials should be managed properly and disposed at the proper organized place
- PPE equipment should be used always and completely by all workers (even personnel of subcontractor)
- Site internally should be arranged properly and cleaned regularly





All these conditions have to be remedied within eight days (by the 20 June 2017) by the prime Contractor (Pfeiffer).

Date of site visits: 08.06-09.06.2017

Irakli Legashvili - EPTISA Environment

Tbilisi Head Office

TBI-01, 13 February 2017

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 advice 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

- Place of fuel containers storage should be with roofing
- Waste containers should be properly labeled (Household waste, Hazardous waste and etc.)
- Waste should be placed in proper waste container and discharged timely
- Parking should be arranged with relevant sign
- Transport should be parked only at the parking area
- Waste construction materials should be removed from the site timely and permanently



All these conditions have to be remedied within four days (by the 18 February 2017) by the prime Contractor (Dagi).

Date of site visits: 13.02.2017

Irakli Legashvili

EPTISA - Environment

ANNEX D: IMPLEMENTATION REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT

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

Reference	Requirement	Action to date	Action required/comment
Reg-01 Kutaisi Kldiashvili			
	Implement all measures to reduce noise level at Kutaisi Kldiashvili reservoir	Contractor/Cobra has implemented first stage works for noise reduction, that substantially improve the situation	Instruction is given by SC and UWSCG to the contractor to improve the situation in accordance the World Bank EHS and national regulations by the end of August 2017, in accordance with the VO#9
Ure-01:	Pumping Station, Networks	Reservoirs	
	- Top soil at the site is removed and stored separately (PS)	Completed	Contractor to keep the standard and to store Top Soil separately during excavation works (in accordance with Georgian regulations - Decree of the Government of Georgia #415 - Technical Regulations - On Approval of the "Definition of Soil Fertility Level" and "Soil Conservation and Fertility Monitoring"), and after the construction the same soil shall be replaced in the top, in unpaved areas
	- High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	
	- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Partially Completed	Construction is given instruction to improve the situation. Non-compliance Notice was developed by SC to improve the situation on site.
	- Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	Partially Completed	
	- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of	Partially Completed	

Reference	Requirement	Action to date	Action required/comment
	residents and businesses		
	- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	Partially Completed	
	- High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Partially Completed	
	- Use tarpaulins to cover during materials transportation	Not Completed	Despite numerous instructions given by SC and Environmental Specialist of USIIP contractor did not use tarpaulins to cover construction material during construction
	- Accumulated waste soil should be removed from construction area and disposed in a proper place (Network)	Completed	No additional actions are required
	- High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	
	- Construction activities information signs should be installed at each construction segment	Completed	
	- Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Completed	
	- Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	Completed	
	- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Completed	
	- Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	Completed	

Reference	Requirement	Action to date	Action required/comment
	- Trees of nearby construction zone should be protected to avoid its damage	Completed	
	- Trees of nearby construction zone should be protected to avoid its damage	Completed	
	-		
Ure-01 Networks			
	Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	Completed	Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population
	Use tarpaulins to cover during materials transportation	Not Completed	Use tarpaulins to cover during materials transportation
	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Not Completed	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents
	Accumulated waste soil should be removed from construction area and disposed in a proper place	Completed	Accumulated waste soil should be removed from construction area and disposed in a proper place
Reg-02 / Mestia			
	- Reservoirs construction sites should be fenced from all sides and equipped with lockable gate with proper warning and information signs	Partially Completed	Needs additional improvement, lockable gate should be arraigned with standard warning and information signs
	- Top soil at the access road should be managed properly to avoid its losing	Partially Completed (Part of the layer is mixed with soil)	Contractor to ensure that top soil is removed and stored separately during excavation works (in accordance with Georgian regulations), and after the construction of the main trunk the same soil shall be replaced in the top, in unpaved areas (Decree of the Government of Georgia #415 - Technical Regulations - On Approval of the "Definition of Soil Fertility Level" and "Soil Conservation and Fertility Monitoring")

Reference	Requirement	Action to date	Action required/comment
	- Special equipment during working at heights should be used	Completed	Instruction is given Contractor to keep the standard and to follow and protect health and safety requirements of workers
	- Ladder safety should be ensured	Completed	Instruction is given Contractor to keep the standard and to follow and protect health and safety requirements of workers
	- Dust prevention activities (watering of access road) should be provided	Partially Completed	
	- Ladder safety should be ensured	Partially Completed	
	- Bio toilet at the site should be installed	Partially completed	
Tbilisi Head Office			
	- Place of fuel containers storage should be with roofing	Completed	Contractor developed Corrective Action plan (See Annex G) and improved the site per recommendations given by SC (Annex C) Due to the fact that Construction activities under TBI-01 project is temporarily suspended contractor was given instruction to keep the site clean and organized until the new construction activities started.
	- Waste containers should be properly labeled (Household waste, Hazardous waste and etc.)	Completed	
	- Waste should be placed in proper waste container and discharged timely	Completed	
	- Parking should be arranged with relevant sign	Completed	
	- Transport should be parked only at the parking area	Completed	
	- Waste construction materials should be removed from the site timely and permanently	Completed	
	- Place of fuel containers storage should be with roofing	Completed	
	- Waste containers should be properly labeled (Household waste, Hazardous waste and etc.)	Completed	
	- Waste should be placed in proper waste container and discharged timely	Completed	
	- Parking should be arranged with relevant sign	Completed	

ANNEX E:

Grievance redresses mechanism (GRM)

76. 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.
77. 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.
78. 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.
79. 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.
80. The service centre operators, who are trained¹ in USIIP/Reg-01project, 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 system² 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.
81. When a grievance is solved positively in the first stage, the grievance is closed through an Agreement Protocol, which is reflected in the e-Document – Task Management System.
82. 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

¹ 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.

²The **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.

grievance application documents for official submission to the Grievance Redress Committee (GRC). The package contains the following information:

- 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

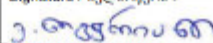

83. The GRC should make a decision within two weeks after the registration of the grievance. The GRC is staffed as follows: (i) Representative of self-government – the head of committee; (ii) Director/ Manager of UWSCG service centre; (iii) Investments Project Management Division representative of the 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.
84. 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.
85. 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

შენიშვნა/Comment:

შესაბამისი ფოტომასალა/Photo Materials:

ყოველკვირეული გარემოსდაცვითი მონიტორინგი Weekly Environmental Monitoring

10.05.2017		
Name of the Contractor and project number/სამშენებლო კონტრაქტორის სახელი და პროექტის . ლოტის ნომერი		JV of Ludatip Pfeiffer Hoch-und Tiefbau GmbH & Co.KG (Germany) and ProtechnoSP (Italy), Construction of Mestia Wastewater Treatment Plant (Mes-4)
Contract No : კონტრაქტის № :		UWSCG/სსიპ/ICB/REC -02
Description and Location of the Site სამშენებლო პუნქტის ადგილმდებარეობის აღწერა		This sub-project is located in Mestia Town, the administrative center of Svaneti Region, in north-eastern part of Georgia, bordering Russia. Geographically, it is located at 42o 42'06" E and 43o 04'38" N, about 430 k northwest of Tbilisi
Implementing Agency განმახორციელებელი სააგენტო		"United Water Supply Company of Georgia", LLC
Supervisor's Identity (name, last name, contract information and signature) სარეზიდენტო კომპანიის წარმომადგენლის სახელი, გვარი, საკონტაქტო ნაწილობრივი და ხელმოწერა		Contractor /კონტრაქტორი :
Current Stage of Civil Works სამშენებლო სამუშაოების მიმდინარე სტადია		Signature and stamp / ხელმოწერა და ბეჭედი
Weather Conditions აღრევის პირობები		On-going მიმდინარე Mostly Rainy უზუგუნად წვიმიანი
Staff responsible for environment/safety at the site (contractor) ინჟინერის გარემოს დაცვაზე პასუხისმგებელი პირი (კონტრაქტორი)		
Name : Eka Niguriani სახელი : ეკა ნიგურიანი		Signature / ხელმოწერა : 
Environmental Specialist (contractor) გარემოსდაცვის სპეციალისტი (კონტრაქტორი)		
Name : Nikoloz Nephridze სახელი : ნიკოლოზ ნეფრიძე		Signature / ხელმოწერა : 

ყოველკვირეული გარემოსდაცვითი მონიტორინგი Weekly Environmental Monitoring

No	Documents and Facts to be Examined შეამოწმებელი დოკუმენტები და ფაქტები	Yes კი	No არა	Partially/ წილობრივ	N.A არ ეხება	Comment შენიშვნა
1	EMP/SSEMPs, Protocols and Reports					
1.1	Contractors' site -specific Environmental Management Plan (SSEMP) is prepared, reviewed and approved by PIU prior to contractor commencing the works შენიშნული კონტრაქტორის დადებული აქვს ხელმოწერა ადგილობრივ გარემოს დაცვითი საკითხების სპეციალისტის	✓				
1.2	Construction contractor has National Environmental specialist in staff. შენიშნული კონტრაქტორის დადებული აქვს ხელმოწერა ადგილობრივ გარემოს დაცვითი საკითხების სპეციალისტის	✓				
1.3	Construction contractor has International Environmental specialist in staff. შენიშნული კონტრაქტორის დადებული აქვს ხელმოწერა საერთაშორისო გარემოს დაცვითი საკითხების სპეციალისტის	✓				
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to Supervision Consultant მონაცემები გარემოსდაცვითი მართვის გეგმის განხორციელების ყოველკვირეული ინგარიში კონტრაქტორის მიერ და წარმოდგენილია კონსულტანტისთვის	✓				
1.5	Emergency Response Plan is prepared and approved შენიშნული და მიღებულია ავარიული სიტუაციებზე რეაგირების გეგმა	✓				
1.6	Health and Safety Management Plan is prepared and approved შენიშნული და მიღებულია ჯანდაცვის და უსაფრთხოების მართვის გეგმა და ექსპერტის და უსაფრთხოების მართვის სისტემა მშენებლობის დახმარების	✓				
1.7	Complaints log exists on construction site საჩივრების კერძალიერების არსებობის სამშენებლო პუნქტზე	✓				
1.8	Site inspection non-compliance notices issued and corrective action requests implemented შეესაბამებოდა შეტყობინების მომზადება და წარდგენა კონტრაქტორისთვის და საკონტრაქტო პუნქტის განხორციელება	✓				
1.9	Training / Capacity building activities undertaken as per EMP requirements and records kept of trainings გადამრბედი და ხელმოწერილია მუშაობის ტრენინგის ოქმი ჯანდაცვის და უსაფრთხოების საკითხებზე. ტრენინგის ანგარიშები მომზადებულია და ინახება საიტის კვანძზე.	✓				

2 Permits, Licenses and Contracts					
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste კონტრაქტორს მიღებული აქვს სამშენებლო ნარჩენების საბოლოო განთავსების ნებართვა ან შესაბამისი კონტრაქტი ადგილობრივ ორგანოებთან.			✓	Smaller construction waste (concrete, stone) are taken by the population for personal purposes. პატარა ზომის სამშენებლო ნარჩენები (ბეტონი, ქვიშა) მოსახლეობის პირადი მიზნებისთვის.
2.2	The Contractor has a permit for final disposal of municipal waste კონტრაქტორს მიღებული აქვს საყოფაცხოვრებლო ნარჩენების საბოლოო განთავსების ნებართვა	✓			
2.3	The Contractor executed the contract with the licensed organization on the hand-over and disposal of hazardous waste. კონტრაქტორს გაუფორმებული აქვს სახიფათო ნარჩენების გადაცემის და გადინის ხელშეკრულება ლიცენზირებულ ორგანიზაციებთან	✓			
2.4	The contractor has a license for tree felling კონტრაქტორს გააჩნია ლიცენზია ხის ჭრისთვის	✓			
3 Performance of civil works					
3.1	Adequate fencing of construction area from all sides სამშენებლო ტერიტორიის სრულად შემოღობვა		✓		The construction site is not fencing from all side (Landshvali 90%; Zargashi 90%); Fencing will be completed in the nearest future. სამშენებლო ტერიტორიაზე სრულად არ არის შემოღობული (ლანდშვალი 90%, ჯარგაში 90%), სამომავლოდ იგეგმება შემოღობვა მოცულ ტერიტორიაზე.
3.2	Arrangement for lockable gate with standard warning and information signs საკეტიანი შესასვლელი კარის მოწყობა, სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნები ატეკრება	✓		✓	A locked door is installed only on the Zargashi construction site საბეტონო დამკრთავებელი საკეტიანი კარი (ზარგაში - კი, დანარჩენი - არა)
3.3	Placement of standard warning and information signs at the perimeter and inside of construction area სამშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების გამოცემა	✓			Standard warning and information signs are placed on the construction area სამშენებლო ტერიტორიაზე გამოცემულია გამაფრთხილებელი და საინფორმაციო ნიშნები (8ც.)
3.4	Installation of safety signs/tapes and trench side barriers around of open trenches ღიად დატოვებულ თხრილებზე და ჭრებზე უსაფრთხოების ღრუბლების, ზარიერების და გამაფრთხილებელი ნიშნების განთავსება	✓			
3.5	Strengthening of walls of the deep trenches (> 1.5 m) by boards 1,5 მეტრზე მეტი სიღრმის ტრანშეებში კლდეების გამტკიცება		✓		Planned in the nearest future (according to the meteorological conditions) იგეგმება ახლო მომავალში გრძელვადი, მეტეოროლოგიური პირობებიდან გამომდინარე
3.6	Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas დასახლებულ ადგილებში ღიად დატოვებულ თხრილებზე დროებითი გადასასვლელების მოწყობა	✓			The construction area is located in uninhabited areas სამშენებლო ტერიტორია განთავსებულია დაუსახლებელ ადგილას
3.7	Protect all trees nearby construction zone to avoid its damage სამშენებლო ტერიტორიაზე სახეობების ზონაში არსებული ხეების შემორაცვა (დაზიანების თავიდან აცილების მიზნით)	✓			
3.8	Removal of top soil (about 30cm depth) and separately strong in appropriate place ქვედაპირის დროშა, წიადგის წიფიფერი (დაახლოებით 20-30 სმ სისქის) ფენის მოხსნა და გარეაღკვეთვლიად გროვებად შესახება		✓		Part of the layer is loose with ground წიფილი ფენის არიულია გროვებად

3.9	Timely removal/disposal of construction waste and surplus waste soil სამშენებლო ნარჩენების და ჭარბი ნარჩენი გროუნტის დროული გატანა/გამოყვება	✓				They are stored at the construction site დასაწყობებულია ტერიტორიაზე
3.10	Provide adequate lighting of construction territory სამშენებლო ტერიტორიის ღამის საათში განათება		✓			The area is illuminated 4 highlights are installed The entire lighting of the perimeter of the area is planned ტერიტორია განათებულია დამონტაჟებულია 4 პროექტორი იგეგმება ტერიტორიის პერიმეტრის მთლიანი განათება
3.11	Proper arrangement of construction site and segregation/strong of construction materials/equipment (bring the material when required) სამშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დანადგარების ორგანიზებულიად განთავსება (საჭიროებისას გამომდინარე)	✓				Warehouse is arranged on the territory of Lenhair ლენჰაირის ტერიტორიაზე მოწყობილი საწყობი
3.12	Availability of proper fuel/ oil spill response items (sand, sawdust, special containers) at the construction site სამშენებლო ტერიტორიაზე საჭირო და საშიში მასალების დაღვრის შემთხვევაში საღებავადიგო საკონტეინერების (ქვიშა, ჩახურჩია, მკერე ზომის ავზი და სხვა) ხელმისაწვდომობა		✓			In case of fuel spill on the construction site we use sand and special absorbance სამშენებლო ტერიტორიაზე საჭირო დაღვრის შემთხვევაში ვიყენებთ ქვიშას და სპეციალურ აბსორბენტს
3.13	Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring) საქვების და საშიში მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადამხურულ ადგილებში		✓			

3.18	Dust generation prevention activities (when needed) საჭიროებისდასაგამომდინარე მტკრის წარმოქმნის პრევენცია	✓			
3.19	Ensure that all workers are provided with and use appropriate Personal Protective Equipment – helmets, hand gloves, boots, masks, safety belts. მუშების და ინჟინერ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (ჩაფხუტი, ყოლუტი, ხელთათმანი, ჩექმები, დამცავი სათივალე და სხვა) სრულად გამოყენება	✓			All workers are provided with and use appropriate Personal Protective Equipment კომპანიის პერსონალი სრულად იყენებს ინდივიდუალური დაცვის საშუალებებს რაფორებიცაა მაგ. ჩაფხუტი, ყოლუტი, ხელთათმანი, ჩექმები, დამცავი სათივალე და ა.შ
3.20	Use of special safety equipment during working at heights სიმაღლეზე მუშაობის დროს სპეციალური დამცავი აღჭურვილობის გამოყენება	✓			
3.21	Regularly cleaning of construction territory სამშენებლო ტერიტორიის მუდმივად დალაგება და დახუცთავენა	✓			The construction territory is cleaned regularly ტერიტორიის დალაგება დახუცთავენა ხდება რეგულარულად

4 Monitoring Measurements					
4.1	Monitoring Measurement data (air, water, soil, erosion, noise, dust, vibration, etc.) წყლის, ჰერის, ვიბრაციის, ეროზიის, ხსუნის, მტკრის და წიაღის მონაცემების გასომეცების მონიტორინგი	✓			
5 Top Soil Protection					
5.1	Top soil is stripped and stored according to standard procedures and used future for landscape and reinstatement წიაღის ბიომეგულოვანი ფენის დაცვა		✓		
6 Safety Measures					
6.1	The workers use all personal safety equipment required for individual technological processes (hard hats, gloves, respirators, glasses, etc.) მუშახელი იყენებს ცალკეული ტექნოლოგიური პროცესებისათვის აუცილებელ პირად დამცავ საშუალებებს (ჩაფხუტები, ხელთათმნები, რესპირატორები, სათივალეები და ა.შ)	✓			
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lighting, signs are installed, etc. სამშენებლო ობიექტზე გატანებულია სახანძარი და სასწრაფო სამედიცინო დახმარების სახაზისო ნაკრები, საიტე შემოღობილია, განთავსებულია დამონტაჟებული, სახანძარი და სასწრაფო დახმარების ნაკრები და სხვ.	✓			





ANNEX G: Corrective Action Plan

(A) Corrective Action Plan developed by contractor "Peri" under Ure-01 project

Minor						
No	Requirement reference	Details of non-conformity	Corrective Action Taken	Evidence provided	Date reviewed	Reviewed by
1	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population	All required signs and tapes has already been posted at site entrance, site fence and working areas. Additionally, information signs installed at the different points of site, ex: Topsoil Storage, Parking Area, and Smoking Area, Waste collection point, etc. Trenches are protected by hard barricading and with high visibility safety tapes. All required signs are posted at the trenching and excavation areas	--	20.02.2017	G. Tkemaladze
2	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Construction activities information signs should be installed at each construction segment	All required signs and posters has already been posted at site entrance, site fence and working areas. Additionally, information signs installed at the different points of site, ex: Topsoil Storage, Parking Area, and Smoking Area, Waste collection point, etc. Trenches are protected by hard barricading and with high visibility safety tapes. All required signs are posted at the trenching and excavation areas.	Please find Photos bellow	20.02.2017	G. Tkemaladze
3	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Shoring are used to avoid trench collapse; Site management are requested to use shoring at required sections of trenches (>1.5m)	Please find Photos bellow	20.02.2017	G. Tkemaladze
4	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Where are necessary proper wooden/metal walkways/planks across open trenches should be installed	Appropriate size of Walkways has been installed.	Please find Photos bellow	20.02.2017	G. Tkemaladze

5	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Accumulated waste soil should be removed from construction area and disposed in a proper place	Soil at the trenches is considered to use for backfilling; extra soil from excavations (waste soil) will be treated as required: donated to locals with agreement to municipality or disposed at the place with coordination to local municipality.	--	20.02.2017	G. Tkemaladze
6	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses	Construction Management are requested to arrange schedule of materials delivery at the site in consideration of disturbance of locals and businesses.	--	20.02.2017	G. Tkemaladze
7	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses	All materials has been removed from old location.	Please find photo below	20.02.2017	G. Tkemaladze
8	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Trees of nearby construction zone should be protected to avoid its damage	Site Managers are requested to install visible signs and safety tapes to ensure high visibility of tress during working activities. Site Environmental Officer has to attend activities and give instruction equipment operators and workers protect trees alongside of working areas.	Please find photo below	20.02.2017	G. Tkemaladze
9	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Use tarpaulins to cover during materials transportation	Site Managers and Dumper truck drivers are instructed to use tarpaulins while transportation of excavated materials. Environmental officer to make control all truck equipped with tarpaulins and loaded dumpers are covered with it.	Please find photo below	20.02.2017	G. Tkemaladze
10	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – NETWORK	Workers always should use complete PPE	All workers are equipped with Personal Protective Equipment. All Peri representative instructed that Use of PPE is mandatory. Additionally measures will be implemented while observing no corrective use of PPE.	Please find photo below	20.02.2017	G. Tkemaladze

11	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	All network line construction segments should be cleaned/well organized on regular bases	Housekeeping activities performed on daily basis. Construction Materials segregated and stored properly. Site management are requested to maintain daily housekeeping activities regularly	Please find photo below	20.02.2017	G. Tkemaladze
12	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Trees at the construction site should be protect to avoid its damage	Site Managers are requested to install visible signs and safety tapes to ensure high visibility of tress during working activities. Site Environmental Officer has to attend activities and give instruction equipment operators and workers protect trees alongside of working areas.	Please find photo below	20.02.2017	G. Tkemaladze
13	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Proper warning and information signs should be arranged at the perimeter of the site	All required signs and posters has already been posted at site perimeter: site fence and working areas.	Please find photo below	20.02.2017	G. Tkemaladze
14	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Internal roads should be arranged properly	Arrangement of Internal roads and pathways has been started and will be finished during week.	Please find photo below	20.02.2017	G. Tkemaladze
15	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Safety signs/tapes and trench side barriers should be installed around of deep excavation	Excavations are protected by hard barricading and with high visibility safety tapes. All required signs are posted at the trenching and excavation areas.		20.02.2017	
16	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil and accidents	Shoring are used to avoid trench collapse; Site management are requested to use shoring at required sections of trenches (>1.5m)		20.02.2017	

17	Non-compliance Notice UREKI; Project: USIIP Contract No: URE-01 Contractor: PERI Reference: UREKI – RESERVOIR	Proper fuel/oil spill response items (sand, sawdust, special containers) should be available at the site	Oil Spill response equipment has already been installed at the site.		20.02.2017	
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Evidence Photos

Photo 1



Shoring used for protection of trench collapse.

Photo 2



Excavation area protected with high visibility safety tape;



Pipeline installation process;

Waste bins at site;

(B) Corrective Action Plan Developed by contractor DAGI under TBI-01 project.

CORRECTIVE ACTION PLAN

#	Non-Compliance	Corrective Action Taken	Evidence Provided	Date of Corrective Action	Responsible person(s)
1	Transport should be parked only at the parking area	Transport parked only at the parking area(Parking signs installed)	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE
2	Site internally and warehouse should be arranged properly and cleaned regularly	The construction site and warehouse is cleaned regular and arranged correctly.	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE
3	Waste containers should be properly labeled (Household waste, Hazardous waste etc.)	Waste containers properly labeled (Plastic, Paper, Household waste and Hazardous waste)	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE
4	Waste construction materials should be removed from the site timely and permanently	Construction waste on the site arranged the temporary landfill.(General waste, removed timely)	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE
5	Fuel containers should be placed in a properly arranged place with roofing to avoid spillage	Fuel containers placed properly arranged place on the roofing to avoid spillage.	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE
6	Waste should be placed in proper waste container and discharged timely	Waste placed in proper waste container and discharged timely	✓	18.02.17	HSE MANAGAR A.CHUMBURIZE

Corrective Action Evidence Photos

