SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-024

Reporting Period: January-June 2021

GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM (TRANCHE 2)

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

Prepared by: Ketevan Chomakhidze, Environmental Consultant, "United Water Supply Company of Georgia", Tbilisi, Georgia

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

Endorsed by: Maka Goderdzishvili, Head, Department of Environmental Protection and Permits, "United Water Supply Company of Georgia"

August 2021

ABBREVIATIONS

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

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I. INTRODUCTION

1.1 Preamble

1. This report represents the Semi-Annual Environmental Monitoring Review (SAEMR) for "Urban Services Improvement Investment Program" (USIIP), Tranche 2 and describes the period of January-June 2021.

2. This report is the 16th Semi-Annual EMR for the T2 of "Urban Services Improvement Investment Program".

1.2 Headline Information

3. During the reporting period, no construction work was carried out under USIIP/T2. All construction activities under USIIP/T2 is already completed. MES-02 sub-project, Rehabilitation of Water Supply and Sewerage System in Mestia was completed in 15 August 2015; Construction of Water Supply System and Sewerage Networks in Anaklia (ANA-01) sub-project was completed in May 2014; REG-02 sub-project, Construction of Wastewater Treatment Plant in Anaklia was completed in May 2018; Construction of Water Supply and Wastewater Network in Ureki (URE-01) sub-project was completed in September 2019.

II. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

4. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.

5. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.

6. Tranche 2 of the Investment Program includes:

- Construction of Anaklia Water and Sewerage Network (ANA-01);
- Construction of Mestia Water and Sewerage Network (MES-02),
- Construction of Anaklia Waste Water Treatment Plant (REG-02),
- Construction of Water Supply and Wastewater Network in Ureki/Phase II (URE-01).

Status of the projects financed under Tranche 2:

- MES-02, Rehabilitation of Water Supply and Sewerage System in Mestia (competed)
- ANA-01, Construction of Water Supply System and Sewerage Networks in Anaklia (completed)
- REG-02 Anaklia Lot, Construction of Wastewater Treatment Plant in Anaklia (completed)
- URE-01, Construction of Water Supply and Wastewater Network in Ureki (Completed)

7. **Anaklia Water and Sewerage Network (Contract ANA-01).** The construction involved the supply and installation of approximately 69 kilometers of water supply and 70 kilometers of sewerage networks and service connections to all residents and hotels defined for the year 2040 for Anaklia and Ganmukhuri villages (total projected population of about 25,600 people). The construction works under Contract ANA-01 started on 16th of January 2012 and was completed in May 2014. Post Construction Environmental Audit was conducted by the Independent consultant under ANA-01 in September 2014 and the Post-Construction Audit Report was prepared and approved by ADB and UWSCG.

8. **Mestia Water and Sewerage Networks (Contract MES-02).** The Construction rehabilitation of approximately 30 kilometers of water supply and 46 kilometers of sewerage network will cover the whole town of Mestia including the historic center and the future touristic zones covering all residents and hotels defined for the year 2040 thus benefiting

total projected population of about 25,300 people. The construction works under MES-02 project started in October 2011 and was completed in the mid of August, 2015. Post Construction Environmental Audit under MES-02 was carried out by the independent consultant. Post construction environmental audit report was prepared and cleared by ADB in November 2015.

9. **Conduction of Waste Water Treatment Plant in Anaklia (Contract REG-02)** The scope of works includes Construction of Waste Water Treatment Plant in Anaklia (the treated wastewater to be discharged into Enguri River).

10. Contract was signed with JV Ludwig Pfeiffer Hock und Tiefbau GmbH & Co. KG and Protecno Srl on 22 September 2014 and Notice-to-Proceed given on 08 December 2014. Contract completion date is May 2018. Post Construction Environmental Audit under REG-02/Anaklia WWTP sub-project was conducted by the independent consultant in December 2018 and Post-Construction Environmental Audit Report was approved by ADB and UWSCG.

11. **Construction of Water Supply and Wastewater Network in Ureki/Phase I (URE-01)**. The project is simultaneously financed from Tranches I, II and III and therefore might be some overlap of T1-T3 Semi-Annual EMRs. The main works under Tranche II will comprise laying of sewerage network with the total length of 70 km.

12. The Contract was signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Initial Completion date was scheduled on November 22, 2018 but due to changes in the design of project, which include the construction of an Aqueduct across the Natanebi River, the construction of Gabion walls to protect well fields from flooding and erosion, and the construction of an additional deep well No. 8 along the banks of the Natanebi River.Project completion date is September 2019. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040. An independent consultant was hired by SC/EPTIS to conduct Post Construction Environmental Audit and to prepare Post Construction Environmental Audit Report under URE-01 sub-project. The main findings of above report are presented in the Table 1 below. Audit report is attached to this SAEMR, please see Annex A.

Post Construction Environmental Audit under URE-01 Sub-project

13. As it was already mentioned above Post Construction Audit Reports was prepared under URE-01 sub-project by the independent consultant in July 2021.

14. Table 1 below gives the summary information about the non-compliances observed during the Post Construction Environmental Audit under URE-01 sub-project and due corrective actions and terms of their realization. Since the URE-01 sub-project is simultaneously financed T1, T2 and T3 Tranches of USIIP, non-compliances under URE-01 sub-project are also recorded in T1 and T3 SAEMRs. Corrective actions implemented by the UWSCG/facility Operator will be reflected in the next SAEMR, covering July-December 2021.

Table 1: Summary Information, Post Construction Environmental Audit URE-01

#	Observed Non-compliance	Requirements	Corrective action	[1]Terms of accomplishment

[1] As the contractor is no longer available and the facility has been turned-over to the UWSCG, UWSCG/facility operator will undertake the necessary actions to correct the observed non-compliance under URE-01 sub-project.

1	There was chaotically disposed construction and household waste observed on the territory of the pumping station	Following the completion of the project, the waste must be handed over to a duly licensed company	The waste must be collected and disposed from the project area. The waste must be handed over only to duly licensed contractors for further management	**31 August 2021**
2	The area of the construction materials on the territory of the pumping station was not fenced and was not protected from the impact of the atmospheric precipitation	The area with the construction waste must be fenced and have relevant information signs	The territory of the construction materials area must be duly fenced. The construction materials, including water supply pipes, must be disposed in the project area more compactly and must be protected from the atmospheric precipitation by using an appropriate protective cover. To identify more-cost effective and practical corrective action further discussion of the proposed corrective action will be held with the UWSCG and the project engineer as well. One of the suggested corrective actions could be removal of construction waste from the project area.	**10 September 2021**
3	The underground infrastructure and the well in the project area were not duly covered	All underground infrastructural facilities must be closed after the project is complete to prevent service personnel or animals from falling into them	In the first stage, the area must be fenced or warning signs must be installed. And finally, it will be necessary to provide a capital cover or a hatch over such underground facilities.	**10 September 2021**
4	A power cable was fixed	A power	First of all, the given	**31 ugust 2021**

	near the power transmission pole located in the water intake area, which was cut off for unknown reasons and lying on the ground in an uncontrolld manner	transmission line is not admitted to be on the ground in an uncontrolled manner	area must be marked. Then, owner of the given cable must be identified and addressed immediately to carry out relevant repair works. If the given wire is used to supply power to the wells, it is necessary to install them in compliance with the requirements of the relevant instructions.	

2.2 Project Contracts and Management

15. The main institutions that are involved in implementation of the EMP are UWSCG executing agency (EA), Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment and Natural Resources Protection (MoENRP).

16. Investment Program Management Office (IPMO) established within UWSCG in January 2011 is responsible for the day to day management of the project including implementation of the EMP. The IPMO has an Environmental Specialist who is responsible for management of the environmental aspects of USIIP.

17. The IPMO (Environmental Specialist) responsibilities in respect of implementation of the EMP are as follows:

(i) Approve the Site Specific Environmental Management Plan (SSEMP) before Contractor takes possession of construction site;
(ii) Monitor implementation of EMP and ensure the environmental safeguards compliance;
(iii) Review the updated IEE and/or SEMP and send it for clearance to ADB;
(iv) Ensure that contractors have access to the EMP and IEE report;
(v) Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website;
(vi) Review and approve the Corrective Action Plan and provide to ADB for review and comments if any;
(vii) Participate in public consultations during project implementation;
(viii) In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints;
(ix) Assist in organizing trainings for the Contractors in coordination with ADB/RETA consultant;
(x) Participate in external trainings in environmental management and environmental auditing

18. The SC includes a full time Environmental Specialist to assist the IPMO supervise and monitor

implementation of the EMP during construction.

19. The Contractor also appoints a full time Environmental specialist to be a senior member of the construction management team based on site for the duration of the contract. The ES shall have a university degree (preferably at Masters level) in Environmental Science or related discipline and have at least 10 years work experience in environmental management of infrastructure project

20. Department of Environmental Protection and Permits of UWSCG work together with IPMO on addressing the Environmental Safeguard issues of USIIP. More detailed description of implementation arrangements; responsibilities and staffing are provided in the Table 2 below.

Table 2: Institutional Arrangement, Responsabilités and Staffing

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

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
4	**Reporting**	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	1. Prepare inputs to environmental part of quarterly construction progress reports; 2. Prepare inputs to semi-annual environmental monitoring report (SAEMR) to be submitted to IPMO for further review, comments and improvement. 3. Conduct Post-Construction Final Environmental Audit and prepare final environmental audit report.	1. Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; 2. Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website.	Upload the approved reports (ENG and GEO) provided by IPMO to UWSCG website for Public Disclosure
5	**Permits and clearances**	NA	NA	NA	Obtaining environmental permits and clearances
6	**Non-compliances**	Prepare a corrective action plan (CAP)	Assist contractor in preparing the CAP.	Review and approve the CAP and provide to ADB for review and comments if any.	
7	**Public consultations**	Participate in public consultations during project implementation	Organize public consultations: inform people about activities and prepare the record of consultations.	Participate in public consultations during project implementation	UWSCG & IPMO host PCs, CSC will present the topics related to environmental issues

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
8	**Grievance Redress Mechanism**	Project site Focal person to record environmental grievances in the logbook and follow up with UWSCG established practice for grievance redress	1. Ensure that grievances, if any, are being properly documented and addressed timely and effectively. 2. Assist IPMO to develop consolidated GRM database and consolidation of GRM cases both for ENV and Social safeguards	In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints; Assist IPMO Social/Resettlement Consultant in GRM database consolidation and data analysis.	UWSCG maintains GRM applicable to all projects. UWSCG will ensure IPMO information on grievances is consolidated into the UWSCG grievances (both - environmental and social) without duplication.
9	**Trainings**	Attend on-site trainings organized by IPMO and ADB/RETA Consultant	Assist the IPMO in organization of trainings for the Contractors on environmental safeguards requirements.	Organize trainings for the Contractors in coordination with ADB/RETA consultant. Participate in external trainings in environmental management and environmental auditing	Participate in external trainings in environmental management and environmental auditing

21. Main organizations involved in the project and related to environmental safeguard are presented in the table 3 below:

Table 3: List of Main Organizations under USIIP/T2

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Country Environmental Focal	Ninette R. Pajarillaga E-mail: npajarillaga@adb.org
		ADB RETA InternationalEnvironmental Consultant	Keti Dgebuadze +995 577232937 ketdgeb@yahoo.com
		Associate Safeguards Officer, Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 nnadashvili@adb.org
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/IPMO Department of Projects Management, Head	Ms. Ana Onashvili Tel: +995 599 692090 E-mail: ana.onashvili@water.gov.ge
Borrower	UWSCG .	UWSCG, Department of Environmental Protection and Permits, Head	. Ms. Maka Goderdzishvili . Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
Borrower	. UWSCG .	UWSCG/IPMO Department of Projects Management, Head	. Mr. Giorgi Archaia . Tel: +995 577 380213 . E-mail:

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
			G.Archaia@water.gov.ge
Borrower	UWSCG/USIIP/T3	Environmental Specialist	Ms. Ketevan Chomakhidze Tel: +995 577 380309 E-mail: Chomakhidzek@yahoo.com
Supervision Consultant	A Consortium of Consulting Firm led by Eptisa Servicios de Ingeniria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)	Environmental Specialist:	Mr. Irakli Legashvili Tel: +995 577 177016 E-mail: chem_ira@yahoo.com
Contractor URE-01	JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Levan Asabashvili Tel: +995 599 962 693 Email: levani.asabashvili@mail.ru
Contractor KUT-01	SMK Ulusal Insaat Ve Ticaret A.S. (Turkey)	Environmental Specialist	Ms. Natia Babukhadia E-mail: natiiibab@gmail.com Tel: +995 595 150444
		H&S Specialist	Mr. Mamuka Darakhvelidze E-mail: mamuka.darakhvelidze@gmail.com Tel: +995 592 87 0087

2.3 Project Activities During Current Reporting Period

22. No construction activities were implemented under USIIP/T2 during the reporting period, January-June 2021, since all construction works have been already completed.

2.4 Description of Any Changes to Project Design

23. Due to the fact that during the reporting period no construction work was carried out no changes took place to the project design and accordingly nothing has been updated or prepared.

2.5 Description of Any Changes to Agreed Construction methods

24. Due to the fact that during the reporting period no construction work was carried out no changes took place to the agreed construction methods.

III. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

25. No construction activities took place during the reporting period therefore no environmental safeguard activities related to the period of January-June 2021 are reported.

26. 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.

3.2 Site Audit

27. No Site audit was carried out by SC environmental specialist Mr.Irakli Legashvili and USIIP environmental specialist Ms.Kate Chomakhidze during the reporting period, since there were no construction activities under USIIP/T2. Post Construction Environmental Audit was conducted by Supervision Consultant/EPTISA under URE-01 sub-project in June 2021.

3.3 Issues Tracking (Based on Non-Conformance Notices)

28. N/A. Since all construction activities were already completed Non-compliance Notice was not issued during the reporting period, January-June 2021.

A. Trends

N/A

3.4 Unanticipated Environmental Impacts or Risks

N/A

IV. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

29. No monitoring was carried out during this reporting period as all construction work under USIIP/T2 was completed. Non-compliances from the previous reporting period have not been identified.

4.2 Trends

N/A

4.3 Summary of Monitoring outcomes

N/A

4.4 Material resources Utilization

4.4.1 Current Period

30. N/A. No data on material resources utilization were provided under USIIP/T1 since all construction activities are already completed.

4.4.2 Cumulative Resources Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

N/A

4.5.2 Cumulative Waste Generation

N/A

4.6 Health and Safety

4.6.1 Community Health and Safety

N/A

4.6.2 Worker Safety and Health

N/A

4.7 Training

31. N/A. No trainings have been carried out during the reporting period, January-June 2021 under USIIP/T1, due to the fact that all construction activities were already completed

V. FUNCTIONING OF THE SEMP

5.1 SEMP Review

32. No SEMP has been prepared under USIIP/T1 during the reporting period, January-June 2021.

33. Location Specific Environmental Management Plan under T2 were prepared for REG-02/Anaklia WWTP and URE-01 sub-projects. All SEMPs were prepared by Contractor, endorsed by SC, reviewed/commented by the RETA International-Regional Environmental Consultant of ADB under RETA 8663 - Ms. Keti Dgebuadze and reviewed/ approved by UWSCG.

34. The following SSEMP was prepared within the framework of REG-02/Anaklia WWTP sub-project:

- SSEMP Anaklia WWTP (May 2015)

35. The following SSEMPs were prepared by contractor, within the framework of Ure-01, project during the previous reporting periods:

URE-01:

- Ureki Well Fields (June 2016);
- Reservoir#1 (June 2015);
- Water Supply Pumping Station (June 2015);
- Reservoir #3 (May 2018);
- Natanebi River Protection Gabion Construction (November 2018);
- Natanebi River Crossing Aqueduct Construction (November 2018)

VI. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

N/A

6.2 Opportunities for Improvement

N/A

VII. SUMMARY AND RECOMMENDATIONS

7.1 Summary

36. Construction work within the framework of the MES-01, MES-02, REG-02 /Anaklia WWTP and URE-01 sub-projects have already been completed. Post-construction environmental audit reports for MES-01, MES-02, REG-02/Anaklia WWTP and URE-01 sub-projects were prepared by Independent Consultants and approved by ADB during the previous reporting period.

7.2 Recommendations

N/A

ANNEX A: POST CONSTRUCTION ENVIRONMENTAL AUDIT REPORT, URE-01

ADB Project No: 43405

Project: Construction of Water Supply and Wastewater Network in Ureki (URE-01)

Post - Construction Environmental Audit Report

July 2021

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ABBREVIATIONS

ADB	Asian Development Bank
CAP	Compensation Action Plan
DC	Design Consultant
EA	Executing Agency
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/Site-Specific Environmental Management Plan
ES	Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IA	Implementing Agency
USIIP	Urban Sector Improvement Investment Program
IEE	Initial Environmental Examination
MoEPA	Ministry of Environment Protection and Agriculture of Georgia
MoRDI	Ministry of Regional Development & Infrastructure
UWSCG	United Water Supply Company of Georgia
WS	Water Supply

I. INTRODUCTION

1.1 Preamble

1. This report represents the Post Construction Environmental Audit Report for Construction of Water Supply and Wastewater Network in Ureki (URE-01) under "Urban Services Improvement Investment Program" (USIIP) funded by the Asian Development Bank. URE-01 sub-project is simultaneously funded by T1,T2 and T3 of USIIP.

2. This Post Construction Audit Report is being prepared to comply with the 2009 ADB's SPS and Georgian legislation, including safeguards requirement and aims to identify past and present concerns from the production and business activities of Project Company that related to impacts on environment. The specific objectives of the audit can be summarized as follows:

   - Determine and verify whether all environmental requirements, criteria and constraints, prescribed in IEE and SSEMP have been adhered to during the construction phase.
   - Determine and verify whether the mitigation actions and rehabilitation requirements contained in the SSEMP have been appropriate and successful to prevent or control environmental pollution and/or damage.
   - Ensure that an appropriate environmental monitoring and control program exists to follow up on mitigation and rehabilitation works completed during the construction phase.
   - To identify any shortcomings in the SSEMP and EMS system implemented during the construction phase and to recommend alterations to the EMS applicable to the operational phase.

1.2. Project background

3. The Urban Services Improvement Investment Program was developed as the Governments 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.

4. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.

5. The project comprises of the construction of 1 water supply pumping station and 31 sewage pumping stations (Shekvetili - 18, Ureki - 13; construction of new reservoirs (2,000 m^3 x 3,000 m^3 and 1 x 1,200 m^3); distribution network - laying of approximately 70

km water supply pipelines (distribution network will be divided into 3 areas); laying of approximately 70 km sewage pipelines; installation of approximately 1,500 water meters; wells - drilling of 10 drinking water wells (**Figure 1**).

6. Implementation of infrastructural projects negatively impacts on environment as we are all aware. Construction of water infrastructure impacts on all components of the natural environment, during which changing of landscape, fragmentation of soil surface, losing of fertile layer of soil, elimination of green cover and migration ways of animals, changing of river bed and pollution of surface water, reducing of living area of birds and fishes may also occur.

Figure 1: Location Map of the Project

1.3 Main Stakeholders of the Project

7. The main institutions that are involved in implementation of the IEE/EMP are UWSCG executing agency (EA), Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment and Natural Resources Protection (MoENRP).

8. Investment Program Management Office (IPMO) established within UWSCG is responsible for the day to day management of the project including implementation of the EMP. The IPMO has an Environmental Specialist who is responsible for management of the environmental aspects of USIIP.

9. The IPMO (Environmental Specialist) responsibilities in respect of implementation of the EMP are as follows:

(i) Approve the Site Specific Environmental Management Plan (SSEMP) before Contractor takes possession of construction site;
(ii) Monitor implementation of EMP and ensure the environmental safeguards compliance;
(iii) Review the updated IEE and/or SEMP and send it for clearance to ADB;
(iv) Ensure that contractors have access to the EMP and IEE report;
(v) Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website;
(vi) Review and approve the Corrective Action Plan and provide to ADB for review and comments if any;
(vii) Participate in public consultations during project implementation;
(viii) In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints;
(ix) Assist in organizing trainings for the Contractors in coordination with ADB/RETA consultant;
(x) Participate in external trainings in environmental management and environmental auditing

10. The SC includes a full time Environmental Specialist to assist the IPMO supervise and monitor implementation of the EMP during construction.

11. The Contractor also appoints a full time Environmental Specialist to be a senior member of the construction management team based on site for the duration of the contract. The ES shall have a university degree (preferably at Masters Level) in Environmental Science or related discipline and have at least 10 years work experience in environmental management of infrastructure project.

12. Department of Environmental Protection and Permits of UWSCG work together with IPMO on addressing the Environmental Safeguard issues of USIIP. More detailed description of implementation arrangements, responsibilities and staffing under URE-01 sub-project are provided in the Table 1 below.

Table 1. List of contracts under the Project

Organization	Name of main staff and Environmental Specialist	Contact data (including phone and web-site) and address of the organization
Asian Development Bank	ADB Country EnvironmentalFocal	Ninette R. Pajarillaga E-mail:npajarillaga@adb.org
	ADB RETA InternationalEnvironmental Safeguards Consultant	KetiDgebuadze +995 577232937 ketdgeb@yahoo.com
	Associate Safeguards Officer, Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 nnadashvili@adb.org

Organization	Name of main staff and Environmental Specialist	Contact data (including phone and web-site) and address of the organization
UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. MakaGoderdzishvili Tel: +995 599 229925 m.goderdzishvili@water.gov.ge
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II. SUMMARY OF PREVIOUS ENVIRONMENTAL AUDITS

13. In the construction phase, as a result of the environmental audits conducted by the organizations (UWSCG/IPMO/DEPP, Supervision Company) involved in the project in 2017-2020 revealed total 44 non-compliances. The environmental reports submitted to the Asian Development Bank give a detailed description of all non-compliances and corrective actions developed. According to the environmental audit reports published on the Asian Development Bank website, all of the non-compliances fixed in 2017-2020 have been remedied.

14. For the detailed information about the results of the accomplished audits, see **Annex 1**.

III. SUMMARY OF OBSERVATIONS OF THE SITE VISITS

3.1. Audit results

15. Construction of Water Supply and Wastewater Network in Ureki (URE-01). The Contract is signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Initial Completion date was scheduled on November 22, 2018 but due to changes in the design of project, which includes the construction of an Aqueduct across the Natanebi River, the construction of Gabion walls to protect well fields from flooding and erosion, and the construction of an additional deep well No. 8 along the banks of the Natanebi River, completion date was extended to September 2019.

16. The final (closing) environmental audit of Ureki water supply and sewerage network was conducted by the environmental audit team in 17 May of 2021.

17. The audit team visited the following facilities: (i) the water intake area; (ii) Reservoir #1; (iii) Reservoir #3; and (iv) pumping station. For the locations of the mentioned facilities, see **Figure 1** above. Besides, the access roads to the mentioned facilities are restored/built.

18. All the above-mentioned sites were fenced and it was impossible for strangers as well as domestic animals to enter the site (see **Figure 2 - 5).**

Figure 2: Territory of reservoir #3

Figure 3: Territory of reservoir #1 station

Figure 4: Territory of the pumping station

Figure 5: Borehole area

19. The construction waste was disposed from all facilities except some minor exceptions (see non-compliance 1) and the area was cleaned (**Figures 6 - 9**).

Figure 6: Reservoir #3

Figure 7: Reservoir #1

Figure 8: Pumping station

Figure 9: Borehole area

20. The restoration works are completed all over the area and the topsoil was taken back to the project area. It should be noted that no artificial plantings were done in the area. So, it is clear that the self-restoration process took place in the project area (see **Figures 10 and 11**).

Figure 10: Self-restored grass – the territory of the first reservoir

Figure 11: Self-restored grass – the territory of the pumping station

21. The access roads to the project area were restored and paved. Their physical state corresponds to the IEE requirements (**Figures 12 and 13**).

Figure 12: Access road to the first reservoir

Figure 13: Access road to the pumping station

3.3 Non-compliances and corrective actions

22. As mentioned above, no significant non-compliances were observed during the environmental audit and all corrective actions that need to be taken do not require additional funding and time.

23. **Non-compliance #1**: There was chaotically disposed construction and household waste observed on the territory of the pumping station (see **Figures 14 and 15**).

Figures 14 and 15. The waste disposed chaotically. The territory of the pumping station

24. **Requirement:** Following the completion of the project, the waste must be handed over to a duly licensed company.

25. **Corrective action**: The waste must be collected and disposed from the project area. The waste must be handed over only to duly licensed contractors for further management.

26. **Non-compliance #2**: The area of the construction materials on the territory of the pumping station was not fenced and was not protected from the impact of the atmospheric precipitation (**Figures 16 and 17**).

Figure 16 and 17: The construction waste on the territory of the pumping station

27. **Requirement**: The area with the construction waste must be fenced and have relevant information signs.

28. **Corrective action**: The territory of the construction materials area must be duly fenced. The construction materials must be disposed in the project area more compactly and must be protected from the atmospheric precipitation by using an appropriate protective cover.

29. A number of violations of the rules of safety were observed in the water intake area.

30. **Non-compliance #3**: The underground infrastructure and the well in the project area were not duly covered (**Figures 18 and 19**).

Figures 18 and 19: Open infrastructural objects in the water intake area

31. **Requirement:** All underground infrastructural facilities must be closed after the project is complete to prevent service personnel or animals from falling into them.

32. **Corrective action**: In the first stage, the area must be fenced or warning signs must be installed. And finally, it will be necessary to provide a capital cover or a hatch over such underground facilities.

33. **Non-compliance #4**: A power cable was fixed near the power transmission pole located in the water intake area, which was cut off for unknown reasons and lying on the ground in an uncontrolled manner (see **Figures 20 and 21**).

Figures 20 and 21: The wire cable on the earth surface

34. **Requirement:** A power transmission line is not admitted to be on the ground in an uncontrolled manner.

35. **Corrective action:** First of all, the given area must be marked. Then, owner of the given cable must be identified and addressed immediately to carry out relevant repair works. If the given wire is used to supply power to the wells, it is necessary to install them in compliance with the requirements of the relevant instructions.

III. CONCLUSIONS AND RECOMMENDATIONS

36. Table 2 gives the summary information about the non-compliances observed during the environmental audit and due corrective actions and probable terms of their realization.

Table 2: Summary information

#	Non-compliance	Corrective action	Terms of accomplishment	Note
1.	There was chaotically disposed construction and household waste observed on the territory of the pumping station	The waste must be collected and disposed from the project area. The waste must be handed over only to duly licensed contractors for further management.	**1 month**	
2	The area of the construction materials on the territory of the pumping station was not fenced and was not protected from the impact of the atmospheric precipitation	The territory of the construction materials area must be duly fenced. The construction materials must be disposed in the project area more compactly and must be protected from the atmospheric precipitation by using an appropriate protective cover.	**1 month**	
3.	The underground infrastructure and the well in the project area were not duly covered	In the first stage, the area must be fenced or warning signs must be installed. And finally, it will be necessary to provide a capital cover or a hatch over such underground facilities.	**1 month**	The area must be fenced or the warning signs must be installed in the shortest possible time, in maximum 2 or 3 days
4.	A power cable was fixed near the power transmission pole located in the water intake area, which was cut off for unknown reasons and lying on the ground in an uncontrolled manner	First of all, the given area must be marked. Then, owner of the given cable must be identified and addressed immediately to carry out relevant repair works. If the given wire is used to supply power to the wells, it is necessary to install them in compliance with the requirements of the relevant instructions.	**2 weeks**	The area must be fenced or the warning signs must be installed in the shortest possible time, in maximum 2 or 3 days

ANNEXES:

Annex 1: Non-compliances observed during the Environmental Audits conducted during the 2017-2020 reporting period

Date	Ref Number	Subject	Content/Issues	Status of Implementation
January to July 2017				
9-10 February		High visible safety signs/tapes and trench side barriers around of deep open trenches should be installed toavoid accident of population	Instruction is given to the contractor to keep the standard and ensure safety of local population	**Competed**
9-10 February		Construction activities information signs should be installed at each construction segment		
9-10 February		Walls of the deep trenches (>1.5m) should be strengthened by boards to avoid landfall of the soil andaccidents	Construction is given instruction to improve the situation. Non compliance Notice was developed by SC to improve the situation on site.	
9-10 February		Where are necessary proper wooden/metal walkways/planks across open trenches should be installed		
9-10 February		Accumulated waste soil should be removed from construction area and disposed in a proper place	No additional actions are required	
9-10 February		Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses		
9-10 February		Resident houses nearby areas should be clean from construction materials to avoid disturbance of residents and businesses		

Date	Ref Number	Subject	Content/Issues	Status of Implementation
January to July 2017				
9-10 February		Trees of nearby construction zone should be protected to avoid its damage		
9-10 February		Use tarpaulins to cover during materials transportation	Despite numerous instructions given by SC and Environmental Specialist of USIIP to contractor trucks with tarpaulins are not used by contractor to cover construction material during transportation, immediate improvements are requested from contractor	
9-10 February		Workers always should use complete PPE		
9-10 February		All network line construction segments should be cleaned/well organized on regular bases		
9-10 February		Entrance door of construction site should be in better operational condition and closed as needed		
9-10 February		Piles of soil at the construction territory should be managed properly (grading/leveling)		
9-10 February		Site internally should be arranged properly with signage and cleaned regularly		
29-30 May		Trees at the construction site and nearby deep excavation zone should be fenced protect to avoid its fallingand damage		
29-30 May		Proper warning and information signs should be arranged at the entrance and perimeter of the site		
29-30 May		Safety signs/tapes and trench side barriers around of deep open excavation should be installed from all		

Date	Ref Number	Subject	Content/Issues	Status of Implementation
January to July 2017				
		sidesto avoid accidents		
29-30 May		Walls of the deep trenches (>1.5m) should be strengthened to avoid landfall of the soil and accidents		
29-30 May		Workers always should use complete PPE		
29-30 May		Trenches should be fenced adequately		
July to December 2017				
3 August		Safety rules during high-altitude works should be respected to avoid workers damage	Contractor developed Corrective Action Plan and improved the situation within the proposed deadlines	
3 August		During high-altitude works special protection equipment should be used	Contractor developed Corrective Action Plan and improved the situation within the proposed deadlines	
3 August		Implementing works without special protection equipment is strictly prohibited		
3 August		Workers always should use complete PPE	Contractor developed Corrective Action Plan and improved the situation within the proposed deadlines	
7 November		All construction materials (pipes) should be accurately stacked and stored properly at the special dedicated place	Contractor is requested to keep the standards and to follow EMP requirements	
7 November		Special warning and information signs should be installed	Contractor is requested to keep the standards and to follow EMP requirements	
7 November		Trees (nearby territory) should be freed from pipes to avoid its damage	Contractor is requested to keep the standards and to follow EMP requirements	
7 November		Piles dedicated warehouse should be fenced, protected and organized as suggested for warehouse arrangement		
7 November		Protect River bank alongside theUreki Well fields	Contractor is requested to protect River Bank alongside the Ureki Well fields as soon	

Date	Ref Number	Subject	Content/Issues	Status of Implementation
January to July 2017				
			as final design is proposed by Eptisa	
7 November		Contractor to install fencings forUreki Well Fields	Contractor is requested to finalize fencing of Ureki Well Fields	
January to June 2018				
24 April		All construction materials (pipes) should be accurately stacked and stored properly at the special dedicated place	No additional actions are required	
24 April		Special warning and information signs should be installed		
24 April		There should be separate waste containers for municipal and hazardous waste at the site with signatures, placed at special designated area with roofing and concrete base		
24 April		Workers always should use complete set of PPE		
24 April		Trees (nearby territory) should be freed from pipes to avoid its damage		
24 April		Construction materials should be segregated precisely and stored properly	Contractor to developed Corrective Action Plan and improved the situation within the proposed deadlines, site improvements with relevant photos will be presented in EMR July-December 2018.	
24 April		Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)		
24 April		Site gate should be operation at every entrance or exit with relevant signage		
24 April		Waste should be placed at the proper standard waste containers with labeling		
24 April		Containers of lubricants should be		

Date	Ref Number	Subject	Content/Issues	Status of Implementation
January to July 2017				
		managed properly (concrete flooring and relevant roofing)		
24 April		Construction equipment should be in good condition		
24 April		Site fencing should be complete and with visible materials on it		
24 April		Construction materials should be segregated precisely and stored properly		
24 April		Site internally should be arranged properly (including signage) and cleaned regularly (animals should not be available at the site)		
January to June 2019				
February		Site internally should be arranged properly and cleaned regularly	Contractor was given strong instruction to improve the situation within the 2 working days and keep improved Standards on sites	

Annex 2: Post-Construction Environmental Audit Checklist

Required mitigation measures of enviromental impact	Measures implemented				Comment
	yes	partially	no	N/A	
Site territory fenced fully	x				All facilities must be fenced and have gates.
Topsoil placed at original location	x				The topsoil must be returned to its original area, and the topsoil must be used to cover the small slopes of the infrastructural facilities constructed within the scope of the project.
Vegetation cover reinstated	x				The grass has been self-restored on the territory.
Trees replanted as needed				x	No trees were planted in the project zone.
Construction waste and surplus/waste soil removed completely and disposed properly		x			The construction and household waste are mainly disposed from the project area. Only few facts of the construction and household waste disposal were fixed on some sites of the pumping station.
Hazardous waste removed and disposed properly	x				The hazardous waste is totally removed from the project site.
Fuels and lubricants spills eliminated	x				Fuel or lubricant storage areas in the construction camps aretotally demolished and waste is totally removed from the site
Contractor equipment and machinery removed	X				The construction equipment removed by the Contarctor.
All temporary facilities removed and cleaned up	x				The temporary auxiliary buildings are fully removed from the site.
Streets with installed network reinstated to pre-construction or better conditions	x				The access roads to the project zone are reinstated. Their physical state is satisfactory.
Post-Construction territory reinstated to pre-construction or better conditions	x				The project zone is reinstated in line with the requirements.

