

Semi-Annual Environmental Monitoring Report

#16 Semiannual Report

(Reporting Period: July-December 2023)

Project Number: 43405-025

**GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM
(TRANCHE 3)**

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

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

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ABBREVIATIONS

ADB	Asian Development Bank
CAP	Corrective Action Plan
DC	Design Consultant
DPPASA	Department of Permits, Environmental protection and Social Affairs
DDR	Due Diligence Report
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
IA	Implementing Agency
IEE	Initial Environmental Examination
LLC	Limited Liability Company
MFF	Multi-tranche Financing Facility
MoEPA	Ministry of Environment Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
PMD	Projects Management Department
SAEMR	Semi-Annual Environmental Monitoring Report
SC	Supervision Consultant
USIIP	Urban Sector Improvement Investment Program
UWSCG	United Water Supply Company of Georgia
WS	Water Supply
WSS	Water Supply & Sewerage
WWTP	Waste Water Treatment Plant

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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 3 and describes the period of July-December 2023.
2. This report is the 16th Semi-annual EMR for the T3 of “Urban Services Improvement Investment Program”.

1.2 Headline Information

3. During the reporting period, only minor construction works were carried out under the GUD-03 sub-project - Construction of four Waste Water Treatment Plants in Gudauri. Construction works were mainly carried out inside the buildings, which included transportation and installation of mechanical equipment, installation of floor tiles at walkways and painting of handrails at WWTP-1,2,3,4. All construction work under the USIIP/T3 was completed during the previous reporting periods (Please see paragraphs 7-19 below for more details).

2. 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 improves infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sanitation) in one town. Sub-projects rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works include sewer network, pumping stations, main collectors and waste water treatment plants.
6. **Tranche 3 of the Investment Program includes:**
 - Construction of Water Supply and Wastewater Network in Ureki/Phase 3 (URE-01);
 - Construction of Wastewater Treatment Plant in Ureki (URE-02);
 - Construction and Rehabilitation of Water Supply System in Kutaisi/Phase 2 (KUT-01);
 - Construction of New Transmission Pipeline in Abasha (ABA-01);
 - Construction of Waste Water Treatment Plants in Gudauri (GUD-03).

The following projects are financed under Tranche 3:

7. **¹Construction of Water Supply and Wastewater Network in Ureki/Phase 3 (URE-01).** The project comprised of the construction of 1 water supply pumping station and 31 sewage pumping stations (Shekvetili - 18, Ureki - 13; construction of new reservoirs (2,000 m³ x 3,000 m³ and 1 x 1,200 m³); 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.
8. The Contract was signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Project commencement date was November 24, 2014. Initial Completion date was scheduled on November 22, 2018 but due to changes in the design of project, which include the construction of an Aqueduct across the Natanebi River, the construction of Gabion wall to protect well fields from flooding and erosion, and the construction of an additional deep well N8 along the banks of the Natanebi River Project completion date was further extended until September 2019. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040.
9. The Post Construction Environmental Audit report under the URE-01 sub-project was prepared by the Supervisory Consultant EPTISA after completion of the construction work in June 2021 and approved by UWSCG.
10. **Construction of Wastewater Treatment Plant in Ureki (URE-02).** The project comprised of the construction of new Wastewater Treatment Plant with the capacity of 6,570 m³/day.

¹ T1-T3 BAEMRs may have some overlap, due to the financing arrangements of Ure-01 project, which is simultaneously financed by T1, T2 and T3.

11. The contract URE-02 was signed on April 30, 2015 with JV of Ludwig Pfeiffer Hoch-und Tiefbau GmbH and Co.KG ProtechnoSrl (Germany) / Aritim (Turkey), the contract was completed on June 9, 2018.
12. The Post Construction Environmental Audit report under the URE-02 sub-project was prepared by the Supervisory Consultant EPTISA after completion of the construction work in June 2019 and approved by UWSCG.
13. **Construction and Rehabilitation of Water Supply System in Kutaisi/Phase 2 (KUT-01).** The project envisaged construction of Kvitiri 973 m³/h capacity and Mukhrani 660 m³/h capacity pumping stations; Reservoirs - construction of Near East and Mukhrani reservoirs with the capacity of 9,000 m³ (2x4,000+1,000). Distribution network - 332.1 km.
14. United Water Supply Company of Georgia signed a contract with SMK Ulusal Insaat Ve Ticaret A.S. (Turkey) for implementation of KUT-01 project on 22 April 2015. The initial date of completion of the contract was June 8 2018, the contract was extended and completed in July 2020.
15. The Post Construction Environmental Audit report under the KU-01 sub-project was prepared by the Supervisory Consultant EPTISA in June 2021 and approved by UWSCG.
16. **Construction of New Transmission Line in Abasha (ABA-01).** Within the Aba-01 sub-project the following major works were carried out: 15 km long 500 mm diameter transmission pipeline was installed from headwork to the town of Abasha, chlorination building was constructed and the water meters were installed at the headwork.
17. The contract for implementation of ABA-01 was signed on October 13, 2017 with AS Inshaat-N, LLC (Azerbaijan). The original project completion date for the project was March 14 2020. The project completion date then was extended until the June 18 2022. Currently, ABA-01 project completion day has expired and the sub-project is in delay damages period until the end of December 2023.
18. As it is already agreed by the UWSCH and SC, the Post-construction Environmental Audit of the ABA-01 sub-project will be carried out by the Supervision Consultant EPTISA in February 2024.
19. **Construction of Waste Water Treatment Plants in Gudauri (GUD-03).** The Proposed project envisages construction of 5 Waste Water Treatment Plants with different sizes but using the same technological process:
 - New Gudauri. The new development in the north of Gudauri (ab. 750 m³/day) and Gudauri Heights (350 m³/day).
 - Upper and Central Gudauri: Located at the same site that the old WWTP, near the church (estimated up to 2000 m³/day).
 - Gudauri Downtown. In the head of the big plot of the plateau, down the downtown. (ab. 350 m³/day).
 - Plateau-Lower Gudauri. At the end of the plateau for the new development (ab. 750 m³/day).
 - Seturebi. One plant to treat the water in Seturebi village (ab. 350 m³/day).
20. The Contract was signed on June 3, 2019 with "China Nuclear Industry 23 Construction Co." LTD (CNI23). The initial date of completion of the GUD-03 sub-project was April 2021. The deadline for implementation of GUD-03 subproject was extended until November 2023. Currently, GUD-03 project completion date has expired and the sub-project is in delay damages period until the end of March 2024.

21. In December 2023, Change Order No. 1 was sent to ADB with a proposal to make changes in the GUD-03 sub-project, to exclude WWTP No. 5 from the sub-project. The background of the case is presented in Annex D below.
22. The Post-construction Environmental Audit of the GUD-03 sub-project will be carried out in March 2024 by the Supervision Consultant EPTISA and the Post-construction Environmental Audit report will be prepared and submitted to UWSCG.

2.2 Project Contracts and Management

23. The main institutions that are involved in implementation of the EMP are 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, Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment Protection and Agriculture (MoEPA).
24. The Investment Program Management Office (IPMO) under UWSCG which was created in January 2011 and which is the Donors Funded Projects Management Department, is responsible for the day-to-day management of the project, including the implementation of the EMP. IPMO has an Environmental Specialist, Ms.Ketevan Chomakhidze who is responsible for managing the environmental aspects of the USIIP. The head of the department is Ms.Irina Chikhldadze.
25. The IPMO Environmental Specialist’s 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;
 - (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
26. The SC includes a full time Environmental Specialist Mr.Irakli Legashvili to assist the IPMO oversee day-to-day implementation of EMPs by contractors, including compliance with all government rules and regulations; Support IPMO in the review and endorsement of contractor’s SSEMP; Conduct inspections on contractor’s implementation of SSEMP and compliance with government rules and regulations; Ensure contractors comply with health and safety requirements per approved SSEMP’s Health and Safety Management Plan; Conduct investigations on grievances/complaints, incidents and accidents; Assist IPMO in addressing any grievances in a timely manner as per the GRM; Monitor corrective actions as required in CAPs, and ensure non-compliances are resolved immediately and are not occurring repeatedly; Prepare recommendations for contractors repeated non-compliances on safeguards and EHS requirements; Submit monthly and quarterly environmental monitoring reports to IPMO.
27. The Contractor also appoints a full time Environmental specialist under GUD-03 sub-project

Mr. Aleksandre (Sasha) Mchedlishvili to be a senior member of the construction management team based on site for the duration of the contract. Environmental Specialist of contractor is responsible for preparing the Specific Environmental Management Plan (SSEMP) for endorsement by Supervision Consultant and approval by the UWSCG prior to the Contractor taking possession of the construction site; ensuring the SSEMP is implemented effectively throughout the construction period; environmental accidents/incidents including resolution activities; non-compliance notifications issued by the SC; Corrective action plans issued to the SC in response to non-compliance notices; Community relations activities including maintaining complaints register; Routine reporting of SSEMP compliance and community liaison activities; Implement Occupational Health and safety requirements. Implement site clean-up measures after civil works finalization.

28. Department of Permits, Environmental Protection and Social Affairs of UWSCG work together with IPMO on addressing the Environmental Safeguard issues of USIP. The Head of Department is Ms.Maka Goderdzishvili. DPPASA have divisions of “Permits” and “Environmental Protection and Social Affairs”. Ms. Salome Mosidze is the head of Environmental Protection and Social Affairs Division. More detailed description of implementation arrangements; responsibilities and staffing are provided in the **Table 1 below**.

Table 1: Institutionnel Arrangement, Responsabilités and Staffing

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Department of Permits, Environmental Protection and Social Affairs (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 SEMPs 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)	Department of Permits, Environmental Protection and Social Affairs (Environmental Specialist)
4	Reporting	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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)	Department of Permits, Environmental Protection and Social Affairs (Environmental Specialist)
8	Grievance Redress Mechanism	Project site Focal person to record environmental grievances in the logbook and follow up with UWSCG established practice for grievance redress	<ol style="list-style-type: none"> 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

29. A list of main organizations involved in the USIIP/T3 and relating to environmental safeguards is presented in Table 2 below.

Table 2: List of Main Organizations under USIIP/T3

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
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 nnadashvili@adb.org
		ADB RETA Environmental Consultant	George Kobaladze +995 599 689834 gkobaladze.consultant@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. Irine Chikhladze Tel: +995 598 179898 E-mail: i.chikhladze@water.gov.ge
Borrower	UWSCG/USIIP/T3	Environmental Specialist	Ms. Ketevan Chomakhidze Tel: +995 577 380309

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
			E-mail: Chomakhidzek@yahoo.com
Supervision Consultant	A Consortium of Consulting Firm led by Eptisa Servicios de Ingenieria S.L. (Spain) in association with SAFEGE (Belgium) and JSC Georgian Water Project (Georgia)	Environmental Specialist:	Mr. Irakli Legashvili Tel: +995 577 177016 E-mail: chem_ira@yahoo.com
Contractor URE-02	JV of Ludwig Pfeiffer Hoch-und Tiefbau GmbH and Co.KG ProtechnoSrl (Germany) / Aritim (Turkey)	Environmental H&S Specialist	Mr.Nikoloz Meparidze Tel: +995 599 346821 E-mail: niko@telenet.ge
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: natiibab@gmail.com Tel: +995 595 150444
		H&S Specialist	Mr. Beso Balanchivadze E-mail: besobal84@gmail.com Tel: +574 188 653

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Contractor ABA-01	AS Inshaat–N, LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Nodar Usupishvili E-mail n.usupashvili@gmail.com Tel: +995 577 68 16 71
Contractor GUD-03	“China Nuclear Industry 23 Construction Co.” LTD (CNI23)	Environmental H&S Specialist	Mr. Aleksandre (Sasha) Mchedlishvili E-mail alexandermchedlishvili1@gmail.com Tel: +995 574 02 77 33

2.3 Project Activities during Current Reporting Period

30. During the reporting period, construction work was carried out only under sub-project GUD-03 and therefore information only about this sub-project is reflected in this SAEMR. All civil works under other USIIP/T3 sub-projects have already been completed. For more detailed information, please see para 7-19 above.

2.3.1 Project Activities during the Reporting Period

31. Construction progress under GUD-03 sub-project is presented in the Table 3 below.

Table 3: Progress of Construction Works, July-December 2023, GUD-03

GUD-03	Total	Progress during the reporting period (January-June 2023)	Progress during the reporting period (July-December 2023)
Plant and Mandatory Spare Parts Supplied from Abroad	21.70%	37.00%	55.00%
Design	5.06%	89.00%	98.00%
Installation and other Services	73.25%	63.00%	85.00%
Totals:	100.00%	58.00%	79.00%

2.4 Description of Any Changes to Project Design

- 32.** During the reporting period, in December 2023, Change Order No.1, was sent to ADB proposing a change to exclude WWTP #5 from the GUD-03 sub-project.

2.5 Description of Any Changes to Agreed Construction methods

- 33.** During the reporting period July-December 2023, there were no changes to the agreed construction methods under USIIP / T3.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities





34. A total of 6 site visits have been conducted during the reporting period under GUD-03 and ABA-01 sub-projects.
35. Two site visits were carried out under the ABA-01 sub-projects, during the ADB's Environmental Safeguard Missions on 6 July 2023 and 14 December 2023. Due to the fact that there were no construction activities under the ABA-01 sub-project during the reporting period no major issues have been identified during the ADB's missions under ABA-01 sub-project.
36. During the reporting period, four site visits were carried out under GUD-03 sub-project due to the weather condition. Two state visits under the GUD-03 sub-project were conducted on July 4, 2023 and December 11, 2023 by the ADB Environmental Safeguard Mission. An additional two site visits were conducted by USIIP and SC environmental specialists on August 27, 2023 and November 6, 2023. Brief description of the status of monitoring visits, including dates of site visits, photographs, persons involved in the site visit, inconsistencies identified during the site visits are shown in Table 4 below. A total of 52 Non-compliances were identified during four site visits under sub-project GUD-03 and two non-compliance Notices were issued to the construction company by ESs of SC and UWSCG/USIIP.
37. Environmental Monitoring Specialist of Eptisa, Mr. Irakli Legashvili conducted monthly monitoring of project sites under USIIP/T3 and developed Non-compliance Notices (please see Table 4 below).
38. USIIP Environmental Specialist Ms. Kate Chomakhidze monitored the construction work under the GUD-03 sub-project in accordance with IEE/EMPs and SEMP's requirements and other environmental commitments of the contractor. UWSCG/USIIP/ES developed Semi-Annual Environmental Monitoring Reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.



3.2 Site Inspections/Audits




39. A sit was mentioned above the inspection and monitoring of construction sites under GUD-03 sub-project were conducted by ESs of USIIP and Eptisa. The schedule of Joint inspection carried out under GUD-03 sub-project is provided in the Table 4 below.




Table 4. Summary of Site Inspections/audits



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
Continuously during reporting period (July-December 2023)	"China Nuclear Industry 23 Construction Co." LTD (CNI23)	Mr. Aleksandre (Sasha) Mchedlishvili Environmental Specialist of contractor	Day to day monitoring of sites Compliance with Environmental and HES requirements	Environmental, Health and Safety issues on construction sites Regular cleaning of the construction site All photo-documentations are presented in Annex A and Annex B of this report.	Weekly Monitoring Checklists	Completed
4 July 2023		ADB's Environmental Safeguard Mission, Nino Nadashvili, Associate Safeguard Officer Georgia Resident Mission Asian Development Bank	ADB's Semi-annual Environmental Safeguard Mission	WWTP 1, WWTP 2, WWTP 3, WWTP 4 Safety norms during construction works at height should be respected. Safe walkways with handrail on open wells should be used to avoid workers falling and damage, Photo N1	Verbal instruction was given to contractor to immediately improve the situation. Non-Compliance Notice was issued and is presented in	Completed, end of July 2023 Photo N1



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
		<p>Environmental monitoring specialists of SC/EPTISA Mr. Irakli Legashvili</p> <p>Ms. Kate Chomakhidze UWSCG/USIIP /Environmental Specialist</p>		 <p>CAMP</p> <p>Fuel and lubricants spill elimination items (sand, sawdust, special containers) should be provided at the construction site</p> <p>Places contaminated by oil should be remediated and safety disposed.</p> <p>Photo N2</p> 	<p>Annex B of this report.</p> <p>(Photo-documentations are presented in Annex B, non-compliance note,)</p> <p>Corrective Action Plan has been developed by contractor and sent to SC and UWSCG</p>	 <p>Compelted by the end of July 2023, please see Photo N2</p> 



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>Hazardous Waste container with proper sign "Hazardous Waste" should be installed at the proper organized place with concrete floor and roofing</p> <p>Waste containers should be labeled, Photo N3</p>  <p>Waste should be placed only the proper waste container and discharged timely, Photo N4</p>		<p>Completed by the end of June 2023, Please see Photo N3</p>  <p>Completed, end of July 2023, Photo N4</p>



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				 <p>Containers with hazardous substance should be stored at the proper organized place with concrete floor and roofing</p>		 <p>Completed, end of July 2023, Please see Photo N5</p>  <p>Completed, end of July 2023, Photo N6</p>
				<p>Campsite territory should be regularly cleaned, Photo N5</p>		



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
						
27 August 2023		<p>Environmental monitoring specialists of SC/EPTISA Mr. Irakli Legashvili</p> <p>Ms. Kate Chomakhidze UWSCG/USIIP /Environmental Specialist</p>	Monthly monitoring of construction sites	<p>WWTP 2</p> <p>Construction waste materials should be fully removed from construction area and disposed according agreement</p> <p>Trees at the construction site should be fenced (freed from the surplus soil, waste and materials) and protected</p>	<p>Verbal instruction was given to contractor to immediately improve the situation.</p> <p>Non-Compliance Notice was issued and is presented in Annex B of this report.</p> <p>(Photo-documentations</p>	<p>Completed, mid. September 2023, all construction waste are removed from construction area</p> <p>Completed, please see Photo N1</p> 



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>There are detected spill spots of fuel/lubricant at the construction territory. These contaminated places should be remediated, Photo N1</p>  <p>Entrance gate should not be left open for long time</p> <p>Fuel and lubricants spill elimination items (sand, sawdust, special containers)</p>	<p>are presented in Annex B, non-compliance note,)</p> <p>Corrective Action Plan has been developed by contractor and sent to SC and UWSCG</p>	<p>Completed, end of August 2023, Photo N2</p>  <p>Completed, end of August 2023</p> <p>Completed, end of August 2023</p>


Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>should be provided at the construction site</p> <p>Waste should be placed only at the proper waste container and discharged timely</p> <p>Hazardous Waste container with label should be installed at the proper organized place with concrete floor and roofing, Photo N2</p>  <p>Electric Generator should be placed at the concrete surface to avoid soil contamination by fuel or lubricants</p>		<p>Completed, end of August 2023</p> <p>Completed, end of August 2023, the hazardous waste containers has been removed from the site due to the completion of construction work, photo N3</p>  <p>Completed, end of August 2023, the Electric generator has been removed from the site due to the completion of construction work.</p>


Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>Safety norms during construction works at height should be respected. Safe walkways with handrail on open wells should be used to avoid workers falling and damage, Photo N3</p>  <p>Open holes and trenches should be fenced by high visible safety tapes and proper warning signs should be installed, Photo N5</p>		<p>Partially Completed, (Detailed information and recommendations for improvements are provided in para 41 and table 15) Photo N4</p>  <p>Completed, mid. September 2023, after completion of construction work, the open holes and trenches were backfilled.</p>



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				 <p>WWTP 3</p> <p>Hazardous Waste container with should be installed at the proper organized place with concrete floor and roofing</p> <p>Waste should be placed only at the proper waste container and discharged timely, Photo N6</p> 		<p>Completed, end of September 2023, the hazardous waste containers has been removed from the site due to the completion of construction work</p>



Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>Entrance gate should not be left open for long time</p> <p>Sanitary norms at the workers rest/eating area should be respected, Photo N7</p>  <p>WWTP 4</p> <p>Construction sites should be properly fenced from all sides to avoid of animals entrance at the construction territory, Photo N8</p>		<p>Completed, Mid. September 2023, Photo N5</p>  <p>Completed, end of September 2023, photo N6</p>


Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				 <p>Entrance gate should not be left open for long time.</p> <p>Construction waste materials should be fully removed from construction area and disposed according to agreement</p> <p>Hazardous Waste container with should be installed at the proper organized place with concrete floor and roofing</p> <p>Campsite Contractor's camp site plan should be provided and proper signs (in Georgian and English) for each</p>		 <p>Completed, end of August 2023</p> <p>Completed, end of September 2023, the hazardous waste containers has been removed from the site due to the completion of construction work</p> <p>Completed, end of September 2023, Photo N7</p>





Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>dedicate areas should be installed</p> <p>Storage area should be fenced and proper warning/information signs (in Georgian and English) should be installed</p> <p>Contractor's camp should be equipped with first aid and fire-fighting kits</p> <p>Fuel Spill</p> <p>Fuel and lubricants spill elimination items (sand, sawdust, special containers) should be provided at the construction site</p> <p>There are detected spill spots of fuel/lubricant at the construction territory. These contaminated places should be remediated</p> <p>All equipment and vehicles used for construction should be in good condition do not leakage</p>		 <p>Completed, end of August 2023</p> <p>Completed, end of August 2023</p>




Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>Photo N9</p>  <p>Waste management:</p> <p>Hazardous Waste container with proper sign “Hazardous Waste” should be installed at the proper organized place with concrete floor and roofing</p> <p>Hazardous waste temporary storage area should be arranged according to provided specifications (see below description and follow requirements of Ordinance N145 of the Government of Georgia should be followed)</p> <p>Waste should be placed only the proper waste container</p>		<p>Completed December 15, 2023, All containers were removed from the construction camp due to the limited presentation of the contractors on sites and a weather condition, Please see photo N8</p>

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>and discharged timely (waste containers should not be broken)</p> <p>Proper waste containers should be installed with cover and labeled</p> <p>Containers with hazardous substance should be stored at the proper organized place with concrete floor and roofing</p> <p>Accumulated waste materials should be removed from the campsite immediately</p> <p>Photo N10</p> 		

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>Places contaminated by oil should be remediated and safely disposed</p> <p>Construction waste materials should be removed completely, Photo N11</p>  <p>Construction materilas and costruction waste storage area</p> <p>Scrap temporary storage area should be arranged, fenced and signed</p> <p>Plastic waste materials temporary storage area should be arranged, fenced and signed</p> <p>Wooden waste materials temporary storage area</p>		<p>Completed Mid. December 2023, Photo N9</p>  <p>Completed, Mid. Of December 2023</p> <p>Completed, Mid. Of December 2023</p>

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>should be arranged, fenced and signed</p> <p>Construction materials should be segregated and placed at proper manner (area should be fenced and information sign should be installed)</p> <p>Safety norms during use electricity should be respected</p> <p>Construction territory should be regularly cleaned inside and outside, Photo N</p> 		<p>Completed, Mid. Of December 2023</p> <p>Completed, Mid. Of December 2023</p> <p>Completed, Mid. Of December 2023</p> <p>Not Completed, (Detailed information and recommendations for improvements are provided in para 41 and table 15)</p>

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
6 November 2023		Environmental monitoring specialists of SC/EPTISA Mr. Irakli Legashvili Ms. Kate Chomakhidze UWSCG/USIIP /Environmental Specialist	Monthly monitoring of construction sites	<p>The pipes storage area needs to be enclosed with appropriate signage</p> <p>The waste pipe area should also be surrounded by signage, Photo N1</p>  <p>The wooden material storage area requires proper enclosure with signage, Photo N2</p> 	Verbal instruction was given to contractor to immediately improve the situation.	<p>Completed, Mid. November 2023, Photo N1</p>  <p>Completed, Mid. November 2023 photo N2</p> 

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
				<p>There are still some points of oil leakage that need attention Photo #3</p> 		<p>Completed, Mid Nov. 2023, Photo N3</p> 
11 December 2023		<p>ADB's Environmental Safeguard Mission, Nino Nadashvili, Associate Safeguard Officer Georgia Resident Mission Asian Development Bank</p> <p>Environmental monitoring</p>	<p>ADB's Semi-annual Environmental Safeguard Mission</p>	<p>Keep construction area clean and organized, Photo N1</p> 	<p>Verbal instructions have been given to the contractor to keep inside area clean and organized</p>	<p>Not completed Completed, (Detailed information and recommendations for improvements are provided in para 41 and table 15)</p>

Date of visit	Name of Company Name of Contract	Auditors name	Purpose of audit	Summary of any significant findings	Cross reference to Audit report	Implementation progress
		specialists of SC/EPTISA Mr.Irakli Legashvili Ms. Kate Chomakhidze UWSCG/USIIP /Environmental Specialist				

3.3 Issues Tracking (Based on Non-Conformance Notices)

40. During the reporting period, July-December 2023, up to 52 non-compliances were identified by ESs of SC and USIIP compared to 40 non-compliances identified during the reporting period January-June 2023 under the GUD-03 subproject and its four different construction sites (WWTPs No.1, No.2, No.3 and No.4). As a result, during the period from July-December 2023, the contractor eliminated 96% of these discrepancies compared to 95% of these discrepancies in January-June 2023.
41. The contractors were always informed on the detected non-conformances 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/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX B to this Semi-Annual EMR.
42. A summary of the identified environmental issues under GUD-03 sub-project for July-December 2023 is presented below. There are two open issues under GUD-03 sub-project: (i) Construction areas should be cleaned and organized regularly; (ii) workers Safety regulations during construction work, in particular safe walkways on open reservoirs inside the buildings/WWTPs to avoid workers falling and being injured in open trenches.

Table 5: Summary Table GUD-03

Total Number of Issues for Project	52
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	50
Percentage Closed	96%

43. As it is presented in paragraphs 41 above, two issues are still opened under GUD-03 sub-project, which will be improved during the January-March 2024 and improved photos of sites will be presented to UWSCG and ADB.

3.4 Trends

44. Information from the previous semi-annual EMR (January-June 2023) was used to identify trends in environmental protection issues. A summary of issues outstanding during the current reporting period is presented in paragraph 41 above. The percentage of issues still open under the GUD-03 sub-project during the reporting periods is presented in table 5 above. As can be seen from Table 6 below, despite the fact that the total number of non-compliances have been increased from 40 to 52, including CAMP and all 4 WWTPs under GUD-03 sub-project, the number of still open issues has decreased from 5% to 2%. The relevant mitigation measures as well as deadline for improving the situation is given in table 15 below.

Table 6: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
January-June 2023	40	95%	5%

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
July-December 2023	52	98%	2%

- 45. All major Non-Conformances under USIIP/T3 during the reporting period are provided in an Annex B of this report. All EH&S issues, 2% of which is still opened under GUD-03 sub-project are presented in para 40 above.
- 46. Recommendations to address environmental issues under GUD-03 sub-project is presented in table 15 below. Deadlines for improvement is indicated January 2024. All improvements will be implemented within the Q3 of 2023 and relevant photo-documentation will be presented in the next SAEMR, July-December 2023.

3.5 Unanticipated Environmental Impacts or Risks

- 47. There were no Unanticipated Environmental Impacts During the reporting period under USIIP/T3.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1. Overview of Monitoring Conducted during Current Period

- 48. During the reporting period Environmental Quality Measurements were not conducted under USIIP/T3 due to the fact that physical/construction activities during the reporting period were very limited, and all activities were carried out in a remote area from local residents.
- 49. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 7 and 8 below.
- 50. Georgian Standards for Noise, Vibration and Air Pollution is presented in the tables 7 below.

Table 7: 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

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

Table 8: Air pollution Guidelines

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

Contaminants	IFC/WHO Guideline Value (Limit mg/m ³)
1	2
Aldehyde	n/a

52. Georgian Standards for noise level is presented in the table 9 below.

Table 9: Georgian Standards for Noise Levels

Purpose/use of area and premises	Allowable limits (A-Weighted Decibels (dBA))		
	L _{day}		23:00 – 08:00 L _{night} , Night
	08:00 - 19:00, Day	Evening 19:00- 23:00	
Educational facilities and library halls	35	35	35
Medical facilities/chambers of medical institutions	40	40	40
Living quarters and dormitories	35	30	30
Hospital chambers	35	30	30
Hotel/motel rooms	40	35	35
Trading halls and reception facilities	55	55	55
Restaurant, bar, cafe halls	50	50	50
Theatre/concert halls and sacred premises	30	30	30
Sport halls and pools	55	55	55
Small offices (100m ³) – working rooms and premises without office equipment	40	40	40
Small offices (100m ³) – working rooms and premises without office equipment	40	40	40
Conference halls /meeting rooms	35	35	35
Areas bordering with houses residential, medical establishments, social service, and children's facilities (>6 story buildings)	55	50	45
The areas bordering with hotels, trade, service, sport, and public organizations	60	55	50

Note: in case noise generated by indoor or outdoor sources is impulse or tonal, the limit must be 5dBA less than indicated in the Table.

53. Table 10 shows the threshold values of the major air pollutants as defined by the GEO, IFC and EU legislation.

Table 10: Ambient Air Quality Standards

Parameter	Averaging Period	Limit (µg/m ³)		
		Maximum Permissible Concentration (MPC) in Georgia	IFC Guideline Value	EU Ambient Air Quality Guidelines
Nitrogen Dioxide (NO ₂)	30 minutes	200	-	-
	1 Hour	-	200	200
	24 Hours	40	-	-
	1 Year	-	40	40
Sulphur Dioxide	10 minutes	-	500	-
	30 minutes	500	-	-
	1 Hour	-	-	350

Parameter	Averaging Period	Limit ($\mu\text{g}/\text{m}^3$)		
		Maximum Permissible Concentration (MPC) in Georgia	IFC Guideline Value	EU Ambient Air Quality Guidelines
(SO ₂)	24 Hours	50	20	125
Carbon Monoxide (CO)	30 minutes	5,000	-	-
	24 Hours	3,000	-	-
Total Suspended Particulates (TSP) / Dust	24 Hours	150	-	-
	30 minutes	500	-	-
PM10	1 year	40	20	40
	24 hours	50	50	50
PM2.5	1 year	25	10	25
	24 hours	-	25	-
Ozone	8-hour daily max.	120	100	120

54. The Georgian Standards for vibration are designed for human comfort. These are shown in 11. Note that no standards for building damage exist.

Table 11: Georgian vibration values

Average Geometric Frequencies of Octave Zones (Hz)	Allowable Values X0, Y0, Z0			
	Vibro-acceleration		Vibro-speed	
	m/sec ²	Hz	m/sec 10 ⁻⁴	Hz
2	4.0	72	3.2	76
4	4.5	73	1.8	71
8	5.6	75	1.1	67
16	11.0	81	1.1	67
31.5	22.0	87	1.1	67
63	45.0	93	1.1	67

Note: It is allowable to exceed vibration normative values during daytime by 5 dB during daytime. In this table of inconstant vibrations, a correction for the allowable level values is 10dB, while the absolute values are multiplied by 0.32. The allowable levels of vibration for hospitals and rest houses have to be reduced by 3dB.

55. During the reporting period, Environmental Quality Measurements of noise, dust, and air pollution were not carried out within the framework of the GUD-03 sub-project, due to the fact that only minor construction work was carried out, such as the installation of mechanical equipment inside the buildings/WWTPs.

4.2 Trends

56. As it was mentioned above during the reporting period Environmental Quality Measurements under USIIP/T3 were not carried out during the reporting period due to the fact that physical/construction activities during the reporting period were very limited, and all activities were carried out inside the buildings/WWTPs and a remote area from local residents.

4.3 Summary of Monitoring Outcomes

57. Due to weather conditions in Gudauri, construction work was carried out only for a limited period of July-October 2023, environmental quality measurements were also not carried out under USIIP/T3, since during the reporting period construction work was very limited and all work was carried out in area remote from local residents.

4.4 Material Resources Utilisation

4.4.1 Current Period

GUD-03

58. The contractor had provide information on the material resources utilization under the GUD-03 sub-project. The amount of the electricity and water used by the CC/“China Nuclear Industry 23 construction co.” during the reporting period under GUD-03 sub-project is provided in the table below.

Table 12: Material Resources Utilization under GUD-03 Sub-project, July-December 2023

N	Utilized Resources	Monthly	Measurement
1	Consumption of Water	16	M3
2	Electricity	600	kwt
3	Fuel	500	L

4.4.2 Cumulative Resource Utilisation

59. Commulative resources utilization of electricity, water and fuel for whole project life is presented in the Table below.

Table 13: Cumulative Resources Utilization under GUD-03 Sub-project

N	Utilized Resources	Monthly	Measurement
July-December 2021			
1	Consumption of Water	60	M3
2	Electricity	22587	kwt
3	Fuel	800	L
January-June 2022			
1	Consumption of Water	70	M3
2	Electricity	23539	kwt
3	Fuel	3917	L
January-June 2022			
1	Consumption of Water	62	M3
2	Electricity	20501	kwt
3	Fuel	1500	L
July-December 2023			
1	Consumption of Water	16	M3
2	Electricity	600	kwt
3	Fuel	500	L
Total (July 2021 – December 2023)			

N	Utilized Resources	Monthly	Measurement
1	Consumption of Water	246	M3
2	Electricity	83427	kwt
3	Fuel	7717	L

4.5 Waste Management (GUD-03)

4.5.1 Current Period

- 60.** At the construction sites under GUD-03 sub-project, there are mainly produced household, construction (inert, surplus soil) and hazardous waste. Mainly household waste is collected in municipal containers which are served by the local cleaning service. Contractors always have separate containers for household and hazardous waste with proper labeling at the construction site.
- 61.** The construction waste that is allocated at the construction site is removed for its disposal that is managed by formal agreement with local municipality. All relevant agreement are provided in ANNEX C to this report. According to the Annex C to this report agreements with the “Solid Waste Management Company” was signed in 1 January 2023 until the 31 December 2023.

Table 14: Amount of Waste Generated under GUD-03 Sub-project, July-December 2023

N	Waste management		Measurement
3	Municipal Waste	30	M ³

GUD 03

- 62.** Household waste is collected at the construction sites in the Household Waste containers and transmitted to Municipal waste containers and finally disposed at the Kazbegi landfill.
- 63.** Construction/demolition waste are also disposed according to the agreement with Solid Waste Management Company at the Kazbegi landfill, please see relevant agreement in ANNEX C to this report.
- 64.** Hazardous waste is collected at the construction territories in the Hazardous Waste containers and according agreement transmitted to Medical Technology Company for final disposal. HSE specialists of the construction companies is responsible for the waste management under GUD-03 sub-project. On-job environmental safeguards training have been also conducted by ES of UWSCG/USIIP Ms.Kate Chomakhidze and ES of SC Mr.Irakli Legashvili on 27 August and 6 November 2023 which included topics of waste management,.

4.5.2 Cumulative Waste Generation

65. During the construction activities mostly waste is producing in result of maintenance of construction equipment, functioning of camp and excavation works. As it was mentioned in para 61 above household waste is collected at the construction sites in the Household Waste containers and transmitted to Municipal waste containers and finally disposed at the Kazbegi landfill, for disposal of hazardous waste the Contractor has signed agreement with “Solid Waste Management Company” Were possible the Contractor use excavated material for filling of embankment.

4.6 Health and Safety

4.6.1 Community Health and Safety

66. No community incidents have been reported under GUD-03 sub-project during the reporting period.

4.6.2 Worker Safety and Health

GUD-03

67. Environmental H&S Manager of GUD-03 sub-project Mr. Aleksandre (Sasha) Mchedlishvili Performed every day monitoring, induction and supervision of ongoing works according to HSE standards and by requirements of ADB/UWSCG/EPTISA and kept H&S incidents/accidents/Near Misses log book.

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

- Working on height;
- Working on deep and open reservoirs inside the WWTP buildings;

69. The main non-compliances identified during the reporting period included workers Safety regulations during construction work, in particular safe walkways on open reservoirs inside the buildings/WWTPs to avoid workers falling and being injured in open trenches.work at height without protective equipment.

70. Non-compliance notice have been issued by SC/Eptisa and contractor improved the situation within the propose deadline. All near missis were improved by the contractor during the reporting period and no further actions are required.

4.7 Training

71. Routine personnel trainings and toolbox talks happen by the construction companies almost on daily basis under GUD-03 sub-projects. Environemntal Specialist of SC Mr. Irakli legashvili and Environmental Specialist of USIIP Ms. Kate Chomakhidze also provided verbal instructions and training for Construction Company’s Environmental and H&S officers on a regular basis in accordance with the relevant Terms of Referencis. The above trainings were conducted on 27 August and 7 November 202 3to ensure that contractors understand their

responsibilities for the implementation of the IEE/EMP, and to mitigate environmental issues associated with their construction activities.

5. FUNCTIONING OF THE SEMP

5.1. SEMP Review

72. The following SSEMPs were prepared by contractor, within the framework of URE-01, URE-02, KUT-01, ABA-01 and GUD-03 projects during the previous reporting periods:

GUD-03

- Location Specific EMP for Construction of Gudauri WWTPs (September 2019).

URE-01:

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

URE-02:

- SSEMP for Ureki Waste Water Treatment Plant (November 2015)

KUT-01

- SSEMP for Godogani Reservoir (August 2016)
- SSEMP Mukhnari Reservoirs (March 2016)
- SSEMP Aqueduct River Crossing (December 2019)
- SSEMP Partskanakanebi Chlorine Station (January 2020)

ABA-01

- SSEMP for Abasha Service Center (February 2020)

73. All SSEMPs under GUD-03, KUT-01, URE-01, URE-02 and ABA-01 projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETA International Environmental Consultant of ADB under RETA 8663 - Ms. Ketii Dgebuadze.

74. Due to the fact that one of the WWTPs (out of five), WWTP N5 will be excluded from the USIIP/GUD-03 sub-project, based on the Change Order N1 sent to ADB by UWSCG and after the final approval from ADB, the SSEMP will be updated accordingly in the next reporting period, January-March 2024.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

5.2. Good Practice

75. During the reporting period there were close interactions between IPMO, consultant supervision team and contractors to improve the tracking of actions to address non-conformances under GUD-03 sub-project. As a result Construction waste materials and surplus soil were removed from construction area and disposed according agreement; Construction materials were better stored/segregated; Hazardous Waste container were installed at the proper organized place with concrete floor and roofing; Workers always use complete PPE.

6.2. Opportunities for Improvement

76. During the reporting period, IPMO improved tracking of corrective actions. Close monitoring, guidance and communication between PIU, SC and CC has been improved to avoid inconsistencies and improve the current situation. Further opportunities for improvement will include reinstatement of the fuel spill areas in construction CAMP and to be properly reinstated including cover with a layer of gravel and improve workers safety regulations during construction work, in particular, immediately after the resumption of construction work, it is necessary to create safe walkways on open reservoirs inside the buildings/WWTP in order to avoid falling of workers and injury in open trenches.

6. SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 77.** During the reporting period, July-December 2023, a total 6 site visits were carried out by ADB Safeguard Mission and Environmental Specialists of SC and UWSCG/USIIP under GUD-03 and ABA-01 sub-projects and up to 52 non-compliances were revealed compared to 40 non-compliances identified in previous reporting period January-June 2023. It should be noted also that contractor eliminated 98% of these discrepancies.
- 78.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under USIIP GUD-03 sub-project.
- 79.** Two Non-Conformance Notices have been issued to the contractor by the environmental specialist of SC and USIIP under GUD-03 sub-project. Corrective Action Plans have been implemented by CC in order to reduce environmental impacts of the project.

7.2 Recommendations

- 80.** During the reporting period, July-December 2023, the T3 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.
- 81.** The Post Construction Audit Report will be prepared under the ABA-01 sub-project in February 2024 by the Supervision Consultant and approved by UWSCG/USIIP Environmental Specialist.
- 82.** Post Construction Audit Report will be prepared under the GUD-03 sub-project in March 2024, by the Supervision Consultant and approved by UWSCG/USIIP Environmental Specialist.
- 83.** More detailed recommendations/next steps for the implementation of T3 during the next reporting period January-April 2024 are provided in the Table 15 below:

Table 15: Recommendations to Address Environmental Issues under GUD-03 Sub-project during the July-December 2023

Recommendations GUD-03 sub-project	
GUD-03	
(i) Construction sites should be regularly cleaned and organized	Instruction are given to contractor to improve the situation and to conduct following mitigation measures by the end of January 2024
(ii) workers Safety regulations during construction work, in particular safe walkways on open reservoirs inside the buildings/WWTPs to avoid workers falling and being injured in open trenches.	

ANNEXES

ANNEX A: PROJECT PHOTOS

PROJECT PHOTOS GUD-03

CAMP



Construction of Gudauri Waste Water Treatment Plant N2



Construction of Gudauri Waste Water Treatment Plant N1



Construction of Gudauri Waste Water Treatment Plant N4



Construction of Gudauri Waste Water Treatment Plant N3




Construction of ABA-01, Abasha Service Center



ANNEX B: NON-CONFORMANCE NOTICE, 9 JULY 2023

Non-Compliance Notice 09.07.2023

<p>Project: Urban Services Improvement Investment Program, Georgia</p> <p>Contract No: UWSIG-ICB-GUD-03</p> <p>Contractor: China Nuclear Industry 23 Construction Co., Ltd</p> <p>Reference: Construction of Wastewater Treatment Plants in Gudauri</p>	<p>Non-compliance Notice Gudauri</p>
<p>This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently.</p> <p>WWTP 1, WWTP 2, WWTP 3, WWTP 4</p> <ul style="list-style-type: none"> Safety rooms during construction works at height should be respected. Safe walkways with handrail on open wells should be used to avoid workers falling and damage. <p>Campsite</p> <ul style="list-style-type: none"> Fuel and lubricants spill elimination items (sand, sawdust, special containers) should be provided at the construction site. Hazardous Waste container with proper sign "Hazardous Waste" should be installed at the proper organized place with concrete floor and roofing. Waste should be placed only in the proper waste container and discharged timely. Containers with hazardous substance should be stored at the proper organized place with concrete floor and roofing. Waste containers should be labeled. Places contaminated by oil should be remediated and safely disposed. Oil should be removed from trench and properly disposed. Campsite territory should be regularly cleaned. 	
<p>Photos of WWTPs</p> 	
<p>Photos of Campsite</p>	





All these conditions have to be remedied within seven days (by the 17.07.2023) by the prime Contractor (China Nuclear Industry 23 Construction Co., Ltd)

Date of site visits 04.07.2023

Irakli Legashvili

EPTISA - Environment

NON-CONFORMANCE NOTICE, 27 AUGUST 2023

Non-Compliance Notice 27.08.2023

Project: Urban Services Improvement Investment Program, Georgia Contract No: UWSOG-ICB-GUD-05 Contractor: China Nuclear Industry 23 Construction Co., Ltd Reference: Construction of Wastewater Treatment Plants in Gudauri	Non-compliance Notice Gudauri
This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .	
WWTP 2 <ul style="list-style-type: none"> - Construction waste materials should be fully removed from construction area and disposed according agreement - Trees at the construction site should be fenced (freed from the surplus soil, waste and materials) and protected - There are detected spill spots of fuel/lubricant at the construction territory. These contaminated places should be remediated - Entrance gate should not be left open for long time - Fuel and lubricants spill elimination items (band, sawdust, special containers) should be provided at the construction site - Hazardous Waste container with label should be installed at the proper organized place with concrete floor and roofing - Waste should be placed only at the proper waste container and discharged timely - Electric Generator should be placed at the concrete surface to avoid soil contamination by fuel or lubricants - Safety norms during construction works at height should be respected. Safe walkways with handrail on open wells should be used to avoid workers falling and damage - Open holes and trenches should be fenced by high visible safety tapes and proper warning signs should be installed 	
WWTP 3 <ul style="list-style-type: none"> - Hazardous Waste container with should be installed at the proper organized place with concrete floor and roofing - Entrance gate should not be left open for long time - Waste should be placed only at the proper waste container and discharged timely - Sanitary norms at the workers rest/eating area should be respected 	
WWTP 4 <ul style="list-style-type: none"> - Construction sites should be properly fenced from all sides to avoid of animals entrance at the construction territory - Entrance gate should not be left open for long time. - Construction waste materials should be fully removed from construction area and disposed according to agreement - Hazardous Waste container with should be installed at the proper organized place with concrete floor and roofing 	
Campsite <ul style="list-style-type: none"> - Agreement about disposal of construction, municipal and hazardous waste should be submitted - Contractor's camp site plan should be provided and proper signs (in Georgian and English) for each dedicate areas should be installed - Contractor's camp should be supplied with water and sanitation unit - Storage area should be fenced and proper warning/information signs (in Georgian and English) should be installed - Contractor's camp should be equipped with first aid and fire-fighting kits 	

- Fuel and lubricants spill elimination items (sand, sawdust, special containers) should be provided at the construction site
- All equipment and vehicles used for construction should be in good condition do not leakage
- Hazardous Waste container with proper sign "Hazardous Waste" should be installed at the proper organized place with concrete floor and roofing
- Hazardous waste temporary storage area should be arranged according to provided specifications (see below description and follow requirements of Ordinance N145 of the Government of Georgia should be followed)
- Waste should be placed only the proper waste container and discharged timely (waste containers should not be broken)
- Containers with hazardous substance should be stored at the proper organized place with concrete floor and roofing
- Accumulated waste materials should be removed from the campsite immediately
- There are detected spill spots of fuel/lubricant at the construction territory. These contaminated places should be remediated
- Proper waste containers should be installed with cover and labeled
- Places contaminated by oil should be remediated and safely disposed
- Construction waste materials should be removed completely
- Scrap temporary storage area should be arranged, fenced and signed
- Plastic waste materials temporary storage area should be arranged, fenced and signed
- Wooden waste materials temporary storage area should be arranged, fenced and signed
- Construction materials should be segregated and placed at proper manner (area should be fenced and information sign should be installed)
- Safety norms during use electricity should be respected
- Campsite territory should be regularly cleaned

Photos of WWTP 2





Photos of WWTP 3

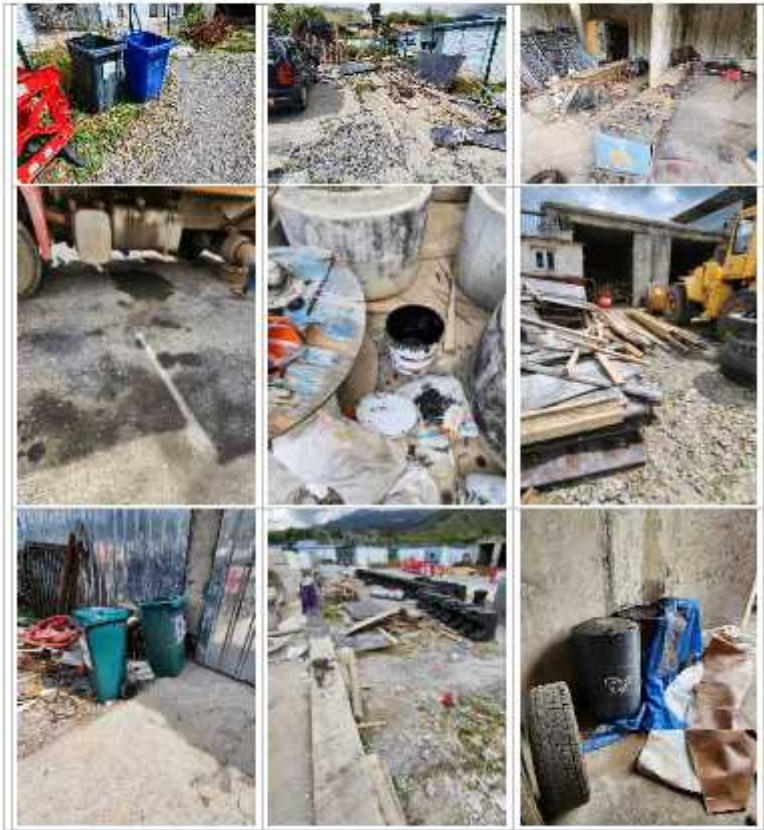


Photos of WWTP 4



Photos of Campsite







Temporary Storage Facility for Hazardous Waste

<p>During the design and construction stages of a temporary storage facility of hazardous waste, the conditions determined by the Ordinance N145 of the Government of Georgia issued on March 29, 2015 should be observed.</p> <ul style="list-style-type: none"> In order to avoid contamination of surface or ground water with hazardous waste, the storage area must be equipped with a rainwater collection system; In order to prevent and control the entry of hazardous waste into the environment, the storage area must be equipped with warning signs (indicating the stored hazardous waste (category, type)) and fire-fighting and other devices; The lower layer (bottom) of the storage area must be made of a material that does not react or absorb the stored waste, is waterproof and takes into account the risk of spillage/scattering of waste; A building that will be used for hazardous waste storage must be located in a manner in which the access to the waste is easy and safe. There should be enough space for maintenance and washing the buildings. <p>*Design and construction of a temporary storage facility for hazardous waste:</p> <ul style="list-style-type: none"> Taking into account that the wastewater from the buildings is considered hazardous waste, and it is not permissible to discharge it into the sewage system without prior neutralization, the storage area must be equipped with a neutralization system. The facility for temporary storage of hazardous waste should be arranged to enable the placement of incompatible wastes. In the occurrence of placing incompatible wastes on the premises, measures must be taken to prevent their contact in case of accidental leakage. When selecting a location for the temporary storage of hazardous waste, it is essential to ensure protection against floods, landslides, and other natural events. Furthermore, the floor and walls of the hazardous waste storage facility should be covered with ceramic tiles. The ceiling of the storage room should be painted with moisture-resistant paint. The storage room should also be equipped with exhaust ventilation, a hand washing station, and a water intake trap. Organizing racks and shelves for waste storage is necessary. The waste storage building should have the capacity to accommodate the maximum amount of waste generated within a year. <p>All these conditions (except arrangement of hazardous waste storage) have to be remedied within seven days (by the 05.09.2023) by the prime Contractor (China Nuclear Industry 23 Construction Co., Ltd) The hazardous waste storage has to be arranged within 14 days (by the 12.09.2023) by the prime Contractor (China Nuclear Industry 23 Construction Co., Ltd)</p>	
<p>Date of site visit: 25.08.2023</p>	
<p>Inaki Lagashvili EPTISA - Environment</p>	

Քննարկի մեկնումը հարթության գրախոսությունը

Գրախոսություն

Քննարկողը կարող է հարցեր ունենալ և փոփոխություններ առաջարկել: Քննարկողը կարող է փոփոխություններ առաջարկել և փոփոխություններ առաջարկել: Քննարկողը կարող է փոփոխություններ առաջարկել և փոփոխություններ առաջարկել:

Գրախոսությունը կարող է լինել հետևյալից մեկը:

Կարգավիճակ

Քննարկողը կարող է փոփոխություններ առաջարկել և փոփոխություններ առաջարկել: Քննարկողը կարող է փոփոխություններ առաջարկել և փոփոխություններ առաջարկել:

Գրախոսությունը կարող է լինել հետևյալից մեկը:



ANNEX D: CANCELTION OF THE WWTP N5 FROM GUD-03 SUB-PROJECT

On December 24, 2019 one complaint was registered as part of the GUD-03 subproject in the Complaints log at the Contractor's camp office (Please see Table below) by Lida Seturidze, who complained about the location of WWTP No. 5 and mentioned that construction is planned on the land of her ancestors where there are also 90-year-old pear trees.

On December 27, 2019 public consultation meeting was held with local population, regarding social issues of GUD-03 sub-project (Construction of WWTPs in Gudauri). The main purpose of the Consultation Meeting was, to provide Local Population with the information about GRM, under the GUD-03 sub-project, it's importance and planned works, to raise their awareness of project activities, safety and sanitation measures as well as educate local population on the importance of sanitation system. After Presentation Lida Seturidze had opportunity to discuss her issue with all the parts of project. After meeting Lida Seturidze got recommendation to register complaint in UWSCG GRM system (please see the filled Compliants Log with Lida Seturidze's case below).

Table: COMPLAINTS LOG

Number /ნომერი	Date/Location თარიღი/მდებარეობა	Complainant/ Date of Contact მოსაჩივრე/საკონტაქტო დეტალები	Details of Complaint საჩივრების შინაარსი	Investigation/Mitigation Action პრობლემების შესწავლა/შემარბი ლებელი ლონისძიებები	Resolution Status პრობლემის გადაწყვეტის სტატუსი
#1	24.9.2019 village Seturabi WWTP #5 Land #71.62.56.081	Ms. Lida (Giuli) Seturidze +995 579112101 Tedo burduli +995 595102172	The Complainants stated that the land registered by UWSCG for WWTP #5 belongs to them from her ancestors	Under negotiation by UWSCG	Grievance Redress Committee Meeting was held on 20.02.2020 and Grievance Redress Commission Meeting was held on 31.07.2020. Since no agreement could be reached with the applicant, the Commission made a decision to remove part of works envisaged for the Seturebi (Zone 5). UWSCG has submitted change order N1 to cancel construction of WWTP 5 (26 th of

Grievance Redress Committee and The Commission meetings were held in order to discuss Lida Seturidzes Complaint. Grievance Redress Commission has decided that it is impossible to relocate the wastewater treatment plant as it was requested by complainant, owing to tight deadlines of Gudauri Wastewater Treatment Plants Construction Project (ADB/GUD-03), and, as it is necessary to conduct different types of pre-design surveys and follow different procedures to obtain permits per the effective legislation of Georgia to relocate the plant, and as there is no legal basis to meet the cash compensation demand of the claimant, and to prevent any abuse of the claimant, the Commission made a decision to remove part of works envisaged for the Seturebi (Zone 5) out of the GUD-03 sub-project/ construction of Wastewater Treatment Plants in Gudauri.

UWSCG has submitted change order N1 to cancel construction of WWTP 5. No works has been commenced on location of WWTP 5. As a result, no construction activities have begun at the planned site for WWTP 5, leaving the land in its original, undisturbed state. The photos of WWTPN5 is provided in the Fog.1 below.

Figure 1. Photos of WWTP 5 Location

