

Environmental Monitoring Report

Semi-annual Report (January – June 2020)
July 2020

GEO(COL): Urban Services Improvement Investment Program – Tranche 3

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

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Project Number: 43405-025

Reporting Period: January-June 2020

**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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July 2020

Abbreviations

ABBREVIATIONS

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

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1 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 January-June 2020.
- 2.** This report is the 9th Semi-Annual EMR for the T3 of “Urban Services Improvement Investment Program”.

1.2 Headline Information

- 3.** During this reporting period no changes took place to the sub-projects design and accordingly nothing has been updated or prepared.

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 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 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 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 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 is signed with JV of Peri Ltd (Georgia) Leading Partner and Slon LLC (Azerbaijan) on October 28, 2014. Commencement date was November 24, 2014. Initial Completion date was scheduled on November 22, 2018 but due to changes in the design of project, which include the construction of an Aqueduct across the Natanebi River, the construction of Gabion wall to protect well fields from flooding and erosion, and the construction of an additional deep well No. 8 along the banks of the Natanebi River, completion date was extended to September 2019. The project is foreseen to serve 35,000 tourists and 5,400 local inhabitants by year 2040. No Post Construction Audit report was

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.

prepared under URE-01 sub-project as yet. SC/EPTISA started the process of selecting an independent auditor to conduct the post-construction audit as part of the URE-01 subproject. An audit report will be prepared and submit to ADB by the end of August 2020, and the results will be reflected in the next Semi-annual EMR statement of July-December 2020.

- 9. Construction of Wastewater Treatment Plant in Ureki (URE-02).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 6,570 m³/day.
- 10.** 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.
- 11.** The Post-Construction Environmental Audit was conducted and relevant Audit report was prepared in June 2019.
- 12. Construction and Rehabilitation of Water Supply System in Kutaisi/Phase 2 (KUT-01).** The project envisages 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.
- 13.** 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 - June 8, 2018 was extended until July 2020.
- 14. Construction of New Transmission Line in Abasha (ABA-01).** Within the ABA-01 project the following major works will be carried out: approximately 15 km long 500 mm diameter transmission pipeline will be installed from headworks to the town of Abasha, chlorination building will be constructed and the water meter will be installed at the headwork.
- 15.** The contract for implementation of ABA-01 was signed on October 13, 2017 with AS Inshaat–N, LLC (Azerbaijan). The initial date of completion of the contract - June 8, 2018 was extended until July 2020.
- 16. 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).
- 17.** The Contract was signed on June 3, 2019 with “China Nuclear Industry 23 Construction Co.” LTD (CNI23). Project completion date is April 2021.

2.2 Project Contracts and Management

- 18.** The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.
- 19.** Ministry of Environmental Protection and Agriculture of Georgia (MEPA). MEPA has the overall responsibility for protection of environment in Georgia. The Department of Permits of MEPA is responsible for reviewing EIAs and for issuance of the Environmental Permits. MEPA is the main state body pursuing state policy in the sphere of environment. Their functions for regulating economic or development activities with regard to environmental protection include:
- Issuing permits for project development (Environmental Decision)
 - Setting emission limits and issuing surface water intake and discharge consents
 - Responding to incidents and complaint
- 20.** United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. Since September 2018, the Investment Program Management Office (IPMO) under UWSCG is Project Management Department, the Head of Department is Ms. Ana Onashvili. Environmental issues are followed by the Department of Environmental Protection and Permits of UWSCG. The head of the department is Ms. Maka Goderdzishvili. Ms. Ketevan Chomakhidze is the Environmental Specialist of USIIP under the Department of Environmental Protection and Permits.
- 21.** UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) – Eptisa under T1. The national and international team of consultants assists UWSCG in the supervision of the construction of subprojects under the USIIP. The SC also provides capacity building training to contractor staff in the management and operation and maintenance of the subprojects. The SC assists UWSCG in ensuring that the subprojects are implemented according to the specified standards. SC assignment also includes the supervising of the implementation of the environmental management plans.
- 22.** All mitigation measures during construction were implemented respectively by the contractor companies: SMK; As Inshaan-N and LTD CNI23. Each contractor company have Environmental and safety specialists responsible for HSE issues during construction process. Construction companies are monitored by the supervision consultant (Eptisa) environmental specialist – Irakli Legashvili and Environmental Specialist of UWSCG/USIIP Ms. Ketevan Chomakhidze. Environmental Specialists of SC and UWSCG/USIIP conduct routine observations and surveys of project sites, issues non-compliance notes. ES of Eptisa prepares quarterly environmental reports and submits to UWSCG.
- 23.** The Contractor, prior to the onset of the construction, is obliged to conduct a number of studies and develop environmental plans, including “Site Environment Management Plan” (SEMP). Such plans can be further subdivided into Topic Specific or Site Specific EMP’s. The number

of such plans will depend upon the type of project, complexity and sensitivity of the receiving environment.

24. Topic Specific EMPs are developed on a topic by topic basis. For example:
 - Waste Management Plans;
 - Traffic Management Plans;
 - Protected Species Management Plans;
 - Water Management Plans.
25. These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented. A topic specific environmental management plan will cover all of the project.
26. The environmental specialist of UWSCG/USIIP assists and advise the Department of Environmental Protection and Permits of UWSCG for implementation of USIIP in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of DCs and SCs in safeguards compliance. ES supports DEPP in EARF implementation, in particular, reviewing IEE/EIA Reports, overseeing implementation of EMPs, Reviewing and approving SEMP and carrying out training and capacity-building activities in cooperation with Supervision Company. The ES prepares Semi-annual and annual environmental monitoring reports and submits to ADB.
27. Department of Environmental Protection and Permits of UWSCG is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPP is staffed with a Head of Department and 5 specialists, those are responsible for environmental safeguard and construction permission issues.
28. ADB is the donor financing the Investment Program. Environmental management organization is shown in Figure 1 and Figure 2.

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

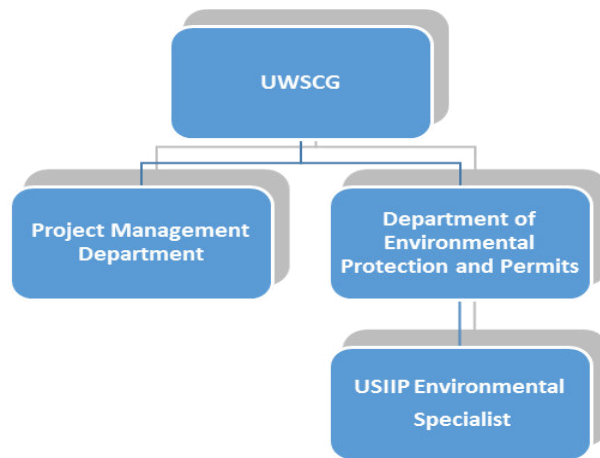
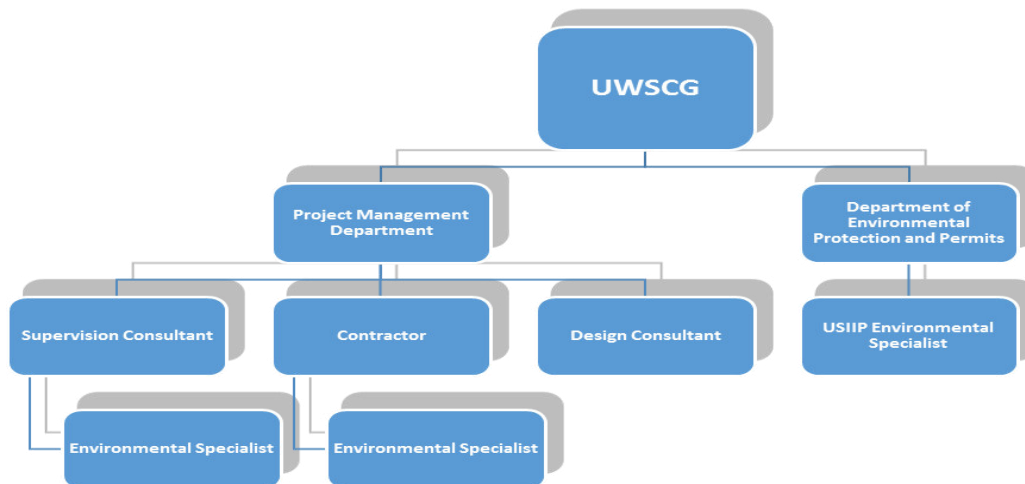


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



29. A list of main organizations involved in the USIIP/T3 and relating to environmental safeguards is presented in Table 1 below.

Table 1: List of Main Organizations under USIIP/T1

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Head Office, Environmental Specialist, Portfolio, Results, Safeguards and Gender Unit (PSG), CWRD.	Nurlan Djenchuraev E-mail: ndjenchuraev@adb.org
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili +995 595 070442 nnadashvili@adb.org
		ADB RETA International-Regional Environmental Consultant	Keti Dgebuadze +995 577232937 ketdgeb@yahoo.com
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/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: natiiibab@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 reported period construction activities were implemented only under KUT-01 sub-projects and is reported in this Semi-annual EMR. Contractors have intensified all activities to improve the progress of the works on sites. The Engineers gave processed frequent instructions to the Contractor for the planning and outstanding documents preparation which shall ensure steady improvement of the works progress.

2.3.1 Project Activities during the Reporting Period

KUT-01

31. Progress of construction activities during the reporting period, January-June 2020 is presented in the Table 2 below.

Table 2: KUT-01, project progress during the January-June 2020

Project KUT-01	Sites	
Period	Pipelines	
Works undertaken during January-June 2020	Total: 99,74% Earthworks – 99,95% Pipes – 100% Manholes and Chambers – 99,61% Surface Reinstatement – 98,67%	
	New East Reservoir	
Works undertaken during July-December 2019	Total: 99,80% Earthworks – 100% Fencing – 94,00% Civil Works – 99,73% Finishes – 98,18% Mechanical and Electrical – 97,25%	
	Mukhnari Reservoir	
Works undertaken during January-June 2020	Total: 100% Earthworks – 99,91% Civil Works – 100%	
Works	Overall Progress	Progress January-June 2020
Total	94%	8%
Earthworks	93%	1%
Pipes	97%	5%
Civil Works	96%	2%
Finishes	81%	7%
Mech, and Elec. Installations	70%	34%
Manholes and chambers	83%	17%

ABA-01

32. Progress of construction activities under ABA-01 during the reporting period, January-June 2020 is presented in the Table 3 below.

Table 3: ABA-01, project progress during the January-June 2020

ABA-01		
Total	91%	12%
Earthworks	94%	24%
Pipes	93%	6%
Manholes and chambers	99%	10%
Surface reinstatement	0%	0%

33. No construction activities took place under GUD-03 sub-project for construction of five WWTPs in Gudauri during the reporting period. Contractor is preparing the final design project for GUD-02 sub-project, due to the fact that this is Design and Built contract.

2.4 Description of Any Changes to Project Design

34. No changes in project design during the reporting period.

2.5 Description of Any Changes to Agreed Construction methods

N/A

3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

- 35.** Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, until the beginning of March 2020, before the Georgian government imposed restrictions on site visits in connection with the outbreak of the new coronavirus - COVID-19, and then site visits were resumed in May 2020.
- 36.** The Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) which applies to all sectors of economic activity.
- 37.** The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector (Please see Annex E of this report).
- 38.** Based on the above mentioned guidelines the construction staff must not appear in the workplace if they:
- Left the affected country over the past 14 days;
 - Were in close contact with infected person/persons for the past 14 days (they must be self- isolated/quarantined as per the rule);
 - Have symptoms of respiratory infection (coughing, temperature, sneezing, difficulty in breathing, general weakness etc.);
 - Are among the ones who have high risk of getting infected with COVID-19 or serious complications: over 70 years of age, people suffering from chronicle diseases (cardio-vascular diseases, diabetes, bronchial asthma and other respiratory diseases).
- 39.** Additional measures were carried out by Supervision Company EPTISA based on the requirements of the UWSCG and Emergency Response Plan of COVID 19 was developed for construction activities carried out under USIIP-T1-T3 (please see Annex F).
- 40.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under KUT-01 and ABA-01 sub-projects.
- 41.** Environmental Monitoring Specialist hired under the KUT-01 project Ms. Natia Babukhadia conducted the day-to-day monitoring of the construction sites, filled out the weekly checklists, developed monthly monitoring reports and submitted to SC/Eptisa.
- 42.** Environmental Monitoring Specialist hired under the ABA-01 project by contractor Mr. Nodar Usupishvili conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Eptisa.
- 43.** Environmental Monitoring Specialist of Eptisa, Mr.Irakli Legashvili conducted monthly monitoring of project sites under T3 and developed Non-compliance Notices were required.

He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.

- 44.** Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMP, and other environmental commitments of the contractor. USIIP/ES developed Semi-Annual Environmental Monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
- 45.** In accordance with the requirements of IEEs, Contractor is required to undertake parametric measurements and observations on air quality and noise and socio-cultural resources. The monitoring guidelines were set as shown in the Table 4 below for KUT-01 and ABA-01.

Table 4: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
KUT-01		
Air Quality	Every 6 months Networks, Partskhanakanebi Chlorination Station	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Every 6 months Networks, Partskhanakanebi Chlorination Station	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Impact on Flora and Fauna	Monthly during the site Inspection and audit	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction
ABA-01		
Air Quality	Abasha Service Center	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³

Parameters	Frequency & Location	Remarks
Noise	Every 6 months Mukhnari Reservoir, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm

3.2 Site Audits

46. Regular inspection and monitoring of construction sites under Kut-01 and ABA-01 projects were conducted by ESs of USIIP and Eptisa. The schedule of Joint inspection and summary of audits carried out under KUT-01 and ABA-01 projects are provided in the Table 5 below.

Table 5. Summary of site 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
Continuous ly during reporting period (January-June 2020)	SMK Construction of Partskhanakanebi Chlorination Station	Environmenta l Specialists of Contractor Ms. Natia Babukhadia, Health and Safety Specialist Mr. Beso Balanchivadze under KUT-01 project	Day to day monitoring of sites Compliance with Environmental and HES requirements	1. Environmental, Health and Safety issues on construction sites 2. Regular cleaning of the construction site	Weekly Monitoring Checklists (Please see Annex D)
18 February 2020		Head of Department of Environmental Protection and Permits, UWSCG, Maka Goderdzishvili	Monthly monitoring of sites	Construction waste should be timely removed from the construction site and disposed properly Proper warning and information signs should be arranged	Verbal instruction was given to contractor to improve the situation and send improved

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
		<p>Environmental specialists of USIIP Ms.Ketevan Chomakhidze</p> <p>Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili</p> <p>Natia Babukhardia Environmental Specialist of SMK</p>		Safety tapes around open holes should be arranged.	photos of sites to UWSCG
28 April 2020		<p>Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili</p> <p>Natia Babukhardia Environmental Specialist of SMK</p>		<p>Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory</p> <p>Soil (surplus/accumulated soil) for backfilling purposes should be stored properly and better managed</p> <p>Parking area at the construction site should be better arranged by relevant sign</p>	<p>Verbal instruction was given to contractor to improve the situation and send improved photos of sites to UWSCG</p> <p>Non-Compliance Notice issued (Please see Annex C)</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
				<p>The internal roads should be arranged properly</p> <p>Fuel and lubricants spill elimination items (sand, sawdust, special containers) at the construction site</p> <p>Household Waste container with relevant indication sign should be installed at the construction area</p> <p>Hazardous Waste container with relevant indication sign should be installed at the construction area</p> <p>Workers always should use complete PPE. Also special equipment during high altitude works should be always used to avoid accidents (workers damage)</p>	
5 June 2020		Environmental monitoring specialists of SC/EPTISA	Monthly monitoring of	Construction waste should be timely removed from the	Verbal instruction was given to contractor to improve the

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
		Mr.Irakli Legashvili	construction sites	construction site and disposed properly	situation and send improved photos of sites to UWSCG
Continuous ly during reporting period (January-June 2020)	ABA-01	Nodar Usupashvili 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	Weekly Monitoring Checklists
27 February 2020		Head of Department of Environmental Protection and Permits, UWSCG, Maka Goderdzishvili Environmental specialists of USIIP Ms.Ketevan Chomakhidze Environmental monitoring specialists of SC/EPTISA Mr.Irakli Legashvili Nodar Usupashvili Environmental Specialist of contractor		Construction site should be organized and fenced properly before starting any construction works Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory Soil (surplus/accumulated soil) for backfilling purposes should be stored properly and better managed Parking area at the construction site should be better arranged by relevant sign Fuel and lubricants spill elimination items (sand, sawdust, special containers) at the construction site Household and Hazardous Waste container with relevant indication sign should be installed at the construction area	Verbal Instruction were given to contractor to immediately improve the situation Non-Compliance Notice issued (Please see Annex C)

Date of visit	Name of Company Name of Contract	Auditors name,	Purpose of audit	Summary of any significant findings	Cross reference to Audit report
30 June 2019		Environmental monitoring specialists of SC/EPTISA Mr. Irakli Legashvili Environmental Specialist of Contractor Mr. Nodar Usupashvili	Monthly Monitoring Report	High visible safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents Soil (surplus/accumulated soil) for backfilling purposes should be managed/stored properly	² Verbal instruction was given to contractor to improve the situation

3.3 Issues Tracking (Based on Non-Conformance Notices)

47. Several Non-Conformances have been observed during the site visits under KUT-01, ABA-01 sub-projects. 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 C of this Semi-Annual EMR.
48. A summary of the identified environmental issues for January-June 2020 is presented below.

Table 6: Summary Table Kut-01 (Partskhanakanebi Chlorine Station and Nikea Street)

Total Number of Issues for Project	12
Issues Opened This Reporting Period	3
Issues Closed This Reporting Period	9
Percentage Closed	75%

² SC was instructed to issue Non-compliance Notice when there are health and safety risks.

Table 7: Summary Table ABA-01 (Abasha Service center)

Total Number of Issues for Project	9
Issues Opened This Reporting Period	3
Issues Closed This Reporting Period	6
Percentage Closed	67%

3.4 Trends

- 49.** To identify trends in environmental issues information from previous Semi-Annual EMR (July-December 2019) is used. The summary of the issues is provided in the Table 8 below.

Table 8: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
July-December 2019	26	85%	15%
January-June 2020	21	71%	29%

- 50.** All major Non-Conformances under USIIP/T3 during the reporting period are provided in an Annex C of this report.

3.5 Unanticipated Environmental Impacts or Risks

N/A

4 RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

51. During the reporting period Environmental measurements of Noise level and Ambient air Quality were carried out by contractor under Kut-01 and Ure-01 projects.
52. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 9 and 10 below.

Table 9: Noise Level Guidelines

Noise	dBA National Regulations		dBA WHO	
	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

53. Air pollution standards by IFC/WHO 1999, are presented in the Table 10 below

Table 10: Air pollution Guidelines

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

54. Monitoring measurements of noise level and ambient air quality under KUT-01 project was conducted by Ltd “NaSeTo Group” in June 2020 (See Annex A) to the nearest sensitive receptors of construction sites. Location and data are included in the Tables 11 and 12 below.
55. According to data received in June 2020 under KUT-01 project, noise level exceeds the standards required by National Regulations and World Health Organization (IFC/WHO), 1999, and therefore additional measures provided in **Table 15** below is required (Please see table Recommendations to Address Environmental Issues under KUT-01). IFC/WHO standards for Noise and Air pollution are presented in Tables 9 and 10 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 13:45pm to 17:00pm.

**Table 11: Environmental Quality Monitoring Measurements under KUT-01 Project
Results of Noise and Air quality measurements**

No	Measurement Point		Measurement results							
	Location	Coordinates	Noise dBA (max) (1- hour)	Vibro Speed		Vibro Acceleration		Dust mg/m ³		
				mm/s	db	m/s ²	db	Pm _{2.5}	Pm ₁₀	total
2	Kutaisi 76 Nikea Street	38TO309314 4677588	78.6	<0.1	<66	<0.1	<100	0.039	0.046	0.081
3	Kutaisi Partskhanakanebi Chlorination Station	38TO309314 4672311	74.6	<0.1	<66	<0.1	<100	0.025	0.030	0.041

**Table 12: Environmental Quality Monitoring Measurements under KUT-01 Project
Nitrogen Dioxide, Sulfur Dioxide, Carbon monoxide and Total Hydrocarbons**

N	Measurement Point		Measurement results mg/m ³				Measure ment Results mr/h
	Location	Coordinates	Nitrogen Dioxide	Sulfur Dioxid e	Carbon monoxi de	Total Hydrocarbo ns	
1	Kutaisi 76 Nikea Street	38TO309314 4677588	0.001	<0.01	0.32	<0.1	11
2	Kutaisi Partskhan akanebi	38TO309314 4672311	0.007	<0.01	0.04	0.1	15

³ This data for noise propagation is the Maximum and Average will be obtained for the next reporting period and reflected in the next SAEMR - January-June 2020.

N	Measurement Point		Measurement results mg/m ³				Measurement Results mr/h
	Location	Coordinates	Nitrogen Dioxide	Sulfur Dioxide	Carbon monoxide	Total Hydrocarbons	
	Chlorination Station						

56. No Environmental Quality Measurements are conducted by contractor under ABA-01 sub-project despite the numerous instructions of UWSCG/USIIP environmental Specialist. Contractor promised to carry out environmental quality measurements in July 2020. Contractor is asked to present measurement data under quarterly report and send to UWSCG, to check. Results of the measurements will be reflected in the next Semi-annual EMR, July-December 2020 of USIIP/T3.

4.2 Trends

57. All mitigation measures identified within the KUT-01 project is effective and no additional measures are required.

4.3 Summary of Monitoring Outcomes

58. Noise level during the construction period under KUT-01 sub-project exceed the existing standards of IFC/WHO and therefore additional mitigations are required by contractor. These mitigations are provided in table 15 below.

4.4 Material Resources Utilisation

4.4.1 Current Period

59. Constructor provided material resources utilization during the current reporting period.

60. Material resources utilization under KUT-01 sub-project during the current reporting period is provided in the table 13 below.

Table 13: Material Resources Utilization under KUT-01 project

Construction of Water Supply Sub-project in Kutaisi/Phase II January-June 2020	
Water M ³ Indication	2763 m ³
Electricity M ³ Indication	12372 KV

61. The contractor did not provide any information on the material resources utilization under the ABA-01 subproject, despite the fact that the contractor was strictly requested to provide this information. SC was instructed to issues non-compliance notice to contractor. The contractor

promised to collect this data for the next reporting period, which will be reflected in the Semi-annual EMR of July-December 2020.

4.4.2 Cumulative Resource Utilisation

N/A

4.5 Waste Management (URE-01, Kut-01)

KUT-01

62. At the construction sites there are mainly produced household and solid waste. The amount of waste generated during the current reporting period is provided in the table 14 below.

Table 14: Waste Generated under the KUT-01 Sub-project

Construction of Water Supply Sub-project in Kutaisi/Phase II January-June 2020	
Solid Waste M ³ Indication	3849 m ³
Household Waste KG Indication	475 kg

4.6 Health and Safety

4.6.1 Community Health and Safety

63. No community incidents have been reported by contractor and SC during the reporting period under KUT-01 and ABA-01 projects.

64. Measures undertaken for COVID-19 prevention at construction sites please see in the Paragraphs 35-39 above.

4.6.2 Worker Safety and Health

KUT-01

65. Environmental H&S Manager of KUT-01 project Ms. Natia Babukhardia was performing 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.

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

- PPE;
- Reinforcement;

- Protected all trees nearby construction to avoid its damage;
- Ground works;
- Manual works;
- Bending rebar, Cutting;
- Installation and dismantle formwork
- Toolbox Talk
- Dust and Noise Measurements

67. The Near Misses, which resulted in Worker's Health and Safety problems were reported under KUT-01 and ABA-01 sub-projects.

68. No workers incidents have been reported during reporting period under ABA-01 sub-project.

4.10 Training and Public Consultations

69. Routine personnel trainings and toolbox talks happen by the construction companies almost on daily basis under KUT-01 and ABA-01 sub-projects. The recording of such toolbox talks are available at the sites. SC also provides routine instructions and verbal trainings for Construction Company environmental and H&S officers. Statistics of routine toolbox talks will be communicated by the construction companies during next reporting period.

70. Construction of UWSCG Abasha Service Center was started in central area of the city, UWSCG Social Department with ADB environmental specialist has organized public consultation meeting with affected population. Main aim of the meeting was to provide information about ongoing works and GRM system to citizens living around construction site. Eptisa PA Specialist took part in the meeting and provided information regarding complaint monitoring system and contact information of UWSCG hotline.

Figure 3. Photos of Public Consultation Meeting in Abasha



5 FUNCTIONING OF THE SEMP

5.1 SEMP Review

- 71.** A new Location Specific Environmental Management Plan was prepared within the proposed reporting period, under KUT-01 sub-project for Partskanakanebi Chlorine Station on January 2020.
- 72.** The following SSEMPs were prepared by contractor, within the framework of URE-01, URE-02, KUT-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)

ABA-01

- Construction of Abasha Service Center

- 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. Ketì Dgebuadze. Location Specific EMP was prepared under ABA -01 sub-project for construction of Abasha Service center during the reporting period (Please see para 72 above).
- 74.** Due to COVID-19 circumstances it is necessary to updated SEMP for anti-COVID measures and reflect it within the next Semi-annual EMR (due in Jan 2021).

6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

75. N/A

6.2 Opportunities for Improvement

76. N/A

7 SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 77.** Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, until early March 2020 before restrictions were imposed by the Government of Georgia on site visits in connection with the outbreak of the new Coronavirus - COVID-19 and then resumed in May 2020.
- 78.** The Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) which applies to all sectors of economic activity.
- 79.** The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector.
- 80.** Additional measure were carried out by Supervision Company EPTISA based on the requirements of the UWSCG and Emergency Response Plan of COVID 19 was developed for construction activities carried out under USIIP/T1-T3.
- 81.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under KUT-01 sub-project.
- 82.** Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMP's, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
- 83.** Also unscheduled monitoring visits were carried out and Non-Conformance Notice has been issued to the contractor by the environmental specialist of UWSCG/USIIP if needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.
- 84.** In accordance with the IEE, and the accompanying Environmental Monitoring Plan (EMP), the Contractor is required to undertake parametric measurements and observations on air quality, noise and socio-cultural resources.
- 85.** Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SSEMP's requirements for KUT-01 and ABA-01 sub-projects.

7.2 Recommendations

- 86.** During the reporting period, from January-June 2020, the T3 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.

87. Contractors to update SEMP's for anti-COVID measures – Q3 2020.

88. More detailed recommendations/next steps for the implementation of T3 during the next reporting period July-December 2020 are provided in the Table 15 below:

Table 15: Recommendations to Address Environmental Issues under KUT-01, and ABA-01 sub-projects

Recommendations KUT-01 and ABA-01 projects	
Recommendations KUT-01	Implementation status and date
Nikea Street , Network	
Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).	<p>Instruction are given to contractor to improve the situation and to conduct following mitigation measures during the first week of July 2020:</p> <p>Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance;</p> <p>Noisy construction activities will be avoided during night time;</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions;</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions)</p>

Recommendations KUT-01 and ABA-01 projects	
	<p>to reduce the emission of engine noise.</p> <p>Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.</p>
Partskhanakanebi Chlorine Station	
<p>Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory</p> <p>Household and Hazardous Waste container with relevant indication sign should be installed at the construction area</p> <p>Workers always should use complete PPE. Also special equipment during high altitude works should be always used to avoid accidents (workers damage)</p>	<p>Contractor is given strong instruction to improve the situation immediately, develop CAP (if requested) and send improved photos of Site to SC and UWSCG by the 5th July 2020.</p> <p>.</p>
ABA-01, Abasha Service Center	
<p>High visible safety signs/tapes and trench side barriers around of deep open excavation should be installed from all sides to avoid accidents</p> <p>Soil (surplus/accumulated soil) for backfilling purposes should be managed/stored properly</p> <p>Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory</p> <p>Household and Hazardous Waste container with relevant indication sign should be installed at the construction area</p>	<p>Contractor is given strong instruction to improve the situation immediately, develop CAP (if requested) and send improved photos of Site to SC and UWSCG by the 5th July 2020.</p>

89. Conduct monitoring of Noise and Ambient Air quality under KUT-01 project near the sensitive receptors of Construction sites in September 2020.

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

Parameters	Quarterly measurement
Dust	September 2020
PM _{2.5}	September 2020
PM ₁₀	September 2020
Vibration	September 2020
Carbon monoxide	September 2020
Nitrogen dioxide	September 2020
Sulfur dioxide	September 2020
Noise	September 2020

90. Conduct monitoring of Noise and Ambient Air quality under ABA-01 project near the sensitive receptors of Construction sites (Abasha Service Center) in July 2020.



Table 17: The Specific Plan for Environmental Measurement under ABA-01 Project

Parameters	Quarterly measurement
Dust	July 2020
PM _{2.5}	July 2020
PM ₁₀	July 2020
Vibration	July 2020
Carbon monoxide	July 2020
Nitrogen dioxide	July 2020
Sulfur dioxide	July 2020
Noise	July 2020

ANNEXES

ANNEX A: ENVIRONMENTAL MONITORING DATA OF NOISE AND AMBIENT AIR QUALITY (January-June 2020)

KUT-01 Sub-project

<p>საქართველო შპს „ნასეტო გრუპ“</p>		<p>GEORGIA LTD "NaSeTo Group"</p>
<p>საქართველო, ქუთაისი, ხუნდაძის 65, email: nato-gabunia@mail.ru, ტელ. 595-270-451, TBC ა/ა № GE29TB7064236020100019 Georgia, Kutaisi, Khundadze str. 65, , email: nato-gabunia@mail.ru, tel. 595-270-451, TBC bank № GE29TB7064236020100019</p>		
<hr/>		
<p>Kutaisi Water Supply Project</p>		
<p>Monitoring measurements under project: 43405-023</p>		
<hr/>		
<p>June 2020</p>	<p>1.</p>	
<p>Introduction</p>		
<p>It is proposed to improve the water supply system in Kutaisi under the Asian Development Bank (ADB) funded Urban Services Improvement investment Program. This investment Program, implemented in seven towns, will develop the water and sanitation services, which will improve quality of life and optimize the social and economic development.</p>		
<p>A first phase of the Kutaisi sub-project, financed under Tranche I, focuses in water supply measures and implemented in 2013 – 2015. Phase II, financed under Tranche 3, and with a start of implementation in 2014 will complete the rehabilitation and extension of the water supply system.</p>		
<p>2. Regulatory Requirements</p>		
<p>The environmental quality standards on the territory of Georgia are regulated by Decree No 297N of August 16, 2001 of the Minister of Labor, Health and Social Affairs of Georgia "On the approval of the environmental quality standards" (State Registration Code 470.230.000.11.119.004.920).</p>		
<p>The following amendments were made to the above-mentioned decree:</p>		
<p>1. Decree No 38/N of February 24, 2003 of the Minister of Labor, Health and Social Affairs of Georgia, SSM III, №16, 06.03.2002, Article 150</p>		
<p>2. Decree No.251/N of the Minister of Labor, Health and Social Affairs of Georgia of September 15, 2006—SSMIII, №129, 20.09.2006, Article 1716</p>		
<p>3. Decree No.351/N of the Minister of Labor, Health and Social Affairs of Georgia of December 17, 2007—SSMIII, №179, 18.12.2007, Article 1974</p>		
<p>4. Decree No.304/N of the Minister of Labor, Health and Social Affairs of Georgia of September 18, 2009—SSMIII, №115, 22.09.2009, Article 1312</p>		
<p>5. Decree No.98/N of the Minister of Labor, Health and Social Affairs of Georgia of April 14, 2010—SSMIII, №39, 14.04.2010, Article 622</p>		
		

6. Decree No.350/N of the Minister of Labor, Health and Social Affairs of Georgia of October 25, 2010 - SSMIII, №138, 26.10.2010, Article 2000

7. Decree No.01-24/N of the Minister of Labor, Health and Social Affairs of Georgia of May 17, 2012 – web-site, 17.05.2012

3. Description of the works to be accomplished

In accordance with the agreement concluded between the Construction Contractor SMK ULUSAL INSAAT Ve TICARET, a branch in Georgia, and Naseto Group LLC, environmental quality analysis was carried out at various points, in particular in Kutaisi (Nikea St., 76, Partskhanakanebi chlorination station), Where construction work is underway on the project, an analysis of the environmental quality of the surrounding area was carried out.

4. Accomplished measurements and results

4.1 Introduction

In Georgia, Kutaisi is one of four cities where the National Environmental Agency regularly monitors the quality of the environment. Consequently, the measurement results of the National Environmental Protection Agency can be considered basic for construction work carried out in the territory of Kutaisi. Monitoring of air pollution in Kutaisi in December 2019 - May 2020 was carried out at an observation point located on Chavchavadze Avenue. The concentrations of the following air pollutants were recorded: dust, carbon monoxide, sulfur dioxide, nitrogen dioxide, nitric oxide and lead.

The determined maximum unit and monthly average concentrations of each polluting ingredient are given in table 1.

Table 1. Maximum single and average monthly concentrations fixed in the city of Kutaisi¹

Point of observation	Dust		Nitrogen dioxide		Sulphur dioxide		Carbon monoxide		Nitrogen oxide	
	maximum single concentration, mg/m ³	Average monthly concentration, mg/m ³	maximum single concentration, mg/m ³	Average monthly concentration, mg/m ³	maximum single concentration, mg/m ³	Average monthly concentration, mg/m ³	maximum single concentration, mg/m ³	Average monthly concentration, mg/m ³	maximum single concentration, mg/m ³	Average monthly concentration, mg/m ³
Chavchavadze Avenue	0.074	0.048	0.053	0.031	0.004	0.002	1,9	1,0	0.041	0.038

4.2 Background radiation

The background radiation on the territory of the city of Kutaisi is permanently measured by the National environmental Agency. As the results of the current year suggest, the background radiation on the territory of the city of Kutaisi varies between 10-15 mR/h constituting thus being within the admissible limit of 30 mR/h.

The measurements accomplished in the project area yielded virtually the same result: the level in various sites was varied from 2 mR/h to 10 mR/h .

4.3 Noise and Vibration

The Construction Contractor carried out the construction works in Tsereteli, Nikea, Agmashenebeli, Gansaxurdia and Mqeladze-Mevele streets, Partskhanakanebi chlorination station. The trenches had been excavating at sites and the trenches were filled in some of them..

In all cases, the noise level in the immediate vicinity of the techniques varies within 60-80 dB. However, the noise level sharply reduced after 20-25 m and was within 55-70 dB in the vicinity of the nearest buildings and premises.

As a rule, noise caused by moving equipment's is reduced at some distance. Such reduction has logarithmic properties. In case of noise caused by construction activities, noise spread pattern from the noise point is used, that can be determined as: $\text{Noise level}_1 - \text{Noise level}_2 = 20 \log r_2/r_1$, meaning that by doubling of distance noise is reduced by 6 dBA.

Table 2: Noise levels

Distance from noise source, m	Calculation level of the noise Average value - dBA	Calculation level of the noise Maximum value - dBA
10	80	90
20	74	84
40	68	78
80	62	72
160	56	66
320	50	60

4.4 Air quality values

The quality indicators of the following components measured in the project area: dust, total hydrocarbons, CO, NO₂ and SO₂.

The results of the accomplished quality measurements given in Annex 1.



მტვერის, ხმაურის, და ვიბრაციის გაზომვის შედეგები 13.06.2020 წ. 12⁰⁰ – 16³⁰

Dust air pollution, noise and vibration measurements on 13.06.2020 წ. 12⁰⁰ – 16³⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები Measurement results							
	ადგილ მდებარეობა Locastion	კოორდი- ნატები Coordinates	ხმაუ- რი A_{max} დბ Noise A_{max} db	ვიბრო სიჩქარე Vibro Speed		ვიბრო აჩქარება Vibro acceleration		მტვერი მგ/მ³ Dust mg / m3		
								Pm2.5	Pm10	Total
			მმ/წმ mm/s	დბ db	მ/წმ² m/s²	დბ db				
1	ქუთაისი, ნიკეას ქ. # 76. Kutaisi, Nikea St., 76	38T0309314 4677588	78.6	<0.1	<66	<0.1	<100	0.039	0.046	0.081
2	ქუთაისი, ფარეზანაყანები, საქლორატორო სადგური. Kutaisi, Partskhanakanebi chlorination station	38T0296876 4672311	54.6	<0.1	<66	<0.1	<100	0.096	0.115	0.237



ჰაერის აზოტის და გოგირდის დიოქსიდით, ნახშირბადის მონოოქსიდით და
ჯამური ნახშირწყალბადებით დაბინძურების და γ გამოსხივების გაზომვების
შედეგები 13.06.2020 წ. 12⁰⁰ – 16³⁰

Nitrogen and sulfur dioxide, carbon monoxide and total hydrocarbon air pollution, and
radiations measurement results 13.06.2020 წ. 12⁰⁰ – 16³⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები მგ/მ ³ Measurement results mg/m ³				გაზომვის შედეგები მკრ/სათ
	ადგილ მდებარეობა Location	კოორდი- ნატები Coordinates	აზოტის დიოქსიდი nitrogen dioxide	გოგირდის დიოქსიდი sulfur dioxide	ნახშირბა- დის მონოოქს- იდი carbon monoxide	ჯამური ნახშირწყალ- ბადები total hydrocarbons	Measurem- ent results mr/h
1	ქუთაისი, ნიკეას ქ. # 76. Kutaisi, Nikea St., 76	38T0309314 4677588	0.001	<0.01	0.32	<0.1	11
2	ქუთაისი, ფარცხანაყანები, ხაქლორატორი სადგური. Kutaisi, Partskhanakanebi chlorination station	38T0296876 4672311	0.007	<0.01	1.04	0.1	15

გაზომვის დროს გამოყენებულია ხელსაწყოები/ During measurement tools used:

ხმაური/Noise - Mini Sound Level Meter N05CC;

ვიბრაცია/Vibration- Smart Sensor ® AR63B Vibration Meter;

დამტვერიაწობა/ Dust- Portable Dust Detector model LB-HD08 ,

და Gasella Mikro Dust Pro (თვითკალიბრაცია ნულოვანი და ოფტიკური ფილტრით./Self-
calibration zero and optical filter.);

აზოტის დიოქსიდის და ნახშირბადის მონოოქსიდის - nitrogen dioxide and carbon monoxide - შიგნით CO/NO₂;

ჯამური ნახშირწყალბადების - total hydrocarbon MiniRae 7600;

გოგირდის დიოქსიდის - sulfur dioxide – WASP-XM-E-SO₂.

2001 წლის 16 აგვისტოს, საქართველოს შრომის, ჯანმრთელობისა და სოციალური დაცვის მინისტრის ბრძანება №297/ნ, გარემოს ხარისხობრივი მდგომარეობის ნორმების დამტკიცების შესახებ: / August 16, 2001, the Ministry of Labor, Health and Social Affairs of Georgia №297 / N, approval environmental quality of the norms:

დამტკიცების ნორმა შეადგენს 0.5 მგ/მ³; / Dust norm is 0.5 mg / m³;

აზოტის დიოქსიდის ნორმა შეადგენს 0.2 მგ/მ³; / nitrogen dioxide norm is 0.2 mg / m³;

გოგირდის დიოქსიდის ნორმა შეადგენს 0.5 მგ/მ³; / sulfur dioxide norm is 0.5 mg / m³;

ნახშირბადის მონოოქსიდის ნორმა შეადგენს .5 მგ/მ³; / carbon monoxide norm is 5 mg / m³;

ჯამური ნახშირწყალბადების ნორმა შეადგენს 1 მგ/მ³; /total hydrocarbons norm is 1 mg /m³;

ვიბრაციის ნორმა შეადგენს 112 დბ; / Vibro-speed norm is 112 db;

ვიბროაჩქარების ნორმა სპეციალური დამცავი საშუალებების გამოყენების გარეშე - 126 დბ./Vibro acceleration norm special protective outlets without using - 126 db.

დირექტორი:

ტექნიკური შესრულებელი:



ANNEX B: PROJECT PHOTOS

Warehouse under construction in Partskhakanebi



Painting Chlorination Station in Partskhanakanebi



Construction of Abasha Service center (ABA-01)



Roofing of the Abasha Service Center



Water Presser Test for Existing System in Abasha



ANNEX C: NON-CONFORMANCE NOTICE

KUT-01 SUB-PROJECT, Construction of Partskhanakanebi Chlorination Station

Non-Compliance Notice

Project: USIIP	Non-compliance Notice KUTAI SI
Contract No: KUT-01	
Contractor: SMK	
Reference: Kutaisi Partskhanakanebi – Chlorination station	
This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .	

NON-COMPLIANCE IN PARTSKHANAKANEBI

Chlorination station

- Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory
- Soil (surplus/accumulated soil) for backfilling purposes should be stored properly and better managed
- Parking area at the construction site should be better arranged by relevant sign
- The internal roads should be arranged properly
- Fuel and lubricants spill elimination items (sand, sawdust, special containers) at the construction site
- Household Waste container with relevant indication sign should be installed at the construction area
- Hazardous Waste container with relevant indication sign should be installed at the construction area
- Workers always should use complete PPE. Also special equipment during high altitude works should be always used to avoid accidents (workers damage)




Photos of Chlorination station



	
<p>All these conditions have to be remedied within seven days (by the 8 May 2020) by the prime Contractor (SMK).</p>	
<p>Irakli Legashvili EPTISA - Environment</p>	

Non-compliance Notice, ABA-01, 27 February, 2020

Non-Compliance Notice Abasha Service Center, 27 February 2020

Project: USIIP	Non-compliance Notice Abasha	
Contract No: ABA-01		
Contractor: AS Inshaat-N, LLC (Azerbaijan)		
Supervisor Consultant : EPTISA		
Reference: Abasha Service Center		
This notice is to advice you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently .		
<u>NON-COMPLIANCE IN ABASHA</u>		
Construction of the Service Center		
<ul style="list-style-type: none">- Constraction site should be organized and fenced properly before strating any construction works- Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory- Soil (surplus/accumulated soil) for backfilling purposes should be stored properly and better managed- Parking area at the construction site should be better arranged by relevant sign- Fuel and lubricants spill elimination items (sand, sawdust, special containers) at the construction site- Household and Hazardous Waste container with relevant indication sign should be installed at the construction area		
Photos of Abasha Service Center		
		



All these conditions have to be remedied within seven days (by the 4 March 2020) by the Contractor

Ketevan Chomakhidze

UWSCG/USIIP – Environnemental Consultant

27 February 2020

ANNEX D: SAMPLE WEEKLY MONITORING CHECKLISTS

გარემოს დაცვის სპეციალისტი (კონტრაქტორი) Environmental Specialist (contractor)	სახელი, მართა მამუზაძე Name: Natia Babukhadia	ხელმოწერა Signature
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N	Documents and Facts to be Reviewed შესამოწმებელი დოკუმენტები და ფაქტები	yes კი	no არა	partially ნაწილობრივ	N/A არ ეხება	რეზიუმე Comment
1	EMPs/SSEMPs, Protocols and Reports					
1.1	Contractor's Site-specific Environmental Management Plan (SSEMP) is prepared, reviewed and approved by EIU prior to contractor commencing the work. შემუშავებული და დამტკიცებულია საიტ-სპეციფიკური გარემოსდაცვითი მართვის გეგმა.					Construction of Water Supply System un Kutaisi - phase II
1.2	Construction contractor has National Environmental Specialist in staff. შენიშნული კონტრაქტორის დადებული აქვს ხელშეკრულება ადგილობრივ გარემოსდაცვით საკითხების მართვის სპეციალისტთან.	✓				
1.3	Construction contractor has International Environmental Specialist in staff. შენიშნული კონტრაქტორის დადებული აქვს ხელშეკრულება საერთაშორისო გარემოსდაცვით საკითხების მართვის სპეციალისტთან.	✓				
1.4	Monthly environmental monitoring reports are prepared by the Contractor and submitted to the Supervision Consultant მომზადებულია გარემოსდაცვითი მართვის გეგმის გაზიარების გეგმის ყოველთვიური ანგარიშები კონტრაქტორის მიერ და წარდგენილია კონსულტანტსათვის	✓				
1.5	Emergency Response Plan is prepared and approved. შემუშავებული და მიღებულია ავარიულ სიტუაციებზე რეაგირების გეგმა.	✓				
1.6	Health and Safety Management Plan is prepared and approved. შემუშავებული და მიღებულია ჯანდაცვის და უსაფრთხოების მართვის გეგმა და ჯანდაცვის და უსაფრთხოების მართვის სისტემა მუშაობის ფუნქციონირების	✓				
1.7	Complaints log exists on construction site. სამშენებლის ტერიტორიაზე არსებობს საჩივრების ლოგბუკი.	✓				
1.8	Site inspection non-compliance notices issued and corrective action requests implemented.	✓				

შენახვის/შენახვის მოწყობის/შენახვის მოწყობის და წარდგენის კონტრაქტორისთვის და მკონტრაქტორული ქსელების განთავსება.					
1.9	Training/Capacity building activities undertaken as per EMP requirements and records kept of trainings. გადამზადებული და ხელმოწერილია მუშაობის ტრენინგები რეგიონალური და უმაღლესი საკონტრაქტორული ტრენინგების ანგარიშის მომზადების და ინახვის საიტის კვლევით.	✓			
2 Permits, Licenses and Contracts					
2.1	The Contractor has a permit or relevant contract from the Municipality for final disposal of construction waste/კონტრაქტორის მიერ მიღებული აქვს საშუალებები ნარჩენების საბოლოო განთავსების წესებიდან ან შესაბამისი კონტრაქტი ადგილობრივ ორგანიზაციასთან.	✓			
2.2	The Contractor has a permit for final disposal of municipal waste. კონტრაქტორის მიერ მიღებული აქვს საყოველთაო ნარჩენების საბოლოო განთავსების წესებიდან.	✓			
2.3	The Contractor has executed the contract with the licensed organization on the hand-over and disposal of hazardous waste. კონტრაქტორის გადამზადებული აქვს საბოლოო ნარჩენების გადაცემისა და გატანის ხელშეკრულება ლიცენზირებულ ორგანიზაციასთან.	✓			
2.4	The Contractor has a license for tree felling/კონტრაქტორის გააჩნია ლიცენზია ხეების მოჭრისთვის.	✓			
3 Performance of civil works					
3.1	საშენებლო ტერიტორიის სრულად შემოღობვა Adequate fencing of construction area from all sides	✓			
3.2	საკვანძო შესასვლელი კარის მოწყობა, სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნებით აღჭურვა Arrangement of lockable gate with standard warning and information signs	✓			
3.3	საშენებლო ტერიტორიაზე და პერიმეტრზე სტანდარტული გამაფრთხილებელი და საინფორმაციო ნიშნების განთავსება Placement of standard warning and information signs at the perimeter and inside of construction area	✓			
3.4	ღია დატოვებული თხრილებზე და ქვებზე უსაფრთხოების ღონისძიებების, ნარჩენების და გამაფრთხილებელი ნიშნების განთავსება Installation of safety signs/tapes and trench side barriers around of open trenches	✓			
3.5	1,5 მეტრზე მეტი სიღრმის ტრანშეებში კედლების გამაფრთხილება				✓

Strengthening of walls of the deep trenches (>1.5m) by boards					
3.6	დასახლებული ადგილებში ღია დატოვებულ თხრილებზე დროებითი გადასასვლელის მოწყობა Installation of proper temporary wooden/metal walkways/planks across open trenches in settlement areas				✓
3.7	საშენებლო ტერიტორიაზე საშენებლო ნივთიერებების არსებული ხეების შემოწვდის (დაზიანების თავიდან აცილების მიზნით) Protect all trees nearby construction zone to avoid its damage	✓			
3.8	ტესტის დროს, ნიადაგის ნაყოფიერი (დაახლოებით 20-30 სმ სისის) ფენის მოხსნა და განთავსება (დაახლოებით 20-30 სმ სისის) ფენის მოხსნა და განთავსება Removal of top soil (about 20 cm depth) and separately storing in appropriate place	✓			
3.9	საშენებლო ნარჩენების და ჭარბი ნარჩენი ნივთების დროული გატანა/განთავსება Timely removal/disposal of construction waste and surplus waste soil	✓			
3.10	საშენებლო ტერიტორიის დამის საათიანი განათება Provide adequate lighting of construction territory	✓			
3.11	საშენებლო ტერიტორიის შესაბამისად მოწყობა მასალების და მოწყობილობების და დანადგარების ორგანიზებული განთავსება (საჭიროების შემთხვევაში) Proper arrangement of construction site and segregation/storing of construction materials/equipment (bring the material when required)	✓			
3.12	საშენებლო ტერიტორიაზე საწვების და საპირი მასალების დაღვრის შემთხვევის საპირისპირო ნივთების (ქვიშა, სახეობი, მკობი ნივთის აქტი და სხვა) ხელმისაწვდომობა Availability of proper fuel/oil spill response items (sand, sawdust, special containers) at the construction site	✓			
3.13	საწვების და საპირი მასალების კონტეინერების განთავსება მხოლოდ სპეციალურ გადახურულ ადგილებში Allocation of fuel and lubricants containers at the special dedicated place (with roofing and concrete flooring)	✓			
3.14	საშენებლო ტერიტორიაზე საყოველთაო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი ნარჩენებით აღჭურვა (მაგ. "HOUSEHOLD WASTE") Placement of proper Household Waste container at the special dedicated place with relevant indication signs (for example "Household Waste")	✓			
3.15	საშენებლო ტერიტორიაზე საბოლოო ნარჩენებისთვის თავსახურიანი კონტეინერის განთავსება და შესაბამისი ნარჩენებით აღჭურვა (მაგ. "HAZARDOUS WASTE") Placement of proper Hazardous Waste container at the	✓			

	special designated places with relevant indication signs (for example "Hazardous Waste")					
3.16	სამშენებლო ტერიტორიაზე ან მის გარეთ ტრანსპორტირების პარკირების ადეკვატური მოწყობა და ნიშნით აღჭურვა (მაგ. P) Arrangement of proper Parking area at the adequate place inside/outside of construction territory with relevant sign (for example P)	✓				
3.17	სამშენებლო მასალების და ნარჩენების ტრანსპორტირების დროს ატვორანსპორტის სპეციალური საფარი (წარმოებულ, ტენტიდასხვ.) აღჭურვა Use tarpaulins cover during materials transportation		✓			
3.18	საქრობიდან გამომდინარე მტერის წარმოქმნის პრევენცია Dust generation prevention activities (when needed)	✓				
3.19	მუშების და ინჟინერ-ტექნიკური პერსონალის მიერ ინდივიდუალური დაცვის საშუალებების (ჩაფხუტი, თილუტი, ხელთათმისი, ჩექმები, დამცავი სათვალე, და სხვა) სრულად გამოყენება Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hand gloves, boots, masks, safety belts	✓				
3.20	სიმაღლეზე მუშაობის დროს სპეციალური დამცავი აღჭურვილობის გამოყენება Use of special safety equipment during working at heights	✓				
3.21	სამშენებლო ტერიტორიის მუდმივად დასუფთვა და დასუფთავება Regularly cleaning of construction territory	✓				
4 Monitoring Measurements						
4.1	Monitoring measurement data (air, water, soil, erosion, noise, dust, vibration, etc). წყლის, ჰაერის, ეროზიის, ეროზიის, ხმელის, მტერის და ნიადაგის მოსაფრეზის გაზომვების მონიტორინგი.	✓				
5 Top Soil Protection						
5.1	Topsoil is stripped and stored according to standard procedures and used further for landscaping and reinstatement. ნიადაგის ზოპეროფანი ფენის დაცვა	✓				
6 Safety Measures						
6.1	The workers use all personal safety equipments required for individual technological processes (hard hats, gloves, respirators, glasses, etc). მუშახელი იყენებს ცალკეული ტექნოლოგიური პროცესებისათვის აუცილებელ პირად დამცავ საშუალებებს (ჩაფხუტები, ხელთათმისები, რესპირატორები, სათვალეები და ა.შ).	✓				
6.2	The sites are provided with the fire fighting and emergency medical aid kits, site is fenced, site lightning, signs are installed, etc.					

ANNEX E: GENERAL GUIDELINES RELATED TO INFECTION (COVID-19) CAUSED BY NOVEL CORONAVIRUS (SARS-CoV-2) FOR CONSTRUCTION SECTOR



MINISTRY OF INTERNALLY DISPLACED
PERSONS FROM THE OCCUPIED
TERRITORIES, LABOUR, HEALTH AND
SOCIAL AFFAIRS OF GEORGIA

Labour Conditions Inspection Department
Create Together Safe Working Environment

Annex №2

General Guidance Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) for Construction Sector

Note: In accordance with Order N281/N of the Minister of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia on "the rule for Examination for Short-term Employment Disability and Issuance of Doctors Note", the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia will issue an equivalent document to the doctors excuse note (Medical Certificate) to persons quarantined in order to prevent the spread of coronavirus. The document will serve as the basis to receive monthly payment and therefore, the working days spent in quarantine or in self-isolation will be legitimate and fully paid to the employees. In order to get the certificate, an interested person has to apply to the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia at - info@mdsh.gov.ge.

For further information, please contact:

☎ 15 05

☎ 116 001

StopCoV.ge

The job of builders involves constantly changing work places and work activity existing in open-air conditions. For this reason, in terms of virus spread, construction falls within the medium risk sector because its specificity covers natural ventilation. Nevertheless, it is important to consider the following preventive measures at construction work.



The staff must not appear in the workplace if they :

- Left the affected country over the past 14 days;
- Were in close contact with infected person/persons for the past 14 days (they must be self-isolated/quarantined as per the rule);
- Have symptoms of respiratory infection (coughing, temperature, sneezing, difficulty in breathing, general weakness etc.);
- Are among the ones who have high risk of getting infected with COVID-19 or serious complications: over 70 years of age, people suffering from chronicle diseases (cardio-vascular diseases, diabetes, bronchial asthma and other respiratory diseases).

Employer's responsibilities

- Whether or not the incidence of infection is detected, employer should develop an emergency action plan to support reduction of working days missed due to illness, and in case of detection – prevention of spread;
- Provide employees with information about safe working procedures and about prevention of virus spread (guide with the recommendations defined by LEPL L. Sakvarelidze National Center for Disease Control and Public Health of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia);
- Inside the working space post announcements about COVID-19 and about the preventive measures that have been identified by LEPL L. Sakvarelidze National Center for Disease Control and Public Health;
- In relation to the employees who can perform job remotely (administrative personnel) ensure as much as possible use of such working mode;
- At the entrances of break room/dining room, place disinfecting rugs with relevant mandatory sign marking;
- Provide hand-washing facility with soap and other disinfectants. If hand-washing facility is not feasible, at least 70% alcohol-based hand cleansing liquid should be used;
- Visibly place the hand sanitizers and post the rules of their proper use;
- Make sure that employees have access to hand sanitizers and are aware of their use with proper rules;
- Provide all employees and contractors, personnel responsible for cleaning with information about relevant preventive measures to avoid spread of coronavirus in the working environment;
- Train the employees in proper use and further storage/removal of personal protective equipment and disinfectants;

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- Depending on their work specificity, provide the employees with necessary personal protective equipment (protective clothing, protective shoes, helmet, gloves, respirator) and establish control on their use;
- Periodically, several times a day ensure natural ventilation of closed spaces/facilities;
- At certain periodicities disinfect frequently used working equipment and working places;
- Maintain ergonomics at construction site. Ensure timely cleaning of working space and timely disposal of construction waste.
- For employees and visitors ensure closed containers for used disposable tissues and other used hygienic waste in the working space.

Employees' responsibilities

Ensuring proper hand hygiene regularly and thoroughly is the best way to be protected from most of the viruses. Therefore, it is necessary to take the following measures in the workplace:

- Follow hygiene rules in your workplace;
- Carry out the working process in accordance with emergency situations action plan defined by employer/occupational safety manager;
- When greeting do not shake hands and avoid contact with others (touching etc.);
- Avoid gatherings, it is recommended not more than 10 people in one working platform by keeping a safe distance (at least 2 m);
- While performing your work, fully use personal protective equipment provided by the employers;
- Treat with disinfectants the working places and tools used in the course of the work;
- Before and after taking meals, before and after using the restrooms thoroughly wash your hands with soap and water. After washing dry your hands well;
- If you can not wash and dry your hands, use alcohol-based hand sanitizers;
- Keep safe distance (at least 2 m);
- While coughing or sneezing, cover the face with a clean tissue or elbow and place used dispensable tissue in the waste bin;
- Avoid touching your eyes, nose and mouth with your hands.



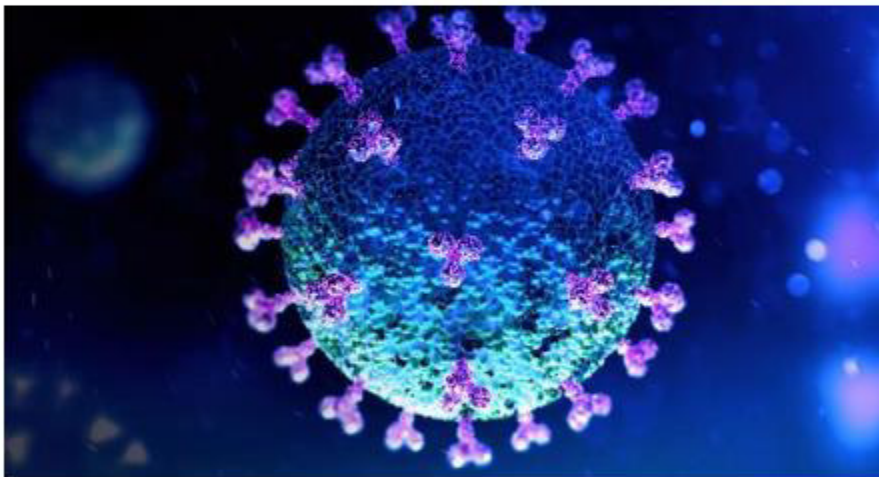
ANNEX F: COVID 19 EMERGENCY MANAGEMENT PLAN



**Georgia: CONSTRUCTION SUPERVISION CONSULTANCY SERVICES
FOR URBAN SERVICES IMPROVEMENT INVESTMENT PROJECT (USIIP)**

Financed by the Asian Development Bank and Government of Georgia

COVID-19 Emergency Management Plan in Construction Sector



Prepared by: **EPTISA** - Supervision Consultant
Tbilisi, Georgia

*For: Ministry of Regional Development & Infrastructure (MRDI)
United Water Supply Company of Georgia (UWSCG)*

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1. PREAMBLE

1.1 Project Description

1. The overall aim of the project is to improve the health condition of residents by addressing the problems associated with poor water and sewerage services in the towns Kutaisi, Tbilisi. The objective of the project is to solve the most urgent public health problems through the installation of new water systems; new water and sewerage networks; and new treatment facilities. The 'water supply' component aims to augment water production, treatment capacity and maintain water pressure for 24 hours a day.
2. The civil works contracts award sequence is as follow:

Contract Package	Contractor	Start Date	Completion Date
KUT-01	SMK Ulusal Insaat Ve Ticaret	8-Jun-15	28-Mar-20
TBI-01	DAGI Ltd.	01-Mar-16	29-Sep-19
ABA-01	"AS Inshaat-N" LLC	02-Feb-18	14-Mar-20
GUD-03	"China Nuclear Industry 23 Construction Co." LTD	17-Jul-19	06-Jun-22

3. Project Management Organisation

- Executing Agency (EA) - Ministry of Regional Development and Infrastructure (MoRDI)
- implementing agency (IA) - United Water Supply Company of Georgia (UWSCG)
- Supervision Consultant – Eptisa
- Contractors – SMK Ulusal Insaat Ve Ticaret; DAGI Ltd; "AS Inshaat-N" LLC; China Nuclear Industry 23 Construction Co. - LTD

1.2 Coronavirus

4. Coronaviruses are a large family of viruses that cause respiratory infections. These can range from the common cold to more serious diseases. Coronavirus (COVID-19) is a disease caused by a new form of coronavirus. It was first reported in December 2019 in Wuhan City in China.
5. Health authorities around the world believe the coronavirus (COVID-19) is spread from close contact with an infected person, mostly through face-to-face contact or between members of the same household. The coronavirus (COVID-19) is spread by people with symptoms when

they cough or sneeze. People may also pick up the coronavirus (COVID-19) from surfaces contaminated by a person with the infection.

6. Studies suggest that COVID-19 may persist on surface for a few hours or up to several days. This may vary under different conditions such as the type of surface, temperature or humidity of the environment.
7. A coronavirus infection can cause mild to severe respiratory illness. The most common coronavirus (COVID-19) symptoms reported are:
 - Fever
 - Breathing difficulties and breathlessness
 - Cough
 - Sore throat
 - Fatigue or tiredness.
8. Coronavirus (COVID-19) is most likely to spread from person-to-person through:
 - Close contact with an infected person.
 - Touching objects or surfaces (such as door handles or tables) contaminated by a person with the infection.
9. Close contact means having face-to-face contact for more than 15 minutes with someone who has a confirmed case of coronavirus (COVID-19) – or alternatively sharing a closed space with them for more than two hours.
10. Close contact can happen in many ways, but examples include:
 - Living in the same household or household-like setting (for example, a boarding school or hostel)
 - Direct contact with the body fluids or laboratory specimens of a confirmed case
 - Being in the same room or office for two hours or more
 - Face-to-face contact for more than 15 minutes in some other setting such as in a car or a lift or sitting next to them on public transport.

2. PURPOSE

11. The purpose of these document for the Construction sector, is to:
 - Provide direction to employers and workers
 - Outline the steps to be taken to best provide a safe and healthy environment, and
 - Identify the action available in the event of interruption to building and construction work, as a result of the coronavirus (COVID-19) pandemic.

12. The Document is intended to have application across all sectors of the building and construction sector. Construction sites are diverse and vary in complexity. To allow for flexible interpretation of these guidance, it is recommended that employers apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site.
13. This Document have been developed to maintain the safe operation of construction sites, ensuring the safety of workers.
14. Following of these recommendations these is necessary to minimize and avoid the closure of any construction site.
15. The recommendations apply to all personnel attending on a building and construction site or project, whether management, staff, employees, contractors or service providers.

3. CONTROLLING RISKS ON SITE

16. To assist with providing and maintaining safe operations during coronavirus (COVID-19) the below measures should be implemented to assist in providing a safe and healthy environment at work.
 - Screening workers coming to site
 - Workplace Mapping
 - Physical Distancing
 - Hygiene
 - Shared Tools, Plant and Equipment
 - Cleaning and Disinfecting
 - Personnel Hoists
 - Personal Protective Equipment
 - Common Areas
 - Inspections
 - Travel
 - General Communications
 - Other measures
 - Vulnerable workers

3.1 Screening workers coming to site

17. To minimize the risk of transmission of coronavirus (COVID-19) on site, employers must implement a two-phase screening process; phase one being an initial declaration and phase two on going daily screening.

18. Initial declaration is to be conducted by all workers (this includes any person who attends site), including current and new-starters. Each worker must provide a declaration that they to the best of their knowledge:
- have not been diagnosed with coronavirus (COVID-19) in the last 14 days, or
 - are not in a period of 14 day quarantine as directed by a health professional, or
 - have not been overseas in the last 14 days, or
 - have not been in contact with anyone who has coronavirus (COVID-19), or
 - have not been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
 - do not have anyone in their household who has symptoms consistent with COVID-19.
19. Once the initial declaration has been made by the worker, ongoing screening (phase 2) should be conducted for every worker prior to the start of their shift, asking to the best of their knowledge:
- have they been overseas in the last 14 days, or
 - have they been in contact with anyone who has coronavirus (COVID-19), or
 - have they been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
 - do they have anyone in their household who has symptoms consistent with COVID-19.
20. If a worker declares any of the above they may be required to self-isolate.
21. Screening should be conducted, whilst maintaining safe distances or over the phone before entering site, on a mobile app, via text message system, or other non-contact methods. It is advisable to have a system in place that limits the sharing of pens/ notebooks/ computers etc.
22. If a worker has recently had close contact with a confirmed case, they need to:
- self-isolate at home for a period of 14 days and follow the self-isolation Guidelines
 - not attend work
 - contact their employer
 - seek urgent medical attention if they have symptoms consistent with COVID-19
 - not return to work until they have been cleared by a medical practitioner.
23. If a worker is experiencing symptoms consistent with COVID-19 or had close contact with a confirmed case, they must:
- not attend work
 - contact their employer for further advice and;
 - not return to work until they have been cleared by a medical practitioner.

3.2 Workplace Mapping

24. In the event of an employee being confirmed as having COVID-19, those who are potentially affected need to be quickly identified.
25. Employers should implement processes to record the schedule and work locations for workers that enables tracing of those who have come into contact with the confirmed case.
26. The record should include:
 - day and time work was undertaken
 - members of teams that worked together
 - specific work area on the construction site
 - any breaks taken, including time and location
27. Movement between sites, or areas within large sites, should be minimized as much as possible.
28. Where attending multiple sites is necessary (e.g. for HSRs, first aiders, emergency wardens) movement between sites should be recorded in the workplace mapping.

3.3 Physical Distancing

29. Physical distancing of at least 1.5-2 meters should be implemented wherever possible. Employers should consider each work task and whether there is a safe alternative way to undertake the work with an increased distance between workers.
 - Mark safe distances in work, transit and break areas (e.g. on floors and walls).
 - Consider different shift patterns to minimize the number of workers onsite (e.g. AM/PM shifts).
 - Stagger start times, breaks and finish times to avoid congestion in high traffic areas and minimize workers coming into contact with each other as they move around the site.
 - Plan for how physical distancing will be maintained during inclement weather (e.g. use of lunch or crib rooms and amenities).
 - Install temporary physical barriers (e.g. fences, screens) between work areas, where appropriate.
30. Where it is not possible to undertake work tasks and maintain physical distancing, other control measures need to be implemented. For example:
 - Minimize the number of worker to worker interactions that need to be completed within 1.5 meters
 - Minimize the number of workers involved in activities that need to occur within 1.5 meters of each other
 - Provide personal protective equipment (PPE) (e.g. gloves, masks, glasses).

31. Where essential work activities need to be undertaken in restricted spaces (e.g. lift shafts, personnel hoists, lifts), the number of workers working in the space should be minimized.

3.4 Hygiene

32. Good hygiene practices and general cleaning helps with minimizing the spread of coronavirus (COVID-19). Employers should review general hygiene requirements and the cleaning regimes in place.
33. Employers should display health information in prominent locations on the construction site such as tea rooms, site offices, toilets, foyers, lifts and site entrances.
34. Every effort must be made by employers to upgrade personal hygiene and minimize worker to worker contact and all workers must co-operate in all necessary measures to achieve these objectives. These measures need to include:
- Promote regular hand washing with soap for at least 20 seconds. Employers must facilitate regular hand washing by providing ease of access/additional facilities where possible. Communicate to all workers where hand sanitizers are located and encourage their regular use.
 - Promote good cough etiquette by covering your cough and sneeze, or cough into your elbow or shoulder.
 - Avoid touching your nose, eyes or mouth.
 - Provide hand sanitizer and/or hand washing facilities with soap in all site entrances and exits hoists, amenities and areas/levels of the site.
35. Employers must ensure that workers have access to appropriate amenities. Employers should review and revise the number and locations of amenities, to reduce movement around the site.
36. Amenities need to include:
- Hand washing facilities (whether permanent or temporary), such as a wash basin, clean running water, soap and paper towels, placed in strategic locations to ensure employees can access them in a timely manner.
 - Access to hand sanitizer.
 - Rubbish bins with touch-free lids (e.g. foot pedal bins).
 - Thorough and regular sanitation.
 - Appropriate waste management systems.

3.5 Shared tools, plant and equipment

37. Workers should avoid the shared use of tools, plant and equipment wherever possible. For example, drop saws, drills, grinders, ladders or elevating work platforms should not be used by more than one worker.

38. Where it is not possible to eliminate shared use:

- Provide cleaning products (e.g. alcohol spray or solution) where communal tools, plant and equipment are located.
- Keep cleaning products with tools, plant and equipment as they move around the site.
- Ensure all operators thoroughly wash or sanitize their hands before and after every use.
- Ensure all parts of tools, plant and equipment (e.g. including handles, handrails) are wiped down before and after use.

39. The shared use of phones, desks, offices, computers and other devices should also be avoided. Where this is not possible, these items should be regularly disinfected.

3.6 Cleaning and Disinfecting

40. Cleaning and disinfecting of surfaces is to be conducted using cleaning products as per DHHS Cleaning and Disinfection guidelines to reduce coronavirus (COVID-19) Transmission – the specific guidance is available here:

- Cleaning and disinfection of amenities and meal areas must occur between work group breaks
- Cleaning and disinfection of Personnel Hoists should occur at the end of each hoist operator shift
- Implement regular cleaning and disinfection (minimum of twice daily) to 'Frequently Touched Surfaces', surfaces such as toilets, door handles, stair handrails, light switches, lift buttons, table tops.
- Additional cleaning/disinfecting on-site. There must be an increased frequency of industrial grade cleaning/additional cleaning/disinfecting on sites across all areas including particular emphasis on commonly touched/communal surfaces;

3.7 Personnel hoists

41. Workers using hoists and lifts may be at greater risk of exposure to coronavirus (COVID-19), because they are required to be in close contact with others and potentially contaminated surfaces.

42. Control measures to reduce the risk in personnel hoists should include systems of work, physical distancing, personal hygiene, PPE and cleaning.

43. It is acknowledged that not all hoists and lifts are identical in size or dimension, and have varying weight limits.

44. Where it is not possible to implement physical distancing measures in a personnel hoist, all other available control measures need to be used.

45. Control measures may include:

- Limiting worker movement between levels and floors on site, where it is possible and safe to do so.
- Reviewing which hoists are available for use on site and identifying if additional hoists can be used (for example where a partially occupied building is under construction, consider whether a residential lift be used solely for construction persons).
- Physical distancing of 1.5-2 m and hygiene systems to be followed when waiting for hoist, particularly on floors where worker volumes may increase during peak times (start, break, finish times). For example the ground floor, floors with meal or break out spaces and floors with bathroom amenities.
- Determine how many workers can use a hoist at any time (including hoist operator) taking into consideration the limited duration and additional control measures in these Guidelines.
- Mark out hoist floor, identifying:
 - where workers stand
 - what direction they are to face when in the hoist to avoid face to face contact
 - Sequencing of entering and exiting
- Mark the hoist waiting area at each floor ensuring the physical distancing is maintained
- Regularly communicate and remind workers (e.g. through posters, digital displays):
 - diagram of positioning of workers and sequence of worker entering
 - not to touch walls/doors of the hoist
 - advise the cleaning regime in place
- During peak periods have system in place to limit crowding of workers entering/exiting the work area. For example:
 - developing a schedule for use of the hoist
 - Staggering what floors workers are to use the hoists. Hoist operators may be exposed to additional risk. They should:
- Be provided with PPE that protects them from worker to worker transmission and from touching contaminated surfaces (e.g. face shield or surgical mask/P2 respirator and glasses).
- Perform frequent hand washing with soap and water or the application of hand sanitizer positioned within the hoist.
- Where possible, change hoist operator every two hours into a different role.

3.8 Personal Protective Equipment (PPE)

46. Employers must provide information, instruction and training on the safe use, decontamination and maintenance of any PPE provided.

47. Any PPE provided needs to be practical for the work environment (e.g. allowing the necessary visibility and mobility) and properly decontaminated or disposed of at the end of every shift.
48. Employers should monitor and encourage correct use of PPE, for example providing information on posters and digital screens about:
 - Washing or sanitizing hands before putting PPE on, and putting face protection on before gloves
 - Removing gloves before face protection, washing or sanitizing hands after removing PPE and decontaminating or disposing of used PPE safely.

3.9 Common areas

49. Common areas on sites such as the amenities pose risks, and these are reduced by ensuring the following measures are adopted.
50. The time spent in those areas must be limited so as not to breach time constraints recommended by DHHS.
51. Staggering of meal breaks and separation of work groups to achieve maximum personal space and reduce the number of workers accessing those areas at any one time consistent with the Government requirements.
52. Sanitization must occur between occupation of amenities by different work groups
53. Spread out furniture to ensure physical distancing measures in common areas
54. There must be an increased frequency of industrial grade cleaning/additional cleaning with specific emphasis on cleaning after each meal breaks in those areas
55. Workers electing to minimize amenity access
56. Staggered working hours must be considered on sites with appropriate consultation (consideration must be given to Construction Management Plans, and workers must be given adequate notice of a change in hours).

3.10 Inspections

57. During inspections of the sites everyone should ensure all measures are in place to ensure compliance. Employers and Health and Safety Representatives are encouraged to work together to assist in this important objective.

3.11 Travel

58. Adequate arrangements are to be made by workers to ensure their travel to and from work is conducted safely in accordance with Government advice, and that adequate sanitization facilities are in place for workers upon attending the work site and when returning to the work site during work.
59. Workers should ensure that for transport to and from work that they adhere to the hygiene and cleaning guidance, and the physical distancing

60. Work vehicles that are shared should be regularly cleaned to ensure adequate hygiene and protection.

3.12 General Communication

61. Ensuring everyone is informed is fundamental to managing this pandemic and ensuring the safe operations of construction sites.
62. These recommendations have been developed to be communicated to all employers, workers and stakeholders. Everyone is urged to regularly promote and adhere to this document.
63. Site inductions should be updated as required to include information on coronavirus (COVID-19) potential risks and workplace specific controls that have been implemented such as daily screening, health checks and symptoms of coronavirus (COVID-19), staggered start, finish and meal times, good hygiene practices and cleaning regimes and PPE requirements.
64. Toolbox talks should be regularly conducted, and workers are to be encouraged to put forward practical ideas for changing work practices to avoid the spread of coronavirus (COVID-19). Toolbox talks should also provide clarity to workers on leave arrangements for those that cannot work, and to encourage self-reporting and minimize the spread of risk.
65. Toolbox talks should also include updates from the responsible Health Officer as they occur and additional information on the severity of the pandemic and the importance of physical distancing at toolbox meetings.

3.14 Other measures

66. Construction sites are diverse and vary in complexity, employers must apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site. In addition to the aforementioned measures and controls mentioned in this section, employers should consider other measures for implementation such as:
- using alternatives to face to face meetings where practicable,
 - reducing the length and size of meetings, especially for critical employees, by requiring some or all to dial in,
 - consider off-site fabrication,
 - ensuring working from home arrangements are enabled where feasible,
 - Structuring management teams to ensure contingency in the event of team members needing to be isolated or quarantined at home.

3.15 Vulnerable workers

67. Has been identified the following groups of people as vulnerable workers in relation to coronavirus (COVID-19):

- people over the age of 70,
- people with chronic diseases (cardiovascular disease, diabetes, bronchial asthma and other respiratory diseases)

68. Where practical, reasonable action should be taken to minimize vulnerable workers from conducting higher risk roles

4. Summary of recommendations and responsibility

Table of Summary of recommendations and responsibility

Activity	Responsible for implementation
To provide employees with the information about the work safety procedures and prevention of virus spread (guided by the recommendations of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia and LEPL L. Sakvarelidze National Center for Disease Control and Public Health);	Employer
To place ads in the workspace about the COVID-19 and its preventive measures defined by the LEPL L. Sakvarelidze National Center for Disease Control and Public Health;	Employer
To ensure maximum use of remote work in relation to those employees who can perform work remotely (administrative personnel);	Employer
To put mattings at the entrance of the lounge room / dining room, with the relevant sign of indication;	Employer
To ensure hand washing at the workspace with appropriate soap and other hygiene products. In case of inability to wash hands, to provide with at least 70% alcohol-based hand cleaning liquids;	Employer
To place hand sanitizers and the instruction for their proper use in a prominent place;	Employer
To ensure that employees have access to hand sanitizers and know how to use them in accordance with the relevant instructions;	Employer
To provide information to all staff and contractors, as well as cleaning staff, on appropriate preventive measures to avoid the spread of coronavirus in the work environment;	Employer
To train the employees on the proper use of personal protective equipment and its subsequent storage / disposal;	Employer
To provide employees with the necessary personal protective equipment (overalls, special shoes, helmet, gloves, medical mask) based on the specifics of their job and establish control over their use;	Employer
Periodically, several times a day ensure natural ventilation of indoor spaces / closets;	Employer
Periodically ensure disinfection of workplaces and frequently used equipment;	Employer
To keep ergonomics in order at the construction site. To ensure the prompt cleaning of workspace and removal of construction waste.	Employer
To ensure placement of closed containers for the disposable napkins and other hygiene waste used by both employees and visitors.	Employer

Follow the rules of hygiene at your workplace;	Employee
Carry out the work process in accordance with the Emergency Action Plan defined by the employer / work safety manager;	Employee
Avoid shaking hands and direct contact with others (touch, etc.) while saluting;	Employee
Avoid gathering, the work of more than 10 people on one work platform at a safe distance (less than 2 m) is not recommended;	Employee
When performing the work, make full use of the personal protective equipment provided by the employer;	Employee
Clean the workplaces and the tools and equipment used during the work process with disinfectants;	Employee
Thoroughly wash your hands with soap and water before and after eating, as well as before and the bathroom. Dry your hands thoroughly after washing;	Employee
Use alcohol-based hand sanitizers in case if you are unable to wash and dry your hands;	Employee
Keep a safe distance (not less than 2 m);	Employee
Cover your mouth with clean napkin or elbow when coughing and sneezing and then throw the used disposable napkin in the trash;	Employee
Avoid touching your eyes, nose, or mouth with your hands.	Employee

5. Covid-19 informational banners





