

Environmental Monitoring Report

Public
Project No. 47254-003
Semestral Report (January-June 2024)
August 2024

Bangladesh: Dhaka Water Supply Network Improvement Project

Prepared by Dhaka Water Supply and Sewerage Authority (DWASA), Government of Bangladesh for the Asian Development Bank (ADB).

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Semi-Annual Environmental Monitoring Report (SEMR)

Project number: 47254-003

Period: January-June, 2024
Submission Date: June 2024

BAN: Dhaka Water Supply Network Improvement Project (DWSNIP)

**Prepared by the Dhaka Water Supply and Sewerage Authority (DWASA),
Government of Bangladesh for the Asian Development Bank.**



**DHAKA WATER SUPPLY NETWORK IMPROVEMENT PROJECT
(DWSNIP, ADB Loan No. 3397-BAN)**

PROJECT MANAGEMENT UNIT

**13th
SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT (SEMR)**

(Period January-June, 2024)

June 2024

Dhaka Water Supply and Sewerage Authority (DWASA)

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ABBREVIATIONS

ADB	-	Asian Development Bank
ARE	-	Assistant Resident Engineer
BRM	-	Bangladesh Resident Mission
BOD ₅	-	Biochemical Oxygen Demand in 5 days
CPP	-	China Petroleum Pipeline Engineering Company Ltd.;
CFMCC	-	China First Metallurgical Group Co. Ltd.
COVID	-	Corona Virus Disease of 2019
CME	-	Contract Management Expert
DWASA	-	Dhaka Water Supply and Sewerage Authority
DWSNIP	-	Dhaka Water Supply Network Improvement Project
DMA	-	District Metering Area
DMSC	-	Design, Management and Supervision Consultants
DoE	-	Department of Environment
DTW	-	Deep Tube well
ECC	-	Environmental Clearance Certificate
EMP	-	Environmental Management Plan
EIA	-	Environmental Impact Assessment
GoB	-	Government of Bangladesh
GRC	-	Grievance Redress Committee
GRM	-	Grievance Redress Mechanism
HDD	-	Horizontal Directional Drilling
ICB	-	International Competitive Bidding
IEE	-	Initial Environmental Examination
LGD	-	Local Government Division
PMU	-	Project Management Unit
PCU	-	Project Coordination Unit
PPE	-	Personnel Protective Equipment
PM	-	Project Manager
PM10	-	Particulate Matter diameter less than 10 micron
PM2.5	-	Particulate Matter diameter less than 2.5 micron
SCC	-	Site Clearance Certificate
SPM	-	Suspended Particulate Matter
SPS	-	Safeguard Policy Statement
SEMR	-	Semi Annual Environmental Monitoring Report
SEP	-	Site Environmental Plan
SEMP	-	Site Specific Environmental Management Plan
SIU	-	Safeguard Implementation Unit

EXECUTIVE SUMMARY

Dhaka Water Supply Network Improvement Project (DWSNIP) has been initiated by Dhaka Water Supply and Sewerage Authority (DWASA) in improving the water supply distribution network in various zones of Dhaka City. The estimated cost of the Project is US\$ 408 million. The Government of the People's Republic of Bangladesh (GOB) has obtained a loan of US\$ 275 million from the Asian Development Bank (ADB Loan: 3397-BAN) and the balance US\$133 million equivalent would be financed by the GOB. The Project will implement 75 DMAs in which about 1669 km pipe lines will be rehabilitated including about 148,230 service connections. The Project has five (5) contract packages and the expectation to complete by the year 2024 (As proposed in RDPP). The Project was classified as Category Red by the Department of Environment (DoE) and a Category B project by the Asian Development Bank (ADB).

The Safeguard Experts and Executive Engineers were deployed in the PMU and PCU level along with the DMS Environmental Team, Resettlement Specialist and Social /Gender Experts are already on board. The Environmental Clearance Certificates were obtained, for different packages/batches, from DoE during 12 June 2019. As per condition of ECC provided by DoE, DWASA obtained Renewal Certificates from DoE during June 2020 (the first renewal certificate), June 2021 (second renewal certificate) and July 2022 (third renewal certificate), June 2023 (fourth renewal certificate) and June 2024 (fifth renewal certificate). All renewal certificates obtained from DoE are attached in **Annex-3**

For implementation of EMP, arrangement of human safety, provision of PPE for workers engaged in construction is being implemented. Training is being provided to the contractors' representatives by DMSC's Environmental Team. Moreover, instruction has been provided to follow the specified clause of BID document to mitigate environmental and social impacts. Measures were taken to protect and facilities and locations of social and cultural importance (hot spots). Measures were taken to comply with occupational health and safety including measures to combat COVID19 situation.

Contractors have been taking mitigative measures and maintaining records through reporting of different potential environmental impacts associated with construction activities which are Air pollution, Noise pollution, Water pollution, etc. During the reporting period, ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2), NCB 2.11D (Lot-1) have conducted during construction monitoring (air, noise and water quality) for DMA during civil works. NCB 2.12A, NCB 2.12D and NCB 2.12E has conducted baseline monitoring (air, noise and water quality) for DMA before starting the civil works and construction monitoring. The Environmental Management Implementation Work Schedule has been prepared for next six months (July-December, 2024) to implement the EMP plan wise while showing precisely how and when construction period mitigation and monitoring actions will take place.

With the outbreak of COVID 19 Pandemic and subsequent lockdown, most of the activities in the country stopped temporarily until the country became normal. The Addendum Health and Safety (H&S) Plans in response to COVID-19 were developed by all civil works contractors and approved by PMU as well as ADB.

Based on the foregoing observations, findings and environmental monitoring carried out from January-June, 2024, it may be concluded that ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2) and NCB 2.11D (Lot-1&2) under DWSNIP subprojects (DMAs) have been implemented as just satisfied.

I. INTRODUCTION

A. Background

1. Dhaka Water Supply Network Improvement Project (DWSNIP) has been initiated by Dhaka Water Supply and Sewerage Authority (DWASA) for improving the water supply distribution network in various zones of Dhaka City. The estimated cost of the Project is US\$ 408 million. The Government of the People's Republic of Bangladesh (GOB) has obtained a loan of US\$ 275 million from the Asian Development Bank (ADB Loan: 3397-BAN) and the balance US\$133 million equivalent would be financed by the GOB. The Project will implement in 75 DMAs where 1669 km (approximately) pipe lines will be rehabilitated and installed including about 148,230 service connections and 50 PTWs. The Project has been divided into five (5) contract packages and the packages will take 17 to 36 months for implementation with an expectation to be completed December, 2024 (As proposed in RDPP). The objectives targeted from the Project are:

- To reduce NRW and achieve 24 hours water supply in the targeted 85 DMAs (As per approved DPP).
- To provide new or regular connections to low-income communities.

2. The project area of each package is shown in Figure-1 and summary of the Construction packages are depicted in Table 1.

Figure 1: Project Area

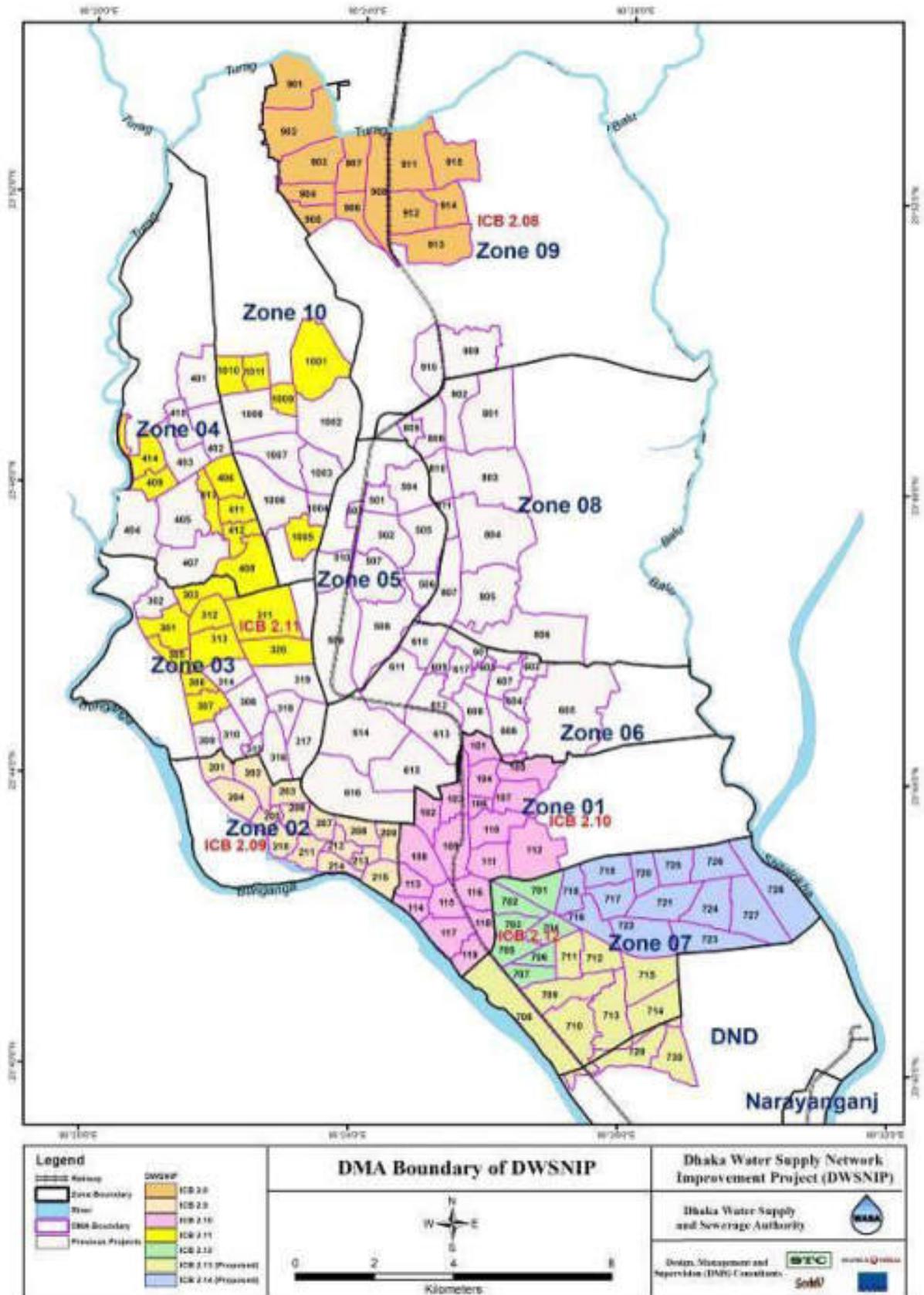


Table 1: Summary of Works in all Packages under DWSNIP (As of June, 2024)

ICB Packages	NCB Packages	MODS Zone	DMA Nos.	Design Pipeline Km	Service Connection nos. (as per BOQ)	Deep Tube well (nos.) ((as per BOQ))	Contract Amount (US\$ in Million)	Construction Duration days	Name of Contractor	Remarks
ICB 2.8	-	9	16	457.41	39,297	10	46.84	1745	CPP	Awarded
ICB 2.9	-	2	19	275.3	33,903	10	27.46	1658	CFMCC	As per final design, length has been changed
ICB 2.10	-	1	21	340.75	39,067	10	45.18	1126	CCSEB-RPL (JV)	As per final design, length has been changed
ICB 2.11	NCB-2.11A to 2.11D	3,4,10	21	453.41	44,841	-	53.89	1000	The Civil Engineers Ltd, RFL Plastic Ltd, PDL-AEDL-JV., M/S MAN Enterprise	Awarded
	NCB 2.6	3,4,10	-	-	-	09	0.72	365	M/S MAN Enterprise	Awarded
ICB 2.12	NCB-2.12A to 2.12E	7	8	163.95	16,100	-	19.42	540	Falgu Sandhani Ltd., HIETC-SRC JV, RFL Plastic Limited, The Civil Engineers Ltd.	Awarded
Total Civil Works			85	1690.82	173,208	39				

Source: DMS Consultants, June 2024

B. Purpose of the Report

3. This is the Semi-annual Environmental Monitoring Report (SEMR) prepared by PMU for the monitoring period of January-June, 2024. This SEMR provides the status of project, presents preparation and implementation of environmental management, mitigation and monitoring actions, and reports status of compliance with Environmental Management Plans (EMPs) and loan covenants.

C. Approach and Methodology

4. The report has been prepared through review and monitoring the necessary environmental compliances with respect to (i) Environmental safeguards, (ii) loan covenants and (iii) implementation of Environmental Management and Monitoring Plans of ADB approved IEE reports for all subprojects. The report also referred the Environmental covenants, Initial Environmental Examination report approved by ADB, Environmental Monitoring Reports and Aid- Memoires prepared by ADB. The approach and methodology include the following work plan.

5. Activity 1: Collection of relevant documents/reports included Initial Environmental Examination report approved by the ADB, Environmental Monitoring Reports and Aid-Memoires prepared by ADB etc.

6. Activity 2: On the basis of Environmental due diligence review conducted to strengthen and followed the agreed Environmental compliances. Major decisions have been taken to address the shortfalls identified and bridging the gaps.

7. Activity 3: Site visits were carried out for the Environmental monitoring of the sub projects. Checklists were prepared to monitor the Environmental safeguards. Focused Group Discussions were carried out for public consultations. The shortcomings observed during the field visits have been communicated with the Corrective Action Plan for remedial measures. The same have already been initiated by the PMU and PCU and the concerned contractors.

D. Environmental Categorization

According to ADB Safeguard Policy Statement, 2009

8. Sub projects under Five Packages (ICB 2.8, ICB 2.9, ICB 2.10, ICB 2.11 and ICB 2.12) under DWSNIP has been classified by ADB as environmental assessment category B (some negative impacts but less significant than category A) and the impacts of subprojects were assessed through Initial Environmental Examination (IEE), prepared according to ADB Safeguard Policy (SPS 2009).

According to National Laws and Regulations

9. As per Schedule 1 of ECR, 1997 all packages under DWSNIP are likely to be classified as red category (serial number 64 under ECR) which requires Environmental Clearance Certificate (ECC) from the Department of Environment (DoE). Maintaining all the formalities (after submission of EIA report, Feasibility report, Fees etc.), DWASA obtained ECC from DoE on June 12, 2019. As per condition of ECC (requirements of Renewal of ECC in every year), DWASA obtained First Renewal Certificate from DoE during June, 2020 (validity of which was up to June 2021), Second Renewal Certificate from DoE during June, 2021 (validity of which was up to June 2022) and Third Renewal Certificate from DoE during July, 2022 (validity of which was up to June 2023). And Forth renewal certificate from DoE during November, 2023 (validity of which is up to June, 2024) and Fifth renewal certificate from DoE in June 2024 (Validity of which is up to June, 2025). All renewal certificates obtained from DoE are attached in **Annex-3**

10. DWSNIP civil works is divided into five contracts (packages): ICB 2.8 covering 13 DMAs, ICB 2.9 covering 15 DMAs, ICB 2.10 covering 20 DMAs, ICB 2.11 (NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2), NCB 2.11D (Lot-1&2) NCB 2.6) covering 21 DMAs, and ICB 2.12 (NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D and NCB 2.12E) covering 8 DMAs.

11. Till 31st December, 2024, construction contract agreements have been signed for all five (5) packages under DWSNIP. Among 5 packages, ICB 2.8 signed contract for zone 9 on 9th May, ICB 2.9 signed contract for zone 2 on 22nd November, ICB 2.10 signed contract for zone 1 on 30th July, 2020, ICB 2.11 signed contract for zone 3, 4 and 10 on 4th April 2018 and ICB 2.12 signed contract for zone 7 on 26th November, 2020. However, construction contract agreements for ICB 2.11 and ICB 2.12 have been terminated and then rewarded again as NCB packages. Table 2 shows various subproject progress and status of the three ICB packages which are under construction.

Table 2 A: Subprojects Implementation status till June, 2024

Package Number	Designed Interventions	Status of Implementation			% of Progress of activities	Expected Completion Date
		Pipe line (Km)	House Connection (nos.)	DTW Headworks upgradation (nos.)		
ICB 2.08	DMA Nos. – 16 nos Pipeline – 455.8km Service Connections- 30,945 nos. Upgradation of DTW pump- 63 nos	455.59	30,945	63	99.60%	30.06.2023
ICB 2.09	DMA Nos: 19- DMAs Pipeline: 275 (km) Service Connections: 33903 (nos.) Upgradation of DTW pump: 57 (nos.)	272.03	31,860	58	100%	30.06.2023
ICB 2.10	DMA Nos. – 21 nos Pipeline – 474 km Service Connections- 45340 nos. Up gradation of DTW pump- 85 nos	471.72	41,570	73	99.02%	30.11.2024
NCB 2.11A	DMA Nos. – 06 nos Pipeline – 29.65 km Service Connections-9008 nos. Upgradation of DTW pump- 35 nos	27.15	7900	32	88%	31.12.2024
NCB 2.11B	DMA Nos. – 4 nos Pipeline – 94.79km	80.57	6,036	-	80.29%	30.10.2024

	Service Connections- 7,977nos. Upgradation of DTW pump- 28 nos					
NCB 2.11C Lot 1	DMA Nos. – 3 nos Pipeline – 68.84km Service Connections-7,154 nos. Upgradation of DTW pump- 20 nos	64.7	6,192	-	90%	30.10.2024
NCB 2.11C Lot 2	DMA Nos. – 3 nos Pipeline – 66.67km Service Connections-7,044 nos. Upgradation of DTW pump- 16 nos	57.5	5,217	-	91%	30.10.2024
NCB 2.11D Lot 1	DMA Nos. – 3 nos Pipeline – 66.80km Service Connections-8,567 nos. Upgradation of DTW pump- 18 nos	63.3	6,211	-	86%	30.10.2024
NCB 2.11D Lot 2	DMA Nos. – 02 nos Pipeline – 48.36 km Service Connections-5712 nos. Upgradation of DTW pump- 12 nos	44.00	5330	-	90%	30.10.2024
NCB 2.12A	DMA Nos. – 2 nos Pipeline – 34.5 km Service Connections-3101 nos. Upgradation of DTW pump- 7 nos	27.36	2019	-	79.30 %	30.06.2024
NCB 2.12B	DMA Nos: 2-DMAs Pipeline: 47.91 (km) Service Connections: 3821 (nos.) Upgradation of DTW pump: 9	35.12	1659	-	73.30%	29.09.2024

	(nos.)					
NCB 2.12C	DMA Nos: 2 DMAs Pipeline: 42.08 (km) Service Connections: 4543 (nos.) Upgradation of DTW pump: 4 (nos.)	38.34	2621	-	91.11%	29.09.2024
NCB 2.12D	DMA Nos. – 1 Pipeline – 26.31 km Service Connections- 2671nos. Up gradation of DTW pump- 2 Nos	25.75	2348	-	97.87%	30.07.2024
NCB 2.12E	DMA Nos. – 01 nos Pipeline – 27.55 km Service Connections-2908 nos. Upgradation of DTW pump- 3 nos	23.5	2000	1	65 %	31.12.2024

Source: DMS Consultants, June 2024

Table 2 B: Progress on Implementation of EMP (up to June, 2024)

Activity	ICB 2.08 (13-DMAs in 3-batches)	ICB 2.09 (15 DMAs in 4-batches)	ICB 2.10 (21 DMAs in 4-batches)	NCB 2.11 (21 DMAs in 6-NCB packages)	NCB 2.12 (8 DMAs in 5-NCB Packages)
Updating IEE Reports with site specific EMP	All DMAs Approved by ADB and disclosed	All DMAs Approved by ADB and disclosed	All DMAs Approved by ADB and disclosed	All NCB Packages Approved by ADB and disclosed	All NCB Packages Approved by ADB and disclosed
Monitoring and Reporting					
Monthly internal progress reports	All monthly reports under 5 different packages (ICB 2.10, NCB-2.11A, NCB 2.11B, NCB 2.11C; Lot-1, NCB 2.11C; Lot-2, NCB 2.11D; Lot-1, NCB 2.11D; Lot-2, NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E) prepared by the Contractors during construction, submitted to DMS and PMU. These monthly reports include; (a) physical progress of each component; (b) mitigation measures implemented; (c) grievances received and resolved as directed in GRM				
Quarterly Progress Reports (QPR)	Quarterly Progress Report on performance of contractors on EMP implementation has been submitted till March 2024 (started since commencement)				
Semi-annual Environmental Monitoring Reports (SEMR)	12 th – SEMRs submitted and approved and 13 th SEMR – now being sent for approval				
Environmental Quality Monitoring					
Activity	ICB 2.08	ICB 2.09	ICB 2.10	NCB 2.11	NCB 2.12
Air Quality Sampling and Testing (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	Pre construction Phase monitoring – completed all DMAs	Pre construction Phase monitoring – completed all DMAs	Pre construction Phase monitoring – completed all DMAs	NCB 2.11A Pre construction Phase monitoring – completed all DMAs	NCB 2.12A Pre construction Phase monitoring – completed all DMAs
	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction Phase monitoring has not been done during reporting time.
				NCB 2.11B Pre construction Phase monitoring – completed all DMAs	NCB 2.12B Pre construction Phase monitoring – completed all DMAs
				Construction	Construction

				phase monitoring - completed in DMA 307	Phase monitoring has not been done during reporting time.
				<p>NCB 2.11C, L-1 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction phase monitoring - completed in DMA 406, DMA 411, DMA 412</p>	<p>NCB 2.12C Pre construction Phase monitoring – completed all DMAs</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11C, L-2 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction phase monitoring - completed in DMA 409</p>	<p>NCB 2.12D Pre construction Phase monitoring – completed all DMAs</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11D, L-1 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction phase monitoring - completed in DMA 1010</p>	<p>NCB 2.12E Pre construction Phase monitoring – completed all DMAs</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11D, L-2 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction</p>	

				Phase monitoring has not been done during reporting time	
Noise (dBA for day and night time)	Pre construction Phase monitoring – completed all DMAs	Pre construction Phase monitoring – completed all DMAs	Pre construction Phase monitoring – completed all DMAs	NCB 2.11A Pre construction Phase monitoring – completed all DMAs	NCB 2.12A Pre construction Phase monitoring – completed all DMAs
	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction phase monitoring - completed in all DMAs.	Construction Phase monitoring has not been done during reporting time
				NCB 2.11B Pre construction Phase monitoring – completed all DMAs	NCB 2.12B Pre construction Phase monitoring – completed all DMAs
				Construction phase monitoring - completed in DMA 307	Construction Phase monitoring has not been done during reporting time
				NCB 2.11C, L-1 Pre construction Phase monitoring – completed all DMAs	NCB 2.12C Pre construction Phase monitoring – completed all DMAs
				Construction phase monitoring - completed in DMA 406, DMA 411, DMA 412	Construction Phase monitoring has not been done during reporting time
				NCB 2.11C, L-2 Pre construction Phase monitoring – completed all DMAs	NCB 2.12D Pre construction Phase monitoring – completed all DMAs
				Construction phase monitoring -	Construction Phase

				completed in DMA 409	monitoring has not been done during reporting time
				<p>NCB 2.11D, L-1 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction phase monitoring - completed in DMA 1010</p>	<p>NCB 2.12E Pre construction Phase monitoring – completed all DMAs</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11D, L-2 Pre construction Phase monitoring – completed all DMAs</p> <p>Construction Phase monitoring has not been done during reporting time</p>	
Surface Water Quality (SS, pH, DO, BOD5, COD, As, Cl, Fe, Mn)	<p>Pre-construction phase monitoring – completed in DMA903, DMA904, DMA906, DMA907, DMA908</p> <p>Construction phase –completed in DMA903, DMA904, DMA906, DMA907</p>	<p>Pre construction Phase monitoring-completed in (DMAs 203, 207, 208, 209 and 215);</p> <p>Construction Phase monitoring completed in DMAs 203, 208, 209 and 215</p>	<p>Preconstruction Phase monitoring completed in DMA101, DMA102, DMA103, DMA104, DMA105, DMA106, DMA107, DMA108A, DMA108B, DMA109A, DMA109B, DMA110, DMA111, DMA112, DMA113, DMA114, DMA115, DMA116, DMA117, DMA118, DMA119</p>	<p>NCB 2.11A Preconstruction Phase monitoring has not been done during reporting time Construction Phase monitoring has not been done during reporting time</p> <p>NCB 2.11B Preconstruction Phase monitoring – completed in DMA 305, Construction Phase monitoring has not been done during reporting</p>	<p>NCB 2.12A Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done during reporting time</p> <p>NCB 2.12B Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done</p>

			Construction phase monitoring - completed in DMA101 DMA105 DMA107 DMA108A DMA108B DMA113 DMA114 DMA115 DMA116	time	during reporting time
				NCB 2.11C, L-1 Preconstruction Phase monitoring – completed in DMA 406, DMA 411 Construction Phase monitoring has not been done during reporting time	NCB 2.12C Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done during reporting time.
				NCB 2.11C, L-2 Preconstruction Phase monitoring – completed in DMA 409, Construction Phase monitoring has not been done during reporting time	NCB 2.12D Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done during reporting time
				NCB 2.11D, L-1 Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done during reporting time	NCB 2.12E Preconstruction Phase monitoring – has not been done during reporting time Construction Phase monitoring has not been done during reporting time
				NCB 2.11D, L-2 Preconstruction Phase monitoring – has not been done during reporting time	

				Construction Phase monitoring has not been done during reporting time	
Groundwater Quality ((pH, DO, BOD5, COD, As, Cl, Fe, Mn and Total Coliform)	Pre construction Phase monitoring – completed all DMAs	Pre construction Phase monitoring completed in all DMAs	Preconstruction Phase monitoring completed in DMA101 DMA102 DMA103 DMA104 DMA105 DMA106 DMA107 DMA108A DMA108B DMA110 DMA113 DMA114 DMA115 DMA116 DMA118 DMA119	NCB 2.11A Preconstruction Phase monitoring – completed in DMA301, DMA303, DMA306, DMA311, DMA320, DMA408	NCB 2.12A Preconstruction Phase monitoring completed in DMA 701A and DMA 701B Construction Phase monitoring has not been done during reporting time
	Construction phase monitoring - completed in DMA 901, DMA 902, DMA 903, DMA 904, DMA 905, DMA 906, DMA 907, DMA 911, DMA 912, DMA 913, DMA 914 and DMA 915	Construction Phase monitoring completed in DMAs 201, 203, 204, 205, 206, 208, 209, 210, 213, 214 and 215	Construction phase monitoring - completed in DMA101 DMA105 DMA107 DMA108A DMA108B DMA113 DMA114 DMA115 DMA116	NCB 2.11B Preconstruction Phase monitoring – completed in DMA 305, DMA 307, DMA 312, DMA 313	NCB 2.12B Preconstruction Phase monitoring completed in DMA702, DMA703 Construction Phase monitoring has not been done during reporting time
				Construction phase monitoring - completed in DMA 307	NCB 2.11C, L-1 Preconstruction Phase monitoring – completed in DMA 406, DMA 411, DMA 412
				Construction phase monitoring has not been done during reporting time	

				<p>NCB 2.11C, L-2 Preconstruction Phase monitoring – completed in DMA 409, DMA 413, DMA 414</p> <p>Construction phase monitoring - completed in DMA 409</p>	<p>NCB 2.12D Preconstruction Phase monitoring completed in DMA704</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11D, L-1 Preconstruction Phase monitoring – completed in DMA 1005, DMA 1010, DMA 1011</p> <p>Construction phase monitoring - completed in DMA 1010</p>	<p>NCB 2.12E Preconstruction Phase monitoring completed in DMA705</p> <p>Construction Phase monitoring has not been done during reporting time</p>
				<p>NCB 2.11D, L-2 Preconstruction Phase monitoring – completed in DMA 1001, DMA 1009</p> <p>Construction Phase monitoring has not been done during reporting time</p>	

II. SAFEGUARDS COMPLIANCE STATUS

A. Compliance of Safeguard Loan Covenants

12. The loan agreement for DWSNIP was signed on 17th July 2016 between PEOPLE'S REPUBLIC OF BANGLADESH ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB"). Table 3 provides a summary of compliance to the loan covenants related to environmental Safeguards.

Table 3: Compliance of Loan Covenants- Environment Part

Loan agreement schedule and Program Specific Covenants	Status / Issues
Procurement of Goods, Works and Consulting Services	
<p><u>Loan Agreement Schedule 4 Item 7</u> Conditions of Works' Commencement: DWASA shall issue a notice to commence Works after having clearance from DOE: (a) Any Work involves with environmental impacts shall be granted with the DoE-approval in IEE (b) Incorporated the relevant provisions from the EMP into the Works contract</p>	<p>DWASA obtained Environmental clearance certificate for DWSNIP-subprojects from Department of Environment on June 12, 2019.</p> <p>Incorporated EMP into the Civil works contract for ICB 2.8, ICB 2.9, ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2), NCB 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D and NCB 2.12E</p>
Safeguards Environment	
<p><u>Loan Agreement Schedule 5 Item 5</u> Conditions of Works' Commencement The Borrower shall ensure or cause the DWASA to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all projects' facilities comply with all applicable laws and regulations of the Borrower relating to environment, health, and safety; Measures and requirements set forth in the EMP, including corrective measures against any impact that occurs during implementation</p>	<p>IEE reports are with the Environmental Management Plan which describes the specific activities to be performed in preparation and design phases including in operation phases. All the anticipated impacts were identified and mitigation measures were included in the IEE/EIA reports The DoE agreed and issued the environmental clearance certificates before commencement of works.</p> <p>All measures and requirements as prescribed in IEE/EIA and EMP is considered during implementation. Civil works has started for all awarded packages.</p>
Human and Financial Resources to Implement Safeguards Requirements	
<p><u>Loan Agreement; Schedule 5 Item 9</u> Conditions of Works' Commencement The Borrower shall make available, or cause the DWASA to make available, all necessary budgetary and human resources to fully implement the EMP required.</p>	<p>All the Environment and Social safeguard positions in the PMU and DMSC including the Safeguard People under each package has been ensured before commencement of works.</p>
Safeguards - Related Provisions in Bidding Documents and Works Contracts	
<p><u>Loan Agreement Schedule 5 Item 10</u> Conditions of Works' Commencement The Borrower shall ensure, or cause the DWASA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures against each item of EMP, and the final RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards</p>	<p>Complied</p> <p>(a) All the anticipated measures were included in the EMPs those were included in the EIA report of DOE and updated IEE reports and approval obtained from DOE and ADB. All the measures were included in the bidding documents.</p> <p>(b) Included in Section 8: Special Conditions of the Contract, Item 47</p> <p>(c) Included in Section 8: Special Conditions of</p>

Loan agreement schedule and Program Specific Covenants	Status / Issues
<p>Monitoring Report;</p> <p>(b) make available a budget for all such environmental measures;</p> <p>(c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and the RP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) Reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>the Contract, Item 22.1.2</p> <p>(d) Included in Section 8: Special Conditions of the Contract, Item 21.1.</p> <p>(e) Included in Section 8: Special Conditions of the Contract, Item 24.9</p>
Safeguards Monitoring and Reporting	
<p><u>Loan Agreement Schedule 5 Item 11</u> Conditions of Works' Commencement The Borrower shall cause the DWASA to do the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, and the RP promptly after becoming aware of the breach.</p>	<p>(a) Being complied with this is 13th Semi-annual safeguard monitoring on Environment for the period January-June, 2024. The previous SEMR were "recorded as "submitted" and disclosed on ADB/DWASA website https://www.adb.org/sites/default/files/project-documents/47254/47254-003-emr-en_16.pdf All other previous SEMRs were also approved and recorded in ADB/DWASA website.</p> <p>(b) and (c) Complied The requirement to report any unanticipated environmental impacts with detailed propose correction action is included in the SEMR template.</p>
Prohibited List of Investments (Safeguards Covenant)	
<p><u>Loan Agreement Schedule 5 Item 12</u> Conditions of Works' Commencement The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>	<p>Complied The condition is included in the Project Administration Manual (PAM) and the possibility of such happening is nil.</p>

Labor Standards Health and Safety	
<p><u>Loan Agreement Schedule 5 Item 13</u> Conditions of Works' Commencement The Borrower shall ensure that core labor standards and the Borrower's applicable laws and regulations are compiled during project implementation. The borrower shall include specific provisions in the bidding documents and contracts financed by ADB that the contractors shall; (a) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) not use child labor; (c) not discriminate workers in respect of employment and occupation; (d) not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, formation on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women. The Borrower shall strictly monitor compliance with the requirements set forth above and provide ADB with regular reports</p>	<p>Complied in document and to be complied during implementation</p> <p>Provision is included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labors (preferably from economically backward group) covering women labors.</p> <p>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.</p> <p>All activities including awareness program is reflected in "Monitoring Report".</p> <p>Civil works contractor (ICB 2.8, 2.9, 2.10 and 2.11 prepared Health and Safety Plan in response to COVID 19 pandemic and approved by PMU as well as ADB.</p>

Table: Implementation status of CAP recommended by ADB review mission

Sl.	Recommended Corrective Action Measures	January-June, 2024	Implementation Status	Remarks
1	The Mission discussed construction related other issues and concerns, particularly dust problem, uncovered trenches following pipe installation, excavated soil, and inadequate traffic signage raised by local community during the stakeholder consultation and advised to take measures to improve the situation by the contractor.	During this period	Mitigation measures have been taken on regular basis; spraying water and covering soil to mitigate dust problems, covering trenches during pipe installations, removing excavated soils, placing traffic signage practicing by contractor	
2	Preparation of IEE. The Mission also discussed about 5 NCB 2.12 packages IEE report		All 5 NCB 2.12 packages IEE report have been approved and disclosed	
	(iii) continuation of the environmental quality monitoring for the remaining DMAs,		Continuation ongoing of the environmental quality monitoring for the remaining DMAs.	
	(iv) timely submission of SEMRS, and		Timely submitting of SEMRS	

	(v) continue capacity building sessions for construction workers to raise awareness on OHS.		Continuation ongoing for capacity building sessions for construction workers to raise awareness on OHS by trainings and toolbox meetings	
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B. Compliance status with National/Local statutory environmental requirements with Environmental Statutory Clearance

13. Before implementation of the project, compliance with environmental policy, law and legislation is necessary.

14. DWASA with the assistance of the consultant teams, has prepared EIA Report and submitted to DoE and presentation on EIA report has done at DoE office on April 1, 2019. PMU submitted revised EIA report to DoE incorporating all comments and got Environmental Clearance Certificate on June 12, 2019. DoE issued 1st ECC renewal on August 18, 2020 which is valid until June 12, 2021, 2nd ECC renewal on June 30, 2021 which is valid until June 12, 2022 and 3rd ECC renewal on July 24, 2022 which is valid until June 12, 2023. 4th ECC renewal on November 14, 2023 which is valid until June 12, 2024. 5th ECC renewal on June 25, 2024 which is valid until June 12, 2025. **(please refer to Annex-3 for ECC from DOE).**

15. Under DWSNIP present status of relevant permits and statutory clearance are mentioned in Table 4 on next page.

Table 4: Status of Permit and Statutory Clearance (till reporting period)

ICB & NCB packages	Compliances	Status
ICB-2.08: Batch-1, 2, 3 & 4	Environmental clearance from DOE	Obtained for all batches
	Updated IEE – approved by ADB	Done for all Batches
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly (Gas Line, Electricity, Sewerage line etc.)	Well-identified before construction work started.
ICB-2.09: Batch- 1,2,3,4	Environmental clearance from DOE	Obtained for all batches
	Updated IEE – approved by ADB	Done for all Batches
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs.
	Utility services – identification and measures accordingly	Well-identified before construction work started.
ICB-2.10: Batch- 1,2,3,4	Environmental clearance from DOE	Obtained for all batches
	Updated IEE – approved by ADB	1 st , 2 nd and 3 rd batches – Approved, 4 th batch preparation on process.
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11A	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11B	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11C; L-1	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11C; L-2	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11D; L-1	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs

	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.11D, L-2	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.12A	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.12B	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.12C	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.12D	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work
NCB 2.12E	Environmental clearance from DOE	Environmental clearances obtained from DOE
	Updated IEE – approved by ADB	Approved
	Road cutting permission from City Corporation	Road cutting permission obtained for all DMAs
	Utility services – identification and measures accordingly	Identify the all utility before starting of work

C. Implementation Arrangements

16. The PMU have a Safeguard Implementation Unit (SIU) staffed with three officers - 1 Environmental Officer, 1 Social Officer, and 1 Gender Officer - at executive engineer level. The SIU has been assisted by relevant safeguard specialists in the DMS teams to implement safeguards.

17. The responsibilities of the Environmental Officer of SIU ensure that (i) environmental safeguard issues are addressed; (ii) EMP/approved SEP is implemented;

(iii) physical and non-physical activities under the subproject are monitored; and (iv) monitoring reports are prepared on time and submitted to ADB.

18. PMU has been supported by the Design Management and Supervision Consultants (DMS). An Environment Specialist has been engaged to ensure: (i) EMP/ approved SEP is implemented; (ii) surveys and measurements are undertaken; (iii) inspections and observations throughout the construction period are recorded to ensure that safeguards and mitigation measures are provided as intended; and (iv) statutory clearances and permits from government agencies/other entities are obtained prior to start of civil works.

19. Project coordination unit (PCU) in each zone (zone 1,2,3,4,7,9,10), headed by an executive engineer, are responsible for liaising and coordinating with the contractors, DMS, NGO and other stakeholders on all day-to-day implementation of distribution network improvement work under the project.

20. The three (3) safeguards experts were hired in the PMU; seven (7) executive engineers were hired in the project coordination unit (PCU) and DMS Environmental Specialist, Resettlement Specialist, Social Development/Gender Expert and Environmental Inspector has already been mobilized. Table 5 shows detail of safeguards Team and Figure 2 shows the status of permit and statutory clearance for DWSNIP till this reporting period.

Table 5: Safeguards Team

Name	Designation/Office	Email Address	Contact Number
PMU			
1. Jeni Chakma	Executive Engineer (Environmental Expert in charge)	tongla11@yahoo.com	+8801553266545
2. Sharmin Haque Amir	Executive Engineer (Resettlement Expert in charge)	sharmine.amir@gmail.com	+880171502568
3. Sazia Afrin	Executive Engineer (Gender Expert in charge)	Sazia004@gmail.com	+8801716332483
PCUs			
1. Md. Mujahidur Rahman	Executive Engineer MODS Zone-9 (ICB 2.8)	Mujahid_buet@yahoo.com	+8801723944481
2. Md. Firoz Alom	Executive Engineer MODS Zone-2 (ICB 2.9)	firoz.alom_dw@yahoo.com	+8801819229415
3. Md. Al Amin	Executive Engineer MODS Zone-1 (ICB 2.10)	m.alamin.dwasa@gmail.com	+8801819229419
4. Jayanta Saha	Executive Engineer MODS Zone-3 (ICB 2.11)	jayanta2k7@gmail.com	+8801819229418
5. Md. Mazharul Islam	Executive Engineer MODS Zone-4 (ICB 2.11)	marufdwasaz9@gmail.com	+8801819229417
6. Md. Ashraful Habib, Choudury	Executive Engineer MODS Zone-10 (ICB 2.11)	ashraf9910127@gmail.com	+880181714495
7. Md. Shah Alam	Executive Engineer MODS Zone-7 (ICB 2.12)	abid310@gmail.com	+8801763051234
DMS Consultants			
1. Jannatul Ferdous Barsha	Environmental Inspector	engr.barsha12@gmail.com	+8801755388383
2. Ruksana Begum	Social Development/Gender Expert	bruksana2003@yahoo.com	+8801711824537

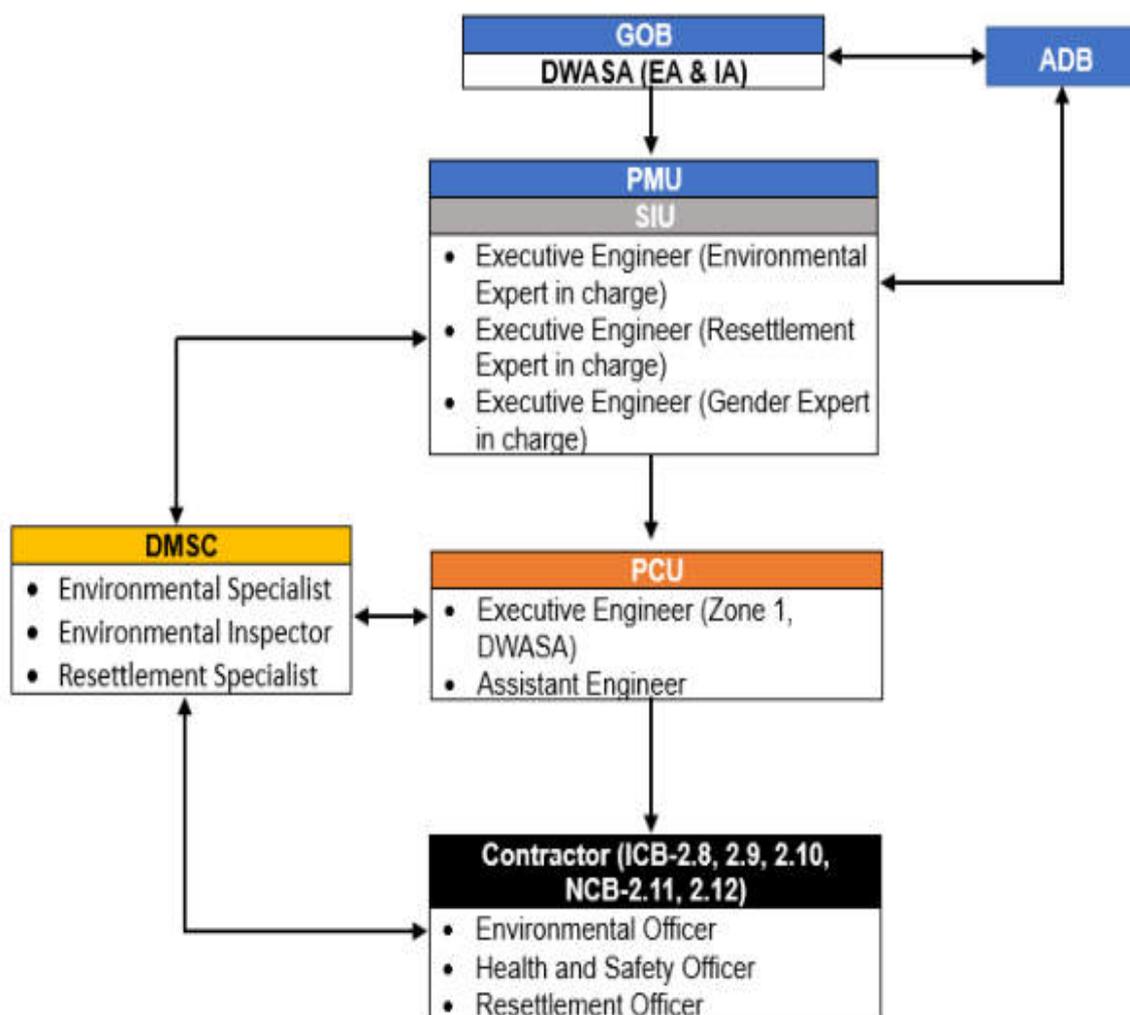


Figure 2: Safeguard Implementation Arrangements

21. The Contractor is responsible for the following activities:
- (i) Submitting the Site environmental plan (SEP) for the proposed sites/locations for construction work camps, storage areas, hauling roads, lay down areas, disposal areas for solid and hazardous wastes
 - (ii) Complying with all applicable legislations and requirements of the approved SEP;
 - (iii) Briefing the staff, employees, and laborer about the requirements of the EMP/ approved SEP;
 - (iv) Ensuring the sub-contractors and suppliers engaged in the works to comply with the environmental requirements as per EMP/SEP because the Contractor is held responsible for non-compliance on sub-contractors' behalf;
 - (v) Supply method statements for all activities requiring special attention as specified and/or requested by the DMS Environmental team during Contract period;
 - (vi) Provide environmental awareness training to staff, employees, and laborers;
 - (vii) Bear the costs of any damages/compensation resulting from non-adherence to the EMP/ approved SEP or written site instructions;
 - (viii) Conduct all activities in a manner that minimizes disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment.

- (ix) Ensure that the PMU Environment Officers are timely informed of any foreseeable activities that requires input from the DMS Environmental Team.

22. During reporting period, all awarded civil contract packages were mobilized Environment, Resettlement and Health and safety Officers for implementation of EMP during works implementation. The details are as follows:

Table 6: Contractor's EHS Personnel

Name	Designation	Contact no.
ICB 2.10		
Md. Sharif Ullah	Resettlement officer	01844659354
Farzana Islam Khan	Environmental Engineer	01847468487
Md. Shakil Mridha	Health and Safety officer	0189495759
Sujhon Chandra Saha	Health and Safety officer	01844665664
Istiak Arifin Hridoy	Health and Safety officer	01844606173
Anas Ahmmmed Shuva	Health and Safety officer	01844664699
Md. Tanvir Hossain	Health and Safety officer	01844200375
Md. Sabbir Hossain	Health and Safety officer	01844664160
Parag Rana Partho	Health and Safety officer	01896007301
NCB 2.11A		
Md. Emon Afroj	Health and Safety officer	01925155247
Md. Anower Hossain	Resettlement officer	01678224507
Md. Jakirul Islam	Resettlement officer	01844664699
Md. Suruj Mia	Health and Safety officer	01710738031
Md. Rabiul Islam	Environmental Engineer	01678224521
Sujhon Chandra Saha	Safety officer	01844665664
NCB 2.11B, NCB 2.11C (Lot-1&2), NCB 2.11D (Lot-1)		
Md. Kauser Hossen	QHSE Manager	01844665521
Abu Hayat Ben Zakaria	Deputy Environment Manager	01746505906
Md. Saiful Islam	QHSE In-charge	01844664558
Sayedur Rahman	HSE Engineer	01704132779
Sujoy Kumar	HSE Engineer	01704132899
Shamim Rahman	HSE Engineer	01755346743
NCB 2.11D (Lot-2)		
Md. Anwarul Iqbal	Environmental Officer	01552647937
Debomay Mondal	Resettlement Officer	01304354710
Md. Ruhul Amin	Health & Safety Officer	01709388511
Md. Shah Alom	Health & Safety Officer	01711616301
Md. Barkat	Traffic control officer	01718277591
Md. Sujan Miah	Traffic control supervisor	01711616301
Md Ashraful	Traffic control supervisor	01823557327
NCB 2.12A		
Md. Shakel Kawser	Health and Safety officer	01739412054
Md. Faruk Ahamed	Resettlement officer	01723759130
Md Sayeduzzaman	Environmental Engineer	01719689337
Md. Swaikot	Safety officer	01795532721
Md. Al Amin	Traffic control officer	01609171250
NCB 2.12B & NCB 2.12C		

Sheikh Atiqur Rahman	EHS Officer	01798117871
Abdus Salam	Health & Safety Supervisor	01721748671
Md. Sabbir Rahman	Health & Safety Supervisor	01760586692
Md. Mahmudul Hasan	Health & Safety Supervisor	01798216317
Md. Shuhel Rana	Health & Safety Supervisor	01728679458
NCB 2.12D		
Md. Sharif Ullah	Resettlement officer	01844659354
Farzana Islam Khan	Environmental Engineer	01847468487
Md. Shakil Mridha	Health and Safety officer	0189495759
Sujhon Chandra Saha	Health and Safety officer	01844665664
Istiaq Arifin Hridoy	Health and Safety officer	01844606173
Anas Ahmmmed Shuva	Health and Safety officer	01844664699
Md. Tanvir Hossain	Health and Safety officer	01844200375
Md. Sabbir Hossain	Health and Safety officer	01844664160
Parag Rana Partho	Health and Safety officer	01896007301
NCB 2.12E		
Md. Rakibul Hassan	QHSE Manager	01737335900
Md. Saim Mia	HSE In-charge	01403370709
Md. Emon Afroj	HSE Engineer	01925155247
Sarder Asaduzzaman	HSE Engineer	01678224510
Md. Abu Saleh	QHSE In-charge	01678224529

23. **Reporting Arrangement.** Contractor of each ongoing package monitored safeguard implementation on daily basis, while DMS team reviewed safeguard implementation weekly. The Environmental Team of DMSC, after reviewing, advised contractor for corrective measures. Monthly report summarizing observation, compliance and corrective measures were prepared by Environmental Officer of Contractor. Quarterly monitoring report was prepared by the DMS Consultants on performance of contractors on EMP implementation. Then reports were forwarded to PMU from DMSC for observation, review and record. Based on monthly and quarterly reports and site observations, PMU through the support from DMS Consultants reviewed and consolidated the semi-annual environment monitoring report for submission to ADB.

III. ENVIRONMENTAL MANAGEMENT AND MONITORING COMPLIANCES

24. This section presents the compliance status of Environmental Management and Monitoring Plans of DWSNIP subprojects under 3-ICB packages and 6-NCB packages with implementation and rehabilitation of different activities mentioned below:

Table 7: Implementation and rehabilitation of different activities

Work packages	Concerned DMAs	Interventions as per Bid Document		
		Pipeline (Km)	House Connection (no.)	DTW (no.)
ICB 2.08	DMA 903, DMA 904, DMA 906, DMA 907, DMA 905, DMA 908, DMA 912, DMA 913, DMA 915, DMA 911, DMA 902, DMA 901, DMA 914, DMA 908	455.8	30,945	63
ICB 2.09	DMA 201, DMA 202, DMA 203, DMA 204A, DMA 204B, DMA 205, DMA 206, DMA 207, DMA 208A, DMA 208B, DMA 209A, DMA 209B, DMA 210A, DMA 210B, DMA 211, DMA 212, DMA 213, DMA 214 and DMA 215	266.23	31,860	58
ICB 2.10	DMA 101, DMA 105, DMA 108B, DMA 102, DMA 103, DMA 106, DMA 104, DMA 110, DMA 118, DMA 119, DMA 109A, DMA 109B, DMA 111, DMA 112, DMA 117	341.5	39067	75
NCB 2.11A	DMA 301, DMA 303, DMA 306, DMA 311, DMA 320, DMA 408	25	7500	30
NCB 2.11B	DMA 305, DMA 307, DMA 312, DMA 313	94.79	7,977	28
NCB 2.11C Lot 1	DMA 406, DMA 411, DMA 412	68.84	7,154	20
NCB 2.11C Lot 2	DMA 409, DMA 413, DMA 414	66.67	7,044	16
NCB 2.11D Lot 1	DMA 1005, DMA 1010, DMA 1011	66.80	8,567	18
NCB 2.11D Lot 2	DMA 1001 & DMA 1009	48.36	5712	12
NCB 2.12A	DMA 701A, DMA 701B,	32	3102	6
NCB 2.12B	DMA 702, DMA 703	43	4368	7
NCB 2.12C	DMA 706, DMA 707	42	4230	3
NCB 2.12D	DMA 704	27	5021	2
NCB 2.12E	DMA 705	30	5093	3

25. The site inspections, for EMP compliances, were conducted on regular basis by the Assistant Resident Engineers/ Sub Assistant Resident Engineers of DMSC. Joint

meetings among the PMU-PCU, DMSC and Contractors were organized whenever the environmental and safety issues were identified, and corrective actions were requested.

26. For implementation of EMP, arrangement of human safety, provision of PPE for workers engaged in construction is being implemented. Trainings were provided to the contractor by DMSC's Environmental Team. Moreover, instruction was given to contractors to follow the specified clause of BID document to mitigate environmental and social impacts.

27. Construction site monitoring is a continuous process. All ongoing construction sites of ICB 2.08, ICB 2.09, ICB 2.10 and NCB (2.11A to 2.11D, 2.6), NCB (2.12A to 2.12E) are monitored on a daily basis by contractors EHS team as well as assistant resident engineer/sub assistant resident engineer of DMSC to make sure the contractors are compliant according to their respective EMP. In addition to that Joint site inspections of the PMU-PCU, DMSC and contractors are conducted to evaluate the same. The summary of site visits is listed in the following table.

Table: Environment and Safety Monitoring Activities

Mission/Task	Date	Location of Site Visits/DMA	Conducted by Whom
Monitoring on Contractor's EMP compliance	Daily	All ongoing construction sites of ICB 2.10, NCB 2.11, NCB 2.12 Packages.	Assistant Resident Engineer/Sub Assistant Resident Engineer of DMSC
Monitoring on EMP implementation and compliance for Semi-annual Environmental Report	ICB 2.10		Joint site inspections of the PMU-PCU, DMSC and Contractors
	12.03.2024 27.03.2024	DMA 109A, DMA 109B	
	17.04.2024	DMA 111	
	19.05.2024	DMA 112	
	NCB 2.11B		
	19.01.2024	DMA 313	
	26.02.2024	DMA 312 & DMA 313	
	30.05.2024	DMA 307	
	NCB 2.11C Lot-1		
	17.04.2024	DMA 411	
	11.06.2024	DMA 412	
	NCB 2.11C Lot-2		
	21.05.2024	DMA413	
	NCB 2.11D Lot-2		
	10.02.2024	DMA 1001	
	11.03.2024	DMA 1009	
	NCB 2.12A		
	10.05.2024	DMA 701A	
	13.06.2024	DMA 701B	
	NCB 2.12B		
03.04.2024	DMA 702 & DMA 703		

	NCB 2.12C	
	25.05.2024	DMA 706 & DMA 707
	NCB 2.12D	
	17.03.2024	DMA 704
	NCB 2.12E	
	18.05.2024	DMA 705

28. Observation regarding Environmental Condition at different DMA sites due to construction work activities are as follows:

29. **Safeguard Compliances under ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2), NCB 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E**

ICB 2.10

- Water spraying was done regularly.
- Excavated materials were removed from the construction site immediately.
- Emergency contact details was also available on the site
- Temperature screening facility, first aid box, hand washing facilities were available on the site

NCB 2.11B

- First Aid Box, fire extinguisher, drinking water for workers and Help Desk were available in the site.
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) were sufficient
- Workers were reluctant to wear face masks
- Posters or signages regarding COVID 19 prevention measures were missing in and around the construction sites.

NCB 2.11C Lot-1

- First Aid Box, fire extinguisher, drinking water for workers and help desk were not available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was sufficient.
- Occupational health and safety trainings are provided irregularly.
- Traffic Flagman/Traffic controller was not available on construction site.

NCB 2.11D Lot-2

- First Aid Box, fire extinguisher, drinking water for workers and help desk were available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was sufficient.
- Traffic Flagman/Traffic controller was not available on construction site.

NCB 2.12A

- First Aid Box, fire extinguisher, drinking water for workers and help desk were available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was sufficient.
- Traffic Flagman/Traffic controller was not available on construction site.

NCB 2.12B

- First Aid Box, fire extinguisher, drinking water for workers and help desk were not available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was insufficient.
- Traffic Flagman/Traffic controller was available on construction site.

NCB 2.12C

- First Aid Box, fire extinguisher, drinking water for workers and help desk were available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was insufficient.
- Traffic Flagman/Traffic controller was not available on construction site.

NCB 2.12D

- First Aid Box, fire extinguisher, drinking water for workers and help desk were available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was sufficient.
- Traffic Flagman/Traffic controller was not available on construction site.

NCB 2.12E

- First Aid Box, fire extinguisher, drinking water for workers and help desk were not available in all of the sites
- Traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) was sufficient.
- Traffic Flagman/Traffic controller was not available on construction site.

30. Compliance to EMP for the Package ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2) and NCB 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E

Proper measures were undertaken during planning, design and implementation phases including measures during operation phases were maintained in all packages. In the reporting period; works were running under ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2) and NCB 2.11D (Lot-1&2). The implementation status of DWSNIP interventions has been illustrated in table-1 and table 2-A. Implementation of EMP as well as to follow the safeguard compliances were followed in all the DMAs under ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2) and NCB 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E packages. A sample safeguards compliance status under both packages are illustrated in the table:

Table: Compliance to EMP for the Package ICB 2.10, NCB 2.11A, NCB 2.11B, NCB 2.11C (Lot-1&2) and NCB 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E (all running DMAs)

Activity	Mitigation Measures	Responsible for		Parameter to Monitor	Frequency of Monitoring	Location	Compliance Status
		Implementation	Monitoring				
Planning, Design and Operation Stages							

Activity	Mitigation Measures	Responsible for		Parameter to Monitor	Frequency of Monitoring	Location	Compliance Status
		Implementation	Monitoring				
Contractor's Responsibility	<ul style="list-style-type: none"> Familiar with traffic system, rules and regulation of Dhaka City and road cutting plans before works; Arrangement of temporary water supply to meet any disturbance of water supply during works Protect all utility services from damage during works Road survey, existing utility services were recorded. 	Contractor	DMS/PCU/PMU	Road cutting plan Arrangement for temporary water supply Precaution for utilities around	As required in the program of performance	N/A	<ul style="list-style-type: none"> The Contractor prepared road cutting plans for all DMAs. Temporary water supply arrangement made for the disconnected HH from the regular water supply. Shifting of any utility was not required and all damages has been repaired.
Earth filling after pipe laying works (minimum depth of filling)	Ensuring 1.0 m soil cover either in trench cutting or open cut after pipe laying	Contractor	DMS/PCU/PMU	Residual design life and proposed method of repair	As required in the program of performance	Each DMA sites	Maintained minimum coverage 1 m after pipe laying
Working hours and times	Work at night in heavy traffic road 7pm-7am and working in day time roads with less traffic volume	Contractor	DMS/PCU/PMU	Work hours	As required in the program of performance	Each DMA sites	Timing maintained properly and extra precautions maintained with some diversion in some places
Road Crossing	Trenchless method used on roads with heavy traffic and open cut method for	Contractor	DMS/PCU/PMU	Construction method statement	Construction method of statement	Each DMA sites	About 22% pipeline installed through open trench

Activity	Mitigation Measures	Responsible for		Parameter to Monitor	Frequency of Monitoring	Location	Compliance Status
		Implementation	Monitoring				
	narrow roads Horizontal Drilling (HDD) method done taking care to other utilities						method
Road Cutting	Safeguard arrangement for utility services around Preventive measures to avoid accident Traffic management plan with planning of road signage and diversion arrangement	Contractors prepared and applied for road cutting permission from DCC and works started after permission from DCC	DMS/PMU	<ul style="list-style-type: none"> Road category along pipe alignments Road Cutting Plan & Road cutting permission from DCC 	Prior to start works (trial pit and layout of pipes)	Each DMA sites	<p>Ensured road cutting permit prior to works.</p> <p>Numbers of Road Blocker, safety items, Divider, Cones and other items were used at worksite.</p>
Road Excavation	Excavation width was maintained with minimum dimension The excavation carried out in quicker mode to avoid sufferings All excavations were with precaution to avoid structure-damage or to other utilities	Contractors for preparation of road cutting plan, application for permission, and payment for pavement restoration	DMS/PMU	Road category along pipe alignments Budget allocation for pavement restoration Road Cutting Plan Road cutting permission from DCC	Prior to start of works (trial pit and layout of pipes)	Each DMA sites	<p>Long waiting period for road cutting permission from DCC is hampering the progress</p> <p>The Flag man with a road supervisor worked for traffic diversion where required</p>
Trenchless pipe installation	Removal of excavated soil Erosion control measures Cleanup and restoration after work	Contractor	DMS/PMU	<p>Program of Performance Planning for pipe laying</p> <p>Plan for notification during</p>	As required in the program of performance	Each DMA sites	Trenchless method followed for busy roads and open cut followed for narrow roads where

Activity	Mitigation Measures	Responsible for		Parameter to Monitor	Frequency of Monitoring	Location	Compliance Status
		Implementation	Monitoring				
				trench Traffic Management Plan			trenchless is not possible
Preparation of catalogues, installation and O&M manuals	The contractor should supply catalogues and installation manuals for each type of pipes to DWASA at the time of submission the Operation and Maintenance manuals (both in Bangla and English)	Contractor	PMU/ DMS	Program of Performance	Completion of civil works and decommissioning	N/A	O&M manuals prepared after completion of works (during handing over to DWASA)

Planning and Design Stage

31. Contractor's Responsibility (under supervision of DMS, PCU & PMU) is to be familiar with the present traffic congestion of Dhaka city, rules and regulation of City Corporation for the preparation of road cutting plans before execution of works; to arrange for temporary water supply to the households to meet up the disturbances during pipeline rehabilitation works; to conserve all existing utility services around construction works; to pay necessary compensation to the affected persons and to conduct surveys (existing pipelines, house connection, utility services etc.) prior to complete detail design.

- The Contractor prepared road cutting plans for all DMAs.
- Temporary water supply arrangement is made to the households disconnected from the regular water supply.
- Shifting of utility was not required. Compensation was given for repair etc. required for the utility services.

Pipe line rehabilitation and installation

32. The network expansion, in the residential/industrial areas, was done through trenchless or conventional trenching methods whereby the pipelines were laid with a minimum cover depth of 1.0 meters. Maintaining minimum coverage 1.00 m for all the pipes installation other than utility Ground problems areas.

Working hours and times

33. All works in major and minor roads with heavy traffic volume, were executed at night time (7pm-7am). In the minor roads with lower traffic volume, works were done during day time (except some works at night time). Alternative passageways were provided for allowing easy movement of vehicles & people. With some exceptions, working hours were maintained except places where works were allowed at night time.

34. Trenchless Technology was designed for crossing through the busy traffic roads and open trenches were followed for crossing roads with less traffic. Horizontal Directional Drilling (HDD) method was followed after ensuring no disturbance of utilities is there on the way of drilling equipment. About 22% pipeline was installed through open trench method

For pipeline rehabilitation and installation;

- Trenches were with minimum dimension.
- Safety measures for the excavation works were taken
- Safety measures were taken for preserving surrounding service facilities around
- Proper traffic signage was kept in line with traffic and walkers' movements

35. Preparation of catalogues, installation and O&M manuals (pipelines, safety valves, wash out, pump houses etc.) and all the manuals (English and Bangla version) are prepared and in the progress of preparation and those are to be supplied during handing over to DWASA.

36. Proper storage facilities for the construction works. Asbestos Cement Pipes were well located and well planned for careful installation of pipelines besides the AC pipes.

37. During installation of pipelines, proper measures to be taken to conserve surrounding environment, the environmental parameters (air, water and noise). Measures were taken to control pollution of surrounding water around the sites.

38. Proper site selection and construction of labor camp with suitable facilities for laborers. Proper handling of all excavated materials. Avoid all type of public disturbances during installation of pipelines and other interventions. Maintaining water supply undisturbed during installation of pipelines and other interventions.

39. Proper measures to protect trees and vegetation around handling of traffic and access during construction works Measures were taken to minimize noise level. Dust was suppressed through spraying water during excavation works.

40. Measures were taken to protect and facilities and locations of social and cultural importance (hot spots). Measures were taken to comply with occupational health and safety including measures to combat COVID19 situation.

41. After completion of works, the measures were taken like;

- All the excavated roads were reinstated to original condition,
- All disrupted utilities were restored to original condition
- All affected structures were rehabilitated/compensated
- Labor camp and storage areas were cleaned to original landscape
- Ensure leak detection and restoration (in case) to ensure safe water distribution

Table 8: Corrective Action Measures during Reporting Period

Problems found	Measures undertaken to enhance the situation	Timeline
1. Removing of excavated materials from site simultaneously with the excavation using skid street loader, dump / unloading truck on 14.05.2024 at DMA 312, Shyamoli.		Correction for any irregularity found during site visits by ADB, DWASA, PMU, NGO, DMSC etc. were done and made it mandatory at the working sites
2. Placing of Road cone, barrier, sign boards and other safety measures are taken while working on site. On 17.04.2024 at DMA 111, Dhalpur.		Correction for any irregularity found during site visits by ADB, DWASA, PMU, NGO, DMSC etc. were done and made it mandatory at the working sites
3. Removing rubbish by female labours at Kazla, DMA 112 on 19.05.2024.		Correction for any irregularity found during site visits by ADB, DWASA, PMU, NGO, DMSC etc. were done and made it mandatory at the working sites

Problems found	Measures undertaken to enhance the situation	Timeline
4. After completing the work, the backfilling has been done on 10.05.2024 at DMA 701A Demra Jatrabari.		Correction for any irregularity found during site visits by ADB, DWASA, PMU, NGO, DMSC etc. were done and made it mandatory at the working sites

IV. ENVIRONMENTAL MONITORING AND EVALUATION

42. In addition to desk reviews and site inspections, monitoring of selected environmental parameters has been conducted during the reporting period. Before the start of project activities baseline monitoring is being done in each Package at prominent locations identified in updated IEE to access the initial conditions of environment in the DMA areas. During construction phase, monitoring for ambient environmental conditions (air, noise and water) is conducted on quarterly duration on the locations identified in IEE/EMP. During site visit if any other requirement for environmental monitoring is found, which is not identified in IEE/EMP, the contractor is required to do monitoring after approval of PMU. Monitoring results are compared from baseline data and/or project standards and if unacceptable deviation is found, mitigation measures are prepared by Environmental team of DMSC and conveyed to contractor for compliance.

43. Air quality monitoring results for all DMAs are shown in **Table 9** at the following page.

44. It is ensured that all engaging laboratories who are conducting air, noise and water quality, are following internationally accepted sampling protocol and analysis. PMU through DMSC has already instructed all contractors to select such laboratories who will maintain international protocol for sampling and analysis environmental quality parameters.

45. Salient findings from air quality monitoring are as follows,

Table -9: Ambient Air Quality Monitoring Data

Package No.	Name of DMAs	Monitoring Stage	Date of Testing	Site Location	Parameters (Monitoring Results)				
					PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NO2 µg/m3	CO ppm
NCB-02.12B	DMA 702	Baseline	20.12.2023	Adarsha School Road, Uttar Dania, Jatrabari (23.703101°N, 90.445539°E)	90.26	65.11	23.71	27.56	1.7
				South Kutubkhali, Jatrabari (near Markazut Deen Madrasa) (23.705182°N, 90.438546°E)	96.45	56.32	25.52	22.67	2.1
	DMA 703	Baseline	20.12.2023	Sarai Masjid Road, Jatrabari (in front of Bright School) (23.701927°N, 90.440829°E)	90.26	67.88	25.76	31.22	2.13
				South Dania, Jatrabari (in front of Purbo Muradpur Madrasa) (23.697277°N, 90.443268°E)	121.54	72.35	27.25	26.57	2.21
NCB-02.12C	DMA 706	Baseline	21.12.2023	Paterbag, South Dania, Jatrabari (in front of Moonshine Nursery School) (23.694374°N, 90.448146°E)	88.45	59.35	21.61	31.50	1.8
				East Jurain, Jatrabari (near Faridul Ulum Islamia Madrasa) (23.691257°N, 90.443740°E)	112.46	61.22	22.75	27.60	1.3
	DMA 707	Baseline	21.12.2023	WASA Lane, East Jurain, Kadamtali, Jatrabari (behind Jurain Water Pump) (23.690084°N, 90.444494°E)	98.34	65.44	20.21	21.54	2.1
				Shyampur Boro Masjid Road, Jatrabari (near Shyampur Boro Masjid) (23.686000°N, 90.444366°E)	126.45	78.89	22.33	26.83	2.4
National Standard of Air Ambient Quality*					150	65	250	80	5

Package No.	Name of DMAs	Monitoring Stage	Date of Testing	Site Location	Parameters (Monitoring Results)					
					SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM 2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO ppm
NCB-2.12D	DMA 704	During Constructio	27.03. 2024	In front of Shani Temple Gate (South Side of Shanir Akhra Bus Stand) GPS Location: 23°42'6.78"N,90°27'5.46"E	195	122	59	66	39	1.8
				Dhaka Adarsha School, Paterbagh Road, Shanir Akhra GPS Location: 23°41'45.95"N,90°26'45.08"E	142	83	35	27	28	1.5

	Name of DMAs	Monitoring Stage	Date of Testing	Site Location	Parameters (Monitoring Results)					
					SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM 2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO ppm
Pac kag e No. ICB 2.10	DMA 102	During Construction	22.01.2024	Central Women's University, Hatkhola Road, Tikatuli, Wari GPS Location: 23° 43' 5.06"N & 90° 25' 13.15"E	175	125	68	53	36	3.2
				Sher-E-Bangla Girls Mohabiddaloy, Hatkhola Road, Tikatuli, Wari GPS Location: 23° 43' 6.81"N & 90° 25' 3.52"E	167	118	59	45	28	2.9
				Shapla Chattar Motijheel, In front of Sonali Bank, GPS Coordinate: 23°43'34.85"N & 90°25'17.61"E	163	121	65	58	39	2.7
	DMA 103	During Construction	21.01.2024	Arambag Motijheel, In front of Arambag Bus Counter GPS Location: 23°43'47.75"N & 90°25'17.71"E	192	132	65	54	43	3.9
				Bangladesh Bank Colony, Arambag, Motijheel In front of Bangladesh Bank High School GPS Location: 23°43'51.71"N & 90°25'21.43"E	145	105	52	31	36	2.8
				In front of Kamlapur Railway Station GPS Location: 23° 43' 53.87"N & 90° 25' 33.56"E	210	152	79	78	49	4.4
	DMA 104	During Construction	21.01.2024	Mugda Hospital, Mugda, Dhaka GPS Location: 23° 43' 55.9"N 90° 25' 42.95"E	232	143	74	61	38	2.4
				Buddha Mandir Bus Stop, Basabo Madertek Road, Dhaka GPS Location: 23° 44' 10.29"N 90° 25' 42.73"E	243	153	79	68	42	2.6
				Kodomtola WASA Road, Basabo, Dhaka GPS Location: 23° 44' 10.29"N 90°	156	93	44	32	27	1.5

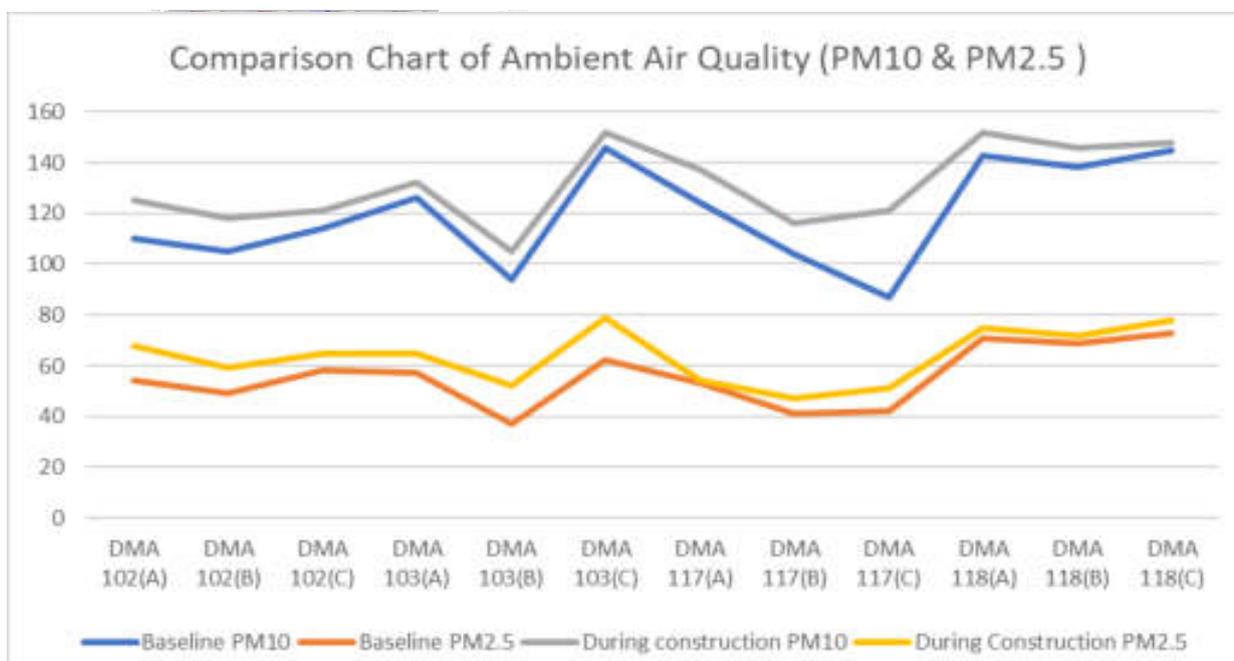
Package No.	Name of DMAs	Monitoring Stage	Date of Testing	Site Location	Parameters (Monitoring Results)					
					SPM $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM 2.5 $\mu\text{g}/\text{m}^3$	SO2 $\mu\text{g}/\text{m}^3$	NO2 $\mu\text{g}/\text{m}^3$	CO ppm
				25' 42.73"E						
	DMA 117	During Construction	22.01.2024	Near Gandaria Police station; 53, K.B.Road, Mill Barrack GPS Location: 23°41'59"N & 90°25'15"E	253	137	54	37	36	1.3
Bank of Gendaria DIT Pond, Dhaka GPS Location: 23°42'01"N & 90°25'42"E				222	116	47	29	25	1.6	
Beside Al Amin Mosque, Gendaria, Dhaka GPS Location: 23°41'46"N & 90°25'27"E				232	121	51	27	32	1.3	
	DMA 118	During Construction	22.01.2024	Near Dholaipar High School at Mir Hazirbag Road, West Dolaipar, Dhaka GPS Location: 23° 42' 10.64"N 90° 26' 00.76"E	194	152	75	58	45	2.5
Near Estren Iron Market at 65 Mir Hazirbag, Shampur GPS Location: 23° 42' 12.48"N 90° 25' 49.49"E				181	146	72	63	37	2.7	
Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur GPS Location: 23° 41' 59.13"N 90° 25' 51.61"E				173	148	78	53	41	2.8	
National Standard of Air Ambient Quality*					400	150	65	250	80	5

*The Bangladesh National Ambient Air Quality Standards have been taken from "Air Pollution Control Rules, 2022".

46. Findings: The laboratory analysis of ambient air quality shows that air quality parameters concentration of most of the locations were within allowable limits of DoE, Bangladesh. PM10 and PM2.5 value has been exceeded at some locations in all packages but at some location baseline data of PM2.5 and PM10 were already noted with larger values and at some location of during construction data of PM2.5 and PM10 noted with lesser values than baseline data. This is mainly due to emissions from motorized vehicles and other anthropogenic sources (shops, warehouse and plastic factories, vehicular movement etc.) in these areas. To compare the during construction monitoring data with baseline monitoring data there is a table-9A and a graph has been shown in the following pages:

Table -9A: Comparison Table for Ambient Air Quality Monitoring (with Baseline data/previous monitoring data)

Package No.	Name of DMAs	Site Location	Baseline Monitoring		During Construction (January-June, 2024)	
			PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³
National Standards of Ambient Air Quality*			150	65	150	65
ICB 2.10	DMA 102	Central Women's University, Hatkhola Road, Tikatuli, Wari	110	54	125	68
		Sher-E-Bangla Girls Mohabiddaloy, Hatkhola Road, Tikatuli, Wari	105	49	118	59
		Shapla Chattar Motijheel, In front of Sonali Bank,	114	58	121	65
	DMA 103	Arambag Motijheel, In front of Arambag Bus Counter	126	57	132	65
		Bangladesh Bank Colony, Arambag, Motijheel In front of Bangladesh Bank High School	94	37	105	52
		In front of Kamlapur Railway Station	146	62	152	79
	DMA 117	Near Gandaria Police station; 53, K.B.Road, Mill Barrack	124	53	137	54
		Bank of Gendaria DIT Pond, Dhaka	104	41	116	47
		Beside Al Amin Mosque, Gendaria, Dhaka	87	42	121	51
	DMA 118	Near Dholaipar High School at Mir Hazirbag Road, West Dolaipar, Dhaka	143	71	152	75
		Near Estren Iron Market at 65 Mir Hazirbag, Shampur	138	69	146	72
		Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur	145	73	148	78



47. Mitigation measures, like dust suppression was applied as per EMP. Contractors are being advised regularly to take necessary action on dust suppression (during dry periods) by sprinkling of water, covering soil during transportation whenever required.

Moreover, aware to contractor and the local communities, applied the following mitigation measures:

- Wearing masks while working in dusty sites.
- Controlled vehicular movement and safe transportation during upload/unload construction materials;
- Regular maintenance of vehicles/equipment's and use of good quality fuel;
- Cover the excavated material and stockpiles and also cover whenever it is transported.

48. Baseline and during construction ambient noise level data are presented in **Table 10**

Table-10: Noise Level Monitoring Data at DMA Sites

Package No.	Name of DMAs	Monitoring Stage	Date of Testing	Site Location	Land use Category	LA _{eq} (dBA)	
						Day Time	Night Time
ICB-2.10	DMA 102	During Construction	22.01.2024	Central Women's University, Hatkhola Road, Tikatuli, Wari GPS Location: 23° 43' 5.06"N & 90° 25' 13.15"E	Mixed	74	62
				Sher-E-Bangla Girls Mohabiddaloy, Hatkhola Road, Tikatuli, Wari GPS Location: 23° 43' 6.81"N & 90° 25' 3.52"E	Mixed	71	60
				Shapla Chattar Motijheel, In front of Sonali Bank, GPS Coordinate: 23°43'34.85"N & 90°25'17.61"E	Commercial Area	75	66
	DMA 103	During Construction	21.01.2024	Arambag Motijheel, In front of Arambag Bus Counter GPS Location: 23°43'47.75"N & 90°25'17.71"E	Commercial Area	78	67
				Bangladesh Bank Colony, Arambag, Motijheel In front of Bangladesh Bank High School GPS Location: 23°43'51.71"N & 90°25'21.43"E	Commercial Area	66	56
				In front of Kamlapur Railway Station GPS Location: 23° 43' 53.87"N & 90° 25' 33.56"E	Commercial Area	79	71
	DMA 104	During Construction	21.01.2024	Mugda Hospital, Mugda, Dhaka GPS Location: 23° 43' 55.9"N 90° 25' 42.95"E	Mixed	78	70
				Buddha Mandir Bus Stop, Basabo Madertek Road, Dhaka GPS Location: 23° 44' 10.29"N 90° 25' 42.73"E	Mixed	77	68
				Kodomtola WASA Road, Basabo, Dhaka GPS Location: 23° 44' 10.29"N 90° 25' 42.73"E	Mixed	68	60
	DMA 117	During Construction	22.01.2024	Near Gandaria Police station; 53,K.B.Road, Mill Barrack GPS Location: 23°41'59"N & 90°25'15"E	Mixed	69	61
				Bank of Gendaria DIT Pond, Dhaka GPS Location: 23°42'01"N & 90°25'42"E	Mixed	67	54
				Beside Al Amin Mosque, Gendaria, Dhaka GPS Location: 23°41'46"N & 90°25'27"E	Mixed	68	55
	DMA 118	During Construction	22.01.2024	Near Dholaipar High School at Mir Hazirbag Road, West Dolaipar, Dhaka GPS Location: 23° 42' 10.64"N 90° 26' 00.76"E	Mixed	73	62
				Near Estren Iron Market at 65 Mir Hazirbag, Shampur	Mixed	69	56

			GPS Location: 23° 42' 12.48"N 90° 25' 49.49"E			
			Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur GPS Location: 23° 41' 59.13"N 90° 25' 51.61"E	Mixed	72	63
Standard				Commercial	70	60
				Residential	55	45
				Mixed	55	45

Findings:

49. For most of the cases, noise levels during both baseline and construction stage are exceeded the national standards set for both day and night time due to different types of commercial activities, construction activities, traffic volume & other interruptions. To compare the during construction monitoring data with baseline monitoring data, a table-10A and a chart have been shown below:

Table-10A: Comparison Table for Noise Level Monitoring (with Baseline data/previous monitoring data)

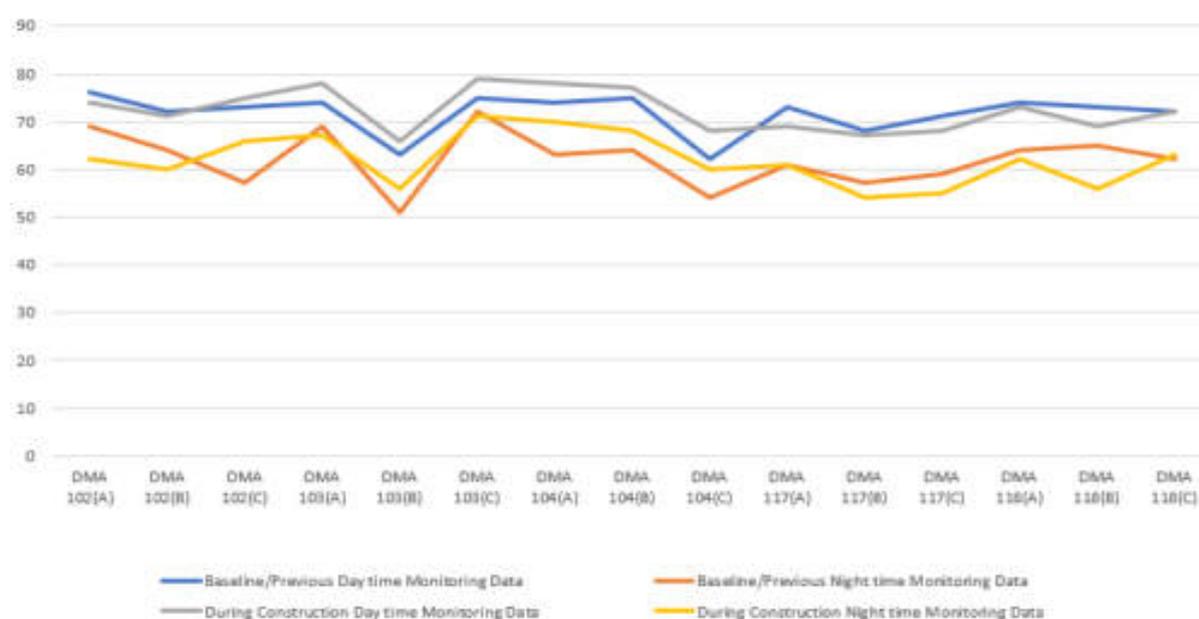
Package No.	Name of DMAs	Site Location	Land use Category	Baseline/Previous Monitoring Data L_{eq} (dBA)		During Construction Monitoring Data L_{eq} (dBA)	
				Day Time	Night Time	Day Time	Night Time
ICB 2.10	DMA 102	Central Women's University, Hatkhola Road, Tikatuli, Wari	Mixed	76	69	74	62
		Sher-E-Bangla Girls Mohabiddaloy, Hatkhola Road, Tikatuli, Wari	Mixed	72	64	71	60
		Shapla Chattar Motijheel, In front of Sonali Bank,	Commercial Area	73	57	75	66
	DMA 103	Arambag Motijheel, In front of Arambag Bus Counter	Commercial Area	74	69	78	67
		Bangladesh Bank Colony, Arambag, Motijheel In front of Bangladesh Bank High School	Commercial Area	63	51	66	56
		In front of Kamlapur Railway Station	Commercial Area	75	72	79	71
	DMA 104	Mugda Hospital, Mugda, Dhaka	Mixed	74	63	78	70
		Buddha Mandir Bus Stop, Basabo Madertek Road, Dhaka	Mixed	75	64	77	68
		Kodomtola WASA Road, Basabo, Dhaka	Mixed	62	54	68	60
	DMA 117	Near Gandaria Police station; 53,K.B.Road, Mill Barrack	Mixed	73	61	69	61
		Bank of Gendaria DIT Pond, Dhaka	Mixed	68	57	67	54
		Beside Al Amin Mosque, Gendaria, Dhaka	Mixed	71	59	68	55
	DMA 118	Near Dholaipar High School at Mir Hazirbag Road, West Dolaipar, Dhaka	Mixed	74	64	73	62

	Near Estren Iron Market at 65 Mir Hazirbag, Shampur	Mixed	73	65	69	56
	Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur	Mixed	72	62	72	63

Standards:

	Day	Night
Commercial	70	60
Residential	55	45
Mixed	55	45

Comparison Chart of Noise Level Monitoring (Day & Night time)



50. Mitigation measures were suggested to applied as per site specific EMP. Particular use of ear plugs by workers at high noise producing areas is necessary. Noise producing activity should be limited near residential areas, schools and healthcare facilities during working hours. Accordingly, instruction has been given to contractors. It is ensured that the contractors will strictly implement the action plan as per EMP for reduction of noise level and minimization of noise impact.

51. As per the site specific EMP, the Contractors are required to test the drinking water used by labors. Drinking water quality monitoring was carried out at pump locations of each DMA during project implementation period and before starting the implementation of work. The parameters were pH, DO, Chloride, Iron, Mn, As, Total Coliform, Turbidity, Total Suspended Solid, BOD5 and COD. During water collection period, the laboratory personal used proper Personal Protective Equipment (PPE) including vests, face musk, hand gloves and helmets. They collected the water sample by water collection sample bottle and sealed the bottle to carry to the laboratory. Laboratory analyzes the water by using different methods such as Electrometric, Nephelometric Method, Gravimetric, Electrometric, Argentometric, AAS, As-test kit, Membrane Filtration, 5 days BOD test and Closed Reflux, colorimetric Methods. The results are shown in Table 11 for drinking water.

Table-11(A): Drinking Water Quality Results-at DMA Sites (ICB-2.10)

Package No.	Name of DMAs	Date of Testing	Monitoring Stage	Site Location	pH	Chloride mg/L	BOD ₅ mg/L	DO	COD mg/L	Iron, Fe mg/L	Mn mg/L	As µg/L	Total Coliform	Turbidity (NTU)	TSS mg/L
ICB-2.10	DMA 102	25-03-2024 - 01-04-2024	During Construction	DTW, Bangabhaban Park	6.80	33	0.72	5.53	<1	0.22	0.299	<0.01	0	1.28	1
				Network, H#63, Dilkusha	6.70	36	0.9	3.93	3	0.20	0.235	<0.01	0	1.27	1
	DMA 103	25-03-2024 - 01-04-2024	During Construction	DTW, South Kamlapur	6.70	35	0.70	6.55	<1	0.27	0.204	<0.01	0	1.26	2
				Network, H#23/1, Motijeel	6.80	36	0.63	3.48	<1	0.08	0.123	<0.01	0	0.52	1
	DMA 104	29-04-2024 - 05-05-2024	During Construction	DTW, Sabujkanan	6.85	10	0.9	4.75	02	0.02	0.103	<0.01	0	0.51	07
				Network, #149/4, Ahammadbag	6.90	20	1.0	7.05	15	0.03	0.076	<0.01	0	1.53	01
	DMA 106	29-04-2024 - 05-05-2024	During Construction	DTW, Mugdapara-2	6.90	22	0.7	3.51	12	0.51	0.170	<0.01	0	4.98	09
				Network, #25, Anandadhara	6.95	60	2.1	3.10	4	0.41	0.165	<0.01	0	2.25	08
	DMA 111	14-05-2024 - 19-05-2024	During Construction	DTW, East Dhalpur	6.6	8	0.5	3.46	<1	0.148	0.008	<0.01	0	0.40	2
				Network, Child Heaven Tutorial School	6.6	10	7.9	5	10.7	0.219	0.010	<0.01	0	2.81	6
	DMA 117	14-05-2024 - 19-05-2024	During Construction	DTW, IG gate Staff Quarter	6.7	21	0.7	2.27	<1	0.098	0.089	<0.01	0	6.7	1

Table-11B: Drinking Water Quality Results-at DMA Sites (NCB- 2.12B & 2.12C)

Package No.	Name of DMAs	Date of Testing	Monitoring Stage	Site Location	pH	Chloride mg/L	DO	Iron, Fe mg/L	Mn mg/L	As µg/L	Total Coliform	Turbidity (NTU)	TDS mg/L
NCB-02.12B	DMA 702	03.01.2024 to 10.01.2024	Baseline	DTW, Dhania-3	7.00	19	4.56	0.16	0.134	<0.01	0	0.52	140.9
				DTW, Jatrabari-2	7.10	53	5.89	1.34	0.650	<0.01	0	4.19	219.2
	DMA 703	03.01.2024 to 10.01.2024	Baseline	DTW, East Dholaipar	7.10	56	3.47	0.25	0.121	<0.01	0	0.71	277
				DTW, Dhania-1	7.00	54	5.14	0.82	0.400	<0.01	0	6.71	216.3
NCB-02.12C	DMA 707	03.01.2024 to 10.01.2024	Baseline	DTW, East Jurain	6.86	50	6.55	0.62	0.193	<0.01	0	6.14	235
				DTW, Jurain	6.93	53	3.47	0.76	0.242	<0.01	0	0.56	238

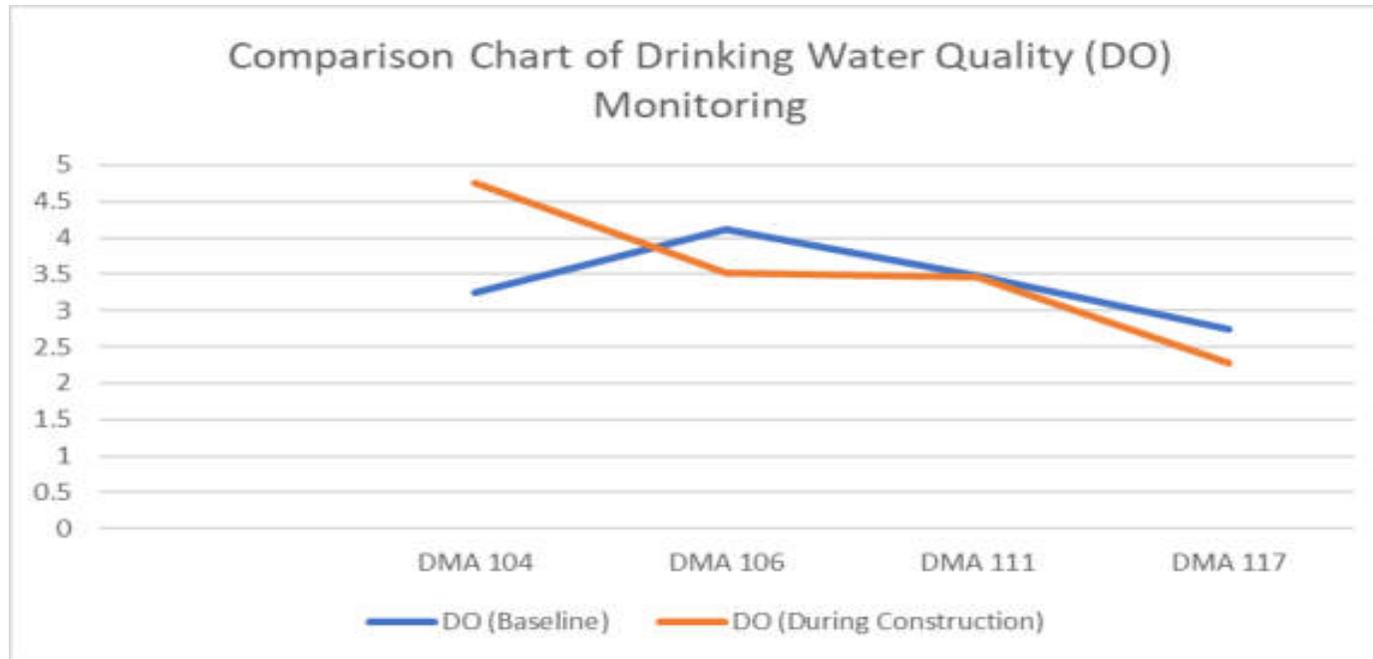
Standards for drinking water, Schedule-2, Rules 31, ECR 2023.

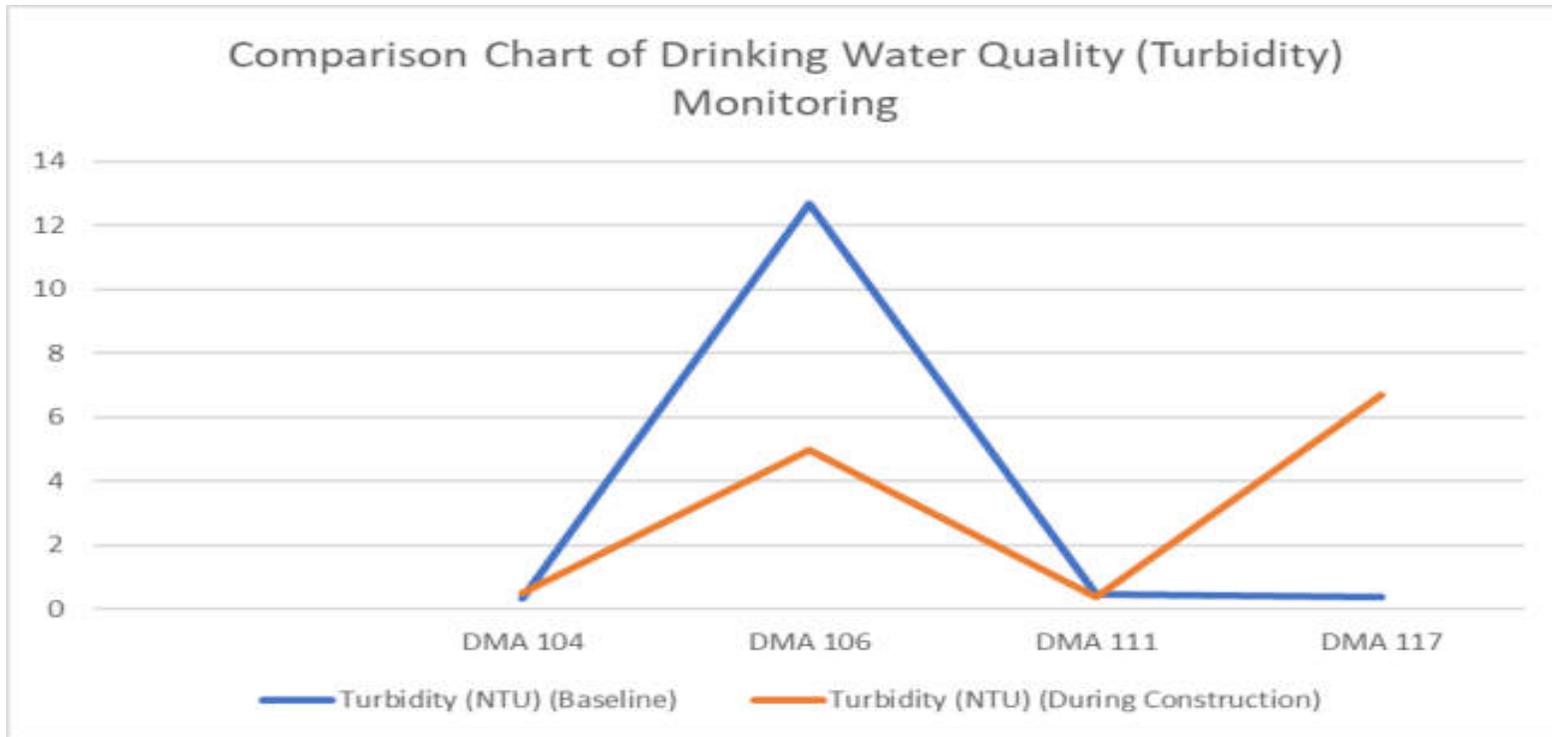
pH	Turbidity (NTU)	TSS (mg/L)	TDS (mg/L)	Dissolved Oxygen (mg/L)	Chloride (mg/L)	Iron (mg/L)	Mn (mg/L)	Arsenic (mg/L)	BOD5 (mg/L)	COD (mg/L)	Total Coliform (mg/L)
6.5-8.5	5	10	1000	-	250	0.3-1	0.4	0.05	-	-	-

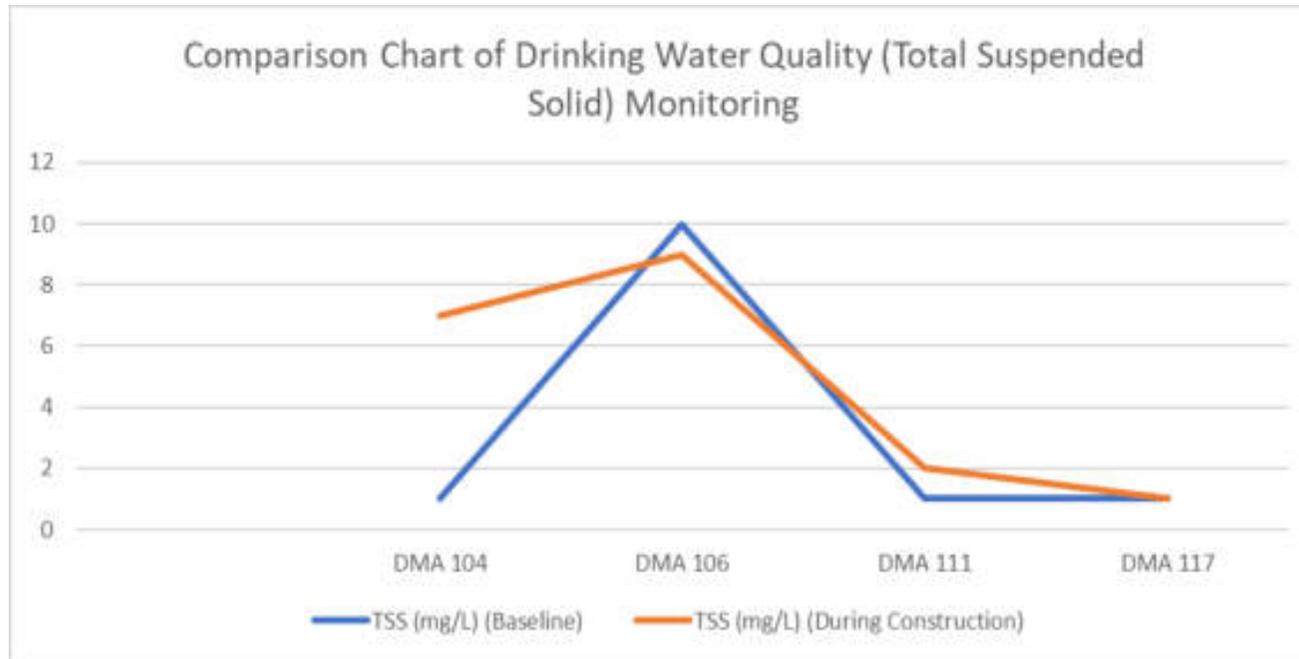
52. Findings: The laboratory analysis of water quality shows that water quality parameters concentration of most of the locations were within allowable limits of DoE, Bangladesh. DO has been surpassed in some location. This is mainly due to the concentrations are constantly affected by diffusion and aeration, photosynthesis, respiration and decomposition. While water equilibrates toward 100% air saturation, dissolved oxygen levels will also fluctuate with temperature, salinity and pressure changes in the area. To compare during construction monitoring with baseline monitoring a table-11F and comparison charts have been shown below:

Table-11C: Comparison Table for Water Quality Monitoring (with Baseline data/previous monitoring data)

Name of DMAs	Site Location	DO (Baseline)	Total Coliform (Baseline)	Turbidity (NTU) (Baseline)	TSS (mg/L) (Baseline)	DO (During Construction)	Total Coliform (During Construction)	Turbidity (NTU) (During Construction)	TSS (mg/L) (During Construction)
DMA 104	DTW, Sabujkanan	3.25	0	0.36	1	4.75	0	0.51	07
DMA 106	DTW, Mugdapara-2	4.12	0	12.7	10	3.51	0	4.98	09
DMA 111	DTW, East Dhalpur	3.48	0	0.47	01	3.46	0	0.40	2
DMA 117	DTW, IG gate Staff Quarter	2.75	0	0.38	01	2.27	0	6.7	1
Standards for drinking water, Schedule-2, Rules 31, ECR 2023.		-	-	5	10	-	-	5	10







53. Surface water samples were also taken where available the surface water body to evaluate water quality due to project activities in the surrounding water bodies in ICB-2.10 package. Surface water quality monitoring was carried out at the water bodies locations of each DMA during project implementation period and before starting the implementation of work. The parameters were pH, DO, Chloride, Iron, Mn, As, Total Coliform, Turbidity, Total Suspended Solid, BOD5 and COD. During water collection period, the laboratory personal used proper Personal Protective Equipment (PPE) including vests, face musk, hand gloves and helmets. They collected the water sample by water collection sample bottle and sealed the bottle to carry to the laboratory. Laboratory analyzes the water by using different methods such as Electrometric, Nephelometric Method, Gravimetric, Electrometric, Argentometric, AAS, As-test kit, Membrane Filtration, 5 days BOD test and Closed Reflux, colorimetric Methods. The results are shown in **Table-12**

Table-12: Surface Water Quality Results-at DMA Sites (ICB-2.10)

Name of DMAs	Date of Testing	Monitoring Stage	Site Location	pH	Chloride mg/L	BOD ₅ mg/L	DO	COD mg/L	Iron, Fe mg/L	Mn mg/L	As µg/L	Total Coliform	Turbidity (NTU)	TSS mg/L
DMA 117	14-05-2024 - 19-05-2024	During Construction	Gendaria DIT	7.1	31	19.1	7.26	30	0.089	0.061	<0.01	17×10 ³	5.06	11
Standards for Inland surface water, Schedule-2, Rules 31, ECR 2023.				6.5-8.5	-	-	≥5	8.0	-	-	0.001	1000	-	25

54. During Construction” air quality, noise level and water quality monitoring will be continued for the packages as per Environment Management and Monitoring Plan. All monitoring expenses will be borne by contractors which mentioned in the bidding document under the contract section 6, sub clause 2.14 (safeguards) and sub clause 2.14.1 (IEE).

55. The Environmental Management Implementation Work Schedule has been prepared by contractor for next six months (January-June, 2024) to implement the EMP plan wise while showing precisely how and when construction period mitigation and monitoring actions will take place. The following Table shows the Environmental Management Implementation Work Schedule for next six months (July-December, 2024).

Attached in annex-08

V. CONSULTATIONS AND DISCLOSURES CONDUCTED

56. During the IEE updating of various DMAs (subprojects), the stakeholders were consulted and involved through discussions on-site and public consultation at several places in the DMA. The view and feedback were incorporated into the IEEs and project design and development as appropriate. As per approved IEE, consultations and disclosure will be a continuous process throughout project implementation involving public consultations and focus group discussions. Accordingly, during the implementation phase, the consultation process has been continued to ensure that stakeholders are fully engaged in the project and have the opportunity to participate in its development and implementation.

57. Different type of stakeholders such as respective WARD representatives - elected Councilor, line departments and utility agencies, general public, residents, business, vendors etc., in were consulted. Consultations conducted mostly near the work sites such as along pipe laying sites, such consultation is basically one to one discussion with public and generally to be continued throughout the construction period. Construction phase issues, and implementation of EMP measures were discussed. The issues like requirement of restoration of utility services, removal of overburden soil, road restoration done or not, dust and noise pollution during implementation of the project, community safety arrangement, availability of public access have been discussed and views has been tabulated.

58. The indicative schedule for consultations and disclosure are presented in Table 14.

Table 13: Indicative Schedule for Consultations and Disclosure

Type of Consultation/Disclosure	Target Date	Location	Target Participants	Responsible Person
Local Level Consultation	Weekly – to be continued	At all construction locations	General public, shop keepers, pedestrian population	Supervisors of 'NGO Awareness'; Environment and Safety Officer of Contractor, ARE, Environmental Inspector of DMS-continuous process
Consultation-safety issues, EMP implementation	Bimonthly	DMS office, PM site office and construction site	ARE/SARE of DMS, Supervisor Engineers of Contractor, Environment and safety Officer of Contractors	Environmental Specialist, Environmental Inspector of DMS

59. During reporting period, Civil contract contractor has already got approval of IEE report for NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E at different DMA locations. During updating of IEE report (July-December, local level consultation has been conducted at different DMA locations. List of participants, pictures etc. were provided in previous SEMR.

VI. GRIEVANCE REDRESS MECHANISM

60. A project-specific grievance redress mechanism (GRM) is established to receive, evaluate, and facilitate the resolution of AP's concerns, complaints, and grievances about the social and environmental performance at the level of the project. The GRM aims to provide a time-bound and transparent mechanism to record and resolve social and environmental concerns linked to the project. A common GRM is in place for social, environmental, or any other grievances related to the project; the resettlement plans (RPs) and IEEs will follow the GRM described below. The GRM provides an accessible and trusted platform for receiving and facilitating resolution of affected persons' grievances related to the project. The multi-tier GRM for the project is outlined below, each tier having time-bound schedules and with responsible persons identified to address dress grievances and seek appropriate persons' advice at each stage, as required.

61. PMU will maintain a Complaint Cell headed by a designated Grievance Officer at its office. The Grievance Registration/Suggestion Form (**Annex 6**) is available at the Complaints Cell and in Zonal Offices and will also be downloadable from the DWASA website (link to DWASA website: <https://dwasa.org.bd/dwsnip/>).

62. PMU/PCU with assistance from NGO (Resettlement and Public Awareness Campaign) are ensuring that awareness on grievance redress procedures is generated through the campaign. PCU Safeguard Focal Person through NGO –Public Awareness (SAMAHAR) team conduct wide awareness campaigns at each DMA sites to ensure that poor and vulnerable households are made aware of grievance redress procedures and entitlements.

63. APs have the flexibility of conveying grievances/suggestions by dropping grievance redress/suggestion forms in complain complaints/suggestion boxes or by e-mail, by post, by telephone, or by writing in a complaint register in PMU/PCU offices. Careful documentation of the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how the problem was resolved are being undertaken by NGO/DMSC. The PMU Project Officers (Environment & Social) have the overall responsibility for timely grievance redress respectively on environmental and social safeguards issues and for registration of grievances, related disclosure and communication with the aggrieved party through PCU (Safeguard Nodal Person).

64. GRC was established on Dec 19, 2018 at both PMU and PCU level. The GRC committee are shown below:

GRC at PMU Level:

- | | | |
|--|---|----------------|
| 1. Project Director- DWSNIP | - | Convener |
| 2. Deputy Project Director | - | Joint Convener |
| 3. Safeguard Focal Person (Concerned Executive Engineer) | - | Member |
| 4. Environmental Expert, DMS, DWSNIP | - | Member |
| 5. Resettlement Expert, DMS, DWSNIP | - | Member |
| 6. Team Leader, Resettlement (NGO SAMAHAR) | - | Member |

7. Affected Person (APs)/Representative (if applicable) - Invited Specially

GRC at PCU Level:

- | | | |
|---|---|-------------------|
| 1. Executive Engineer (Concerned MODS Zone) | - | Convener |
| 2. Safeguard Focal Person (AE/SDE, (Concerned MODS Zine) | - | Member |
| 3. Team Leader, Resettlement (NGO SAMAHAR) | - | Member |
| 4. Resettlement Officer of Concerned Civil Works Contractor | - | Member |
| 5. Ward Councilor/Female Ward Councilor (Concerned City Corporation)- | | Member |
| 6. Affected Person (APs) | - | Invited specially |

Grievance Redress Process

65. Grievances received and responses provided have been documented and reported back to the affected persons. The number of grievances recorded and resolved and the outcomes have been displayed/disclosed in the offices of the different Zonal office of DWASA and web. Project-affected people can also send their grievances directly to ADB through the Bangladesh Resident Mission and/or to ADB's Accountability Mechanism

66. To resolve all project related grievances and complaints a common social and environmental grievance redress mechanism have been in place. Common and simple grievances is sorted out at project site/DMA level by the Contractor's Resettlement Supervisor, supervision staff of PMU and project NGO within 7 days. More serious complaints are sent to the safeguard officer at the PCU to be resolved in 14 days. If any unresolved grievances occur, the procedure is to forward that to PMU to resolve within 21 days. Despite the project GRM, an aggrieved person has access to the country's legal system at any stage.

67. **Consultation Arrangements.** This includes group meetings and discussions with affected persons, to be announced in advance and conducted at the time of day agreed on with affected persons and conducted to address general/common grievances; and if required with the Environment/Resettlement Specialist of PMU/DMSC for one-to-one consultations. Non-literate affected persons/ vulnerable affected persons are assisted to understand the grievance redress process, to register complaints and with follow-up actions at different stages in the process.

68. **Record-Keeping.** Records are kept by PMU/PCU Office/Contractors' site office of all grievances received including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were in effect, and final outcome.

69. The number of grievances recorded and resolved and the outcomes are displayed/disclosed in the offices of the different MODS zone of DWASA and web. The phone number where grievances are to be recorded are prominently displayed at the construction sites.

70. **Periodic Review and Documentation of Lessons Learned.** PMU periodically reviews the functioning of the GRM and effectiveness of the mechanism, especially on the Project's ability to prevent and address grievances.

71. All costs involved in resolving the complaints (meetings, consultations, communication and reporting/information dissemination) is borne by PMU.

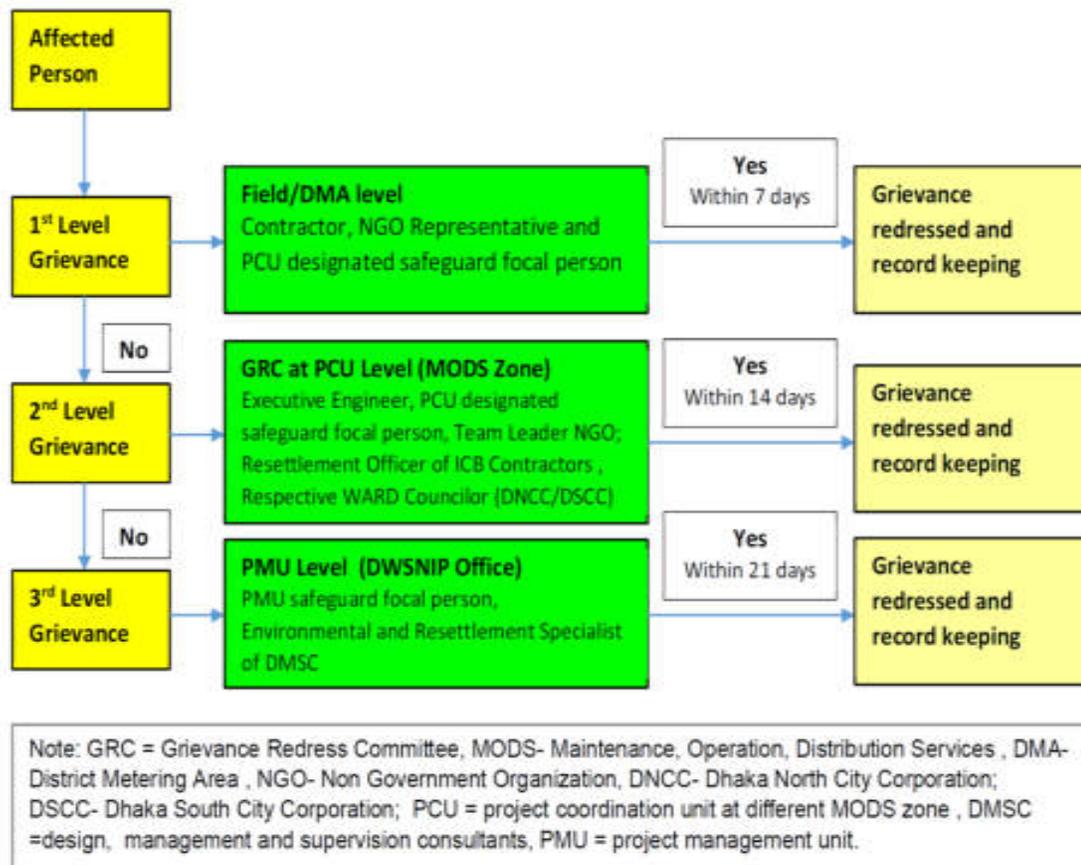


Figure 3: Flow Chart of GRM Process

Complaints Received during Reporting Period

72. All grievances – major or minor, during the project implementation are registered. Officials are maintaining a register of all grievances with the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how & when the problem was resolved, etc.

73. The initiate in the field level GRM is publicized among the local population is taken by the NGO and the contractors. The NGO firstly aware the local people of the project by tea stall meeting, focused group discussion, mosque discussion and also house to house talk. The local people aware of the fact about the complaint they may have and can be anonymously posted in the complaint box also in the complaint registration book which is available in the construction site, contractor site office, PCU, and PMU office.

No complain received during reporting period. But the arrangement was available in the construction site, contractors site office, PCU and PMU. Some pictorial evidences are presenting in the table below:

Pictorial Evidences of complaints and First Aid boxes in the site office and construction sites



GRM for Labors

74. Grievance Redress Mechanism (GRM) has also been established for labourers /workers whose grievances are heard and recorded regularly, and appropriate actions are taken to redress them. All Civil works contractors discussed with Labourers during working time to receive and record their complaint if they had.

VII. TRAINING AND CAPACITY BUILDING PROGRAM AND INCIDENT SUMMARY

75. As suggested in the respective IEE and EMPs, various training and capacity building programs conducted specific to environment, health, safety and implementation of EMPs. Training program on safety and environment has been arranged for contractors, supervisors by DMSC and ADB safeguard specialists / consultants in PMU Office, DMS office and PM site office, Contractor's site office, stockyard/ camp site and construction site during the reporting period. Details are provided in the following table.

Table -16: Capacity Building/Training Activities

Training Title	Date and Venue	Training Details & Participants	No of Participants	
			Male	Female
First Aid Training	23.01.2024	SE, SA, SG, Store Supervisor, Female worker	10	5
Fire Drill Risks & safety	01.02.2024 Demra workshop	SE, SA, SG, Store Supervisor Plumber, Welder, M/R	27	0
O&M meter reading process through apps	18.02.2024 at Dhaka WASA Bhaban	APM, AM SE, SA, SG,	34	0
Fire & Safety Training	27.02.2024 DMA-103 Motijheel Store	SE, SA, SG, Store Supervisor Plumber, Welder, M/R	18	0
Operation and Maintenance training of DMA 108B,110, 118	10.03.2024 At Kamalapur project office	CME, DCM, SM, DSM, APM, ASM, PE, AE, APE, SE, TE, Eng, OM OA & etc.	30	0
Fire Safety training Risks & safety	24.03.2024 at Kamalapur project office	Office assistant	3	0
Training for construction Safety	11.03.2024 Location: Shyamoli	Site In Charge, Site Engineers, Supervisors, workers of contractors	20	0
Training of Precaution for Co-19	17.02.2024 Location: DMA-408	Engineers, Supervisor, Technician and others		
Training for work Safety and health safety	15-01-24(DMA 307) 26-01-24(DMA 305) 25-02-24(DMA 312)	Site In Charge, Site Engineers, Supervisors, workers of	32	1

	13-03-24(DMA 313)	contractors		
Training for work Safety and health safety	29-01-24 (DMA 307)	Site In Charge, Site Engineers, Supervisors, workers of contractors	26	0
	26-02-24(DMA 305)			
	30-01-24(DMA 312)			
	15-02-24(DMA 313)			
Training for work Safety and health safety	19-01-24 (DMA 307)	Site In Charge, Site Engineers, Supervisors, workers of contractors	26	0
	14-01-24(DMA 305)			
	14-02-24(DMA 312)			
	02-01-24(DMA 313)			
Training for work Safety and health safety	16-01-24 (DMA 406)	Site In Charge, Site Engineers, Supervisors, workers of contractors	14	0
	20-01-24(DMA 411)			
	24-02-24(DMA 412)			
Training for work Safety and health safety	30-01-24 (DMA 406)	Site In Charge, Site Engineers, Supervisors, workers of contractors	12	0
	27-02-24(DMA 411)			
	01-02-24(DMA 412)			
Training for work Safety and health safety	17-01-24(DMA 413)	Site In Charge, Site Engineers, Supervisors, workers of contractors	22	0
	02-02-24(DMA 414)			
Training for work Safety and health safety	01-01-24(DMA 413)	Site In Charge, Site Engineers, Supervisors, workers of contractors	18	0
Training for work Safety and health safety	18-01-24(DMA 1011)	Site In Charge, Site Engineers, Supervisors, workers of contractors	24	0
	05-02-24(DMA 1005)			
Training for work Safety and health safety	02-02-24(DMA 1011)	Site In Charge, Site Engineers, Supervisors, workers of contractors	22	0
Safety Guidelines for Road Cutting Operations in Busy Roads	24.03.24DMA-702 (Rasulpur)	Labourers	9	0

VIII. HEALTH AND SAFETY STATUS

76. This section presents the status of Health and Safety of DWSNIP subprojects under 3-ICB packages (ICB-2.8, ICB-2.9, ICB-2.10), NCB packages (NCB 2.11A, 2.11B, 2.11C (Lot-1&2), 2.11D (Lot-1&2)), (NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E) and LIC Packages with implementation and rehabilitation of different activities mentioned below:

Objectives	Measures
Site Security Measures	Use of proper safety signage, display board, caution tape, hard barricading should be done during implementation work. The photograph of safeguard compliances attached in Annex-5
PPE inventories	Use of proper Personal Protective Equipment (PPEs); i.e.; Hard hat, Eye Protection, Hand Protection, Foot ware, Ear-protection, Safety Vest; should be used during implementation work. (Annex-5)
Medical and First Aid provision:	First aid kits are necessary so that injuries can be treated immediately to help reduce the risk of infection to the injury. A first aid assessment should be carried out to be able to provide first response to all types of accidents and injuries. First aid kits should include: Moist wipes, Disposable gloves, Medium and large sterile dressings, Sterile eye pads, Saline solution, Eye baths, Triangular bandages.
Emergency preparedness and response procedures	The following emergency protocol will be maintained. Site Manager will seal off the work area immediately; He will notify appropriate emergency mitigation team (i.e., hospital, fire department, etc.); Then he will notify Contract Manger of the incident; Contract Manager will inform the Director and the client of the incident; Contract Manager and Client will decide when to re-open work site; The emergency incident will be logged for Client's review. The Root cause analysis reports during reporting period have been enclosed in annex-12
Safety Checklists	Safety Checklists for Excavation work, Traffic Management Work, Electrical Work, Fire Safety, DTW works, Safety for Asbestos Cement pipe, Dust and Noise control, OHS a& CHS safety have been enclosed in annex-14

77. Few minor incidents occurred at DWSNIP during this reporting period. Please see the summary of all the incident/accident in the following table. And root cause analysis report has been attached in **Annex-12**

Table: Incident Report for Human (January-June, 2024)

Sl.	Date and Time	Location	Type of Work	Nature of Incident	Description	Corrective Action
1	15.03.2024 03:40 AM	Mobarak	Mechanics	Small wound	During generator operations, the little finger of the left hand was wounded	Instantly First Aid was applied and sent him to the Mugda hospital

Table: Summary of accident/incident record during the reporting period (January-June, 2024)

SL.	Description	During the reporting period			Cumulative (January-June, 2024)
		ICB 2.10	NCB 2.11A, 2.11B, 2.11C (Lot-1&2), 2.11D (Lot-1&2)	NCB 2.12A, 2.12B, 2.12C, 2.12D, 2.12E	
1	Fatal accident	0	0	0	0
2	Lost Time injuries (LTI)	0	0	0	0
3	Medical Treatment	0	0	0	0
4	First Aid case	1	0	0	1
5	Fire	0	0	0	0
6	Security incident	0	0	0	0
7	Near miss	0	0	0	0

IX. MITIGATION MEASURES FOR PREVENTION OF COVID 19

78. With the outbreak of COVID 19 Pandemic and subsequent lockdown, most of the activities in the country stopped temporarily until the country became normalized. From around 26th March up to 31st May 2020 almost all the construction sites in the country were temporarily suspended. With the decrease of the threat of COVID 19, construction activities of the DWSNIP resumed with compliance to government's Technical Guidance for Social and Institutional Containment and Prevention of Pandemic COVID-19 Infection issued on 11 May 2020 applied by the Ministry of Health and Family Welfare and Director General Health Service (MOHFW/DGHS) and the guidelines circulated by the LGD.
79. The Addendum Health and Safety (H&S) Plans in response to COVID-19 were developed by all civil works contractors and approved by PMU as well as ADB. In summary, the following important elements in the H&S plans:
- (i) The plans are not intended to replace any formalized procedures currently in place for the Contractors. If the H&S Plans do not meet or exceed the standards put forth by the Contractors in their EMPs, SEMP's or other plans, the Contractors shall abide by the most stringent procedures/standards available;
 - (ii) The existing Environmental Officer or health & safety officer or Site Manager of the contractors can be designated as OHS officers;
 - (iii) Requirement for induction of employees and workers on COVID-19 per WHO guidelines, including training and monitoring;
 - (iv) List of specific PPE needs of all workers on a daily basis, with estimated costs to be borne by the contractors or funded under the contingency cost of provisional sum (subject to confirmation by PMU);
 - (v) Specific guidance for the management teams, offices, site labourers and stock yards/construction camps, including site facilities needed, on the implementation of COVID-19 prevention measures;
 - (vi) Self-declaration and monitoring checklists; and
 - (vii) Arrangement and contact numbers in cases of emergencies.
80. Meanwhile, BRM have prepared a COVID-19 Health and Safety Advisory Guidance for Construction Workforce and provided to Project Director on July 21, 2020. The guidance includes the protocols on the following:
- (i) Prerequisite measures before reopening the worksites;
 - (ii) Worksite entrance;
 - (iii) Worksite management;
 - (iv) Camp management;
 - (v) Work site awareness raising;
 - (vi) Risk exposure assessment guidance;
 - (vii) Engage an employee/staff to oversee health and safety issues; and
 - (viii) Monitoring and reporting mechanism.

X. OBSERVATIONS AND RECOMMENDATIONS

81. Based on the foregoing observations, findings and environmental monitoring carried out from January-June, 2024, it may be concluded that ICB 2.10, NCB 2.11A, 2.11B, 2.11C (Lot-1&2), 2.11D (Lot-1&2), NCB 2.12A, NCB 2.12B, NCB 2.12C, NCB 2.12D, NCB 2.12E under DWSNIP subprojects (DMAs) have been implemented as just satisfied. There are some non-compliance EMP activities noticed in the monitoring report in each DMA sites of different packages for which Corrective Action Plans have been prepared and presented in Table 8. Following are noncompliance issues for Packages
- Some trenches were found open after laying pipes improved at site
 - Although Contractor has provided adequate numbers of PPEs but use of these PPEs during construction sites are inadequate.
 - Management of air quality, dust and noise
 - Lack of using barricade and caution tape improved
 - Spoil disposal management improved
82. The concerned Contractors have been suitably advised. Contractors have also been advised to provide written commitment for implementation of corrective action plan. Contractor will mitigate the above issues according to Table 8 to remove these non-compliances.
83. At the beginning of the construction works at all DMAs, the Contractors were reluctant to comply with the EMP, HSP and use of Face Mask properly. From the initiative and continuous monitoring and supervision both from DMS and DWASA the safeguard compliances were achieved and all the safeguard compliances were found to carry out by the Contractors during reporting period.
84. Table 17 provides the recommended corrective action plan that has been devised and target dates that have been set so as to remove these non-compliances. The concerned Contractors have been suitably advised. Contractors have also been advised to provide written commitment for implementation of corrective action plan

Table 17: Implementation of Corrective Action Plans

SI No.	Non-Compliance	Action Required	Actual mitigation taken	Time Frame	Responsibility	Compliance Status
NCB 2.11 & NCB 2.12						
1	Not available traffic signage (Signs, Pavement Markings, Arrow Panels, Warning Lights) on site	Ensure the safety of all the road users along the work zone and Mark all under construction road.	Traffic signage has been used in front of the road as well as traffic diversion.	During construction work	Contractor-TCEL & HIETC-SRC JV	Partially improved; Further improvement is required
2	No notice board installed in the construction area within DMA	Immediate arrangement of proper notice board (Project information, nature of work and duration of the activities) at all construction sites	Notice board/banner was placed in the construction site during the construction work	During construction work	Contractor-TCEL & HIETC-SRC JV	Improved
3	Dust problem was noticed in the construction area	Sprinkling of water should be carried out at dusty sites	Sprinkling of water twice in a day has been carried out.	In dusty days	Contractor-RFL Plastic Ltd. & Falgu Sandhani	Improved
4	Incomplete use of PPEs by Workers	The Contractor to ensure the use of PPE on site	Trainings were carried out every day before construction work and workers were educated on importance of using PPE by the health and officers	Daily basis before construction work	Contractor-RFL Plastic Ltd. And HIETC-SRC JV	Partially improved; Further improvement is required
5	Poor Health and safety in COVID 19 prevention	Immediate improvement is required	Face mask, hand sanitizer, soap, disinfectants were provided to prevention.	During construction work	Contractor-RFL Plastic Ltd.	Improved satisfactorily

Table 17A: Corrective action plan for the next reporting period July-December, 2024

SL	Non-compliance	Action required	Target date	Responsibility	Remarks

ICB 2.10					
1	Insufficient display warning signs	Providing Warning display where construction work ongoing	During Construction	Contractor-CCSEB-RPL JV	
2	Insufficient display board, traffic diversion, clean and clear passage way	Providing traffic diversion, display board, clean & clear passage way should be placed in the work site	During construction	Contractor-CCSEB-RPL JV	
3	Insufficient distance from excavated materials and open pit	Excavated materials should be placed 1m away from the pit	During construction	Contractor-CCSEB-RPL JV	
NCB 2.11					
1	Insufficient display board, traffic diversion, clean and clear passage way	Need to provide traffic diversion, display board, clean & clear passage way should be placed in the work site	During construction	Contractor-TCEL, RFL, PDL-AEDL	
2	Irregular trainings on OHS to workers	Need to provide regular toolbox talk before construction work and site-specific work-related trainings	Before construction work	Contractor-TCEL, RFL, PDL-AEDL	
3	Not availability of temperature screening facility, first aid box, hand washing facilities	Need to provide proper first aid box, hand washing facilities and temperature screening facilities	On construction site	Contractor-TCEL, RFL, PDL-AEDL	
4	Insufficient display warning signs	Providing Warning display where construction work ongoing	During Construction	Contractor-TCEL, RFL, PDL-AEDL	
NCB 2.12					
1	Insufficient display board, traffic diversion, clean and clear passage way	Need to provide traffic diversion, display board, clean & clear passage way should be placed in the work site	During construction	Contractor-Falgu sandhani, TCEL, RFL, HIETC-SRC JV	
2	Irregular trainings on OHS to workers	Need to provide regular toolbox talk before construction work and site-specific work-related trainings	Before construction work	Contractor-Falgu sandhani, TCEL, RFL, HIETC-SRC JV	
3	Not availability of	Need to provide	On	Contractor-	

	temperature screening facility, first aid box, hand washing facilities	proper first aid box, hand washing facilities and temperature screening facilities	construction site	Falgu sandhani, TCEL, RFL, HIETC-SRC JV	
4	Insufficient display warning signs	Providing Warning display where construction work ongoing	During Construction	Contractor- Falgu sandhani, TCEL, RFL, HIETC-SRC JV	

85. Failure to perform the instructions, The Project Manager will take action against each Contractors. Alongside the Contractors are advised to follow the guidelines & instructions of DMS Officials. Environmental Specialist of DMS recommended the corrective measures which the contractor will do immediately for EMP and HSP compliance.

86. Prior to start works, the Contractor will recommend to provide the following information according to SEMP

- Name of Health, Safety Officer and Site Supervisors with contact details
- No. of workers (Male/Female wise)
- Copies of all permission/approvals for construction from concerned authority
- Tool box training to staff and workers
- Detail of Notice Board
- DMA wise traffic management plan
- Details of PPEs (item wise) including prevention of COVID 19
- Awareness Poster for COVID 19 prevention

Annex 01: ICB Package-wise Design and Implementation Status (Till June, 2024)

		DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
ICB-2.10	1st Batch	DMA 108A	Handover completed						HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well mobilization and testing completed.
		DMA 108B	Handover completed						
		DMA 113	Handover completed						
		DMA 115	Handover completed						
		DMA 116	Handover completed						
	2nd Batch	DMA 101	Handover completed						HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed
		DMA 102	Y	Y	Y	Y	Y	Partial road cutting permission has been obtained	
		DMA 103	Y	Y	Y	Y	Y		
		DMA 105	Y	Y	Y	Y	Y		
		DMA 106	Y	Y	Y	Y	Y		
		DMA 114	Handover completed						
	3rd Batch	DMA 104	Y	Y	Y	Y	Y	Partial road cutting permission has been obtained	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Bulk Water Meter, Float Valve; mobilization and testing completed.
		DMA 110	Handover completed						
		DMA 117	Y	Y	Y	Y	Y	Partial road cutting permission has been obtained	
DMA 118		Y	Y	Y	Y	Y	Partial road cutting permission has been obtained		

		DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing	
		DMA 119	Handover completed							
	4th Batch	DMA 107	Handover completed						Partial road cutting permission has been obtained	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed
		DMA 109A	Y	Y	Y	Y	Y			
		DMA 109B	Y	Y	Y	Y	Y			
		DMA 111	Y	Y	Y	Y	Y			
		DMA 112	Y	Y	Y	Y	Y			

NCB Package No.	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB-2.11A	DMA 301	Y	Y	Y	Y	Y	Road Cutting permission obtained for some DMAs	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.
	DMA 303	Y	Y	Y	Y	Y		
	DMA 306	Y	Y	Y	Y	Y		
	DMA 311	Y	Y	Y	Y	Y		
	DMA 320	Y	Y	Y	Y	Y		
	DMA 408	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	Activities performed during January-June, 2024 (Y-done; N-not done; N.A.-not applicable)							
		DMA	Survey	Model Design	Detail Design	Joint Verification	Method Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.11B	4 DMAs	DMA 305	Y	Y	Y	Y	Y	Road Cutting Permission	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve

		DMA 307	Y	Y	Y	Y	Y	received for DMA 305, 307, 312, 313	& NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Data Logger; mobilization and testing completed
		DMA 312	Y	Y	Y	Y	Y		
		DMA 313	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	Activities performed during January-June, 2024 (Y-done; N-not done; N.A.-not applicable)							
		DMA	Survey	Model Design	Detail Design	Joint Verification	Method Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.11C Lot 1	3 DMAs	DMA 406	Y	Y	Y	Y	Y	Road cutting permission received for DMA 406, 411 & 412 Revised road cutting permission for DMA 406, 411 & 412 was received.	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Data Logger; mobilization and testing completed
		DMA 411	Y	Y	Y	Y	Y		
		DMA 412	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	Activities performed during January-June, 2024 (Y-done; N-not done; N.A.-not applicable)							
		DMA	Survey	Model Design	Detail Design	Joint Verification	Method Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.11C Lot 2	3 DMAs	DMA 409	Y	Y	Y	Y	Y	Applied to DNCC for Road Cutting Permission	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Data Logger; mobilization and testing completed
		DMA 413	Y	Y	Y	Y	Y		
		DMA 414	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	Activities performed during January-June, 2024 (Y-done; N-not done; N.A.-not applicable)							
		DMA	Survey	Model Design	Detail Design	Joint Verification	Method Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.11D Lot 1	3 DMAs	DMA 1005	Y	Y	Y	Y	Y	Road Cutting Permission received for DMA 1010.	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Data Logger; mobilization and testing completed
		DMA 1010	Y	Y	Y	Y	Y		
		DMA 1011	Y	Y	Y	Y	Y	Demand note has been issued for DMA 1005 & 1011	

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.11D (Lot-2)	2 DMAs	DMA 1001	Y	Y	Y	Y	Y	Road Cutting permission obtained for all DMAs except the new Roads	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.
		DMA 1009	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.12A	2 DMAs	DMA 701A	Y	Y	Y	Y	Y	Road Cutting permission obtained for all	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
		DMA 701B	Y	Y	Y	Y	Y	DMAs except the new Roads	(PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.12B	2 DMAs	DMA 702	Y	Y	Y	Y	Y	Road Cutting permission obtained for all DMAs except the new Roads	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.
		DMA 703	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.12C	2 DMAs	DMA 706	Y	Y	Y	Y	Y	Road Cutting permission obtained for all DMAs except the new Roads	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and
		DMA 707	Y	Y	Y	Y	Y		

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
									testing completed.

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.12D	1 DMA	DMA 704	Y	Y	Y	Y	Y	Road Cutting permission obtained for all DMAs except the new Roads	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.

NCB Package no.	Batch no. (DMAs)	DMA	Survey	Model Design	Detail Design	Joint Verification	Method of Statement	Road cutting permission	Materials Mobilization & Testing
NCB 2.12E	1 DMA	DMA 705	Y	Y	Y	Y	Y	Road Cutting permission obtained for all DMAs except the new Roads	HDPE pipe & fittings, HC pipe & fittings, Regular Valve (Gate Valve & NRV), Special Valve (PSV & ARV), Domestic Water Meter, Bulk Water Meter, Float Valve; all mobilization and testing completed Deep Tube well 6 sets mobilization and testing completed.

Annex 02: Environmental Safeguards Compliance Matrix

Package	Batch (DMAs)	Targeted pipeline length (Km)	Pipe laying (Km) 30 June, 2024	Updated IEE (Y/N)	Disclosure (DWASA/ ADB)	Environmental Clearance from DOE (ECC)	Targeted date of Updated IEE submission
ICB 2.08	1 st Batch	455.8	455.5	Y	Y	Y	NA
	2 nd Batch			Y	Y	Y	NA
	3 rd Batch			Y	Y	Y	NA
ICB 2.09	1 st Batch	275	272.03	Y	Y	Y	NA
	2 nd Batch			Y	Y	Y	NA
	3 rd Batch			Y	Y	Y	NA
	4 th Batch			Y	Y	Y	NA
ICB 2.10	1 st Batch	474	471.72	Y	Y	Y	NA
	2 nd Batch			Y	Y	Y	NA
	3 rd Batch			Y	Y	Y	NA
	4 th Batch			Y	Y	Y	NA
NCB 2.11	NCB 2.11A	29.65	27.15	Y	Y	Y	NA
	NCB 2.11B	94.79	80.57	Y	Y	Y	NA
	NCB 2.11C, L-1	68.84	64.7	Y	Y	Y	NA
	NCB 2.11C, L-2	66.67	57.5	Y	Y	Y	NA
	NCB 2.11D, L-1	66.80	63.3	Y	Y	Y	NA
	NCB 2.11D, L-2	48.36	44.00	Y	Y	Y	NA
NCB 2.12	NCB 2.12A	34	27.36	Y	Y	Y	NA
	NCB 2.12B	43	35.12	Y	Y	Y	NA
	NCB	46	38.34	Y	Y	Y	NA

	2.12C						
	NCB 2.12D	33	25.75	Y	Y	Y	NA
	NCB 2.12E	33	23.5	Y	Y	Y	NA

Annex 03: Copy of Environmental Clearance Certificate and Renewal Certificate

Government of the People's Republic of Bangladesh
Department of Environment
 Paribesh Bhaban, E-16, Agargaon
 Sher-e-Bangla Nagar, Dhaka-1207
www.doc.gov.bd

Environmental Clearance Certificate

Section 12 of the Environment Conservation Act, 1995 (Amended 2002)

Clearance Certificate Number: 233

File number: 22.02.0000.018.72.43.19.

Clearance Certificate Issue Date: 12 June 2019

Renewal date not later than: 11 June 2020

A. Clearance Certificate Type

Environmental Clearance Certificate

B. Clearance Certificate Holder**Project Director**

Dhaka Water Supply Network Improvement Project

Dhaka WASA, WASA Bhaban (8th Floor)

98, Kazi Nazrul Islam Avenue, Kawran Bazar

Dhaka-1215.

C. Premises to which this Clearance Certificate Applies

The distribution pipelines will be laid within the RoW of Government roads. Total length of 1668 km distribution pipelines and reticulation will be laid in 29 Thana under DNCC and DSCC.

D. Activities for which this Clearance Certificate Authorizes and Regulates

The following components will be implemented through Dhaka Water Supply Network Improvement Project under Dhaka WASA -

- Survey, GIS base Network Modelling and Design, Pressure Test, Pre-commissioning, commissioning/Guarantee Tests
- Supplying and laying of 75-450 mm dia HDPE pipes (approx. 1668 km) water distribution lines by using open Trench, Pipe Bursting and Horizontal Drilling Technologies
- Installation of Service connections to approx. 156,163 households including supplying of HDPE pipes, fittings and accessories etc.
- Replacement/Up-gradation of approx. 50 Deep tubewells
- Supplies of key plant of Regular and special valves, Domestic and Bulk-Water meters and welscreen are also part of the facility.



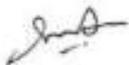
E. Terms and Conditions for Environmental Clearance Certificate

1. **Limit Condition for Discharges to Air and Water:** The Environmental Clearance Certificate must comply with schedule 2 and 10, rule 12 of the Environment Conservation Rules, 1997.
2. **Noise Limit:** The Environmental Clearance Certificate must comply with the Noise Pollution (Control) Rules, 2006.

In case of non-coverage of ECR 1997 the World Bank Environment, Health and Safety Guideline shall be adhered to.

3. Operating conditions:

- 3.1 Activities must be carried out in a competent manner. This includes:
 - (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.
- 3.2 All plant and equipment installed at the premises or used in connection with the Environmental Clearance activity:
 - (a) must be maintained in a proper and efficient condition; and
 - (b) must be operated in a proper and efficient manner.
- 3.3 Construction works shall be restricted to day time hours so as to avoid/mitigate the disturbance of local lives as well as implementation schedules of the works shall be notified in advance to nearby residents.
- 3.4 Storage area for soils and other construction materials shall be carefully selected to avoid disturbance of the natural drainage.
- 3.5 This shall be ensured that soil is obtained from nearby areas, which are free of invasive plants. Re-vegetation and replanting shall be undertaken if rehabilitation works involve extensive vegetation clearance.
- 3.6 Vegetation clearance shall be minimizing at the construction phase as to minimize soil erosion. Soils for embankments shall be properly tested and compacted to ensure stability.
- 3.7 Proper construction practices shall be followed that minimize loss of habitats and fish breeding, feeding & nursery sites.
- 3.8 Proper and adequate sanitation facilities shall be ensured in labor camps throughout the proposed project period.
- 3.9 In order to control noise pollution, vehicles & equipment shall be maintained regularly; working during sensitive hours and locating machinery close to sensitive receptor shall be avoided.
- 3.10 No solid waste can be burnt in the project area. An environment friendly solid waste management should be in place during whole the period of the project in the field.
- 3.11 Proper and adequate on-site precautionary measures and safety measures shall be ensured so that no habitat of any flora and fauna would be demolished or destructed.
- 3.12 All the required mitigation measures suggested in the EIA report are to be strictly implemented and kept operative/functioning on a continuous basis.



- 3.13 Any heritage sight, ecological critical area, and other environmentally and/or religious sensitive places shall be avoided during project construction phase.
- 3.14 Resettlement plan should be properly implemented and people should be adequately compensated, where necessary.
- 3.15 Construction material should be properly disposed off after the construction work is over.
- 3.16 The Environmental Management Plan included in the EIA report shall strictly be implemented and kept functioning on a continuous basis.

4.1 Monitoring and Recording conditions:

- 4.1.1 The results of any monitoring required to be conducted by this Clearance Certificate must be recorded.
- 4.1.2 The following records must be kept in respect of any samples required to be collected for the purposes of this Clearance Certificate:
 - (a) the date(s) on which the sample was taken;
 - (b) the time(s) at which the sample was collected;
 - (c) the point at which the sample was taken; and
 - (d) the name of the person who collected the sample.

4.2 Requirement to monitor concentration of pollutants discharged

For each monitoring, the Clearance Certificate holder must monitor (by sampling and obtaining results by analysis) the following parameter: air quality, water quality and Noise.

5. **Reporting Conditions:** Environmental Monitoring Reports* shall be made available simultaneously to Head quarters and Dhaka Metropolitan office of the Department of Environment on a quarterly basis during the whole period of the project.
6. **Notification of environmental harm:** The Clearance Certificate holder or its employees must notify the Department of Environment of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident.

F. Recording of pollution complaints

The certificate holder must keep a legible record of all complaints made to the certificate holder or any employee or agent of the certificate holder in relation to pollution arising from any activity to which this Environmental certificate applies. The record must include details of the following:

- (a) the date and time of the complaint;
- (b) the method by which the complaint was made;
- (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- (d) the nature of the complaint;



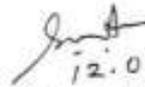
- (e) the action taken by the certificate holder in relation to the complaint, including any follow-up contact with the complainant; and
- (f) if no action was taken by the certificate holder, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made. The record must be produced to any authorized officer of the DOE who asks to see them.

G. Validity of the Clearance Certificate

This Environmental Clearance is valid for one year from the date of issuance and the project authority shall apply for renewal to the Dhaka Metropolitan office with a copy to Head Office of DOE at least 30 days ahead of expiry.

Violation of any of the above conditions shall render this clearance void.



12.06.19

(Syed Nazmul Ahsan)
Director (Environmental Clearance)
Phone: 8181673

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গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
ঢাকা মহানগর কার্যালয়
পরিবেশ ভবন, ই/১৬, আগারগাঁও, ঢাকা ১২০৭
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন

ছাড়পত্র নং: ২০-৪৩২৫১

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: Dhaka water supply Network Improvement project
উদ্যোক্তার নাম	: Dhaka Water Supply And Sewerage Authority
সনাক্তকরণ নং	: ৭৯৫১৯
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: Water, power and gas distribution line laying/relaying/extension
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	: Red
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: project director,Dhaka WASA, WASA Bhaban (8th floor), 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215,Tejgaon,Dhaka
প্রদানের তারিখ	: 18.08.2020
মেয়াদ উত্তীর্ণের তারিখ	: 12.06.2021



ছাড়পত্রটি যাচাই করতে ভিজিট করুন: http://ecc.doe.gov.bd/certificate_verification

Page 1 of 3

সদ্যাকরণ নং: ৭৯৫১৯

Dhaka water supply Network Improvement project

ছাড়পত্র নং: ২০-৪৩২৫১

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পরিবেশগত ছাড়পত্র নবায়ন জন্য প্রযোজ্য শর্তাবলী:

১. এ ছাড়পত্র শুধুমাত্র ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রকল্পে (ডিজব্রিউ-এসএনআইপি)-এর ক্ষেত্রে প্রযোজ্য হবে।
২. বর্ষিত প্রকল্পের অনুসূলে পরিবেশ অধিদপ্তরের বিগত ১২.০৬.২০১৯ তারিখ নং-২২.০২.০০০০.০১৮.৭২.৪৩.১৯.২৩৩ সংখ্যক স্মারকে প্রদত্ত পরিবেশগত ছাড়পত্রের সকল শর্ত অপরিবর্তিত থাকবে।
৩. প্রকল্পের কার্যক্রম দ্বারা কোন অবস্থায় রাজ্যীয় স্থানজট সৃষ্টি করা যাবে না। এ বিষয়ে বিকল্প ব্যবস্থাপনা সার্বক্ষণিক কার্যক্রম রাখতে হবে।
৪. প্রকল্পের এলাইনমেন্টে স্থানজট নিয়ন্ত্রণের জন্য নিজস্ব জনবল দ্বারা সার্বক্ষণিক স্থানজট নিয়ন্ত্রণের জন্য কার্যক্রম উদ্যোগ গ্রহণ করতে হবে।
৫. কোন অবস্থায় প্রকল্পের কার্যক্রম দ্বারা কোন জলাজয়, জোবা, নালা, বিল, খাল, পুকুর, বন্যা প্রবাহ এলাকা, ওয়াটার রিটেনশন এরিয়া ভরাট করা যাবে না।
৬. প্রকল্পের কার্যক্রমে বাস্তবায়নের সময় রাস্তা খোঁড়া-খোঁড়ি করার সময় তাৎক্ষণিকভাবে রাস্তার মাটি নিরাপদে অপসারণ করতে হবে এবং কোন মাটি/বালি উন্মুক্ত অবস্থায় রাখা যাবে না যাতে রোদে ডাট উন্মিত হয়ে বায়ু দূষণ না হয় এবং বৃষ্টির পানিতে ট্রুম ওয়াটারের সাথে মিশে রাস্তা সংলগ্ন ড্রেনেজ ব্রক সৃষ্টি হয়ে জলাবদ্ধতা সৃষ্টি না করে।
৭. প্রকল্পের পাশের রাস্তায় কোন ধরনের নির্মাণ সামগ্রী রেখে ছুটিপাত/রাস্তার প্রতিবন্ধকতা সৃষ্টি করা যাবে না।
৮. প্রকল্পের কার্যক্রম দ্বারা পরিবেশ ও প্রতিবেশের ক্ষতিসাধন করা হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ দাবী করে নির্ধারিত সময়ের মধ্যে দায়বদ্ধ ক্ষতিপূরণ আদায় করা হবে।
৯. মহানগর হাইকোর্ট বিচারের জিট পিটিশন নম্বর ৯১৬/২০১৯ এর বিগত ২৯/০১/২০১৯ তারিখের আদেশ অনুযায়ী প্রকল্প নির্মাণকালে বায়ু/ডাট দূষণ নিয়ন্ত্রণমণ্ডলে দৈনিক অন্ততঃ দুইবার পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১০. প্রকল্পের কার্যক্রমের মাধ্যমে কোন প্রকার বায়ু/শব্দ দূষণ সৃষ্টি করা যাবে না। নির্মাণ কাজ চলাকালীন নির্মাণাধীন অবকাঠামো/বালু/মাটি যথাযথভাবে ঢেকে রাখতে হবে যাতে ধূলাবালি অপেক্ষাশূন্যে ছড়িয়ে না পড়ে।
১১. প্রকল্পের কাজ শেষ হওয়ার সাথে সাথে তাৎক্ষণিকভাবে খোঁড়া-খোঁড়িকৃত রাস্তা পূর্বের অবস্থায় ফিরিয়ে আনতে হবে। এ বিষয়ে সংশ্লিষ্ট ত্রিকলারী প্রতিষ্ঠানকে প্রয়োজনীয় নির্দেশনা প্রদান করতে হবে। পরিবেশগত বিষয়াদি যথাযথভাবে বাস্তবায়ন করার জন্যও ত্রিকলারী প্রতিষ্ঠানকে নির্দেশনা প্রদান করতে হবে।
১২. বায়ুদূষণ নিয়ন্ত্রণের জন্য নির্মাণ সামগ্রী ঢেকে রাখতে হবে এবং নির্মাণ সামগ্রী পরিবহনের সময়ও ঢেকে পরিবহণ করতে হবে।
১৩. নির্মাণাধীন অবকাঠামো/প্রকল্পের এলাইনমেন্ট এলাকায় নিয়মিত পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১৪. প্রকল্পের নির্মাণ কার্যক্রম চলাকালে শব্দ নিয়ন্ত্রণ/নির্মাণ মাস্ট্রো শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭-এ বর্ষিত মানদণ্ডের মধ্যে রাখতে হবে।
১৫. সব ধরনের বর্জ্যের ক্ষেত্রে বিশেষতঃ কঠিন বর্জ্য ব্যবস্থাপনায়, উৎসে বর্জ্য পৃথকীকরণ করতে হবে এবং বর্জ্য স্ট্রাস, পুনঃব্যবহার ও পুনঃজন্মায়ন নীতিমালা তথা 3R(Reduce, Reuse, Recycle) Principles অনুসরণ করতে হবে। এছাড়া পৃথকীকৃত বর্জ্য আবৃত অবস্থায় উপযুক্ত সময় নিকটস্থ সিটি কর্পোরেশনের ট্রান্সফর স্টেশন/ডাম্পিং গ্রাউন্ডে স্থানান্তর/পরিবহনের বিষয়টি উদ্যোগ/সিটি কর্পোরেশনের সহায়তায় নিশ্চিত করবেন।
১৬. নির্মাণকাজ চলাকালে প্রমিকসের পেশাগত বাহ্য সুরক্ষা সামগ্রী (পিপিই যেমন ইয়ার প্লাগ, নোজ মাস্ক ইত্যাদি) সার্বক্ষণিকভাবে ব্যবহার করতে হবে।
১৭. পরিবেশগত ছাড়পত্র ও সর্বশেষ নবায়নের কপি প্রকল্প অফিসে সংরক্ষণ করতে হবে।
১৮. ছাড়পত্র নবায়নের মেয়াদ শেষ হবার অন্ততঃ মিশ্র দিন পূর্বে প্রাসঙ্গিক কাগজপত্রসহ অন-লাইনে নবায়নের জন্য আবেদন করতে হবে।
১৯. উপর্যুক্ত শর্ত এবং অবস্থান বিষয়ক পরিবেশগত ছাড়পত্রের প্রদত্ত অন্যান্য শর্তাবলী প্রতিপালনে ব্যর্থ হলে ছাড়পত্র বাতিল বলে গণ্য হবে এবং বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭ অনুযায়ী আইনগত ব্যবস্থা গ্রহণ করা হবে।

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ঢাকা মহানগর কার্যালয়
পরিবেশ ভবন, ই/১৬, আগারগাঁও
শেরে বাংলা নগর, ঢাকা-১২০৭।
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স্মারক নং-২২.০২.০০০০.০৯১.৭২.০৭৫.২০/নবায়ন-১৩০

তারিখঃ ০৭/০৮/২০২১ খ্রিস্টাব্দ।

বিষয় : পরিবেশগত ছাড়পত্র নবায়ন (শ্রেণীঃ লাল) প্রসঙ্গে।

সূত্র : আপনার গত ১৪.০৬.২০২১ তারিখের আবেদন ও অন-লাইন(৭৯৫১৯)।

উপর্যুক্ত বিষয় ও সূত্রের প্রেক্ষিতে জানানো যাচ্ছে যে, আপনার আবেদন, দাখিলকৃত অন্যান্য কাগজপত্র ও সরেজমিন পরিদর্শন প্রতিবেদন যাচাই বাছাই করে ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রোভমেন্ট প্রজেক্ট(ডিভিভিউএসএনআইপি), ঢাকা ওয়াসা অনুকূলে ইস্যুকৃত পরিবেশগত ছাড়পত্রের নবায়নের কপি অন-লাইনে প্রদান করা হয়েছে, যার সনাক্তকরণ নম্বর-৭৯৫১৯। উল্লেখ্য অন-লাইনে উদ্যোক্তার আইডি দিয়ে লগইন করে পরিবেশগত ছাড়পত্রের নবায়নের কপি ডাউনলোড করে প্রিন্ট করা যাবে। ডিজিটাল ছাড়পত্র একটি সিস্টেম জেনারেটেড ছাড়পত্র হওয়ায় এতে কোন স্বাক্ষরের প্রয়োজন নেই।

০৭.০৮.২১

✓ জনাব মোঃ আখতারুজ্জামান
অতিরিক্ত প্রধান প্রকৌশলী
ও
প্রকল্প পরিচালক
ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক
ইমপ্রোভমেন্ট প্রজেক্ট(ডিভিভিউএসএনআইপি)
ঢাকা ওয়াসা
৯৮, কাজী নজরুল ইসলাম এভিনিউ
কাওরান বাজার, ঢাকা-১২১৫।

০৭/০৮/২১
(মোহাম্মদ আসাদুল হক)
পরিচালক(উপসচিব)
ফোনঃ ৯১৮১৭৮৯
Email: dhakametro@doe.gov.bd

অনুলিপিঃ অবগতির জন্যঃ

১। সহকারী পরিচালক, মহাপরিচালক মহোদয়ের শাখা, পরিবেশ অধিদপ্তর, ঢাকা।

১/৮/২১
al meek

EE/B
5.8.21



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পরিবেশ ভবন, ই/১৬, আগারগাঁও, ঢাকা ১২০৭
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পরিবেশগত ছাড়পত্র নবায়ন

ছাড়পত্র নং: ২১-৬০৫১১

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: Dhaka water supply Network Improvement project
উদ্যোক্তার নাম	: Dhaka Water Supply And Sewerage Authority
সনাক্তকরণ নং	: ৭৯৫১৯
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: Water, power and gas distribution line laying/relaying/extension
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	: Red
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: project director,Dhaka WASA, WASA Bhaban (8th floor), 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215,Tejgaon,Dhaka
প্রদানের তারিখ	: 30.06.2021
নবায়ন উত্তীর্ণের তারিখ	: 12.06.2022



এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী স্বাক্ষরধারীরা প্রতিপালন করতে হবে, অন্যথায় ছাড়পত্র বাতিল/ক্ষতিপূরণ আদায়সহ যে কোন আইনানুগ ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি নিষ্ক্রেম জেলারেজিষ্টার ছাড়পত্র এবং এতে কোনোরূপ স্বাক্ষরের প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: http://ecc.doe.gov.bd/certificate_verification

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সনাক্তকরণ নং: ৭৯৫১৯

Dhaka water supply Network Improvement project

ছাড়পত্র নং: ২১-৬০৬১১

পরিবেশগত ছাড়পত্র নবায়ন জন্য প্রযোজ্য শর্তাবলী:

১. এ ছাড়পত্র শুধুমাত্র ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (ডিস্ট্রিবিউটন সিস্টেম আইপি)-এর ক্ষেত্রে প্রযোজ্য হবে।
২. বর্ণিত প্রকল্পের অন্তর্গত পরিবেশ অধিদপ্তরের বিগত ১২.০৬.২০১৯ তারিখ নং-২২.০২.০০০০.০১৮.৭২.৪৩.১৯.২৩৩ সংখ্যক মারকে প্রদত্ত পরিবেশগত ছাড়পত্রের সকল শর্ত অপরিবর্তিত থাকবে।
৩. প্রকল্পের কার্যক্রম দ্বারা কোন অবস্থায় রাজ্যীয় মানজট সৃষ্টি করা যাবে না। এ বিষয়ে বিকল্প ব্যবস্থাপনা সার্বজনিক কার্যকর রাখতে হবে।
৪. প্রকল্পের এলাইনমেন্টে মানজট নিয়ন্ত্রণের জন্য নিজস্ব জনবল দ্বারা সার্বজনিক মানজট নিয়ন্ত্রণের জন্য কার্যকর উদ্যোগ গ্রহণ করতে হবে।
৫. কোন অবস্থায় প্রকল্পের কার্যক্রম দ্বারা কোন জলাজয়, জোলা, মালা, বিল, বাস, পুকুর, বন্যা প্রবাহ এলাকা, ওয়াটার রিটেনশন এরিয়া সৃষ্টি করা যাবে না।
৬. প্রকল্পের কার্যক্রম বাস্তবায়নের সময় রাজ্য বোম্বা-খোঁড়ি করার সময় আঞ্চলিকভাবে রাজ্যের মাটি নিরাপত্তা অপসারণ করতে হবে এবং কোন মাটি/বালি উন্মুক্ত অবস্থায় রাখা যাবে না যাতে রোদে ভাজি উষ্ণ হয়ে বায়ু দূষণ না হয় এবং বুজির পশিচে স্ট্রিম ওয়াটারের সাথে মিশে রাজ্য সংলগ্ন ড্রেনেজ ব্যাক সৃষ্টি হয়ে জলাবদ্ধ সৃষ্টি না করে।
৭. প্রকল্পের পাশের রাজ্যীয় কোন ধরনের নির্মাণ সামগ্রী রেখে যুটীপাতা/রাজ্যের প্রতিবেদন সৃষ্টি করা যাবে না।
৮. প্রকল্পের কার্যক্রম দ্বারা পরিবেশ ও প্রতিবেশের অতিসাদন করা হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ কার্য করে নির্বিঘ্নে সমস্যা মেরে দায়িত্বিত্ত ক্ষতিপূরণ আদায় করা হবে।
৯. মহামান্য হাইকোর্ট বিচারের রিট পিটিশন নম্বর ৯১৬/২০১৯ এর বিগত ২৯/০১/২০১৯ তারিখের আদেশ অনুযায়ী প্রকল্প নির্মাণকালে বায়ু/জায় দূষণ নিয়ন্ত্রণকক্ষে সৈনিক অন্তর্ভুক্ত হওয়ার পশি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১০. প্রকল্পের কার্যক্রমের মাধ্যমে কোন প্রকার বায়ু/শব্দ দূষণ সৃষ্টি করা যাবে না। নির্মাণ কাজ চলাকালিন নির্মাণাধীন অবকাঠামো/বাসু/মাটি স্ফায়নকারে ঢেকে রাখতে হবে যাতে ধূলাবালি অংশপাশে ছড়িয়ে না পড়ে।
১১. প্রকল্পের কাজ শেষ হওয়ার সাথে সাথে আঞ্চলিকভাবে খোঁড়-খোঁড়ী ভুক্ত রাজ্য পূর্বের অবস্থায় ফিরিয়ে আনতে হবে।
১২. বায়ুদূষণ নিয়ন্ত্রণের জন্য নির্মাণ সামগ্রী ঢেকে রাখতে হবে এবং নির্মাণ সামগ্রী পরিবহনের সময়ও ঢেকে পত্রিবহন করতে হবে।
১৩. নির্মাণাধীন অবকাঠামো/প্রকল্পের এলাইনমেন্ট এলাকার সিমেন্ট পশি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১৪. প্রকল্পের নির্মাণ কার্যক্রম চলাকালে শব্দ নিয়ন্ত্রণ/নির্দিষ্ট মাত্রা শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭-এ বর্ণিত মানদণ্ডের মধ্যে রাখতে হবে।
১৫. সব ধরনের বর্জ্যের ক্ষেত্রে বিশেষতঃ কঠিন বর্জ্য ব্যবস্থাপনা, উৎসে বর্জ্য পৃথকীকরণ করতে হবে এবং বর্জ্য গ্রাস, পুনঃব্যবহার ও পুনঃচলান নীতিমালা তথা 3R(Reduce, Reuse, Recycle) Principles অনুসরণ করতে হবে। এছাড়া পৃথকীকৃত বর্জ্য আবৃত অবস্থায় উপযুক্ত সময়া নিকটস্থ সিটি কর্পোরেশনের ট্রান্সফার স্টেশন/ডাম্পিং গ্রাউন্ডে স্থানান্তর/পরিবহনের বিষয়টি উল্লেখ্য নিজস্ব উদ্যোগ/সিটি কর্পোরেশনের সহায়তায় নিশ্চিত করবেন।
১৬. নির্মাণকাজ চলাকালে প্রমিকদের পেশাগত স্বাস্থ্য সুরক্ষা সামগ্রী (পিপিই যেমন ইয়ার প্লাগ, নোজ মাস্ক ইত্যাদি) সার্বজনিকভাবে ব্যবহার করতে হবে।
১৭. পরিবেশগত ছাড়পত্র এ সর্বশেষ নবায়নের কপি প্রকল্প অফিসে সংরক্ষণ করতে হবে।
১৮. ছাড়পত্র নবায়নের মেয়াদ শেষ হবার অন্ততঃ মিশ দিন পূর্বে প্রসঙ্গিত কাগজপত্রসহ অন-লাইনে নবায়নের জন্য আবেদন করতে হবে।
১৯. উপযুক্ত শর্ত এবং অবস্থান বিষয়ক পরিবেশগত ছাড়পত্রের প্রদত্ত অন্যান্য শর্তাবলী প্রতিপালনে ব্যর্থ হলে ছাড়পত্র বাতিল বলে গণ্য হবে এবং বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৬ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭ অনুযায়ী আইনগত ব্যবস্থা গ্রহণ করা হবে।



DHAKA WATER SUPPLY NETWORK IMPROVEMENT PROJECT

Dhaka Water Supply & Sewerage Authority

WASA BHABAN

98, Kazi Nazrul Islam Avenue (8th Floor), Kawran Bazar, Dhaka-1215.

Phone: 880-2-9116033, Fax: 880-2-9116086

Website: www.dwsnip-dwasa.com

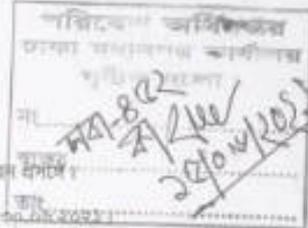


শেখ হাসিনার মুদ্রিত
এমে শব্দের ছাপ

Memo No: 46.113.624.00.00.G-06/DWSNIP/744

Date: 17/06/2022

পরিচালক
ডাক্তার মহম্মদ
পরিবেশ অধিদপ্তর
পরিবেশ ভবন, ই-১৬, আওয়াজী
শেরে বাংলা নগর, ঢাকা-১২৫৭।



বিষয়: ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট এর পরিবেশগত হাতুড়পত্রের নবায়ন বিষয়ে।

সূত্র: পরিবেশ অধিদপ্তরের স্মারক নং- ২২.০২.০০০০.০০১.১২.৭৫.২০.নম্বারন-৩০, তারিখ-৩০.০৯.২০২১

উপর্যুক্ত বিবরণ ও সূত্রের প্রেক্ষিতে জানানো যাচ্ছে যে, এপ্রিভি সার্ভিসেস লিমিটেড ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্টে ঢাকা জরায়ের আওতাধীন অঞ্চলের একটি আঞ্চলিক প্রকল্প। অত্র প্রকল্পের আওতাধীন ঢাকা শহরের অন্তর্ভুক্ত এলাকা যথা-উত্তর, শ্যামলী, মোহাম্মদপুর, পানবগ, আজিমপুর, হাজারীবাগ, কামাল, দুলাপুর, মতিঝিল, শনির আশুতা, হাজারবাড়ী ও সর্বশেষ এলাকার পুরাকন জয়াবীর্ণ পানির লাইন পরিবর্তনসহ প্রকল্পসমূহের মতামত পানি সরঞ্জাম প্রকল্পের মাধ্যমে ৩২ (ত্রিশ) টি District Metered Area (DMA) প্রতিষ্ঠার কাজ করা হবে। অত্র প্রকল্পের পরিবেশগত হাতুড়পত্র প্রারম্ভের তারিখ ২১/০৬/২০২০ তারিখ পরিবেশ অধিদপ্তর কর্তৃক প্রেরণ করা হয়। উক্ত প্রকল্পের প্রেক্ষিতে সূত্রসূ স্মারক মোতাবেক ০১ (এক) বছর মেয়াদী পরিবেশগত হাতুড়পত্র ইস্যু করা হয়। কিন্তু ইয়াকৃত পরিবেশগত হাতুড়পত্র এর মেয়াদ গত ১২/০৬/২০২২ তারিখ শেষ হবে বিধায় তা নবায়ন করা প্রয়োজন। পরিবেশগত হাতুড়পত্র নবায়নের জন্য হাতুড়পত্রের আবেদন ফিরি উপর আবেদনিক ২৫% বাৎসরিক নবায়ন ফি স্বাক ১.২৫,০০০/- টাকা (ফোর্ড নং: ১-৪২৪১-০০০০-২০২১) এবং সরবরাহ কর্তৃক আবেদনিকৃত ১২% ফার্সি স্বাক ১৫,৭৫০/- টাকা (ফোর্ড নং: ১-১১০০-০০০০-০০১১)-এ ট্রেন্ডারী প্রাপ্তির মাধ্যমে অত্র প্রকল্প করে অনলাইন আবেদন পর পূর্ণা পূর্ণ হার্টকলি প্রকল্পের মাধ্যমে সংশোধন করা হ'ল।

অনুরোধক্রমে, "Dhaka Water Supply Network Improvement Project" এর পরিবেশগত হাতুড়পত্র ইস্যু নবায়ন করার জন্য আপত্তিক বিশেষভাবে অনুরোধ করা হ'ল।

সংক্ষেপ

- (ক) পরিবেশগত হাতুড়পত্রের অঙ্গুণি,
- (খ) Received copy of the letter for sending Quarterly Environment Monitoring Report (July to September 21).
- (গ) Received copy of the letter for sending Quarterly Environment Monitoring Report (October to December 21).
- (ঘ) Quarterly Environment Monitoring Report (January to March 22);
- (ঙ) বিদ্যমানের অঞ্চলক পরিবেশগত হাতুড়পত্র নবায়ন ফি এর প্রাপ্ত (ফোর্ড নং T-2, তারিখ- ১৪/০৬/২০২১, ঢোকালী ব্যাংক লিমিটেড,আওতাধীন মেসেজ হাটেরি পনাম, ঢাকা);
- (চ) পরিবেশগত হাতুড়পত্র নবায়ন ফি এর উপর আবেদনিক ২৫% ফার্সি (ফোর্ড নং T-1, তারিখ- ১৪/০৬/২০২১, ঢোকালী ব্যাংক লিমিটেড,আওতাধীন মেসেজ হাটেরি পনাম, ঢাকা);
- (ছ) অত্র লাইন আবেদনের অঙ্গি,

৩৫

মোঃ আব্দুল সত্ফিক
তত্ত্বাবধায়ক প্রকৌশলী ও
প্রকল্প পরিচালক
ডিস্ট্রিক্ট এমএনআইপি, ঢাকা ওয়াটার।

সহুণি

- ১. অঙ্গুণিপ্রাপ্ত, পরিবেশ অধিদপ্তর, ঢাকা।
- ২. পরিচালক (ইঞ্জিনিয়ারিং), ঢাকা ওয়াটার।
- ৩. উপ-প্রকল্প পরিচালক, ডিস্ট্রিক্ট এমএনআইপি, ঢাকা ওয়াটার।
- ৪. নির্বাহী প্রকৌশলী, ডিস্ট্রিক্ট এমএনআইপি, ঢাকা ওয়াটার।

2 of 2 | DWSNIP Environmental Monitoring Report



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
ঢাকা মহানগর কার্যালয়
পরিবেশ ভবন, ই/১৬, আগারগাঁও, ঢাকা ১২০৭
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন

ছাড়পত্র নং: ২২-৬৩৭৪০

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সার্কেলে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: Dhaka water supply Network Improvement project
উদ্যোক্তার নাম	: Dhaka Water Supply And Sewerage Authority
সনাক্তকরণ নং	: ৭৯৫১৯
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: Water, power and gas distribution line laying/relaying/extension
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	: Red
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: project director,Dhaka WASA, WASA Bhaban (8th floor), 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215
প্রদানের তারিখ	: ২৪/০৭/২০২২খ্রিঃ
মেয়াদ উত্তীর্ণের তারিখ	: ১২/০৬/২০২৩খ্রিঃ



এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী কঠোরভাবে প্রতিপালন করতে হবে, অন্যথায় ছাড়পত্র বাতিল/অতিরিক্ত আদায়সহ যে কোন আইনগত ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি সিস্টেম কেন্দ্রীয়ভাবে পরিচালিত ছাড়পত্র এবং এতে কোনোরূপ হস্তক্ষেপ প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ডিজিটাল লিঙ্ক: https://ecc.doe.gov.bd/certificate_verification

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সংস্করণ নং: ৭৪৫১৯

Dhaka water supply Network Improvement project

ছাড়পত্র নং: ২২-৩০৭৪০

পরিবেশগত ছাড়পত্র নবায়ন এর জন্য প্রয়োজ্য শর্তাবলী:

১. এ ছাড়পত্র অনুসারে সকল ওয়ার্ডের সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (ডিজিটাইজেশন/ইউপি)-এর ক্ষেত্রে প্রযোজ্য হবে।
২. বর্ষিক প্রকল্পের অনুসূচি পরিবেশ মনোনিবেশের বিপর ১২.০৬.২০১৯ তারিখ নং-২২.০২.০০০০.০১৮.৭২.৪৩.১৯.২০০ সংখ্যক আওতাধীন পরিবেশগত ছাড়পত্রের সকল শর্ত অপরিবর্তনীয় থাকবে।
৩. প্রকল্পের কার্যক্রম দ্বারা কোন অবস্থায় হাজার হাজার লোকের স্বাস্থ্য ঝুঁকি সৃষ্টি করা যাবে না। এ বিষয়ে বিকল্প ব্যবস্থাপনা সার্বজনিক কার্যক্রম গ্রহণ করে হবে।
৪. প্রকল্পের এলাইনমেন্টে যানজট নিয়ন্ত্রণের জন্য নিজস্ব জনবল দ্বারা সার্বজনিক হাজার হাজার লোকের স্বাস্থ্য ঝুঁকি সৃষ্টি হওয়ার জন্য কার্যকর উদ্যোগ গ্রহণ করতে হবে।
৫. কোন অবস্থায় প্রকল্পের কার্যক্রম দ্বারা কোন জলাভাষা, জোবা, নদা, বিল, খাল, পুকুর, কন্যা প্রবাহ এলাকা, ভারতীয় রিটেনশন এরিয়া করা করা যাবে না।
৬. প্রকল্পের কার্যক্রম বাস্তবায়নের সময় রাস্তা খোঁড়া-খোঁড়ি করার সময় অস্বাস্থ্যকরভাবে হাজার হাজার লোকের স্বাস্থ্য ঝুঁকি সৃষ্টি হওয়ার ঝুঁকি নিয়ন্ত্রণে অস্বাস্থ্যকর হবে এবং কোন মাটি/বালি উন্মুক্ত অবস্থায় রাখা যাবে না যাতে কোনো ভাঙি উদ্ভিত হয়ে বায়ু দূষণ না হয় এবং লুইস পানিতে ট্রুম ওয়ার্ডের সাথে মিশে রাস্তা সংলগ্ন ড্রেনেজ টুক সৃষ্টি হয়ে জলাভাষা সৃষ্টি না করে।
৭. প্রকল্পের পাশের হাজার হাজার লোকের নির্মূল সামগ্রী গ্রহণে যত্নসহকারে পরিষ্কার সৃষ্টি করা যাবে না।
৮. প্রকল্পের কার্যক্রম দ্বারা পরিবেশ ও পরিবেশের ক্ষতিসাধন করা হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ কার্যক্রম নির্ধারিত সময়ের মধ্যে কার্যকর ক্ষতিপূরণ আনয়ন করা হবে।
৯. মহানগর হাইড্রো টেকনিক্যাল বিভাগের বিটি পিআইসি নম্বর ৯১৬/২০১৯ এর বিপর ২৯/০১/২০১৯ তারিখের আদেশ অনুযায়ী প্রকল্প নির্মাণকালে বায়ু/মাটি দূষণ নিয়ন্ত্রণকালে দৈনিক অল্পতম ৩টিবার পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১০. প্রকল্পের কার্যক্রমের মাধ্যমে কোন প্রকার বায়ু/পানি দূষণ সৃষ্টি করা যাবে না। নির্মূল কাজ ৩লাকালীন নির্মূলপাইন অবকাঠামো/বাণ্য/মাটি যথাযথভাবে ঢেকে রাখতে হবে যাতে ধূলাবালি আবেশণে ছড়িয়ে না পড়ে।
১১. প্রকল্পের কাজ শেষ হওয়ার সাথে সাথে অস্বাস্থ্যকরভাবে খোঁড়া-খোঁড়ি করা রাস্তা পূর্বের অবস্থায় ফিরিয়ে আনতে হবে।
১২. বায়ুদূষণ নিয়ন্ত্রণের জন্য নির্মূল সামগ্রী ঢেকে রাখতে হবে এবং নির্মূল সামগ্রী পরিবহনের সময়ও ঢেকে পরিবহন করতে হবে।
১৩. নির্মূলপাইন অবকাঠামো/প্রকল্পের এলাইনমেন্ট এলাকায় নিয়মিত পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১৪. প্রকল্পের নির্মূল কার্যক্রম চলাকালে শব্দ নিয়ন্ত্রণ/নির্গমন হারা শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭-এ বর্ষিক মানমাত্রার মধ্যে রাখতে হবে।
১৫. সব ধরনের বর্জ্যের ক্ষেত্রে বিশেষতঃ কঠিন বর্জ্য ব্যবস্থাপনা, উৎস-বর্জ্য পৃথকীকরণ করতে হবে এবং বর্জ্য গ্রাস, পুনঃব্যবহার ও পুনঃচর্চা মীতিমালা কন্যা 3R(Reduce, Reuse, Recycle) Principles অনুসরণ করতে হবে। এছাড়া পৃথকীকৃত বর্জ্য আবৃত অবস্থায় উপযুক্ত সময় নিকটস্থ সিটি কর্পোরেশনের ট্রান্সকার টেম্পোর/অপিসি প্রাতিবেদন হানা/পরিবহনের বিষয়টি উদ্যোগ নিজস্ব উদ্যোগ/সিটি কর্পোরেশনের সহায়তায় নিশ্চিত করবেন।
১৬. নির্মূলকাজ চলাকালে প্রতিদিনের পেশাগত বাস্তব সুবন্ধা সামগ্রী (সিইসি) যেমন ইয়ার গ্রাস, সেক্স মাক ইত্যাদি) সার্বজনিকভাবে ব্যবহার করতে হবে।
১৭. পরিবেশগত ছাড়পত্র ও সর্বশেষ নবায়নের কপি প্রকল্প অফিসে সংরক্ষণ করতে হবে।
১৮. ছাড়পত্র নবায়নের মেয়াদ শেষ হবার অল্পতম ৩ মাস পূর্বে প্রাথমিক কাগজপত্রসহ অন.লাইনে নবায়নের জন্য আবেদন করতে হবে।
১৯. উপর্যুক্ত শর্ত এবং অবস্থান বিষয়ক পরিবেশগত ছাড়পত্রের প্রদত্ত অন্যান্য শর্তাবলী প্রতিপালনে ব্যর্থ হলে ছাড়পত্র বাতিল বলে গণ্য হবে এবং বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৭ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭ অনুযায়ী আইনগত ব্যবস্থা গ্রহণ করা হবে।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

4th renewal Application

ফরম-৫
পরিবেশগত ছাড়পত্র ছাড়পত্র নবায়নের আবেদনপত্র
[বিধি ২২ এর উপ-বিধি (১) দ্রষ্টব্য]

পরিবেশ অধিদপ্তর
ঢাকা মহানগর বায়ুয়োগ্য
গৃহীত হলো
নং: নব' ৩৫০
তারিখ: ২২/৬/২৬

নবায়ন, পারিচালিকা
ঢাকা মহানগর, পরিবেশ অধিদপ্তর -
পরিবেশ ভবন, ই-৬, আগারগাঁও, জোরে বাহলা নগর, ঢাকা-১২০৭।

জনাব,

আমি আমার বিদ্যমান শিল্প প্রতিষ্ঠান/প্রকল্পের জন্য সিল্পে প্রদত্ত তথ্যাদিসহ কাগজপত্র জমা প্রদান করিলাম পরিবেশগত ছাড়পত্র নবায়নের জন্য আবেদন করিতেছি:

- শিল্প প্রতিষ্ঠান/প্রকল্পের নাম: ঢাকা ওয়ার্টার জায়গাই লেটোম্যাক ইন্সপেকশনে প্রজেক্ট
- শিল্প প্রতিষ্ঠান/প্রকল্পের ঠিকানা: ওয়ার্টার ভবন, ২৬, কাজী নজরুল ইসলাম এভিনিউ (২য় তলা)
কাজী নজরুল ইসলাম বজার, ঢাকা।
- (ক) শিল্প প্রতিষ্ঠানের ক্ষেত্রে উৎপাদিত পণ্যের নাম ও পরিমাণ (দৈনিক/মাসিক):
(খ) প্রস্তাবিত প্রকল্পের ক্ষেত্রে প্রকল্পের প্রধান কার্যক্রম: নতুন পানির লাইন স্থাপন ও হাউজ কানেকশন
- পরিবেশগত ছাড়পত্র আন্ডার নম্বর: ২২.০২.০০০০.০২৬.৭২.৪৬.১২.২৬৬ তারিখ: ০২/৬/২০২২
- সর্বশেষ নবায়নের তারিখ: ২৪, ০৭, ২০২২ মেয়াদ উত্তীর্ণের তারিখ: ০২, ০৬, ২০২৬
- প্রকল্পের বিনিয়োগকৃত অর্থ: ৬২৬২,৬০,০০০০০.০০ টাকা
- ছাড়পত্র নবায়ন কি বাবদ প্রদেয় অর্থ:
ঐচ্ছিকী চালান নম্বর: ২২২৬-০০২২০৬২২০৭ তারিখ: ০৪, ০৬, ২০২৬
ব্যাংকের নাম: সোনালী ব্যাংক লিমিটেড শাখা: কাজী নজরুল ইসলাম বজার
- ছাড়পত্র নবায়ন ফি'র উপর মুসক বাবদ প্রদেয় অর্থ:
ঐচ্ছিকী চালান নম্বর: ২২২৬-০০২২০৭৬২০৬ তারিখ: ০৪, ০৬, ২০২৬
ব্যাংকের নাম: সোনালী ব্যাংক লিমিটেড শাখা: কাজী নজরুল ইসলাম বজার
- কারখানা বা প্রকল্পের কার্যক্রম:

কারখানা/প্রকল্পের বর্তমান কার্যক্রম	<input checked="" type="checkbox"/> চালু	<input type="checkbox"/> বন্ধ	<input type="checkbox"/> বন্ধ থাকিলে উত্তর তারিখ:
কারখানার উৎপাদন প্রক্রিয়া বা প্রকল্পের কার্যক্রমের কোনো পরিবর্তন হইয়াছে কিনা?	<input type="checkbox"/> হ্যাঁ	<input checked="" type="checkbox"/> না	<input type="checkbox"/> হ্যাঁ হইলে তথ্য প্রদান করুন:

Md. Waz Uddin
Superintending Engineer &
Project Director, DWSNIP
Dhaka WASA.



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
ঢাকা মহানগর কার্যালয়
পরিবেশ ভবন, ই/১৬, আগারগাঁও, ঢাকা ১২০৭
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন

ছাড়পত্র নং: ২৩-১১০৩০৪

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নলিখিত প্রতিষ্ঠান/প্রকল্পের অনুরূপ পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো:

প্রতিষ্ঠান/প্রকল্পের নাম	Dhaka water supply Network Improvement project
উদ্যোগের নাম	Dhaka Water Supply And Sewerage Authority
সনাক্তকরণ নং	৩৯৫১১
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	Water, power and gas distribution line laying/relaying/extension
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	Red
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	project director,Dhaka WASA WASA Bhaban (8th floor), 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215
প্রদানের তারিখ	১৪ নভেম্বর ২০২৩
মেয়াদ উত্তীর্ণের তারিখ	১২ জুন ২০২৪



এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী যথাযথভাবে প্রতিপালন করতে হবে, অন্যথায় ছাড়পত্র বাতিল/অতিরিক্ত আদায়ের যে কোন আইনানুগ ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি সিস্টেম জেনারেটেড ছাড়পত্র এবং এতে কোনোরূপ স্বাক্ষরের প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

সনাক্তকরণ নং: ৭৯৫১৯

Dhaka water supply Network Improvement project

ছাড়পত্র নং: ২৩-১১০৩০৪

পরিবেশগত ছাড়পত্র নবায়ন এর জন্য প্রযোজ্য শর্তাবলী:

১. এ ছাড়পত্র শুধুমাত্র ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (ডিডব্লিউএসএনআইপি)-এর ক্ষেত্রে প্রযোজ্য হবে।
২. বর্ণিত প্রকল্পের অনুকূলে পরিবেশ অধিদপ্তরের বিগত ১২.০৬.২০১৯ তারিখ নং-২২.০২.০০০০.০১৮.৭২.৪৩.১৯.২৩৩ সংখ্যক স্মারকে প্রদত্ত পরিবেশগত ছাড়পত্রের সকল শর্ত অপরিবর্তিত থাকবে।
৩. প্রকল্পের কার্যক্রম ধারা কোন অবস্থায় রাস্তায় যানজট সৃষ্টি করা যাবে না। এ বিষয়ে বিকল্প ব্যবস্থাপনা সার্বক্ষণিক কার্যকর রাখতে হবে।
৪. প্রকল্পের এলাইনমেন্টে যানজট নিয়ন্ত্রণের জন্য নিজস্ব জনবল ধারা সার্বক্ষণিক যানজট নিয়ন্ত্রণের জন্য কার্যকর উদ্যোগ গ্রহণ করতে হবে।
৫. কোন অবস্থায় প্রকল্পের কার্যক্রম ধারা কোন জলাভাঙ্গ, ডোবা, নালা, বিল, বাস, পুকুর, বন্যা প্রবাহ এলাকা, ওয়াটার রিটেনশন এরিয়া ভরাট করা যাবে না।
৬. প্রকল্পের কার্যক্রম বাস্তবায়নের সময় রাস্তা খোঁড়া-খোঁড়ি করার সময় তৎক্ষণিকভাবে রাস্তার মাটি নিরাপদে অপসারণ করতে হবে এবং কোন মাটি/বালি উন্মুক্ত অবস্থায় রাখা যাবে না যাতে রোদে ডাষ্ট উত্থিত হয়ে বায়ু দূষণ না হয় এবং বৃষ্টির পানিতে ট্রাক ওয়াটারের সাথে মিশে রাস্তা সংলগ্ন ড্রেনেজ ব্লক সৃষ্টি হয়ে জলাবদ্ধতা সৃষ্টি না করে।
৭. প্রকল্পের পাশের রাস্তায় কোন ধরনের নির্মাণ সামগ্রী রেখে ফুটপাথ/রাস্তার প্রতিবন্ধকতা সৃষ্টি করা যাবে না।
৮. প্রকল্পের কার্যক্রম ধারা পরিবেশ ও প্রতিবেশের ক্ষতিসাধন করা হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ ধার্য করে নির্ধারিত সময়ের মধ্যে ধার্যকৃত ক্ষতিপূরণ আদায় করা হবে।
৯. মহামান্য হাইকোর্ট বিভাগের রিট পিটিশন নম্বর ৯১৬/২০১৯ এর বিগত ২৯/০১/২০১৯ তারিখের আদেশ অনুযায়ী প্রকল্প নির্মাণকালে বায়ু/ডাষ্ট দূষণ নিয়ন্ত্রণকল্পে দৈনিক অন্ততঃ দুইবার পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১০. প্রকল্পের কার্যক্রমের মাধ্যমে কোন প্রকার বায়ু/শব্দ দূষণ সৃষ্টি করা যাবে না। নির্মাণ কাজ চলাকালীন নির্মাণাধীন অবকাঠামো/বাণ্য/মাটি যথাযথভাবে ঢেকে রাখতে হবে যাতে ধূলবালি আশেপাশে ছড়িয়ে না পড়ে।
১১. প্রকল্পের কাজ শেষ হওয়ার সাথে সাথে তৎক্ষণিকভাবে খোঁড়া-খোঁড়ি কর্তৃক রাস্তা পূর্বের অবস্থায় ফিরিয়ে আনতে হবে।
১২. বায়ুদূষণ নিয়ন্ত্রণের জন্য নির্মাণ সামগ্রী ঢেকে রাখতে হবে এবং নির্মাণ সামগ্রী পরিবহনের সময়ও ঢেকে পরিবহন করতে হবে।
১৩. নির্মাণাধীন অবকাঠামো/প্রকল্পের এলাইনমেন্ট এলাকায় নিয়মিত পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১৪. প্রকল্পের নির্মাণ কার্যক্রম চলাকালে শব্দ নিয়ন্ত্রণ/নির্মাণ শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ ও বায়ু দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০২২-এ বর্ণিত সীমার মধ্যে রাখতে হবে।
১৫. সব ধরনের বর্জ্যের ক্ষেত্রে বিশেষতঃ কঠিন বর্জ্য ব্যবস্থাপনায়, উচ্চ-বর্জ্য পৃথকীকরণ করতে হবে এবং বর্জ্য ট্রাস, পুনঃব্যবহার ও পুনঃচক্রায়ন নীতিমালা তথা 3R(Reduce, Reuse, Recycle) Principles অনুসরণ করতে হবে। এছাড়া পৃথকীকৃত বর্জ্য আকৃত অবস্থায় উপযুক্ত সময় নিকটস্থ সিটি কর্পোরেশনের ট্রান্সফার স্টেশন/ডাম্পিং গ্রাউন্ডে স্থানান্তর/পরিবহনের বিষয়টি উদ্যোক্তা নিজস্ব উদ্যোগ/সিটি কর্পোরেশনের সহায়তায় নিশ্চিত করবেন।
১৬. নির্মাণকাজ চলাকালে শ্রমিকদের পেশাগত স্বাস্থ্য সুরক্ষা সামগ্রী (পিপিই যেমন ইয়ার প্রুপ, নোজ মাস্ক ইত্যাদি) সার্বক্ষণিকভাবে ব্যবহার করতে হবে।
১৭. পরিবেশগত ছাড়পত্র ও সর্বশেষ নবায়নের কপি প্রকল্প অফিসে সংরক্ষণ করতে হবে।
১৮. ছাড়পত্র নবায়নের মেয়াদ শেষ হবার অন্ততঃ তিন দিন পূর্বে প্রাসঙ্গিক কাগজপত্রসহ অন-লাইনে নবায়নের জন্য আবেদন করতে হবে।
১৯. উপর্যুক্ত শর্ত এবং অবস্থান বিষয়ক পরিবেশগত ছাড়পত্রের প্রদত্ত অন্যান্য শর্তাবলী প্রাপ্যসময়ে বাধ্য হলে ছাড়পত্র বাতিল বলে গণ্য হবে এবং বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ অনুযায়ী আইনগত ব্যবস্থা গ্রহণ করা হবে।

5th Renewal Certificate



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
ঢাকা মহানগর কার্যালয়
পরিবেশ ভবন, ই/১৬, আগারগাঁও, ঢাকা ১২০৭
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন
ছাড়পত্র নং: ২৪-১২২০০৮

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অন্তর্ভুক্ত পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: Dhaka water supply Network Improvement project
উদ্যোক্তার নাম	: Dhaka Water Supply And Sewerage Authority
সনাক্তকরণ নং	: ৭৯৪১৮
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: Water, power and gas distribution line laying/relaying/extension
প্রতিষ্ঠান/প্রকল্পের স্ট্রী	: Road
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: Project Director, DWSNIP, Dhaka WASA, WASA Bhaban (8th floor), 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215
প্রদানের তারিখ	: 24.06.2024
মেয়াদ উত্তীর্ণের তারিখ	: 12.06.2025



এ ছাড়পত্র সনদের সাথে লুক্কায়িত সংযুক্ত শর্তে পরিবর্তী স্বাক্ষরসহ প্রেরণ করা হবে, অন্যথা ছাড়পত্র বাতিল/অতিরিক্ত আবেদন যে কোন আইনদ্বারা ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি সীমিত জ্ঞাতব্যতার ছাড়পত্র এবং এতে কোনোরূপ স্বাক্ষর প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

সনাক্তকরণ নং: ৭৯৫১৯

Dhaka water supply Network Improvement project

ছাড়পত্র নং: ২৪-১২২৩৩৮

পরিবেশগত ছাড়পত্র নবায়ন এর জন্য প্রযোজ্য শর্তাবলী:

১. এ ছাড়পত্র শুধুমাত্র ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রোভমেন্ট প্রজেক্ট(ডিডব্লিউএসএনআইপি)-এর ক্ষেত্রে প্রযোজ্য হবে।
২. বর্ণিত প্রকল্পের অনুকূলে পরিবেশ অধিদপ্তরের বিগত ১২.০৬.২০১৯ তারিখ নং-২২.০২.০০০০.০১৮.৭২.৪৩.১৯.২৩৩ সংখ্যক স্মারকে প্রদত্ত পরিবেশগত ছাড়পত্রের সকল শর্ত অপরিবর্তিত থাকবে।
৩. প্রকল্পের কার্যক্রম দ্বারা কোন অবস্থায় রাস্তার যানজট সৃষ্টি করা যাবে না। এ বিষয়ে বিকল্প ব্যবস্থাপনা সার্বক্ষণিক কার্যকর রাখতে হবে।
৪. প্রকল্পের এলাইনমেন্টে যানজট নিয়ন্ত্রণের জন্য নিজস্ব জনবল দ্বারা সার্বক্ষণিক যানজট নিয়ন্ত্রণের জন্য কার্যকর উদ্যোগ গ্রহণ করতে হবে।
৫. কোন অবস্থায় প্রকল্পের কার্যক্রম দ্বারা কোন জলাজয়, ডোবা, নালা, বিল, খাল, পুকুর, কন্যা প্রবাহ এলাকা, ওয়াটার রিটেনশন এরিয়া জমার করা যাবে না।
৬. প্রকল্পের কার্যক্রম বাস্তবায়নের সময় রাস্তা খোঁড়া-খোঁড়ি করার সময় তাৎক্ষণিকভাবে রাস্তার মাটি নিরাপদে অপসারণ করতে হবে এবং কোন মাটি/বালি উন্মুক্ত অবস্থায় রাখা যাবে না যাতে রোদে ডাস্ট উত্থিত হয়ে বায়ু দূষণ না হয় এবং বৃষ্টির পানিতে স্ট্রিম ওয়াটারের সাথে মিশে রাস্তা সংলগ্ন ড্রেনেজ বুক সৃষ্টি হয়ে জলাশয় সৃষ্টি না করে।
৭. প্রকল্পের পাশের রাস্তায় কোন ধরনের নির্মাণ সামগ্রী রেখে ফুটপাথ/রাস্তার প্রতিবন্ধকতা সৃষ্টি করা যাবে না।
৮. প্রকল্পের কার্যক্রম দ্বারা পরিবেশ ও প্রতিবেশের ক্ষতিসাধন করা হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ ধার্য করে নির্ধারিত সময়ের মধ্যে ধার্যকৃত ক্ষতিপূরণ আদায় করা হবে।
৯. মহামান্য হাইকোর্ট বিভাগের রিট পিটিশন নম্বর ৯১৬/২০১৯ এর বিগত ২৯/০১/২০১৯ তারিখের আদেশ অনুযায়ী প্রকল্প নির্মাণকালে বায়ু/ডাস্ট দূষণ নিয়ন্ত্রণকল্পে দৈনিক অন্ততঃ দুইবার পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১০. প্রকল্পের কার্যক্রমের মাধ্যমে কোন প্রকার বায়ু/শব্দ দূষণ সৃষ্টি করা যাবে না। নির্মাণ কাজ চলাকালীন নির্মাণাধীন অবকাঠামো/বালু/মাটি যথাযথভাবে ঢেকে রাখতে হবে যাতে ধূলাবালি আশেপাশে ছড়িয়ে না পড়ে।
১১. প্রকল্পের কাজ শেষ হওয়ার সাথে সাথে তাৎক্ষণিকভাবে খোঁড়া-খোঁড়ি কৃত রাস্তা পূর্বের অবস্থায় ফিরিয়ে আনতে হবে।
১২. বায়ুদূষণ নিয়ন্ত্রণের জন্য নির্মাণ সামগ্রী ঢেকে রাখতে হবে এবং নির্মাণ সামগ্রী পরিবহনের সময়ও ঢেকে পরিবহণ করতে হবে।
১৩. নির্মাণাধীন অবকাঠামো/প্রকল্পের এলাইনমেন্ট এলাকায় নিয়মিত পানি ছিটিয়ে বায়ু দূষণ নিয়ন্ত্রণ করতে হবে।
১৪. প্রকল্পের নির্মাণ কার্যক্রম চলাকালে শব্দ নিয়ন্ত্রণ/নির্গমন মাস্ট্রা শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ ও বায়ু দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০২২-এ বর্ণিত মানসম্মত মতো রাখতে হবে।
১৫. সব ধরনের বর্জ্যের ক্ষেত্রে বিশেষতঃ কঠিন বর্জ্য ব্যবস্থাপনায়, উৎসে বর্জ্য পৃথকীকরণ করতে হবে এবং বর্জ্য ট্রাস, পুনঃব্যবহার ও পুনঃচলোন নীতিমালা তথা 3R(Reduce, Reuse, Recycle) Principles অনুসরণ করতে হবে। এছাড়া পৃথকীকৃত বর্জ্য আবৃত অবস্থায় উপযুক্ত সময় মিকটাই সিটি কর্পোরেশনের ট্রান্সফার টেনশন/ডাম্পিং গ্রাউন্ডে স্থানান্তর/পরিবহনের বিষয়টি উদ্যোগ নিজস্ব উদ্যোগ/সিটি কর্পোরেশনের সহায়তায় নিশ্চিত করবেন।
১৬. নির্মাণকাজ চলাকালে শ্রমিকদের পেশাগত হাত্যা সুরক্ষা সামগ্রী (সিপিই যেমন ইয়াত্র প্রাপ, লোজ মাস্ক ইত্যাদি) সার্বক্ষণিকভাবে ব্যবহার করতে হবে।
১৭. পরিবেশগত ছাড়পত্র ও সর্বশেষ নবায়নের কপি প্রকল্প অফিসে সংরক্ষণ করতে হবে।
১৮. ছাড়পত্র নবায়নের মেয়াদ শেষ হবার অন্ততঃ ত্রিশ দিন পূর্বে প্রাসঙ্গিক কাগজপত্রসহ অন.লাইনে নবায়নের জন্য আবেদন করতে হবে।
১৯. উপর্যুক্ত শর্ত এবং অবস্থান বিষয়ক পরিবেশগত ছাড়পত্রের প্রদত্ত অন্যান্য শর্তাবলী প্রতিপালনে ব্যর্থ হলে ছাড়পত্র বাতিল বলে গণ্য হবে এবং বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ অনুযায়ী আইনগত ব্যবস্থা গ্রহণ করা হবে

Annex 04: Environmental Safeguard Compliances in the Field**Checklist for Excavation Work**DMA No. / Package: 312,Date: 14.05.2024Location: Pichinlaerz Road, Shyamaly

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering traffic management plan and H&S plan for the excavation works?	✓			
2.	Has the contractor completed risk assessment for the excavation works?	✓			
3.	Has the RFI completed for the excavation works?	✓			
4.	Is the excavation permit/pre-dig permit obtained before starting work?	✓			
5.	Is the contractor obtained road cutting permission from city corporation?	✓			
6.	Is the contractor contacted traffic authority for the excavation work?	✓			
7.	Is tool box meeting held before starting work?	✓			
8.	Does the operator and signalman have the minimum experience for the job?				
9.	Have the workers provided appropriate PPEs?	✓			
10.	Is there any physical barrier or caution tape deployed for the excavation pit?	✓			Not Sufficient
11.	Whether NGO has done the IEC activities?				
12.	Are there sufficient display warning signs at the excavation site?	✓			
13.	Is the first aid box with required materials kept at site?	✓			
14.	Are the rescue procedures completed and reserved at the site?	✓	✓		
15.	Are Display Board, Traffic diversion, Clean & Clear passage way provided?	✓			Not sufficient
16.	Are excavated materials placed sufficiently away from water courses?	✓			
17.	Are debris and waste materials transported to selected disposal places from temporary disposal site?	✓			
Trenches up to 2m:					
18.	Whether excavated material is dumped at least 1m away from trench wall?	✓			
19.	Whether the extra material is removed?	✓			
20.	In case of Ground water whether pumped water is drained properly?	✓			
Trenches & pits depth of more than 2m:					
21.	Whether firm barricades are provided?	✓			
22.	In case of loose soil strata whether shoring is provided?	✓			

Contractor's representative: Md. Shakil Mridha
Safety officer
20/2/24

Name, Designation and Signature

DMS representative: Eshk. SARE

Name, Designation and Signature

Checklist for Traffic Management

DMA No. / Package: # 312
 Location: Pichiwlaerz Road, Shyamoly

Date: 19.05.2024

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the Contractor completed the Method Statement considering traffic management plan?	✓			
2.	Is the Contractor contacted with DMP before starting the construction work?	✓			
3.	Is there traffic control supervisor present at construction site?	✓			
4.	Is toolbox meeting held before starting the work?	✓			
5.	Have every driver and equipment operators their valid driving license?	✓			
6.	Are the traffic controllers and supervisors trained and accredited?	✓			
7.	Are traffic signages available around the construction sites and nearby roads?	✓			Not sufficient
8.	Are re-routing signage sufficient to guide motorists?			✓	
9.	Are flagmen present to direct traffic during construction hour?		✓		
10.	Are the excavation sites along roads provided with barricades with reflectors?				
11.	Are Display Board, Traffic diversion, clean & clear passage way provided?	✓			Not sufficient
12.	Are there sufficient display warning signs available for traffic movement?	✓			
13.	Are the excavation sites provided with sufficient lighting at night?				
14.	Is the first aid box with required materials kept at site?	✓			
15.	Are the rescue procedures completed and reserved at site?				

Contractor's representative: [Signature]
 Name, Designation and Signature

DMS representative: [Signature], SARE
 Name, Designation and Signature

Checklist for Fire Safety

DMA No. / Package: 312,Date: 14.05.2024Location: Pichikulbert Road, Shyamaly

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering fire safety plan and H&S plan for the fire safety?	✓			
2.	Has the contractor completed risk assessment for the fire?	✓			
3.	Is toolbox meeting held before starting the work?	✓			
4.	Are there firefighting equipment on site?	✓			
5.	Are there fire extinguisher available at labour shed?	✓			
6.	Are all the firefighting equipment operated by trained & experienced operators?	✓			
7.	Are emergency contact details available on-site in case of fire burns?	✓			
8.	Are emergency contact details available at labour shed in case of fire burns?	✓			
9.	Are there a medical first aid kits available on site for primary medical care?	✓			
10.	Are the rescue procedures completed and reserved at the site?	✓			

Contractor's representative: [Signature]

Name, Designation and Signature

DMS representative: [Signature]

Name, Designation and Signature

Checklist for Dust Control & Noise Control

DMA No. / Package: 312
 Location: Pichianlaere Road, Shyamaly

Date: 14.05.2024

	Description	Observation			Remarks
		Yes	No	NA	
Dust Control					
1.	Is the construction site watered to minimize generation of dust?	✓			Not sufficient
2.	Are roads within and around the construction sites sprayed with water on regular intervals?	✓			
3.	Is there a speed control for vehicles carrying soils and other spoils covered?	✓			
4.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?	✓			
5.	Are construction vehicles carrying soils and other spoiled covered?	✓			
6.	Are generators provided with air pollution control devices?	✓			
7.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid permits?	✓			
Noise Control					
1.	Is the work only taking place between 7 am to 7 pm, week days?				
2.	Do generators operate with doors closed or provided with sound barrier around them?	✓			
3.	Do workers use ear plugs/hearing protections at noise generating locations?	✓			
4.	Is idle equipment turned off or throttled down? -	✓			
5.	Are neighbouring residents notified in advance of any noisy activities expected at construction sites?	✓			

Contractor's representative: [Signature]

Name, Designation and Signature

DMS representative: [Signature], SARE

Name, Designation and Signature

Checklist for Occupational Health & Safety and Community Health & Safety

DMA No. / Package: 312
 Location: Richiewlaez Road, Shyamaly

Date: 14/05/2024

1.	Description	Observation			Remarks
		Yes	No	NA	
	Supervision and Management On-Site				
	a. Is an EHS supervisor available?	✓			
	b. Is a copy of the SEMP available at construction site?	✓			
	c. Are daily toolbox meetings conducted on site?	✓			
	2. Facilities				
	a. Are there a medical first aid kits available on site?	✓			
	b. Are emergency contact details available on-site?	✓			
	c. Are there PPEs available; (Helmet, Hi-VIS Vest, Gumboots, Eye Wear, Dust Mask, Safety Gloves, Earplugs?)	✓			
	d. Are the PPEs in good condition?	✓			
	e. Are there firefighting equipment on site?	✓			
	f. Are there separate mobile sanitary facilities for male and female workers?				
	g. Are sanitary facilities cleaned and disinfected regularly?				
	h. Is drinking water supply available for workers?	✓			
	3. Occupational Health and Safety				
	a. Are the PPEs being used by workers	✓			
	b. Is breaktime for workers provided?	✓			
	c. Is construction work site barricaded with caution tape?	✓			
	4. Community Health and Safety				
	a. Are safety signages posted around the sites? <i>used</i>	✓			
	b. Are temporary and safe walkways for pedestrians available near work sites? <i>used</i>	✓			
	c. Are consultation meeting/focus group discussion/tea stall meeting arranged regularly on site?	✓			
	d. Are existing users notified in advance about temporary disruption of water supply?	✓			
	e. Are Leaflets distributed on site to inform the local residents about the project work?	✓			
	f. Is complain book available on work site to receive complain from local people?	✓			

5	Recording System	Observation			Remarks
		Yes	No	NA	
	a) Do the contractors have recording system for SEMP implementation?				
	b) Are the daily monitoring sheets accomplished by the contractor EHS supervisor (or equivalent) properly complied?	✓			
	c) Are laboratory results of environmental sampling conducted since the commencement of construction activities properly complied?	✓			
	d) Are these records readily available at the site and to the inspection team?	✓			
	e) Are utility accidents recorded and proper actions are taken immediately? <i>Procedures with form</i>	✓			
	f) Are public complaints recorded at construction site and addressed quickly and properly?				
	g) Are there any registered book available at construction site/stockyard for visitors/inspection teams?	✓			
	h) Is there any Complain box available for anonymous complain at construction site/stockyard?	✓			

Contractor's representative: *[Signature]*
 Name, Designation and Signature

DMS representative: *[Signature] SARE*
 Name, Designation and Signature

Checklist for DTW works

DMA No. / Package: RB-210, 10B.B

Date: 13.03.2024

Location: Tipe Sultan, DTW

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering Deep Tube well Work and H&S plan for the DTW works?	✓			
2.	Has the contractor completed risk assessment for the DTW works?	✓			
3.	Is the contractor informed Zonal Authorities and Councilor before starting work?	✓			
4.	Is the contractor informed Electrical Authorities before starting the work	✓			
5.	Is the contractor contacted traffic authority before starting the work?	✓			
6.	Is tool box meeting held before starting work?	✓			
7.	Does the operator have the minimum experience for the job?	✓			
8.	Have the workers provided appropriate PPEs?	✓			
9.	Is there any physical barrier or caution tape deployed for the excavation pit?	✓			
10.	Whether NGO has done the IEC activities?	✓			
11.	Are there sufficient display warning signs at the DTW work site?	✓			
12.	Is the first aid box with required materials kept at site?				Insufficient
13.	Are the rescue procedures completed and reserved at the site?	✓			
14.	Are Display Board, Traffic diversion, Clean & Clear passage way provided?				Not sufficient
15.	Are excavated materials placed sufficiently away from water courses?	✓			
16.	Are debris and waste materials transported to selected disposal places from temporary disposal site?		✓		
17.	Whether firm barricades are provided?		✓		
18.	In case of loose soil strata whether shoring is provided?			✓	
19.	Do generators operate with doors closed or provided with sound barrier around them?		✓		
20.	Do workers use ear plugs/hearing protections at noise generating locations?		✓		
21.	Are neighbouring residents notified in advance of any noisy activities expected at construction sites?	✓			

Contractor's representative: [Signature]

Name, Designation and Signature

DMS representative: [Signature]

Name, Designation and Signature

Checklist for Electrical Work

DMA No. / Package: NCD-2.IIC.(Lot-D);DMA 406Date: 20.05.2024Location: Road - 01

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed risk assessment for the electrical works?	✓			
2.	Are all the electrical equipment operated by licensed electrician?	✓			
3.	Are all electrical components certified?	✓			
4.	Are all the electrical equipment checked before operation?	✓			
5.	Whether the workers are using proper gloves and goggles?	✓			
6.	Whether required earthing is provided for equipment?	✓			
7.	Whether proper wiring & connections boards with RCCB (30mA) fuse are being used?	✓			
8.	Is the electrical equipment are kept on dry place, barricaded to avoid accidental contact by stakeholder?	✓			
9.	Is the area barricaded and using flags where electrical work is conducting?			✓	
10.	Are emergency contact details available on site in case of electrocutions or burns?	✓			
11.	Is toolbox meeting held before starting the work?	✓			
12.	Are there a medical first aid kits available on site for primary medical care?	✓			
13.	Are the rescue procedures completed and reserved at the site?	✓			

Contractor's representative:

Mizanur, SE

Name, Designation and Signature

DMS representative:

[Signature], E.I. DMS

Name, Designation and Signature

Checklist for Emergency Response

DMA No. / Package: NCB-2.11C (Lot-2), DMA-413 Date: 19.05.2024
 Location: Road - 189

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the Contractor completed the Method Statement considering emergency response plan and H&S plan for the emergency response?	✓			
2.	Has the Contractors completed communications and lines of communication with the Authorities of the Bangladesh?	✓			
3.	Has the Contractors completed systems and procedures for provision of first aid, medical attention and medical evacuation?	✓			
4.	Is the Contractor established an emergency response centre?	✓			
5.	Is the emergency response centre open for full time during the work?		✓		
6.	Is there arrangement for emergency response team meeting?	✓			
7.	Has the Contractor completed collection of all available facts?	✓			
8.	Did the Contractor arrange accident/incident investigation team?	✓			
9.	Do the contractors take accident/incidents records?	✓			
10.	Is the area barricaded with caution tape while any accident happens?	✓			
11.	Are emergency contact details available on-site?	✓			
12.	Are there a medical first aid kits available on site for primary medical care?	✓			
13.	Are the rescue procedures completed and reserved at the site?	✓			

Contractor's representative:
Zakaria, SE
 Name, Designation and Signature

DMS representative:
[Signature], EJ. DMS
 Name, Designation and Signature

Prepared by: Environmental Team, DMSC

**Annex 05: Pictures showing Safeguards Compliances at works level
ICB 2.10**



Road Barrier, cones, caution tape and all other safety measures are taken while working



Safety vest, Hand gloves, Helmet and Shoes are used in working site



Water spray are being used to control dust and keep the site clean



Dressing,Leveling and BFS work done by female labor



Cleaning and Removal of trash and debris



Safety Meeting before starting work at construction site



Covered sand to control dust pollution

NCB 2.11A, 2.11B, 2.11C; Lot-1&2, 2.11D; Lot-1&2



Road Barrier, cones, caution tape and all other safety measures are taken while working



Water spray are being used to control dust and keep the site clean



Providing sign boards for proper safety in worksite



Portable Toilet for workers with water supply system



Clean and proper housekeeping for prevention of dengue at store

NCB 2.12A, 2.12B, 2.12C, 2.12D, 2.12E



Workers maintaining PPEs



Removing soil right after work



Road Barrier, cones, caution tape and all other safety measures are taken while working



Safety Meeting before starting work at construction site

Annex 06: SAMPLE GRIEVANCE REGISTRATION FORM

The Project (DWSNIP) welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing “CONFIDENTIAL” above your name. Thank you.

Date	Place of registration			
Contact Information/Personal Details				
Name		Gender	* Male * Female	Age
Home Address				
Place				
Phone no.				
E-mail				
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:				
If included as attachment/note/letter, please tick here:				
How do you want us to reach you for feedback or update on your comment/grievance?				
FOR OFFICIAL USE ONLY				
Registered by: (Name of Official registering grievance)				
Mode of communication: Note/Letter /E-mail /Verbal/Telephonic				
Reviewed by: (Names/Positions of Official(s) reviewing grievance)				
Action Taken:				
Whether Action Taken Disclosed: Yes () No ()				
Means of Disclosure:				

GRIVENCE REDRESS REGISTAR GRIVENCES RECORD AND ACTION TAKEN

Sr. No.	Date	Name and Contact No. of Complainer	Type of Complain	Place	Status of Redress	Remarks

Annex 07: Status on prevention of COVID 19 during reporting period

Precautionary measures taken by the Contractors (ICB 2.10, NCB 2.11, NCB 2.12)

- Disinfection of site offices, Camps, Toilets, Stores, Rest room etc.
- Display all the relevant posters, leaflets, signboards on COVID 19
- Holding site meetings with social distance other health precautions
- Using of sanitizers as far as possible
- Checking body temperature of all workers daily.
- Awareness programs have been conducted

- Conducted Monitoring at the worksite according to monitoring templates

Monitoring and Reporting Template

Health and Safety Issues with COVID-19 Infection

A. Environmental Health and Safety Checklist

Checklist			Number/ Quantity
1	Number of workers & employees available at site	260	
2	Health checkup/screening completed for all workers/employee/visitors	Every day	
3	COVID-19 posters/signboards prepared and posted at the worksite and camp	8-10 each site	
4	Washbasin, sanitizer dispenser	3 Washbasins	
5	Stock of soap, sanitizer, disinfectant, PPEs available at site	-	Stocks Available
6	Number of cleaning staff employed	3	
7	Number of covered bins with COVID sign at the site	6	

B. Daily Monitoring: COVID -19 protocols on top of usual EHS checklist (worksite and campsite)

SI no.	EHS Practices Checklist*	Observations		Corrective Action	Time frame to comply
		Yes	No		
1	Medical professional is available at site		No	Workers are quickly taken to hospital after First Aid if	
2	EHS officer is available at site	Yes			
3	Entrance protocol: 6 ft distance maintained as stipulated in the COVID -19 response guidance?		No	Staff and Labours should maintain 6 ft distance between each other.	Immediate and to be continued
4	Disinfectant spray used at site entry to disinfect underneath the boots of entering persons	Partially Complied		Disinfectant spray should be used underneath the boots upon entry.	Immediate and to be continued
5	Workers & employees are using mask, gloves and shoes	Yes			
6	Workers & employees are washing	Yes			
7	Used PPEs are disposed in covered	Yes			
8	Social distancing: workers & employees maintaining social distancing all the time	Partially Complied		There should be no physical contacts like shaking hands and sitting together etc.	Immediate and to be continued
9	Vehicle protocol: vehicle disinfection protocol followed		No	All operating vehicles should be disinfected regularly.	Immediate and to be continued
10	Tools/machineries: wiped to disinfect before and after sharing/working		No	All tools and machineries should be wiped with disinfectant.	Immediate and to be continued
11	Disinfecting work area: worksite/ common surfaces, toilets etc. are disinfected before worksite opened in the morning, before lunch and yesterday after closing for the day	Partially Complied		Should be fully complied with.	Immediate and to be continued
12	Trash bins are covered and used for disposal of PPEs	Yes			

Site Assessment for Resumption of Construction (Guidance for Site Specific Plan)

	Site Assessment Checklist (preconditions for opening the	Yes/No	Remarks
1	Is there any hospital or health care center in close proximity that is equipped to test COVID-19 infection? a. If yes, please prepare a list of the hospitals with contact number b. If no, please make an arrangement to provide support with COVID-19 test to	Yes	We have prepared a list of hospitals for testing COVID-19 infection.
2	Did you locate the hospital or health care center equipped to treat COVID-19 patient? Please prepare contact details.	Yes	We have contact details of hospitals equipped to treat COVID-19.
3	Did you prepare a list of the workers/employee to be engaged at the sites? If yes, please prepare work schedule by staggering work hours (physical distance must be >1 m. to avoid crowding) If there is an issue, please contact with your EA.	Yes	We have list of workers engaged at sites.
4	Did you prepare any health checkup or screening checklist for maintaining daily health record of workers/visitors?	Yes	We use health checklist to record health conditions of workers.
5	Did you conduct worksite risk exposure using guidelines provided in Annex C? a. Construction sites with <u>low to medium risk exposures</u> , must follow the EHS guidelines for preventing infection. b. For a site with <u>high-risk exposure</u> , avoid engaging people with pre-existing medical	Yes	Complied.
6	Did you recruit any health and safety professional for managing occupational health and safety at the site? a. If yes, please engage immediately and share the EHS Manual for day-to-day implementation and reporting b. If no, dedicate an existing worker and employee for ensuring implementation of	Yes	Health and safety team is always present at sites.
7	Is there adequate PPE, disinfectant, sanitizer, soap, covered trash bin at all worksites.	Yes	Complied
8	Did you setup washbasin, sanitizer dispenser, covered waste bin adequately at each site? If not, please setup immediately and update your EA.	Yes	Complied
9	Did you prepare post COVID-19 posters/signboards in Bangla? If yes, please place them at the entrance, worksite and camp using the samples provided in Annex D? If not, please prepare immediately.	Yes	We use posters/banners/leaflets for COVID-19 awareness.

10	Did you prepare a plan for raising awareness of your workers/employees on various measures to avoid COVID-19 infection? Please prepare weekly plan and disseminate at the worksite.	Yes	We have a plan for raising awareness on COVID-19 prevention.
11	Did you prepare the site-specific health and safety plan for your worksites? Please prepare the plan providing details of the issues discussed from Sections A to E and Annex (B – E) of this manual and submit to EA for approval.	Yes	We have site specific EHS plan.
12	Is the worksite falls under government declared <u>YELLOW</u> or <u>RED zone</u> ? If yes, please consult with EA for reopening the site.	N/A	N/A
13	Did you review the monitoring and reporting template? If necessary, please update the template as per site condition and get it approved by EA.	Yes	It has been updated on a regular basis.

Annex 08: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024)**Table 13 A: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for ICB 2.10**

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)						
2	Noise (dBA for day and night time)						
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)						
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn and Total Coliform)						

Construction Period Reporting and Training							
5	Monthly Environmental Report	Records of environmental activities will be prepared by the Environmental Engineer	Records of environmental activities will be Prepared by the Environmental Engineer	Records of environmental activities will be Prepared by the Environmental Engineer	Records of environmental activities will be Prepared by the Environmental Engineer		
6	Quarterly Environmental Inspections and Report		Report will be generated by the Environmental Engineer according to the site inspection & requirement of the DMSC.				
7	Semi Annual Report		Environmental Engineer will prepare the Report				
8	Contractor Training	Site manager /Engr. O&M related training every month and include in monthly report	Site manager /Engr. O&M related training every month and include in monthly report	Site manager /Engr. O&M related training every month and include in monthly report	Site manager /Engr. O&M related training every month and include in monthly report		
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to be given to the locals, at Worksites that the work will be implemented with minimal level of disturbance.	In case of night works, prior information to be given to the locals, at Worksites that the work will be implemented with minimal level of disturbance.	In case of night works, prior information to be given to the locals, at Worksites that the work will be implemented with minimal level of disturbance.	In case of night works, prior information to be given to the locals, at Worksites that the work will be implemented with minimal level of disturbance.		
10	Dust control (PM 2.5, PM 10)	SE (SO) / (PE) misting water sprays to reduce airborne dusting from demolition work and during dry weather	SE (SO) / (PE) misting water sprays to reduce airborne dusting from demolition work and during dry weather	SE (SO) / (PE) misting water sprays to reduce airborne dusting from demolition work and during dry weather	SE (SO) / (PE) misting water sprays to reduce airborne dusting from demolition work and during dry weather		

11	Occupational Health and Safety	<p>CPP develops site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP.</p> <p>SE (SO) arranges H& S training for the labor on regular basis. Safety Officer provides potable drinking water and first aid-box.</p> <p>CCSEB_RPL JV provides medical insurance coverage for workers</p>	<p>CPP develops site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP.</p> <p>SE (SO) arranges H& S training for the labor on regular basis. Safety Officer provides supplies of potable drinking water and first aid-box. CCSEB-RPL JV provides medical insurance coverage for workers</p>	<p>CPP develops site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP.</p> <p>SE (SO) arranges H& S training for the labor on regular basis. Safety Officer provides supplies of potable drinking water and first aid-box. CCSEB-RPL JV provides medical insurance coverage for workers</p>	<p>CPP develops site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP.</p> <p>SE (SO) arranges H& S training for the labor on regular basis. Safety Officer provides supplies of potable drinking water and first aid-box. CCSEB-RPL JV provides medical insurance coverage for workers</p>		
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12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	Environmental Engineer provides as per consultant requirements	Environmental Engineer provides as per consultant requirements	Environmental Engineer provides as per consultant requirements	Environmental Engineer provides as per consultant requirements		
13	Disposal of construction debris and other waste materials	Concerned 2 nd man of the DMA & Safety Officer arranges all the debris and other wastes to be removed from the site and transported to the disposal site	Concerned 2 nd man of the DMA Safety Officer arranges all the debris and other wastes to be removed from the site and transported to the disposal site	Concerned 2 nd man of the DMA & Safety Officer arranges all the debris and other wastes to be removed from the site and transported to the disposal site	Concerned 2 nd man of the DMA & Safety Officer arranges all the debris and other wastes to be removed from the site and transported to the disposal site		

14	Servicing and operating equipment	Engr. O&M ensures that all site personnel have a basic level of EHS awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Engr. O&M ensures that all site personnel have a basic level of EHS awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Engr. O&M ensures that all site personnel have a basic level of EHS awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Engr. O&M ensures that all site personnel have a basic level of EHS awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task		
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15	COVID 19 Prevention Measures	SE(SO) / Environmental Engr. Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	SE(SO) / Environmental Engr. Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	SE(SO) / Environmental Engr. Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	SE(SO) / Environmental Engr. Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers		
16	Traffic Management	2 nd man of the DMA/ SE (SO) implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	2 nd man of the DMA/ SE (SO) implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	2 nd man of the DMA/ SE (SO) implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	2 nd man of the DMA/ SE (SO) implements the Traffic Management Plan to ensure the safety of all the road users along the work zone		
17	On-Site Supervision and Management	SM of the DMA ensures On-site supervision and management properly	SM of the DMA ensures On-site supervision and management properly	SM of the DMA ensures On-site supervision and management properly	SM of the DMA ensures On-site supervision and management properly		

Table 13 B: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB 2.11A

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)						
2	Noise (dBA for day and night time)						
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)						
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,						

Construction Period Reporting and Training							
5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			TCEL will provide according to consultant's requirement from DMS			TCEL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement

8	Contractor Training	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							
9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used

10	Dust control (PM 2.5, PM 10)	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather
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11	Occupational Health and Safety	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H&S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H&S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>	<p>TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers</p>
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12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	TCEL provides as per consultant requirements					
13	Disposal of construction debris and other waste materials	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site

14	Servicing and operating equipment	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task
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15	COVID 19 Prevention Measures	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	TCEL ensures On-site supervision and management properly					

**Table 13 C: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-Decemeber, 2024)
for NCB-2.11B**

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)						
2	Noise (dBA for day and night time)						
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)						
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,						
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			RFL will provide according to consultant's requirement from DMS			RFL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
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12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	RFL provides as per consultant requirements					
13	Disposal of construction debris and other waste materials	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site

14	Servicing and operating equipment	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task
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15	COVID 19 Prevention Measures	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	RFL ensures On-site supervision and management properly					

Table 13 D: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.11C, Lot-1

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)						
2	Noise (dBA for day and night time)						
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)						
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,						
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			RFL will provide according to consultant's requirement from DMS			RFL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	RFL provides as per consultant requirements					

13	Disposal of construction debris and other waste materials	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	RFL ensures On-site supervision and management properly					

Table 13 E: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.11C, Lot-2

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	-	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414		
2	Noise (dBA for day and night time)	-	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414		
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	-	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414		
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,	-	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414	DMA 409 DMA 413 DMA 414		
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			RFL will provide according to consultant's requirement from DMS			RFL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
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12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	RFL provides as per consultant requirements					
13	Disposal of construction debris and other waste materials	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site

14	Servicing and operating equipment	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task
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15	COVID 19 Prevention Measures	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	RFL ensures On-site supervision and management properly					

Table 13 F: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.11D, Lot-1

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	-	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011		
2	Noise (dBA for day and night time)	-	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011		
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	-	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011		
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,	-	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011	DMA 1005 DMA 1010 DMA 1011		
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			RFL will provide according to consultant's requirement from DMS			RFL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	RFL provides as per consultant requirements					

13	Disposal of construction debris and other waste materials	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	RFL ensures On-site supervision and management properly					

Table 13 F: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.11D, Lot-2

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	-	DMA 1001 DMA 1009		DMA 1001 DMA 1009		
2	Noise (dBA for day and night time)	-	DMA 1001 DMA 1009		DMA 1001 DMA 1009		
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	-	DMA 1001 DMA 1009		DMA 1001 DMA 1009		
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn and	-	DMA 1001 DMA 1009		DMA 1001 DMA 1009		
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			PDL-AEDL will provide according to consultant's requirement from DMS			PDL-AEDL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	PDL-AEDL organize QHSE related training every month and include it in monthly report	PDL-AEDL organize QHSE related training every month and include it in monthly report	PDL-AEDL organize QHSE related training every month and include it in monthly report	PDL-AEDL organize QHSE related training every month and include it in monthly report	PDL-AEDL organize QHSE related training every month and include it in monthly report	PDL-AEDL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	PDL-AEDL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	PDL-AEDL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	PDL-AEDL provides as per consultant requirements					

13	Disposal of construction debris and other waste materials	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site	PDL-AEDL arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	PDL-AEDL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	PDL-AEDL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	PDL-AEDL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	PDL-AEDL ensures On-site supervision and management properly					

Table 13 G: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.12A

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	DMA 701A DMA 701B	-	-	-	-	-
2	Noise (dBA for day and night time)	DMA 701A DMA 701B	-	-	-	-	-
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	DMA 701A DMA 701B	-	-	-	-	-
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn and	DMA 701A DMA 701B	-	-	-	-	-
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			Falgu Shandhani will provide according to consultant's requirement from DMS			Falgu Shandhani will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	Falgu Shandhani organize QHSE related training every month and include it in monthly report	Falgu Shandhani organize QHSE related training every month and include it in monthly report	Falgu Shandhani organize QHSE related training every month and include it in monthly report	Falgu Shandhani organize QHSE related training every month and include it in monthly report	Falgu Shandhani organize QHSE related training every month and include it in monthly report	Falgu Shandhani organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	Falgu Shandhani provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for workers	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for workers	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani F arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for workers	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for workers	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for workers	Falgu Shandhani develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. Falgu Shandhani L arranges H& S training for the labor on regular basis. Falgu Shandhani provides supplies of potable drinking water and first aid-box. Falgu Shandhani provides medical insurance coverage for
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	Falgu Shandhani provides as per consultant requirements	Falgu Shandhani provides as per consultant requirements	Falgu Shandhani provides as per consultant requirements	Falgu Shandhani provides as per consultant requirements	Falgu Shandhani provides as per consultant requirements	Falgu Shandhani provides as per consultant requirements

13	Disposal of construction debris and other waste materials	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site	Falgu Shandhani arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	Falgu Shandhani ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	Falgu Shandhani Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	Falgu Shandhani implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	Falgu Shandhani ensures On-site supervision and management properly	Falgu Shandhani ensures On-site supervision and management properly	Falgu Shandhani ensures On-site supervision and management properly	Falgu Shandhani ensures On-site supervision and management properly	Falgu Shandhani ensures On-site supervision and management properly	Falgu Shandhani ensures On-site supervision and management properly

Table 13 G: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.12B & NCB 2.12C

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	DMA 702 DMA 703	DMA 706 DMA 707	-	-	-	-
2	Noise (dBA for day and night time)	DMA 702 DMA 703	DMA 706 DMA 707	-	-	-	-
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	DMA 702 DMA 703	DMA 706 DMA 707	-	-	-	-
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn and	DMA 702 DMA 703	DMA 706 DMA 707	-	-	-	-
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			HIETC-SRC JV will provide according to consultant's requirement from DMS			HIETC-SRC JV will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	HIETC-SRC JV organize QHSE related training every month and include it in monthly report	HIETC-SRC JV organize QHSE related training every month and include it in monthly report	HIETC-SRC JV organize QHSE related training every month and include it in monthly report	HIETC-SRC JV organize QHSE related training every month and include it in monthly report	HIETC-SRC JV organize QHSE related training every month and include it in monthly report	HIETC-SRC JV organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	HIETC-SRC JV provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for workers</p>	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for workers</p>	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for workers</p>	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for workers</p>	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for workers</p>	<p>HIETC-SRC JV develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP.</p> <p>HIETC-SRC JV L arranges H& S training for the labor on regular basis.</p> <p>HIETC-SRC JV provides supplies of potable drinking water and first aid-box.</p> <p>HIETC-SRC JV provides medical insurance coverage for</p>
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	<p>HIETC-SRC JV provides as per consultant requirements</p>	<p>HIETC-SRC JV provides as per consultant requirements</p>				

13	Disposal of construction debris and other waste materials	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site	HIETC-SRC JV arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	HIETC-SRC JV ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	HIETC-SRC JV Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	HIETC-SRC JV implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	HIETC-SRC JV ensures On-site supervision and management properly	HIETC-SRC JV ensures On-site supervision and management properly	HIETC-SRC JV ensures On-site supervision and management properly	HIETC-SRC JV ensures On-site supervision and management properly	HIETC-SRC JV ensures On-site supervision and management properly	HIETC-SRC JV ensures On-site supervision and management properly

Table 13 H: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.12D

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	-	-	-	-		
2	Noise (dBA for day and night time)	-	-	-	-		
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	-	-	-	-		
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,	-	-	-	-		
Construction Period Reporting and Training							

5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			RFL will provide according to consultant's requirement from DMS			RFL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report	RFL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	RFL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers	RFL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site-specific EMP. RFL arranges H& S training for the labor on regular basis. RFL provides supplies of potable drinking water and first aid-box. RFL provides medical insurance coverage for workers
12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	RFL provides as per consultant requirements					

13	Disposal of construction debris and other waste materials	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site	RFL arranges all the debris and other wastes be removed from the site and transported to the disposal site
14	Servicing and operating equipment	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	RFL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task

15	COVID 19 Prevention Measures	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	RFL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	RFL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	RFL ensures On-site supervision and management properly					

Table 13 I: Environmental Management Implementation Work Schedule (EMWS): Six months working plan (July-December, 2024) for NCB-2.12E

Environmental Safeguard Implementation		July-24	August-24	September-24	October-24	November-24	December-24
1	Air Quality (CO, SO ₂ , NO ₂ , SPM, PM _{2.5} , PM ₁₀)	DMA 705					
2	Noise (dBA for day and night time)	DMA 705					
3	Surface Water Quality (pH, DO, BOD ₅ , COD, As, Cl, Fe, Mn)	DMA 705					
4	Groundwater Quality ((pH, DO, BOD ₅ , COD, As, Cl,	DMA 705					

Construction Period Reporting and Training						
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5	Monthly Environmental Report	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary	Records of environmental activities are included within Monthly progress report and the Cumulative Project Summary
6	Quarterly Environmental Inspections and Report			TCEL will provide according to consultant's requirement from DMS			TCEL will provide according to consultant's requirement from DMS
7	Semi Annual Report						As per consultant requirement
8	Contractor Training	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report	TCEL organize QHSE related training every month and include it in monthly report
Construction Period Mitigation Measures							

9	Noise attenuation measures	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used	In case of night works, prior information to locals, at worksites with minimal level of disturbance possible to locality but noise reducers are not used
10	Dust control (PM 2.5, PM 10)	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather	TCEL provides misting water sprays to reduce airborne dusting from demolition work and during dry weather

11	Occupational Health and Safety	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H&S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H&S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers	TCEL develops and implement site specific occupational health and safety (OH&S) Plan, and include in the Site specific EMP. TCEL arranges H& S training for the labor on regular basis. TCEL provides supplies of potable drinking water and first aid-box. TCEL provides medical insurance coverage for workers
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12	The Environmental Management Implementation Work Schedule (EMWS) plus other work plans as specified in EMP	TCEL provides as per consultant requirements					
13	Disposal of construction debris and other waste materials	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site	TCEL arranges all the debris and other wastes be removed from the site and transported to the disposal site

14	Servicing and operating equipment	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task	TCEL ensures that all site personnel have a basic level of environmental awareness training and Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task
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15	COVID 19 Prevention Measures	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers	TCEL Provides Covid-19 banner in each construction site, distributes leaflets to workers, hand wash facilities, distribute mask, sanitizer and organize training for workers
16	Traffic Management	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone	TCEL implements the Traffic Management Plan to ensure the safety of all the road users along the work zone
17	On-Site Supervision and Management	TCEL ensures On-site supervision and management properly					

Annex 09: DMA wise Environmental parameter Testing Reports

Air Quality Monitoring: Laboratory Test report, ICB 2.10 DMA 102, 103, 117, 118



Laboratory Analysis Report (DMA 102)

Project Name: Dhaka Water Supply Network Improvement Project (DWSNIP)

Package No. ICB 2.10

Description of sample: Ambient Air Quality

Sample Collector: GECL Team

Sampling Date: January 22, 2024

Sampling Time: 10.00 AM - 10.00 PM

Reporting Date: January 25, 2024

Laboratory Test Result

Sample Description	Concentration Present					
	SPM ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
TWA Sampling Duration	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	8 hrs
DMA-102 Sampling Location: Hatkhola Road, Tikatuli, Wari Sampling Address: Central Women's University GPS Location: 23° 43' 5.06"N & 90° 25' 13.15"E	175	125	68	53	36	3.2
DMA-102 Sampling Location: Hatkhola Road, Tikatuli, Wari Sampling Address: Sher-E-Bangla Girls Mohabbiddalay. GPS Location: 23° 43' 6.81"N & 90° 25' 3.52"E	167	118	59	45	28	2.9
DMA-102 Sampling Location: Shapia Chattr Motibeeel Sampling Address: In front of Sonali Bank. GPS Coordinate: 23°43'34.85"N & 90°25'17.61"E	163	121	65	58	39	2.7

Reference Standards:						
Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations: Bangladesh Gazette, Additional, July 26, 2022	400 $\mu\text{g}/\text{m}^3$ (Commercial and mixed)	150 $\mu\text{g}/\text{m}^3$ (24 hrs)	45 $\mu\text{g}/\text{m}^3$ (24 hrs)	250 $\mu\text{g}/\text{m}^3$ (1 hr)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	5 mg/m^3 (8 hrs)
WHO Ambient Air Quality Guideline, 2021	120 $\mu\text{g}/\text{m}^3$ (24 hrs)	45 $\mu\text{g}/\text{m}^3$ (24 hrs)	15 $\mu\text{g}/\text{m}^3$ (24 hrs)	500 $\mu\text{g}/\text{m}^3$ (10 mins)	25 $\mu\text{g}/\text{m}^3$ (24 hrs)	7 mg/m^3 (24 hrs)

Note 1: Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022

Note 2: WHO Ambient Air Quality Guidelines, 2021



Laboratory Analysis Report (DMA 103)

Project Name: Dhaka Water Supply Network Improvement Project (DWSNIP)

Package No. ICB 2.10

Description of sample: Ambient Air Quality

Sample Collector: GECL Team

Sampling Date: January 21, 2024

Sampling Time: 10.00 AM - 10.00 PM

Reporting Date: January 25, 2024

Laboratory Test Result

Sample Description	Concentration Present					
	SPM ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
TWA Sampling Duration	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	8 hrs
DMA-103 Sampling Location: Arambag, Motijheel Sampling Address: In front of Arambag Bus Counter GPS Coordinate: 23°43'47.75"N & 90°25'17.71"E	192	132	65	54	43	3.9
DMA-103 Sampling Location: Bangladesh Bank Colony, Arambag, Motijheel Sampling Address: In front of Bangladesh Bank High School GPS Coordinate: 23°43'51.71"N & 90°25'21.43"E	145	105	52	31	36	2.8
DMA-103 Location: Kamlapur Sampling Address: In front of Kamlapur Railway Station GPS Location: 23° 43' 53.87"N & 90° 25' 33.56"E	210	152	79	78	49	4.4

Reference Standards						
Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022	400 $\mu\text{g}/\text{m}^3$ (Commercial and mixed)	150 $\mu\text{g}/\text{m}^3$ (24 hrs)	65 $\mu\text{g}/\text{m}^3$ (24 hrs)	250 $\mu\text{g}/\text{m}^3$ (1 hr)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	5 mg/m^3 (8 hrs)
		50 $\mu\text{g}/\text{m}^3$ (Annual)	35 $\mu\text{g}/\text{m}^3$ (Annual)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	40 $\mu\text{g}/\text{m}^3$ (Annual)	20 mg/m^3 (1 hr)
WHO Ambient Air Quality Guideline, 2021	120 $\mu\text{g}/\text{m}^3$ (24 hrs)	45 $\mu\text{g}/\text{m}^3$ (24hrs)	15 $\mu\text{g}/\text{m}^3$ (24 hrs)	500 $\mu\text{g}/\text{m}^3$ (10 mins)	25 $\mu\text{g}/\text{m}^3$ (24 hrs)	7 mg/m^3 (24 hrs)
		15 $\mu\text{g}/\text{m}^3$ (Annual)	5 $\mu\text{g}/\text{m}^3$ (Annual)	40 $\mu\text{g}/\text{m}^3$ (24 hrs)	10 $\mu\text{g}/\text{m}^3$ (Annual)	

Note 1: Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022

Note 2: WHO Ambient Air Quality Guidelines, 2021



Laboratory Analysis Report (DMA 117)

Project Name: Dhaka Water Supply Network Improvement Project (DWSNIP)

Package No. ICB 2.10

Description of sample: Ambient Air Quality

Sample Collector: GECL Team

Sampling Date: January 22, 2024

Sampling Time: 10.00 AM - 10.00 PM

Reporting Date: January 25, 2024

Laboratory Test Result

Sample Description	Concentration Present					
	SPM ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO ($\mu\text{g}/\text{m}^3$)
TWA Sampling Duration	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	8 hrs
DMA-1117 Sampling Location: Near Gendaria Police station; 53.R.B.Road ,Mill Barrack GPS Location: 23°41'59"N & 90°25'15"E	253	137	54	37	36	1.3
DMA-117 Sampling Location: Bank of Gendaria DIT Pond, Dhaka GPS Location: 23°42'01"N & 90°25'42"E	222	116	47	29	25	1.6
DMA-117 Sampling Location: Beside Al Amin Mosque, Gendaria, Dhaka GPS Location: 23°41'46"N & 90°25'27"E	232	121	51	27	32	1.3

Reference Standards						
Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022	400 $\mu\text{g}/\text{m}^3$ (Commercial and mixed)	150 $\mu\text{g}/\text{m}^3$ (24 hrs)	65 $\mu\text{g}/\text{m}^3$ (24 hrs)	250 $\mu\text{g}/\text{m}^3$ (1 hr)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	5 mg/ m^3 (8 hrs)
WHO Ambient Air Quality Guidelines, 2021	120 $\mu\text{g}/\text{m}^3$ (24 hrs)	45 $\mu\text{g}/\text{m}^3$ (24 hrs)	15 $\mu\text{g}/\text{m}^3$ (24 hrs)	500 $\mu\text{g}/\text{m}^3$ (10 mins)	25 $\mu\text{g}/\text{m}^3$ (24 hrs)	7 mg/ m^3 (24 hrs)

Note 1: Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations,
Bangladesh Gazette, Additional, July 26, 2022

Note 2: WHO Ambient Air Quality Guidelines, 2021



Laboratory Analysis Report (DMA 118)

Project Name: Dhaka Water Supply Network Improvement Project (DWSNIP)
Package No. ICB 2.10
Description of sample: Ambient Air Quality
Sample Collector: GECL Team
Sampling Date: January 22, 2024
Sampling Time: 10.00 AM - 10.00 PM
Reporting Date: January 25, 2024

Laboratory Test Result

Sample Description	Concentration Present					
	SPM ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
TWA Sampling Duration	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	8 hrs
DMA-118 Sampling Location: Near Dholapara High School at Mir Hazirbag Road, West Dolaipara, Dhaka GPS Location: 23° 42' 10.64" N 90° 26' 00.76" E	194	152	75	58	45	2.5
DMA-118 Sampling Location: Near Estren Iron Market at 65 Mir Hazirbag, Shampur GPS Location: 23° 42' 12.48" N 90° 25' 49.49" E	181	146	72	63	37	2.7
DMA-118 Sampling Location: Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur GPS Location: 23° 41' 59.13" N 90° 25' 51.61" E	173	148	78	53	41	2.8
Reference Standards:						
Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022	400 $\mu\text{g}/\text{m}^3$ (Commercial and mixed)	150 $\mu\text{g}/\text{m}^3$ (24 hrs)	65 $\mu\text{g}/\text{m}^3$ (24 hrs)	250 $\mu\text{g}/\text{m}^3$ (1 hr)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	5 mg/m^3 (8 hrs)
		50 $\mu\text{g}/\text{m}^3$ (Annual)	35 $\mu\text{g}/\text{m}^3$ (Annual)	80 $\mu\text{g}/\text{m}^3$ (24 hrs)	40 $\mu\text{g}/\text{m}^3$ (Annual)	20 mg/m^3 (1 hr)
WHO Ambient Air Quality Guideline, 2021	120 $\mu\text{g}/\text{m}^3$ (24 hrs)	45 $\mu\text{g}/\text{m}^3$ (24 hrs)	15 $\mu\text{g}/\text{m}^3$ (24 hrs)	500 $\mu\text{g}/\text{m}^3$ (10 mins)	35 $\mu\text{g}/\text{m}^3$ (24 hrs)	7 mg/m^3 (24 hrs)
		15 $\mu\text{g}/\text{m}^3$ (Annual)	5 $\mu\text{g}/\text{m}^3$ (Annual)	40 $\mu\text{g}/\text{m}^3$ (24 hrs)	10 $\mu\text{g}/\text{m}^3$ (Annual)	

Note 1: Ambient Air Quality Standards, Schedule-1, Air Pollution (Control) Regulations, Bangladesh Gazette, Additional, July 26, 2022
 Note 2: WHO Ambient Air Quality Guidelines, 2021

Noise Monitoring: Laboratory Test report, ICB 2.10, DMA 102, 103, 117, 118



ANALYSIS REPORT ON AMBIENT NOISE LEVEL

Project Name	Dhaka Water Supply Network Improvement Project (DWSNIP) Package No. ICB 2.10		
Report ID	GECL/DWSNIP/NOISE/2024/01/22/01	Date of Sampling	January 22, 2024
Sampling Time	Day and Night (January 22, 2024)		
Sampling Team	Global Environment Consultants Ltd. (GECL Monitoring Team)		
Analysis Date	January 25, 2024	Report Issuing Date	January 25, 2024

Description of Analysis

Sampling Location	Time Weighted Average Noise Level (L _{eq}) dB	
	Day Time (06.00 AM - 21.00 PM)	Night Time (09.00 PM - 06.00 AM)
DMA-102 Sampling Location: Hatkhola Road, Tikatuli Wari Sampling Address: Central Women's University GPS Location: 23° 43' 5.06"N & 90° 25' 13.15"E	74	62
DMA-102 Sampling Location: Hatkhola Road, Tikatuli Wari Sampling Address: Sher-E-Bangla Girls Mohabiddaloy, GPS Location: 23° 43' 6.81"N & 90° 25' 3.52"E	71	60
DMA-102 Sampling Location: Shapla Chattar Motijheel Sampling Address: In front of Sonali Bank, GPS Coordinate: 23°43'34.85"N & 90°25'17.61"E	75	66
DMA-117 Sampling Location: Near Gandaria Police station: 53.K.B.Road, Mill Barrack GPS Location: 23°41'59"N & 90°25'15"E	69	61
DMA-117 Sampling Location: Bank of Gandaria DIT Pond, Dhaka GPS Location: 23°42'01"N & 90°25'42"E	67	54
DMA-117 Sampling Location: Beside Al Amin Mosque, Gendaria, Dhaka GPS Location: 23°41'46"N & 90°25'27"E	68	55
DMA-118 Sampling Location: Near Dholaipar High School at Mir Hazirbag Road, West Dolaipar, Dhaka GPS Location: 23° 42' 10.64"N 90° 26' 00.76"E	73	62
DMA-118 Sampling Location: Near Estren Iron Market at 65 Mir Hazirbag, Shampur GPS Location: 23° 42' 12.48"N 90° 25' 49.49"E	69	56
DMA-118 Sampling Location: Sharnokoli Pre-Cadet & High School at West Jurain, Pipe Road, Shampur GPS Location: 23° 41' 59.13"N 90° 25' 51.61"E	72	63

Note 1: Bangladesh Gadget (Additional), September 7, 2006, Schedule-1, Rule-52 (A)

Note 2: 'Day' and 'Night' of Bangladesh Noise Standards indicate 6 AM to 9 PM, and 9 PM to 6 AM respectively.



ANALYSIS REPORT ON AMBIENT NOISE LEVEL

Project Name	Dhaka Water Supply Network Improvement Project (DWSNIP) Package No. ICB 2.10		
Report ID	GECL/DWSNIP/NOISE/2024/01/21/01	Date of Sampling	January 21, 2024
Sampling Time	Day and Night (December 19, 2023)		
Sampling Team	Global Environment Consultants Ltd. (GECL Monitoring Team).		
Analysis Date	January 25, 2024	Report Issuing Date	January 25, 2024

Description of Analysis

Sampling Location	Time Weighted Average Noise Level (LAeq) dB	
	Day Time (06.00 AM - 21.00 PM)	Night Time (09.00 PM - 06.00 AM)
DMA-103 Sampling Location: Arambag, Motijheel Sampling Address: In front of Arambag Bus Counter GPS Coordinate: 23°43'47.75"N & 90°25'17.71"E	78	67
DMA-103 Sampling Location: Bangladesh Bank Colony, Arambag, Motijheel Sampling Address: In front of Bangladesh Bank High School GPS Coordinate: 23°43'51.71"N & 90°25'21.43"E	66	56
DMA-103 Location: Kamlapur Sampling Address: In front of Kamlapur Railway Station GPS Location: 23° 43' 53.87"N & 90° 25' 33.56"E	79	71
DMA-104 Sampling Location: Mugda Hospital, Mugda, Dhaka GPS Location: 23° 43' 55.9"N & 90° 25' 42.95"E	78	70

Ground Water Quality Monitoring: Laboratory Test report, ICB 2.10

Drinking/Ground Water Quality- DMA 110, 119, 109A, 109B, 111, 117



Dhaka Water Supply and Sewerage Authority
 Office of the Deputy Chief Microbiologist
 Microbiology & chemical Division
 (Dhaka WASA Central Laboratory)
 Asad gate, Mohammodpur
 Dhaka-1207, Tel-8122751
 E-mail: dwasacentrallaboratory@gmail.com

১০৯ এমিএস জোনে
১১৯ এমিএস জোনে

WMO No:46, 113.5/19/500.00.00.067.2024.323 MCD Date: 14-01-2024
 Contract Manager
 ICB-02, 10-MCOG-Zone-1 (19 DMAs)
 Dhaka Water Supply Network Improvement Project (DWSNIP)
 Dhaka WASA.

Subject: Testing Report of Collected DTW Water Samples (04 nos) from DMA- 110 & 119 (During Construction) under the Contract Package no-ICB.02.10 of DWSNIP , Dhaka WASA Ref: CCSEB-RPL/JV/RPL/ICB.02.10/PM/1593/2023,, Date:26-12-2023

Date of Sample Received: 08-01-2024
 Date of Testing: 09-01-2024 - 14-01-2024

Water Quality Analysis Report

SN	Parameters	Units	Drinking Water Standards		DTW, Postgola fire service, DMA -119	DTW, West Jurain, DMA -119	DTW, Dhalpur, DMA-110	DTW, Manikganar-1, DMA-110	Analysis Methods
			Bangladesh ECR 2023	WHO-2011					
1	pH	—	6.5-8.5	6.5-8.5	6.93	6.98	6.88	6.95	Electrometric
2	Turbidity	NTU	5	5	0.36	0.29	1.15	2.10	Nephelometric Method
3	Total Dissolved Solids	mg/L	1000	1000	198.0	239	144.3	179.2	Electrometric
4	Dissolved Oxygen	mg/L	-	-	2.85	2.87	2.83	2.68	Electrometric
5	Chloride	mg/L	250	250	35	37	15	59	Argentometric
6	Iron	mg/L	0.3-1.0	0.3	0.83	0.13	0.17	0.66	Thiochrome Method
7	Manganese	mg/L	0.4	0.4	0.318	0.057	0.170	0.159	Induct Method
8	Arsenic	mg/L	0.05	0.01	<0.01	<0.01	<0.01	<0.01	Asenad III
9	BOD ₅	mg/L	—	—	0.62	0.50	0.65	0.45	5-day BOD test
10	COD	mg/L	—	—	<1	<1	<1	<1	Closed Reflux, dichromate
11	Total Coliforms	CFU/100 mL	0	0	0	0	0	0	Membrane Filtration

NB: Results are applicable for the above mentioned sample.


 14-01-2024 02:00 PM
 Md. Akbarul Haque
 Lab. Assistant


 14-01-2024 03:09 PM
 Md. Rashed Amin
 Assistant Chemist


 14-01-2024 03:30 PM
 Tahmina Begum
 Chemist


 14-01-2024 04:21 PM
 Dr. Md. Atiqur Hossain
 Deputy Chief Microbiologist

- NB:**
1. Samples supplied to the laboratory by client.
 2. This report is valid only for particular sample tested and can not be used for publicity.
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Dhaka Water Supply and Sewerage Authority

Office of the Deputy Chief Microbiologist
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Asad gate, Mohammadpur
Dhaka-1207, Tel-48122751

E-mail: dwasentrallaboratory@gmail.com

১০৯৬ পানির সুরক্ষা
এবং স্বাস্থ্য বিভাগ

Memo No:45.113.519.520.00.001.2024.367

MCD

Date 08-02-2024

Contract Manager

ICB-02.10.MOOS Zone-1(115 DMAs)

Dhaka Water Supply Network Improvement Project (DWSNIP)

Dhaka WASA

**Subject: Testing Report of Collected DTW Water Samples (06 nos) from DMA- 109/A,109/B & 112 (During Construction) under the Contract Package no-ICB.02.10 of DWSNIP , Dhaka WASA
Ref: CCSEB-RPL/JV/RPL/ICB-02.10/PM/1635/2024, Date:25-01-2024**

Date of Sample Received: 29-01-2024

Date of Testing: 29-01-2024 - 29-02-2024

Water Quality Analysis Report

SN	Parameters	Units	Drinking Water Standards		DTW, Dayagonj-1, DMA-109/A,	Network, H# 18/3, Ovoydas lane, DMA-109/A,	Network, Waqiah Masjid, DMA-109/B,	DTW, Dayagonj-3, DMA, 109/B	DTW, Kazbarpar-2, DMA-112	Network, Flicker International School, DMA-112
			Bangladesh ECR 2023	WHO-2011						
1	pH	--	6.5-8.5	6.5-8.5	6.97	6.94	6.93	6.98	6.93	6.90
2	Turbidity	NTU	5	5	1.14	2.33	2.12	0.75	3.08	4.84
3	Total Suspended Solids (TSS)	mg/L	10	--	01	01	04	05	04	04
4	Dissolved Oxygen	mg/L	-	--	5.41	6.29	6.57	2.89	4.46	6.09
5	Chloride	mg/L	250	250	33	51	58	30	12	6
6	Iron	mg/L	0.3-1.0	0.3	0.78	0.59	0.10	0.08	0.57	0.44
7	Manganese	mg/L	0.4	0.4	0.378	0.037	0.048	0.038	0.223	0.641
8	Arsenic	mg/L	0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9	BOD ₅	mg/L	--	--	0.80	9.7	12.0	1.1	0.62	12.7
10	COD	mg/L	--	--	02	14	15	03	<1	17
11	Total Coliforms	CFU/100 mL	0	0	0	0	0	0	0	30

NB: Results are applicable for the above mentioned sample.


07-02-2024 10:48 AM
Md. Abdur Rahman
Lab. Assistant


08-02-2024 11:27 AM
Md. Ruhul Amin
Assistant Chemist


07-02-2024 01:22 PM
Haona Hena Rahman
Assistant Microbiologist


07-02-2024 03:33 PM
Tahmina Begum
Chemist


08-02-2024 11:22 AM
Dr. Md. Alangir Hossain
Deputy Chief Microbiologist

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Dhaka Water Supply and Sewerage Authority

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Microbiology & chemical Division
(Dhaka WASA Central Laboratory)
Asad gate, Mohammadpur
Dhaka-1207, Tel-48122751
E-mail: dwasacentrallaboratory@gmail.com

স্বাস্থ্য পরিদপ্তর
আম শাখার কার্যালয়

Memo No:48.113.519/520.00.001.2024.588

MCD

Date 12-06-2024

Contract Manager

ICB-02.10-MODS Zone-1 (19 DMA)s

Dhaka Water Supply Network Improvement Project (DWSNIP) Dhaka WASA.

Subject: Testing Report of Collected Water Samples (03 Nos) from DMA- 111 & 117 (During Construction) under the Contract Package no-ICB-02.10 Of DWSNIP, Dhaka WASA

Ref: CCSEB-RPL-JV/RPL/ICB-02.10/PM/1839/2024, Date:05-05-2024

Date of Sample Received: 14-05-2024

Date of Testing: 14-05-2024 - 19-05-2024

Water Quality Analysis Report

SN	Parameters	Units	Drinking Water Standards		DTW, East Dhalpur, DNA-111	Network, Child Heaven Tutorial School, DMA-111	DTW, IG gate Staff Quarter, DMA-117	Analysis Methods
			Bangladesh ECR 2023	WHO-2011				
1	pH	—	6.5-8.5	6.5-8.5	6.6	6.6	6.7	Electrometric
2	Turbidity	NTU	5	5	0.40	2.81	0.50	Nephelometric Method
3	Total Suspended Solids (TSS)	mg/L	10	—	02	06	01	Gravimetric
4	Dissolved Oxygen	mg/L	-	—	3.46	5.00	2.27	Electrometric
5	Chloride	mg/L	250	250	08	10	21	Argentometric
6	Iron	mg/L	0.3-1.0	0.3	0.148	0.219	0.098	AAC
7	Manganese	mg/L	0.4	0.4	0.008	0.010	0.089	AAC
8	Arsenic	mg/L	0.05	0.01	<0.01	<0.01	<0.01	As-Azet kit
9	BOD ₅	mg/L	—	—	0.5	7.8	0.7	5 day BOD test
10	COD	mg/L	—	—	<1	10.7	<1	Closed Reflux, colorimetric
11	Total Coliforms	CFU/100 mL	0	0	0	11	0	Membrane Filtration

NB: Results are applicable for the above mentioned sample.

11-06-2024 11:00 AM
Md. Abdur Rahman
Lab. Assistant

12-06-2024 11:27 AM
Md. Ruhul Amin
Assistant Chemist

12-06-2024 10:40 AM
Hasna Hena Rahman
Assistant Microbiologist

12-06-2024 04:12 PM
Tahmina Begum
Chemist

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Dhaka Water Supply and Sewerage Authority

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Dhaka-1207, Tel-48122751
E-mail: dwasacentrallaboratory@gmail.com

সেবা সর্বসময় সুদীর্ঘ
প্রায় শস্যের উচিত

Memo No:46.113.519/520.00.00.001.2024.569

MCD

Date: 12-06-2024

Contract Manager

ICB-02.10-MODS Zone-1 (19 DMAs)

Dhaka Water Supply Network Improvement Project (DWSNIP) Dhaka WASA.

Subject: Testing Report of Collected Water Sample (Pond) from DMA- 117 (During Construction) under the Contract Package no-ICB-02.10 of DWSNIP, Dhaka WASA

Ref: CCSEB-RPL-JV/RPL/ICB-02.10/PM/1839/2024, Date:05-05-2024

Date of Sample Received: 14-05-2024

Date of Testing: 14-05-2024 - 19-05-2024

Water Quality Analysis Report

SN	Parameters	Units	Pond, Gendaria DIT	Analysis Methods
1	pH	—	7.1	Electrometric
2	Turbidity	NTU	5.06	Nephelometric Method
3	Total Suspended Solids (TSS)	mg/L	11	Gravimetric
4	Dissolved Oxygen	mg/L	7.26	Electrometric
5	Chloride	mg/L	31	Argentometric
6	Iron	mg/L	0.089	AAI
7	Manganese	mg/L	0.061	AAI
8	Arsenic	mg/L	<0.01	As-test kit
9	BOD ₅	mg/L	19.1	5 day BOD test
10	COD	mg/L	30	Open Reflux, colorimetric
11	Total Coliforms	CFU/100 mL	17x10 ⁶	Membrane Filtration

NB: Results are applicable for the above mentioned sample.


11-06-2024 10:59 AM
Md. Abdur Rahman


12-06-2024 11:31 AM
Md. Raful Azim


12-06-2024 10:48 AM
Hasna Hena Rahman


12-06-2024 04:11 PM
Sahnina Begum

Annex 9A: Methodology of Air quality monitoring including sample calculation

2 METHODOLOGY

2.1 Air Quality

The ambient air quality monitoring was carried out at two (02) locations at the project corridor on 04 July 2022. The parameters were SO_x, NO_x, PM₁₀, PM_{2.5} and CO. AEROQUAL series 500 portable air quality monitors were used to measure particulate matters (PM₁₀ and PM_{2.5}) and gaseous pollutants (SO₂ and NO_x) (Figure 2.1). Lutron AQ-9901 meter was used to monitor carbon monoxide (CO). The locations of sample collection are showed in the map (Figure 2.2). The weather was sunny during the monitoring period. Proper Personal Protective Equipment (PPE) including vests, face musk, hand gloves and helmets were used during the monitoring period.

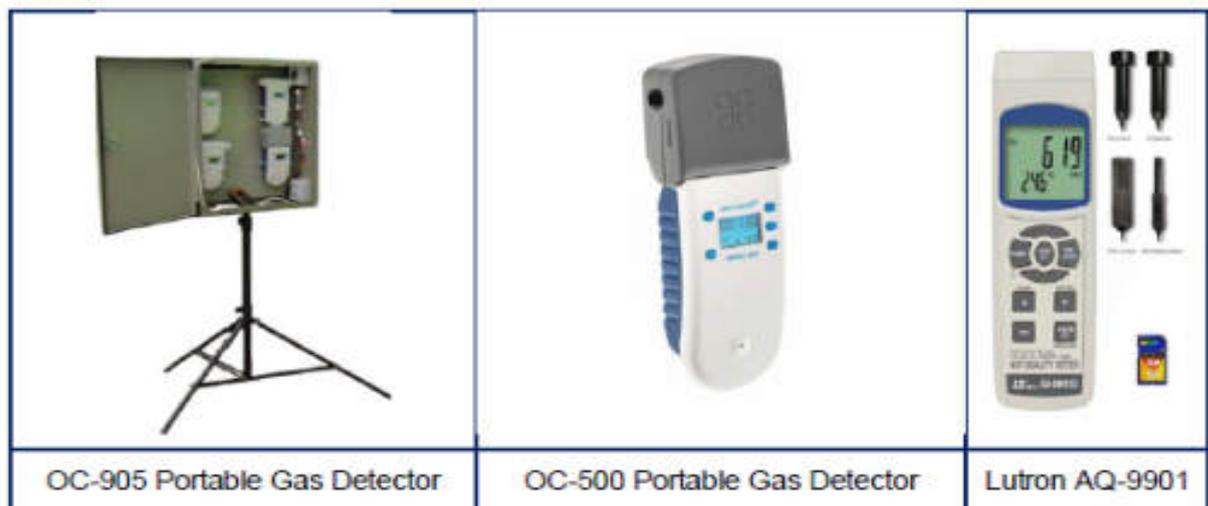


Figure 2.1: Equipment used for Air Quality Sampling

Conversion of Hourly to 24-hour Averages - Agencies, including the GoB's DoE, use the 24-hour collection period as the standard for establishing ambient air quality levels. Many agencies (e.g. New York State Dept. of Environmental Conservation, California Office of Environmental Health Hazards Assessment, USEPA, Ontario Ministry of Environment) face the same problems and have had to adapt by applying a conversion process using Pasquill's (1961) air mass dispersion tables defining six air mass stability classes (Table 2.1) and a set of meteorological conditions (Table 2.2). Using the simple power law principal Schroeder and Jugloff (2012) described the steps for converting one-hour readings to 24-hour values the stability classes (Table 2.1) are related to average wind speed, daytime solar radiation and night-time cloud cover and a second table (Table 2.2), refining these relationships, was also developed by Pasquill.

Table 2.1: Pasquill-Gifford Air Dispersion Stability Classes and Associated Dispersion Exponents

Stability Class	p	Definition
A	0.5	Very unstable
B	0.5	Unstable
C	0.333	Slightly unstable
D	0.2	Neutral
E	0.167	Slightly stable
F	0.167	Stable

Table 2.2: Meteorological Conditions Used to Define the Stability Classes

Surface wind Speed m/s	Cloud	Day time solar radiation		Night time Cover	
	Strong	moderate	slight	>50%	<50%
< 2	A	A – B	B	E	F
2 – 3	A – B	B	C	E	F
3 – 5	B	B – C	C	D	E
5 – 6	C	C – D	D	D	D
> 6	C	D	D	D	D

Note: Grey highlight indicates condition selected for Bangladesh

Therefore, taking the simple average of these three values from Table 1, the Project stability class was calculated as 0.39 (see below).

$$P = \frac{0.5 + 0.5 + 0.2}{3} = 0.4$$

This suggests a somewhat unstable air mass, resulting in considerable dilution of a one-hour sample when spread out over a 24-hour period. In order to provide 24-hour averages for the seven parameters the following power-law equation, as defined in Schroeder and Jugloff was applied

$$C_{24h} = C_{1h} (t_{short}/t_{long})^{0.4}$$

Where C 1h is the measured 1-hour concentration and C 24 h is the estimated average using the exponent 0.370, and "t" is time. Therefore:

$$\begin{aligned} C_{24h} &= C_{2h} (2/24)^{0.4} \\ &= C_{2h} \times (0.0833)^{0.4} \\ &= C_{2h} \times 0.370 \end{aligned}$$

So, for example for the two-hour measurement of PM_{2.5} of 188.37 µg/m³ the 24-hour average would be:

$$\begin{aligned} 24hr \text{ Avg. PM}_{10} &= 188.37 \times 0.370 \\ &= 69.7 \mu\text{g}/\text{m}^3 \end{aligned}$$

This generalized approach was applied to all data, and the 24-hour averages generated, in order to be able to compare Project results to GoB standards.

Annex 9B: Photograph of air quality, noise and water quality monitoring during the reporting period (January-June, 2024)



Air Quality Monitoring



Noise Level Monitoring



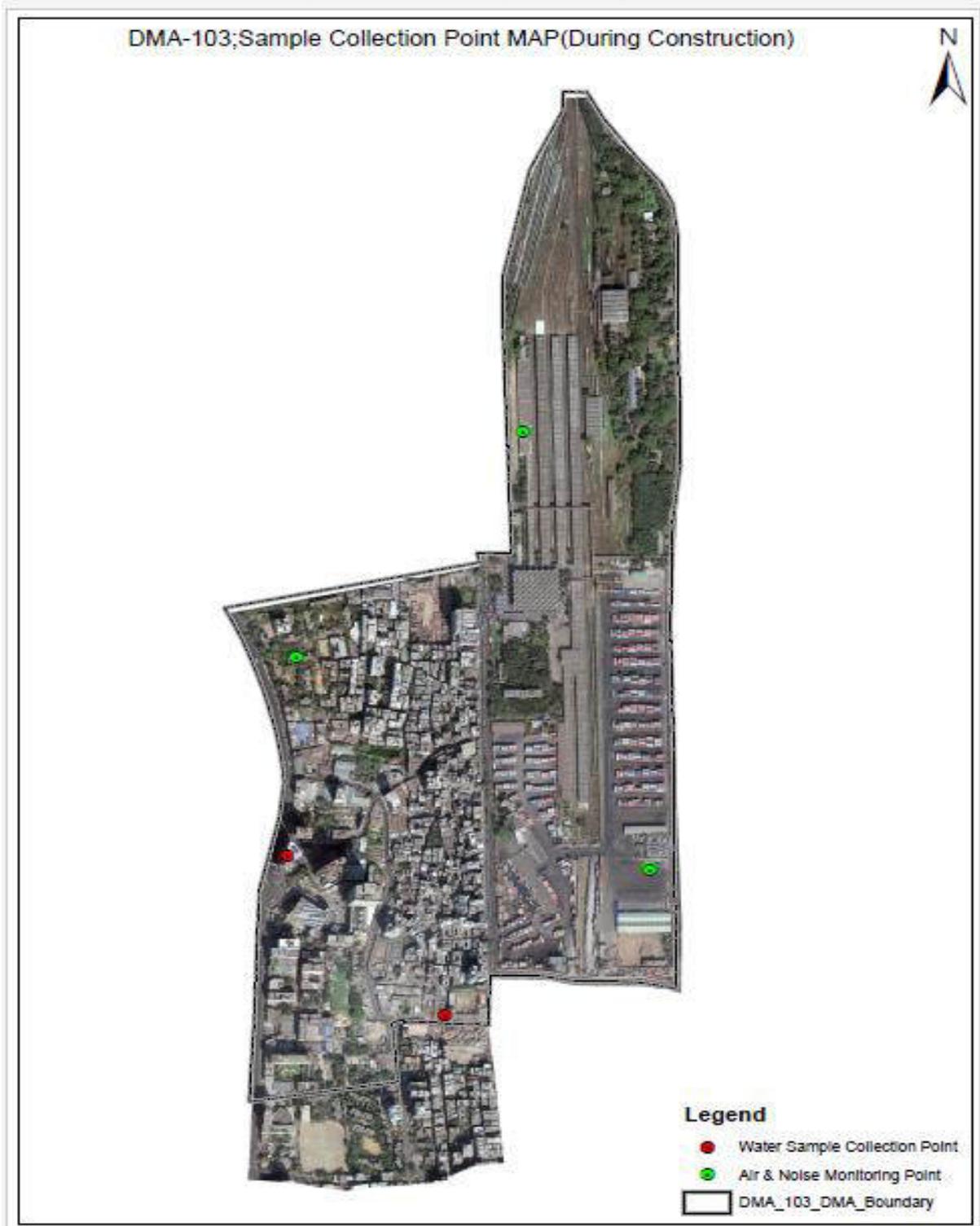
Water Sample Collection

Annex 9C: Location Map of air quality, noise and water quality monitoring during the reporting period (January-June, 2024)

Environmental Parameters (Air, Noise & Water) Monitoring Location ICB 2.10, DMA 102



Environmental Parameters (Air, Noise & Water) Monitoring Location ICB 2.10, DMA 103



Environmental Parameters (Air, Noise & Water) Monitoring Location ICB 2.10, DMA 119



Annex 11: Photographs and Records of Training and Workshop Carried out on Environmental Compliance During the Reporting period

	
<p>Training for work Safety and health safety on 12-04-24</p>	<p>Training for work Safety and health on 18.06.2024</p>
	
<p>Training for work Safety and health safety on 22-06-24</p>	<p>Training for Fire Drill Risks & safety on 01.02.2024</p>
	
<p>Training on Job specific on 27.02.2024</p>	<p>Training for Fire Drill Risks & safety on 30.04.2024</p>

Attendance sheets of training

Fire & Safety Training Attendance

তারিখ: ২৭/১/২৪

DMA-103

ক্রমিক নং	নাম	নগর কার্ডিড	(নগরিক নম্বর)	অবস্থা	স্বাক্ষর
০১	শ্রী: অক্ষয় কুমার	৯৩০৩৩০	০১৫৪ ৪৩৪৭৩২	অবস্থিত	
০২	শ্রী: কালিদাস	২১২৪৫	০১৭১০২৭৪১৭০	অবস্থিত	
০৩	শ্রী: সুনীল	৩৩০০৩২	০১৭২৩ ৪৪৩৫৩৭	অবস্থিত	
০৪	শ্রী: জামাল	R০০০২১১৭২	০১৪৪৫-৬৪৭৭৫০	JAMAL	
০৫	শ্রী: হুমায়ুন		০১৭৪১-৬২৬১৭৩	হুমায়ুন	
০৬	শ্রী: সুনীল	R০০০২৫৩৫৪	০১৭৭১-৪৬৪৪৫৪	সুনীল	
০৭	শ্রী: সুনীল	R০০০২৬০১১	০১৩১৬৪৫০৭৫৫	সুনীল	
০৮	শ্রী: সুনীল	১	০১৭২০৭৫২৭২৫	শ্রী: সুনীল	
০৯	Toufik Mia	R০০০২৪০১৭	০১৪৭১৪৩৪২৫৭	Toufik	
১০	Md: Rubel Mia	R০০০২০৪০৬	০১৬০৬৬৬৭০৬০	Rubel	
১১	Md: Abul Kalam Azad	৬৭১৩৩২	০১৭০৭২৩৪৪৭৭	Azad	
১২	Md Rashed Mia	৩৩১৭১৪	০১৭৩৭-৫২২৭৩০	Rashed	
১৩	Sujoy MIAH	R০০০২৪২২৫	০২৩১৪০৬২৪২২	Sujoy	
১৪	wailesh	NEW	০১৩০৪৭১৭৪৪৫	wailesh	
১৫	Rony Mia	R০০০২৬৫১৫	০১৭৩০৬৭২৪৪৭	Rony	
১৬	Foyzal siddiq	৩৪৭০৩৭	০১৪৭৬০০৭৪৭৪	Foyzal	
১৭	Md: Farid Mia	R০০০২১১৬৩	০১৪৪৪২০০৭৬৪	Farid	
১৮	Atique Rahman	৭১৭৩৬	০১৪৭৭ ৩৩১১৪৪	Atique	

Training on Operation and Maintenance of DMA- 108B, 110 & 119

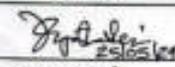
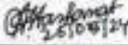
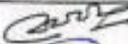
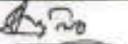
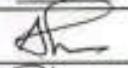
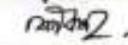
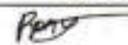
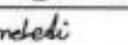
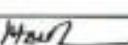
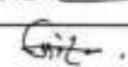
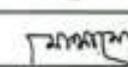
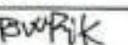
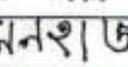
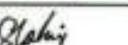
Date- 10 March 2024

Sl No.	Name	Organization	Designation	Mob No.	Signature
01					
02	Mr. Emdadul Haque	MODS Z-1, D.WASA	AE	0192585456	
03	শ্রী: ইমদাদ হাযে	মডস (জো-১), ঢাকা ওয়াসা	SAE	01716182826	
04	আব্দুল হক	সিএন (জো-১), ঢাকা ওয়াসা	SAE	01915-913479	
05	শ্রী: ইমদাদ হাযে (জিএমসি) জিএমসি-১ (জিএমসি)	সিএন (জো-১), ঢাকা ওয়াসা	SAE	01711326529	
06	শ্রী: ইমদাদ হাযে	MODS Zone-1, Dhaka WASA	SAE	01758496025	
07	শ্রী: ইমদাদ হাযে	জিএমসি-১ (জিএমসি)	জিএমসি-১	01717421760	
08	Abdus Salam Howladar	Zone-1, Dhaka Wasa	P.L.I	01712673658	
09	শ্রী: আব্দুল হক	জো-১ (জিএমসি)	জিএমসি-১	01712768697	
10	শ্রী: আব্দুল হক	জিএমসি-১	জিএমসি-১	02960250669	
11	শ্রী: আব্দুল হক	জিএমসি-১	জিএমসি-১	01629626290	
12	শ্রী: আব্দুল হক	জিএমসি-১	জিএমসি-১	00929608260	
13	শ্রী: আব্দুল হক	জিএমসি-১	জিএমসি-১	01840727576	
14	শ্রী: আব্দুল হক	জিএমসি-১	জিএমসি-১	07902 02976292962	
15	শ্রী: আব্দুল হক	জিএমসি-১	APLM	018194731779	

Training on Operation and Maintenance of DMA- 108B, 110 & 119					Date- 10 March 2024
Sl No.	Name	Organization	Designation	Mob No.	Signature
16	शशि शशि शशि	CCSEB RPL JV	TE (Training)	01367529831	[Signature]
17	शशि शशि शशि	CCSEB RPL JV	Site Manager	01346826406	[Signature]
18	शशि शशि शशि	"	"	01922896176	[Signature]
19	शशि शशि शशि	"	"	01222846176	[Signature]
20	शशि शशि शशि	"	"	01915852769	[Signature]
21	शशि शशि शशि	"	"	01823328940	[Signature]
22	शशि शशि शशि	"	"	01716932879	[Signature]
23	शशि शशि शशि	"	"	01729758648	[Signature]
24	शशि शशि शशि	RPL	DPE	0189607837	[Signature]
25	शशि शशि शशि	CCSEB-RPL JV	TE (Training)	0184620375	[Signature]
26	शशि शशि शशि	Site Manager RPL	Site Manager	01844602990	[Signature]
27	शशि शशि शशि	CCSEB RPL JV SAE-2-1	SAE	0194-8898501	[Signature]
28	शशि शशि शशि	Dy Manager zone-01	Dy Manager	017-7606236	[Signature]
29	Kyau Sha Ching	CCSEB-RPL JV	DM	01244661959	[Signature]
30	Skyamal Kumar	BMS/DWSNIP/DWASA	CME	01711228753	[Signature]
31	Kosi Shukla	CCSEB RPL JV	CPP & PM	01844601149	[Signature]

Training on Operation and Maintenance of DMA - 101 & DMA - 105					Date- 20 May 2024
Sl No.	Name	Organization	Designation	Mob No.	Signature
01	Shyamal Kumar Ghosh	DMS, DWSNIP	CME /101-02/10	01711229753	
02	Kyran Sha Chikri	CCSEB-RPL JV	CP / LB-02/10	01840061954	
03	Md. Emdadul Hossain	D.WASP, MDS Zone-1	AE	01912305455	
04	Md. Iqbal Hossain Khan	D.WASA MDS Zone-3	SAE	01816187824	
05	Mubtasik Hossain	MDS Zone-02, Dhaka	Dy. Manager	01707606236	
06	Md. Mahedi Hossain	MDS Zone-01, DWSNIP	SAE	0194-7859801	
07	Noor Rezaul Karim	ARE, DMS, DWSNIP	ARE /103-02/10	01684107978	
08	Md. Sabbir Ahmed	DMS /DWSNIP	PRE /103-2/10	01663467228	
09	Md. Abdul Hossain	ARE, DMS, DWSNIP	ARE /103-2/10	01749000034	
10	Kazi Habib Ullah	CCSEB-RPL JV	SAE	01810604449	
11	Md. Anwar Siddiqi	CCSEB-RPL JV	SAE, MDS, CCSEB	01840-658332	
12	Md. Anwar Siddiqi	CCSEB-RPL JV	SAE	01840602750	
13	Zakaria Hossain	SAE, DMS, DWSNIP	SAE	01527804440	
14	Abdul Salam Hossain	P.L.I W/O MDS Zone-1	P.L.I	01712679658	
15	Kazi Emadul Hossain	MDS Zone-1	S.P.I	01964527881	

Dhaka Water Supply Network Improvement Project (DWSNIP)
CCSEB-RPL JV - Package ICB 02.10
Information Training, Education and Consultation Communication (IEC) Campaign

Sl. No.	Name	Designation	Male	Female	Signature
01	Kyau Sha Ching	Contract Manager	✓		
02	ABUL HASANAT	C.M.	✓		
03	Kazi HABIB ULLAH	QM/ICB 210	✓		
04	Md. Sabbir Ahmed	ARE/ONS	✓		
05	Md. Abdul Wahab	SM	✓		
06	Md. Abbas Salam	DM	✓		
07	Md. Delwar Hossain	M	✓		
08	Farzana Islam Khan	AE		✓	
09	Sujitha chandra Saha	AE	✓		
10	Md. Shauki moishah	SO	✓		
11	Rony Miya	S.V	✓		
12	Abdus Salam	S.V	✓		
13	Md. Sayad Islam	S.V	✓		
14	Mehedi Hasann sobuj	S.V	✓		
15	MD Masud	TCO	✓		
16	Md. Muzumir Khan	DCE	✓		
17	Md. Abdul Momin Sarkar	SM	✓		
18	Ahmed Rahman	Safety. sup	✓		
19	MD: TARIK MIA	SV	✓		
20	Fahim Ullah	COO	✓		
21	MD. SHAMIN	office Assistant	✓		

Training on Operation and Maintenance of DMA - 101 & DMA - 105

Date- 20 May 2024

Sl No.	Name	Organization	Designation	Mob No.	Signature
16	MD. Fardus	Modar zone-1	01340820906 PLM		[Signature]
17	MD. Basir	Modar zone-1	01823328293 PLM		[Signature]
18	MD. Bellal	Modar zone-1	PLM		[Signature]
19	শ্রী: মাহমুদুল আলম	মডার জোন-১	শ্রী. মন. মন	01716932879	[Signature]
20	শ্রী: মাহমুদুল হক মন	মডার জোন-১	শ্রী. মন. মন, মন	01819431977	[Signature]
21	শ্রী: আলমগীর হোসেন	মডার জোন-১	শ্রী. মন. মন	01707304159	[Signature]
22	শ্রী: আলমগীর হোসেন	মডার জোন-১	শ্রী. মন. মন	01840727576	[Signature]
23	শ্রী: তাহা মিয়া	মডার জোন-১	শ্রী. মন. মন	01912260368	[Signature]
24	শ্রী: আলী আরশাদ	মডার জোন-১	শ্রী. মন. মন	01717154662	[Signature]
25	শ্রী: মাহমুদুল হক মন	মডার জোন-১	শ্রী. মন. মন	01919421760	[Signature]
26	শ্রী: মাহমুদুল হক মন	মডার জোন-১	শ্রী. মন. মন	01922848776	[Signature]
27					
28					
29					
30					

Annex 12: Records of Incident Report

HEALTH AND SAFETY FORM Copy

NAME OF THE PROJECT: Dhaka Water Supply Network Improvement Project (DWSNIP)
 CONTRACT NO.: ICB-02.10 Date: 15.03.24
 DMA: 103 LOCATION: Near Bangladesh Bank

INCIDENT REPORT –INJURY

INCIDENT involving injury or illness to WORKERS
 INCIDENT involving injury or illness to NON-Workers at our workplace
 (i.e. those not covered by our workers compensation, e.g. Visitor, volunteer, student, contractor)

Date of Incident: 15.03.24 Time of Incident: 3:40 am/pm

PERSON AFFECTED BY INCIDENT
 Given Name: Mobarak Surname: _____
 Gender: Male

Injury Sustained: During generator operations, the little fingers of the left hand were wounded

Treatment Administered: Instantly first aid was applied and sent him to Mugda hospital

Location of Incident: _____

Description of Incident: The little fingers of the left hand were injured during generator operation

First Aider Name: Abdullah Al Masum

First Aider Signature: [Signature] Date: 15-03-24
SE Masum

Other Staff present a time of incident: Md. Faisal Hossain

Authorized Supervisor Signature: [Signature] Date: 15.03.24

Signature of HS Inspector: [Signature] Date: 15.03.24

Annex 13: Calibration certificate of Air & Noise Quality Equipment

CALIBRATION TECHNOLOGY PVT. LIMITED
 137, Rajawadee Circle, Klongtoey, Bangkok 10110, Thailand
 Website: www.caltech.com
 Accredited to ISO 9001:2015 & ISO/IEC 17025:2017

CERTIFICATE OF CALIBRATION

Client Information:
 Development Solution Consultant Limited,
 407/11, Samsuk Road 4th Floor, Samsuk, Bangkok,
 Phone: +662 075 038811
 Mail Address: info@caltech.com
 Contact Person: Rajiv Singh

Equipment Details:
 Description: 1 Portable soundmeter
 Model/Make: 8280
 Serial No.: 10221200010101
 Asset ID No.: 8280
 Range/Scale: 1/20dB
 Frequency Range: 1

Calibration Details:
 Received On: 24 Jun 2023
 Due Date: 24 Jun 2024
 Recd. by: Rajiv Singh
 Issued On: 27 Jun 2023
 Issued by: J. Jeyaraj
 Recd. by: J. Jeyaraj
 Issued by: J. Jeyaraj
 Instrument: 8280 (Sound Meter)
 Reference: IEC 61671-1:2012
 Location: 137 Rajawadee Circle, Bangkok
 Calibration Period: 12 Months

Calibration Results:

S. No.	Description	Standard Value (dB)	Standard Uncertainty (dB)	Actual Value (dB)	Error (dB)	Expanded Uncertainty (dB)	Pass/Fail	Remarks
01	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	
02	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	

Authorized by Calibration Equipment:

S. No.	Description	Manufacturer	Model	Serial	Calibration Date	Exp. Date
01	Sound Meter	Brüel & Kjær	8280	10221200010101	27 Jun 2023	27 Jun 2024

Calibration performed by: *J. Jeyaraj*
 Authorised by: *J. Jeyaraj*

CALIBRATION TECHNOLOGY PVT. LIMITED
 137, Rajawadee Circle, Klongtoey, Bangkok 10110, Thailand
 Website: www.caltech.com
 Accredited to ISO 9001:2015 & ISO/IEC 17025:2017

CERTIFICATE OF CALIBRATION

Client Information:
 Development Solution Consultant Limited,
 407/11, Samsuk Road 4th Floor, Samsuk, Bangkok,
 Phone: +662 075 038811
 Mail Address: info@caltech.com
 Contact Person: Rajiv Singh

Equipment Details:
 Description: 1 Portable soundmeter
 Model/Make: 8280
 Serial No.: 10221200010101
 Asset ID No.: 8280
 Range/Scale: 1/20dB
 Frequency Range: 1

Calibration Details:
 Received On: 24 Jun 2023
 Due Date: 24 Jun 2024
 Recd. by: Rajiv Singh
 Issued On: 27 Jun 2023
 Issued by: J. Jeyaraj
 Recd. by: J. Jeyaraj
 Issued by: J. Jeyaraj
 Instrument: 8280 (Sound Meter)
 Reference: IEC 61671-1:2012
 Location: 137 Rajawadee Circle, Bangkok
 Calibration Period: 12 Months

Calibration Results:

S. No.	Description	Standard Value (dB)	Standard Uncertainty (dB)	Actual Value (dB)	Error (dB)	Expanded Uncertainty (dB)	Pass/Fail	Remarks
01	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	
02	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	

Authorized by Calibration Equipment:

S. No.	Description	Manufacturer	Model	Serial	Calibration Date	Exp. Date
01	Sound Meter	Brüel & Kjær	8280	10221200010101	27 Jun 2023	27 Jun 2024

Calibration performed by: *J. Jeyaraj*
 Authorised by: *J. Jeyaraj*

CALIBRATION TECHNOLOGY PVT. LIMITED
 137, Rajawadee Circle, Klongtoey, Bangkok 10110, Thailand
 Website: www.caltech.com
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CERTIFICATE OF CALIBRATION

Client Information:
 Development Solution Consultant Limited,
 407/11, Samsuk Road 4th Floor, Samsuk, Bangkok,
 Phone: +662 075 038811
 Mail Address: info@caltech.com
 Contact Person: Rajiv Singh

Equipment Details:
 Description: 1 Portable soundmeter
 Model/Make: 8280
 Serial No.: 10221200010101
 Asset ID No.: 8280
 Range/Scale: 1/20dB
 Frequency Range: 1

Calibration Details:
 Received On: 24 Jun 2023
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 Issued by: J. Jeyaraj
 Instrument: 8280 (Sound Meter)
 Reference: IEC 61671-1:2012
 Location: 137 Rajawadee Circle, Bangkok
 Calibration Period: 12 Months

Calibration Results:

S. No.	Description	Standard Value (dB)	Standard Uncertainty (dB)	Actual Value (dB)	Error (dB)	Expanded Uncertainty (dB)	Pass/Fail	Remarks
01	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	
02	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	

Authorized by Calibration Equipment:

S. No.	Description	Manufacturer	Model	Serial	Calibration Date	Exp. Date
01	Sound Meter	Brüel & Kjær	8280	10221200010101	27 Jun 2023	27 Jun 2024

Calibration performed by: *J. Jeyaraj*
 Authorised by: *J. Jeyaraj*

CALIBRATION TECHNOLOGY PVT. LIMITED
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 Serial No.: 10221200010101
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Calibration Details:
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 Recd. by: Rajiv Singh
 Issued On: 27 Jun 2023
 Issued by: J. Jeyaraj
 Recd. by: J. Jeyaraj
 Issued by: J. Jeyaraj
 Instrument: 8280 (Sound Meter)
 Reference: IEC 61671-1:2012
 Location: 137 Rajawadee Circle, Bangkok
 Calibration Period: 12 Months

Calibration Results:

S. No.	Description	Standard Value (dB)	Standard Uncertainty (dB)	Actual Value (dB)	Error (dB)	Expanded Uncertainty (dB)	Pass/Fail	Remarks
01	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	
02	Sound Meter	120.0	0.05	120.0	0.0	±0.10	Pass	

Authorized by Calibration Equipment:

S. No.	Description	Manufacturer	Model	Serial	Calibration Date	Exp. Date
01	Sound Meter	Brüel & Kjær	8280	10221200010101	27 Jun 2023	27 Jun 2024

Calibration performed by: *J. Jeyaraj*
 Authorised by: *J. Jeyaraj*

CALIBRATION TECHNOLOGY PVT. LIMITED
 17/F, Raffles City, Raffles Place, Singapore, Dhaka 1000, Bangladesh.
 Mobile: +8801991120810, +8801411 73051207
 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CALIBRATION TECHNOLOGY PVT. LIMITED
 17/F, Raffles City, Raffles Place, Singapore, Dhaka 1000, Bangladesh.
 Mobile: +8801991120810, +8801411 73051207
 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CERTIFICATE OF CALIBRATION

Certificate No: CT/2024/02240

Equipment Details:
 Description: Air Quality Meter
 Manufacturer: CASITA
 Model No: AQ-300-010
 Serial No: CT-000001
 Asset ID No: AQ3
 Range: 0-500 ug/m³
 Readability: 0.01 ug/m³

Calibration Details:
 Received On: 13 Jun 2024
 Date Issued: 13 Jun 2024
 Due on: 13 Jun 2025
 Received at: 17/F, Raffles City
 Returned Location: 17/F, Raffles City
 Returned Condition: In Tolerance
 Internal: 11 Months
 Performance by: Calibration Manager (Shree)
 Performance at: Calibration Laboratory (Shree)
 Environment: Temp: 23.0°C & RH: 77.2%
 Location: 17/F, Raffles City
 Calibration Procedure: CT/01-01-001

Comments/Notes:
 Conformity with the standard for the duration of which it is used as per ISO 9001 and ISO 15189 (2017) (2015) The quality system is ISO 9001:2015 certified. This report shall not be reproduced, except in full, without the written permission of CALTECH.

All Calibrations, unless otherwise stated, are performed using a scale of five (5) or equal to one quarter of the specification of the unit under calibration. The measurement uncertainty includes a coverage factor of 95%, having a confidence level of 95%.

Calibration Points: Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.00	0.00	± 0.01	P	± 0.01
02	100.00 ug/m ³	100.00	0.00	100.00	0.00	± 1.00	P	± 1.00

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.01	0.01	± 0.1	P	± 0.1
02	0.00 ug/m ³	0.00	0.00	0.1	0.1	± 0.1	P	± 0.1

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

Calibration Performed by: Calibration Engineer

Authorized by: Calibration Manager

Page 1 of 1

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 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CERTIFICATE OF CALIBRATION

Certificate No: CT/2024/02240

Equipment Details:
 Description: Air Quality Meter
 Manufacturer: CASITA
 Model No: AQ-300-010
 Serial No: CT-000001
 Asset ID No: AQ3
 Range: 0-500 ug/m³
 Readability: 0.01 ug/m³

Calibration Details:
 Received On: 13 Jun 2024
 Date Issued: 13 Jun 2024
 Due on: 13 Jun 2025
 Received at: 17/F, Raffles City
 Returned Location: 17/F, Raffles City
 Returned Condition: In Tolerance
 Internal: 11 Months
 Performance by: Calibration Manager (Shree)
 Performance at: Calibration Laboratory (Shree)
 Environment: Temp: 23.0°C & RH: 77.2%
 Location: 17/F, Raffles City
 Calibration Procedure: CT/01-01-001

Comments/Notes:
 Conformity with the standard for the duration of which it is used as per ISO 9001 and ISO 15189 (2017) (2015) The quality system is ISO 9001:2015 certified. This report shall not be reproduced, except in full, without the written permission of CALTECH.

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Calibration Points: Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.00	0.00	± 0.01	P	± 0.01
02	100.00 ug/m ³	100.00	0.00	100.00	0.00	± 1.00	P	± 1.00

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.01	0.01	± 0.1	P	± 0.1
02	0.00 ug/m ³	0.00	0.00	0.1	0.1	± 0.1	P	± 0.1

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

Calibration Performed by: Calibration Engineer

Authorized by: Calibration Manager

Page 1 of 1

CALIBRATION TECHNOLOGY PVT. LIMITED
 17/F, Raffles City, Raffles Place, Singapore, Dhaka 1000, Bangladesh.
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 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CERTIFICATE OF CALIBRATION

Certificate No: CT/2024/02240

Equipment Details:
 Description: Air Quality Meter
 Manufacturer: CASITA
 Model No: AQ-300-010
 Serial No: CT-000001
 Asset ID No: AQ3
 Range: 0-500 ug/m³
 Readability: 0.01 ug/m³

Calibration Details:
 Received On: 13 Jun 2024
 Date Issued: 13 Jun 2024
 Due on: 13 Jun 2025
 Received at: 17/F, Raffles City
 Returned Location: 17/F, Raffles City
 Returned Condition: In Tolerance
 Internal: 11 Months
 Performance by: Calibration Manager (Shree)
 Performance at: Calibration Laboratory (Shree)
 Environment: Temp: 23.0°C & RH: 77.2%
 Location: 17/F, Raffles City
 Calibration Procedure: CT/01-01-001

Comments/Notes:
 Conformity with the standard for the duration of which it is used as per ISO 9001 and ISO 15189 (2017) (2015) The quality system is ISO 9001:2015 certified. This report shall not be reproduced, except in full, without the written permission of CALTECH.

All Calibrations, unless otherwise stated, are performed using a scale of five (5) or equal to one quarter of the specification of the unit under calibration. The measurement uncertainty includes a coverage factor of 95%, having a confidence level of 95%.

Calibration Points: Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.00	0.00	± 0.01	P	± 0.01
02	100.00 ug/m ³	100.00	0.00	100.00	0.00	± 1.00	P	± 1.00

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.01	0.01	± 0.1	P	± 0.1
02	0.00 ug/m ³	0.00	0.00	0.1	0.1	± 0.1	P	± 0.1

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

Calibration Performed by: Calibration Engineer

Authorized by: Calibration Manager

Page 1 of 1

CALIBRATION TECHNOLOGY PVT. LIMITED
 17/F, Raffles City, Raffles Place, Singapore, Dhaka 1000, Bangladesh.
 Mobile: +8801991120810, +8801411 73051207
 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CALIBRATION TECHNOLOGY PVT. LIMITED
 17/F, Raffles City, Raffles Place, Singapore, Dhaka 1000, Bangladesh.
 Mobile: +8801991120810, +8801411 73051207
 Accredited to ISO 9001:2015 & ISO 15189:17025:2017

CERTIFICATE OF CALIBRATION

Certificate No: CT/2024/02240

Equipment Details:
 Description: Air Quality Meter
 Manufacturer: CASITA
 Model No: AQ-300-010
 Serial No: CT-000001
 Asset ID No: AQ3
 Range: 0-500 ug/m³
 Readability: 0.01 ug/m³

Calibration Details:
 Received On: 13 Jun 2024
 Date Issued: 13 Jun 2024
 Due on: 13 Jun 2025
 Received at: 17/F, Raffles City
 Returned Location: 17/F, Raffles City
 Returned Condition: In Tolerance
 Internal: 11 Months
 Performance by: Calibration Manager (Shree)
 Performance at: Calibration Laboratory (Shree)
 Environment: Temp: 23.0°C & RH: 77.2%
 Location: 17/F, Raffles City
 Calibration Procedure: CT/01-01-001

Comments/Notes:
 Conformity with the standard for the duration of which it is used as per ISO 9001 and ISO 15189 (2017) (2015) The quality system is ISO 9001:2015 certified. This report shall not be reproduced, except in full, without the written permission of CALTECH.

All Calibrations, unless otherwise stated, are performed using a scale of five (5) or equal to one quarter of the specification of the unit under calibration. The measurement uncertainty includes a coverage factor of 95%, having a confidence level of 95%.

Calibration Points: Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.00	0.00	± 0.01	P	± 0.01
02	100.00 ug/m ³	100.00	0.00	100.00	0.00	± 1.00	P	± 1.00

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

S. No.	Description	Normal Range	Standard Dev. (SD)	Actual Value (AV)	Error (E)	Tolerance (T)	Result	Uncertainty (U)
01	0.00 ug/m ³	0.00	0.00	0.01	0.01	± 0.1	P	± 0.1
02	0.00 ug/m ³	0.00	0.00	0.1	0.1	± 0.1	P	± 0.1

Result Category: (P: Pass, F: Fail, N: Not Assessed, D: Do Not Report Due to Nonconforming Part)

Calibration Performed by: Calibration Engineer

Authorized by: Calibration Manager

Page 1 of 1

CALIBRATION CERTIFICATE




Client Ref.: 201/2024/024
Issue Date: 12/12/2023
Date of Receipt: 12/12/2023
Status of the item on receipt: satisfactory
Calibration location: UAE

Customer Details:
Name of Company: Global Assessment & Compliance Limited
Address: PO Box 10454, Health Technology Centre (HTC), Singapore.

Description & Identification of Item:

Name of the Item	Make	Model	Serial No.	Calibration No.
Autoclave (Load Control System)	Autoclave	Q-4000	00142710001	607

Equipment and Traceability:

Name of the Equipment	Calibration No.	Calibration Certificate No.	Calibration Due Date	Calibration By
Steel Calibration	08000000	02-00-14702/080000	04-11-2023	0001
Digital Density Measurement	40000000	02-00-14702/400000	04-11-2023	0001

Calibration Principles and Measurement Uncertainty:
 Calibration and test results of measurement uncertainty are based on ISO 15020:2018 (Measurement uncertainty) and ISO 17025:2017.

Measurement Uncertainty of Measurement:
 Uncertainty (U) is being displayed and defined as "1-sigma" using calibration & reference material stability (0.001%)

Page No. 1

Issued By: ION Engineering Pte Ltd
 Lot Road, # 1202, 8-12, Ave 2, Singapore 409910, (Singapore). Mobile No: +65 9100 0000 or Email: info@ion.com.sg

CALIBRATION CERTIFICATE




Client Ref.: 201/2024/024
Issue Date: 12/12/2023
Date of Receipt: 12/12/2023
Status of the item on receipt: satisfactory
Calibration location: UAE

Customer Details:
Name of Company: Global Assessment & Compliance Limited
Address: PO Box 10454, Health Technology Centre (HTC), Singapore.

Measurement Results:

Item 1: Autoclave (Load Control System)

STD Value (%)	U.S.C Value (%)	Error (%)	Tolerance	Acceptance (%)
0.00	0.00	0.00	±0.1	±0.1
0.00	0.00	0.00	±0.1	±0.1
0.00	0.00	0.00	±0.1	±0.1
0.00	0.00	0.00	±0.1	±0.1
0.00	0.00	0.00	±0.1	±0.1

Item 2: Density Measurement (Reference Material)

STD Value (kg/m³)	U.S.C Value (kg/m³)	Error (kg/m³)	Tolerance	Acceptance (kg/m³)
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1

Item 3: VFA Substances (0.00 to 0.00 mg/L)

VFA Substances (mg/L)	U.S.C Value (mg/L)	Error (mg/L)	Tolerance	Acceptance
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1

Item 4: Density Measurement (0.00 to 1.000 kg/m³)

Density (kg/m³)	U.S.C Value (kg/m³)	Error (kg/m³)	Tolerance	Acceptance
1.0	1.000	0.000	±0.1	±0.1
1.0	1.000	0.000	±0.1	±0.1
1.0	1.000	0.000	±0.1	±0.1
1.0	1.000	0.000	±0.1	±0.1
1.0	1.000	0.000	±0.1	±0.1

Notes:
 1. This Certificate reflects the values obtained at the time of calibration and under the above stated conditions.
 2. The calibration results reported correspond to the particular item mentioned above.
 3. The Certificate shall not be reproduced except in full without the written approval of ION Engineering.
 4. Measurement uncertainty (95% of confidence level) with a coverage factor k=1. As per calibration result.

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CALIBRATION CERTIFICATE




Client Ref.: 201/2024/024
Issue Date: 12/12/2023
Date of Receipt: 12/12/2023
Status of the item on receipt: satisfactory
Calibration location: UAE

Customer Details:
Name of Company: Global Assessment & Compliance Limited
Address: PO Box 10454, Health Technology Centre (HTC), Singapore.

Description & Identification of Item:

Name of the Item	Make	Model	Serial No.	Calibration No.
Autoclave (Load Control System)	Autoclave	Q-4000	00142710001	607

Equipment and Traceability:

Name of the Equipment	Calibration No.	Calibration Certificate No.	Calibration Due Date	Calibration By
Steel Calibration	08000000	02-00-14702/080000	04-11-2023	0001
Digital Density Measurement	40000000	02-00-14702/400000	04-11-2023	0001

Calibration Principles and Measurement Uncertainty:
 Calibration and test results of measurement uncertainty are based on ISO 15020:2018 (Measurement uncertainty) and ISO 17025:2017.

Measurement Uncertainty of Measurement:
 Uncertainty (U) is being displayed and defined as "1-sigma" using calibration & reference material stability (0.001%)

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CALIBRATION CERTIFICATE




Client Ref.: 201/2024/024
Issue Date: 12/12/2023
Date of Receipt: 12/12/2023
Status of the item on receipt: satisfactory
Calibration location: UAE

Customer Details:
Name of Company: Global Assessment & Compliance Limited
Address: PO Box 10454, Health Technology Centre (HTC), Singapore.

Measurement Results:

Item 1: Autoclave (Load Control System)

STD Value (%)	U.S.C Value (%)	Error (%)	Tolerance	Acceptance (%)
0.0	0.0	0.0	±0.1	±0.1
0.0	0.0	0.0	±0.1	±0.1
0.0	0.0	0.0	±0.1	±0.1
0.0	0.0	0.0	±0.1	±0.1
0.0	0.0	0.0	±0.1	±0.1

Item 2: Density Measurement (Reference Material)

STD Value (kg/m³)	U.S.C Value (kg/m³)	Error (kg/m³)	Tolerance	Acceptance (kg/m³)
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1
1000	1000	0	±0.1	±0.1

Item 3: VFA Substances (0.00 to 0.00 mg/L)

VFA Substances (mg/L)	U.S.C Value (mg/L)	Error (mg/L)	Tolerance	Acceptance
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1
0	0	0	±0.1	±0.1

Item 4: Density Measurement (0.00 to 1.000 kg/m³)

Density (kg/m³)	U.S.C Value (kg/m³)	Error (kg/m³)	Tolerance	Acceptance
1.0	1.000	0	±0.1	±0.1
1.0	1.000	0	±0.1	±0.1
1.0	1.000	0	±0.1	±0.1
1.0	1.000	0	±0.1	±0.1
1.0	1.000	0	±0.1	±0.1

Notes:
 1. This Certificate reflects the values obtained at the time of calibration and under the above stated conditions.
 2. The calibration results reported correspond to the particular item mentioned above.
 3. The Certificate shall not be reproduced except in full without the written approval of ION Engineering.
 4. Measurement uncertainty (95% of confidence level) with a coverage factor k=1. As per calibration result.

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Annex 14: Task specific Health and Safety Checklists

Checklist for Excavation Work

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering traffic management plan and H&S plan for the excavation works?				
2.	Has the contractor completed risk assessment for the excavation works?				
3.	Has the RFI completed for the excavation works?				
4.	Is the excavation permit/pre-dig permit obtained before starting work?				
5.	Is the contractor obtained road cutting permission from city corporation?				
6.	Is the contractor contacted traffic authority for the excavation work?				
7.	Is tool box meeting held before starting work?				
8.	Does the operator and signalman have the minimum experience for the job?				
9.	Have the workers provided appropriate PPEs?				
10.	Is there any physical barrier or caution tape deployed for the excavation pit?				
11.	Whether NGO has done the IEC activities?				
12.	Are there sufficient display warning signs at the excavation site?				
13.	Is the first aid box with required materials kept at site?				
14.	Are the rescue procedures completed and reserved at the site?				
15.	Are Display Board, Traffic diversion, Clean & Clear passage way provided?				
16.	Are excavated materials placed sufficiently away from water courses?				
17.	Are debris and waste materials transported to selected disposal places from temporary disposal site?				
	Trenches up to 2m:				
18.	Whether excavated material is dumped at least 1m away from trench wall?				
19.	Whether the extra material is removed?				
20.	In case of Ground water whether pumped water is drained properly?				
	Trenches & pits depth of more than 2m:				
21.	Whether firm barricades are provided?				
22.	In case of loose soil strata whether shoring is provided?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Traffic Management

DMA No. / Package: _____

Date: _____

Location: _____

Description	Observation			Remarks
	Yes	No	NA	
1. Has the Contractor completed the Method Statement considering traffic management plan?				
2. Is the Contractor contacted with DMP before starting the construction work?				
3. Is there traffic control supervisor present at construction site?				
4. Is toolbox meeting held before starting the work?				
5. Have every driver and equipment operators their valid driving license?				
6. Are the traffic controllers and supervisors trained and accredited?				
7. Are traffic signages available around the construction sites and nearby roads?				
8. Are re-routing signage sufficient to guide motorists?				
9. Are flagmen present to direct traffic during construction hour?				
10. Are the excavation sites along roads provided with barricades with reflectors?				
11. Are Display Board, Traffic diversion, clean & clear passage way provided?				
12. Are there sufficient display warning signs available for traffic movement?				
13. Are the excavation sites provided with sufficient lighting at night?				
14. Is the first aid box with required materials kept at site?				
15. Are the rescue procedures completed and reserved at site?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Electrical Work

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed risk assessment for the electrical works?				
2.	Are all the electrical equipment operated by licensed electrician?				
3.	Are all electrical components certified?				
4.	Are all the electrical equipment checked before operation?				
5.	Whether the workers are using proper gloves and goggles?				
6.	Whether required earthing is provided for equipment?				
7.	Whether proper wiring & connections boards with RCCB (30mA) fuse are being used?				
8.	Is the electrical equipment are kept on dry place, barricaded to avoid accidental contact by stakeholder?				
9.	Is the area barricaded and using flags where electrical work is conducting?				
10.	Are emergency contact details available on-site in case of electrocutions or burns?				
11.	Is toolbox meeting held before starting the work?				
12.	Are there a medical first aid kits available on site for primary medical care?				
13.	Are the rescue procedures completed and reserved at the site?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Fire Safety

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering fire safety plan and H&S plan for the fire safety?				
2.	Has the contractor completed risk assessment for the fire?				
3.	Is toolbox meeting held before starting the work?				
4.	Are there firefighting equipment on site?				
5.	Are there fire extinguisher available at labour shed?				
6.	Are all the firefighting equipment operated by trained & experienced operators?				
7.	Are emergency contact details available on-site in case of fire burns?				
8.	Are emergency contact details available at labour shed in case of fire burns?				
9.	Are there a medical first aid kits available on site for primary medical care?				
10.	Are the rescue procedures completed and reserved at the site?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for DTW works

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering Deep Tube well Work and H&S plan for the DTW works?				
2.	Has the contractor completed risk assessment for the DTW works?				
3.	Is the contractor informed Zonal Authorities and Councillor before starting work?				
4.	Is the contractor informed Electrical Authorities before starting the work				
5.	Is the contractor contacted traffic authority before starting the work?				
6.	Is tool box meeting held before starting work?				
7.	Does the operator have the minimum experience for the job?				
8.	Have the workers provided appropriate PPEs?				
9.	Is there any physical barrier or caution tape deployed for the excavation pit?				
10.	Whether NGO has done the IEC activities?				
11.	Are there sufficient display warning signs at the DTW work site?				
12.	Is the first aid box with required materials kept at site?				
13.	Are the rescue procedures completed and reserved at the site?				
14.	Are Display Board, Traffic diversion, Clean & Clear passage way provided?				
15.	Are excavated materials placed sufficiently away from water courses?				
16.	Are debris and waste materials transported to selected disposal places from temporary disposal site?				
17.	Whether firm barricades are provided?				
18.	In case of loose soil strata whether shoring is provided?				
19.	Do generators operate with doors closed or provided with sound barrier around them?				
20.	Do workers use ear plugs/hearing protections at noise generating locations?				
21.	Are neighbouring residents notified in advance of any noisy activities expected at construction sites?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Asbestos Cement Pipe

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
1.	Has the contractor completed the Method Statement considering safety for asbestos cement pipe?				
2.	Has the RFI completed for the asbestos cement pipe?				
3.	Has the contractor identified presence, location & quantity of all asbestos cement pipe?				
4.	Is the marked map of AC pipe available on site?				
5.	Is the safety procedure of AC pipe available on site?				
6.	Has the safety supervisor conducted toolbox meeting regarding AC pipe?				
7.	Has the contractor attached signs or labels so workers and supervisors know to avoid the area of AC pipe?				
8.	Is sufficient distance maintained between existing AC pipes and newly installed pipes?				
9.	Is the area of AC pipe marked and barricaded?				
10.	Is drinking and smoking prohibited in the work areas?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Dust Control & Noise Control

DMA No. / Package: _____

Date: _____

Location: _____

	Description	Observation			Remarks
		Yes	No	NA	
	Dust Control				
1.	Is the construction site watered to minimize generation of dust?				
2.	Are roads within and around the construction sites sprayed with water on regular intervals?				
3.	Is there a speed control for vehicles carrying soils and other spoils covered?				
4.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?				
5.	Are construction vehicles carrying soils and other spoiled covered?				
6.	Are generators provided with air pollution control devices?				
7.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid permits?				
	Noise Control	Yes	No	NA	
1.	Is the work only taking place between 7 am to 7 pm, week days?				
2.	Do generators operate with doors closed or provided with sound barrier around them?				
3.	Do workers use ear plugs/hearing protections at noise generating locations?				
4.	Is idle equipment turned off or throttled down?				
5.	Are neighbouring residents notified in advance of any noisy activities expected at construction sites?				

Contractor's representative:

DMS representative:

Name, Designation and Signature_____
Name, Designation and Signature

Checklist for Occupational Health & Safety and Community Health & Safety

DMA No. / Package: _____

Date: _____

Location: _____

Description		Observation			Remarks
1.	Supervision and Management On-Site	Yes	No	NA	
	a. Is an EHS supervisor available?				
	b. Is a copy of the SEMP available at construction site?				
	c. Are daily toolbox meetings conducted on site?				
2.	Facilities	Yes	No	NA	
	a. Are there a medical first aid kits available on site?				
	b. Are emergency contact details available on-site?				
	c. Are there PPEs available; Helmet, HI-VIS Vest, Gumboots, Eye Wear, Dust Mask, Safety Gloves, Earplugs?				
	d. Are the PPEs in good condition?				
	e. Are there firefighting equipment on site?				
	f. Are there separate mobile sanitary facilities for male and female workers?				
	g. Are sanitary facilities cleaned and disinfected regularly?				
	h. Is drinking water supply available for workers?				
3.	Occupational Health and Safety	Yes	No	NA	
	a. Are the PPEs being used by workers				
	b. Is breaktime for workers provided?				
	c. Is construction work site barricaded with caution tape?				
4.	Community Health and Safety	Yes	No	NA	
	a. Are safety signages posted around the sites?				
	b. Are temporary and safe walkways for pedestrians available near work sites?				
	c. Are consultation meeting/focus group discussion/tea stall meeting arranged regularly on site?				
	d. Are existing users notified in advance about temporary disruption of water supply?				
	e. Are Leaflets distributed on site to inform the local residents about the project work?				
	f. Is complain book available on work site to receive complain from local people?				
5.	Recording System	Yes	No	NA	
	a) Do the contractors have recording system for SEMP implementation?				
	b) Are the daily monitoring sheets accomplished by the contractor EHS supervisor (or equivalent) properly complied?				
	c) Are laboratory results of environmental sampling conducted since the commencement of construction activities properly complied?				
	d) Are these records readily available at the site and to the inspection team?				
	e) Are utility accidents recorded and proper actions are taken immediately?				
	f) Are public complaints recorded at construction site and addressed quickly and properly?				
	g) Are there any registered book available at construction site/stockyard for visitors/inspection teams?				
	h) Is there any Complain box available for anonymous complain at construction site/stockyard?				

Contractor's representative: _____
Name, Designation and Signature

DMS representative: _____
Name, Designation and Signature

Annex 15: Road Cutting Permission from City Corporation

নির্বাহী প্রকৌশলীর কার্যালয়
প্রকৌশল বিভাগ
অঞ্চল-২ (খিলগাঁও)
ঢাকা দক্ষিণ সিটি কর্পোরেশন, ঢাকা।

তারিখ- ০২/২/২৪

নং- ৪৬২০৭০১৪২৪০২০৬২০২৪ জাং-

অনুমতি পত্র

বিষয়: ঢাকা এয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (DWSNIP) এর ICB Package-02.10 এর DMA-105 (Segment-2) এর অধীনে ঢাকা এয়াটার মডুল জোন-১ এর আওতাধীন পশ্চিম বাসাবো, কদমতলা, হাজারবাগ ও কুমুদবাগ এলাকায় পানির লাইন স্থাপন ও পুনর্বসন কাজের জন্য রাজ্য খননের অনুমতি প্রদান প্রসঙ্গে।

উপর্যুক্ত বিষয়ের প্রেক্ষিতে জানানো যাচ্ছে যে, বিষয়ে উল্লেখিত কাজটি সড়ক খনন কাজের ক্ষতিপূরণের অর্থ জমা প্রদান করায় কর্তৃপক্ষের অনুমোদনক্রমে অপর পৃষ্ঠায় উল্লিখিত শর্ত প্রতিপালন সাপেক্ষে সংশ্লিষ্ট প্রতিষ্ঠান কর্তৃক আগামী ০৪/০২/২০২৪ খ্রিঃ তারিখ হতে ০৪/০২/২০২৪ খ্রিঃ তারিখের মধ্যে সড়ক খনন কাজ সম্পন্ন করার জন্য সময়সীমা নির্ধারণ করে অনুমতিপত্র ইস্যু করা হলো। জনসাধারণ ও যানবাহন চলাচলের বিকল্প ব্যবস্থা রেখে সংশ্লিষ্ট অঞ্চল ও ডিএমপি'র সাথে সমন্বয় করে সড়ক খনন কাজ সম্পন্ন করবে। সংশ্লিষ্ট প্রতিষ্ঠান কর্তৃক জমাকৃত চেক নং- JCA No- B1925701, তারিখঃ ২৯/০১/২০২৪ ইং এবং JCA No- B1925703, তারিখ-২৯/০১/২০২৪ ইং, Jamuna Bank Limited, Dhaka.

স্বাক্ষর দাশ
নির্বাহী প্রকৌশলী
ডিজিটাইজেশন অফিস
ঢাকা ডায়াল, ঢাকা।

(সাইফুল ইসলাম)
নির্বাহী প্রকৌশলী
অঞ্চল-২ (খিলগাঁও)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।

জ্ঞাতার্থে:

১। সফটনিং কাউন্সিলর, ওয়ার্ড নং-

অনুপস্থিতি

- ১। প্রধান প্রকৌশলী, ঢাকা দক্ষিণ সিটি কর্পোরেশন
- ২। প্রধান বর্জ্য ব্যবস্থাপনা কর্মকর্তা, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৩। অফিসপ্রধান প্রকৌশলী (পূর্ব), ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৪। উপ-পুলিশ কমিশনার (ট্রাফিক-পূর্ব), খনন কাজ চলাকালীন সময়ে সংশ্লিষ্ট সময়ে সার্বিক সহযোগিতার জন্য অনুরোধ করা হলো।
- ৫। সমন্বয়কারী, মনিটরিং সেল, সার্কেল-১।
- ৬। অস্থায়ী নির্বাহী কর্মকর্তা, অঞ্চল-২, ঢাকা দক্ষিণ সিটি কর্পোরেশন
- ৭। প্রধান নির্বাহী কর্মকর্তার স্টাফ অফিসার (প্রধান নির্বাহী কর্মকর্তার অনুপস্থিতির জন্য)
- ৮। সহকারী প্রকৌশলী-১/২, অঞ্চল-২, ঢাকা দক্ষিণ সিটি কর্পোরেশন
- ৯। ভারপ্রাপ্ত কর্মকর্তা, থানা, ঢাকা মেট্রোপলিটন পুলিশ, ঢাকা
- ১০। উপ-সহকারী প্রকৌশলী, জনাব অঞ্চল-২, ঢাকা দক্ষিণ সিটি কর্পোরেশন
- ১১। কার্য-সহকারী, জনাব অঞ্চল-২, ঢাকা দক্ষিণ সিটি কর্পোরেশন
- ১২। অফিস কপি।

(সাইফুল ইসলাম)
নির্বাহী প্রকৌশলী
অঞ্চল-২ (খিলগাঁও)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।

ঢাকা দক্ষিণ সিটি কর্পোরেশন
প্রকৌশল বিভাগ, অফিস-৫ (সাহেদাবাদ)
সড়ক খননের অনুমতি পত্র

“শেখ হাসিনার স্থলনীতি
এম শহরের উন্নতি”

স্মারক নং- ৪৬.২০৭.০০০.২১.২০. ০৫ ২০২৬

তারিখ

১৯/০৪/২০২৬ খ্রিঃ

নির্বাহী প্রকৌশলী
ডিজিটাইজেশন অফিস
ঢাকা ওয়াশিংটন, ঢাকা।

বিষয়ঃ ঢাকা ওয়াশিংটন ফক্ক “ ঢাকা ওয়াশিংটন সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (DWSNIP) এর ICB Package-02.10 এর অধীনে ঢাকা ওয়াশিংটন মডল জোন-১ এর আওতাধীন শহীদ ফারুক শাখা রোড, বোসোপাড়া রোড, বীরবাড়ী ১ নং পলি ও হামাবাড়ী-খোলাইপাড় মোড় মেইন রোড DMA-116 এলাকায় পানির লাইন স্থাপন ও পুনর্বিন্যাস কাজ এর জন্য সড়ক খননের অনুমতি প্রদান প্রসঙ্গে।

উপরোক্ত বিষয়ে আপনার আবেদন সড়ক খনন ক্ষতিপূরণ ফি শব্দে ৩৬,৬৬,২৫৮/-টাকা, ১৫% ভ্যাট বাকদে ৫,৪৯,৯৩৯/-টাকা এবং জামানত বাকদে ৩৬,৬৬,২৫৮/-ক্রমা প্রদান করার নিম্নবর্ণিত শর্তাবলীতে বর্ণিত কাজ খননের অনুমতি পত্র প্রদান করা হলোঃ

- ০১ : খনন কাজ ১৬/০৪/২০২৬ খ্রিঃ হতে ৩০/০৪/২০২৬ খ্রিঃ পর্যন্ত ১৫(পনের) দিনের মধ্যে খনন কাজ সম্পন্ন করতে হবে।
- ০২ : জনসাধারণ ও যান চলাচলের বিকল্প ব্যবস্থা রেখে মুউপাতত সংলগ্ন অংশে খনন কাজ করতে হবে।
- ০৩ : স্বাস্থ্যনিধি অনুসরণ করে খনন কাজ সম্পন্ন করতে হবে।
- ০৪ : সড়ক খনন নীতিমালা ও পরবর্তী পূর্তায় বর্ণিত শর্তাবলী অনুসরণ করে খননকাজ সম্পন্ন করতে হবে। খননের পরিমাণ নিম্নরূপঃ

ক্রমিক নং	কাজের প্রকৃতি	পরিমাণ	ভিত্তিপূরণ ফি	মেট্রি
১)	সিসি রাস্তা	১ x ৬০০ x .৬০ = ৩৬০.০০ বর্গ মিঃ	৪,৯৪৬/- প্রতি বর্গ মিঃ	১৮,৬৯,৫৮৬/-
২)	সিসি পিট	৯ x .৯০ x .৬০ = ৪.৮৬ বর্গ মিঃ	৪,৯৪৬/- প্রতি বর্গ মিঃ	২৪,০৫৮/-
৩)	বিটুমিনাস রাস্তা (পিট)	৩৯ x .৯০ x .৬০ = ২১.০৬ বর্গ মিঃ	৭,৮৭১/- প্রতি বর্গ মিঃ	১,৬৫,৭৬৩/-
৪)	বিটুমিনাস রাস্তা	৪ x ৩.০০ x ২.০০ = ২৪.০০ বর্গ মিঃ	৭,৮৭১/- প্রতি বর্গ মিঃ	১,৮৮,৯০৪/-
৫)	বিটুমিনাস রাস্তা এইচডিডি(৬"-১২")	৭৪২.০০ মিঃ	১২৫৯.০৬/- প্রতি মিঃ	৯,৩৪,৪৪৫/-
৬)	সিসি রাস্তা এইচডিডি ৬" এর কন	৭৫২.০০ মিঃ	৬৪২.৯৮/- প্রতি মিঃ	৪,৮৩,৫২০/-
			(ক) মেট্রি =	৩৬,৬৬,২৫৮/-
			১৫% ভ্যাট =	৫,৪৯,৯৩৯/-
			রাস্তা খননের জামানত ১০০% =	৩৬,৬৬,২৫৮/-
			সর্বমেট্রি =	৭৮,৬৫,৪৫৫/-

বিশেষ ট্রষ্টীঃ ওয়ান ষ্টপ সেবার নিশ্চয়তা অধুনারী সন্য
উন্নয়নকৃত রাস্তায় কোনক্রমেই খনন কাজ করা যাবে না।


নির্বাহী প্রকৌশলী
অফিস-৫ (সাহেদাবাদ)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।
১৯/৪/২৬

স্মারক নং- ৪৬.২০৭.০০০.২১.২০.

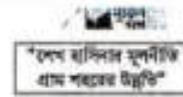
অনুলিপিঃ সদস্য অধ্যক্ষের জন্য (জ্যেষ্ঠতার ভিত্তিতে নহে)।

- ১. সম্বন্ধিত কার্যালয়, ওয়ার্ড নং-
- ২. প্রধান প্রকৌশলী, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৩. অতিরিক্ত প্রধান প্রকৌশলী, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৪. তত্ত্বাবধায়ক প্রকৌশলী (পুর), ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৫. আঞ্চলিক নির্বাহী কর্মকর্তা, অফিস-৫, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৬. উপ-পুলিশ কমিশনার (ট্রাফিক), ওয়ারী, ঢাকা মেট্রোপলিটান পুলিশ।
- ৭. প্রধান নির্বাহী কর্মকর্তার ডাক অফিসার (প্রধান নির্বাহী কর্মকর্তার সদস্য অধ্যক্ষের জন্য), ঢাকা দক্ষিণ সিটি কর্পোরেশন, ঢাকা।
- ৮. ভারপ্রাপ্ত কর্মকর্তা,বাগ, ঢাকা।
- ৯. জনাব সহকারী প্রকৌশলী, অফিস-৫।
- ১০. জনাব উপ-সহকারী প্রকৌশলী, অফিস-৫ (খনন কাজ ইনসপেক্টর সময়ে সার্বজনিক উদায়নী করার জন্য নির্দেশ দেওয়া হইবে)।
- ১১. জনাব কর্মকর্তা, অফিস-৫ -৫


নির্বাহী প্রকৌশলী
অফিস-৫ (সাহেদাবাদ)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।
১৯/৪/২৬

ঢাকা দক্ষিণ সিটি কর্পোরেশন

প্রকৌশল বিভাগ, অঞ্চল-৫ (সামান্যবাদ)
সড়ক খননের অনুমতি পত্র



স্মারক নং- ৪৬.২০৭.০০০.২১.২০. **০৫** ২০ **২৬**

তারিখ

১১/০৪/২০২৪ খ্রিঃ

নির্বাহী প্রকৌশলী
ডিজিটাইজেশন অফিস
ঢাকা ওয়ার্ড, ঢাকা।

বিষয়: ঢাকা ওয়ার্ডের কক্কু " ঢাকা ওয়ার্ডের সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রকৌশল (DWSNIP) এর ICB Package-02.10 এর অধীনে ঢাকা ওয়ার্ডের মডল জোন-১ এর আওতাধীন শহীদ ফারুক শাখা রোড, মেসোপাড়া রোড, বীরবাড়ী ১ নং পলি ও যামানাবাড়ী-মেলোইপাড় মোড় মেইন রোড DMA-116 এলাকায় পানির লাইন স্থাপন ও পুনর্বাসন কাজ এর জন্য সড়ক খননের অনুমতি প্রদান প্রসঙ্গে।

উপর্যুক্ত বিষয়ে আপনার আবেদন সড়ক খনন ফর্তিপূরণ কি বাধন ৩৬.৬৬.২৫৮/- টাকা, ১৫% জাট বাধন ৫,৪৯,৯০৯/- টাকা এবং জামানত বাধন ৩৬.৬৬.২৫৮/- কমা প্রাপ্য কাজ নিরূপিত শর্তসীমায় অর্পিত রাজ্য খননের অনুমতি পত্র প্রদান করা হলো :

- ০১। খনন কাজ ১৬/০৪/২০২৪ খ্রিঃ হতে ৩০/০৪/২০২৪ খ্রিঃ পর্যন্ত ১৫(পনের) দিনের মধ্যে খনন কাজ সম্পন্ন করতে হবে।
- ০২। জনসাধারণ ও যান চলাচলের বিকল্প ব্যবস্থা রেখে খুঁটিপাত সংলগ্ন অংশে খনন কাজ করতে হবে।
- ০৩। সড়কবিধি অনুসরণ করে খনন কাজ সম্পন্ন করতে হবে।
- ০৪। সড়ক খনন নীতিমালা ও পরবর্তী পৃষ্ঠায় বর্ণিত শর্তাবলী অনুসরণ করে খননকাজ সম্পন্ন করতে হবে। খননের পরিমাণ নিম্নরূপ :

ক্রমিক নং	কাজের প্রকৃতি	পরিমাণ	ফর্তিপূরণ কি	মোট
১)	সিলি রাজা	1 x ৬০০ x .৬০ = ৩৬০.০০ বর্গ মিঃ	৪,৯৪৬/- প্রতি বর্গ মিঃ	1৮,৬১,৫৬৮/-
২)	সিলি পিট	২ x .৯০ x .৬০ = ১.০৮ বর্গ মিঃ	৪,৯৪৬/- প্রতি বর্গ মিঃ	২৪,০০৮/-
৩)	বিটুমিনাস রাস্তা (পিট)	৩৬ x .৯০ x .৬০ = ২১.০৬ বর্গ মিঃ	৭,৮৭১/- প্রতি বর্গ মিঃ	1,৬৫,৭৬০/-
৪)	বিটুমিনাস রাস্তা	৪ x ৩.০০ x ২.০০ = ২৪.০০ বর্গ মিঃ	৭,৮৭১/- প্রতি বর্গ মিঃ	1,৮৮,৯০৪/-
৫)	বিটুমিনাস রাস্তা এইচডিডি(৬"-১২")	৭৪২.০০ মিঃ	1২৫৯.০৬/- প্রতি মিঃ	৯,৩৪,৪৪৫/-
৬)	সিলি রাজা এইচডিডি ৬" এর ফন	৭৫২.০০ মিঃ	৬৪২.৯৮/- প্রতি মিঃ	৪,৮৩,৫২০/-
				(ক) মোট = ৩৬,৬৬,২৫৮/-
				১৫% জাট = ৫,৪৯,৯০৯/-
				রাজ্য খননের জামানত ১০০% = ৩৬,৬৬,২৫৮/-
				সর্বমোট = ৭৮,৮২,৪২৫/-

বিশেষ প্রটোক : ওয়ার্ড উপ সেনের সিদ্ধান্ত অনুযায়ী সড়ক উন্নয়নকৃত রাস্তায় কোনক্রমেই খনন কাজ করা যাবে না।

নির্বাহী প্রকৌশলী
অঞ্চল-৫ (সামান্যবাদ)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।
১১/৪/২৪

স্মারক নং- ৪৬.২০৭.০০০.২১.২০.

অনুলিপি : সমস্ত অবগতির জন্য (প্রয়োজ্যতার ভিত্তিতে নহে) :

- ১. সমন্বিত কার্যালয়, ওয়ার্ড নং.
- ২. প্রধান প্রকৌশলী, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৩. অতিরিক্ত প্রধান প্রকৌশলী, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৪. অধ্যক্ষ/অতিরিক্ত প্রকৌশলী (পুর), ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৫. আঞ্চলিক নির্বাহী কর্মকর্তা, অঞ্চল-৫, ঢাকা দক্ষিণ সিটি কর্পোরেশন।
- ৬. উপ-পুলিশ কমিশনার (ট্রাফিক), ওয়ার্ড, ঢাকা মেট্রোপলিটন পুলিশ।
- ৭. প্রধান নির্বাহী কর্মকর্তার ঠিক অফিসার (প্রধান নির্বাহী কর্মকর্তার সময় অবগতির জন্য), ঢাকা দক্ষিণ সিটি কর্পোরেশন, ঢাকা।
- ৮. ভারপ্রাপ্ত কর্মকর্তা, থানা, ঢাকা।
- ৯. জমাব সহকারী প্রকৌশলী, অঞ্চল-৫।
- ১০. জমাব উপ-সহকারী প্রকৌশলী, অঞ্চল-৫ (খনন নাম চলাকালীন সময়ে সার্বজনিক উদ্বোধনী করণা করা নির্দেশ দেওয়া হইবে)।
- ১১. জমাব সার্ব-সহকারী, অঞ্চল-৫ -৫

নির্বাহী প্রকৌশলী
অঞ্চল-৫ (সামান্যবাদ)
ঢাকা দক্ষিণ সিটি কর্পোরেশন।
১১/৪/২৪



ঢাকা উত্তর সিটি কর্পোরেশন
প্রকৌশল বিভাগ (পূর্ব)
অঞ্চল-২ (মিরপুর)

শেখ হাসিনার মূলনীতি
শ্রম শ্রমের উন্নতি

	নির্ধারিত প্রকৌশলী ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট ঢাকা ওয়াসা ৯৮, কাওরী নজরুল ইসলাম এভিনিউ (৯ম তলা) কাওরান বাজার বা/এ, ঢাকা-১২১৫।
বিষয়ঃ	সড়ক খনন অনুমতি পত্র।
সূত্র	(ক) আবেদনের স্মারক নং- ৪৬.১১০.৬২৪.০০.০০.৭২০.২০২২/১১২, তারিখ-০২/১১/২০২২খ্রি (খ) কার্যবিধিগত স্মারক নং- ৪৬.১০.০০০০.০৯১.০৬.৫৬৯(২), ২২, তারিখ-২৮/১১/২০২২খ্রি (গ) ঢাকা ওয়াসা কর্তৃক স্মারক নং- ৪৬.১১০.৬২৪.০০.০০.৭২০.২০২২.০৪৪, তারিখ-২১/০৩/২০২০খ্রি
কাজের নাম/এলাকার নাম	ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট (DWSNIP) এর NCB Package-02.11D এর অধীনে ঢাকা ওয়াসার মডস স্লোন- ১০ এর আওতাধীন DMA-1010 অঞ্চলস্থ ওয়ার্ড নং-২, মিরপুর সেকশন-১২, ট্রাক-বি, সি, দ, জ এবং ট এলাকার সেন-বাইলেসে পানির লাইন স্থাপন ও পূর্ববাসন" শীর্ষক কাজের জন্য সড়ক খনন কাজ।
সড়ক খননের উদ্দেশ্যঃ	বিস্তৃত সেন-বাইলেসে পানির লাইন স্থাপন ও পূর্ববাসন কাজের জন্য সড়ক খনন কাজ।

সড়ক খননের বিবরণ নিম্নরূপঃ-

(ক) HDD (Horizontal Direction Drilling) পদ্ধতিঃ

Pipe Length for HDD Method (Depth 1.2m)				
Diameter	Road Surface	Length (m)	Rate (BDT)	Total (BDT)
Upto 150mm	Bituminous	2,229.91	820.56	18,28,954.39
Upto 150mm	CC	1,338.09	642.98	8,60,365.11
150mm to 300mm	Bituminous	2,981.41	1,009.92	30,10,985.59
150mm to 300mm	CC	1,873.36	791.36	14,82,502.17
Total				71,82,807.25

(খ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	4,314.96	2,588.98	6,312.00	1,63,41,641.76
0.75	Bituminous	1,487.45	1,115.59	6,312.00	70,41,604.08
1.00	Bituminous	139.76	139.76	6,312.00	8,82,165.12
0.60	CC	8,227.06	4,936.24	4,946.00	2,44,14,543.04
0.75	CC	1,257.70	943.28	4,946.00	46,65,462.88
1.00	CC	41.58	41.58	4,946.00	205,654.68
Total					5,35,51,171.56

(গ) Open Cut (উন্মুক্ত পদ্ধতি) :

House Connection Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	4,801.54	2,880.92	6,312.00	1,81,84,367.04
0.60	CC	5,636.58	3,381.95	4,946.00	1,67,27,124.70
Total					3,49,11,491.74

(ঘ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for HDD Works					
Trench Size (sqm)	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
1.8	Bituminous	140	252.00	6,312.00	15,60,624.00
1.8	CC	166	298.80	4,946.00	14,77,904.80
Total					30,68,488.80

নির্বাহী প্রকৌশলী	
ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট, ঢাকা ওয়াসা	
৯৮, কাজী নজরুল ইসলাম এভিনিউ (৮ম তলা) কাওরান বাজার বা/এ, ঢাকা-১২১৫।	
বিষয়ঃ	সড়ক খনন অনুমতি পর (DMA-1005)।
সূত্রঃ	(ক) সেরিক ডিমান্ড নোট নম্বরক নং- ৪৬.১০.০০০০.১০৫.১৬.১০.২০২৩, তারিখঃ ১২/০৯/২০২৩ খ্রিঃ
সড়কের নামঃ-	১৬ গ্যারাহীক আলআমিন জামে মসজিদ রোড, বৌবাজার রোড, ইস্টকাকরুল মেইন রোড, নর্থ কাকরুল মসজিদ রোড, সাইথকাকরুল মডেল স্কুল রোড, ককুকেত মেইন রোড ও মিতালি হাউজিং সোসাইটি রোড এলাকা (DMA-1005)।
সড়ক খননের উদ্দেশ্যঃ-	ঢাকা ওয়াসা কর্তৃক পানির লাইন স্থাপন ও পুনর্বাসন কাজ।

(ক)HDD (Horizontal Direction Drilling) পদ্ধতিঃ

Pipe Length for HDD Method (Depth 1.2m)				
Diameter	Road Surface	Length (m)	Rate (BDT)	Total (BDT)
Upto 150mm	BC	47.32	820.56	38826.89
Upto 150mm	CC	1079.97	642.98	694399.11
150mm to 300mm	BC	295.13	1009.92	298057.68
150mm to 300mm	CC	1376.28	791.36	1089132.94
Total				2120418.62

(খ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	BC	251.38	731.36	6312.00	4616344.32
0.75	BC	17.73	89.17	6312.00	562841.04
1.00	BC	90.66	85.26	6312.00	538161.12
0.60	CC	5640.73	8844.87	4946.00	43746727.02
0.75	CC	559.79	1016.08	4946.00	5025531.68
1.00	CC	290.10	354.24	4946.00	1752071.04
Total					56241676.22

(গ) Open Cut (উন্মুক্ত পদ্ধতি) :

House Connection Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	BC	315.42	189.25	6312.00	1194546.00
0.60	CC	5012.24	3007.64	4946.00	14875787.44
Total					16070333.44

(ঘ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for HDD Works					
Trench Size (sqm)	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
1.80	BC	6	10.80	6312.00	68169.60
1.80	CC	65	117.00	4946.00	578682.00
Total					646851.60

(ঙ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for Chamber Construction					
Pit Size	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
Gate Valve Chamber (2.5mX2.5m)	CC	2	12.50	4946.00	61825.00
ARV Chamber (2mX2m)	CC	3	12.00	4946.00	59352.00
DMA Chamber (5mX3.5m)	CC	3	52.50	4946.00	259665.00
Transmission Chamber (5mX3m)	BC	3	45.00	6312.00	284040.00
Total					664882.00
(ক)+(খ)+(গ)+(ঘ)+(ঙ) Total =					75744162.00
15% VAT =					11361625.00
100% Security					75744162.00

নির্বাহী প্রকৌশলী ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট, ঢাকা ওয়াসা ৯৮, কাজী নজরুল ইসলাম এভিনিউ (৮ম তলা) কাওরান বাজার বা/এ, ঢাকা-১২১৫।	
বিষয়ঃ	সড়ক বনন অনুমতি পত্র (DMA-413)।
সূত্রঃ	স্মারক নং- ৪৬.১০.০০০০.১০৫.১৬.০৯.২০২৩, তারিখঃ ১২/০৯/২০২৩ খ্রিঃ
সড়কের নামঃ	১০নং ওয়ার্ডস্ট্রিক বড়বাগ, পশ্চিম মনিসুব, পীরেবাগ এলাকা ও ১২নং ওয়ার্ডস্ট্রিক আহম্মদনগর, জেলাকী রোড এলাকা (DMA-413)।
সড়ক বননের উদ্দেশ্যঃ	ঢাকা ওয়াসা কর্তৃক পানির লাইন স্থাপন ও পুনর্বাসন কাজ।

(ক)HDD (Horizontal Direction Drilling) পদ্ধতি

Pipe Length for HDD Method (Depth 1.2m)				
Diameter	Road Surface	Length (m)	Rate (BDT)	Total (BDT)
Upto 150mm	CC	2,714.58	642.00	1742760.36
150mm to 300mm	BC (primary)	1843.92	1259.36	2322159.09
150mm to 300mm	CC	1543.01	791.00	1220520.91
Total				5285440.36

(খ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	CC	9239.98	5543.99	4946.00	27420574.54
0.75	CC	2700.96	2025.72	4946.00	10019211.12
1.00	CC	2035.42	2035.42	4946.00	10067187.32
Total					47506972.98

(গ) Open Cut (উন্মুক্ত পদ্ধতি) :

House Connection Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	1072.60	643.56	6312.00	4062150.72
0.60	CC	5518	3310.80	4946.00	16375216.80
Total					20437367.52

(ঘ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for HDD Works					
Trench Size (sqm)	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
1.8	Bituminous	86	154.80	6312.00	977097.60
1.8	CC	172	309.60	4946.00	1531281.60
Total					2508379.20

(ঙ) Open Cut (উন্মুক্ত পদ্ধতি) :

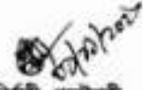
Pit Cutting for Chamber Construction					
Pit Size	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
ARV Chamber (2mX2m)	CC	11	68.75	4946.00	340037.50
Gate Valve Chamber (2.5mX2.5m)	CC	5	20.00	4946.00	98920.00
DMA Chamber (5mX3.5m)	CC	7	122.50	4946.00	605885.00
Transmission Chamber (5mX3m)	BC	3	45.00	6312.00	284040.00
Total					1328882.50
(ক)+(খ)+(গ)+(ঘ)+(ঙ) Total =					77067043.00
15% VAT =					11560057.00
100% Security					77067043.00

জমাকৃত চেক/চালানের বিবরণ				
খনন বাবদ প্রাপ্ত টাকার বিবরণ	পৃথিক চেক/চালান নং	জন্মের তারিখ	চালানের মাধ্যমে জমা	প্রাপ্ত টাকা
সড়ক খনন ক্ষতিপূরণ ফি বাবদ	ঘাটার চেক- STA-4979543 তারিখ ০৩/১০/২০২৩ খ্রিঃ Agrani Bank Limited, Wasa Corporate Branch, Dhaka.	১৫/১০/২০২৩	সোনালী ব্যাংক লিমি, ওলশান নিউ নর্থ সার্কেল শাখা।	৭,৭০,৬৭.০৪৩/-
১৫% ভ্যাট ফি বাবদ	2324-00105515591	০৪/১০/২০২৩	জনতা ব্যাংক লিমি, কাওরান বাজার শাখা।	১,১৫,৬০.০৫৭/-

উল্লেখ্য যে, টাকা ওয়াশ কর্তৃক ১০০% জামানত বাবদ ৭,৭০,৬৭.০৪৩/- (সাত কোটি সত্তর লক্ষ সাতশটি হাজার তেত্রিশটি) টাকার ব্যাংক গ্যারান্টি নং-BASIC/KB/BG/03/2023, Date 18/10/2023, BASIC Bank Limited, Karwan Bazar Branch, Dhaka অত্র দপ্তরে জমা প্রদান করেছেন।

উপরোক্ত বিষয়ের বেকিতে One Stop Cell এর নির্দেশনা অনুযায়ী অনুমোদনের আলোকে ও নিম্ন বর্ণিত শর্ত সাপেক্ষে উপরোক্ত বর্ণিত সড়ক খনন কাজ নিম্নে সেগমেন্ট অনুযায়ী সম্পন্ন করতে হবে।

নক্সা অনুযায়ী Day-1 থেকে Day-15	১ম সেগমেন্ট ০৫/১১/২০২৩ খ্রিঃ তারিখ হতে ১৯/১১/২০২৩ খ্রিঃ তারিখ পর্যন্ত মোট ১৫ দিন।
নক্সা অনুযায়ী Day-16 থেকে Day-30	২য় সেগমেন্ট ২০/১১/২০২৩ খ্রিঃ তারিখ হতে ০৩/১২/২০২৩ খ্রিঃ তারিখ পর্যন্ত মোট ১৫ দিন।
নক্সা অনুযায়ী Day-31 থেকে Day-45	৩য় সেগমেন্ট ০৪/১২/২০২৩ খ্রিঃ তারিখ হতে ১৮/১২/২০২৩ খ্রিঃ তারিখ পর্যন্ত মোট ১৫ দিন।
নক্সা অনুযায়ী Day-46 থেকে Day-60	৪র্থ সেগমেন্ট ১৯/১২/২০২৩ খ্রিঃ তারিখ হতে ০২/০১/২০২৪ খ্রিঃ তারিখ পর্যন্ত মোট ১৫ দিন।


নির্বাহী প্রকৌশলী
অঞ্চল-৪ (মিরপুর)
ঢাকা উত্তর সিটি কর্পোরেশন।

সড়ক খনন সংক্রান্ত শর্তাবলীঃ

১.	কর্তৃস্থানে খনন কাজ চক্রর পূর্বেই বাতায়নকারী ব্যক্তির নাম, খনন কাজের সংশ্লিষ্ট উদ্দেশ্য, জনগণের সাময়িক অসুবিধার জন্য সুস্থ প্রকাশ, মোট খনন কাজের সৈধ্য ও কাজ সমাপ্তির তারিখ উল্লেখসহ সাইন বোর্ড স্থাপন করতে হবে।
২.	খনন কাজ চক্রর ন্যূনতম ২(দুই) দিন আগে পত্রিকায় বিজ্ঞপ্তির মাধ্যমে প্রচার করতে হবে।
৩.	খনন কাজ চক্রর পূর্বে সংশ্লিষ্ট এলাকার ডেপুটি কমিশনার ট্রাফিক (পশ্চিম), স্থানীয় থানার জরুরী কর্মকর্তা মাকসুদ হামিদ খান ও ঢাকা ওয়াশ, ডেসকো এবং বিটিসিএল এর কর্তৃপক্ষের সাথে সমন্বয় করে কাজটি করতে হবে।
৪.	খনন সাইটের চতুর্দিকে নির্ধারিত ডিজাইনের লাল চিত্রা ছাড়া বেরমী ও Signal light স্থাপন করতে হবে।
৫.	খনন কাজ প্রাধান্যে রাখতে হবে। তাই প্রতিদিন খননের সময় পর্যন্ত ব্যক্তি এক Signal light এর ব্যবস্থা রাখতে হবে। রাতের বেলায় লাল বতি ও দিনের বেলায় হলুদ বতির ব্যবস্থা করতে হবে। পথচারী ও যানবাহন নির্বিঘ্নে চলাচলের জন্য প্রয়োজনীয় ব্যবস্থা নিতে হবে।
৬.	খনন কাজ চলাকালীন একা পরবর্তীতে ঢাকা উত্তর সিটি কর্পোরেশন, ঢাকা, এর নিম্ন বর্ণিত পর্যন্ত সাইটের হুলাবালি উঠে যাতে জনসাধারণের চলাচলের অসুবিধার সৃষ্টি না করে তদন্থ নিয়মিত ও প্রয়োজন অনুযায়ী মেয়ামতকৃত রাস্তায় পানি ছিটতে হবে।
৭.	Cross Cutting এর উপর অবশ্যই প্রয়োজনীয় পুকতুর এম, এস সিটি ব্যবহার করে জনসাধারণ ও যানবাহন চলাচলের সুষ্ঠু ব্যবস্থা নিশ্চিত করতে হবে।
৮.	খনন কাজ প্রস্তুত সমাপ্তিকালে আধুনিক যন্ত্রপাতি ও প্রযুক্তি ব্যবহার করতে হবে।
৯.	খনন সাইটে জনসাধারণ ও যানবাহন চলাচলের সমস্যার সৃষ্টি করে নির্মাণ সামগ্রী বা মালামাল মজুদ করা যাবে না। খনন ও পুনর্বাসন সাইটে সংস্থার মার্ত পর্যায়ে প্রকৌশলী ও অন্যান্য কার্যকরী কর্মকর্তা/কর্মচারীকে উপস্থিত রাখতে হবে।
১০.	নির্ধারিত সময়ের মধ্যে অবশ্যই খনন কাজ শেষ করতে হবে। মুক্তিযুদ্ধ কোড কারনে খনন কাজ সম্পাদনে বিলম্বিত হলে মৌখিকভাবে শর্তাবলী অনুসারে ছবিমালা প্রদানে বাধ্য থাকতে হবে।
১১.	খননকৃত মাটি, রবিশ ইত্যাদি ২৪ ঘণ্টার মধ্যে অপসারণ করতে হবে। অন্যথায় মৌখিকভাবে শর্ত মতে জামানত থেকে পরিবহন ব্যয় কর্তন করা হবে।
১২.	খনন কাজ সম্পন্ন হওয়ার পরই খননকৃত Trench বালি ছাড়া ভরাট ও Compaction করতে হবে।
১৩.	খনন কাজ শেষে ভরাটকৃত Trench এর উপর brick soling ও herring bone bond করে যানবাহন চলাচলের উপযোগী করে দিতে হবে।
১৪.	খনন কাজ শেষে ঢাকা উত্তর সিটি কর্পোরেশন, ঢাকা'কে বুঝিয়ে না দেয়া পর্যন্ত সড়ক যানবাহন চলাচলের উপযোগী রাখতে হবে।
১৫.	বাতায়নকারী ব্যক্তি খনন কাজে খননকৃত স্থানে যে কোন দুর্ঘটনার জন্য দায়ী থাকবে এবং প্রয়োজ্য ক্ষেত্রে উপযুক্ত ক্ষতিপূরণ দিতে বাধ্য থাকতে হবে। বেসী গভীরতায় রাস্তা খনন কাজে অবশ্যই প্যালাসাইজিং ব্যবহার করতে হবে।
১৬.	অন্যান্য ব্যক্তির স্কু-গর্তস্থ সার্ভিস লাইন ভাঙা হলে খননকারী সংস্থা এর দায়-দায়িত্ব বহন করবে এবং ক্ষতিগ্রস্ত লাইন জরুরী ভিত্তিতে মেয়ামত পূর্বক সক্রিয় করবে বাধ্য থাকবে।

১৭.	খননকালে ক্ষতিগ্রস্ত ফুটপাথ, সারফেস ড্রেন, রোড তিলাইভার, গাছ ইত্যাদি সহ অপরাপের সংস্থার ইউটিলিটি এর নির্ধারিত হারে ক্ষতিপূরণ বিল প্রদানে বাধ্য থাকবে।
১৮.	খননকালে সাইটে ব্যক্তির দায়িত্বশীল প্রতিনিধি উপস্থিত থাকতে হবে এবং সড়ক খনন সংক্রান্ত অনুমোদন পত্র অবশ্যই সঙ্গে রাখতে হবে। ডিএনসিবি'র প্রতিনিধি/উপযুক্ত কর্তৃপক্ষের চাহিবা মত্রে প্রদর্শন করতে হবে। এবং প্রয়োজনে আঞ্চলিক নির্দেশ মোতাবেক কার্যক্রম গ্রহনে বাধ্য থাকবে।
১৯.	খনন কাজ শেষে যৌথ পরিমাপের ভিত্তিতে অনুমতির অতিরিক্ত ক্ষতিগ্রস্ত/খননের বিল নির্ধারণ করে ক্ষতিগ্রস্ত জায়গারের অর্থ দ্বারা সমন্বয় করা হবে।
২০.	ঢাকা উত্তর সিটি কর্পোরেশন কোন কারন দর্শনো ছাড়াই জনস্বার্থে আঞ্চলিক ভাবে খনন কাজ বন্ধ করে দিতে পারবে।
২১.	সড়ক খনন নীতিমালা অনুযায়ী বর্ষায়ৌসুমে সড়ক খনন করলে অতিরিক্ত ৫০% হারে বর্ষাকালীন ফি প্রদান করিতে হবে।

০২/০১/২০২৪

নির্বাহী প্রকৌশলী
অফিস-৪ (মিরপুর)
ঢাকা উত্তর সিটি কর্পোরেশন।
০২/০১/২৪

স্মারক নং- ৪৬.১০.০০০০.১০৫.১৬. ২১-২০২৩

তারিখঃ- ০৭ / ০১ / ২০২৪ইং

অনুলিপি :- সদয় অবগতির জন্য (স্বাভাবিক ভিত্তিতে নয়)।

১. সম্মানিত কমিউনিকার, ওয়ার্ড নং-১২ ও ১৩, ঢাকা উত্তর সিটি কর্পোরেশন।
২. প্রধান নির্বাহী কর্মকর্তা, ঢাকা উত্তর সিটি কর্পোরেশন।
৩. প্রধান প্রকৌশলী, ঢাকা উত্তর সিটি কর্পোরেশন।
৪. অতিরিক্ত প্রধান প্রকৌশলী, ঢাকা উত্তর সিটি কর্পোরেশন।
৫. তত্ত্বাবধায়ক প্রকৌশলী (সিভিল সার্কেল), ঢাকা উত্তর সিটি কর্পোরেশন।
৬. আঞ্চলিক নির্বাহী কর্মকর্তা, অফিস-৪, ঢাকা উত্তর সিটি কর্পোরেশন।
৭. মেয়র মহোদয়ের একান্ত সচিব, ঢাকা উত্তর সিটি কর্পোরেশন।
৮. উপ-পুলিশ কমিশনার ট্রাফিক, মিরপুর, ঢাকা। খনন চলাকালীন সময়ে খননকারী সংস্থাকে সর্বিক সহযোগিতা প্রদানের অনুরোধ করা হলো।
৯. ভারপ্রাপ্ত কর্মকর্তা, কাকরুল এবং মিরপুর মডেল থানা, ঢাকা।
১০. নথির কপি।
১১. অফিস কপি।



ঢাকা উত্তর সিটি কর্পোরেশন
DHAKA NORTH CITY CORPORATION



শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

সূত্র: ৪৬ ১০ ০০০০ ১০৫ ১৬ ২৭/৯ ২০২৪

তারিখ: ৪ / ০৪ / ২০২৪ খ্রিঃ

নির্বাহী প্রকৌশলী

ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট ঢাকা ওয়াসা।

৯৮, কাজী নজরুল ইসলাম এভিনিউ (৮ম তলা) কাওরান বাজার বা/এ, ঢাকা-১২২৫।

বিষয়ঃ- ঢাকা ওয়াসা কর্তৃক “ঢাকা ওয়াটার সাপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রজেক্ট এর আওতায় “Rehabilitation of Distribution Network for NRW Reduciron (Remaining DMAS of ICB-02.11) with O&M Supports” NCB-02.11C (Lot-1) DMA-411 ডিএনসিগি’র অঞ্চল-০৪ এর আওতাধীন ১৪নং ওয়ার্ডে স্থিত কাজীপাড়া বাস স্ট্যান্ড হতে বাটার গলি, পাকা মসজিদ হতে মোড়ার মোড় হয়ে কাজীপাড়া বাস স্ট্যান্ড এর ভিতরের এলাকা পানির লাইন স্থাপন ও পুনর্বসিন” কাজের সড়ক খনন প্রসঙ্গে।

সূত্র : (ক) অনুমোতি পত্রের স্মারক নং- ৪৬.১০.০০০০.১০৫.১৬.০৭.২০২৩ তারিখঃ ০৩/০৯/২০২৩ খ্রিঃ

(খ) ঢাকা ওয়াসার স্মারক নং- ৪৬.১১৩.৬২৪.০০.০০.৭৩৩.২০২২/১৬৬ তারিখঃ ২৯/০১/২০২৪ খ্রিঃ

উপর্যুক্ত বিষয়ে জানানো যাচ্ছে যে, বিষয়োক্ত সড়ক খননের জন্য ২নং স্মারকে আপনার পত্রের প্রেক্ষিতে ১নং সূত্রোক্ত স্মারকের অনুমতিপত্রের সময়সীমা সেগমেন্ট-২ এর জন্য (১ x ১৫) = ১৫ (পনের) দিন অর্থাৎ ০৯/০৪/২০২৪ খ্রিঃ তারিখ হতে ২৩/০৪/২০২৪ খ্রিঃ তারিখ পর্যন্ত বর্ধিত করা হয়েছে। সে প্রেক্ষিতে সূত্রোক্ত ১নং স্মারকে সড়ক খনন অনুমতিপত্রের অপর পৃষ্ঠার শর্তাবলী অনুসরণ পূর্বক অনুমোদিত সময়ের মধ্যে সড়ক খনন কাজ সম্পন্ন করার জন্য অনুরোধ করা হলো।

৪/০৪/২৪

নির্বাহী প্রকৌশলী
অঞ্চল-৪ (মিরপুর)
ঢাকা উত্তর সিটি কর্পোরেশন।
ফোন- ৮৮০২৪৮০৩৪৬৭৯

অনুলিপি :- সদয় অবগতির জন্য (জ্যেষ্ঠতার ভিত্তিতে নয়)।

১. সন্ধানিত কাউন্সিলর, ওয়ার্ড নং- , ঢাকা উত্তর সিটি কর্পোরেশন।
২. প্রধান নির্বাহী কর্মকর্তা, ঢাকা উত্তর সিটি কর্পোরেশন।
৩. প্রধান প্রকৌশলী, ঢাকা উত্তর সিটি কর্পোরেশন।
৪. অতিরিক্ত প্রধান প্রকৌশলী, ঢাকা উত্তর সিটি কর্পোরেশন।
৫. তত্ত্বাবধায়ক প্রকৌশলী (সিভিল সার্কেল), ঢাকা উত্তর সিটি কর্পোরেশন।
৬. আঞ্চলিক নির্বাহী কর্মকর্তা, অঞ্চল-৪, ঢাকা উত্তর সিটি কর্পোরেশন।
৭. মেয়র মহোদয়ের একান্ত সচিব, ঢাকা উত্তর সিটি কর্পোরেশন।
৮. উপ-পুলিশ কমিশনার ট্রাফিক, মিরপুর, ঢাকা। খনন চলাকালীন সময়ে খননকারী সংস্থাকে সার্বিক সহযোগিতা প্রদানের অনুরোধ করা হলো।
৯. ভারপ্রাপ্ত কর্মকর্তা, মিরপুর মডেল থানা ও দারুল সালাম থানা, ঢাকা।
১০. নথির কপি।
১১. অফিস কপি।

০৪/০৪/২৪



ঢাকা উত্তর সিটি কর্পোরেশন
গ্রৌণ্ডল বিকাশ (পূর্ব)
অঞ্চল-২ (বিরশ্বর)

শেখ হাসিনার মুদ্রিত
হাত পত্রের উক্তি

	<p>নির্বাহী অফিসারী ঢাকা উত্তর সিটি কর্পোরেশন ঢাকা উত্তর ৯৩, কাজী নজরুল ইসলাম এভিনিউ (৮ম তলা) কওরন বাসার বা/এ, ঢাকা-১২১৫।</p>
বিষয়ঃ	সড়ক খনন অনুমতি পত্র (সংশোধিত)।
সূত্র	<p>(ক) আবেদনের স্মারক নং-৪৬.১১০.৬২৪.০০.০০.১০০.২০২২/১০১, তারিখ-২৪/১০/২০২২খ্রিঃ (খ) জনস্বাস্থ্য স্মারক নং- ৪৬.১০.০০০.০৩২.০৬.৫০৯(২).২২, তারিখ-১৬/১১/২০২২খ্রিঃ (গ) ঢাকা উত্তর কর্তৃক স্মারক নং-৪৬.১১০.৬২৪.০০.০০.১০০.২০২২.০৪৪, তারিখ-২১/০৩/২০২৩খ্রিঃ (ঘ) অনুমতিপত্রের স্মারক নং-৪৬.১০.০০০০.০১৭০২.১৪১.২০, তারিখ-১১/০৪/২০২৩খ্রিঃ</p>
কাজের নাম/এলাকার নাম	ঢাকা উত্তর সিটি কর্পোরেশন নেটওয়ার্ক ইমপ্রুভমেন্ট কাজের (DWSNIP) এর NCB Package-02.11C এর অধীনে ঢাকা উত্তর সিটি কর্পোরেশন স্মারক নং- ১০ এর আওতাধীন DMA-409 অর্ন্তকৃত প্রকল্প নং-৮, বিরশ্বর সেকশন-১ এলাকার ডিফিয়ারেন্স রোডসহ বিভিন্ন সেন্স-বাইলসে পানির লাইন স্থাপন ও পুরনো সেন্স-বাইলসে পানির লাইন পরিষ্কারের জন্য কাজ করা হবে।
সড়ক খননের উদ্দেশ্যঃ	বিভিন্ন সেন্স-বাইলসে পানির লাইন স্থাপন ও পুরনো সেন্স-বাইলসে পানির লাইন পরিষ্কারের জন্য সড়ক খনন কাজ।

সড়ক খননের বিবরণ নিম্নরূপঃ-

(i) অনুমোদিত খনন/পরিমাণঃ-

(ক) HDD (Horizontal Direction Drilling) পদ্ধতিঃ

Pipe Length for HDD Method (Depth 1.2m)				
Diameter	Road Surface	Length (m)	Rate (BDT)	Total (BDT)
Upto 150mm	Bituminous	2,260.54	820.56	1,854,908.70
Upto 150mm	CC	1,674.30	642.98	1,076,541.41
150mm to 300mm	Bituminous	2,327.43	1,009.92	2,350,518.11
150mm to 300mm	CC	629.88	791.36	498,461.84
Total				5,780,430.06

(খ) Open Cut (উন্মুক্ত পদ্ধতি) :

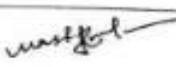
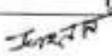
Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	676.26	406.96	6,312.00	2,568,731.52
0.75	Bituminous	2,150.75	1,613.06	6,312.00	10,181,634.72
1.00	Bituminous	12.44	12.44	6,312.00	78,521.28
0.60	CC	4,061.32	2,436.79	4,946.00	12,052,363.34
0.75	CC	1,184.65	886.49	4,946.00	4,394,471.54
1.00	CC	196.23	196.23	4,946.00	970,553.58
Total					30,246,275.98

(গ) Open Cut (উন্মুক্ত পদ্ধতি) :

House Connection Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	1,989.86	1,193.92	6,312.00	7,536,023.04
0.80	CC	4,207.28	2,524.37	4,946.00	12,485,534.02
Total					20,021,557.06

(ঘ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for OT Method Works					
Trench Size (sqm)	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
1.8	Bituminous	162	273.60	6,312.00	1,726,963.20
1.8	CC	160	288.00	4,946.00	1,424,448.00
Total					3,151,411.20



স্বাস্থ্য উন্নয়ন বিভাগ
স্বাস্থ্যকল বিকাশ (পূর্ব)
সেকশন-১ (বিহার)



বিধিগত প্রকৌশলী	স্বাস্থ্য উন্নয়ন বিভাগ পৌরস্বাস্থ্য ইন্সপেক্টর প্রকৌশলী স্বাস্থ্য উন্নয়ন ১৮, কাশী নগরকল ইন্সপেক্টর এডিসিটি (১ম অফিস) কাওরাম বাজার বা/এ, ঢাকা-১২১৫।
বিষয়	সড়ক খনন অনুমতি পত্র।
সূত্র	(ক) স্বাস্থ্য উন্নয়ন পত্র স্মারক নং-৪৬.১১০.৬১৪.০০.৭১৬.২০২১/১১৪, তারিখ -০২/১১/২০২২খ্রি (খ) কার্টনগামী স্মারক নং- ৪৬.১০.০০০০.০১২.০৬.৪০৬(১).২১, তারিখ-১৬/১১/২০২২খ্রি (গ) স্বাস্থ্য উন্নয়ন কর্তৃক তৈরি পত্র স্মারক নং-৪৬.১১০.৬১৪.০০.৭১৬.২০২২/১৭৬, তারিখ -০১/০১/২০২২খ্রি (ঘ) ডিভিভিসি কর্তৃক তৈরি পত্র স্মারক নং-৪৬.১০.০০০০.০৭৭.০১.১৬৪.১০, তারিখ-১৩/০৬/২০২২খ্রি (ঙ) স্বাস্থ্য উন্নয়ন কর্তৃক তৈরি পত্র স্মারক নং-৪৬.১১০.৬১৪.০০.৪৪-২ (TCC-2)/21, তারিখ -০৭/০৭/২০২২খ্রি (চ) কার্টনগামী স্মারক নং- ৪৬.১০.০০০০.০১২.০৬.৪০৬.১০ তারিখ-০৩/১২/২০২২খ্রি (ছ) ডিভিভিসি কর্তৃক তৈরি পত্র স্মারক নং-৪৬.১০.০০০০.০৭৭.০১.১৬৪.১০, তারিখ-১৬/১২/২০২২খ্রি (জ) স্বাস্থ্য উন্নয়ন কর্তৃক তৈরি পত্র স্মারক নং-৪৬.১১০.৬১৪.০০.৭১৬.২০২২/১৭৬, তারিখ - ১০/০২/২০২২খ্রি (ঝ) ডেইরি স্মারক সিং কর্তৃক তৈরি পত্র স্মারক নং-৪৬.০৬.১১০০.০১.৬০০.০১.৬০০.১৪.১৪০, তারিখ-১২/০৭/২০২২খ্রি
কার্যের নাম/বিস্তারিত	স্বাস্থ্য উন্নয়ন বিভাগ পৌরস্বাস্থ্য ইন্সপেক্টর প্রকৌশলী [DWSNIP]-এর NCB Package-02.11D for Lot-01 এর অধীনে স্বাস্থ্য উন্নয়নের মান জেন- ১০ এর আওতাধীন DMA-1011 অর্ডার জারি নং-২, কার্টনগামী রোড (গ্রুপ-১), কার্টনগামী রোড (গ্রুপ-২), লোন-১১, রোড-১ (কল্যাণনি), রোড-১০, রোড-২ (কল্যাণনি), কলনী রোড, হকমতুল কলক রোড, কল্যাণনি রোড রোড, নতুনকল রোড, ডেইরি কাম্প রোড এ পানির লাইন স্থাপন ও পূর্বসমন্বিত শীটের কাজের জন্য সড়ক খনন কাজ।
সড়ক খননের উদ্দেশ্য	বিভিন্ন সেন্সাইটাইভ পানির লাইন স্থাপন ও পূর্বসমন্বিত কার্যের জন্য সড়ক খনন কাজ।

সড়ক খননের বিস্তারিত বিবরণ:

(ক) HDD (Horizontal Direction Drilling) পদ্ধতি

Pipe Length for HDD Method (Depth 1.2m)				
Diameter	Road Surface	Length (m)	Rate (BDT)	Total (BDT)
Upto 150mm	Bituminous (Primary)	1435.89	1023.23	1469245.72
Upto 150mm	Bituminous	3490.33	820.56	2864025.18
Upto 150mm	CC	1044.26	642.98	671438.29
150mm to 300mm	Bituminous (Primary)	1211.58	1023.23	1239725.00
150mm to 300mm	Bituminous	1619.14	820.56	1328601.52
150mm to 300mm	CC	751.44	642.98	483160.89
			Total (ক) =	8056196.62

(খ) Open Cut (সিঙ্ক পদ্ধতি) :

Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	6017.62	3610.57	6312.00	22789930.46
0.75	Bituminous	281.41	196.06	6312.00	1237514.94
1.00	Bituminous	291.48	291.48	6312.00	1839621.76
0.60	CC	6186.96	3712.18	4946.00	18360422.50
0.75	CC	495.52	371.64	4946.00	1838131.44
1.00	CC	314.89	314.89	4946.00	1557445.94
				Total (খ) =	47623267.04

(গ) Open Cut (সিঙ্ক পদ্ধতি) :

House Connection Pipe Length for OT Method (Depth 1.2m)					
Trench Width (m)	Road Surface	Length	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
0.60	Bituminous	7117.60	4270.56	6312.00	26855774.72
0.60	CC	4340.00	2604.00	4946.00	12879384.00
				Total (গ) =	39835158.72

[Signature]

[Signature]

(খ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for HDD Works					
Trench Size (sqm)	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
2	Bituminous (Primary)	51	91.80	7071.00	722567.80
2	Bituminous	102	183.60	6312.00	1158863.20
2	CC	36	64.80	4946.00	320500.80
				Total (খ) =	2201941.80

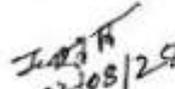
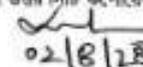
(গ) Open Cut (উন্মুক্ত পদ্ধতি) :

Pit Cutting for Chamber Construction					
Pit Size	Road Surface	Quantity (nos.)	Cutting Area (sqm)	Rate (BDT)	Total (BDT)
ARV Chamber (2mX2m)	BC	5	20.00	6312.00	128240.00
Gate Valve Chamber (2.5mX2.5m)	BC	19	118.75	6312.00	749550.00
Transmission Chamber (5mX3m)	BC	4	60.00	6312.00	378720.00
				Total (গ) =	1254510.00
				(ক)+(খ)+ (গ)+(ঘ)+ (গ) Total =	9,89,71,074.00
				১৫% VAT =	১,৪৪,৬৫,৬৬৭.০০
				100% Security	9,89,71,074.00

উপরোক্ত বিঘরের One Stop Cell এর অনুমোদনের আলোকে ও অপর পাতায় বর্ণিত শর্ত সাপেক্ষে ২টি সেগমেন্টে অর্থাৎ ১৪+১৪ = ২৮(আটদশ)দিনের মধ্যে বর্ণিত সড়ক ধমনের জন্য অনুমতি প্রদান করা হলো। কাজটি ০৩/০৪/২০২৪খ্রিঃ তারিখে আরম্ভ করে ৩০/০৪/২০২৪খ্রিঃ তারিখের মধ্যে সম্পন্ন করতে হবে।

Segment	বিবরণ	বনন কাজ আরম্ভ	বনন কাজ শেষ
Segment-1	কালশী রোড, বসবহু কলেজ রোড	০৩/০৪/২০২৪খ্রিঃ	১৬/০৪/২০২৪খ্রিঃ
Segment-2	কলাপানি মেইন রোড, শহীদ-হাল রোড, কেউসি ক্যাম্প রোড	১৭/০৪/২০২৪খ্রিঃ	৩০/০৪/২০২৪খ্রিঃ

বনন কাজ প্রারম্ভের তারিখ	পূর্বিক প্রকল্প/অন্যান্য/অন্যান্য নং	অন্যান্য তারিখ	স্বাক্ষরকারীর নাম ও ঠিকানা	প্রাপ্ত টাকার
সড়ক ধমন ধারণ	চেক/অর্ডার নং- STA 5492513 তারিখ -১৭/০১/২০২৪খ্রিঃ	০৬/০৪/২০২৪খ্রিঃ	বিঘরের নং, এলাসিডি ৩৬০০০৫৪৩ স্বাক্ষরকারীর নাম বিজয় কুমার, ১ নং, গাড়া।	৮,৯৯,৭১,০৭৪.০০
১৫% জাট বন্ড	চালান নং- 2324-00227927121	১৮/০১/২০২৪খ্রিঃ	অন্যান্য স্বাক্ষরকারীর নাম স্বাক্ষরকারীর নাম, গাড়া।	১,৪৮,৪৫,৬৬৭.০০


 ০২/০৪/২৪
 নির্বাহী প্রকৌশলী
 ডিভিশন-২ (বিজয়পুর)
 ঢাকা উত্তর সিটি কর্পোরেশন।

 ০২/৪/২৪



ঢাকা দক্ষিণ সিটি কর্পোরেশন
গ্রন্থকোষ বিভাগ, অফিস-১০
“গ্রন্থ খননের অনুমতি পত্র”

স্মারক নং- ৪৬/২০৭,০০২,২৪.০৯.০৫, ২০২৩-২৪

তারিখঃ ১৮.০২.২০২৪ ইং

স্বাক্ষর কর্তৃক (১) প্রিন্সিপাল,
 (২) ডি.এম.ও.সি.এম.এস.এস.এস.এস.
 (৩) সিসি ও সিসিও ইন্সপেক্টর জেনারেল
 (৪) সিসিও সিসিও

সিদ্ধান্ত : ঢাকা দক্ষিণ সিটি কর্পোরেশন “ঢাকা ওয়াটার সপ্লাই নেটওয়ার্ক ইমপ্রুভমেন্ট প্রকল্প (DWSNIP)” এর NCB-02.12 D এর অধীনে ঢাকা ওয়াটার সপ্লাই সিস্টেমের DMA-704 এলাকায় পানির লাইন স্থাপন ও পুনর্বাসন কাজের জন্য সড়ক খননের অনুমতি প্রদান।

অনুমতি ১০/১০/২০২৪ ইং তারিখের অনুমতি পত্র মোতাবেক অপর পৃষ্ঠায় বর্ণিত শর্তাবলীতে ২৩/০২/২০২৪ ইং তারিখ হতে ১৫/০৪/২০২৪ ইং তারিখের মধ্যে সড়ক খনন অনুমতি পত্র সেওয়া হইল।

সড়ক খননের সময় একে অতিপূরণের বিবরণ

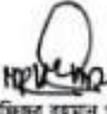
এ.এ.সি. কুল স্টেশন বিজ্ঞান কেন্দ্র, বাবুল আমান ডায়ে মসজিদের বিভিন্ন সেন, ব্যাক কলোনি রোড, বর্ণমালা কুল রোড, ঢাকা-০৫গ্রাম হাইওয়ে রোড, পল্লীশাল রোড, কামালপুর মসজিদ রোড, জিঘা অটো স্টোরের বিভিন্ন সেনসমূহ।

ক্রমিক নং	সড়ক প্রকৃতি	পরিমাণ (বর্গমি)	সর (১.৫ মি গভীরতা)	টাকা
১	আবাসিক সড়ক (সম্পন্নকর্তা)	৪১৪৮.১৮ বর্গমি	৬৭০৪.০০	৩,১১,৬১,৩৯৮.৭২
২	সিসি সড়ক (সম্পন্নকর্তা)	১০০০.৮৪ বর্গমি	৪৯৪৬.০০	৩,১১,৬৩,৯৮৪.৩১৬
৩	এইস বিবি সড়ক (সম্পন্নকর্তা)	১০৮.০০ বর্গমি	১৭৯২.০০	১০,৯০,১২৭.০৬
৪	সড়ক সড়ক (সম্পন্নকর্তা)	৩০৯২.৫৩ বর্গমি	৪৮২.০০	১৪,৫৮,১১২.৬৬
৫	আবাসিক (এইচ.সি.সি.) ১৫০ মি. পল্লী	৪১৭৮.৫৩ মিটার	৮৭৯.১৯	৪১,১৩,০১৬.৭৯০
৬	সিসি (এইচ.সি.সি.)	১৯১.৯৪ মিটার	৬৪২.১৯	৪,৪৪,৩৫৬.৯৪
৭	সড়ক সড়ক (এইচ.সি.সি.)	১০১৩.২৮ মিটার	৬২.৬৬	৬৩,৪৯২.১২
৮	এইস বিবি	২৫৩.২৮ মিটার	২০২.৯৬	৫৯,০০৪.৮২
৯	আবাসিক (এইচ.সি.সি.) ১১০ মি. হতে ৩০০ মি. পল্লী	৪১৭৮.৫৩ মিটার	৮৭৯.১৯	৪১,১৩,০১৬.৭৯০
মোট অতিপূরণ ফি=				৭,৩৮,৫০৫৯.০১
মোট অতিপূরণের উপর ১৫% জাতি বাবন =				১,১০,৭৮,০৩৯.০৫
মোট অতিপূরণ ফি এর ১০০% জামানত বাবন =				৭,৩৮,৫০৫৯.০১
সর্বমোট টাকা =				১৫,৮৭,৮৫,২২৬.৪৭

স্বাক্ষর : (পনের কোটি সাতশি লক্ষ পঁচাত্তি হাজার দুইশত ছাশিশ দশমিক চার সাত টাকা মাত্র)।

সিদ্ধান্ত : অতিরিক্ত : অতিপূরণ ও জামানত-০১/০২/২০২৪ ইং সেসেলী ব্যাংক লিমি, নগর ভবন কর্পোরেট শাখা, ঢাকা
 জামানত তারিখঃ ১৫/০২/২০২৪ইং বেসিক ব্যাংক লিমি, কারওয়ান বাজার শাখা, ঢাকা
 টাকা : অতিরিক্ত : ১০০% জামানত ও ১৫% জাতি বাবন সর্বমোট = ১৫,৮৭,৮৫,২২৬.৪৭

স্বাক্ষর : (পনের কোটি সাতশি লক্ষ পঁচাত্তি হাজার দুইশত ছাশিশ দশমিক চার সাত টাকা মাত্র)।


 (মো. রফিকুল রহমান খান)
 নির্বাহী প্রকৌশলী
 গ্রন্থকোষ বিভাগ, অফিস-১০
 ঢাকা দক্ষিণ সিটি কর্পোরেশন।
 (পর পাতা/২)