

Environmental Monitoring Report

Project No. 42173-013
Semi-Annual Report (July-December 2022)
February 2023

Bangladesh: Dhaka Environmentally Sustainable
Water Supply Project

Prepared by Project Management Unit (PMU), DESWSP, DWASA for the Asian Development Bank.

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15th Semi Annual Environmental Safeguard Monitoring Report (SEMR)

**Project Number: ADB Loan No. 3051-BAN
February / 2023**

**Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
Reporting Period: July – December'2022**



**Dhaka Water Supply and Sewerage Authority
WASA BHABAN, Kawran Bazar, Dhaka**

Prepared by Project Management Unit (PMU), DESWSP, DWASA for the Asian Development Bank.

CURRENCY EQUIVALENTS

(As of 15 February 2023, Source: Bangladesh Bank)

Currency unit	–	Equivalent
BDT 1.00	=	\$ 0.0094
\$1.00	=	BDT 103.55

ABBREVIATIONS

ADB	- Asian Development Bank
AFD	- Agence Française de Développement
AP	- Affected Person
BIWTA	- Bangladesh Inland Waterway Transport Authority
BR	- Bangladesh Railways
BRT	- Bus Rapid Transport
BWDB	- Bangladesh Water Development Board
CCL	- Cash Compensation under Law
D&B	- Design and Build
DBO	- Design-Build-Operate or Design-Build-Operation
DC	- District Commissioner
DDR	- Detailed Design Reports
DED	- Detailed Engineering Designs
DESWSP	- Dhaka Environmentally Sustainable Water Supply Project
DMA	- District Metered Area
DNCC	- Dhaka North City Corporation
DORP	- Development Organization for the Rural Poor
DP	- Displaced Persons
DSCC	- Dhaka South City Corporation
DWASA	- Dhaka Water Supply and Sewerage Authority
EA	- Executing Agency
EIA	- Environmental Impact Assessment
EIB	- European Investment Bank
EM	- Entitlement Matrix
EMA	- External Monitoring Agency
EP	- Entitled Person
FGD	- Focus Group Discussion
FIDIC	- Fédération Internationale Des Ingénieurs- Conseils (French)
GAP	- Gender Action Plan
GEM	- General Entitlement Matrix
GRC	- Grievance Redresses Committee
ICB 2.7	- Package International Contract Bid 2.7
(I)NGO	- (Implementing) Non-Governmental Organization
JVC	- Joint Verification Committee
LA	- Land Acquisition
LGED	- Local Government Engineering Division
MDSC	- Management, Design and Supervision Consultant
MLD	- Million Litres Per Day
MML	- Mott MacDonald Limited
MODS	- Maintenance Operations and Distribution Services
MOL	- Ministry of Land

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MOL	- Ministry of Land
MoN	- Minutes of Negotiations
MSC	- Management Supervision Consultant
MOU	- Memorandum of Understanding
MR	- Monitoring Report
MRT	- Mass Rapid Transport
NGO	- Non-Governmental Organization
P1	- Package 1
P2	- Package 2
P3	- Packages 3.1 and 3.2
P3.1	- Package 3 Lot 1
P3.2	- Package 3 Lot 2
PD	- Project Director (DWASA)
PEDS	- Preliminary Engineering Designs
PIC	- Project Implementation Committee
PMC	- Project Management Consultant
PMU	- Project Management Unit
PPMS	- Project Performance Management System
PVAC	- Property Valuation Advisory Committee
QA	- Quality Assurance
QPR	- Quarterly Progress Report
RAC	- Resettlement Advisory Committee
RAG	- Red Amber Green (Traffic light status)
RAJUK	- Rajdhani Unnayan Kartripokkho
REB	- Rural Electrification Board
RHD	- Roads and Highways Division
RP	- Resettlement Plan
RWP	- Raw Water Pipeline
SDE	- Sub Division Engineer
SDWP	- Shandong Water Conservancy Construction
SEMR	- Semi Annual Safeguard Environmental Monitoring Report
SIU	- Safeguard Implementation Unit
SNC	- Société en Nom Collectif (French)
SPS	- Safeguard Policy Statement
SWIP	- Surface Water Injection Points
TA	- Technical Assistance
TOR	- Terms of Reference
WIA	- Water Intake Area
WTP	- Water Treatment Plant

WEIGHTS AND MEASURES

°C	degree centigrade
dB	Decibels
dia	diameter
kg	kilo gram
Kl	kilolitre
km	kilometre
kmph	kilometre per hour
ha	hectares
HP	Horse Power
LPCD	liters per capita per day
lps	liters per second
m	meter
m ³	Cubic meter
mg	milli gram
mm	milli meter
mcm	million cubic meters
sq.km	Square Kilometer

NOTE

In this report, "\$" refers to United States dollars.

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I. INTRODUCTION

PROJECT NAME

1. The Dhaka Environmentally Sustainable Water Supply Project (the ongoing project) and its Additional Financing (the additional financing) (collectively, the overall project), will provide more reliable and improved security of water supply in Dhaka by developing a new surface water supply scheme for supply augmentation, which includes the development of a water intake at Meghna River, a raw water transmission pipeline, a water treatment plant (WTP) at Gandharbpur with capacity of 500 million liters per day (MLD), a treated water transmission pipeline to the existing water supply network, and distribution reinforcements. The overall project also includes distribution network improvements to reduce nonrevenue water (NRW); and improves the quality of water supply services, including support to low-income communities (LICs). The additional financing will also support empowerment of women and vulnerable groups in LICs by improving their access to basic infrastructure and social services and to promote their legal empowerment. The overall project will also build the capacity of Dhaka Water Supply and Sewerage Authority (Dhaka WASA) in project implementation.

2. Currently, the Dhaka City water supply sources 78% from ground water and only 22% from surface water. The Government of Bangladesh has intension of reducing the dependency on rapidly depleting (2-3m per year) ground water to 30% and increase the level of use of surface water to 70% by 2030.

3. A loan amounting to \$250 million equivalent from ADB's Special Funds resources was approved for DESWSP by the ADB Board on 22 October 2013. The Loan Agreement between the government and ADB was signed on 24 April 2014 and became effective on 23 February 2015 with original closing date of 30 June 2020 and extended to 30 June 2023 after two extensions. The loan is cofinancing with Agence Française de Développement (AFD) with €47 million and European Investment Bank (EIB) with €100 million. The financing agreement between the government and each of AFD and EIB was signed on 29 January 2015 and 30 June 2014, respectively. The Co-financing Agreement between ADB and AFD, and aide-mémoire on co-financing between ADB and EIB were signed on 25 February 2015 and 9 July 2014 (amended on 12 February 2015), respectively. ADB partially administers AFD loan through procurement and disbursement administration.

4. Due to cost overrun and a new scope, an additional financing was requested by the government and was approved by the ADB Board on 11 October 2021. The Loan Agreement and the Grant Agreement between the government and ADB was signed on 1 March 2022. Both the agreement became effective on 8 April 2022. The additional financing is cofinanced with AFD's additional financing with EUR 130 million. It was approved by the AFD Board on 17 June 2021, financing agreement signed on 10 November 2021 which became effective on 10 November 2021. The Cofinancing Agreement between ADB and AFD was signed on 25 October 2021. As in the ongoing loan, ADB will partially administer AFD additional financing through procurement and disbursement administration. The funding split is given in the Table 1 below.

Table 1: DESWSP Total Funding at approval of additional funding*Figures are in Million US\$*

Funding Source	Original	Additional	Total	Share of Total
ADB	250.00	140.00	390.00	35.3%
<i>Regular loan (OCR)</i>	-	<i>85.00</i>	85.00	
<i>Concessional Loan (OCR)</i>	<i>250.00</i>	<i>50</i>	300.00	
<i>Special Funds Resources (ADF grant)</i>	-	<i>5.00</i>	5.00	
AFD	64.00	140.90	204.90	18.5%
EIB	136.00	-	136.00	12.4%
Government	224.90	149.10	374.00	33.8%
Total	674.90	430.00	1 104.90	100%

Source: Aide Memoire signed on 1 December 2020

PROJECT OUTPUTS AND OUTCOME

5. The ongoing project has three outputs: (i) New surface water supply system developed (jointly financed with AFD and EIB); (ii) distribution network strengthened; and (iii) project management and administration adequately supported. The outputs of the ADB additional financing are: (i) New surface water supply system developed (jointly financed with AFD); (ii) existing distribution network in zone 6 strengthened; (iii) DWASA's management and administration capacity improved and (iv) empowerment of women and vulnerable groups in low-income communities (LICs) supported. Detail of the project outputs are as follows:

6. **Output 1:** New surface water supply system developed.

7. The overall project will develop a raw water intake at Meghna River, about 30 kilometers (km) east of Dhaka, with structures and a pumping station having capacity to provide a total of 1,050 MLD of raw water.¹ Equipment such as pumps will be procured for 525 MLD only for the first phase of a new WTP at Gandharbpur. The Gandharbpur WTP, located about 10 km east of Dhaka, will be constructed with production capacity of 500 MLD. Twin raw water transmission pipelines from the intake to the WTP will also be constructed. The overall project also includes twin treated water transmission pipelines from the WTP to the injection point of the existing distribution network and distribution reinforcements through a combination of primary and secondary feeder mains.² The WTP will serve the population of about 3 million in Badda, Gulshan, Mirpur, and Uttara (whole zones 5, 8, and 9; and part of zone 10). A design–build contract will ensure an integrated design and operation from the intake to the WTP. The same contractor will be engaged in the first 3 years of operation to be financed by Dhaka WASA to prove the functionality and build the capacity of Dhaka WASA personnel to manage and operate

¹ The water intake capacity was changed from original 2,000 MLD to 1,050 MLD by a minor change dated 17 October 2014. The water intake was originally planned to cater raw water to the Saidabad Water Treatment Plant (950 MLD) as well. A preparatory study of the said plant expansion project concluded that its water intake should be build separately.

² Output 1 will contribute to switching from ground water to surface water source, and avoiding further land subsidence and associated higher flood level that takes longer to subside.

the facilities. Dhaka WASA has committed to the continuity of O&M of the facility beyond the contract period. Under the additional financing, a new scope of 43 km secondary distribution line is added to output 1 with a corresponding indicator.

8. **Output 2:** Distribution network strengthened.

9. The overall project will support distribution network improvements as a continuation of the ongoing efforts of Dhaka WASA toward NRW reduction. This work has been implemented in zone 6 of Dhaka WASA's service areas. New or regularized connections at community or household levels are being provided in LICs in this zone under Dhaka WASA's existing pro-poor community support scheme. Public awareness-raising programs have been conducted to strengthen understanding on water use and conservation, customer services, metered connections, and billing systems. The capacity of Dhaka WASA in engaging and supporting LICs are strengthened. At the same time, preparatory studies were undertaken for distribution network improvements in two densely populated zones in the Dhaka WASA service area (zones 1 and 2) to complete the distribution network improvement works. This output has completed in July 2021 under the ongoing DESWSP. Hence this output will not be covered by the additional financing except for remaining small packages for domestic water meters and deep tube wells for emergency need.

10. **Output 3:** Project management and administration adequately supported.

11. The overall project will support smooth and effective project implementation and operation by the project management unit (PMU) in Dhaka WASA. A PMU for the project was established in May 2013, with core staff appointed. A team of nongovernment organizations (NGOs) has been engaged to facilitate the implementation of resettlement plans and assist in awareness-raising and community-related tasks.

12. **Output 4:** Empowerment of women and vulnerable groups supported

13. This output will be supported by an Asian Development Fund (ADF) grant of \$5.0 million to strengthen access of women and vulnerable groups in LICs to basic infrastructure and social services and to promote their legal empowerment in line with the Sustainable Development Goal (SDG) 5 transformative gender agenda. It will (i) expand Dhaka WASA's Gender Equity Strategy to emphasize women's equitable rights to clean water and sanitation and address this consideration in Dhaka WASA's training modules, tools, and programs; (ii) develop gender- and socially-inclusive emergency response plans for Dhaka WASA informed by the COVID-19 experience, for dissemination and possible replication across other water utilities in Bangladesh and in the region; and (iii) strengthen women's representation and effective participation in governance structures and processes in CBOs to (a) inform financial decisions and budgetary allocations for basic infrastructure and social services addressing the need of women and vulnerable groups; and (b) contribute to gradually institutionalize legal empowerment initiatives (legal literacy and legal aid services) addressing among others the increased rate of gender-based violence; and (iv) develop gender inclusive toilets (for men, women, and gender-neutral) and bathing facilities addressing needs voiced by women and vulnerable groups in selected LICs.³ The ADF grant will support a range of transformative reforms focusing on socio-cultural barriers and access to legal systems by women and vulnerable groups that would have been

³ Around 800 units (2,400 toilets) including new toilets and refurbished units will be provided. Contractors will be responsible for providing alternative toilet facilities including maintenance during the period of construction.

impossible through the loan proceeds for the additional financing that will fund cost overrun of the investment project.

14. The impacts of the project are mainly Dust Generation, Muddy water, Erosion and Sediment, Spillage of waste water/sewage/spent lubricant/Oil etc., Chemical Storage, Stockpile (construction materials, excavated soils, spoils, etc.), Waste Generation (solid and liquid wastes on-site (quantity generated, transport, storage and disposal)), Air Quality, water quality (Surface & Ground Water) and Noise levels.

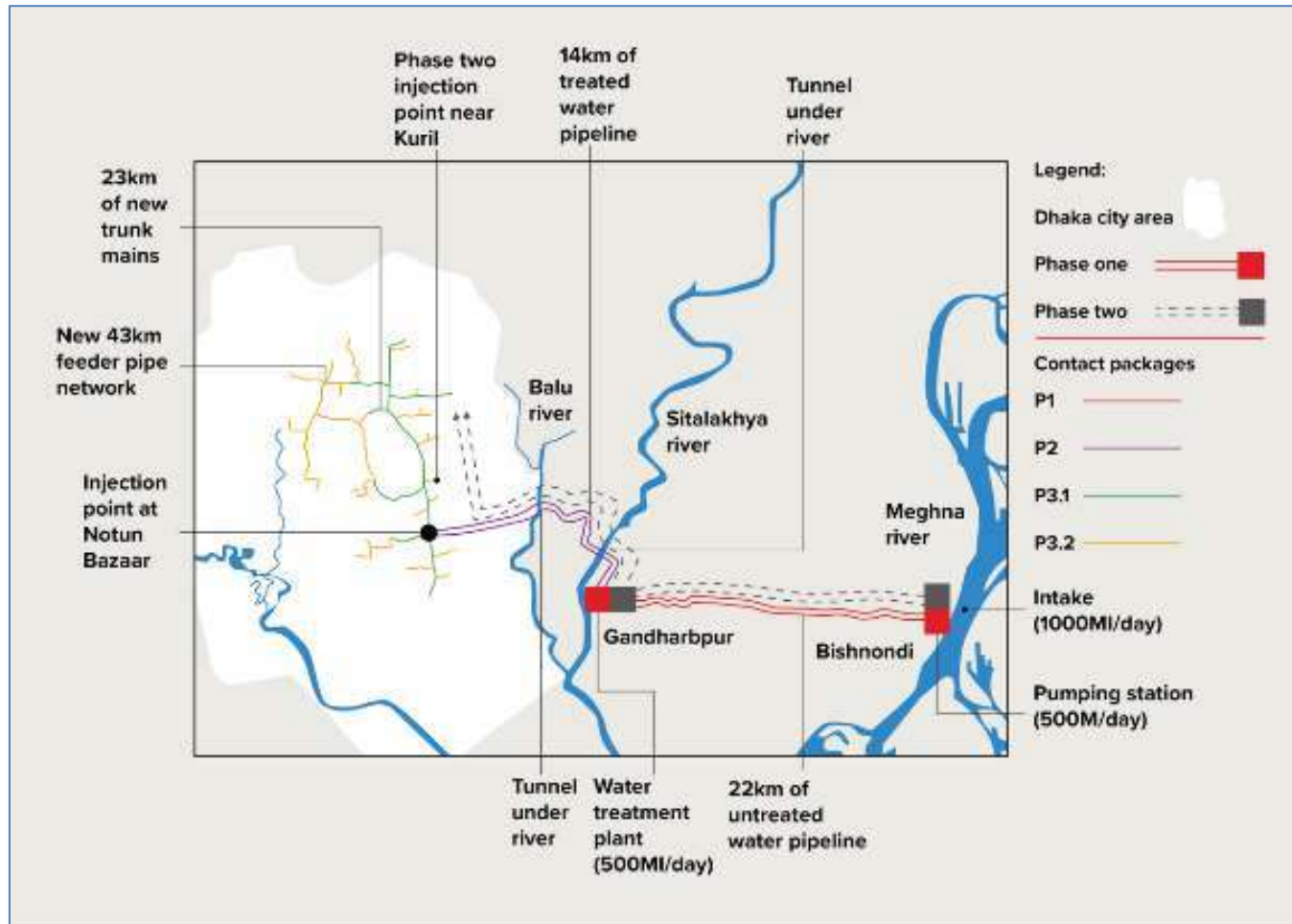
ENVIRONMENTAL CATEGORY

15. DESWSP is classified as Category B according to ADB Safeguard Policy Statement (SPS), 2009 (project components judged to have some adverse environmental impacts, but of lesser degree and/or significance than those for Category A). All packages in DESWSP are classified as Category B, and the impacts of all subprojects are assessed through Initial Environmental Examination (IEE) as per ADB SPS, 2009.

ABOUT THIS REPORT

16. This is the Semi-annual Environmental Monitoring Report (SEMR) prepared by PMU, DEWSP, DWASA for the monitoring period of July' 2022–December' 2022. This is the 15th SEMR since the loan effectiveness on 23rd February 2015. 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.

Figure 1: Location of Project Components



II. PROJECT IMPLEMENTATION ARRANGEMENTS

17. The management organizations of the DESWSP Project are listed below:

- (i) **Overall guidance and supervision:** Ministry of Local Government, Rural Development and Cooperatives (MLGRDC).
- (ii) **Executing Agency:** Dhaka Water Supply and Sewerage Authority (DWASA).
- (iii) **The Financier:** Asian Development Bank (ADB) and co-financiers, Agence Française de Développement (AFD) and European Investment Bank (EIB).

Project Implementation Partners:

18. The following service providers are helping implement DESWSP:

- (i) **Non-government Organizations (NGO):** to implement Social Safeguard aspects of the project. The NGO DORP is assigned for the land acquisition, resettlement and compensation activities of P1 and KMC is for P2
- (ii) **Design, Management and Supervision Consultants:** to assist the Executing Agency in detailed design, procurement, management and supervision of contractors throughout project implementation.
- (iii) **Contractors:** in design (design and build contract), construction and operation (operation & maintenance contract) of the project packages as applicable.
- (iv) **Independent Project Monitoring and Evaluation Agency:** To evaluate and monitor works of NGOs.

Roles and Responsibilities of Each Organization:

Project Implementation Organizations	Management Roles and Responsibilities
Executing agency: DWASA	<ul style="list-style-type: none"> i) Executes the overall project. ii) makes timely decisions on all matters relating to overall project implementation and administration; iii) ensures minimum staff turnover of PMU and adequate staffing during the entire period of project implementation; iv) coordinates with ADB, other financiers, stakeholders, and agencies for smooth project implementation; v) administers loan disbursements; vi) ensures compliance with project covenants, including safeguard measures; vii) supervises PMU through Project Director; and viii) takes full responsibility for O&M of project facilities.
Project Steering Committee Chair: Secretary, LGD under MLGRDC Members: (i) Bangladesh Inland Water Transport Authority; (ii) Bangladesh Water Development Board; (iii) Department of Environment; (iv) Dhaka North City Corporation; (v) Dhaka South City Corporation; (vi) DWASA; (vii) Economic Relations Division and Finance Division under the Ministry of Finance;	<ul style="list-style-type: none"> (i) meets at least once in every three months and whenever deemed necessary; (ii) provides guidelines or formulates policies required for smooth project implementation and institutional strengthening; (iii) reviews the recommendation of PMU for addressing issues during project implementation and takes necessary and timely decisions; (iv) ensures allocation of adequate government budget for project implementation; and (v) discusses and reviews any other matters related to project implementation.

Project Implementation Organizations	Management Roles and Responsibilities
(viii) Implementation, Monitoring and Evaluation Division; (ix) Local Government Division; Local Government Engineering Department; (x) Ministry of Land; Planning Commission; (xi) Power Grid Company Bangladesh Ltd.; (xii) RAJUK (capital development authority); (xiii) Roads and Highways Department; (xiv) Rural Electrification Board	
Project Implementation Committee Chair: Managing Director, DWASA Members: From DWASA: (i) Deputy Managing Director (ii) Project Director (iii) Assistant Chief From LGD: (iv) Deputy Secretary (WS) (v) Deputy Chief From IMED: (vi) Director Representatives of the: (vii) Physical Infrastructure Division, Planning Commission (viii) DNCC, DSCC (ix) Department of Environment (x) NEC-ECNEC and Coordination Wing of Planning Division (xi) ERD	(i) meets at least once in every three months; (ii) monitors progress of project implementation and provides necessary assistance or suggestions for smooth project implementation; (iii) prepares recommendations to PSC for addressing issues during project implementation, including on remedial actions when any indication of delay is identified; and (iv) makes necessary decisions to resolve implementation issues.
Project Coordination Unit, DWASA	(i) Supports the contract execution at the zonal level especially for ICB 2.7 area. (ii) Ensures smooth and efficient O&M.
PMU, DWASA	(i) Responsible for the project implementation to ensure timely completion of the project; (ii) monitors and ensures the compliance of project covenants; (iii) ensures project activities comply with the government laws and regulations, particularly on environment; (iv) updates the procurement plan and implements the procurement in accordance with the plan; (v) serves as point of contact with ADB and co-financiers on project related matters, maintains project documents, and prepares and submits reports (QPRs and PCR); (vi) assists ADB during project review missions; (vii) engages the community for public awareness activities; (viii) consolidates accounts and submits withdrawal applications to ADB; (ix) undertakes budgeting and financial planning and management; (x) opens and manages a project account (sub-advance account); (xi) submits all audited project accounts and financial

Project Implementation Organizations	Management Roles and Responsibilities																										
	<p>statements on</p> <p>(xii) the project within 6 months of the end of each fiscal year;</p> <p>(xiii) establishes, maintains, and updates the project performance monitoring;</p> <p>(xiv) supports consultants and NGOs in all surveys, data collection exercises, studies, and other agreed activities; and</p> <p>(xv) ensures smooth and efficient O&M.</p> <p>Key members of PMU are below:</p> <table border="1" data-bbox="813 527 1403 1094"> <thead> <tr> <th>Position</th> <th>Number of Staffs</th> </tr> </thead> <tbody> <tr> <td>Project Director</td> <td>1</td> </tr> <tr> <td>Deputy Project Director</td> <td>2</td> </tr> <tr> <td>Executive Engineer</td> <td>3</td> </tr> <tr> <td>Senior Finance and Accounts Officer</td> <td>1</td> </tr> <tr> <td>Procurement Officer</td> <td>1</td> </tr> <tr> <td>Safeguard Officer (Social & Gender)</td> <td>1</td> </tr> <tr> <td>Safeguard Officer (Environment Specialist)</td> <td>1</td> </tr> <tr> <td>Assistant Engineer</td> <td>4</td> </tr> <tr> <td>Accounts Officer</td> <td>1</td> </tr> <tr> <td>Accountant</td> <td>1</td> </tr> <tr> <td>Sub-Assistant Engineer</td> <td>9</td> </tr> <tr> <td>Land Acquisition and Resettlement Officer</td> <td>1</td> </tr> </tbody> </table>	Position	Number of Staffs	Project Director	1	Deputy Project Director	2	Executive Engineer	3	Senior Finance and Accounts Officer	1	Procurement Officer	1	Safeguard Officer (Social & Gender)	1	Safeguard Officer (Environment Specialist)	1	Assistant Engineer	4	Accounts Officer	1	Accountant	1	Sub-Assistant Engineer	9	Land Acquisition and Resettlement Officer	1
Position	Number of Staffs																										
Project Director	1																										
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Safeguard Officer (Environment Specialist)	1																										
Assistant Engineer	4																										
Accounts Officer	1																										
Accountant	1																										
Sub-Assistant Engineer	9																										
Land Acquisition and Resettlement Officer	1																										
ADB	<p>(i) monitors and supervises overall project implementation;</p> <p>(ii) takes the lead in coordinating with co-financiers;</p> <p>(iii) conducts field review missions, midterm review mission, and project completion review mission to assess project</p> <p>(iv) implementation progress and compliance of project covenants;</p> <p>(v) reviews PMU submissions for procurement of goods, civil works and services, provides comments and no objection on such;</p> <p>(vi) approves and monitors safeguards documents and implementation compliance; and</p> <p>(vii) checks statement of expenditure and disburses the loan funds as per Loan Agreement and Grant Agreement.</p>																										

ADB = Asian Development Bank, ERD = Economic Relations Division, IMED = Implementation Monitoring and Evaluation Division, DNCC = Dhaka North City Corporation, DSCC = Dhaka South City Corporation, DWASA = Dhaka Water Supply and Sewerage Authority, LGD = Local Government Division, MLGRDC = Ministry of Local Government, Rural Development and Cooperatives, NEC-ECNEC = National Economic Council–Executive Committee of National Economic Council, O&M = operation and maintenance, PCR = project completion report, PMU = project management unit, PSC = project steering committee, QPR = quarterly progress report, WS = water supply. Sources: ADB and DWASA

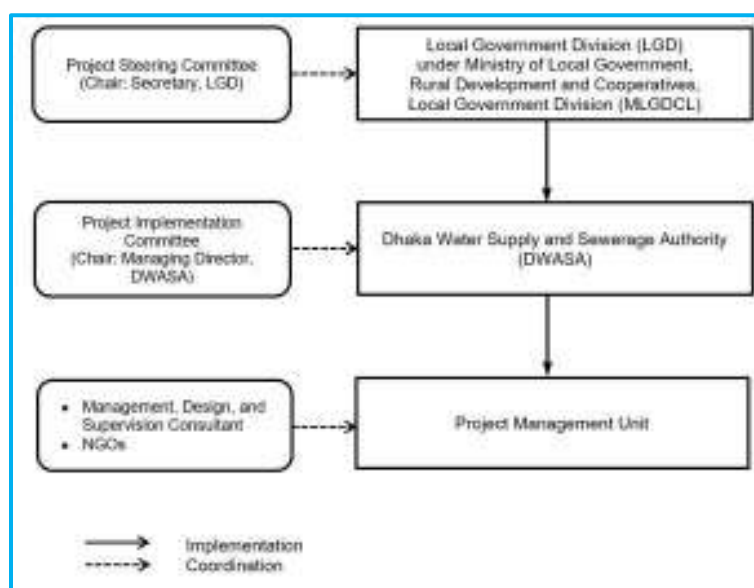
Key Persons Involved in Implementation:

Executing Agency	
DWASA	Mr. Md. Azizul Haque Project Director Tel: +880 02 8189095 Email: pddeswspgwt@gmail.com WASA Bhaban, 98 Kazi Nazrul Islam Avenue, Karwan Bazar, Dhaka-1215, Bangladesh
Asian Development Bank	
Urban Development and Water Division South Asia Department	Mr. Norio Saito Director Tel: +632 632 6923 E mail: nsaito@adb.org 6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Mission Leader	Ms. Momoko Tada Urban Development Specialist Tel: +632 632 6507 E mail: mtada@adb.org 6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines

Project Organization Structure:

19. Figure 2 shows the reporting lines and essential internal structures of key organizations involved in implementation including PMU.

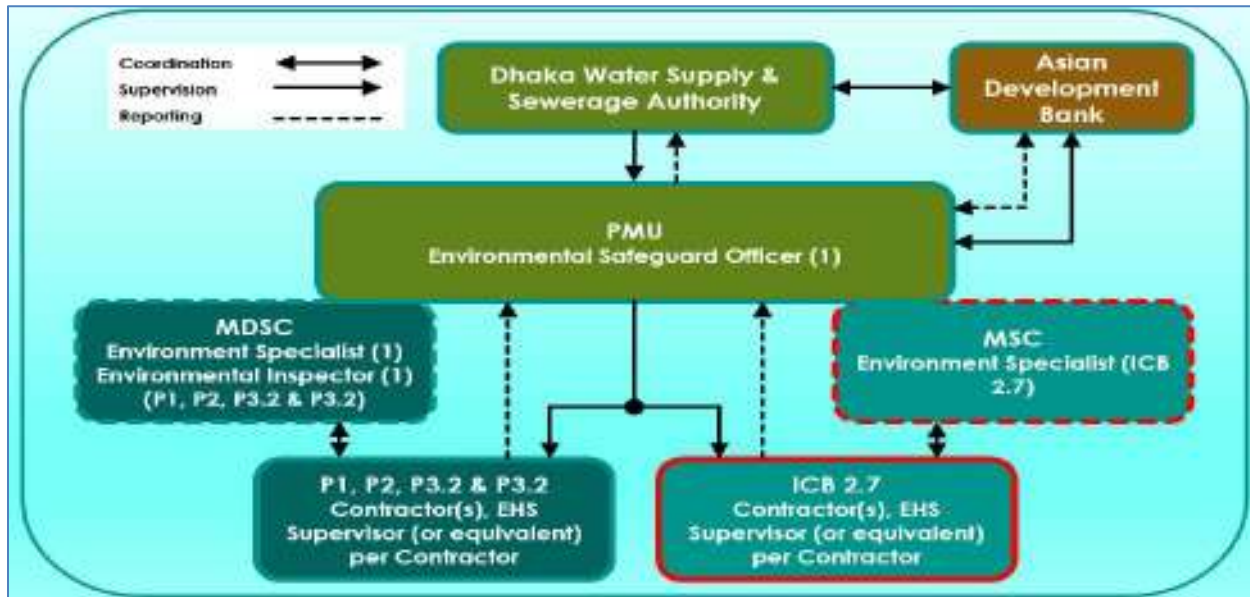
Figure 2: Project Implementation Arrangements



Safeguards Implementation Arrangements

20. The Environmental safeguard implementation arrangement of this project is shown in figure below.

Figure 3: Environmental Safeguards Implementation Arrangement of the Overall Project



ADB = Asian Development Bank, EHS = environmental, health and safety, ICB = international competitive bidding, MDSC = management, design and supervision consultant, MSC = management and supervision consultant, P = package, PMU = project management unit.

Note: ICB 2.7 was completed in Q1 2021, thus it will not be funded by the additional financing.

21. This project has a Project Management Unit (PMU), which includes Safeguard Officer (Environment Specialist), that manages day-to-day coordination, implementation, and monitoring and administration activities of the project. The Safeguard Officer (Environment Specialist) of PMU gets support from MDSC for packages that are currently being implemented. Earlier, the Safeguard Officer (Environment Specialist) of PMU also got support from a separate consultant group (MSC) in implementing ICB 2.7 Package which was completed in Q1 2021. Thus, MSC is now defunct and PMU gets support from MDSC alone to date.

22. The environmental team of MDSC in coordination with PMU checks the overall initial works and site activities considering the environmental perspectives. HSE inspector of MDSC regularly inspects the HSE issues of the construction sites with a comprehensive checklist. The Contractor's H&S Manager is engaged in acquiring field data and information of the project and update the MDSC through a monthly progress report. In the monthly progress report, contractor addresses HSE manpower status; audit status; incident/accident status; safety inspections & meetings; HSE training; HIV/AIDS, STI & Covid-19 awareness program; air, noise & water quality monitoring; dust suppression; waste (hazardous, non-hazardous & sewage) management etc. as per the guidelines of site specific EMPs.

23. The responsible environmental safeguard officer/Specialist of PMU reviews the environmental reports related to the project and reviews monitoring of compliance of the contractors' performance with the approved EMPs, environmental standards and other environmental commitments of the contractor. Environmental monitoring in the field is among the work scope of the Engineer (MDSC-MML), and the task of actual monitoring is undertaken by the Contractor in association with international and national environmental specialists and environmental field inspector. The international environmental specialist is mobilized on an

intermittent basis to undertake field audit. An up-to-date information of the safeguard team is tabulated below.

Table 2: Project Environmental Safeguards Team

Sl. No	Position	Office	Name	Contact number	Email / Remarks
A	PMU				
1	Safeguard Officer (Environment Specialist) [Source: 2 nd Revised DPP, DESWSP, Page No. 46]]	DWASA	Mr. Md. Saidur Rahman	+880 1715149604	saidur.r.m.plc@gmail.com
B	MDSC				
1	Int. Environmental Specialist, MDSC	Mott Macdonald	Dr. Detlev Paulsch	+49 1520 4909789	d.paulsch@gefaoe.de
2	National Environmental Specialist, MDSC	Mott Macdonald	Mohammad Nurul Alam Siddique	+8801819463345	nurul.siddique@mottmac.com
3	Environmental Inspector, MDSC	Mott Macdonald	Md. Shahin Matubber	+8801812181284	matubber.shahin@mottmac.com
4	Environmental Inspector, MDSC	Mott Macdonald	Sk. Abu Md. Julkernine	+880 1730055366	skabumd.julkernine@mottmac.com
Note: The new contract or intermittent bridge contract of MDSC is waiting for signing.					
C	CONTRACTOR				
1	HSE Manager, GWTSNC	GWT (WTP / INTAKE/RWP)	Nwokedi Uchefuna	+8801300567751	nwokedi.uchefuna@gwtsnc.com
2	Deputy HSE Manager, GWTSNC	GWT (WTP / INTAKE/RWP)	Abul Kalam Azad	+8801313210652	kalam.azad@gwtsnc.com
3	HSE Supervisor	GWT (WTP)	Sharashij Chakma	+8801321134712	sharashij.chakma@gwtsnc.com
4	Lead HSE Supervisor	GWT (INTAKE/RWP)	Md Omar Faroque	+8801313404997	omar.faroque@gwtsnc.com
5	HSE Supervisor	GWT (INTAKE)	Md. Sohel Rana	+8801324249971	
6	HSE Supervisor	GWT (RWP)	Md Abu Bakkar Siddique	+8801321134711	
7	HSE Supervisor	GWT (RWP)	Md Al Amin Hossain	+8801324249970	
8	HSE Supervisor	GWT (RWP)	Sawrab Chakma	+8801324249974	
9	Site Doctor	GWT (WTP)	Md. Rezwanul Islam	+8801313210648	
10	Site Doctor	GWT (INTAKE/RWP)	Md. Zahidul Islam	+8801713002431	
11	HSE Manager	CAMCE	Md. Ashraful Alam Rumon	+88-01715455969	rumon_ashraf@yahoo.com
12	HSE Engineer	CAMCE	Nurullah Tarek	+8801827810260	nurullahtarek@gmail.com
13	HSE Officer	CAMCE	Tanmay Majumder	+8801748015297	mazumdertanmay297@gmail.com
14	HSE Officer	CAMCE	Md Shakil Ahmed	+8801745477748	mdshakilahmed11117@gmail.com

III. PROJECT IMPLEMENTATION STATUS

24. Package ICB 2.7 was completed and thus the scope of work of MSC was also completed. With the completion of package ICB 2.7, MSC's contract has been concluded as well. The accomplished activities under ICB 2.7 were reported in previous SEMRs.

25. Packages 1, 2, 3.1 and 3.2 that are currently being implemented are supported by MDSC, whose services includes financial management support, training and capacity building to strengthen PMU and DWASA, and developing a Project Performance Management System (PPMS). MDSC's support also includes preparation of bidding documents, procurement of contractors and oversight of resettlement NGOs, social and environmental safeguards. However, MDSC's contract expired end of November 2022 and the new contract or intermittent bridge contract of MDSC is awaiting signing. DWASA, LGD, ERD and ADB are communicating closely to obtain CCGP approval for extension or renewal of the MDSC contract at the soonest.

26. The MDSC services to achieve Output 1 and Output 3, include:

- (i) Procure, design review and supervise the DBO contract of Package 1;
- (ii) Design, procure and supervise the construction contract Packages P2 and P3.1;
- (iii) Model, concept design, procure and supervise DBO contract Package P3.2.
- (iv) Capacity development of PMU, DWASA.

A. Package ICB 2.7

27. ICB 2.7 package is now completed. The MSC service (Output 2: Distribution network strengthened) has been achieved.

28. The actual work for the package ICB 2.7 was managing and supervising. The original work completion schedule of package ICB 2.7, DESWSP was earmarked within 1129 days from the starting of the project activities. It was assumed to complete the work by July 19, 2018. Finally, the project completion of 16 DMA's⁴ ICB 2.7 was June 30, 2021. The project was covering DMAs (1-16) in MODS Zone-6. As physical work has increased in Detailed Design & Modelling, so, network of distribution of water line had increased from 376 km to 496km covering demanding area with network facilities. So, project period was extended up to 2272 days starting from April 12, 2015, which stands a total 1134 days more than that of actual contract times.

AT A GLANCE WORK STATUS:

Table 3: At a glance Work Status of package ICB 2.7 (Up-to June 30, 2021):

Components	Work Status									
Survey, Model & Detailed Design	16 DMAs (DMA 601-DMA 616) has been completed									
Total Pipe installation	495.89km [16 DMAs (DMA 601-DMA 616)] has been completed									
Pipe Diameter (mm)	75	110	160	200	250	315	400	450	560	
Length (km)	106.83	158.29	92.28	54.67	38.14	36.73	7.07	0.92	0.94	

Components	Work Status		
Pipe Installation Method:	HDD	PB	OT
Length:	212.657km	32.981km	250.251km
(i) At Contract:	17.00%	45.00%	38.00%
(ii) At Detailed Design:	41.00%	8.00%	51.00%
(iii) At Construction:	43.00%	7.00%	50.00%
Total PTW (nos.)	105 [N.B. The contractor was responsible for replace all the fitting from existing deep tube wells/ head to the delivery main (200 to 250mm dia pipe), non-return valve, pressure meter, flow meter, gate valve, wash out pipe, air release valve, bends, flange adapter and support etc. as per standard connection details of DTW]		
Total House connection (nos)	37337 [Range (20mm, 25mm, 38mm, 50mm, 75mm, 100mm & 150mm)]		
Pre-commissioning & Commissioning	16 DMAs (DMA 601-DMA 616) has been completed		
Post Modelling & Handover	16 DMAs (DMA 601-DMA 616) has been completed		
Progress	100%		
NRW	Average 5%		

Figure 4: Operational Zones of DWASA

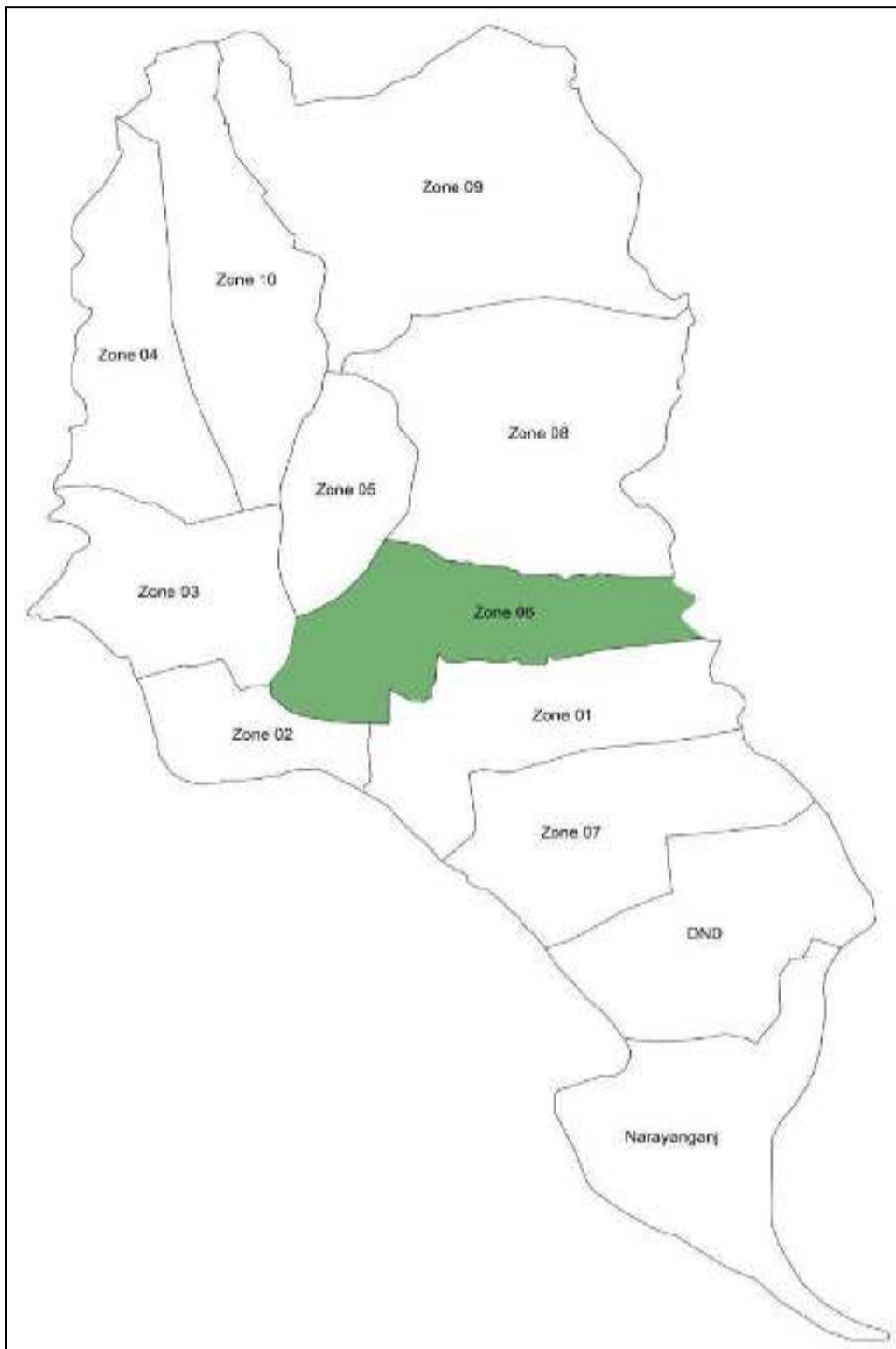
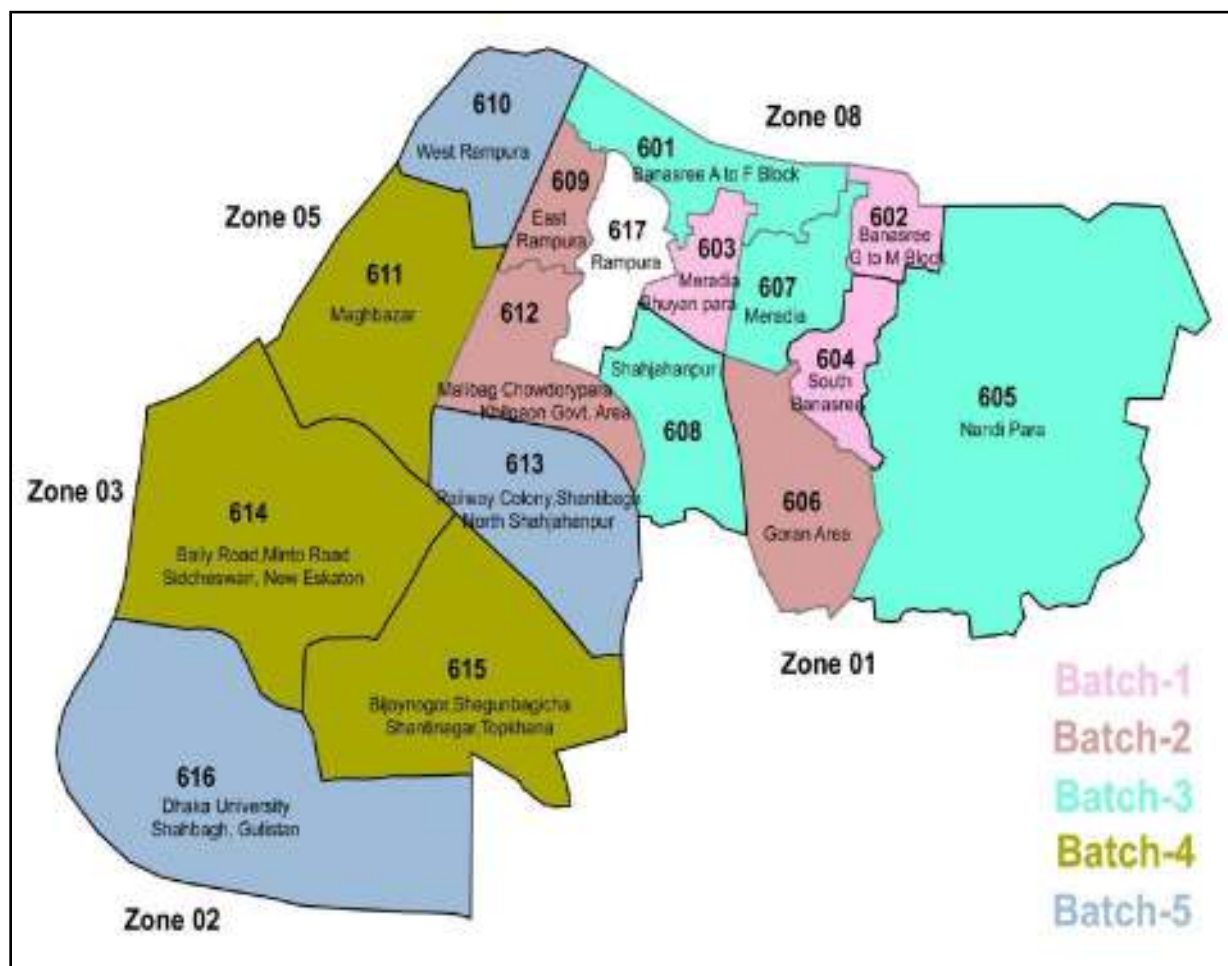


Figure 5: DMAs in MODS Zone 6 (ICB-02.7)



CONSTRUCTION OF PIPELINE AT ZONE-6 UNDER PACKAGE ICB 2.7, PTW:

Table 4: Construction of Pipeline at Zone-6 under package ICB 2.7, PTW:

SL. No.	DMAs	Location	Existing DTW	Water demand % of increase of water from base year 2014 to 2030
1	601	Banasree Block A-F	9	178
2	602	Banasree Block G-M	2	187
3	603	Meradia Bhuyanpara	3	225
4	604	South Banasree	4	175
5	605	Nondipara	4	236
6	606	Goran Area	6	148
7	607	Meradia	3	225
8	608	Khilgaon Bloock-A, Goran	6.5	179
9	609	East Rampura	2	198
10	610	West Rampura	4	198
11	611	Moghbazar	11	162

SL. No.	DMAs	Location	Existing DTW	Water demand % of increase of water from base year 2014 to 2030
12	612	Khilgaon A & C Block	6	185
13	613	Gulbagh, Shajahanpur, Malibagh	9	131
14	614	Eskaton, BSMMU Hospital, Govt. Building etc.	12	163
15	615	Segunbagicha Area, Naya/Purana Palton	11	119
16	616	Dhaka University & BUET Area, Suprem/High Court	6	181

PIPE LENGTH OF DMAS (km) UNDER PACKAGE 2.7:

Table 5: Pipe Length of DMAs (km) under package ICB 2.7:

SL. No.	DMAs	Contract	Design	As-built
1	601	23.931	24.5967	23.5565
2	602	9.488	8.8491	8.8631
3	603	8.341	11.475	11.6684
4	604	13.407	16.2453	16.8492
5	605	31.917	59.9504	61.6674
6	606	27.409	37.0789	38.1342
7	607	6.02	16.3569	16.3647
8	608	25.113	30.0576	32.3262
9	609	12.001	12.8541	12.2829
10	610	24.075	27.6154	28.337
11	611	38.06	48.3706	50.3155
12	612	24.761	30.3577	30.8001
13	613	29.497	40.5818	36.7089
14	614	43.277	49.0814	47.8537
15	615	38.578	53.6696	53.5975
16	616	20.41	24.8849	26.5653
	Total:	376.285	492.0254	495.8906

MAIN WORKS CONDUCTED UNDER PACKAGE ICB 2.7:

29. The main works were (1) Installing of service connections, (2) Backfilling of pits/trenches with backfilling materials (sand FM 1.0 FM), (3) Constructions of various valve chambers for 300 mm and above, (4) Water pipe line testing with 6 bar for 2 hours, (5) Pre-commissioning (3bar), Chlorination with residual chlorine-o.2ppm, (6) Commissioning (1 bar), (7) Joint measurement MSC, PMU, PCU, Contractor's site engineers and site managers, (8) Preparation of as-built drawing, (9) Cost variation report etc.

PIPE INSTALLATION UNDER PACKAGE ICB 2.7:

30. For pipeline the HDPE pipes [ISO 4427-2:2007(E) of PN 10 nominal pressure] were used. Nominal sizes were very from 75mm to 560mm with wall thickness from 4.5 mm to 36.70mm in minimum. To make the joint of the pipe were used butt Fusion Joint. Equipment certified with ISO 12176-1. Jointing was done in accordance with ISO 11413. Testing was done with ISO 13953. Pipes jointed with ISO 4427:2007. Installation was carried out with ISO 11414. In electro-fusion fittings incorporated integral healing elements to enable fusion with PE pipes.

PRE-COMMISSIONING AND COMMISSIONING:

31. During pre-commissioning of a segment of around 10kms pipelines, pressure 3 bars were exerted with conduit, Again the system was tested with all fittings and house connections. Commissioning of the whole DMA was conducted under pressure of one (1) bar after all house connections, meter shifting arrangement and by the isolation of old line.

TRENCH FILL

32. Filling materials were certainly sand of F M 1.0. After laying the water pipeline, contractor managed to fill the trench with sand in layers, compacting and watering, layers for the sake of complete compaction.

EXCAVATED MATERIALS

33. As per contract contractor removed the excavated materials from the site by 12/24 hours of cutting the roadside or preferable location of road after getting road cutting permission from road owing authority. Filling materials were compacted by mechanical rollers, vibrating plate compactors etc. So, as to produce a dry density not less than 97% (standard protocol) of the maximum dry density according to DIN 18126 for main road/ carriage ways. Flow loggers were provided for installation of in the DMAs for 3 months monitoring period.

COMPLIANCE STATUS WITH STATUTORY ENVIRONMENTAL REQUIREMENTS/ STATUS CLEARANCE FOR PACKAGE ICB 2.7:

34. The consultant (MSC) suggested to ensure in procurement process that all information required for environmental safeguard stated in the environmental assessment report and site specific Environmental Management Plans (EMP) which have been prepared earlier under the respective pipeline rehabilitation clauses have to be incorporated in the work schedule so that contractors can adopt mitigation measures associated with construction works. Management and Supervision Consultants (MSC) have been monitored the implementation of SEMP's which were used to work by contractors; and ensure that the SEMP's were implemented throughout project implementation period. Half yearly Environmental Safeguard Report has been prepared by the Consultant to be forwarded to PMU and ADB. It could be mentioned that IEE with EMP has been prepared according to ECA'95 (Environmental Conservation Act) & ECR'97 (Environmental Conservation Rules) and it was mandatory to follow the rules ordered by GoB and ADB guidelines. To follow the rules, contractors have been collected no objection certificates from local authorities (like DESA, City Corporations and Housing Society etc.) before starting the works of the sub-projects.

35. As stated in the funding document, prior to commencing a civil work all the required statutory clearances have been obtained with regard to the ICB 2.7 contract, classified by ADB as 'B' Category project. As such, environmental statutory clearances for the Project are related construction of removal and replacement of trees, excavation of raw water transmission line, vegetation clearance at MODS ZONE-6 site, and temporary acquisition and rental for contractor's camp and office, material stockpile, equipment storage area etc. However, clearances and no-objection letters for these activities have been obtained from the DNCC/DSCC, WARPO, DoE, LGED, Dhaka District where the alignment were passed (Detailed in IEE). ECC has been extended by DoE for one year which will be valid till 10-12-2022. It refers to the project of DESWSP which covers all packages of this project.

STATEMENT OF ENVIRONMENTAL COMPLIANCE AND HOW TO MITIGATE IMPACTS UNDER PACKAGE ICB 2.7:

36. The package ICB 2.7 of the project has been classified by ADB as Category B, because it was not expected to have major negative environmental impacts. Under ADB procedures such projects require an Initial Environmental Examination (IEE) to identify and mitigate the impacts.

37. The IEE report was prepared for Package ICB 2.7 only which was included i) survey and documentation including detailed design, specifications, preparation of quality assurance and design report, design control services of 16 DMAs (DMA 601-616); ii) supply, laying and commissioning of distribution, transmission and reticulation pipes (376 km, which has been revised for 494 km); iii) Rehabilitation of service connections and iv) rehabilitation of production tube wells (PTWs) headwork.

38. During construction phase the IEE has been updated on the basis of the DMA and construction batch. As the environmental compliance was concern to the site, it took time to train the working group for adaptation of the project site engineers (PSEs) for the road block, road cones, security tapes for encircling the working spot, removing excavated, placing of steel sheets over the open trench, bailing out of water to the nearest drainage lines. Spraying water to the working area for dust reduction and other indicators were monitored by MSC, PMU and DWASA, Ambient air quality and noise level monitoring has been conducted to all the 16 DMAs by the professional environmental monitoring organization.

AT A GLANCE WORK STATUS INCLUDING EMP & IEE UNDER PACKAGE ICB 2.7:

Table 6: Status of EMP & IEE under package ICB 2.7

Sl. No.	Construction Batch	DMA No.	Status up-to June 30, 2021			Remarks
			Physical Work	RP/AP	EMP & IEE	
1	Construction Batch-1	602	Handed Over to PCU (Zone-6) on January 04, 2017	Done	Completed & published in ADB's/ DWASA's website	Works completed
2		603	Handed Over to PCU (Zone-6) on March 16, 2017	Done		Works completed
3		604	Handed Over to PCU (Zone-6) on January 25, 2017	Done		Works completed
4	Construction Batch-2	606	Handed Over to PCU (Zone-6) on August 28, 2017	Done	Completed & published in ADB's/ DWASA's website	Works completed
5		609	Handed Over to PCU (Zone-6) on January 03, 2019	Done		Works completed
6		612	Handed Over to PCU (Zone-6)	Done		Works

Sl. No.	Construction Batch	DMA No.	Status up-to June 30, 2021			Remarks
			on September 17, 2019			completed
7	Construction Batch-3	601	Handed Over to PCU (Zone-6) on February 07, 2018	Done	Completed & published in ADB's/ DWASA's website	Works completed
8		605	Handed Over to PCU (Zone-6) on September 21, 2020	Done		Works completed
9		607	Handed Over to PCU (Zone-6) on December 13, 2017	Done		Works completed
10		608	Handed Over to PCU (Zone-6) on October 23, 2018	Done		Works completed
11	Construction Batch-4	610	Handed Over to PCU (Zone-6) on September 01, 2019	Done	Completed & published in ADB's/ DWASA's website	Works completed
12		611	Handed Over to PCU (Zone-6) on April 15, 2021	Done		Works completed
13		613	Handed Over to PCU (Zone-6) on November 02, 2020	Done		Works completed
14	Construction Batch-5	614	Handed Over to PCU (Zone-6) on June 28, 2021	Done	Completed & published in ADB's/ DWASA's website	Works completed
15		615	Handed Over to PCU (Zone-6) on June 17, 2021	Done		Works completed
16		616	100% completed and Handed Over to PCU (Zone-6)	Done		Works completed

Installation of Deep Tube Wells (DTWs) under NCB package No.04.1:

A. DESCRIPTION

39. Usually Dhaka WASA used to install Deep Tube Wells on land obtained from various individuals, institutes and Housing Societies. Dhaka WASA does not install Deep Tube Well at the own purchasing land. Under Package NCB 4.1 of Dhaka Environmentally Sustainable Water Supply Project there was supposed to be installed/replaced 50 Deep Tube Wells where 15 were imagined to be new and 35 were to be replaced. But land was not available for new 15 Deep Tube Wells. Seven new Deep Tube Wells were installed because of receiving the land for these 7 new Deep Tube Wells. So, about 7 new and 43 replacements were incorporated instead of 15 new and 35 replacements of Deep Tube Wells.

Table 7: Construction/ Replacement of DTW/PTW (As of the schedule/Plan)

As of the original plan	New DTW/PTW	Replacement DTW/PTW	Total
	15	35	50
Revised plan	07	43	50

40. As such, a sampling analysis plan was developed based upon several site inspections conducted on October 01, 2020 –January 15, 2021 and review of historical aerial photos. The objective of investigation was to assess the presence of random objects for the purpose of internal due diligence. At the time of commencement of investigation PMU-NGO had undertaken a site visit and reviewed historical aerial photos as part of works. The scope of work was prepared in consultation with local people; public representatives, MOD Zone 6 and old pump houses employees and others with based on the known information at the time of visits. The Site was located at the Area of MODS Zone 6 & surrounding areas under DWASA

jurisdiction where were installed 07 New & replaced 43 old Deep Tube Wells (DTWs) under NCB package No.04.1 based on detailed design during implementation.

41. The objective of the component of the project was to install 15 New (revised 07) Deep Tube Wells (DTW) and reinstallation of 35 (revised 43) existing DTWs under NCB package No.04.1.

42. DTW/PTW works included drilling of tube wells in all the locations. The installation and replacement work of 50 DTWs including commissioning has been completed on August 30, 2021. The replacement tube wells also were required drilling at a location adjacent to the existing tube wells. For putting up a DTW/PTW minimum land requirement was 1080 sqft. Under NCB 4.1 work components included DTW/PTW delivery lines, electrical installations such sub stations, transformers, High Tension lines, control cubicle/ Variable Frequency Drive (VFD), chlorination system, joist for pump maintenance, pump house, SCADA etc. Contractor will be responsible for 12 (twelve) months operation & maintenance after construction & completion of each DTW. Contractor will also handle all types' breakdowns with supply of equipment's at the time of defect liability period and will supply all necessary spares, manpower & bear expenses for operation maintenance.

43. The consultant for package NCB 4.1 suggested to ensure in procurement process that all information required for environmental safeguard stated in the environmental assessment report and site-specific Environmental Management Plans (EMP) which have been prepared earlier under the respective DTWs installation/ replacement clauses have to be incorporated in the work schedule so that contractors can adopt mitigation measures associated with construction works. Consultant for package NCB 4.1 (Hydrologist) have been monitored the implementation of SEMP's which were used to work by contractors; and ensure that the SEMP's were implemented throughout project implementation period. Half yearly Environmental Safeguard Report has been prepared by the Consultant to be forwarded to PMU and ADB. It could be mentioned that EMP's has been prepared according to ECA'95 (Environmental Conservation Act) & ECR'97 (Environmental Conservation Rules) and it was mandatory to follow the rules ordered by GoB and ADB guidelines. To follow the rules, contractors have been collected no objection certificates from local authorities (like DESA, City Corporations and Housing Society etc.) before starting the works of the sub-projects.

44. As stated in the funding document, prior to commencing a civil work all the required statutory clearances have been obtained with regard to the NCB 4.1 contract, and classified by ADB as 'C' Category project. As such, environmental statutory clearances for the Project are related construction of DTWs excavation of raw water transmission line, vegetation clearance at MODS ZONE-6 site, and temporary acquisition and rental for contractor's camp and office, material stockpile, equipment storage area etc. However, clearances and no-objection letters for these activities have been obtained from the DNCC/DSCC, WARPO, DoE, LGED, Dhaka District where the DTWs installed/ replaced (Detailed in IEE). ECC has been extended by DoE for one year which will be valid till 10-12-2022. It refers to the project of DESWSP which covers all packages of this project.

45. The package NCB 4.1 of the project has been classified by ADB as Category C, and Green by Government of Bangladesh's Environmental law, because it was not expected to have major negative environmental impacts. Under ADB procedures such projects require an Environmental Due Diligence Report (EDDR) to identify and mitigate the impacts and to determine whether further study or a more detailed Initial Environmental Examination (IEE) may be required.

46. The EDDR was prepared for Package NCB 4.1 only which was included i) survey and documentation including detailed design, specifications, preparation of quality assurance and design report, design control services of 16 DMAs (DMA 601-616); ii) report of supply, laying and commissioning of distribution, transmission and reticulation pipes; iii) Rehabilitation of service connections and iv) rehabilitation of production tube wells (PTWs) headwork.

47. During construction phase the EDDR has been updated on the basis of the DMA. As the little bit environmental compliance was concern to the site, it took time to train the working group for adaptation of the project site engineers (PSEs) for the road block, road cones, security tapes for encircling the working spot, removing excavated, mechanical & electric works including machineries for installation/ replacement of DTWs, chlorination, bailing out of water to the nearest drainage lines. Spraying water to the working area for dust reduction and other indicators were monitored by MSC, PMU and DWASA, Ambient air quality and noise level monitoring has been conducted to all the site of 50 DTWs by the PMU/DWASA engineers/officers.

Table 8: List of Deep Tube Wells (DTWs) Constructed/ Replaced at the 1st step:

Sl. No.	Deep Tube Well Name & Location	DMA No.	Work Status (New/ Replacement)	Land Use rights
1.	Bonasree-5 Water Pump, Bonasree, Dhaka.	DTW-691/ DMA-601	Replacement Completed	DWASA
2.	Meradia Bhuiyan Para 2 No. Water Pump, Meradia, Dhaka.	DTW-687/ DMA-603	Replacement Completed	DWASA
3.	Goran-8 Water Pump, Goran, Dhaka.	DTW-678/ DMA-606	Replacement Completed	DWASA
4.	Rampura Bangladesh Television Road (TV road) Water Pump, Rampura, Dhaka.	DTW-627/ DMA-609	Replacement Completed	DWASA
5.	Rajuk Quarter Water Pump, West Malibag, Malibag, Dhaka.	DTW-659/ DMA-611	Replacement Completed	DWASA
6.	Khilgaon 3 No. Water Pump, Khilgaon, Dhaka.	DTW-667/ DMA-612	Replacement Completed	DWASA
7.	Khilgaon 7 No. Water Pump, Khilgaon, Dhaka.	DTW-629/ DMA-612	Replacement Completed	DWASA
8.	Gulbag-1 Water Pump, Gulbag, Malibag, Dhaka.	DTW-639/DMA-613	Replacement Completed	DWASA
9.	Maruf Market Water Pump, Malibag, Dhaka.	DTW-669/ DMA-613	Replacement Completed	DWASA
10.	Kakrail SOC compound Water Pump, Kakrail, Dhaka.	DTW-643/ DMA-614	Replacement Completed	DWASA
11.	Rajarbag-1 Water Pump, Rajarbag, Dhaka.	DTW-645/ DMA-615	Replacement Completed	DWASA

Sl. No.	Deep Tube Well Name & Location	DMA No.	Work Status (New/ Replacement)	Land Use rights
12.	Arambag Balur Math Water Pump, Arambag, Dhaka.	DTW-661/ DMA-615	Replacement Completed	DWASA
13.	Dhaka Medical College & Hospital Compound Water Pump, Dhaka.	DTW-631/ DMA-616	Replacement Completed	DWASA
14.	East Rampura, Titas Road Water Pump, Dhaka.	DTW-679/ DMA-617	Replacement Completed	DWASA
15.	Bonasree E Block, Bonasree, Dhaka.	DTW-DMA-601	New (Installation Completed)	DWASA
16.	Bonasree M Block, South Bonasree, Dhaka.	DTW-DMA-602	New (Installation Completed)	DWASA
17.	Bonasree K Block, South Bonasree, Dhaka.	DTW-DMA-604	New (Installation Completed)	DWASA
18.	Protik Housing (South Bonasree), Bonasree, Dhaka.	DTW-DMA-607	New (Installation Completed)	DWASA

Table 9: List of Deep Tube Wells to be Constructed/ Replaced at 2nd step:

Sl. No.	Deep Tube Well Name & Location	DMA No.	New/ Replacement	Land Use rights
19.	Goran 10 No. Water Pump, Dhaka	DMA-606	Replacement Completed	DWASA
20.	Mothertek Water Pump, Dhaka.	DMA-606	Replacement Completed	DWASA
21.	Moghbar Wireless Gate, Water Pump, Dhaka.	DTW-611	Replacement Completed	DWASA
22.	Modhubag Old Water Pump, Moghbazar, Dhaka.	DTW-611	Replacement Completed	DWASA
23.	Khilgaon 04 No. Water Pump, Dhaka	DMA-612	Replacement Completed	DWASA
24.	New Eskaton Water Pump, Ramna, Dhaka	DMA-614	Replacement Completed	DWASA
25.	Eskaton Garden Water Pump, Ramna, Dhaka	DMA-614	Replacement Completed	DWASA
26.	AGB Colony (Al-Helal Zone) Water Pump, Dhaka	DMA-615	Replacement Completed	DWASA
27.	Fakirapul Water Pump, Palton, Dhaka	DMA-615	Replacement Completed	DWASA
28.	Segunbagicha Water Pump, Palton, Dhaka	DMA-615	Replacement Completed	DWASA
29.	Mouloveertek Water Pump, Moulovirtek, Dhaka	DMA-617	Replacement Completed	DWASA
30.	Dhaka Uddan Water Pump, Mohammadpur, Dhaka	MODS Zone-3	Installation Completed (New)	DWASA.

31.	Salimullah Road Water Pump, Mohammadpur, Dhaka	MODS Zone-3	Replacement Completed	DWASA
32.	Dhaka College Campus Water pump, Dhanmondi, Dhaka	MODS Zone-3	Installation Completed (New)	DWASA
33.	Salauddin Ahmed Adorsho School Water Pump, Dhaka	MODS Zone-7	Replacement Completed	DWASA
34.	Rayerbag Water Pump, Kadomtoli, Dhaka	MODS Zone-7	Replacement Completed	DWASA
35.	Joyersahara 01 No. Water Pump, Kuril, Dhaka	MODS Zone-8	Replacement Completed	DWASA
36.	Mirpur 11/C, (Avenue-5) Water Pump, Dhaka	MODS Zone-10	Replacement Completed	DWASA
37.	Matikata 2No. Water Pump, Dhaka Cantonment, Dhaka	MODS Zone-10	Replacement Completed	DWASA

Table 10: List of Deep Tube Wells to be constructed/ replaced at 3rd step:

Sl. No.	Deep Tube Well Name & Location	DMA No.	New/ Replacement	Land Use rights
38.	Banosree-2 No. Water Pump, Dhaka	DMA-601	Replacement Completed	DWASA
39.	Goran 01, Water Pump	DMA-606	Replacement Completed	DWASA
40.	Goran 11, Water Pump	DMA-606	Replacement Completed	DWASA
41.	North Goran (Adorshobag) Water Pump	DMA-606	Installation Completed (New)	DWASA
42.	Goran Noorbah Water Pump	DMA-606	Replacement Completed	DWASA
43.	Khilgaon -01, (Near Taltola Graveyard) Water Pump	DMA-608	Replacement Completed	DWASA
44.	Rampura TV Bhabon Water Pump	DMA-609	Replacement Completed	DWASA
45.	Modhubag Old Water Pump	DMA-611	Replacement Completed	DWASA
46.	Moghbazar Wireless More Water Pump	DMA-611	Replacement Completed	DWASA
47.	Khilgaon 06, Water Pump	DMA-612	Replacement Completed	DWASA
48.	Motijhil Adeal Zone Water Pump	DMA-615	Replacement Completed	DWASA
49.	Pirgongi Mazar Water Pump	DMA-615	Replacement Completed	DWASA
50.	Gobindapur Water Pump	MODS Zone-7	Replacement Completed	DWASA

Package 1: River intake, raw water pipeline and Gandharbpur treatment plant

48. P1 comprises 4 years Design & Build, plus 3 years operation of:

- (i) 1000 MLD river intake in the Meghna river at Bishnandi, Araihasar Upozila, with a 500MLD raw water pumping station, stand-by power, workshops, offices and accommodation for DWASA staff (see impression of the proposed Intake at the right);
- (ii) 21 km raw water transmission pipeline (twin 1600 mm pipes sized for 500 MLD) through rural areas with an access road beside from the river intake to the water treatment plant; and
- (iii) 500 MLD surface water treatment plant (WTP) at Gandharbpur, Rupgonj Upozila, with storage reservoir, treated water pumping station, stand-by power supply, workshop, chemical storage, offices and accommodation for DWASA staff (see impression of the proposed WTP top left).

Figure 6: 3D view of Meghna river Intake



Figure 7: 3D view of Water Treatment plant



C. Package 2: Treated water transmission pipeline to Dhaka

49. P2 comprises 36 months construction of:

- (i) 14 km treated water transmission pipeline (twin 1600mm pipes) from Gandharbpur WTP to Dhaka (Progoti Sarani and Madani Avenue crossings at Natun Bazar, where it connects to P3.1 pipeline.
- (ii) Two under-river tunnels for the pipeline: one at Murapara - Isakhali under the Sitalakhya river, and one at Beraid under the Balu river.

Figure 8: 3D view of a River Crossing



D. Package 3.1: Primary distribution pipelines in Dhaka

50. P3.1 comprises 36 months construction of 23Km of large diameter pipes of 0.8m to 1.6m diameter, all under major Dhaka highways to transfer the potable water to the P3.2 feeder pipelines.

Figure 9: Twin 1.6m diameter Pipelines



E. Package 3.2: Feeder pipelines distribution in Dhaka

51. P3.2 comprises 30 months construction of 43 km of feeder pipes from 350 to 800mm diameter, all under Dhaka roads, to deliver water to the District Metering Areas (DMAs) that feed individual water supply zones of Dhaka City.

F. Activities under Asian Development Fund (ADF) Grant with financing amount of US\$ 5.00 M

52. A grant of \$5.0 million from the ADF is proposed to be included in the additional financing to strengthen access of women and vulnerable groups in low-income communities to basic infrastructure and social services and to promote their legal empowerment. It will (i) provide safe, affordable, and sustainable water and sanitation services; (ii) support expansion of the gender equality strategy and development of disaster management plans of DWASA; and (iii) strengthen women's effective representation in the selected project area in community-

based structures for greater access to basic services and the elimination of gender-based violence. For item (ii), the grant will support DWASA's gender commitments and facilitate more holistic reforms in its programs, i.e., up scaling of water, sanitation and hygiene activities and COVID-19 pandemic-related responses. The grant will be used strategically to mobilize a tripartite collaboration between DWASA, select community-based organizations, and local/national nongovernmental organizations to ensure that women and vulnerable groups will have sufficient access to clean water and sanitation services.

53. A total 800 units construction with a number of toilets cum bathing facilities are 2400 [Of them 533 units (1600 nos., 66.7%) for women and 267 units (800 nos., 33.3%) for men] will be installed under ADF grant.

54. PMU is currently in the process of engaging various consultants who will support the implementation of the ADF Grant activities. Consultants to be contracted by PMU include the following:

- (i) NGO Firm (Social Awareness) 114 Man month
- (ii) NGO Firm (Legal Empowerment) 60 Man month
- (iii) Fecal Sludge Management Specialist-3 MM
- (iv) Structural Engineer 5 MM
- (v) Social Safeguard/Resettlement Specialist 9 MM
- (vi) Grant Coordinator 36 MM
- (vii) Administrative and Finance expert 36 MM
- (viii) Environmental Expert -10 MM

55. The consultants are expected to be on board by January 2023. It was reaffirmed that the design of the toilets and bathing facilities will fully take women and vulnerable group's voices into consideration including security for women. DWASA has made a decision that its Community Program and Consumer Relation (CPCR) division will implement it in collaboration with the concerned MODS circle/division. Community based organization (CBO), international non-governmental organization (INGO), DWASA and the government may be involved for its operation and maintenance and hold up the responsibility of the same. The selection criteria for target LICs as follows:

- (i) The target LICs will preferably situated within the project area of DESWSP for mutual complementarities, but some LICs can be selected from outside of the said area depending on the need.
- (ii) The target LICs will be on government land only.
- (iii) Site selection will avoid resettlement to the extent possible.
- (iv) The target LICs must have water supply services
- (v) Priority will be given to LICs with already functioning CBOs that are willing to take responsibility of O&M and collecting charges from the residents.

G. Capacity development of PMU, DWASA

56. Development of PMU, DWASA staff capacity of technical and financial management through staff training and establishment of a Project Progress Performance Management System.

57. Details of all subprojects / packages, type of bid/contract and current status of implementation of packages is presented in the

58.

59. Table 11, and detailed implementation progress of each of the awarded packages are given in Table 12.

Table 11: Status of All Subprojects / Packages

Package/ Subproject	Subproject / Package components	Current Status	Bid / contract type
Package 1	(i) Intake (ii) WTP (iii) Raw water pipeline (RWP)	under implementation	DBO
Package 2	(i) Treated water transmission pipeline	Under construction	Works
Package 3.1	(i) Primary distribution pipeline inside Dhaka	awarded (under implementation) [contract has been signed on September 09, 2021]	Works
Package 3.2	(i) Feeder pipeline inside Dhaka	bidding (bid evaluation at the final stage)	DBO

Table 12: Implementation Status of Awarded Subprojects/ Packages

Package	Package status 1. Date of Award 2. Date of mobilization 3. Scheduled completion 4. Duration 5. Contractor	Design progress to date	Construction progress to date	Components completed to date	Works conducted during the reporting period
Package 1	1. 16-May-2018 2. 15-June-2018 3. 24-April-2024 4. 72 months (60months+12months EoT) as per approved program 5. GWTSNC	99.14%	68.55%	<ul style="list-style-type: none"> • Intake 63.36% • WTP % • RWP 36.98% 	<ul style="list-style-type: none"> • Intake works • WTP works • Raw water main [Temporary stoppage of work (failure of dewatering/boiling, monsoon floods)]
Package 2	1. 6-May-2021 2. 15-Sep-2021 3. 15-Mar-2025 4. 42 months (36months+6months EoT) as per approved	MDSC: 100% CAMCE: 30.5%	As on December 31, 2022: Overall Progress (Physical progress: 29.63%, Duration progress: 39.96% and Financial progress: 13.15%)	As on September 19, 2022: <ul style="list-style-type: none"> • Overall [Land access status: Pipe-55%, Shafts-25%; Constriction progress status: Pipe-11%, Shafts-0%] 	<ul style="list-style-type: none"> • Pipe laying in Section -A (2km) [Land access status:96%, Constriction progress status:0%] Section -B (5km) [Land access status:0%, Constriction progress status:0%] Section -C (6km) [Land access status:88%,

Package	Package status 1. Date of Award 2. Date of mobilization 3. Scheduled completion 4. Duration 5. Contractor	Design progress to date	Construction progress to date	Components completed to date	Works conducted during the reporting period
	program 5. CAMCE				Constriction progress status:23%]
Package 3.1	1. 9-September-2021 2. Not done yet 3. Unknown 4. 36 months 1. Chine Geo	MDSC: 100% Geo: 0%	0%	• None	• None
Package 3.2 (Covered by additional financing)	1. Not yet completed (Technical Bid Evaluation Report approved on 30 November 2021 and Financial Bid under Evaluation. (Expected by August 2022)	MDSC: 100%	0%	• Secondary distribution line	• N/A

Package	Package status 1. Date of Award 2. Date of mobilization 3. Scheduled completion 4. Duration 5. Contractor	Design progress to date	Construction progress to date	Components completed to date	Works conducted during the reporting period
	2. Not done yet 3. Unknown 4. 36 months 5. Under evaluation				

IV. COMPLIANCE STATUS WITH STATUTORY ENVIRONMENTAL REQUIREMENTS STATUS OF CLEARANCES

60. Detailed status of each clearance/permission is provided in Table 13. Copies of clearances/permissions attached in Appendix 1.

Table 13: Status of Statutory Clearances

Package / Subproject	List of Clearances / permission required	Status	Validity period	Remarks
Package-1	1. ECC from DoE	Approved	10-12-2023	Yearly renewal
	2. Permit of RHD	Approved	Till to the Project Period	
	3. Permit of LGED	Approved	Permit does not have any validity but some conditions related to the road cutting are annexed in it.	Road Cutting Permission
	4. Permit of BWDB	Applied		River Crossing Permission
Package-2	1. ECC from DoE	Approved	10-12-2023	Yearly renewal
	2. Permit of RAJUK	Approved with conditions	30-06-2023	Road Cutting Permission Renewal required but the already acquired the RAJUK's permission also serves the purposes of the DESWSP, DWASA upto the June 30, 2023.
	3. Permit of LGED	Applied, Partially approved	Permit does not have any validity but some conditions related to the road cutting are annexed in it.	Road Cutting Permission
	4. Permit of BIWTA	Applied	-	River Crossing Permission
	5. Permit of BWDB	Applied	-	River Crossing Permission
Package-3.1	1. Permit of DoE	Approved	10-12-2023	Yearly renewal

Package / Subproject	List of Clearances / permission required	Status	Validity period	Remarks
	2. Permit of RHD	Applied, approval pending	Till project completion	Road Cutting Permission
	3. Permit of RAJUK	Applied		Road Cutting Permission
	4. Permit of DNCC	Applied		Road Cutting Permission
Package-3.2 (Covered under additional financing)	1. Permit of DoE	Approved	10-12-2023	Yearly renewal
	2. Permit of RAJUK	Not applied		Road Cutting Permission

COMPLIANCE WITH CLEARANCE CONDITIONS

61. Following Table 14 provides a summary of clearance / consent conditions specified by statutory agencies that are required to be complied with and/or monitored during implementation and/or operation, and the status of compliance.

Table 14: Conditions of Clearances

Package / Subproject	Clearances / permission	Conditions of Clearance / Permission	Status of Compliance
Package-1	Environmental Clearance Certificate of DoE	Approved (clearance period till 10-12-2023)	Complied and attached in this report
Package-2	Environmental Clearance Certificate of DoE	Approved (clearance period till 10-12-2023)	Complied and attached in this report
Package-3.1	Environmental Clearance Certificate of DoE	Approved (clearance period till 10-12-2023)	Complied and attached in this report
Package-3.2 (Covered under additional financing)	Environmental Clearance Certificate of DoE	Approved (clearance period till 10-12-2023)	Complied and attached in this report

V. COMPLIANCE WITH LOAN COVENANTS

LOAN COVENANTS

62. Status of compliance with environmental safeguard related loan covenants is given in the below Table 15. Project is being implemented in compliance with all the covenants.

Table 15: Status of Compliance with Loan Covenants

Schedule No.	Covenant	Status of Compliance	Action Required
Schedule-4 for DBO:8 (a) & (b)	<p>Conditions for Issuance of Notice to Commence Works: The Borrower shall not issue a notice to commence Works under:</p> <p>(a) any Works contracts which involve environmental impacts until: (i) the Borrower's Department of Environment has granted the approval of the IEE (including approval of separate environmental impact assessment required to be prepared under Bangladesh law); and (ii) the Borrower has incorporated the relevant provisions from the EMP into the Works contract; and</p> <p>(b) any Works contracts which involve involuntary resettlement impacts, until the Borrower has prepared and submitted to ADB the final RP based on the Project's detailed design, and obtained ADB's clearance of such RP.</p>	<p>(a) Being complied</p> <p>(b) Being complied</p>	
Schedule 5 for DBO:8 (a) & (b)	<p>Environment: The Borrower and DWASA shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with</p> <p>(a) all applicable laws and regulations of the Borrower relating to environment, health and safety;</p> <p>(b) the Environmental Safeguards; and</p> <p>(c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in any Safeguards Monitoring Report to be provided to ADB.</p>	<p>(a) Being complied</p> <p>(b) Being complied</p> <p>(c) Being complied</p>	
Schedule 5	<p>Human and Financial Resources to Implement Safeguards Requirements The Borrower and DWASA shall make available necessary budgetary and human resources to fully implement the EMP and the RP.</p>	Complied	
Schedule 5	<p>Safeguards – Related Provisions in Bidding Documents and Works Contracts The Borrower and DWASA shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p>	<p>(a) Complied</p> <p>(b) being complied</p> <p>(c) being complied</p>	

Schedule No.	Covenant	Status of Compliance	Action Required
	<p>(a) Comply with the measures relevant to the contractor as set forth in the IEE, the EMP, and the RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</p> <p>(b) Make available a budget for all such environmental and social measures;</p> <p>(c) Provide the Borrower and DWASA with a written notice of any unanticipated environmental, resettlement or small ethnic community peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and 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) Fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>(d) being complied</p> <p>(e) Being Complied (addressed as required)</p>	
Schedule 5	<p>Safeguards Monitoring and Reporting: The Borrower shall do the following or cause 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 in accordance with the SPS; and</p> <p>(c) Report any actual or potential breach of compliance with the measure and requirements set forth in the EMP, or the RP promptly after becoming aware of the breach.</p> <p>(d) The Contractor shall appoint its own environmental safeguards officer (EHS).</p>	<p>(a) Complied</p> <p>(b) Complied (Addressed in due time.)</p> <p>(c) Being Complied (will be addressed whenever situation arises.)</p> <p>(d) Complied (appointed).</p>	
Schedule 5	<p>Prohibited List of Investments 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>	Complied	
Schedule 5	<p>Grievance Redress Mechanism: Within 6 months of Effectiveness Date, the Borrower shall establish and maintain a grievance redress committee with representation from all stakeholders in the Project facilities for the purpose of addressing any grievances, from affected peoples concerning land acquisition, environment and any other social issues, in</p>	Being Complied	

Schedule No.	Covenant	Status of Compliance	Action Required
	a timely manner.		
Schedule 5	<p>Labor Standards The Borrower and DWASA shall ensure that</p> <p>(a) civil works contractors comply with all applicable labor laws and regulations of the Borrower, do not allow employment of child labor for construction and maintenance activities, encourage the employment of the poor, particularly women, and provide appropriate facilities for women and children in construction campsites, disseminate information on sexually transmitted diseases (including HIV/AIDS) and human trafficking to employees and local communities surrounding the project construction sites;</p> <p>(b) people directly affected by the Project are given priority to be employed by the Project;</p> <p>(c) contractors do not differentiate wages between men and women for work of equal value; and</p> <p>(d) specific clauses ensuring these are included in bidding documents.</p>	<p>(a) Being complied</p> <p>(b) Being complied</p> <p>(c) Being complied</p> <p>(d) Being complied</p>	

PREPARATION AND APPROVAL OF ENVIRONMENTAL ASSESSMENT REPORTS

63. **Subproject Category:** The DESWSP project has been categorized as category B according to ADB guidelines (ADB SPS 2009) and hence an IEE was prepared to meet the environmental requirements. During the detailed design stage, the updated IEEs for all packages was prepared. The project is also in conformity with the latest ADB Safeguard Policy Statement 2009.

64. Package-wise status of preparation, submission, and approval of IEE Reports of Category B subprojects, Table 16 and Table 17.

Table 16: Status of IEEs

Package Number	Bid type	Package Status	Draft IEE submitted to ADB	Draft IEE cleared by ADB	Updated IEE submitted to ADB	Updated IEE cleared by ADB	Remarks
Package 1	DBO	Construction	Yes, August 2013	Yes, August 2013	Yes, January 2020	Yes, January 2020	
Package 2	Work	Construction	Yes, August 2013	Yes, August 2013	Yes, May 2017/ Sep 2019	Yes, Sep 2019	
Package 3.1	Work	Detailed design	Yes, August 2013	Yes, August 2013	Yes, Sep 2019	Yes, Sep 2019	
Package 3.2	DBO	Preliminary design	Yes, August 2013 (under	Yes, August	Yes, March 2021 (draft	Yes, March 2021(draft	Draft IEE to be updated

Package Number	Bid type	Package Status	Draft IEE submitted to ADB	Draft IEE cleared by ADB	Updated IEE submitted to ADB	Updated IEE cleared by ADB	Remarks
(Covered under additional financing)			original loan)	2013 (under original loan)	for Additional Financing)	for Additional Financing)	based on contractor's detailed design.

STATUS OF DISCLOSURE OF SAFEGUARD DOCUMENTS

65. Status of disclosure of safeguard documents presented in the following Table 17. All the documents have been disclosed on ADB and Project/PMU websites (<http://www.deswsp-dwasa.com/> & <https://www.adb.org/projects/42173-013/main>)

Table 17: Status of Disclosure of IEEs

Package Number	Draft Disclosed on ADB website	Draft Disclosed on Project website	Updated /Final Disclosed on ADB website	Updated /Final Disclosed on Project website
Package 1	Yes	Yes	Yes	Yes
Package 2	Yes	Yes	Yes	Yes
Package 3.1	Yes	Yes	Yes	Yes
Package 3.2	Yes	Yes	Yes	Yes

SAFEGUARDS IN BID DOCUMENTS AND CONTRACTS

66. Safeguard provisions are duly included in the bid documents / contracts, and these are followed uniformly across all the bids and contracts. Following Table shows package-wise details.

Table 18: Status of including IEEs in bid documents and contracts

Package Number	Type of Bid / Contract	Bid / Contract Clauses related to environment, health and safety; labour standards	IEE / EMP included in Bid / contract
Package 1	DBO	Yes	Yes
Package 2	Work	Yes	Yes
Package 3.1	Work	Yes	Yes
Package 3.2	DBO	Yes	Yes

VI. STATUS OF EMP IMPLEMENTATION

PREPARATION OF SITE ENVIRONMENTAL MANAGEMENT PLAN

67. Preparation and submission of Site-specific Environmental Management Plan (SEMP) and Health and Safety Plan (HSP) including Health & Safety COVID-19 Plan by contractor and approval of PMU is a requirement prior to commencement of works. Details of awarded packages are presented in the following Table.

Table 19: Status of SEMP

Package Number	Contractor	Current Status	Status of SEMP	Status of HSP	Remarks
Package 1	GWTSNC, a Joint venture of SUEZ International & OTV-VEOLIA	Construction	Approved	Approved	
Package 2	CAMC Engineering Co., Ltd.	Construction	Approved	Approved	
Package 3.1	Geo-Engineering Corporation	Preconstruction	Submitted	Submitted	Under evaluation
Package 3.2 (Covered under additional financing)	Under Evaluation	Tender process	Not applicable	Not applicable	

EMP IMPLEMENTATION SUPERVISION AND MONITORING

68. Of the 2 packages awarded, construction works are being conducted in one package. Package-wise status is presented in the below Table 20, and details of site visits conducted by safeguard staff is given in Appendix 2.

Table 20: Status of EHS Staff, SEMP Preparation and Monitoring

Package Number	Current Status	Contractor EHS Supervisor Appointed & Mobilized on Site	Monthly EMP implementation reports submitted by contractor	Site Monitoring/ Verification Conducted by MDSC	Remarks
Package 1	Construction	Yes	Yes	Yes	
Package 2	Construction	Yes	Yes	Yes	
Package 3.1	Design	Ongoing	Ongoing	Process ongoing	
Package 3.2 (Covered under additional financing)	Design	Not applicable	Not applicable		Contractor appointment is underway

CONTRACTORS COMPLIANCE WITH STATUTORY AND CONTRACTUAL REQUIREMENTS

69. Following table shows the compliance with statutory requirements in terms of obtaining licenses, permissions, clearances and insurance coverage etc., required to conduct construction work.

Table 21: Status of compliance with statutory requirements

Requirement	Package-1		Package -2		Package-3.1		Package-3.2	
	GWTSNC, a Joint venture of SUEZ International & OTV-VEOLIA		CAMC Engineering Co., Ltd.		Geo-Engineering Corporation		Tender process	
	status	Validity	status	Validity	status	Validity	status	Validity
Labour license	Yes	Up to date	Yes	Up to date	Yes	Up to date	N/A	N/A
Workmen compensation policy	Yes	Up to date	Yes	Up to date	Yes	Up to date	N/A	N/A
Contractor all risk insurance	Insurance covered	Up to date	Insurance covered	Up to date	Insurance covered	Up to date	N/A	N/A
Pollution control certificate for Construction vehicles & equipment	Yes	Under process of renewal	Yes	Under process of renewal	Yes	Under process of renewal	N/A	N/A

IMPLEMENTATION OF EMP MEASURES AND COMPLIANCE STATUS

70. Implementation of measures as per the approved IEE & EMP / SEMP are reviewed for each package and status is presented in the following Tables. Table 22 presents the implementation and compliance status of construction stage mitigation measures. This compliance is based on the monthly checklists submitted by Contractors and site verification visits and monitoring conducted by PMC, and periodic visits by PIU/PMU safeguard team. Contractor's Monthly EMP Implementation Reports and PMC Site Verification / Monitoring Reports are presented package-wise in **Appendix 3**. For each package one sample monthly report (latest of reporting period) of contractor and one site visit report of PMC is provided in the Appendix.

Table 22: Construction Stage Mitigation Measures: Compliance Status

Impact fields and Mitigation Measures	Responsible for mitigation	Compliance rating for implementation of EMP Measures							
		1. S / Satisfactory- mitigation measures implemented satisfactorily 2. PS / Partially Satisfactory - mitigation measures implemented but requires improvement 3. US / Unsatisfactory- Mitigation measures not implemented / poorly implemented							
		Package 1		Package 2		Package 3.1		Package 3.2	
		Rating	Remarks	Rating	Remarks	Rating	Remarks	Rating	Remarks
Contractor compliance with regulations (clearances/ permits/licenses to conduct work)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
SEMP available at work sites	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
Utilities shifting (avoiding disruption, prior info, contingency arrangements etc.,)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
Work site organization (designated areas for material / debris /equipment, roads, walkways, facilities, fencing / barricades, rest area, first aid, complaints & accident register, etc.,)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
Chemical, fuel storage & handling (secured areas with easy identification & caution signs, spill control, MSDS display)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
Project information & compliant registration (information boards, contact info, complaint register etc.,)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	
Sourcing construction materials / borrow areas (existing approved quarries / avoiding new quarries, documentation)	Contractor	S		S		N/A	Works status: mobilization on stage	N/A	

Impact fields and Mitigation Measures	Responsible for mitigation	Compliance rating for implementation of EMP Measures							
		1. S / Satisfactory- mitigation measures implemented satisfactorily 2. PS / Partially Satisfactory - mitigation measures implemented but requires improvement 3. US / Unsatisfactory- Mitigation measures not implemented / poorly implemented							
		Package 1		Package 2		Package 3.1		Package 3.2	
		Rating	Remarks	Rating	Remarks	Rating	Remarks	Rating	Remarks
Implementation of chance find protocol (workers/staff awareness, protocol implementation etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Dust control at work sites (site organization, and dust suppression measures, visible dust etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Dust control in material / waste transport (covering, cleaning measure, visible dust)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Air pollution / emission control (pollution control equipment and certificate for machinery, equipment, and vehicles)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Water pollution control (earthwork schedule, containment of silt/contaminated water in site, erosion control, chemical spill control, etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Measures related to works in / near water bodies (scheduling, construction method, spill & silt containment, safe disposal etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Noise control (scheduling, prior public info, control measures, PPEs, no high noise near sensitive areas etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Traffic management (work site isolation/separation of public areas, traffic	Contractor	S		S		N/A	Works status:	N/A	

Impact fields and Mitigation Measures	Responsible for mitigation	Compliance rating for implementation of EMP Measures							
		1. S / Satisfactory- mitigation measures implemented satisfactorily 2. PS / Partially Satisfactory - mitigation measures implemented but requires improvement 3. US / Unsatisfactory- Mitigation measures not implemented / poorly implemented							
		Package 1		Package 2		Package 3.1		Package 3.2	
		Rating	Remarks	Rating	Remarks	Rating	Remarks	Rating	Remarks
diversions, public information, etc.,)							mobilization stage		
Access to building & properties (temporary access maintenance over trenches, no blockage of access etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Occupational Health & safety (safe work site set-up, eliminated/protected unsafe/risky areas, equipment / machinery / electrical / safety, standard construction methods, PPEs, toolbox talks, trainings & site awareness etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Incident management (First aid box, accident / incident registers, review of accident cases, near misses, and training & awareness, fire safety, emergency contacts, health check-ups, tie up with hospital, etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Core labour standards (no child labour, no discrimination, no forced labour, equal pay for equal work, etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Workers facilities at work site (water, sanitation, rest areas, separate toilets for women, etc.,)	Contractor	S		PS		N/A	Works status: mobilization stage	N/A	
Implementation of COVID19 H&S Plan at work sites (hygiene, distancing, PPEs, testing, isolation, treatment etc.,)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	

Impact fields and Mitigation Measures	Responsible for mitigation	Compliance rating for implementation of EMP Measures							
		1. S / Satisfactory- mitigation measures implemented satisfactorily 2. PS / Partially Satisfactory - mitigation measures implemented but requires improvement 3. US / Unsatisfactory- Mitigation measures not implemented / poorly implemented							
		Package 1		Package 2		Package 3.1		Package 3.2	
		Rating	Remarks	Rating	Remarks	Rating	Remarks	Rating	Remarks
Community health & safety (secured work sites, protection measures for public/building/road safety, information, caution and awareness boards, public info etc.)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Solid waste, debris & soil management (proper stocking/storage at site, reuse, disposal site identification, timely disposal etc.,)	Contractor	PS	Waste littering observed during HSE inspection at sites	PS		N/A	Works status: mobilization stage	N/A	
Workers camps set-up (site approval, camp organization & facilities as per standards)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Worker camp maintenance (health, hygiene, leisure etc.)	Contractor	S		PS	Sanitation and water supply system was inappropriate but during reporting period improved up to satisfactory level.	N/A	Works status: mobilization stage	N/A	

Impact fields and Mitigation Measures	Responsible for mitigation	Compliance rating for implementation of EMP Measures							
		1. S / Satisfactory- mitigation measures implemented satisfactorily 2. PS / Partially Satisfactory - mitigation measures implemented but requires improvement 3. US / Unsatisfactory- Mitigation measures not implemented / poorly implemented							
		Package 1		Package 2		Package 3.1		Package 3.2	
		Rating	Remarks	Rating	Remarks	Rating	Remarks	Rating	Remarks
COVID measures implementation at camp sites	Contractor	S		S		N/A	Works status: mobilization stage	N/A	
Post construction restoration of work and camp sites (sites cleared, restored, documented, and approved by PIU/PMC & closed)	Contractor	S		S		N/A	Works status: mobilization stage	N/A	

FINDINGS ON EMP COMPLIANCE

Construction stage measures:

71. GWT-SNC complied almost all the impact fields listed in Table 22 as per the prescription of EMPs of Package-1. Summary findings are listed below.

- (i) Maintaining the Improvement Action Report, or Corrective Action Log, or Prevention Action Log;
- (ii) Incident and accident policy of the contractor/ subcontractor;
- (iii) Emergency Response Plan, Materials Safety Data Sheet (MSDS) information are available in the construction sites of GWT;
- (iv) Regular Air and Noise Monitoring in the construction sites;
- (v) Regular dust control at the construction sites;
- (vi) Standard Accommodation facilities of GWT;
- (vii) Maintaining Complaints Register, Monitoring Register, Waste Management Register, Waste Management Plan and Temporary Facility Plan;
- (viii) Covid-19 prevention measures;
- (ix) Onsite training of Waste Management for all staff;
- (x) Waste water treatment facilities at the Construction Sites.

72. Summary of the opportunities for improvements of GWT-SNC contractor are listed below:

- (i) Solid waste management and appropriate housekeeping at the construction site;
- (ii) Safe and sufficient drinking water supply with regular maintenance at the construction work site;
- (iii) Adequate sanitation facilities at the construction work site;
- (iv) Reduce the plastic use to the greatest extent (Camp almost plastic free) by GWT.

73. CAMCE complied almost all the impact fields listed in Table 22 as per the prescription of EMPs of Package-2. Summary findings are listed below.

- (i) Maintaining the Improvement Action Report, or Corrective Action Log, or Prevention Action Log;
- (ii) Regular dust control at the construction site;
- (iii) Covid-19 prevention measures;
- (iv) Sewage Management at the Construction Sites.

74. Summary of the opportunities for improvements of CAMCE contractor of Package-2 are listed below:

- (i) Need to improve the Toilet and Water Supply facilities of the Workers Camps at CAMCE office area;
- (ii) Waste Management should be improved;
- (iii) Reduce the plastic use to the greatest extent (Camp almost plastic free) by CAMCE.

75. Overall implementation and compliance of Package-1 is good⁵ and Package-2 is fair⁵.

Table 23: Package-wise Compliance with Construction stage EMP

Sl. No.	Package	Overall compliance with preconstruction stage EMP	Overall compliance with construction stage EMP
1	Package 1	Not applicable	Good
2	Package 2	Not Applicable	Fair
3	Package 3.1	Not Applicable	Not Applicable [Work status during reporting period: Mobilization stage]
4	Package 3.2	Not Applicable	Not Applicable

IMPLEMENTATION OF HEALTH & SAFETY COVID-19 PLAN

76. H&S COVID-19 Plan Preparation. Status of preparation and approval of Health and Safety COVID-19 Plan is provided in the following table.

Table 24: Status of H&S COVID-19 Plan

H&S COVID-19 Plan	Preparation	Approval	Update	Remarks
Project level Plan	Yes	Yes	Yes	
Package/contractor plan	Yes	Yes	Yes	
Package 1	Yes	Yes	Yes	
Package 2	Yes	Yes	Yes	
Package 3.1	Under process	Not Applicable	Not Applicable	[Work status during reporting period: Mobilization stage]
Package 3.2	Not Applicable	Not Applicable	Not Applicable	

H&S COVID-19 Plan Implementation

77. On an average fifteen (15) HSE Contractor's personnel worked in this reporting period at the Intake, RWP and at WTP sites of Package-1. All through this reporting period, the health and safety measures were emphasized in managing COVID-19 situation at sites. The progress/ measures were achieved/ in place in the period is stated in attached Monthly Progress Reports (July-Dec'2022) & Monthly HSE Reports (July-Dec'2022). Except these the following necessary steps were taken in this reporting period:

- (i) Display of awareness campaign banners;
- (ii) Body temperature screening at WTP Security Gate; WTP Life Camp; Intake Security Gate and at Intake Life Camp;
- (iii) Restricted access to site;
- (iv) Screening the visitors before granting access to site;
- (v) Enforcing the use of COVID-19 PPEs, hand sanitizing and vehicles disinfection;

⁵ Very Good (all measures implemented satisfactorily)

Good (most (>75%) measures implemented satisfactorily & none unsatisfactorily)

Fair (many (50-75%) measures implemented satisfactorily & none unsatisfactorily)

Poor (few (<25%) measures implemented unsatisfactorily)

Very Poor (most (>25%) measures implemented unsatisfactorily or not implemented)

- (vi) Disinfecting of common areas (Intake and WTP);
- (vii) About 99% staff of GWT-SNC are vaccinated whereas site personnel's vaccination is more than 50% of WTP, Intake and RWP respectively of Package-1.

78. In addition to the above various HSE trainings were conducted for contractors' personnel in Package-1 of DESWSP project [Detail in attached a sample [latest reporting period] Monthly Progress Reports (July-Dec'2022) & Monthly HSE Reports (July-Dec'2022)].

79. In package-2, body temperature screening at the construction site were also done during the reporting period [Detail in attached a sample [latest reporting period] Monthly Progress Reports (July-Dec'2022) & Monthly HSE Reports (July-Dec'2022)].

80. Appendix 4 shows the implementation of COVID 19 measures of package 1&2.

CONSTRUCTION WORK-RELATED ACCIDENTS

81. The construction work related Incident/ Accident records of the 15th SEMR working period is tabulated in table below. A sample incident investigation report is attached in **Appendix 5** of this report.

Table 25: Construction work related Incident / Accident records

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
<p>July 2022: Under P1: No incident. Under P2: Date and time of the incident: 26th July 2022 at 09:00 hrs 100 Feet Madani Avenue Road Chainage CH 2+ 865 (In front of Chef's Table). Excavator accidentally cut the cable during excavation for our daily activity.</p>	<p>Under P1: Incident status: No incident Under P2: Unexpected 11kv underground cable came up during daily activity. No information received from DESCO that there is an underground 11kv cable exist. Even though officially submit a letter to DESCO that the contractor will start excavation work on that chainage. And before they started their excavation the DESCO Engineer visited the site and confirmed that 7 no's underground PE Sleeve with 33KV live cables & 6 no's of 33kv dead cable are there which were identified by their team during our frequent utility survey</p>	<p>Under P1: N/A Under P2: The excavator operator was chasing some damp soil and excavated down to the level of the cable - approximately 1300mm. A loud bang and a puff of smoke was witnessed by the operator who then backed the machine away and alighted the machine.</p>	<p>Under P1: N/A Under P2: The Safety/electrical supervisor was called, and upon arrival at the site cordoned off the area and called the supply authority DESCO to isolate the high voltage circuit</p>	<p>Under P1: N/A Under P2: Rectify damaged cable by DESCO complete with testing. • Backfill the earth • Concrete Slab has been Covered on the top of the cable to mark the location of underground 11kv cable. • The operator has been given warning that only hand digging is allowed to be used for excavation near underground cable.</p>
<p>July 2022: Under P2: Date and time of the incident: 28th July 2022 at 09:30 hrs. □ Location of the incident: 100 Feet Madani Avenue Road (In front of Chef's Table) □ Nature of the incident: Site Payloader accidentally smash the MDSCs car window</p>	<p>On that day (28.07.2022) at 09:30 AM MDSC driver Mr. Belal was parked the vehicle (Dhaka Metro Tha-132280) beside the water horse barrier on road though this is not parking zone. At that time the site Payloader was engaged for security point shifting. The Payloader took the security point at the Payloader bucket and shifting the security point from one place to another. But at that time the Payloader signalman did not give proper 2 signal to the operator. As a result the payloader hit the backside of the car and then the back glass of the car has been broken</p>	<p>The payloader hit the backside of the car and then the back glass of the car has been broken.</p>	<p>The operator to be given final warning of his negligence. Failure to follow instruction again will result the operator will be replaced. 2. Training will be given to the operator and signalman 3. All drivers will be advised to park vehicle at parking zone</p>	<p>Warning for negligence of the signalman has been given. • Car parking signage has been installed at car parking area. • All drivers are advised to park their vehicle at parking zone. • Training has been given to the payloader operator and signalman. • New window glass has been installed at the car. • All drivers, operator and signalman are advised to follow site safety rules.</p>

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
August, 2022 Under P1&P2:	Incidental status: No incident	N/A	N/A	N/A
September 2022 Under P1 (CAMCE): (1) 17-Sep-2022 Project Location: W73 (2) 19-Sep- 2022 Project Location; Workers Old Dormitory adjacent to batching plant Under P2: No incident	Under P1 : (1) Activity: Sand filling. Dump truck contacting overhead live electrical cables. (2) Electrical short circuit Under P2: Incident status: No incident	Under P1 : (1) Minor significant (2) Not significant Under P2: N/A (No incident)	Under P1 : (1) Advised to take care. (2) Advised to take care. Under P2: N/A (No incident)	Under P1: (1) Normal (2) Normal. Under P2: N/A (No incident)
October, 2022 Under P1&P2:	Incidental status: No incident	N/A	N/A	N/A
November, 2022 Under P1 Incident status: No incident. Under P2: Date and time of the incident: 06.11.2022 at 09:30 hrs. □ Location of the incident: Section A in front of Gazi bridge (CH A1+190),	Under P1: Incident status: No incident Under P2: Nature of the incident: Excavator bucket collides with existing gas pipe line. On 06.11.2022, there is an incident (nearmiss) regarding Excavator bucket collides with gas pipeline at section-A has happened.	Under P1: N/A Under P2: There was no injury or any fatality or any fire incident.	Under P1: N/A Under P2: New sleeve has been wrapped over the pipe in where it was damaged. Immediately stop the activity. • After the incident the area was demarcated by caution barrier • Underground utility survey has been done in order to check the presence of any other underground utility. • In where the	Under P1: N/A Under P2: On 09.11.2022, representative of Titas Gas Transmission and Distribution Company Limited surveyed in where their gas pipes are exist and they met with CAMCE and Engineers at the spot. • Representative of Titas Gas Transmission and Distribution Company Limited rectified the minor damage pipe on 11.11.2022. New

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
Rupganj, Narayanganj			underground utility is present has been marked in red paint.	sleeve has been wrapped over the pipe in where it was damaged
December, 2022 Under P1&P2: Incident status: No incident.	Under P1&P2: N/A (Incident status: No incident.)	N/A	N/A	N/A

BEST PRACTICES / ENVIRONMENT IMPROVEMENT ACTIVITIES

82. Apart from the EMP guidance, Contractor of Package-1 & 2 does the following things in the construction sites as the best practices/activities for the improvement of environment.

- (i) Tree plantation at the construction sites;
- (ii) Plantation of trees in GWTSNC Camp area;
- (iii) Plantation of trees in the Subcontractor Camp area;
- (iv) Celebrate World Environment Day at the Construction Site;
- (v) Initiative of Zero Plastic on Site (Personal water bottle for all employees on site and provide Water dispensers on main site and offices).
- (vi) Make sure the personalized drinking water bottles for the workers;
- (vii) Waste skips with segregation labels;
- (viii) Site without plastics and general wastes littering.

83. Some photographs of best practices are shown below.

PHOTOGRAPHS OF BEST PRACTICES



Sankharyar Water Treatment SMC
 Monthly HSE Report

SAFETY INSPECTIONS
GWT WTP Monthly Plant & Equipment Inspection (Aug 2022)



Aug 21, 2022 09:00:37 am




Aug 21, 2022 09:53:58 am

Monthly Plant & Equipment Inspection


- Monthly plant and equipment inspection is a preventive way to make sure equipment is safe for use and that all systems are working properly. Inspection identifies whether the plant or equipment can be operated, adjusted and maintained safely and that any deterioration (e.g. defect; damage; wear) can be detected and remedied before it results in unacceptable health and safety risk

Sankharyar Water Treatment SMC
 Monthly HSE Report


SAFETY INSPECTIONS
WTP Monthly Fire Extinguisher Inspection (Sep 2022)




Sep 07, 2022 10:29:08 am



Sep 07, 2022 10:29:00 am



Sep 07, 2022 10:20:55 am



Inspection for:

- Non- obstructing and appropriate designated location.
- Verifying tamper seal is unbroken.
- Examining for obvious physical damage
- Confirm the pressure gSepe or indicator
- Establishing extinguisher is full as required.
- Check the last professional service date on the tag.
- Endorsing the inspection tag

VII. ENVIRONMENTAL MONITORING

ENVIRONMENTAL QUALITY MONITORING

84. IEE and EMP / SEMP require conduct of ambient environmental quality monitoring throughout implementation. These includes monitoring ambient air, water, noise, etc., in and around project sites to assess the quality and changes with respect to baseline conditions. Per the EMP and contract, Contractors are responsible to conduct the monitoring, and following Table 26 shows the status of environmental monitoring conducted by contractors, package-wise for all awarded contracts.

Table 26: Status of Environmental Monitoring of Awarded Packages

Package No	Baseline Monitoring		Periodic Monitoring in Reporting Period	
	Date/period of monitoring	Environmental parameters	Dates/period of monitoring	Environmental parameters
Package 1	August 2017	Air Quality	July'22 –Dec'22	Air
	December 2019	Noise Level	July'22 –Dec'22	Noise
	August 2017	Surface Water Quality (Meghna River)	Jan'22 –Jun'22	Surface Water Quality (Meghna River)
Package 2	August 2017	Air Quality	July'22 –Dec'22	Air
	December 2019	Noise Level	Jan'22 –Jun'22	Noise
Package 3.1	August 2017	Air Quality	Not Applicable [Work status: Mobilization stage]	Not Applicable
	December 2019	Noise Level	Not Applicable [Work status: Mobilization stage]	Not Applicable
Package 3.2	August 2017	Air Quality	Not Applicable	Not Applicable
	December 2019	Noise Level	Not Applicable	Not Applicable

85. SEMP for RWP, Intake and WTP were prepared for package-1 and submitted to PMU. SEMP for the Treated Water Pipeline of package-2 were reviewed by MDSC and the SEMP were approved with conditions. All SEMP of package-1 & 2 (Appendix-11) were approved by PMU on 19-06-2020. ADB was informed of this approval during the ADB mission in November 9, 2022. The information of monitoring parameters/ frequency/ locations are detailed out in Table 27.

Table 27: Environmental Monitoring details of DESWSP Project

Sl. No.	Monitoring field prescribed in SEMP	Monitoring Parameters	Location			Monitoring Frequency
Package-1						
1	Noise	Noise level	WTP	INTAKE	RWP	Quarterly
2	Ambient air quality	SPM, PM ₁₀ , PM _{2.5} , NO _x , SO ₂ , CO	Upwind at WTP site Downwind at WTP site	Upwind at INTAKE (if other air pollution sources are present) Downwind at Intake	RWP	Quarterly

Sl. No.	Monitoring field prescribed in SEMP	Monitoring Parameters	Location			Monitoring Frequency
			Worksite area	(if other air pollution sources are present) Worksite area		
3	Water Quality of Meghna River (Intake Location)	TDS, TSS, pH, Hardness, BOD5 and Fecal Coliform,	-	Upstream of INTAKE Downstream of Intake	-	Semiannually
4	Water Quality of Sitalakhya River (WTP Location)	TDS, TSS, pH, Hardness, BOD5 and Fecal Coliform,	Upstream of WTP Downstream of WTP		-	Semiannually
5	Water quality (River crossings required for the transmission lines at various canals at RWP alignment)	TDS, TSS, pH, Hardness, BOD and Fecal Coliform	-	-	Upstream of river crossing Downstream of river crossing	Semiannually
6	Wastewater Quality	As per BD ECR 97; DoE Standards Inland Surface Waters	WTP	Discharge location at INTAKE	-	-
Package-2						
1	Noise	Noise level	Worksite			Monthly
2	Ambient air quality	PM ₁₀ , PM _{2.5} , NO _x , SO ₂ , CO	Worksite			Monthly
3	Surface Water Quality	TDS, TSS, pH, Hardness, BOD and Fecal Coliform	River/Canal water Xing site			Every 6 months during construction

86. **Monitoring (Sampling & Analysis) Methodology.** Sampling and analysis have been carried out by the contractors via the recognized / approved / accredited laboratories and standard equipment at the sites, which adopted acceptable and standard methods for sampling, analysis, and results. Sampling and adopted are presented in Table 28.

Table 28: Sampling and Analysis Methods

Parameter	Sampling and testing method
Ambient air	Portable electronic air quality monitoring meter
Ambient noise	Portable electronics noise level meters
Surface water	Analyses and sample collections were selected by following the standard methods for the examination of water and wastewater proposed by APHA (American Public Health Association), AWWA (American Water Works Association) & WEF (Water Environment Federation).
Ground water	Analyses and sample collections were selected by following the standard methods for the examination of water and wastewater proposed by APHA (American Public Health Association), AWWA (American Water Works Association) & WEF (Water Environment Federation).

MONITORING RESULTS

87. **Ambient air quality.** Ambient air quality monitoring results are presented in the following table. Particulate matter (PM₁₀ and PM_{2.5}), are measured in this SEMR period. During the construction period impacts on air quality, caused by the project, are mainly due to movement of materials. It affects air quality over a small area, though, not in significant levels. Increased dust levels along the haul roads, the borrow areas and dumping areas is as expected. Emissions from construction machinery, such as generators, bulldozers, rollers, crane, trucks etc. also cause air pollution while they are operating. But air pollution levels measured in the WTP site are particularly high due to high ambient air pollution levels outside the project area due to the following reasons:




City Group & their Truck on the Road


- (i) The WTP construction site is in the Tarabo Industrial zone. Industries like cement factory, edible oil mills, paper mills, sugar mills, rice mills, pulse mills etc. are north and south of the WTP site.
- (ii) In the east of the WTP site LGED road widening work adjacent to W83 is underway and for this huge earth moving activities are generating significant dust.
- (iii) The bumpy and dusty roads frequently used by these different industries (particularly City Group heavy trailers and trucks) contribute a lot of dust to the project area.

88. The persistent ambient air quality of the WTP site was monitored and attached along with the onsite Test reports in **Appendix 6** of this SEMR report.

Table 29: Air Monitoring samples at TCL, CAMCE and WTP during reporting period



Monthly HSE Report

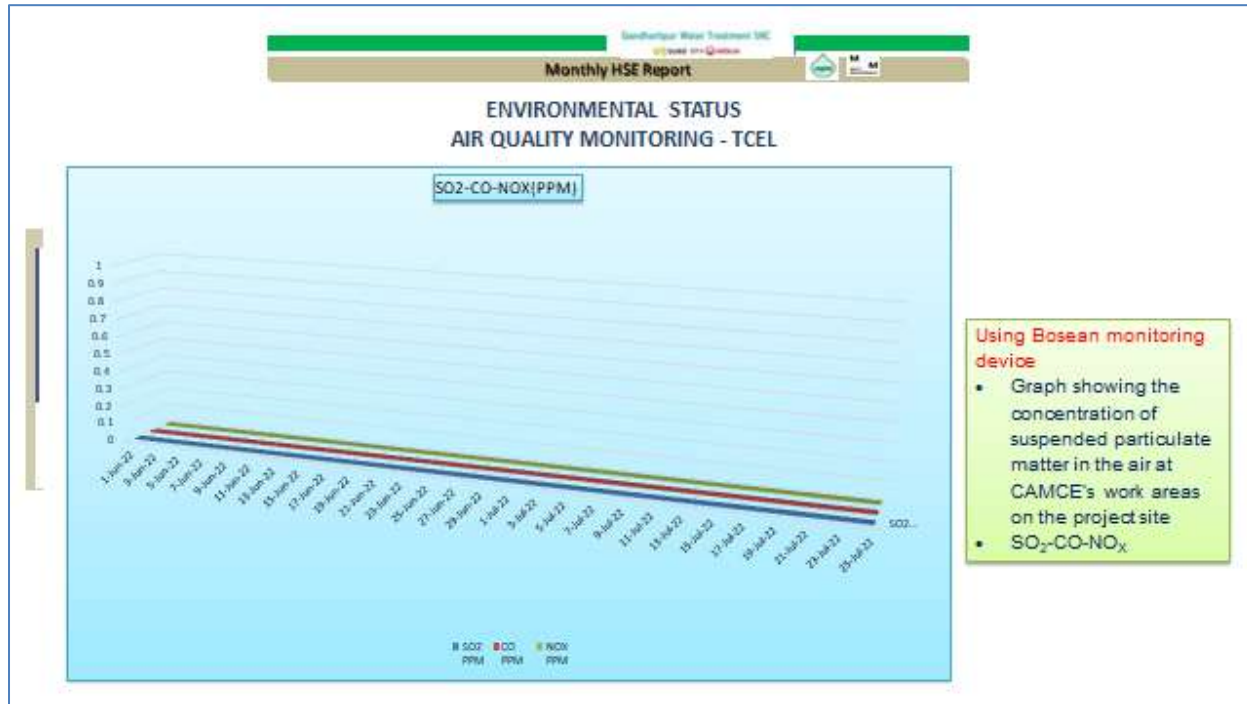



ENVIRONMENTAL STATUS AIR QUALITY MONITORING - TCEL

Gandharpur Water Treatment SMC		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 800 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER CHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DSWSP)										MHA		
A-001004 & DWT-FN-DWT-SP-600-1		AIR QUALITY MONITORING LOG										A-001004 & DWT-FN-DWT-SP-600-1		
Date	Monitoring Description	Time	Location	Temperature (°C)	Humidity (%)	SO ₂ (PPM)	CO (PPM)	NO ₂ (PPM)	CO ₂ (PPM)	SPM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)		
26-Jun-22	RD/Monitors	4:02 P.M.	Intake life ramp	30.3° C	7.2%	0.0	0.0	0.00	N/A	40	1.6	2.1		
27-Jun-22	RD/Monitors	8:02 P.M.	RD area	28.0° C	6.8%	0.0	0.0	0.00	N/A	47	2.3	2.4		
28-Jun-22	RD/Monitors	4:02 P.M.	Intake (Camp DS)	29.6° C	6.8%	0.0	0.0	0.00	N/A	63	2.8	2.8		
29-Jun-22	RD/Monitors	4:02 P.M.	Intake secondary gate	30.3° C	7.3%	0.0	0.0	0.00	N/A	41	2.0	2.1		
30-Jun-22	RD/Monitors	8:04 P.M.	RD area	30.3° C	7.2%	0.0	0.0	0.00	N/A	50	1.8	2.4		
1-Jul-22	RD/Monitors	4:02 P.M.	Intake (Camp DS)	30.6° C	7.3%	0.0	0.0	0.00	N/A	43	2.1	2.2		
2-Jul-22	RD/Monitors	4:02 P.M.	Intake (Camp DS)	29.7° C	6.7%	0.0	0.0	0.00	N/A	63	2.6	2.7		
3-Jul-22	RD/Monitors	4:02 P.M.	Intake secondary gate	33.3° C	6.0%	0.0	0.0	0.00	N/A	60	2.4	2.6		
4-Jul-22	RD/Monitors	4:02 P.M.	Intake life ramp	33.6° C	7.0%	0.0	0.0	0.00	N/A	46	2.0	2.6		
5-Jul-22	RD/Monitors	8:02 P.M.	RD area	33.2° C	6.9%	0.0	0.0	0.00	N/A	24	1.0	1.4		
6-Jul-22	RD/Monitors	4:02 P.M.	Intake life ramp	33.0° C	7.0%	0.0	0.0	0.00	N/A	63	2.6	2.7		
7-Jul-22	RD/Monitors	4:02 P.M.	Intake secondary gate	30.6° C	6.9%	0.0	0.0	0.00	N/A	49	2.4	2.6		
8-Jul-22	RD/Monitors	9:02 A.M.	Intake (Camp DS)	30.3° C	6.8%	0.0	0.0	0.00	N/A	66	2.7	2.8		
12-Jul-22	RD/Monitors	10:27 A.M.	Intake secondary gate	36.1° C	6.2%	0.0	0.0	0.00	N/A	20	1.4	1.6		
13-Jul-22	RD/Monitors	11:30 A.M.	Intake life ramp	36.4° C	6.2%	0.0	0.0	0.00	N/A	33	1.6	1.6		
14-Jul-22	RD/Monitors	10:48 A.M.	RD area	30.3° C	6.6%	0.0	0.0	0.00	N/A	33	1.6	1.7		
16-Jul-22	RD/Monitors	12:33 P.M.	Intake (Camp DS)	36.0° C	5.6%	0.0	0.0	0.00	N/A	34	1.7	1.6		
16-Jul-22	RD/Monitors	4:02 P.M.	Intake (Camp DS)	30.6° C	7.3%	0.0	0.0	0.00	N/A	40	1.6	2.1		
17-Jul-22	RD/Monitors	3:04 P.M.	Intake life ramp	33.3° C	7.0%	0.0	0.0	0.00	N/A	46	2.2	2.3		
18-Jul-22	RD/Monitors	4:02 P.M.	Intake secondary gate	33.6° C	7.0%	0.0	0.0	0.00	N/A	50	1.6	2.0		
19-Jul-22	RD/Monitors	3:02 P.M.	Near I RD area	33.6° C	7.0%	0.0	0.0	0.00	N/A	71	3.2	3.0		
20-Jul-22	RD/Monitors	3:02 P.M.	Intake life ramp	33.6° C	7.0%	0.0	0.0	0.00	N/A	66	2.7	2.8		
21-Jul-22	RD/Monitors	3:02 P.M.	Intake secondary gate	32.3° C	7.0%	0.0	0.0	0.00	N/A	50	1.6	2.0		
22-Jul-22	RD/Monitors	4:02 P.M.	Intake (Camp DS)	32.0° C	7.0%	0.0	0.0	0.00	N/A	56	1.7	1.8		
23-Jul-22	RD/Monitors	4:01 P.M.	RD area	32.6° C	7.0%	0.0	0.0	0.00	N/A	62	2.4	2.6		
24-Jul-22	RD/Monitors	4:02 P.M.	Intake life ramp	33.3° C	7.0%	0.0	0.0	0.00	N/A	48	2.1	2.2		
26-Jul-22	RD/Monitors	4:02 P.M.	Intake secondary gate	33.3° C	7.0%	0.0	0.0	0.00	N/A	47	2.2	2.4		

- Table of Monitoring values





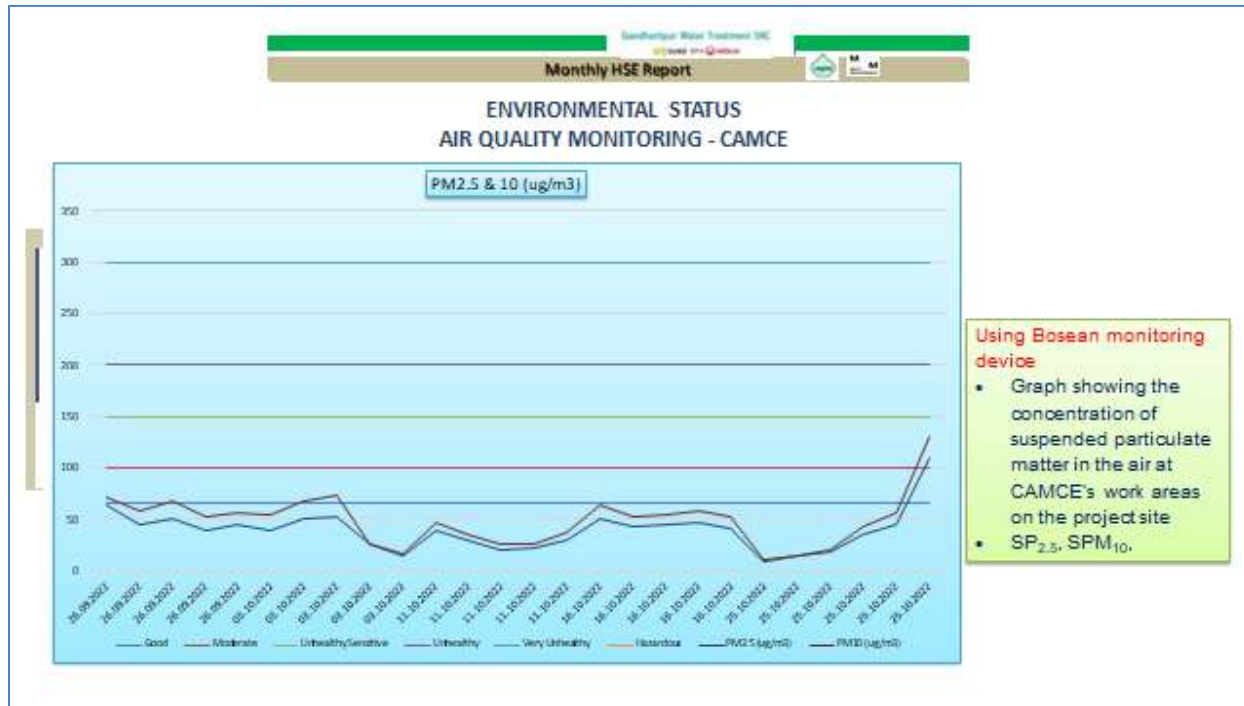
Gandharbpur Water Treatment SNC

Monthly HSE Report
ENVIRONMENTAL STATUS
AIR QUALITY MONITORING - CAMCE

Gandharbpur Water Treatment SNC A Joint Venture of SRR INTERNATIONAL & QTV/QVDA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWS P)										M M DWASA		
AIR QUALITY MONITORING LOG												Rev: DES (NCS)		
Date	Monitoring Duration	Time	Location	Temperature (°C)	Humidity (%)	SO ₂ (PPM)	CO (PPM)	NO _x (PPM)	O ₃ (PPM)	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)		
26.08.2022	60 Minutes	8:17 AM	WP-30 (SW)	28.5	71.3	0.4	0	0	0	N/A	181	63	75	
26.08.2022	60 Minutes	9:01 AM	North Boundary (NL)	30.9	66.5	0.5	0	0	0	N/A	191	65	68	
26.08.2022	60 Minutes	05:47 AM	WP-10 (Middle East)	25.7	81.3	0.5	0	0	0	N/A	159	51	68	
26.08.2022	60 Minutes	11:39 AM	WP-05 (SW)	32.1	65.8	0.5	0	0	0	N/A	90	30	30	
26.08.2022	60 Minutes	7:11 PM	WP-30	18.9	60.9	0.4	0	0	0	N/A	203	65	66	
08.09.2022	60 Minutes	8:38 AM	WP-35 (SW)	25.7	88.7	0.4	0	0	0	N/A	91	35	34	
08.09.2022	60 Minutes	9:21 AM	WP-05 (SW)	31	81.1	0.4	0	0	0	N/A	118	50	68	
08.09.2022	60 Minutes	10:27 AM	WP-10 (Middle East)	24.8	70.7	0.4	0	0	0	N/A	127	51	31	
08.09.2022	60 Minutes	11:30 AM	North Boundary (NL)	26.1	66.7	0.4	0	0	0	N/A	71	25	26	
08.09.2022	60 Minutes	2:21 PM	WP-30	28.7	71.6	0.4	0	0	0	N/A	11	15	35	
11.09.2022	60 Minutes	8:48 AM	WP-35 (SW)	32.2	68.7	0.4	0	0	0	N/A	86	39	47	
11.09.2022	60 Minutes	05:41 AM	WP-05 (SW)	11.1	57.5	0.4	0	0	0	N/A	66	30	30	
11.09.2022	60 Minutes	05:54 AM	WP-10 (Middle East)	12.1	58.1	0.5	0	0	0	N/A	65	25	25	
11.09.2022	60 Minutes	07:00 PM	North Gate	15.1	68	0.4	0	0	0	N/A	77	22	22	
11.09.2022	60 Minutes	1:11 PM	WP-30	31.9	66.7	0.5	0	0	0	N/A	67	28	38	
16.09.2022	60 Minutes	1:39 AM	WP-35 (SW)	28.4	68.7	0.4	0	0	0	N/A	113	50	63	
16.09.2022	60 Minutes	05:17 AM	WP-05 (SW)	12.1	58.7	0.4	0	0	0	N/A	66	27	33	
16.09.2022	60 Minutes	05:38 AM	WP-10 (Middle East)	28.6	68.2	0.4	0	0	0	N/A	99	45	54	
16.09.2022	60 Minutes	07:01 PM	North Gate	17.1	61.3	0.5	0	0	0	N/A	69	47	38	
16.09.2022	60 Minutes	1:08 PM	WP-30	35	37	0.5	0	0	0	N/A	93	43	50	
24.09.2022	60 Minutes	8:39 AM	WP-35 (SW)	21.6	84.9	0.4	0	0	0	N/A	89	31	11	
24.09.2022	60 Minutes	02:51 AM	WP-10 (Middle East)	26.8	61.4	0.4	0	0	0	N/A	29	14	25	
24.09.2022	60 Minutes	05:30 AM	North Boundary (NL)	25.4	58.4	0.4	0	0	0	N/A	90	19	21	
24.09.2022	60 Minutes	12:37 PM	WP-30	30.6	61.4	0.4	0	0	0	N/A	78	25	33	
24.09.2022	60 Minutes	1:11 PM	WP-05 (SW)	27.5	66.5	0.4	0	0	0	N/A	121	44	39	
24.09.2022	60 Minutes	7:11 PM	WP-05 (SW) (Night)	24.9	76	0.4	0	0	0	N/A	241	106	111	

Recorded By: _____ Name: _____ Signature: _____ Date: 25.09.2022

Checked By: _____ Mr. Mostafizur _____ Date: 25.09.2022

• Table of Monitoring values



Monthly HSE Report

ENVIRONMENTAL STATUS
AIR QUALITY MONITORING - CAMCE

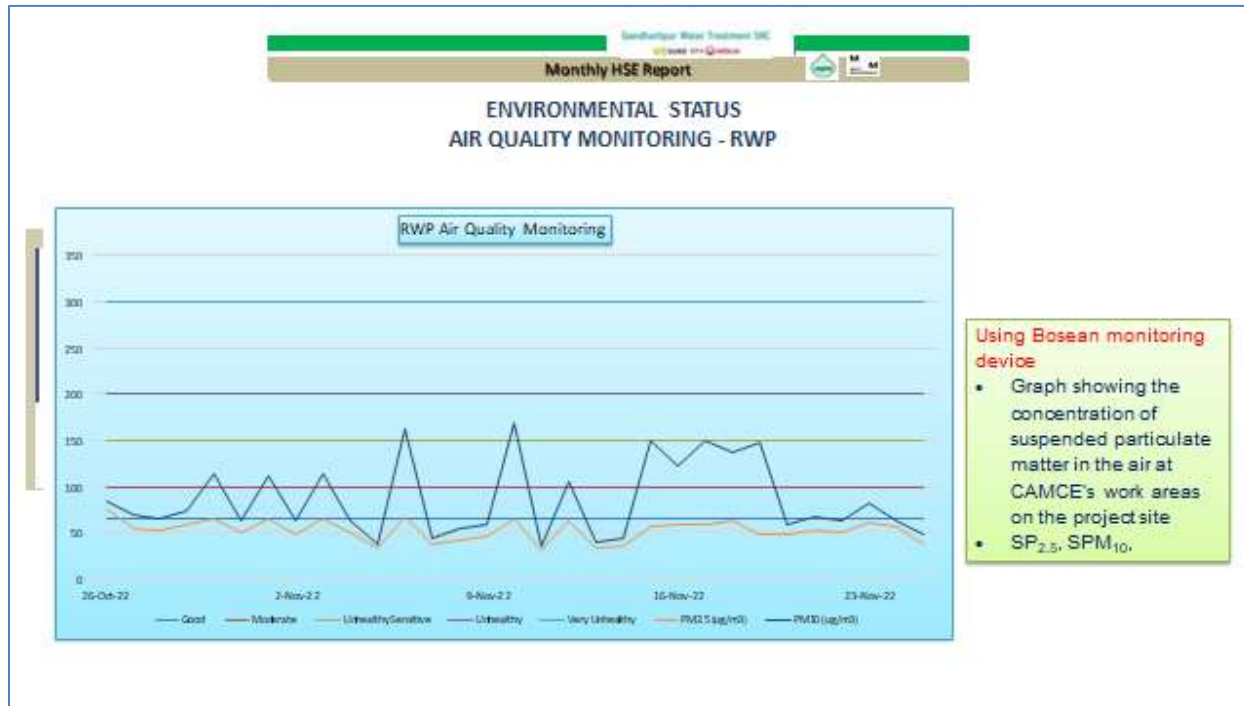


Air Quality readings using portable air quality monitoring device

16 Oct 2022 1:58:48 pm
Narayanganj District
Dhaka Division

16 Oct 2022 1:59:00 pm
Narayanganj District
Dhaka Division

16 Oct 2022 9:41:00 pm





89. **Corrective Action Plan for Air Pollution:** To curb the PM_{10} and $PM_{2.5}$ concentration within the BNAAQs, the Contractor has increased the dust suppression by spraying water during the dry season whenever required, limited the speed of heavy vehicles and cars inside the construction sites, posted sign boards to limit the vehicle's speed (5km/h), paved internal roads for the movement of heavy vehicles and conducted training to the workers on dust prevention and air quality. To reduce the impact of air pollution on the workers, the contractor has provided appropriate PPE to protect their health and safety. Furthermore, the Contractor has taken simultaneous air quality readings upwind of the site, to check the ambient air quality entering the site, to determine what deterioration is caused by project activities.

90. **Ambient noise quality.** Ambient noise quality monitoring results are presented in the following table. During the construction phase, there are also increased noise levels due to construction machinery operation and movement of construction vehicles. Measured noise levels in the WTP site are high, but some of this is due to high ambient noise coming from outside the project area such as:



Noise Monitoring near City Group Industry

- (i) The WTP construction site is in the Tarabo Industrial zone. Industries like cement factory, edible oil mills, paper mills, sugar mills, rice mills, pulse mills etc. are north and south of the WTP site.
- (ii) The bumpy and dusty access roads frequently used by nearby industries (e.g. City Group heavy trailers and trucks) contribute additional noise close to the project site.

91. Detail presented in **Appendix 6.**

Table 30: Sample Noise Monitoring at CAMCE, TCL and WTP

Gandharbpur Water Treatment SNC Monthly HSE Report										
ENVIRONMENTAL STATUS NOISE MONITORING - CAMCE										
Gandharbpur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OTV/VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)							M M DWASA	
NOISE MONITORING RECORD										
Conditions Summary										
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage					
27.07.2022	6 km/h	N/A	29°C - 33°C	62%	Mostly Cloudy					
03.08.2022	08 km/h	N/A	27°C - 31°C	79%	Fine					
Equipment Summary										
Sound level Meter: Make / Model			Sound level Meter: Serial Number		Calibrator: Model Number		Calibrator: Serial Number			
Digital SOUND Level Meter										
Monitoring Summary										
Date	Monitoring Id	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAMax	LA Min	
26.07.2022	1	60 sec.	8:00 PM	South Fence (Night)	N/A	N/A	61	64	58	
	2	60 sec.	8:18 PM	W-50, Concrete Pouring (Night)	N/A	N/A	70	73	66	
27.07.2022	3	60 sec.	8:25 AM	Contractor F. Camp	N/A	N/A	68	70	65	
	4	60 sec.	8:31 AM	Main Gate	N/A	N/A	72	76	68	
27.07.2022	5	60 sec.	8:52 AM	W-40, Zone D	N/A	N/A	64	66	62	
	6	60 sec.	9:45 AM	East Middle Fence	N/A	N/A	63	65	61	
27.07.2022	7	60 sec.	9:52 AM	North East Fence	N/A	N/A	60	61	58	
	8	60 sec.	9:58 AM	North gate	N/A	N/A	61	62	60	
27.07.2022	9	60 sec.	10:05 AM	Batching Plant area	N/A	N/A	63	66	61	
	10	60 sec.	10:30 AM	CAMCE Office Complex	N/A	N/A	68	71	65	
03.08.2022	1	60 sec.	8:28 AM	Contractor F. Camp	N/A	N/A	60	62	58	
	2	60 sec.	8:34 AM	Main Gate	N/A	N/A	68	70	65	
03.08.2022	3	60 sec.	8:51 AM	W-50, Chemical Building	N/A	N/A	70	72	67	
	4	60 sec.	9:15 AM	W-20, Demolish #4	N/A	N/A	65	68	62	
03.08.2022	5	60 sec.	9:48 AM	East Middle Fence	N/A	N/A	70	72	68	
	6	60 sec.	10:18 AM	North East Fence	N/A	N/A	58	60	55	
03.08.2022	7	60 sec.	10:24 AM	North gate	N/A	N/A	56	57	55	
	8	60 sec.	10:34 AM	CAMCE Cons. Team Camp	N/A	N/A	51	54	48	
03.08.2022	9	60 sec.	10:40 AM	Batching Plant area	N/A	N/A	61	64	58	
	10	60 sec.	10:53 AM	CAMCE Office Complex	N/A	N/A	65	67	63	
Recorded By:	Md. Anwar Hossain		Deputy HSE Manager		Signature		Date			
Checked By:	Md. Mostafizur		HSE Manager		Signature		Date			
							04.08.2022			
							04.08.2022			

Gandharbpur Water Treatment SNC Monthly HSE Report										
ENVIRONMENTAL STATUS NOISE MONITORING - CAMCE										
Gandharbpur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OTV/VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)							M M DWASA	
NOISE MONITORING RECORD										
Conditions Summary										
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage					
24.08.2022	08 km/h	N/A	26°C - 32°C	79%	Partly Cloudy					
Equipment Summary										
Sound level Meter: Make / Model			Sound level Meter: Serial Number		Calibrator: Model Number		Calibrator: Serial Number			
Digital SOUND Level Meter										
Monitoring Summary										
Date	Monitoring Id	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAMax	LA Min	
24.08.2022	1	60 sec.	8:20 AM	Contractor F. Camp	N/A	N/A	60	62	57	
	2	60 sec.	8:27 AM	Main Gate	N/A	N/A	72	74	69	
24.08.2022	3	60 sec.	8:35 AM	W-40, Zone C5	N/A	N/A	67	68	66	
	4	60 sec.	8:57 AM	W-45, Zone E	N/A	N/A	68	70	65	
24.08.2022	5	60 sec.	9:18 AM	East Middle Fence	N/A	N/A	70	72	67	
	6	60 sec.	9:24 AM	North East Fence	N/A	N/A	56	57	54	
24.08.2022	7	60 sec.	9:34 AM	North gate	N/A	N/A	60	63	57	
	8	60 sec.	9:41 AM	CAMCE Cons. Team Camp	N/A	N/A	50	53	48	
24.08.2022	9	60 sec.	9:47 AM	Batching Plant area	N/A	N/A	66	68	65	
	10	60 sec.	10:46 AM	CAMCE Office Complex	N/A	N/A	58	60	56	
Recorded By:	Md. Anwar Hossain		Deputy HSE Manager		Signature		Date			
Checked By:	Md. Mostafizur		HSE Manager		Signature		Date			
							24.08.2022			
							24.08.2022			



Monthly HSE Report

**ENVIRONMENTAL STATUS
NOISE MONITORING – INTAKE TCEL**



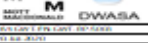
<p>Gandharbpur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OTV/VEOLIA</p>	<p>DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)</p>	<p>M M DWASA WATER SUPPLY AND SEWERAGE AUTHORITY Dhaka-1212, Bangladesh New 12th/12th</p>							
NOISE MONITORING RECORD									
Conditions Summary									
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage				
26-Sep-22	1.0 km/h	S	29.7° C	67.2%	60%				
27-Sep-22	0.7 km/h	SWW	30.7° C	66.2%	60%				
28-Sep-22	0.6 km/h	SW	29.6° C	66.2%	60%				
29-Sep-22	0.6 km/h	WSW	28.6° C	65.8%	42%				
30-Sep-22	0.7 km/h	WSW	27.8° C	64.3%	43%				
Equipment Summary									
Sound level Meter: Make / Model	Sound level Meter: Serial Number	Calibrator: Model Number	Calibrator: Serial Number						
Digital SOUNDED Level Meter	0960301051	Victor B-34	0960301055						
Monitoring Summary									
Date	Monitoring Number	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LA Max	LAMin
26-Sep-22	1	5 Min	10:32 AM	Intake life camp	N/A	N/A	50.9	56.4	45.3
	2	5 Min	4:18 PM	Intake life camp	N/A	N/A	52.9	58.4	47.3
27-Sep-22	3	5 Min	10:19 AM	T-80 area	N/A	N/A	57.9	63.4	52.3
	4	5 Min	5:11 PM	T-80 area	N/A	N/A	58.8	64.3	53.2
28-Sep-22	5	5 Min	9:52 AM	Intake life camp	N/A	N/A	61.6	67.1	56.0
	6	5 Min	5:08 AM	Intake life camp	N/A	N/A	55.6	61.1	50.0
29-Sep-22	7	5 Min	9:45 AM	Intake security gate	N/A	N/A	57.4	62.9	51.8
	8	5 Min	4:09 PM	Intake security gate	N/A	N/A	55.0	60.1	49.8
30-Sep-22	9	5 Min	9:32 AM	Intake (Camp-03)	N/A	N/A	63.2	68.7	57.6
	10	5 Min	5:07 PM	Intake (Camp-03)	N/A	N/A	64.0	69.5	58.4
Recorded By:	Name: <u>Carl Younis Arifur</u>		Designation: <u>TC EL - Supervisor</u>	Signature: <u>[Signature]</u>	Date: <u>30-Sep-22</u>				
Checked By:	Name of In-charge: <u>Muhammad Imran Sahaj</u>		Designation: <u>TC EL-LEAD HSE OFFICER</u>	Signature: <u>[Signature]</u>	Date: <u>30-Sep-22</u>				



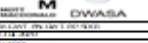
Gandharbpur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OTV/VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSF)		M M DWASA					
Monthly HSE Report									
ENVIRONMENTAL STATUS									
NOISE MONITORING – INTAKE TCEL									
NOISE MONITORING RECORD									
Conditions Summary									
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage				
1-Oct-22	0.7 km/h	WSW	27.7° C	66.2%	58%				
2-Oct-22	0.8 km/h	EGE	29.3° C	66.2%	73%				
3-Oct-22	1.4 km/h	SE	29.8° C	66.7%	70%				
4-Oct-22	0.9 km/h	EGE	30.7° C	69.2%	59%				
5-Oct-22	0.6 km/h	ENE	30.3° C	69.5%	67%				
6-Oct-22	0.9 km/h	SE	28.7° C	67.7%	70%				
7-Oct-22	0.6 km/h	SSW	31.6° C	68.2%	57%				
Equipment Summary									
Sound level Meter: Make / Model	Sound level Meter: Serial Number	Calibrator: Model Number	Calibrator: Serial Number						
Digital SOUND Level Meter	096085G1	Victor B24	096085G						
Monitoring Summary									
Date	Monitoring Number	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAMax	LA Min
1-Oct-22	1	5 Min	9:53 AM	Intake (Camp-03)	N/A	N/A	65.9	70.9	60.8
	2	5 Min	4:19 PM	Intake (Camp-03)	N/A	N/A	66.1	71.2	61.0
	3	5 Min	9:16 AM	Intake security gate	N/A	N/A	55.9	61.4	50.3
	4	5 Min	3:51 PM	Intake security gate	N/A	N/A	63.5	68.6	58.4
3-Oct-22	5	5 Min	10:19 AM	Intake life camp	N/A	N/A	66.3	71.4	61.2
	6	5 Min	3:53 PM	Intake life camp	N/A	N/A	66.1	71.1	61.1
4-Oct-22	7	5 Min	10:30 AM	I-RO area	N/A	N/A	56.1	61.2	50.9
	8	5 Min	4:39 PM	I-RO area	N/A	N/A	53.2	58.7	47.6
5-Oct-22	9	5 Min	9:19 AM	Intake life camp	N/A	N/A	64.9	69.9	59.8
	10	5 Min	4:53 PM	Intake life camp	N/A	N/A	64.9	70.1	59.7
6-Oct-22	11	5 Min	10:16 AM	Intake security gate	N/A	N/A	57.0	62.1	51.9
	12	5 Min	4:34 PM	Intake security gate	N/A	N/A	61.2	66.2	56.1
7-Oct-22	13	5 Min	9:15 AM	Intake (Camp-03)	N/A	N/A	62.7	67.7	57.6
	14	5 Min	4:37 PM	Intake (Camp-03)	N/A	N/A	64.8	69.8	59.7
Recorded By:	Garf Yeon Bin Anaf	Signature	IC-81 -Supervisor	Signature	03/08	24/10/22			
Checked By:	Mohamed Inam Sabuj	Signature	TC-81-LEAD HSE OFFICER	Signature	7-03-22				

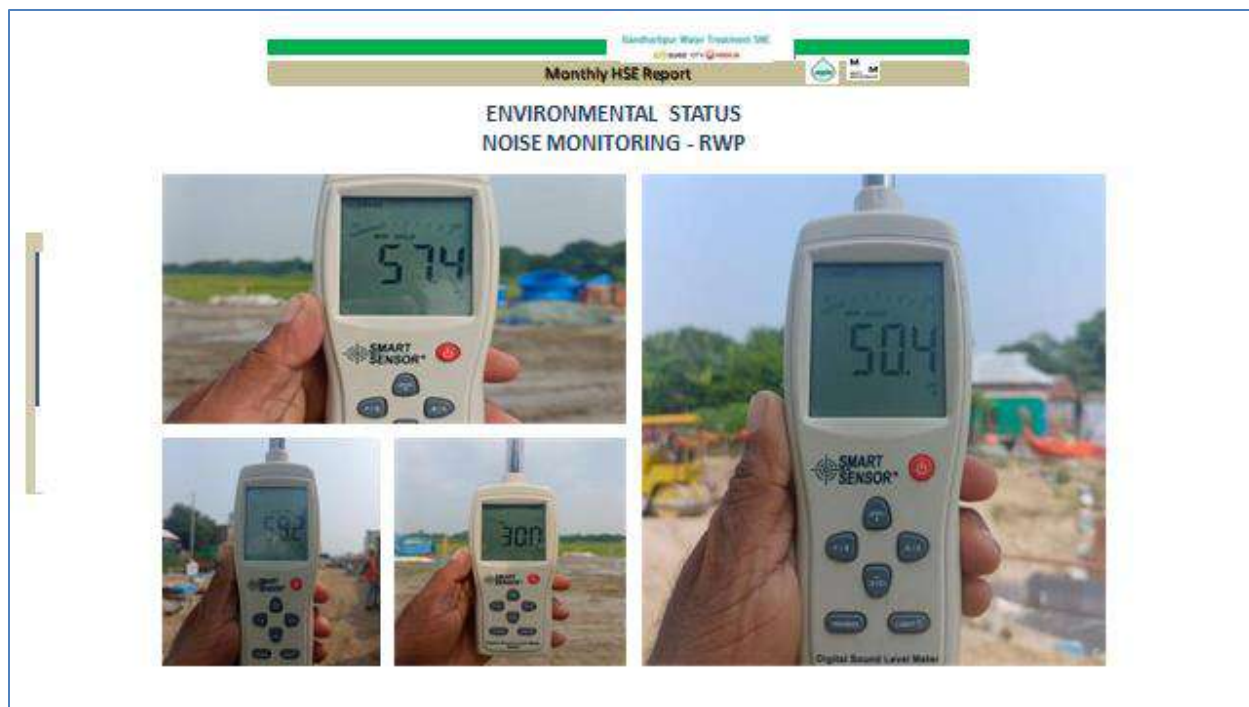
Gandharbpur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OTV/VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSF)		M M DWASA					
Monthly HSE Report									
ENVIRONMENTAL STATUS									
NOISE MONITORING – INTAKE TCEL									
NOISE MONITORING RECORD									
Conditions Summary									
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage				
8-Oct-22	0.7 km/h	W	25.7° C	64.3%	54%				
9-Oct-22	0.7 km/h	WSW	26.0° C	67.7%	53%				
10-Oct-22	0.7 km/h	SW	27.9° C	68.3%	60%				
11-Oct-22	0.7 km/h	SW	28.0° C	71.1%	60%				
12-Oct-22	0.6 km/h	WSW	27.7° C	68.7%	60%				
13-Oct-22	0.7 km/h	NNE	26.5° C	66.2%	60%				
14-Oct-22	0.6 km/h	NNW	25.5° C	66.3%	60%				
Equipment Summary									
Sound level Meter: Make / Model	Sound level Meter: Serial Number	Calibrator: Model Number	Calibrator: Serial Number						
Digital SOUND Level Meter	096085G1	Victor B24	096085G						
Monitoring Summary									
Date	Monitoring Number	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAMax	LA Min
8-Oct-22	1	5 Min	11:14 AM	Intake (Camp-03)	N/A	N/A	56.1	61.6	50.5
	2	5 Min	5:13 PM	Intake (Camp-03)	N/A	N/A	67.9	72.1	61.9
	3	5 Min	11:17 AM	Intake security gate	N/A	N/A	58.6	63.6	53.5
9-Oct-22	4	5 Min	4:16 PM	Intake security gate	N/A	N/A	56.8	62.3	51.2
	5	5 Min	10:20 AM	Intake life camp	N/A	N/A	56.2	61.7	50.6
10-Oct-22	6	5 Min	3:20 PM	Intake life camp	N/A	N/A	55.7	61.2	50.1
	7	5 Min	9:57 AM	I-RO area	N/A	N/A	59.3	64.3	54.2
11-Oct-22	8	5 Min	4:57 PM	I-RO area	N/A	N/A	60.0	65.1	54.9
	9	5 Min	9:22 AM	Intake life camp	N/A	N/A	58.3	63.3	53.2
12-Oct-22	10	5 Min	4:22 PM	Intake life camp	N/A	N/A	56.1	61.2	51.0
	11	5 Min	10:06 AM	Intake security gate	N/A	N/A	57.0	62.1	51.9
13-Oct-22	12	5 Min	3:17 PM	Intake security gate	N/A	N/A	64.6	69.6	59.5
	13	5 Min	10:15 AM	Intake (Camp-03)	N/A	N/A	66.1	71.1	61.0
14-Oct-22	14	5 Min	4:15 PM	Intake (Camp-03)	N/A	N/A	64.9	69.9	59.9
	Signature	Signature	Signature	Signature	Signature	14/10/22			
Recorded By:	Garf Yeon Bin Anaf	Signature	TC-81 -Supervisor	Signature	14-03-22				
Checked By:	Mohamed Inam Sabuj	Signature	TC-81-LEAD HSE OFFICER	Signature	14-03-22				

Gandharipur Water Treatment SMC		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DBRWSP)		M M DWASA					
A Joint Venture of SUEZ INTERNATIONAL & OTEVEDIA				M M DWASA					
NOISE MONITORING RECORDS									
Construction Summary									
Date	Wind speed (MPH)	Wind direction	Temperature	Humidity	Relative Humidity				
21-Nov-22	8-10	SE	30 °C	60%	60%				
22-Nov-22	8-10	SE	32 °C	60%	60%				
23-Nov-22	8-10	SE	33 °C	60%	60%				
24-Nov-22	8-10	SE	31 °C	60%	60%				
25-Nov-22	8-10	SE	32 °C	60%	60%				
26-Nov-22	8-10	SE	31 °C	60%	60%				
27-Nov-22	8-10	SE	31 °C	60%	60%				
28-Nov-22	8-10	SE	31 °C	60%	60%				
29-Nov-22	8-10	SE	31 °C	60%	60%				
30-Nov-22	8-10	SE	31 °C	60%	60%				
Sound Level (Leq) - 1st Hour									
Date	Monitoring Point No.	Monitoring Point Name	Time	Location	L _{A10}	L _{A50}	L _{A90}	L _{Amax}	L _{Amin}
21-Nov-22	1	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
22-Nov-22	2	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
23-Nov-22	3	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
24-Nov-22	4	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
25-Nov-22	5	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
26-Nov-22	6	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
27-Nov-22	7	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
28-Nov-22	8	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
29-Nov-22	9	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
30-Nov-22	10	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
21-Nov-22	11	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
22-Nov-22	12	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
23-Nov-22	13	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
24-Nov-22	14	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
25-Nov-22	15	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
26-Nov-22	16	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
27-Nov-22	17	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
28-Nov-22	18	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
29-Nov-22	19	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
30-Nov-22	20	05/01/01	11:11	05/01/01	68.0	60.0	63.0	77.0	55.0
Prepared By: <input type="checkbox"/> M M DWASA Checked By: <input type="checkbox"/> M M DWASA Date: 12-Nov-22									

Gandharipur Water Treatment SMC		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)		M M DWASA	
A Joint Venture of SUEZ INTERNATIONAL & OTEVEDIA				M M DWASA	
NOISE MONITORING RECORDS					
Construction Summary					
Date	Wind speed (MPH)	Wind direction	Temperature	Humidity	Relative Humidity
9-Nov-22	8-10	SE	30 °C	77%	76%
10-Nov-22	8-10	SE	31 °C	60%	60%
11-Nov-22	8-10	SE	31 °C	60%	60%
12-Nov-22	8-10	SE	31 °C	60%	60%
13-Nov-22	8-10	SE	31 °C	60%	60%
14-Nov-22	8-10	SE	31 °C	60%	60%
15-Nov-22	8-10	SE	31 °C	60%	60%
16-Nov-22	8-10	SE	31 °C	60%	60%
17-Nov-22	8-10	SE	31 °C	60%	60%
18-Nov-22	8-10	SE	31 °C	60%	60%
19-Nov-22	8-10	SE	31 °C	60%	60%
20-Nov-22	8-10	SE	31 °C	60%	60%
21-Nov-22	8-10	SE	31 °C	60%	60%
22-Nov-22	8-10	SE	31 °C	60%	60%
23-Nov-22	8-10	SE	31 °C	60%	60%
24-Nov-22	8-10	SE	31 °C	60%	60%
25-Nov-22	8-10	SE	31 °C	60%	60%
26-Nov-22	8-10	SE	31 °C	60%	60%
27-Nov-22	8-10	SE	31 °C	60%	60%
28-Nov-22	8-10	SE	31 °C	60%	60%
29-Nov-22	8-10	SE	31 °C	60%	60%
30-Nov-22	8-10	SE	31 °C	60%	60%
Prepared By: <input type="checkbox"/> M M DWASA Checked By: <input type="checkbox"/> M M DWASA Date: 12-Nov-22					

 Monthly HSE Report								
ENVIRONMENTAL STATUS NOISE MONITORING - RWP								
Gandharbpur Water Treatment SMC  A Joint Venture of SUEZ INTERNATIONAL & OY VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)			 REGULATORY AUTHORITY FOR WATER SUPPLY AND SEWERAGE SERVICES Dhaka, Bangladesh			
NOISE MONITORING RECORD								
Date	Wind Speed (kmph)	Wind Direction	Temperature	Humidity	Cloud Coverage			
13 Nov-22	10 kmph	NNE	30 °C	54%	9%			
14 Nov-22	10 kmph	SE	31 °C	53%	6%			
14 Nov-22	10 kmph	NNW	30 °C	53%	9%			
15 Nov-22	10 kmph	NNW	29 °C	62%	6%			
16 Nov-22	12 kmph	SE	31 °C	57%	6%			
17 Nov-22	10 kmph	SW	30 °C	62%	6%			
18 Nov-22	7 kmph	NNW	29 °C	67%	9%			
Noise Level Meter - Meter / Meter		Noise Level Meter - Noise Number		Calibrator - Model Number		Calibrator - Serial Number		
EQUIVALENT SOUND LEVEL Meter								
Monitoring Summary								
Date	Monitoring Number	Monitoring Duration	Location	L _{A1D}	L _{A90}	L _{A10}	L _{A50}	L _{A95}
13 Nov-22	1	05:00 min	Intake	0.00	0.00	66.06	76	-61.3
13 Nov-22	2	05:00 min	Intake	0.00	0.00	66.06	77.3	-61.6
13 Nov-22	3	05:00 min	13.14km/hr-13M (RC-04)	0.00	0.00	74.86	86.4	-75.3
13 Nov-22	4	05:00 min	13.14km/hr-13M (RC-04)	0.00	0.00	75.2	76.8	-67.4
14 Nov-22	5	05:00 min	13.14km/hr-02	0.00	0.00	54.96	59.7	-60
14 Nov-22	7	05:00 min	13.20M	0.00	0.00	56.66	60.3	-62.6
15 Nov-22	8	05:00 min	13.13M	0.00	0.00	68.9	72	-68.6
15 Nov-22	9	05:00 min	13.13M	0.00	0.00	75.46	84.9	-68
16 Nov-22	10	05:00 min	Intake	0.00	0.00	65.46	74.3	-69
16 Nov-22	11	05:00 min	Atank	0.00	0.00	56.36	66.6	-67.1
17 Nov-22	12	05:00 min	Atank	0.00	0.00	71.2	76.8	-67.9
18 Nov-22	13	05:00 min	13.14km/hr-03 (RC-03)	0.00	0.00	55.66	59.9	-66.4
18 Nov-22	14	05:00 min	13.14km/hr-03 (RC-03)	0.00	0.00	60.4	75.3	-67.3
Recorded By:	Name	Designation	HSE Officer	Signature			Date	15 Nov-22
Checked By:	Measurement No.	Designation	HSE Manager	Signature			Date	15 Nov-22

 Monthly HSE Report								
ENVIRONMENTAL STATUS NOISE MONITORING - RWP								
Gandharbpur Water Treatment SMC  A Joint Venture of SUEZ INTERNATIONAL & OY VEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARBPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)			 REGULATORY AUTHORITY FOR WATER SUPPLY AND SEWERAGE SERVICES Dhaka, Bangladesh			
NOISE MONITORING RECORD								
Date	Wind Speed (kmph)	Wind Direction	Temperature	Humidity	Cloud Coverage			
19 Nov-22	6 kmph	NNW	28 °C	53%	9%			
20 Nov-22	6 kmph	SE	28 °C	62%	7%			
21 Nov-22	6 kmph	SW	28 °C	53%	9%			
22 Nov-22	4 kmph	NNW	27 °C	53%	9%			
23 Nov-22	6 kmph	SE	28 °C	53%	9%			
24 Nov-22	7 kmph	SE	29 °C	53%	9%			
25 Nov-22	6 kmph	SW	31 °C	53%	9%			
Noise Level Meter - Meter / Meter		Noise Level Meter - Noise Number		Calibrator - Model Number		Calibrator - Serial Number		
EQUIVALENT SOUND LEVEL Meter								
Monitoring Summary								
Date	Monitoring Number	Monitoring Duration	Location	L _{A1D}	L _{A90}	L _{A10}	L _{A50}	L _{A95}
19 Nov-22	1	05:00 min	13.14M	0.00	0.00	76.26	86.3	-64
19 Nov-22	2	05:00 min	13.14M	0.00	0.00	76.26	80.7	-68.6
20 Nov-22	3	05:00 min	13.17M	0.00	0.00	62.86	60.7	-66
20 Nov-22	4	05:00 min	13.27M	0.00	0.00	55.96	60.3	-64.3
21 Nov-22	5	05:00 min	13.14M	0.00	0.00	72.26	80.7	-65.6
21 Nov-22	6	05:00 min	13.16M	0.00	0.00	71.76	76.6	-64.9
22 Nov-22	7	05:00 min	13.14M	0.00	0.00	63.9	72.1	-65.7
22 Nov-22	8	05:00 min	13.24M	0.00	0.00	64	73.7	-64.3
23 Nov-22	9	05:00 min	13.16M	0.00	0.00	73.66	77.9	-68.4
23 Nov-22	11	05:00 min	13.09M	0.00	0.00	72.76	74.3	-71
24 Nov-22	12	05:00 min	13.17M	0.00	0.00	65.26	60.2	-60.3
24 Nov-22	13	05:00 min	13.27M	0.00	0.00	61.36	75.2	-64.4
25 Nov-22	14	05:00 min	13.26M	0.00	0.00	70.46	77.6	-65.3
25 Nov-22	14	05:00 min	13.38M	0.00	0.00	66.1	78	-65.2
Recorded By:	Name	Designation	HSE Officer	Signature			Date	26 Nov-22
Checked By:	Measurement No.	Designation	HSE Manager	Signature			Date	26 Nov-22




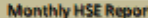
92. **Corrective Action Plan for Noise Pollution:** Noise pollution is mitigated through avoidance of night works, especially noisy works as pile driving. Earmuff is used in the high noise area particularly for the workers of Batching plant and Generator area. For generator canopy is used to mitigate the noise. To reduce the impact of noise on the workers, the Contractor has provided appropriate PPE to protect their health and safety. Furthermore, the Contractor has taken simultaneous noise measurements at the perimeter of the site, to check the ambient noise entering the site, to determine what extra is caused by project activities.

93. **Surface water quality.** No surface water quality monitoring was conducted during the reporting period. The latest monitoring conducted was done in April 2022 which showed compliance with the standards, and these were reported in the SEMR for January – June 2022 period. Results of laboratory analyses for these are re-included in **Appendix 6** for reference.

VIII. TRAINING AND CAPACITY BUILDING ACTIVITIES

94. Training and capacity building programs (workshops, seminars, on/off-site trainings, awareness etc.) related to environmental safeguards, implementation of EMPs, health and safety etc., conducted during the report period of presented in the Table below. All the programs are documented, and details are included **Appendix 7**.

Table 31: Training / Capacity Building Activities Conducted

  GWT INTAKE SAFETY TRAINING						
N/S	Training	Session	Persons	Date		
GWT-INTAKE	1	Induction	5	88	17-July-22 18-July-22	19-July-22 21-July-22
	2	Environmental Awareness	5	88	17-July-22 18-July-22	19-July-22 21-July-22
	3	Work at Height Training	5	88	17-July-22 18-July-22	19-July-22 21-July-22
	4	GWT Live Saving Rules	5	88	17-July-22 18-July-22 19-July-22 21-July-22	
	5	Incident Prevention	3	56	4-July-22 17-July-22 18-July-22	
	6	Inspection & Color-Coding Training	3	56	4-July-22 17-July-22 18-July-22	
	7	Hazardous Noise	3	56	4-July-22 17-July-22 18-July-22	
	8	Machine Guarding	3	56	4-July-22 17-July-22 18-July-22	
GWT-RWP	1	Induction	3	6	18-Jul-22 21-Jul-22	
	2	Heat Stress Awareness training	1	4	18-Jul-22	
	3	Awareness training of safe lifting operation	1	4	18-Jul-22	
	4	Plant and Equipment Awareness training	1	4	18-Jul-22	

Gandhinagar Water Treatment SDC
 Monthly HSE Report

SAFETY TRAINING

• GWT INTAKE HSE Induction (July-2022)



- HSE Policy
- Environmental policy
- Smoking Policy
- Personal protective equipment
- Project Site Specific Hazards
- Hot works
- Traffic management systems
- Pedestrian routes
- Fire prevention
- Permit-to-work systems
- Emergency arrangements
- First-aid arrangements;
- Accident and incident reporting arrangements
- Housekeeping
- Individual worker's responsibility for health and safety.
- GWT 10 Life Saving Rules

Gandhinagar Water Treatment SDC
 Monthly HSE Report

GWT INTAKE SAFETY TRAINING

Sl. No.	Training	Session	Persons	Date	
GWT-INTAKE	1	Induction	14	10-July-22	11-Aug-22
				1-Aug-22	14-Aug-22
				6-Aug-22	15-Aug-22
				9-Aug-22	18-Aug-22
				1-Aug-22	20-Aug-22
				8-Aug-22	22-Aug-22
				11-Aug-22	23-Aug-22
				11-July-22	11-Aug-22
				2-Aug-22	11-Aug-22
				6-Aug-22	15-Aug-22
			9-Aug-22	18-Aug-22	
			1-Aug-22	20-Aug-22	
			8-Aug-22	22-Aug-22	
			11-Aug-22	23-Aug-22	
	Supervisors Roles & Responsibility Training	1	8	1-Aug-22	
	Safe Erection, Modification & Dismantling of Scaffolding Training	1	19	1-Aug-22	
	Vibration Hazards Training	2	56	9-Aug-22	
	Workplace Housekeeping Training	1	41	11-Aug-22	
	Defensive Driving Training	1	12	11-Aug-22	
	Slip, Trip & Fall Training	2	54	2-Aug-22	
				14-Aug-22	

Gandharpur Water Treatment S&C Monthly HSE Report GWT INTAKE SAFETY TRAINING				
N/S	Training	Session	Persons	Date
GWT-RWP	1	Induction	3	12 06-Aug-22 15-Aug-22 17-Aug-22
	2	Environmental Safety awareness	3	12 06-Aug-22 15-Aug-22 17-Aug-22
	3	Life savings rules awareness	3	12 06-Aug-22 15-Aug-22 17-Aug-22
	4	Slip, trip and Falls	1	7 6-Aug-22
	5	Vibration Hazards	2	5 15-Aug-22 17-Aug-22
	6	Workplace housekeeping	1	7 6-Aug-22

Gandharpur Water Treatment S&C Monthly HSE Report SAFETY TRAINING • GWT INTAKE HSE Induction (Aug-2022)	
 <p>Aug 15, 2022 3:02</p>	
	<ul style="list-style-type: none"> • HSE Policy • Environmental policy • Smoking Policy • Personal protective equipment • Project Site Specific Hazards • Hot works • Traffic management systems • Pedestrian routes • Fire prevention • Permit-to-work systems • Emergency arrangements • First-aid arrangements; • Accident and incident reporting arrangements • Housekeeping • Individual worker's responsibility for health and safety. • GWT 10 Life Saving Rules

Monthly HSE Report

SAFETY TRAINING

• GWT INTAKE HSE Induction Attendance – Aug 22)

Gandahapura Water Treatment SEC DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDAHAPUR UNDER DIKKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DSMSWP)							Gandahapura Water Treatment SEC DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDAHAPUR UNDER DIKKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DSMSWP)						
HSE INDUCTION RECORD							HSE INDUCTION RECORD						
SN	NAME	DEPARTMENT	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE	SN	NAME	DEPARTMENT	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE
1	Ronald Anthon	QA Engineer		TCEL	<i>[Signature]</i>	21/08/2022	1	Sulaim	Helpex		TCEL	<i>[Signature]</i>	21/08/2022
2	Yusuf Ali	Helper		TCEL	<i>[Signature]</i>	21/08/2022	2	Md Rizal Mita	Mansan		TCEL	<i>[Signature]</i>	21/08/2022
3	Muhammad Ali	Helper		TCEL	<i>[Signature]</i>	21/08/2022	3	Kamal Mubain	Helpex		TCEL	<i>[Signature]</i>	21/08/2022
4	Nur Mohamadul	Head Siron		TCEL	<i>[Signature]</i>	21/08/2022	4	Shahidul Islam	Helpex		TCEL	<i>[Signature]</i>	21/08/2022
5	Sunay	Helper		TCEL	<i>[Signature]</i>	21/08/2022							
6	Rahul	Head Siron		TCEL	<i>[Signature]</i>	21/08/2022							
7	Md. Shaukat	Helper		TCEL	<i>[Signature]</i>	21/08/2022							
8	Sahag Mita	Helper		TCEL	<i>[Signature]</i>	21/08/2022							
9	M. Mendi Shaha	Mansan		TCEL	<i>[Signature]</i>	21/08/2022							
10	Sarif Anwar	Mansan		TCEL	<i>[Signature]</i>	21/08/2022							
11	Suzuki Mita	Mansan		TCEL	<i>[Signature]</i>	21/08/2022							
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Gandhinagar Water Treatment SDC Monthly HSE Report GWT INTAKE SAFETY TRAINING						
N/S	Training	Session	Persons	Date		
GWT INTAKE	1	Induction	17	217	18 Sep-22 20 Sep-22 21 Sep-22 22 Sep-22 23 Sep-22 24 Sep-22 25 Sep-22	4 Sep-22 10 Sep-22 16 Sep-22 22 Sep-22 28 Sep-22 30 Sep-22 30 Sep-22
	2	Environmental Awareness	16	178	18 Sep-22 20 Sep-22 21 Sep-22 22 Sep-22 23 Sep-22 24 Sep-22 25 Sep-22	4 Sep-22 10 Sep-22 16 Sep-22 22 Sep-22 28 Sep-22 30 Sep-22 30 Sep-22
	3	Work at Height Training	17	213	18 Sep-22 20 Sep-22 21 Sep-22 22 Sep-22 23 Sep-22 24 Sep-22 25 Sep-22	4 Sep-22 10 Sep-22 16 Sep-22 22 Sep-22 28 Sep-22 30 Sep-22 30 Sep-22
	4	GWT Live Saving Rules	17	216	18 Sep-22 20 Sep-22 21 Sep-22 22 Sep-22 23 Sep-22 24 Sep-22 25 Sep-22	4 Sep-22 10 Sep-22 16 Sep-22 22 Sep-22 28 Sep-22 30 Sep-22 30 Sep-22
	5	Hot Work Training	2	37		11 Sep-22 16 Sep-22
	6	Abrasive Wheel Training	2	37		11 Sep-22 16 Sep-22
	7	Permit to Work Training	1	10		19 Sep-22

Gandhinagar Water Treatment SDC Monthly HSE Report SAFETY TRAINING		
<ul style="list-style-type: none"> GWT INTAKE HSE Induction (Sep-2022) 		
 <p>31 Aug 2022 14:0 GWT</p>	 <p>15 Sept 2022 3:02:13 pm</p>	<ul style="list-style-type: none"> HSE Policy Environmental policy Smoking Policy Personal protective equipment Project Site Specific Hazards Hot works Traffic management systems Pedestrian routes Fire prevention Permit-to-work systems Emergency arrangements First-aid arrangements; Accident and incident reporting arrangements Housekeeping Individual worker's responsibility for health and safety. GWT 10 Life Saving Rules
		

Gandharva Water Treatment DC DESIGN AND BUILD OF INTAKE, RAIN WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DEWSIP)							Gandharva Water Treatment DC DESIGN AND BUILD OF INTAKE, RAIN WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DEWSIP)						
HSE INDUCTION RECORD							HSE INDUCTION RECORD						
SN	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE	SN	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE
1	Md. Saad	Supervisor	655	TEFL	[Signature]	12/09/22	1	Aldog	Helper		TEFL	[Signature]	20/09/22
2	Md. Firoz	Electrician	6	TEFL	[Signature]	12/09/22	2	Saidur AL	Mason		TEFL	[Signature]	20/09/22
3	Momin	"	6	TEFL	[Signature]	12/09/22	3	Sofiul	Helper		TEFL	[Signature]	12/09/22
4	Md. Razi	Helper	6	TEFL	[Signature]	12/09/22	4	Mamun Miah	"		"	[Signature]	12/09/22
5	Masud	"	6	TEFL	[Signature]	12/09/22	5	Mamun Hossain	"		"	[Signature]	12/09/22
6	Sheel Sheel	"	6	TEFL	[Signature]	12/09/22	6	Md. Sagor	"		"	[Signature]	12/09/22
7	Md. Kabir	"	6	TEFL	[Signature]	12/09/22	7	Minat AL	"		"	[Signature]	12/09/22
8	Md. Rony	S. Driver	6	TEFL	[Signature]	12/09/22	8	Bahadur	"		"	[Signature]	12/09/22
9	Md. Sagor	Helper	6	TEFL	[Signature]	12/09/22	9	Dalwan	"		"	[Signature]	12/09/22
10	Abu Sam	"	6	TEFL	[Signature]	12/09/22	10	Alman	"		"	[Signature]	12/09/22
11	Md. Jaehim	"	6	TEFL	[Signature]	12/09/22	11	Sobin	Mason		"	[Signature]	12/09/22
12	Sonhul Islam	Master	6	TEFL	[Signature]	12/09/22	12	Liyakat	Mason		"	[Signature]	12/09/22
13	Mohammad Hossain	Electrician	6	TEFL	[Signature]	12/09/22	13	Rokibul Hossain	E. Operator		"	[Signature]	12/09/22
14	Shek Farad	SUP	6	TEFL	[Signature]	12/09/22	14	Md. Zahidul Haq	Mason		"	[Signature]	12/09/22
15	Sakibuzam	SUP	6	TEFL	[Signature]	12/09/22	15	Md. Islam	Helper		"	[Signature]	20/09/22
16	Arif	SUP	6	TEFL	[Signature]	12/09/22							
17	Md. Kazi Bism	Store officer	6	TEFL	[Signature]	12/09/22							
Inspector Name & Signature: Md. Al Amin / Hossain / AL Date: 12-09-22							Inspector Name & Signature: Md. Sabir / Mdul Date: 20/09/2022						

Gandharva Water Treatment DC DESIGN AND BUILD OF INTAKE, RAIN WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DEWSIP)	
Monthly HSE Report	
<p align="center">SAFETY TRAINING</p> <p align="center">• GWT WTP Employee Health & Safety Commitment</p>	
<p>My Commitment to Occupational Health and Safety on WORKING PROJECT site</p> <p>I am dedicated to maintaining a safe work environment and will demonstrate my commitment to health and safety through the actions highlighted below.</p> <p>I will be responsible for my safety and the safety of others who may be affected by my work and equipment.</p> <p>I have the following responsibilities under the "Duty of Care":</p> <ol style="list-style-type: none"> I will make safety my value and responsibility. I am responsible for my safety and the safety of others. I am prohibited to be an incident and injury free workplace. I will go above and beyond the minimum safety standards required of my job. I will ensure that others are not exposed to unnecessary risk by my acts or omissions. I will actively anticipate and communicate error-prone situations and failed defenses. I will not perform or permit or tolerate any work that I have the responsibility and authority to stop work. I will encourage and reinforce the safe behavior of others. I will work with management to decrease my exposure to risk. I will act as an example of safe behavior for my co-workers. 	<ol style="list-style-type: none"> I will stop unsafe working practices or report unsafe working practices to the management. I acknowledge that every incident can be avoided. I acknowledge that every job can be done safely. I acknowledge that safety is my responsibility. I acknowledge that working safely is a condition of my employment. I will read by good example. I will make this commitment part of my everyday life at work and at home. <p>Name: <u>Md. Saad Alam Jony</u> Company: <u>TEFL</u> Signature: <u>[Signature]</u> Date: <u>12-09-22</u></p>
<p>Occupational Health & Safety Commitment form:</p> <ul style="list-style-type: none"> This form is filled by all full time employees after HSE Induction. Commitment is one of the ways to make employees to be positively involved in the safety Health and Safety processes on the project site. Commitment to safety is a characteristic of high Safety DNA 	

Sandharipur Water Treatment SMC
 Monthly HSE Report

GWT WTP SAFETY TRAINING

N/S	Training	Session	Persons	Date		
GWT-WTP	1	HSE Induction	18	123	26-Sep-22	10-Oct-22
					27-Sep-22	11-Oct-22
					28-Sep-22	15-Oct-22
					02-Oct-22	17-Oct-22
					03-Oct-22	18-Oct-22
					04-Oct-22	19-Oct-22
					06-Oct-22	20-Oct-22
26-Sep-22	28-Sep-22					
27-Sep-22	19-Oct-22					
2	Hot Work Safety Awareness Training	5	66		20-Oct-22	
3	Chemical Handling & Storage Safety Training	1	7	10-Oct-22		
4	Sand Blasting Safety	1	8	11-Oct-22		
5	Banksman Safety Training	1	3	24-Oct-22		
6	Environmental Awareness	1	3	15-Oct-22		
7	GWT Life Saving Rules	17	121	26-Sep-22	11-Oct-22	
				27-Sep-22	15-Oct-22	
				28-Sep-22	17-Oct-22	
				02-Oct-22	18-Oct-22	
				03-Oct-22	19-Oct-22	
				04-Oct-22	20-Oct-22	
				06-Oct-22	24-Oct-22	
				10-Oct-22		

Sandharipur Water Treatment SMC
 Monthly HSE Report

GWT WTP SAFETY TRAINING

N/S	Training	Session	Persons	Date		
CAMICE	1	HSE Induction	6	67	29-Sep-22	13-Oct-22
					06-Oct-22	15-Oct-22
					08-Oct-22	20-Oct-22
	2	Chemical Handling Safety Awareness Training	2	36	08-Oct-22	13-Oct-22
	3	Banksman Safety Awareness Training	1	10	06-Oct-22	
	4	Working at Height Training	1	16	13-Oct-22	
5	Enviornmental Awareness training	2	8	29-Sep-22	15-Oct-22	
6	GWT Life Saving Rules	6	67	29-Sep-22	13-Oct-22	
				06-Oct-22	15-Oct-22	
				08-Oct-22	20-Oct-22	

Gandhinagar Water Treatment SPC
Quality and Safety

Monthly HSE Report

SAFETY TRAINING

• GWT WTP HSE Induction (Oct- 2022)

- HSE Policy
- Environmental policy
- Smoking Policy
- Personal protective equipment
- Project Site Specific Hazards
- Hot works
- Traffic management systems
- Pedestrian routes
- Fire prevention
- Permit-to-work systems
- Emergency arrangements
- First-aid arrangements
- Accident and incident reporting arrangements
- Housekeeping
- Individual worker's responsibility for health and safety
- GWT 10 Life Saving Rules

Gandhinagar Water Treatment SPC
Quality and Safety

Monthly HSE Report

GWT INTAKE SAFETY TRAINING

	Sl. No	Training	Session	Persons	Date
GWT-INTAKE	1	Induction	13	149	25-Sep-22
					26-Sep-22
					27-Sep-22
					28-Sep-22
					29-Sep-22
	2	Refresher Induction	1	18	5-Sep-22
					6-Sep-22
	3	Work at Height Training	11	114	25-Sep-22
					26-Sep-22
					27-Sep-22
					28-Sep-22
					29-Sep-22
4	GWT Live Saving Rules	13	149	25-Sep-22	
				26-Sep-22	
				27-Sep-22	
				28-Sep-22	
				29-Sep-22	
5	Environmental Awareness Training	12	130	25-Sep-22	
				26-Sep-22	
				27-Sep-22	
				28-Sep-22	
				29-Sep-22	
6	Chemical Handling and Storage Training	2	31	31-Oct-22	
7	Fire Prevention & Protection Training	2	35	25-Oct-22	
8	Compressed Gas Cylinder Safety Training	2	34	24-Oct-22	
9	Workplace Hygiene Training	2	31	31-Oct-22	
10	Confined Space Entry Training	1	18	9-Oct-22	
11	Emergency Evacuation & response	1	14	22-Oct-22	
12	Kitchen Safety Training	2	25	31-Oct-22	

Southport Water Treatment S&C Monthly HSE Report GWT RWP SAFETY TRAINING						
	N/S	Training	Session	Persons	Date	
GWT-RWP	1	Induction	8	43	1-Oct-22 2-Oct-22 9-Oct-22 16-Sep-22	20-Sep-22 22-Oct-22 23-Oct-22 23-Oct-22
	2	GWT-Life savings rules	8	43	1-Oct-22 2-Oct-22 9-Oct-22 16-Sep-22	20-Sep-22 22-Oct-22 23-Oct-22 23-Oct-22
	3	Kitchen Safety awareness	5	27	1-Oct-22 2-Oct-22 16-Sep-22	20-Sep-22 22-Oct-22
	4	Permit To work (PTW)	8	43	1-Oct-22 2-Oct-22 9-Oct-22 16-Sep-22	20-Sep-22 22-Oct-22 23-Oct-22 23-Oct-22
	5	Compressed gas Cylinder	2	10	23-Oct-22	23-Oct-22
	6	Chemical handling & storage	5	25	1-Oct-22 9-Oct-22 16-Sep-22	20-Sep-22 22-Oct-22

Southport Water Treatment S&C Monthly HSE Report SAFETY TRAINING • GWT INTAKE HSE Induction (Oct-2022)		
		<ul style="list-style-type: none"> • HSE Policy • Environmental policy • Smoking Policy • Personal protective equipment • Project Site Specific Hazards • Hot works • Traffic management systems • Pedestrian routes • Fire prevention • Permit-to-work systems • Emergency arrangements • First-aid arrangements; • Accident and incident reporting arrangements • Housekeeping • Individual worker's responsibility for health and safety. • GWT 10 Life Saving Rules

Gandharapur Water Treatment SPC
DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)

Monthly HSE Report

SAFETY TRAINING
• GWT INTAKE HSE Induction Attendance – Oct 22)


Gandharapur Water Treatment SPC DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)							Gandharapur Water Treatment SPC DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)						
HSE INDUCTION RECORD							HSE INDUCTION RECORD						
SN	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE	SN	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	SIGNATURE	DATE
1	MD. OMAR FARUK	SN. DESIGNER		TECL	[Signature]	27-10-22	1	Sohail Rahman	Supplier		TECL	[Signature]	27-10-22
2	Farhad Hossain	Fabricator		TECL	[Signature]	27-10-22	2	Abu Rashed	Farmer		TECL	[Signature]	27-10-22
3	MD. SUJAN MINA	SN. HELPER		TECL	[Signature]	27-10-22	3	Shah Ali	Mason		U	[Signature]	27-10-22
4	MD. RAJIBUL KARIM	Fabricator		TECL	[Signature]	27-10-22	4	Ripon	Helper		U	[Signature]	27-10-22
5	MD. ASWATUL KABIR	Painting mason		TECL	[Signature]	27-10-22	5	Akhter Mia	Helper		U	[Signature]	27-10-22
6	MD. RAUF	SN. CONSTRUCTION		TECL	[Signature]	27-10-22	6	Baki Libshan	Helper		U	[Signature]	27-10-22
7	Rifat Mia	Helper		TECL	[Signature]	27-10-22	7	Arifur Siddique	U		U	[Signature]	27-10-22
8	ARIFUR RAHMAN	Safety officer		TECL	[Signature]	27-10-22	8	Nizamuddin	Scabaler		U	[Signature]	27-10-22
9	Farhadul Islam	Helper		TECL	[Signature]	27-10-22	9	Shah Paran	Helper		U	[Signature]	27-10-22
10	Kabir Hossain	Steel fixer		TECL	[Signature]	27-10-22	10	Ramin Mollah	Helper		U	[Signature]	27-10-22
11	Mohim	Helper		ASS	[Signature]	27-10-22	11	Samin	Helper		U	[Signature]	27-10-22
12	Sabbir Ahmed	Helper		ASS	[Signature]	27-10-22	12	Abdur Rauf	Mason		U	[Signature]	27-10-22
13	MD. RAJIBUL KARIM	Site fixer		ASS	[Signature]	27-10-22	13	Said Hossain	Helper		U	[Signature]	27-10-22
14							14	Masud	Mason		U	[Signature]	27-10-22
15							15	Rahman	Mason		U	[Signature]	27-10-22
16							16						
17							17						
18							18						
Inspector Name & Signature: MD. ALI SAH HANIS / [Signature] Date: 27-10-22							Inspector Name & Signature: M. I. Sobir / [Signature] Date: 27-10-22						

Gandharapur Water Treatment SPC
DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)


Monthly HSE Report


GWT WTP SAFETY TRAINING


N/S	Training	Session	Persons	Date	
GWT-WTP	HSE Induction	13	40	27 Oct 22	12 Nov 22
				29 Oct 22	19 Nov 22
				30 Oct 22	20 Nov 22
				01 Nov 22	21 Nov 22
				05 Nov 22	22 Nov 22
				06 Nov 22	24 Nov 22
				08 Nov 22	
				08 Nov 22	
2	Hand and Power Tools Safety	2	2	29 Oct 22	5 Nov 22
3	Workplace ergonomics	1	2	01 Nov 22	
4	Fire Prevention and Protection	1	2	06 Nov 22	
5	Hot Work Safety Awareness	1	4	19 Nov 22	
6	Environmental Safety Awareness	1	2	08 Nov 22	
7	Working around Heavy Vehicles	1	8	24 Nov 22	
8	GWT Life Saving Rules	13	40	27 Oct 22	12 Nov 22
				29 Oct 22	19 Nov 22
				30 Oct 22	20 Nov 22
				01 Nov 22	21 Nov 22
				05 Nov 22	22 Nov 22
				06 Nov 22	24 Nov 22
				08 Nov 22	

 Monthly HSE Report						
GWT WTP SAFETY TRAINING						
N/S	Training	Session	Persons	Date		
CAMICE	1	HSE Induction	6	54	29-Oct-22 05-Nov-22 11-Nov-22	16-Nov-22 21-Nov-22 23-Nov-22
	2	Hand and Power Tools Safety	3	9	29-Oct-22 05-Nov-22	11-Nov-22
	3	Environmental Awareness	2	29	16-Nov-22	21-Nov-22
	4	Working at height Training	1	16	23-Nov-22	
	5	GWT Life Saving Rules	6	54	29-Oct-22 05-Nov-22 11-Nov-22	16-Nov-22 21-Nov-22 23-Nov-22

 Monthly HSE Report	
SAFETY TRAINING	
• GWT WTP HSE Induction (Nov-2022)	
	
	
<ul style="list-style-type: none"> • HSE Policy • Environmental policy • Smoking Policy • Personal protective equipment • Project Site Specific Hazards • Hot works • Traffic management systems • Pedestrian routes • Fire prevention • Permit-to-work systems • Emergency arrangements • First-aid arrangements; • Accident and incident reporting arrangements • Housekeeping • Individual worker's responsibility for health and safety. • GWT 10 Life Saving Rules 	

 Monthly HSE Report						
GWT INTAKE SAFETY TRAINING						
N/S	Training	Session	Persons	Date		
GWT-INTAKE	1	Induction	8	60	25-Oct-22 31-Oct-22 03-Nov-22 11-Nov-22	15-Nov-22 19-Nov-22 23-Nov-22
	2	Environmental Awareness Training	5	50	25-Oct-22 31-Oct-22 03-Nov-22	11-Nov-22 23-Nov-22
	3	Work at Height Training	5	50	25-Oct-22 31-Oct-22 03-Nov-22	11-Nov-22 23-Nov-22
	4	GWT Live Saving Rules	7	52	25-Oct-22 31-Oct-22 03-Nov-22 11-Nov-22	15-Nov-22 19-Nov-22 23-Nov-22
	5	Hand & Power Tools Safety Training	2	26	12-Nov-22	22-Nov-22
	6	Workplace Ergonomics Training	2	26	12-Nov-22	22-Nov-22
	7	Fire Prevention & Protection Training	2	26	12-Nov-22	22-Nov-22


 Monthly HSE Report						
GWT RWP SAFETY TRAINING						
N/S	Training	Session	Persons	Date		
GWT-RWP	1	Induction	10	63	1-Nov-2022 2-Nov-2022 3-Nov-2022 8-Nov-2022 12-Nov-2022	20-Nov-2022 21-Nov-2022 22-Nov-2022 30-Oct-2022 30-Oct-2022
	2	GWT-Life savings rules	9	49	1-Nov-2022 2-Nov-2022 3-Nov-2022 8-Nov-2022 12-Nov-2022	20-Nov-2022 21-Nov-2022 22-Nov-2022 30-Oct-2022 30-Oct-2022
	3	Fire Prevention & Protection	5	36	1-Nov-2022 3-Nov-2022 20-Nov-2022	22-Nov-2022 30-Oct-2022
	4	Hands & Power Tools Safety Training	7	45	2-Nov-2022 3-Nov-2022 8-Nov-2022 12-Nov-2022	20-Nov-2022 21-Nov-2022 30-Oct-2022
	5	Environmental Safety awareness	6	38	1-Nov-2022 2-Nov-2022 8-Nov-2022	12-Nov-2022 30-Oct-2022 30-Oct-2022
	6	Workplace Ergonomics	4	25	8-Nov-2022 20-Nov-2022	21-Nov-2022 22-Nov-2022



Monthly HSE Report

GWT WTP SAFETY TRAINING

N/S	Training	Session	Persons	Date		
GWT-WTP	1	HSE Induction	16	75	26-Nov-22 27-Nov-22 28-Nov-22 29-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22	10-Dec-22 15-Dec-22 12-Dec-22 17-Dec-22 19-Dec-22 22-Dec-22
	2	Electrical Safety Training	1	6	26-Nov-22	
	3	Workplace Hygiene Training	1	15	1-Dec-22	
	4	Confined Space Safety Awareness Training	1	7	5-Dec-22	
	5	Working at Height Training	2	6	6-Dec-22	
	6	GWT Life Saving Rules	16	75	26-Nov-22 27-Nov-22 28-Nov-22 29-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22	10-Dec-22 15-Dec-22 12-Dec-22 17-Dec-22 19-Dec-22 22-Dec-22



Monthly HSE Report



GWT WTP SAFETY TRAINING



N/S	Training	Session	Persons	Date		
CAMICE	1	HSE Induction	9	147	26-Nov-22 29-Nov-22 03-Dec-22 05-Dec-22	13-Dec-22 15-Dec-22 17-Dec-22 19-Dec-22 24-Dec-22
	2	Electrical Safety Training	2	18	26-Nov-22	24-Dec-22
	3	GWT Life Saving Rules	9	147	26-Nov-22 29-Nov-22 03-Dec-22 05-Dec-22	13-Dec-22 15-Dec-22 17-Dec-22 19-Dec-22 24-Dec-22

Monthly HSE Report

SAFETY TRAINING

• GWT WTP HSE Induction (Dec-2022)

- HSE Policy
- Environmental policy
- Smoking Policy
- Personal protective equipment
- Project Site Specific Hazards
- Hot works
- Traffic management systems
- Pedestrian routes
- Fire prevention
- Permit-to-work systems
- Emergency arrangements
- First-aid arrangements
- Accident and incident reporting arrangements
- Housekeeping
- Individual worker's responsibility for health and safety
- GWT 10 Life Saving Rules

Monthly HSE Report

SAFETY TRAINING


• GWT WTP HSE Induction Attendance (Dec- 2022)


HSE INDUCTION ATTENDANCE RECORD						
S/N	NAME	DESIGNATION	IDENTIFICATION NUMBER	CATEGORY	SIGNATURE	DATE
1	Mr. Farid Aziz Sheikh	Mr. Executive	0472042	Contractor	<i>[Signature]</i>	11 Dec 22
2	Mr. Anwarul Haque	Technician-Helper	0472046	Contractor	<i>[Signature]</i>	11 Dec 22
3	Mr. Javed Khan	Technician-Helper	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
4	Mr. Iqbal Khan	Technician-Helper	0472049	Contractor	<i>[Signature]</i>	11 Dec 22
5	Mr. Anwarul Haque	Technician-Helper	0472047	Contractor	<i>[Signature]</i>	11 Dec 22

HSE INDUCTION ATTENDANCE RECORD						
S/N	NAME	DESIGNATION	IDENTIFICATION NUMBER	CATEGORY	SIGNATURE	DATE
1	Mr. Farid Aziz Sheikh	Contractor	0472042	Contractor	<i>[Signature]</i>	11 Dec 22
2	Mr. Anwarul Haque	Contractor	220421702047	Contractor	<i>[Signature]</i>	11 Dec 22
3	Mr. Javed Khan	Contractor	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
4	Mr. Iqbal Khan	Contractor	0472049	Contractor	<i>[Signature]</i>	11 Dec 22
5	Mr. Javed Aziz	Contractor	0472047	Contractor	<i>[Signature]</i>	11 Dec 22
6	Mr. Anwarul Haque	Contractor	14001614	Contractor	<i>[Signature]</i>	11 Dec 22
7	Mr. Anwarul Haque	Contractor	0472046	Contractor	<i>[Signature]</i>	11 Dec 22
8	Mr. Anwarul Haque	Contractor	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
9	Mr. Anwarul Haque	Contractor	0472047	Contractor	<i>[Signature]</i>	11 Dec 22
10	Mr. Anwarul Haque	Contractor	0472046	Contractor	<i>[Signature]</i>	11 Dec 22
11	Mr. Anwarul Haque	Contractor	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
12	Mr. Anwarul Haque	Contractor	0472047	Contractor	<i>[Signature]</i>	11 Dec 22
13	Mr. Anwarul Haque	Contractor	0472046	Contractor	<i>[Signature]</i>	11 Dec 22
14	Mr. Anwarul Haque	Contractor	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
15	Mr. Anwarul Haque	Contractor	0472047	Contractor	<i>[Signature]</i>	11 Dec 22
16	Mr. Anwarul Haque	Contractor	0472046	Contractor	<i>[Signature]</i>	11 Dec 22
17	Mr. Anwarul Haque	Contractor	0472048	Contractor	<i>[Signature]</i>	11 Dec 22
18	Mr. Anwarul Haque	Contractor	0472047	Contractor	<i>[Signature]</i>	11 Dec 22

Inspector Name & Signature: *[Signature]* Date: 11-12-22

W.P. Akbar Nadeem Akbar, Deputy HSE Manager

 Monthly HSE Report							
GWT INTAKE SAFETY TRAINING							
N/S	Training	Session	Persons	Date			
GWT-INTAKE	1	Induction	14	148	25-Nov-22 26-Nov-22 28-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22 09-Dec-22	10-Dec-22 11-Dec-22 16-Dec-22 18-Dec-22 19-Dec-22 23-Dec-22	
	2	Environmental Awareness Training	12	142	25-Nov-22 26-Nov-22 28-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22 09-Dec-22	10-Dec-22 11-Dec-22 16-Dec-22 18-Dec-22 19-Dec-22 23-Dec-22	
	3	Work at Height Training	13	147	25-Nov-22 26-Nov-22 28-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22 09-Dec-22	10-Dec-22 11-Dec-22 16-Dec-22 18-Dec-22 19-Dec-22 23-Dec-22	
	4	GWT Live Saving Rules	13	147	25-Nov-22 26-Nov-22 28-Nov-22 01-Dec-22 04-Dec-22 05-Dec-22 09-Dec-22	10-Dec-22 11-Dec-22 16-Dec-22 18-Dec-22 19-Dec-22 23-Dec-22	
	5	Electrical Safety Basic	1	13	1-Dec-22		
	6	Workplace Hygiene Safety Training	2	20	11-Dec-22 18-Dec-22		
	7	Gas Welding & Cutting Safety Training	2	31	11-Dec-22 18-Dec-22		
	8	Excavation Hazards and Control	2	31	11-Dec-22 18-Dec-22		
	9	Confined Space Entry Training	1	13	26-Nov-22		

 Monthly HSE Report							
GWT RWP SAFETY TRAINING							
N/S	Training	Session	Persons	Date			
GWT-RWP	1	Induction	14	67	26-Nov-2022 30-Nov-2022 01-Dec-2022 03-Dec-2022 06-Dec-2022 08-Dec-2022 09-Dec-2022	10-Dec-2022 11-Dec-2022 11-Dec-2022 12-Dec-2022 13-Dec-2022 13-Dec-2022 19-Dec-2022	
	2	GWT-Life savings rules	11	42	26-Nov-2022 01-Dec-2022 03-Dec-2022 06-Dec-2022 09-Dec-2022 10-Dec-2022	10-Dec-2022 11-Dec-2022 12-Dec-2022 13-Dec-2022 19-Dec-2022 19-Dec-2022	
	3	Workplace Hygiene	11	36	26-Nov-2022 30-Nov-2022 03-Dec-2022 08-Dec-2022 09-Dec-2022	10-Dec-2022 11-Dec-2022 12-Dec-2022 13-Dec-2022 19-Dec-2022	
	4	Excavation hazards & Control	6	34	26-Nov-2022 06-Dec-2022 08-Dec-2022	10-Dec-2022 11-Dec-2022 19-Dec-2022 19-Dec-2022	
	5	Gas Welding & Cutting	4	26	30-Nov-2022 01-Dec-2022 8-Dec-2022 11-Dec-2022		
	6	Electrical safety Basic	10	45	30-Nov-2022 01-Dec-2022 03-Dec-2022 06-Dec-2022 09-Dec-2022	10-Dec-2022 11-Dec-2022 12-Dec-2022 13-Dec-2022 19-Dec-2022	

Monthly HSE Report

SAFETY TRAINING

• GWT INTAKE HSE Induction (Dec-2022)

- HSE Policy
- Environmental policy
- Smoking Policy
- Personal protective equipment
- Project Site Specific Hazards
- Hot works
- Traffic management systems
- Pedestrian routes
- Fire prevention
- Permit-to-work systems
- Emergency arrangements
- First-aid arrangements;
- Accident and incident reporting arrangements
- Housekeeping
- Individual worker's responsibility for health and safety.
- GWT 10 Life Saving Rules

26 Nov 2022 03:02:31

Monthly HSE Report

SAFETY TRAINING

• GWT INTAKE HSE Induction Attendance – Dec 22)

Gandhiya Water Treatment SDC							Gandhiya Water Treatment SDC						
DESIGN AND BUILD OF RAW, SAFF WATER PIPING, AND SOG MID WATER TREATMENT PLANT AT GANDHIYAPUR UNDER OH&A ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DSWS)							DESIGN AND BUILD OF INTAKE, SAFF WATER PIPING, AND SOG MID WATER TREATMENT PLANT AT GANDHIYAPUR UNDER OH&A ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DSWS)						
HSE INDUCTION RECORD							HSE INDUCTION RECORD						
Sl	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	EMPLOYEE	DATE	Sl	NAME	DESIGNATION	IDENTIFICATION NUMBER	COMPANY	EMPLOYEE	DATE
1	Mohammed Bahman	sketch mason		TCEL	148202	26-11-22	1	MO JAFAR HOSSEIN	CIVIL 4MAN		TCEL	RETIRE	2-12-22
2	MO. KHALID MOHAM	sketch mason		TCEL	148203	26-11-22	2	MO. TUNJUNAH/FAHIM	sketch/lean		ABOYAP	MOHAM	16-11-22
3	MO. ANWAR MOHAM	sketch mason		TCEL	148204	26-11-22	3	MO. MOHAMMED MOHAM	CIVIL - 4 MAN		ABOYAP	MOHAM	1-12-2022
4	MOHAMMED	finishing mason		TCEL	148205	26-11-22	4	Sayed Hussain/leah	sketch plant Oper		TCEL	MOHAM	24-11-22
5	JAMAL MOHAMMED	sketch mason		TCEL	148206	26-11-22	5	MO. JAMAL MOHAMMED	MANAGER		TCEL	MOHAM	21-12-22
6	MO. HASAN HAJI	HELPER		TCEL	148207	26-11-22	6	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
7	MO. MOHAMMED MOHAM	HELPER		TCEL	148208	26-11-22	7	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
8	MOHAMMED ALI	HELPER		TCEL	148209	26-11-22	8	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
9							9	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
10							10	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
11							11	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
12							12	MOHAMMED	HELPER		TCEL	MOHAM	21-12-22
13							13						
14							14						
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29							29						
30							30						

Inspector Name & Signature: MOHAMMED ALI Date: 26/11/2022

Inspector Name & Signature: Mohammed Ismail / Moh Date: 01/12/2022

TRAINING/AWARENESS PHOTOGRAPHS:



Gandharipa Water Treatment SMC

Monthly HSE Report

SAFETY MEETING

• GWT WTP Safety Moment –


• Workers Recognition for the achievement of 6 Million Safe Man-Hours Without Lost Time Injury (25-Aug-22)

Gandharipa Water Treatment SMC

Monthly HSE Report

COVID-19 AWARENESS

COVID-19 PCR TEST FOR SITE ACCESS					LATERAL FLOW TEST FOR SITE ACCESS				
Month	Company	Personnel	Purpose	Positive Case	Month	Company	Personnel	Purpose	Positive Case
26-July'25 Aug-2021	DWTSNC	0	Site Access	0	26-July'25 Aug-2021	DWTSNC	70	Site Access	0
	CANCE	155	Site Access	0		SBPL WTP	1	Site Access	0
	TRANSCOM -WTP	0	Site Access	0		SBPL INTAKE	15	Site Access	0
	Benger -Fosroc Ltd.	0	Site Access	0		SECUREX INTAKE	0	Site Access	0
	Lime & Shape	0	Site Access	0		DWASA	3	Site Access	0
	FMS	0	Site Access	0		ARIQDD	0	Site Access	0
	FAREES (INTAKE)	0	Site Access	0		MAZADA	0	Site Access	0
	SBPL- WTP	1	Site Access	0		ADB	0	Site Access	0
	SBPL- INTAKE	1	Site Access	0		DHAKA FIBER	1	Site Access	0
	ICEL	0	Site Access	0		A Plus Bangladesh	1	Site Access	0
	Bacur	0	Site Access	0		AZAM Enterprise	0	Site Access	0
	SECURITY	6	Site Access	0		Brownfield Engineering	0	Site Access	0
	SIS	0	Site Access	0		Control Securuz	1	Site Access	0
	BHUIYAN TRADERS-INT	0	Site Access	0		Transcom	6	Site Access	0
	BHUIYAN TRADERS-WTP	0	Site Access	0		Bangladesh Industrial	0	Site Access	0
	HRT	0	Site Access	0		Abir Int Ltd.	1	Site Access	0
	INV	0	Site Access	0		AFD	3	Site Access	0
	MDCS	0	Site Access	0		AKS/D	4	Site Access	0
	Total Personnel Tested	163	Site Access	0		Bengal	1	Site Access	0
						Farooq	2	Site Access	0
						Guard Tech	1	Site Access	0
						Habib Electric Serv	2	Site Access	0
						ICE	1	Site Access	0
						Podroffo NK Ltd	1	Site Access	0
				Rahman Enterprise		1	Site Access	1	
				Rasel Garments		1	Site Access	0	
				RFL		2	Site Access	0	
				Rupshi		2	Site Access	0	
				Samaung		2	Site Access	0	
				SICA		1	Site Access	0	
				Saitech Engineering	1	Site Access	0		
				ULV Australia	2	Site Access	0		
				MDCS	30	Site Access	0		
				Total Personnel Tested	156	Site Access	1		



Monthly HSE Report

COVID-19 AWARENESS

COVID-19 VACCINATION					
Month	Company	Site	1st Dose	2nd Dose	Booster Dose
26 Jul 22 -25 Aug-22.	GWT SNC	WTP / INTAKE	0	0	0
	Security	WTP	0	0	1
	SBPL	WTP	0	0	0
	SBPL	INTAKE	0	0	0
	SIS	INTAKE	0	0	0
	LnS	INTAKE	0	0	0
	ARIDOD	RWP	0	0	0
	TECL	INTAKE	0	0	0
	MDSC	WTP / INTAKE	0	0	0
	Bhuiyan Traders	INTAKE	0	0	0
Total Personnel Vaccinated			0	0	1

	GWT SNC staff	All site personnel		
		WTP	Intake	RWP
Percentage vaccinated	99.29%	54.00%	83.47%	68.25%






 Monthly HSE Report


COVID-19 AWARENESS CAMPAIGN WTP - COVID-19 Lateral Flow Test





 Monthly HSE Report

SAFETY INSPECTION Weekly Joint Walkabout (WTP Sep 22)



Contractor and subcontractor safety walkabout is a combined visual inspection of the work site geared toward identifying and correcting unsafe or potentially unsafe conditions. It shows leadership and commitment by senior management

Objectives are:

- Spend time with site workers;
- Share Health and Safety expectations with site workers
- Let site workers know what senior management HSE values are
- Listen actively with empathy to the site workers




Sambharipur Water Treatment SPC
Monthly HSE Report


COVID-19 AWARENESS

<u>COVID-19 PROTOCOLS</u>		
<ul style="list-style-type: none"> • Life camp body temperature screening • Display of awareness campaign banners • Restricted access to site • Enforcing use of COVID-19 PPEs, hand sanitizing and vehicles disinfection • Disinfection of common areas (INTAKE & WTP) • PCR Tests has been replaced by Lateral Flow Test for project sites visitors and non-permanent personnel. • Site permanent resident personnel who have not left site for 72 hours or more and who are to visit another site do not require the lateral flow test upon arrival to site unless he / she has been offsite for more than 72 hours. • All project sites visitors and non-permanent resident Personnel shall undertake Lateral Flow Test upon arrival to site. • Based on positive cases detected through flow test, PCR test is done to confirm true status. • Imposition of mandatory isolation / quarantine for positive case personnel • Contact tracing: All contacts with the positive case employees (Negligible contact, Low contact and Moderate / High Contact) are isolated for 7 days and sufficiently monitored for any possible symptoms. • Protocol is in place for any Isolation, quarantine, restriction to travel to sites 		

BODY TEMPERATURE SCREENING		
Project Site	Specific Location	Number of personnel
WTP	Main Security Gate	6836
WTP	Life Camp	545
INTAKE	Main Security Gate	17239
INTAKE	Life Camp	1018

 Monthly HSE Report				
COVID-19 AWARENESS				
COVID-19 PCR TEST FOR SITE ACCESS				
Month	Company	Personnel	Purpose	Positive Case
26-Aug*25-Sep-2022	GWTSNC	8	Site Access	6
	CAMCE	0	Site Access	0
	Lime & Shape	0	Site Access	0
	FAREES (INTAKE)	0	Site Access	0
	SBPL- WTP	3	Site Access	0
	SBPL- INTAKE	3	Site Access	0
	ICEL	0	Site Access	0
	SECURITY	11	Site Access	0
	SIS	0	Site Access	0
	BHUIYAN TRADERS-INT	0	Site Access	0
	HRT	0	Site Access	0
	INV	0	Site Access	0
	MISC	0	Site Access	0
Total Personnel Tested		25	Site Access	0

COVID 19 PCR TEST						
S/N	Company	Test Date	Location	Positive Case	Personnel Tested	Purpose
1	GWTSNC	9-Sep-22	WTP	1	1	Symptomatic
2	GWTSNC	12-Sep-22	WTP	1	1	Symptomatic
3	GWTSNC	16-Sep-22	WTP	1	1	Symptomatic
4	GWTSNC	17-Sep-22	WTP	1	1	Symptomatic
5	GWTSNC	18-Sep-22	WTP	1	1	Symptomatic
6	GWTSNC	20-Sep-22	WTP	1	1	Symptomatic
Total				6	6	Symptomatic

 Monthly HSE Report					
COVID-19 AWARENESS					
LATERAL FLOW TEST FOR SITE ACCESS					
Month	Company	Personnel	Purpose	Positive Case	
26-Aug*25-Sep-2022	GWTSNC	214	Site Access & Symptomatic	11	
	SBPL WTP	27	Site Access	3	
	SBPL INTAKE	19	Site Access	0	
	SECUREX INTAKE	7	Site Access	1	
	SECUREX WTP	27	Site Access	0	
	ARIDOD	7	Site Access	0	
	DHAKA FIBER	3	Site Access	0	
	Control Securus	2	Site Access	0	
	Inamcom	6	Site Access	0	
	Rupshi Cocreate Product	2	Site Access	1	
	Control Securus	2	Site Access	0	
	Inamcom	6	Site Access	0	
	ESS	1	Site Access	0	
	Civil Engineers	1	Site Access	0	
	BIX	1	Site Access	0	
	EKAR	2	Site Access	0	
	HRT	2	Site Access	0	
	Max Security	1	Site Access	0	
	Fahim Enterprise	1	Site Access	0	
	MISC	40	Site Access	2	
	DWASA	0	Site Access	0	
	Total Personnel Tested		371	Site Access	18

LATERAL FLOW TEST						
S/N	Company	Test Date	Location	Positive Case	Personnel Tested	Purpose
1	GWTSNC	27-Aug-22	Intake	1	1	Symptomatic
2	Rupshi Cocreate Product	28-Aug-22	WTP	1	1	Symptomatic
3	MISC	3-Sep-22	Intake	1	1	Symptomatic
4	GWTSNC	3-Sep-22	WTP	1	1	Symptomatic
5	MISC	5-Sep-22	Intake	1	1	Symptomatic
6	Securus	8-Sep-22	Intake	1	1	Symptomatic
7	GWTSNC	8-Sep-22	WTP	1	1	Symptomatic
8	SBPL	9-Sep-22	WTP	3	27	Symptomatic
9	GWTSNC	12-Sep-22	WTP	1	1	Symptomatic
10	GWTSNC	15-Sep-22	WTP	1	1	Symptomatic
11	GWTSNC	18-Sep-22	WTP	1	1	Symptomatic
12	GWTSNC	20-Sep-22	WTP	1	1	Symptomatic
13	GWTSNC	23-Sep-22	WTP	1	1	Symptomatic
14	GWTSNC	24-Sep-22	WTP	1	1	Symptomatic
15	GWTSNC	24-Sep-22	Intake	1	1	Symptomatic
16	GWTSNC	25-Sep-22	Intake	1	1	Symptomatic
Total				18	42	Symptomatic

Gandharbpur Water Treatment SNC
 Monthly HSE Report

COVID-19 AWARENESS

COVID 19 VACCINATION					
Month	Company	Site	1st Dose	2nd Dose	Booster Dose
26 Aug 21 ~25 Sep 22	GWT SNC	WTP / INTAKE	0	0	0
	Security	WTP	0	0	0
	SBPL	WTP	0	0	0
	SBPL	INTAKE	0	0	0
	SIS	INTAKE	0	0	0
	LnS	INTAKE	0	0	0
	ARIDCID	RWP	0	0	0
	TECL	INTAKE	0	0	0
	MDSC	WTP / INTAKE	0	0	0
	Bhuiyan Traders	INTAKE	0	0	0
	Total Personnel Vaccinated			0	0

	GWT SNC staff	All site personnel		
		WTP	Intake	RWP
Percentage vaccinated	99.36%	54.46%	84.00%	68.25%

Gandharbpur Water Treatment SNC
 Monthly HSE Report

SAFETY MEETING

- GWT INTAKE HSE Monthly Award & Incentive Oct 22

7 Million Safe Man-hours Achieved on 27th Sep 2022

Gandharbpur Water Treatment SNC
 suezOTV VEOLIA

M M
 MOTT MACDONALD DWASA

7

Congratulations

SUCCESSFULLY ACHIEVED MILLION SAFE MAN HOURS WITHOUT LTI

For
 Design and Build of Intake, Raw Water Pipeline, and 500 MLD Water Treatment Plant at Gandharbpur
 under Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
 On
 27th of September 2022



Gandhinagar Water Treatment, SPC
www.spc.gov.in

Monthly HSE Report

SAFETY MEETING

- INTAKE Daily Toolbox Talk (TCEL Nov 22)



Nov 18, 2022 09:02 PM
18° N

Gandhinagar Water Treatment, SPC
www.spc.gov.in

Monthly HSE Report

SAFETY MEETING

- INTAKE Daily Toolbox Talk (SBPL Nov 22)



Zoom Meeting
Shot on realme C25s
3:33:33 AM




SAFETY MEETING

- INTAKE Daily Toolbox Talk (RWP Nov 22)











IX. PUBLIC CONSULTATION AND OBSERVATION

95. With Public consultation activity during the reporting period the following improvements were observed: 1.

Before	After
	
<p>Description of observation:</p> <p>Loading adjacent to open trench is not acceptable</p>	<p>Rectification/action details:</p> <p>CAMCE is clarifying the matter that, the area of our construction site is limited so that we could not keep the Generator so far from the edge of excavated trench. We have divided our work place (pipe line) into several parts and are doing it step by step. So often it is difficult and sometimes impossible to maintain sufficient distance (at least 1.5 meter) to install Generators. At present the generators have been installed maintaining minimum distance (photo attached). We always try to install the Generator at safer place maintaining safe and standard distance.</p>
	
<p>Description of observation:</p> <p>Please review site security from West side</p>	<p>Rectification/action details:</p> <p>Security has been engaged at the West side of the site.</p>

Before	After
	
<p>Description of observation:</p> <p>Safety glasses and gumboots approved with comments proposals to be printed and available on site</p>	<p>Rectification/action details:</p> <p>Proposals for usage of Safety Glasses and Gumboots have been printed and kept at site.</p>
	
<p>Description of observation:</p> <p>Please deliver example signalman training to MDSC AREs</p>	<p>Rectification/action details:</p> <p>Signalman training has been given to ARE's.</p>
	





Before	After
<p>Description of observation:</p> <p>Domestic plug & socket were being used at site instead of industrial plug & socket and their condition was not safe. Proper insulation was missing at the cable.</p>	<p>Rectification/action details:</p> <p>The domestic plug & socket have been replaced by industrial plug & socket along with new cable.</p>
	
<p>Description of observation:</p> <p>No PPE of a worker at site</p>	<p>Rectification/action details:</p> <p>Action has been taken against the worker. The worker has been removed from site.</p>
	
<p>Description of observation:</p> <p>To operate the submersible pump for De-watering activity, power was taken directly from MCB of the Electrical Distribution Board. This was treated as an unsafe act and the Electrical Distribution Board became an unsafe condition. In this MCB there was only incoming but outgoing was taken directly</p>	<p>Rectification/action details:</p> <p>This deviation has been rectified by Mr. Tarek. Now the outgoing has been taken through industrial Plug socket.</p>

Before	After
<p>through two pin plug. In such cases, electrical short circuit might be happened.</p>	
	
<p>Description of observation:</p> <p>Workers sometimes sit on Ashtray which is situated at worker rest place. As a result, the ashtray became bended. If it is continuing then this will be totally damaged. All workers should be advised not to sit on the ashtray.</p>	<p>Rectification/action details:</p> <p>At daily briefing all workers will be advised not to sit on ashtray.</p>
	
<p>Description of observation:</p> <p>Insulation is missing at the electrical cable. This must be insulated by PVC tape.</p>	<p>Rectification/action details:</p> <p>The uninsulated portion of the cable has been insulated by PVC and buried/covered by soil.</p>
	

Before	After
<p>Description of observation:</p> <p>An empty water bottle has been found at Generator. This might be melted due to heat. This bottle must be removed.</p>	<p>Rectification/action details:</p> <p>Empty water bottle has been removed from Generator.</p>
	
<p>Description of observation:</p> <p>During road carpeting by HDD, lubricant came near our water horse barrier. As a result, the surface became unsafe.</p>	<p>Rectification/action details:</p> <p>To minimize the hazard, sand has been provided on oil spillage area.</p>
	
<p>Description of observation:</p> <p>Local People entering site but CAMCE say not currently work. If pipe laying entry not granted.</p>	<p>Rectification/action details:</p> <p>The area has been barricaded for unauthorized entry.</p>

<p style="text-align: center;">Before</p>	<p style="text-align: center;">After</p>
	
<p>Description of observation:</p> <p>Lighting is not enough for working safety so please take care.</p>	<p>Rectification/action details:</p> <p>Sufficient lights are available at site. Proper illumination will be ensured during night work.</p>
	
<p>Description of observation:</p> <p>There are some water catch pits along with slabs beside pipe laying area. These slabs are not in our scope. These slabs have handles which are considered as tripping hazard. Need to mark these by caution tape in order to warn workers and staffs.</p>	<p>Rectification/action details:</p> <p>Caution tape has been wrapped at the handle of the water catch pit slabs in order to warn workers and staffs..</p>
	

Before	After
<p>Description of observation:</p> <p>Belt sling has been found in torn condition. Need to replace this by new one.</p>	<p>Rectification/action details:</p> <p>The torn belt sling has been replaced by new one.</p>
	
<p>Description of observation:</p> <p>Proper Housekeeping was missing mostly at the backside of the corridor</p>	<p>Rectification/action details:</p> <p>Housekeeping has been done at the backside of the corridor</p>
	
<p>Description of observation:</p> <p>Proper waste segregation, use of appropriate bins for waste type was missing</p>	<p>Rectification/action details:</p> <p>Waste segregation is being maintained. We are using two covered waste bin at site.</p>

<p style="text-align: center;">Before</p>	<p style="text-align: center;">After</p>
	
<p>Description of observation:</p> <p>Housekeeping and removal of plastic and other wastes are necessary</p>	<p>Rectification/action details:</p> <p>Housekeeping has been done (Maximum existing waste created by outsider and the observations areas are not in our scope.)</p>
	
<p>Description of observation:</p> <p>Inappropriate and unauthorized way of handling wastes, chemicals (paints) etc. on site</p>	<p>Rectification/action details:</p> <p>Chemical handling is being maintained safely and chemical (paints) has been stored at a designated place.</p>

Before	After
	
<p>Description of observation:</p> <p>Please clarify domestic sewage management and handling process</p>	<p>Rectification/action details:</p> <p>At site there are two toilets. We made two rings by metal drum and installed these drums under soil. Then the sewage pipes have been attached with the drums. After finish pipe laying of certain area then we shift our toilets where pipe laying activities will be done. We also shift these drums along with toilets. Each drum has two handles. Whenever we remove the drums from the spot then instantly we buried the waste there.</p>
<p>Description of observation:</p> <p>Need to have capacity building training internally to improve site situation</p>	 <p>Rectification/action details:</p> <p>Capacity Building Training has been conducted</p>

X. GRIEVANCE REDRESS

GRIEVANCE REDRESS MECHANISM

96. A Project-specific grievance redress mechanism (GRM) is established in to provide a time bound and transparent mechanism to voice and resolve social and environmental concerns linked with the project. GRC members are DWASA representatives (Deputy Project Director/Executive Engineer, INGO representatives (Team Leader/Deputy Team Leader), Union Parishad Chairpma/Ward Councilor, Women Union Parishad Member, Affected Person/Displaced person and Representative from MDSC. MDSC organized a capacity building training program for the GRC members on 14 March 2020. The objective of the training were GRC to provide services, grievance redress processes, filing a grievance/complaint with GRC, documentation of grievance cases, matters not to be considered by GRC, good practice in GRM, specimen public notice, etc. Before any GRC meeting, the representatives are confirmed with their details. GRM notification was issued on 28th September 2019 by DWASA. The GRM notification is attached at **Appendix 9**. Project GRM is presented in the following Figure. Accordingly, responsibilities are allocated to project agencies, consultants and contractors, and grievance redress committee(s) established at subproject/town level or project level. Status of establishment of GRCs are presented in Table 32.

Figure 10: Project GRM

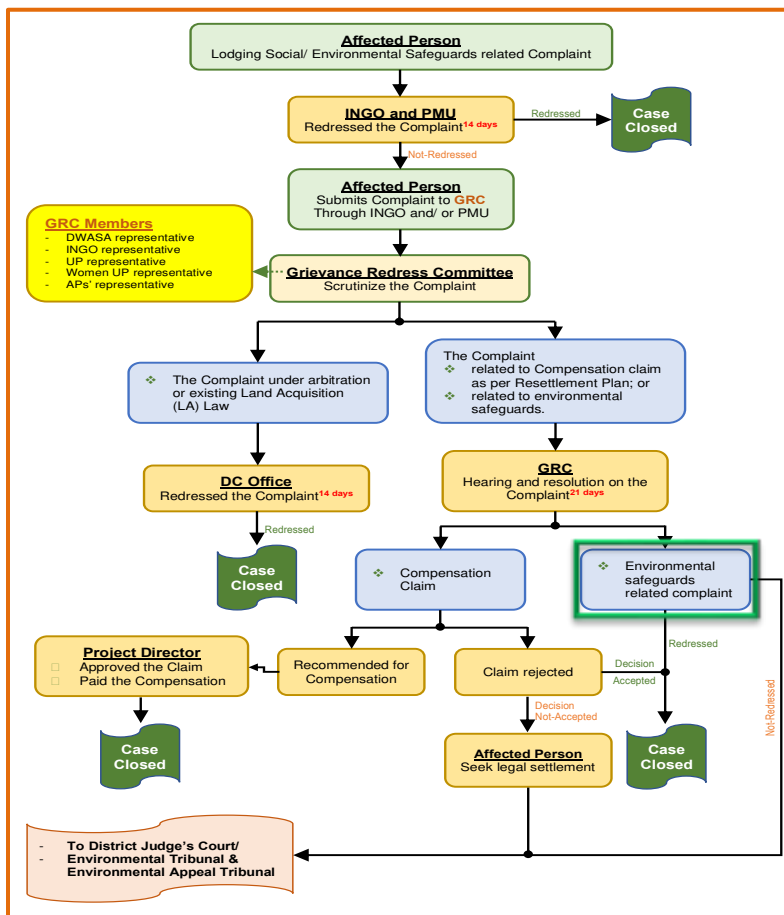


Table 32: GRM Operationalization

Package No.	Subproject level GRM Notified	GRM responsibilities assigned	GRM Operational to receive, register & redress complaints	Date of GRC Formation	Public informed of GRM
Package-1	Yes	Yes	Yes	27-11-2017	Yes
Package-2	Yes	Yes	Yes	27-11-2017	Yes
Package-3.1	Yes	Yes	Yes	27-11-2017	Yes
Package-3.2	Yes	Yes	Yes	27-11-2017	Yes

COMPLAINTS RECEIVED DURING REPORTING PERIOD

97. No environmental safeguard related complaints received and reported during this period, from two out of four packages under construction. There were no pending/unresolved complaints at the end of previous reporting period. Summary of complaints received and resolved are presented Table 33.

Table 33: Details of Complaints Resolved

Package No.	No. of complaints received			Type of Common and Major Grievances	Time taken for resolution (days)
	In Reporting period	Previously Pending	Cumulative		
Package-1	Nil	Nil	Nil	N/A	N/A
Package-2	Nil	Nil	Nil	N/A	N/A
Package-3.1	Nil	Nil	Nil	N/A	N/A
Package-3.2	Nil	Nil	Nil	N/A	N/A

GRC MEETINGS

98. During this reporting period and given that no complaint was received, no GRC meeting was conducted.

Table 34: GRC Meetings

S. No	Package No.	No, of meeting in Reporting Period	Cumulative meetings till date
1	Package-1	None	11
2	Package-2	None	
3	Package-3.1	Not applicable	
4	Package-3.2	Not applicable	

XI. FINDINGS, KEY ISSUES & REMEDIAL MEASURES

FINDINGS

99. This Semi-annual Environmental Monitoring Report (SEMR) for the period of July'22 to December'22 is prepared as per the ADB SPS requirements. This SEMR described progress with the implementation of the subproject-wise EMPs, and compliance status. This is 14th SEMR prepared for this DESWP Project. Project includes four subprojects/contract packages. At the end of this report period (June'22), three packages are awarded, one package is in final stage of bid evaluation process. Of the awarded contracts, one in design phase, two are in construction phases. Construction works of package-1 & 2 and 3.1 are underway. Findings of this SEMR are presented in the following table along with key issues and remedial measures.

Table 35: Findings and Key Issues

Monitoring aspect	Findings & Key issues	Remedial measures
Availability Safeguards personnel (PMU, PIU, Consultants and contractors)	All safeguard personnel were working appropriately. No issues in this aspect.	
Compliance with statutory requirements (clearance / permissions etc.,)	Environmental clearance of DoE is renewed and valid till 10 th December 2023. Road Cutting permit of LGED, permit of BWDB, permit of RAJUK, permit of BIWTA, RHD and DNCC are under process and some are partially approved.	Follow up the update of permits by the PMU in support of DWASA.
Compliance with ADB loan covenants	ADB loan covenants are complied. No issues in this aspect.	
Compliance with preparation, approval, disclosure of draft IEEs	Preparation, approval, disclosure of draft IEEs are complied. No issues in this aspect.	
Compliance with preparation, approval, disclosure of updated/final IEEs	Preparation, approval, disclosure of updated/final IEEs are complied. No issues in this aspect.	
Contractor compliance with preconstruction requirements	Contractors complied all preconstruction requirements. No issues in this aspect.	
EMP implementation, monitoring, reporting	Environmental monitoring (air, noise and water quality) is being conducted for Package 1 and will be started for Package 2 and package 3.1. Air pollution levels and Noise level measured in the WTP site are particularly high due to high ambient air pollution levels/noise pollution levels outside the project area. EMP implementation, monitoring, reporting all are available in the construction sites. MDSC HSE	To abate the impact of air and noise pollution on the workers, the contractor has provided appropriate PPE to protect their health and safety. Contractor has arranged adequate potable water facilities i.e. water jar and accommodate toilets and rest area facilities. Contractor will continue to keep this support in future in the project construction

Monitoring aspect	Findings & Key issues	Remedial measures
	team advices/suggests the contractors to take immediate action against the non-compliances (if any) through regular HSE site inspection and Audit program. Key issues are: -Workers facilities at work site particularly adequate potable water facilities, toilet facilities and rest areas. -Solid waste management particularly use of designated waste bins, appropriate housekeeping.	area. Regular address the solid waste management and appropriate housekeeping issues in the toolbox meetings or any other regular training.
Implementation of COVID19 health and safety measures	Serious implementation of COVID19 health and safety measures observed at the construction sites.	
Training and capacity building activities	Regular training and capacity building activities are conducted by the contractors.	
Public consultation	Public consultations are conducted as and when required.	
GRM establishment, operationalization and complaint resolution	GRM is established and now in operation.	

CORRECTIVE ACTION PLAN

100. Following action plan is developed to address the issues of concerns raised in this report.

Table 36: Corrective Action Plan

Proposed Remedial Measure	Responsibility of implementation	Target date	Remarks
Follow up the update of permits	PMU	January 2023	<ul style="list-style-type: none"> • Package-2: Follow up the permit of RAJUK renewal which will expire on 31 December 2022
		November 2023	<ul style="list-style-type: none"> • For all packages: Follow up of ECC renewal of the project in November 2023 (one month ahead of expiry).
Monitoring and sampling for surface water quality on a semi-annual basis.	Contractors	At least once during the reporting period	<ul style="list-style-type: none"> • Contractors should conduct environmental monitoring and sampling for all environmental media affected (ambient air, noise, surface water) on a semi-annual basis or at least once every reporting period. This is to comply with the

Proposed Remedial Measure	Responsibility of implementation	Target date	Remarks
			environmental requirements of the project.

CORRECTIVE ACTION PLAN FROM PREVIOUS REPORTING PERIOD

Proposed Remedial Measure	Responsibility of implementation	Target date	Status
Follow up the update of permits	PMU	June 2023	Ongoing
To reduce the impact of air and noise pollution on the workers, the contractor will be required to provide appropriate PPE to protect their health and safety.	Contractor	Immediately	Appropriate PPEs are available in the construction sites. Continuing compliance
Undertake environmental monitoring based on the specific monitoring field, parameters and locations per Table 27 for Packages 1 and 2.	Contractor	Within monitoring period July – Dec 2022	Air quality and noise quality monitoring were conducted for Package 1, and also conducted for Package 2 and Package 3.1 respectively.. However, surface water quality has not been conducted during the reporting period. Sampling will be conducted in the next reporting period.
Contractor will provide adequate potable water facilities i.e. water jar and increase the number of toilets and rest area facilities.	Contractor	End of Dec 2022	For package-1: Intake site is fine with everything but WTP and RWP sites toilet facilities need to improve by providing hand wash soap/liquid and regular cleaning.
Regularly address the solid waste management and appropriate housekeeping issues in the toolbox meeting or any other regular training.	Contractor	Regularly	Started the demonstration on the solid waste management and appropriate housekeeping issues.

APPENDICES

APPENDIX 1: REGULATORY CLEARANCES / APPROVALS/PERMITS

শেখ হাসিনার নির্দেশ
জনবাহু সহিষ্ণু বাংলাদেশ



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

Memo No. 22.02.0000.018.72.124.19. ১২৬

Date: 12 December, 2022

Subject: Renewal of Environmental Clearance for Dhaka Environmentally Sustainable Water Supply Project.

Ref: Your Letter No. 46.113.618.00.00.G-97/DESWSP/6125; Dated: 06.11.2022

With reference to the above, the Department of Environment hereby accords renewal to the Environmental Clearance in favor of Dhaka Environmentally Sustainable Water Supply Project under Dhaka WASA. The terms and conditions stated in the Environmental Clearance of the above project issued on 11.12.2018 vide memo number 22.02.6700.140.72.138.18.1148 shall remain valid for the renewed period.

02. This renewal is valid until 10.12.2023. For further renewal, application along with the renewal fee as per the ECR, 1997 and VAT on renewal fee (in separate Treasury/ VAT Chalan) and all associated documents shall be submitted to the Department of Environment, Head Office, Dhaka, with a copy to the Dhaka Metropolitan/Regional offices at least 30 days ahead of expiry.

APPENDIX 2: DETAILS OF SITE VISITS CONDUCTED BY MDSC & PMU SAFEGUARD STAFF IN THE REPORTING PERIOD

Sl. No.	Package	Visit date	Expert visited	Sites Visited
1.	Package-1, 2 & 3.1	01/07/2022-31/12/2022	HSE Inspector, MDSC &/SAE, AEs, PMU	Raw Water Pipeline, Water Treatment Plant Intake Site, P2 area
2.	Package-12 & 3.1	01/07/2022-31/12/2022	PD, DPD, EEs, PMU	Raw Water Pipeline, Water Treatment Plant Intake Site, P2 area
3.	Package-12 & 3.1	01/07/2022-31/12/2022	National Environmental Expert, MDSC&/Safeguard Officer (Environment Specialist), & (S&G) PMU	Raw Water Pipeline, Water Treatment Plant Intake Site, P2 area

APPENDIX 3: CONTRACTOR'S MONTHLY EMP IMPLEMENTATION REPORT & MDSC SITE VISIT REPORT

APPENDIX 4: IMPLEMENTATION OF COVID-19 HEALTH & SAFETY MEASURES

Package-1: Intake/RWP/WTP



COVID-19 AWARENESS CAMPAIGN



COVID-19 AWARENESS

COVID-19 PROTOCOLS

- Life camp body temperature screening
- Display of awareness campaign banners
- Restricted access to site
- Enforcing use of COVID-19 PPEs, hand sanitizing and vehicles disinfection
- Disinfection of common areas (INTAKE & WTP)
- PCR Tests has been replaced by Lateral Flow Test for project sites visitors and non-permanent personnel.
- Site permanent resident personnel who have not left site for 72 hours or more and who are to visit another site do not require the lateral flow test upon arrival to site unless he / she has been offsite for more than 72 hours.
- All project sites visitors and non-permanent resident Personnel shall undertake Lateral Flow Test upon arrival to site.
- Based on positive cases detected through flow test, PCR test is done to confirm true status.
- Imposition of mandatory isolation / quarantine for positive case personnel
- Contact tracing: All contacts with the positive case employees (Negligible contact, Low contact and Moderate / High Contact) are isolated for 7 days and sufficiently monitored for any possible symptoms.
- Protocol is in place for any Isolation, quarantine, restriction to travel to sites

BODY TEMPERATURE SCREENING

Project Site	Specific Location	Number of personnel
WTP	Main Security Gate	13471
WTP	Life Camp	515
INTAKE	Main Security Gate	13630
INTAKE	Life Camp	981



COVID-19 AWARENESS

LATERAL FLOW TEST FOR SITE ACCESS				
Month	Company	Personnel	Purpose	Positive Case
26-Nov~25- Dec-2022	GWTSNC	68	Site Access & Symptomatic	0
	SBPL WTP	0	Site Access	0
	SBPL INTAKE	14	Site Access	0
	SECUREX INTAKE	0	Site Access	0
	SECUREX WTP	0	Site Access	0
	Mask Associates	1	Site Access	0
	Mapple Apperal	1	Site Access	0
	EKAR	1	Site Access	0
	ESOIVE	1	Site Access	0
	EKA	2	Site Access	0
	FCL	3	Site Access	0
	Durgapur Eng	3	Site Access	0
	HATIM Group	2	Site Access	0
	Ma Electric Works	3	Site Access	0
	IOE BD	1	Site Access	0

LATERAL FLOW TEST FOR SITE ACCESS				
Month	Company	Personnel	Purpose	Positive Case
26-Nov~25- Dec-2022	Akhter Furniture	1	Site Access	0
	AKSID	4	Site Access	0
	AZAM Ent	1	Site Access	0
	Control Securus	2	Site Access	0
	Fahim Enterprise	2	Site Access	0
	Real Fibre Glass Industries	2	Site Access	0
	Sika Bangladesh Ltd.	2	Site Access	0
	Transcom	5	Site Access	0
	Sheba Treaders	1	Symtomatic	0
	RKH Automation	1	Site Access	0
	TUV Austria	2	Site Access	0
	Ahnaf Textile consultant	1	Site Access	0
	Syltech	3	Site Access	0
	ADB	3	Site Access	0
	MDSC	39	Site Access	0
DWASA	4	Site Access	0	
Total Personnel Tested		73	Site Access	0

COVID-19 AWARENESS

COVID-19 VACCINATION					
Month	Company	Site	1st Dose	2nd Dose	Booster Dose
26 Nov-21 -23 Dec-21	GWT-SNC	WTP / INTAKE	0	0	0
	Security	WTP	0	0	0
	SSPL	WTP	0	0	0
	SSPL	INTAKE	0	0	0
	RS	INTAKE	0	0	0
	LS	INTAKE	0	0	0
	AR/DOD	RWP	0	0	0
	ECL	INTAKE	0	0	0
	WOSC	WTP / INTAKE	0	0	0
	Bhuryan Traders	INTAKE	0	0	0
Total Personnel Vaccinated			0	0	0

	GWT SNC staff	All site personnel		
		WTP	Intake	RWP
Percentage vaccinated	90.38%	56.16%	85.71%	69.85%

COVID-19 AWARENESS CAMPAIGN
WTP - Enforcing COVID-19 Prevention Protocols



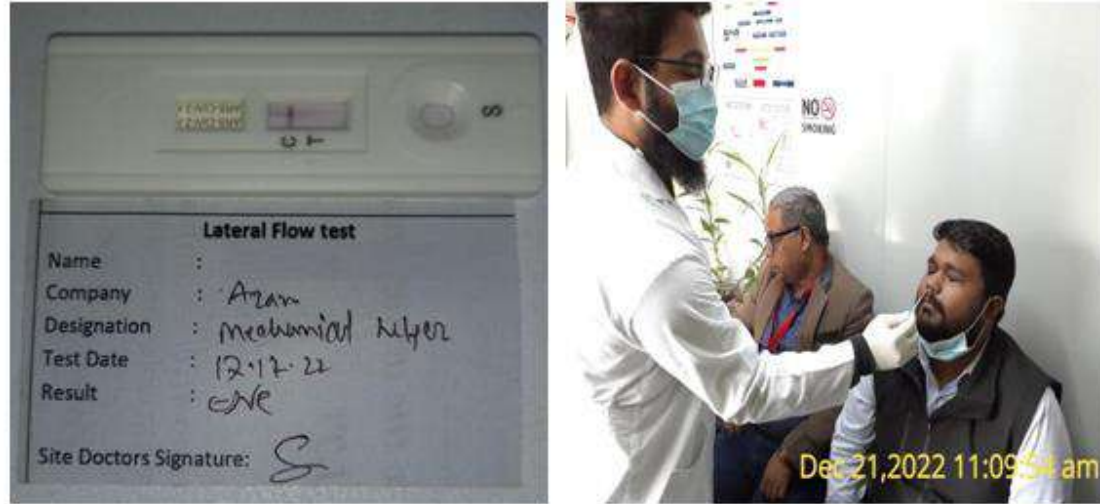
- Maintaining COVID-19 Protocols at the security gate
- Body Temperature Screening
 - Sanitizing hands before site entry
 - Sanitizing vehicles before site entry
 - Common Areas disinfection

COVID-19 AWARENESS CAMPAIGN
INTAKE - Enforcing COVID-19 Prevention Protocols



- Maintaining COVID-19 Protocols at the security gate
- Body Temperature Screening
 - Sanitizing hands before site entry
 - Sanitizing vehicles before site entry
 - Common Areas disinfection

COVID-19 AWARENESS CAMPAIGN
WTP - COVID-19 Lateral Flow Test



APPENDIX 5: INCIDENT INVESTIGATION REPORT
Table 37: Construction work related Incident / Accident records

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
<p>July 2022: Under P1: No incident. Under P2: Date and time of the incident: 26th July 2022 at 09:00 hrs 100 Feet Madani Avenue Road Chainage CH 2+ 865 (In front of Chef's Table). Excavator accidentally cut the cable during excavation for our daily activity.</p>	<p>Under P1: Incident status: No incident Under P2: Unexpected 11kv underground cable came up during daily activity. No information received from DESCO that there is an underground 11kv cable exist. Even though officially submit a letter to DESCO that the contractor will start excavation work on that chainage. And before they started their excavation the DESCO Engineer visited the site and confirmed that 7 no's underground PE Sleeve with 33KV live cables & 6 no's of 33kv dead cable are there which were identified by their team during our frequent utility survey</p>	<p>Under P1: N/A Under P2: The excavator operator was chasing some damp soil and excavated down to the level of the cable - approximately 1300mm. A loud bang and a puff of smoke was witnessed by the operator who then backed the machine away and alighted the machine.</p>	<p>Under P1: N/A Under P2: The Safety/electrical supervisor was called, and upon arrival at the site cordoned off the area and called the supply authority DESCO to isolate the high voltage circuit</p>	<p>Under P1: N/A Under P2: Rectify damaged cable by DESCO complete with testing. • Backfill the earth • Concrete Slab has been Covered on the top of the cable to mark the location of underground 11kv cable. • The operator has been given warning that only hand digging is allowed to be used for excavation near underground cable.</p>
<p>July 2022: Under P2: Date and time of the incident: 28th July 2022 at 09:30 hrs. □ Location of the incident: 100 Feet Madani Avenue Road (In front of Chef's Table) □ Nature of the incident: Site Payloader accidentally smash the MDSCs car window</p>	<p>On that day (28.07.2022) at 09:30 AM MDSC driver Mr. Belal was parked the vehicle (Dhaka Metro Tha-132280) beside the water horse barrier on road though this is not parking zone. At that time the site Payloader was engaged for security point shifting. The Payloader took the security point at the Payloader bucket and shifting the security point from one place to another. But at that time the Payloader signalman did not give proper 2 signal to the operator. As a result the payloader hit the backside of the car and then the back glass of the car has been broken</p>	<p>The payloader hit the backside of the car and then the back glass of the car has been broken.</p>	<p>The operator to be given final warning of his negligence. Failure to follow instruction again will result the operator will be replaced. 2. Training will be given to the operator and signalman 3. All drivers will be advised to park vehicle at parking zone</p>	<p>Warning for negligence of the signalman has been given. • Car parking signage has been installed at car parking area. • All drivers are advised to park their vehicle at parking zone. • Training has been given to the payloader operator and signalman. • New window glass has been installed at the car. • All drivers, operator and signalman are advised to follow site safety rules.</p>

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
August, 2022 Under P1&P2:	Incidental status: No incident	N/A	N/A	N/A
September 2022 Under P1 (CAMCE): (1) 17-Sep-2022 Project Location: W73 (2) 19-Sep-2022 Project Location; Workers Old Dormitory adjacent to batching plant Under P2: No incident	Under P1 : (1) Activity: Sand filling. Dump truck contacting overhead live electrical cables. (2) Electrical short circuit Under P2: Incident status: No incident	Under P1 : (1) Minor significant (2) Not significant Under P2: N/A (No incident)	Under P1 : (1) Advised to take care. (2) Advised to take care. Under P2: N/A (No incident)	Under P1: (1) Normal (2) Normal. Under P2: N/A (No incident)
October, 2022 Under P1&P2:	Incidental status: No incident	N/A	N/A	N/A
November, 2022 Under P1 Incident status: No incident. Under P2: Date and time of the incident: 06.11.2022 at 09:30 hrs. □ Location of the incident: Section A in front of Gazi bridge (CH A1+190), Ruppangj, Narayanganj	Under P1: Incident status: No incident Under P2: Nature of the incident: Excavator bucket collides with existing gas pipe line. On 06.11.2022, there is an incident (nearmiss) regarding Excavator bucket collides with gas pipeline at section-A has happened.	Under P1: N/A Under P2: There was no injury or any fatality or any fire incident.	Under P1: N/A Under P2: New sleeve has been wrapped over the pipe in where it was damaged. Immediately stop the activity. • After the incident the area was demarcated by caution barrier • Underground utility survey has been done in order to check the presence of any other underground utility. • In where the underground utility is present has been marked in red paint.	Under P1: N/A Under P2: On 09.11.2022, representative of Titas Gas Transmission and Distribution Company Limited surveyed in where their gas pipes are exist and they met with CAMCE and Engineers at the spot. • Representative of Titas Gas Transmission and Distribution Company Limited rectified the minor damage pipe on 11.11.2022. New sleeve has been wrapped over the pipe in where it was damaged

Occurrence Date/ Site	Description	Consequence	Action Taken	Present Status
December, 2022 Under P1&P2: Incident status: No incident.	Under P1&P2: N/A (Incident status: No incident.)	N/A	N/A	N/A

APPENDIX 6: MONITORING REPORTS (AIR, NOISE, WATER TESTING LAB REPORTS)

(a) AIR QUALITY MONITORING



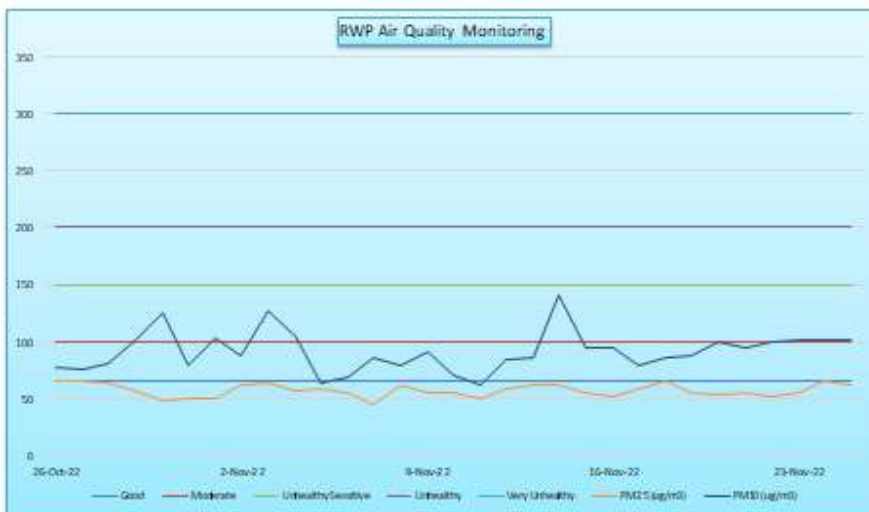
ENVIRONMENTAL STATUS
AIR QUALITY MONITORING - TCEL

Gandharpur Water Treatment SAC SRE DWASA SARVODAYA #SARVODAYA #SARVODAYA				DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSIP)										M M DWASA 5,000 LTRD DWTPN DWTPN 50.0L	
AIR QUALITY MONITORING LOG														Date: 25 Nov 2022	
Date	Monitoring Duration	Time	Location	Temp (°C)	Humidity (%)	SO ₂ (µg/m ³)	CO (ppm)	NO ₂ (ppm)	O ₃ (ppm)	SPM ₁₀ (µg/m ³)	SPM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
26-Oct-22	06:00-06:05	5:54 PM	Intake Pipe Camp	27.8° C	66.7%	0.0	0	0.0	0.0	N/A	512	66	77		
27-Oct-22	06:00-06:05	4:53 PM	Intake Security gate	27.8° C	66.7%	0.0	0	0.0	0.0	N/A	513	66	75		
28-Oct-22	06:00-06:05	5:59 PM	Intake (Camp DR)	27.8° C	66.7%	0.0	0	0.0	0.0	N/A	515	66	82		
29-Oct-22	06:00-06:05	4:47 PM	Intake (Camp DR)	27.7° C	66.7%	0.0	0	0.0	0.0	N/A	508	66	82		
30-Oct-22	06:00-06:05	4:55 PM	Intake Pipe Camp	27.8° C	67.2%	0.0	0	0.0	0.0	N/A	513	66	82		
31-Oct-22	06:00-06:05	4:47 PM	Intake Pipe Camp	28.0° C	67.7%	0.0	0	0.0	0.0	N/A	527	66	78		
1-Nov-22	06:00-06:05	4:57 PM	Intake (DR)	28.0° C	67.7%	0.0	0	0.0	0.0	N/A	538	66	82		
2-Nov-22	06:00-06:05	4:56 PM	Intake Pipe Camp	28.0° C	68.2%	0.0	0	0.0	0.0	N/A	516	66	82		
3-Nov-22	06:00-06:05	4:56 PM	Intake Security gate	28.1° C	67.2%	0.0	0	0.0	0.0	N/A	583	66	82		
4-Nov-22	06:00-06:05	4:48 AM	Intake (Camp DR)	27.7° C	66.7%	0.0	0	0.0	0.0	N/A	562	66	82		
5-Nov-22	06:00-06:05	5:28 PM	Intake (Camp DR)	26.8° C	66.2%	0.0	0	0.0	0.0	N/A	522	66	82		
6-Nov-22	06:00-06:05	4:47 PM	Intake Security gate	27.7° C	66.7%	0.0	0	0.0	0.0	N/A	515	66	82		
7-Nov-22	06:00-06:05	5:28 PM	Intake Pipe Camp	27.7° C	66.2%	0.0	0	0.0	0.0	N/A	543	66	82		
8-Nov-22	06:00-06:05	5:32 PM	Intake (DR)	27.7° C	66.2%	0.0	0	0.0	0.0	N/A	515	66	79		
9-Nov-22	06:00-06:05	5:31 PM	Intake Pipe Camp	26.8° C	66.2%	0.0	0	0.0	0.0	N/A	515	66	82		
10-Nov-22	06:00-06:05	5:32 PM	Intake Security gate	26.9° C	66.2%	0.0	0	0.0	0.0	N/A	536	66	78		
11-Nov-22	06:00-06:05	5:33 PM	Intake (Camp DR)	26.7° C	66.2%	0.0	0	0.0	0.0	N/A	517	66	82		
12-Nov-22	06:00-06:05	5:32 PM	Intake (Camp DR)	26.7° C	66.7%	0.0	0	0.0	0.0	N/A	512	66	81		
13-Nov-22	06:00-06:05	5:29 PM	Intake Security gate	26.8° C	66.2%	0.0	0	0.0	0.0	N/A	536	66	82		
14-Nov-22	06:00-06:05	5:27 PM	Intake Pipe Camp	27.7° C	66.2%	0.0	0	0.0	0.0	N/A	522	66	82		
15-Nov-22	06:00-06:05	5:24 PM	Intake (DR)	27.8° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	81		
16-Nov-22	06:00-06:05	5:31 PM	Intake Pipe Camp	26.7° C	66.2%	0.0	0	0.0	0.0	N/A	515	66	81		
17-Nov-22	06:00-06:05	5:31 PM	Intake (Camp DR)	26.7° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	81		
18-Nov-22	06:00-06:05	5:29 PM	Intake Security gate	26.7° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	82		
19-Nov-22	06:00-06:05	5:29 PM	Intake Security gate	26.2° C	66.2%	0.0	0	0.0	0.0	N/A	547	66	78		
20-Nov-22	06:00-06:05	5:33 PM	Intake (Camp DR)	25.8° C	66.2%	0.0	0	0.0	0.0	N/A	540	66	82		
21-Nov-22	06:00-06:05	5:42 PM	Intake (Camp DR)	26.3° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	80		
22-Nov-22	06:00-06:05	5:37 PM	Intake Security gate	26.7° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	82		
23-Nov-22	06:00-06:05	5:37 PM	Intake Pipe Camp	26.8° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	81		
24-Nov-22	06:00-06:05	5:33 PM	Intake (Camp DR)	26.9° C	66.2%	0.0	0	0.0	0.0	N/A	518	66	81		
25-Nov-22	06:00-06:05	5:33 PM	Intake Security gate	26.9° C	66.2%	0.0	0	0.0	0.0	N/A	546	66	82		
26-Nov-22	06:00-06:05	5:43 PM	Intake (Camp DR)	26.9° C	66.2%	0.0	0	0.0	0.0	N/A	568	66	82		

• Table of Monitoring values



ENVIRONMENTAL STATUS
AIR QUALITY MONITORING - TCEL



Using Bosean monitoring device

- Graph showing the concentration of suspended particulate matter in the air at CAMCE's work areas on the project site
- SP_{2.5}, SPM₁₀.

**ENVIRONMENTAL STATUS
 AIR QUALITY MONITORING - TCEL**



Using Bosean monitoring device

- Graph showing the concentration of suspended particulate matter in the air at CAMCE's work areas on the project site
- SO₂-CO-NO_x

**ENVIRONMENTAL STATUS
 AIR QUALITY MONITORING - TCEL**



Air Quality readings using portable air quality monitoring device

(b) NOISE LEVEL MONITORING

ENVIRONMENTAL STATUS
 NOISE MONITORING - CAMCE

Gandharipur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OYVEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)				M M DWASA			
NOISE MONITORING RECORD									
Conditions Summary									
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage				
26.10.2022	08 kmph	N/A	22°C - 31°C	69%	Sunny				
02.11.2022	11 kmph	N/A	22°C - 31°C	56%	Partly Sunny				
Equipment Summary									
Sound level Meter: Make / Model		Sound level Meter: Serial Number		Calibrator: Model Number		Calibrator: Serial Number			
Digital SOUNDO Level Meter									
Monitoring Summary									
Date	Monitoring Location	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAmax	LAmin
26.10.2022	1	60 sec.	8:50 AM	Contractor F. Camp	N/A	N/A	54	56	52
	2	60 sec.	9:14 AM	W-91	N/A	N/A	60	70	65
	3	60 sec.	9:22 AM	East Middle Fence	N/A	N/A	60	62	58
26.10.2022	4	60 sec.	9:33 AM	North East Fence	N/A	N/A	53	55	51
	5	60 sec.	9:38 AM	North gate	N/A	N/A	51	52	50
26.10.2022	6	60 sec.	9:47 AM	Batching Plant area	N/A	N/A	58	62	55
	7	60 sec.	9:57 AM	Main Gate	N/A	N/A	64	65	62
02.11.2022	8	60 sec.	9:47 AM	CAMCE Office Complex	N/A	N/A	57	60	53
	9	60 sec.	8:34 AM	Contractor F. Camp	N/A	N/A	56	58	53
02.11.2022	10	60 sec.	8:38 AM	Main Gate	N/A	N/A	67	68	65
	11	60 sec.	8:41 AM	W-50	N/A	N/A	60	61	58
02.11.2022	12	60 sec.	8:49 AM	W-30	N/A	N/A	61	64	59
	13	60 sec.	8:55 AM	East Middle Fence	N/A	N/A	65	68	63
02.11.2022	14	60 sec.	9:07 AM	North East Fence	N/A	N/A	49	51	48
	15	60 sec.	9:10 AM	North gate	N/A	N/A	49	50	48
02.11.2022	16	60 sec.	9:19 AM	C. staff Camp	N/A	N/A	45	46	44
	17	60 sec.	9:24 AM	Batching Plant area	N/A	N/A	61	65	58
02.11.2022	18	60 sec.	9:55 AM	CAMCE Office Complex	N/A	N/A	55	57	53

ENVIRONMENTAL STATUS
 NOISE MONITORING - CAMCE

Gandharipur Water Treatment SNC A Joint Venture of SUEZ INTERNATIONAL & OYVEOLIA		DESIGN AND BUILD OF INTAKE, RAW WATER PIPELINE, AND 500 MLD WATER TREATMENT PLANT AT GANDHARPUR UNDER DHAKA ENVIRONMENTALLY SUSTAINABLE WATER SUPPLY PROJECT (DESWSP)				M M DWASA			
NOISE MONITORING RECORD									
Conditions Summary									
Date	Wind speed (MPH)	Wind Direction	Temperature	Humidity	Cloud Coverage				
09.11.2022	08 kmph	N/A	22°C - 31°C	69%	Sunny				
16.11.2022	10 kmph	N/A	26°C - 30°C	69%	Sunny				
23.11.2022	13 kmph	N/A	19°C - 29°C	69%	Partly Sunny				
Equipment Summary									
Sound level Meter: Make / Model		Sound level Meter: Serial Number		Calibrator: Model Number		Calibrator: Serial Number			
Digital SOUNDO Level Meter									
Monitoring Summary									
Date	Monitoring Location	Monitoring Duration	Time	Location	LA10	LA90	LAeq	LAmax	LAmin
09.11.2022	1	60 sec.	8:27 AM	Contractor F. Camp	N/A	N/A	60	61	58
	2	60 sec.	8:27 AM	Main Gate	N/A	N/A	60	61	58
09.11.2022	3	60 sec.	8:36 AM	W-91	N/A	N/A	62	64	59
	4	60 sec.	8:43 AM	W-91	N/A	N/A	64	66	61
09.11.2022	5	60 sec.	8:50 AM	East Middle Fence	N/A	N/A	60	61	57
	6	60 sec.	8:50 AM	North East Fence	N/A	N/A	52	54	50
09.11.2022	7	60 sec.	8:53 AM	North gate	N/A	N/A	51	52	50
	8	60 sec.	8:57 AM	C. staff Camp	N/A	N/A	49	50	48
09.11.2022	9	60 sec.	8:59 AM	Batching Plant area	N/A	N/A	63	64	61
	10	60 sec.	9:00 AM	CAMCE Office Complex	N/A	N/A	51	53	48
09.11.2022	11	60 sec.	9:03 AM	Contractor F. Camp	N/A	N/A	54	56	52
	12	60 sec.	9:06 AM	Main Gate	N/A	N/A	70	73	68
09.11.2022	13	60 sec.	9:06 AM	W-91	N/A	N/A	63	66	61
	14	60 sec.	9:08 AM	W-91 Noise monitoring	N/A	N/A	66	68	62
09.11.2022	15	60 sec.	10:00 AM	East Middle Fence	N/A	N/A	68	72	63
	16	60 sec.	10:13 AM	North East Fence	N/A	N/A	52	54	51
09.11.2022	17	60 sec.	10:18 AM	North gate	N/A	N/A	50	51	49
	18	60 sec.	10:21 AM	C. staff Camp	N/A	N/A	48	49	46
09.11.2022	19	60 sec.	10:26 AM	Batching Plant area	N/A	N/A	63	66	60
	20	60 sec.	10:30 AM	CAMCE Office Complex	N/A	N/A	53	56	51
20.11.2022	21	60 sec.	7:59 PM	North East Fence (Night)	N/A	N/A	61	63	58
	22	60 sec.	7:59 PM	W-91 (Night)	N/A	N/A	61	62	60
26.11.2022	23	60 sec.	8:07 AM	Contractor F. Camp	N/A	N/A	64	66	61
	24	60 sec.	8:17 AM	Main Gate	N/A	N/A	68	70	65
26.11.2022	25	60 sec.	8:23 AM	W-91	N/A	N/A	60	63	57
	26	60 sec.	8:27 AM	East Middle Fence	N/A	N/A	70	72	68
26.11.2022	27	60 sec.	8:27 AM	North East Fence	N/A	N/A	58	62	54
	28	60 sec.	8:35 AM	North gate	N/A	N/A	51	53	49
26.11.2022	29	60 sec.	8:38 AM	Batching Plant area	N/A	N/A	63	65	61
	30	60 sec.	10:03 AM	CAMCE Office Complex	N/A	N/A	60	63	58
Reviewed By: Mr. Anwar Hossain		Deputy HSE Manager		Signature: [Signature]		Date: 23.11.2022			
Checked By: Mr. Mervanur		HSE Manager		Signature: [Signature]		Date: 23.11.2022			

ENVIRONMENTAL STATUS
NOISE MONITORING - CAMCE



(c) SURFACE WATER QUALITY MONITORING

N/A

Form No. QSF-22

Revision No. 12

Revision Date: 04 November, 2022

ঐক্যের অঙ্গ বিভাগ

"দেশ হাসিবার দর্শন, সব মানুষের উন্নয়ন"



বাংলাদেশ বিজ্ঞান ও শিল্প গবেষণা পরিষদ

BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Particulars of supplied Sample	Parameters	Concentration	Environment Conservation Rules Standard limit** (ECR 1997) Inland Surface Water	Test Method (APHA)
Sample Location: Meghna River, Project Site: Raw Water Pipe Line, Sample-01, UP Stream (IN-114, Lab ID-191)	Manganese (Mn)	<0.05 mg/L	5.0 mg/L	3111.B
	Chromium (Cr)	0.02 mg/L	0.5 mg/L	3111.B
	Cadmium (Cd)	<0.001 mg/L	0.50 mg/L	3111.B
	Nickel (Ni)	<0.02 mg/L	10 mg/L	3113.B
	Zinc (Zn)	<0.05 mg/L	5.0 mg/L	3111.B
	Barium (Ba)	<0.05 mg/L	—	3113.B
	Total Nitrogen (Kjeldahl)	<5.0 mg/L	100 mg/L	KJELDHAL
	E.coli	Absent	Absent	ISO 7251:2005
	Fecal Coliform (MPN/100 ml)	<1.8 ^a	5000 or Less	9221B-C
	Total Phenol	0.94 mg/L	1.0 mg/L	5530.D

*As per MPN (most probable number) chart (APHA-22nd edition), MPN <1.8 indicates absence of test organism in the supplied sample.

[Signature]
05/04/2022

Analyst

A. H. M. Shofiqul Islam Molla Jamal
Senior Scientific Officer
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205.

[Signature]
05.04.2022

Supervisor

Mohammad Abdullab Al-Masdar
Principal Scientific Officer
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205.

[Signature]
05.04.2022

Director

Shamim Ahmed
Director (in-Charge)
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205

Page 2 of 2

Note

- The results reported here are based only on the supplied samples in this laboratory.
- Any complaint about test report will not be acceptable after one month from the date of issuing of the said report.
- This report must not be reproduced/published without prior approval of the authority.

Analytical Service Cell

Dr. Qudus-1-Khuda Road, Dharmoad, Dhaka-1205, Bangladesh
Telephone: 9671108, Fax: 88-02-9671108 E-mail: zso@bcsir.gov.bd Website: www.bcsir.gov.bd

Form No. QSF-22

Revision No. 12

Revision Date: 04 November, 2022

ধীনতের চন্দ্র বিজ্ঞান

"শেখ হাসিনার মর্শন, সব মাদুখে উন্নয়ন"



বাংলাদেশ বিজ্ঞান ও শিল্প গবেষণা পরিষদ

BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Institute of National Analytical Research and Service (INARS)

ANALYSIS REPORT

ASC Ref No : IN-114 of Analytical Service Cell, BCSIR, 20/02/2022
 Lab/Sample ID : A-192
 Client's Details : GANDHARBPUR WATER TREATMENT SNC Branch
 House-10C (5th Floor), Road-90, Gulshan-2, Dhaka-1212.
 Number of Sample : 02 (Two), Down Stream
 Sample Description : Meghna River water test, Ref No. GWT/GWTSNC/RIVER
 WATER/2022-02, Date: 20th Feb, 2022.
 Test Commencement Date : 22/02/2022
 Test Completion Date : 05/04/2022

Particulars of supplied Sample	Parameters	Concentration	Environment Conservation Rules Standard limit** (ECR 1997) Inland Surface Water	Test Method (APHA)
Sample Location: Meghna River, Project Site: Raw Water Pipe Line, Sample-02, Down Stream (IN-114, Lab ID-192)	pH at 25.2°C	7.85	6.0-9.0	4500-11-B
	BOD (Biological Oxygen Demand)	0.83 mg/L	6.0 of Less mg/L	5210-B
	DO (Dissolved Oxygen)	7.20 mg/L	6.0 or more mg/L	4500-O-G
	TSS (Total suspended solids)	23.0 mg/L	150 mg/L	2540-D
	TDS (Total dissolved solids)	80.5 mg/L	2100 mg/L	2540-C
	Temperature	24.7°C	40.0°C	25.2°C
	Hardness as CaCO ₃	46.6 mg/L	200-500 mg/L	2540-C
	Phosphorus (P)	<0.5 mg/L	--	4500-P-C
	Arsenic (As)	0.051 mg/L	0.2 mg/L	3114-C
	Iron (Fe)	0.30 mg/L	2.0 mg/L	3111-B
	Cobalt (Co)	<0.1 mg/L	--	3113-B
	Copper (Cu)	<0.1 mg/L	0.5 mg/L	3113-B
	Lead (Pb)	<0.01 mg/L	0.1 mg/L	3111-B
Mercury (Hg)	<0.001 mg/L	0.01 mg/L	3112-B	

Page 1 of 2

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Analytical Service Cell

Dr. Quaker-1-Khadia Road, Dhanmondi, Dhaka-1205, Bangladesh

Telephone: 9671108, Fax: 88-02-9671108 E-mail: asc@bcsir.gov.bd Website: www.bcsir.gov.bd

Form No. QSF-22

Revision No. 12

Revision Date: 04 November, 2022

জীবনের জন্য বিজ্ঞান

"শেখ হাসিনার বর্ণনা, সব মানুষের উন্নয়ন"



বাংলাদেশ বিজ্ঞান ও শিল্প গবেষণা পরিষদ

BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Particulars of supplied Sample	Parameters	Concentration	Environment Conservation Rules Standard Limit** (ECR 1997) Inland Surface Water	Test Method (APHA)
Sample Location: Meghna River, Project Site: Raw Water Pipe Line, Sample-02, Down Stream (TN-114, Lab ID-192)	Manganese (Mn)	<0.05 mg/L	5.0 mg/L	3111.B
	Chromium (Cr)	0.03 mg/L	0.5 mg/L	3111.B
	Cadmium (Cd)	<0.001 mg/L	0.50 mg/L	3111.B
	Nickel (Ni)	<0.02 mg/L	10 mg/L	3113.B
	Zinc (Zn)	<0.05 mg/L	5.0 mg/L	3111.B
	Barium (Ba)	<0.05 mg/L	--	3113.B
	Total Nitrogen (Kjeldahl)	<5.0 mg/L	100 mg/L	KJELDHAL
	E.coli	Absent	Absent	ISO 7251:2005
	Fecal Coliform (MPN/100 ml)	<1.8*	5000 or Less	9221B-C
Total Phenol	0.95 mg/L	1.0 mg/L	5530.D	

*As per MPN (most probable number) chart (APHA-22nd edition), MPN <1.8 indicates absence of test organism in the supplied sample.

05/04/2022

Analyst

A. H. M. Shofiq Islam Molla Jamal
Senior Scientific Officer
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205.

05/04/2022

Supervisor

Mohammad Abdolab Al-Mannur
Principal Scientific Officer
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205.

05.04.2022

Director

A. H. M. Shofiq Islam Molla Jamal
Senior Scientific Officer
Institute of National Analytical
Research & Service (INARS)
BCSIR, Dhaka-1205.

Page 2 of 2

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Analytical Service Cell


Dr. Qadri-I-Khuda Road, Dharmendi, Dhaka-1205, Bangladesh
Telephone: 9671108, Fax: 88-02-9671108 E-mail: asc@bcsir.gov.bd Website: www.bcsir.gov.bd

APPENDIX 7: DETAILS OF TRAINING AND CAPACITY BUILDING PROGRAMS

Package-1: Intake/RWP/WTP Construction Sites

Package-2: Treated Water Pipeline

Appendix 8: COPIES OF NOTIFICATIONS / ORDERS FOR ESTABLISHING GRM AND GRCS



Office of the Project Director
 Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
 Dhaka Water Supply and Sewerage Authority
 WASA Bhaban, 98, Kazi Nazrul Islam Avenue (9th Floor)
 Kawran Bazar, Dhaka-1215
 Web site- www.deswsp-dwasa.com , Email: pddeswspgwtp@gmail.com, Fax & Tel: 88-02-9189995

স্বাক্ষরের মধ্যস্থলে
 সীলন স্থাপন করার অনুরোধ

Memo no: 46.113.618.00.00. GN- 97/DESWSP/1234 Date- 22.08.2019

Office Order

Sub: Formation of Environmental Safeguard Grievance Redress Committee (GRC) for Gandharbpur Water Treatment Plant related works under DESWS Project, Dhaka WASA .

With due regards based on subject mentioned this is to notify you that Environmental Safeguard Grievance Redress Committee (GRC) for Gandhorbpur Water Treatment Plant related works (WTP, Intake Raw water transmission main , Finish Water transmission and distribution Feeder line) of DESWSP the PMU has formed Environmental Safeguard Grievance Redress Committee (GRC) and approved the same by the competent authority.

Environmental Safeguard Grievance Redress Committee (GRC) for Gandhorbpur Water Treatment Plant related works

Sl.	Name and Designation	Position in GRC
1.	Md. Shafiqur Rahman, DPD, DESWSP, DWASA.	Convener
2.	Mostafizur Rahman, Executive Engineer, DESWSP, DWASA.	Member
3.	Md. Al-Amin, Executive Engineer, DESWSP, DWASA.	Member
4.	National Environment Expert (Representative from MDSC), DESWSP, DWASA.	Member
5.	Md. Saidur Rahman, Safeguard Officer (Environment), DESWSP, DWASA.	Member Secretary
6.	Representative from contractor of WTP related works	Member

TOR of Environmental Safeguard Grievance Redress Committee (GRC) for Gandhorbpur Water Treatment Plant related works:

1. Environmental Safeguard Grievance Redress Committee (GRC) will be established to ensure stakeholders' participation in the implementation process and fair compensation to vulnerable affected persons (APs) for environmental safeguard issues related effects.
2. The APs can also call upon the representative of contractor/ MDSC/ PMU to assist them in presenting their grievance or queries to the GRC.
3. The GRC will receive grievance cases from the affected persons through the representative of contractor/ MDSC/ PMU.

[Signature]

02/08/19



উন্নয়নের পথকে
শেখ হাসিনার মুদ্রায়

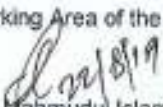
Office of the Project Director

Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
Dhaka Water Supply and Sewerage Authority
WASA Bhaban, 98, Kazi Nazrul Islam Avenue (9th Floor)
Kawran Bazar, Dhaka-1215

Web site- www.deswsp-dwasa.com , Email: pddeswspgwt@gmail.com, Fax & Tel:88-02-8189065

4. Other than disputes relating to ownership right and award of compensation by the Deputy Commissioner (DC) under the Court of Law, GRC will review grievances involving all environmental safeguard related resettlement assistances, relocation, and other supports. Grievances will be redressed within 21 days from the date of lodging the complaints. In case of complicated cases requiring additional investigations it will be resolved within a period of one month.
5. Grievance of indirectly displaced persons and/or persons displaced during project implementation due to environmental effect will also be addressed by the GRC.
6. Where relocation of structure or vacating land of cultivation will be required the GRC will facilitate resolution of complaints regarding categorization of vulnerable affected persons, type of structures, and eligibility for compensation and assistance within the set guidelines and provisions of the resettlement plan.
7. Any complaints of ownership or other suits to be resolved by the judiciary system will not be resolved in GRC. GRC will resolve all complaints, grievance related to compensation entitled by affected persons.
8. The decisions of the GRC should be ideally be arrived at through consensus, failing which resolution will be based on majority vote. Any decision made by the GRC must be within purview of environmental policy framework of GOB, ADB's Environmental Safeguard Policy Statement.
9. A minimum of 4 (four) members shall form the quorum for the meeting of GRC.
10. If needed the GRC members may undertake field visit to verify and review the issues at dispute, including titles/share, reasons for any delay in payment or other related matters.
11. In case of resolution is not accepted by the AP, the grievances will be forwarded to the Project Director for final decision.

Working Area of the GRC: The concern committee will administer the stated ToRs.


Md. Mahmudul Islam
Project Director
DESWSP Project, Dhaka WASA.

CC. (not order in seniority)

1. DPD-1/2, DESWS Project, Dhaka WASA
2. Executive Engineer-1/2/3, DESWS Project, Dhaka WASA
3. Assistant Engineer,.....DESWS Project, Dhaka WASA .
4. Safeguard Officer (Env)/ (S&G)..... DESWS Project, Dhaka WASA
5. Team Leader/ DTL , MDSC, DESWS Project, Dhaka WASA
6. National Resettlement Specialist/ Environmental Expert , MDSC, DESWS Project, Dhaka WASA
7. Team Leader, DORP, DESWS Project, Dhaka WASA
8. Team Leader EMA , DESWSP DWASA
9. Contractor Representative , GWT SNC

পঞ্চমোক্তনী বাংলাদেশ সরকার
স্থায়ী সরকার, পল্লী উন্নয়ন ও সমবায় মন্ত্রণালয়
স্থায়ী সরকার বিভাগ
পাশ-২ শাখা
www.lgd.gov.bd

উন্নয়নের পথতর
শেখ হুসিনের মূলমন্ত্র

স্মারক নং-৪৪.০০.০০০০.০৮৫.০০৬.০৬২.২০১৭-৮৩১

তারিখ : ২৭/১১/২০১৭ খ্রিঃ

অফিস আদেশ

ঢাকা ওয়াশার Dhaka Environmentally Sustainable Water Supply Project (DESWSP) এর আওতাধীন NGO Service for Resettlement Implementation Assistance for Construction of Water Treatment Plant সরকারি NGO প্রতিষ্ঠান Development Organization of the Rural Poor (DORP) এর কার্যক্রম বাস্তবায়নের লক্ষ্যে সংশ্লিষ্ট Terms of Reference (TOR) অনুমোদনসহ নিম্নোক্ত ই(জার) টি কমিটি নির্দেশক্রমে গঠন করা হলো।

Joint Verification Committee (JVC)

(a)	Executive Engineer, DESWSP, Dhaka WASA	Cohvenor
(b)	Safe-guard Officer (Social Gender), DESWSP, Dhaka WASA.	Member
(c)	Representative of the Deputy Commissioner (Land Acquisition Officer), Dhaka/Narayaganj.	Member
(d)	Representative of the Public Works Department (PWD)	Member
(e)	Representative from MDSC	Member
(f)	Area Manager, DORP	Member Secretary

TOR of JVC

1. Verify and assess physical assets, including structure, trees, crops, business, etc. to be affected on the project RoW.
2. Make an Estimate on CCL (Cash Compensation under Law) of all assets to be affected as well as assets that are not falling under CCL and submit to DC office and PMU.
3. Communicate and assist NGO for process the entitlements of the project affected person using JVC data as one of the determinants for valuation.

2. Property Valuation Advisory Committee (PVAC)

(a)	Deputy Proj. of Director/Executive Engineer, DESWSP, Dhaka WASA	Coovenor
(b)	Safe-guard Officer (Social Gender), DESWSP, Dhaka WASA.	Member
(c)	Representative of Public Works Department (PWD)/Deputy Commissioner, Dhaka/Narayaganj office	Member
(d)	Representative of Forest Department	Member
(e)	Representative of Agriculture Department	Member
(f)	Representative of Community Leader/Local Elite	Member
(g)	Representative from MDSC	Member
(h)	Area Manager, DORP	Member Secretary

TOR of PVAC

1. The PVAC will review the assessment made by the Resettlement NGO based on the market price of the properties to be affected by the project as replacement cost after verification by the JVC.
2. Communicate and assist NGO for process the entitlements of the project affected persons using PVAC data as one of the determinants for building the estimate of the replacement value.
3. PVAC may visit the site of necessary for verifying any information.
4. The committee will use CCL (Cash Compensation under Law), current Market Value (CMV) assessed by the DC Office, PWD and NGO data in proposing Replacement Value of land, structures, common property resourced and other losses prior to recommending to PMU.
5. For recommending to PMU the committee will take decision at two-third majority basis.

3. Resettlement Advisory Committee (RAC)

(a)	Executive Engineer/Sub-Divisional Engineer, DESWSP, Dhaka WASA	Convener
(b)	Representative of the Deputy Commissioner, Dhaka/Narayanganj.	Member
(c)	Representative of Local Elite/UP Chairman	Member
(d)	Representative of affected organization (if any)	Member
(e)	Representative of Displace person/Female Displace Person	Member
(f)	Representative from MDSC	Member
(g)	Area Manager, DORP	Member Secretary

TOR of RAC

1. The committee will seek local inputs from the affected people and communities in the implementation process and assist Dhaka WASA in all matters related to resettlement.
2. The RACs will ensure local participation in the implementation of the resettlement plan.
3. Communicate and assist NGO for process the entitlements of the project-affected person using NGO data verified and validated as one of the determinants.

4. Grievance Redress Committee (GRC)


(a)	Deputy Project Director/Executive Engineer, DESWSP, Dhaka WASA	Convener
(b)	Representative of UP Chairman/ Ward councilor	Member
(c)	Female UP Member	Member
(d)	Representative of Displace person (Male/Female)	Member
(e)	Representative from MDSC	Member
(f)	Representative from NGO	Member Secretary

TOR GRC

1. The Grievance Redress Committee (GRCs) will be established to ensure stakeholders' participation in the implementation process and fair compensation to affected persons.
2. The APs can also call upon the resettlement NGO to assist them in presenting their grievances or queries to the GRC.
3. The GRCs will receive grievance cases from the affected persons through the resettlement implementation NGO.

1. The Grievance Redress Committee (GRCs) will be established to ensure stakeholders' participation in the implementation process and fair compensation to affected persons.
2. The APs can also call upon the resettlement NGO to assist them in presenting their grievances or queries to the GRC.
3. The GRCs will receive grievance cases from the affected persons through the resettlement implementation NGO.
4. Other than disputes relating to ownership right and award of compensation by the Deputy Commissioner under the Court of Law, GRCs will review grievances involving all resettlement assistances, relocation, and other supports. Grievances will be redressed within 21 days from the date of lodging the complaints. In cases of complicated cases requiring additional investigations it will be resolved within a period of one month.
5. Grievances of indirectly displaced persons and/or persons displaced during project implementation will also be addressed by the GRC.
6. Where land acquisition will not be involved but relocation of structures or vacating land of cultivation will be required, the GRCs will facilitate resolution of complaints regarding categorization of vulnerable affected persons, types of structures, and eligibility for compensation and assistance within the set guidelines and provisions of the resettlement plan.
7. Any complaints of ownership or other suits to be resolved by the judiciary system will not be resolved in GRCs. GRC will resolve all complaints, grievances related to compensation entitled by affected persons.
8. The decisions of the GRC should be ideally be arrived at through consensus, failing which resolution will be based on majority vote. Any decision made by the GRC must be within the purview of social, resettlement and environmental policy framework.
9. A minimum of 4 (four) members shall form the quorum for the meeting of GRC.
10. If needed the GRC members may undertake field visit to verify and review the issues at dispute, including titles/share, reasons for any delay in payment or other related matters.
11. In case the resolution is not accepted by the AP, the grievances will be forwarded to Project Director for final decision.

কমিটির কার্যবিধিঃ উক্ত কমিটি অনুসন্ধানিত Terms of Reference (TOR) মোতাবেক কার্যক্রম পরিচালনা করবে।


 ১৯/১১/২০১৭
 (ড. কে এম মাহবুবুল্লাহ সৈয়দ)
 উপসচিব
 ফোনঃ ৯২৪০৩৭০
 watersupply_12@shco.com

স্বাস্থ্যসেবা পরিচালক

ঢাকা জেলা, ঢাকা।

অনুদানকারী (সেবার জবানবন্দী ও কার্যবিধি)

- ১। অভিন্নিক সচিব (শাখা), স্থানীয় সরকার বিভাগ।
- ২। সচিব মহোদয়ের একান্ত সচিব, স্থানীয় সরকার বিভাগ।
- ৩। প্রকল্প পরিচালক, Dhaka Environmentally Sustainable Water Supply Project (DESWSP), ঢাকা জেলা।
- ৪। কম্পিউটার প্রোগ্রামার, স্থানীয় সরকার বিভাগ (পবিসি আবেদনটি ওয়েবসাইটে প্রকাশের অনুরোধসহ)।

**APPENDIX 9: PUBLIC COMPLAINTS RECEIVED DURING REPORTING PERIOD AND
PENDING IN PREVIOUS REPORTS**

S. No.	Date of complaint	Package No.	Type of Complaint	Grievance details	Status	Number of days for resolution
1	No complaint received	Package-1	No complaint received	No complaint received	N/A	N/A
2	No complaint received	Package-2	No complaint received	No complaint received	N/A	N/A

**APPENDIX 10: PMU APPROVED SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN
OF PACKAGE-2**

Attached in Attachments