



Environmental Monitoring Report

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Semestral Report: June 2023 - November 2023
August 2025

India: Kolkata Environmental Improvement Investment Program-Tranche 3

Prepared by The Kolkata Municipal Corporation (KMC), Kolkata for the Asian Development Bank (ADB).

Asian Development Bank

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Semi Annual Environmental Monitoring Report

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**ADB Loan Number 3689-IND
Period Covered: June 2023 to November 2023**

NOVEMBER 2023

**IND: KOLKATA ENVIRONMENTAL IMPROVEMENT
INVESTMENT PROGRAM (KEIIP) – Project 3**

Prepared by Project Management Unit, Kolkata Environmental Improvement Investment Program, Kolkata Municipal Corporation, Government of West Bengal for Asian Development Bank



**KOLKATA ENVIRONMENTAL
IMPROVEMENT INVESTMENT PROGRAM
(KEIIP) – PROJECT 3**

PROJECT MANAGEMENT UNIT

10th

SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT

TRANCHE 3

ADB Loan 3689-IND

(Period June 2023 to November 2023)

December 2023



KOLKATA MUNICIPAL CORPORATION

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ABBREVIATIONS

AAQS	-	Ambient Air Quality Standard
ADB	-	Asian Development Bank
ASI	-	Archaeological Survey of India
BIS	-	Bureau of Indian Standards
BOD	-	Biochemical Oxygen Demand
CBO	-	Community Based Organization
COD	-	Chemical Oxygen Demand
CPCB	-	Central Pollution Control Board
CPHEEO	-	Central Public Health and Environmental Engineering Organisation
CTE	-	Consent to Establish
CTO	-	Consent to Operate
CW	-	Canal Water
DG	-	Diesel Generator
DO	-	Dissolved Oxygen
DPR	-	Detailed Project Report
DSC	-	Design and Supervision Consultants
DWF		Dry Weather Flow
KMC	-	Kolkata Municipal Corporation
EA	-	Executing Agency
EARF	-	Environmental Assessment and Review Framework
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
GRC	-	Grievance Redressal Committee
GRM	-	Grievance Redress Mechanism
GW	-	Groundwater
HC	-	Hydrocarbons
IEE	-	Initial Environmental Examination
INR	-	Indian National Rupee
KEIP	-	Kolkata Environmental Improvement Project
KEIIP		Kolkata Environmental Improvement Investment Program
KMC	-	Kolkata Municipal Corporation
KMDA	-	Kolkata Metropolitan Development Authority
LPG	-	Liquefied Petroleum Gas
MoEFCC	-	Ministry of Environment and Forest & Climate Change, Government of India
NAAQS	-	National Ambient Air Quality Standards
NIOSH	-	National Institute of Occupational Health

NGO	-	Non - Government Organization
O&M	-	Operation and Maintenance
PMC	-	Project Management Consultant
PMU	-	Project Management Unit
PS	-	Pumping Station
REA	-	Rapid Environmental Assessment
ROW	-	Right of Way
RP	-	Resettlement Plan
S & D	-	Sewage & Drainage
SEIAA	-	State Level Environmental Impact Assessment Authority
SPM	-	Suspended Particulate Matter
SPS	-	Safeguard Policy Statement
STP	-	Sewage Treatment Plant
SWF	-	Storm Water Flow
SW	-	Surface Water
TDS	-	Total Dissolved Solids
TMP	-	Traffic Management Plan
TSS	-	Total Suspended Solids
UFW	-	Unaccounted For Water
USD	-	US Dollar
WBPCB	-	West Bengal Pollution Control Board
WTP	-	Water Treatment Plant

I. INTRODUCTION

A. Background

1. Kolkata Environmental Improvement Project (KEIP) was a key urban infrastructure initiative of the Kolkata Municipal Corporation (KMC) funded by Asian Development Bank (ADB) since 2000 which succeeded in improvement of the urban environment and quality of life in parts (mainly added areas) of KMC area. On completion of the project, both KMC & ADB agreed to continue their combined effort to improve further basic urban municipal infrastructures services of Kolkata through a multi - tranche financing program (MFF) of US \$400 million - 'Kolkata Environmental Improvement Investment Program' (KEIIP). Figure in **Appendix 1** shows the areas of Kolkata considered to be taken up under KEIIP Tranche 1, 2 & 3. ADB has released the necessary fund for implementation. The total investment duration for Tranche 1, 2 & 3 is from 2014 to 2022. Tranche 3 sub projects commenced during first quarter of 2019 and will be completed by second quarter of 2023. Following subprojects have been included in Tranche 3 –

SD-27R: Improvement of S&D network and construction of a pumping station in Alipore body guard line premises in ward 74

SD-28: Construction of Sewage Treatment Plan (45 MLD) near WBSETCL, Joka

SD-29: Construction of Sewage Treatment Plant (40 MLD) at Bank Plot, MG road, Joka

SD-30R: Construction of Sewage Treatment Plant (30 MLD) at Rajpur-Sonarpur

SD-31LOT-1 -Development of S&D network in Churial extension PS catchment and Diamond Park catchment and construction of Churial extension pumping station (annex) in Borough XVI (part of ward 124, 143 and 144).

SD31R2 –Development of S&D network in Bakrahat Road catchment and Laying of RCC sewer line along Bakrahat Road and DH Road by microtunnelling and cut & cover method

SD – 32: Improvement of S&D system in Mukundapur area (part of ward 109) including construction of pumping station at Mukundapur area (Ward 109)

SD – 34: Construction of two new pumping stations near Lalababu Nikashi and Bagjola Canal and within Behala node C premises, Shakuntala Park

2. The main objective of the Program is to improve service quality and operational sustainability of increased water supply and sewerage in 20% of the KMC area. The Investment Program also aims towards increase in operational efficiency and scale of water supply, sewerage and drainage services in 5% of KMC area.

3. The Program output comprises of:

- ✓ rehabilitation of inefficient and outdated water supply assets;
- ✓ continued extension of sewerage to newly developed areas and
- ✓ further development of financial and project management capacity.

4. The Program is being carried out by the Govt. of West Bengal (GoWB) acting through KMC as the Executing Agency (EA). Sub project location map for **Tranche 3 (Project 3)** is shown in **Appendix 1**.

B. Project & Report Purpose

5. The environmental impacts of the sub projects under Tranche 3 were assessed through Initial Environmental Examination (IEE), prepared according to ADB Safeguard Policy (SPS 2009) and have been classified as environmental assessment category B¹ by ADB.

6. This report is the 10th Semi Annual Environment Monitoring Report (SEMR) covering period from June 2023 to November 2023 and describes the implementation of the environmental management plan (EMP) in respect of each subproject of Tranche 3 as laid down in the approved IEE.

¹ some negative impacts but less significant than category A as per SPS 2009

II. IMPLEMENTATION PROGRESS

A. Status of Subprojects under Tranche 3

7. Total eight packages of Sewerage and Drainage have been considered under Tranche 3. Out of which 3 are STP projects², 4 projects include S&D network with pumping station³ and 1 package includes laying of RCC sewer line⁴. The summary of subprojects (packages) under Tranche 3 including their work components, starting date and schedule date of completion, physical progress and progress of implementation of work components as on 30th November 2023 is presented in table 1. Till date (30th November, 2023) Contract has been awarded for all the 8 contract packages. All the subprojects are in implementation stage.

² SD-28, SD-29 & SD-30

³ SD-32

⁴ SD-31 (Lot-2)

Table 1: Summary of Subprojects under KEIIP Tranche 3 (on 30th November, 2023)

Package Name and No.	Work components	Start date & Target date of completion	% Physical Progress as on 30 th November, 2023	Status off progress of work up to 30 th November, 2023
SD-27R: Improvement of S&D network and construction of a pumping station in Alipore body guard line premises in ward 74	<ul style="list-style-type: none"> Improvement of S&D network Construction of a pumping station in Alipore body guard line premises 	Start date-20.11.19 Date of completion 15.12.2022	100	RCC pipe laying work completed upto 2890 m out of total 2950 m. MS 1000 mm dia pumping main laying via 1 km open cut and micro tunnelling method completed. Construction of 1 no. of pumping station completed, finishing work in progress. House Drainage Connection completed (total 70 numbers).
SD-28: Construction of Sewage Treatment Plan (45 MLD) near WBSETCL, Joka	<ul style="list-style-type: none"> Construction of Sewage Treatment Plan (45 MLD) Construction of Sewer line up to outfall 	Start date-08.03.19 Target date of completion 30.06.2024	68.05	Construction at all four SBR basins, substation, chlorine tank, chlorine tonner shade, centrifuge building, inlet and staff quarter is in progress.
SD-29: Construction of Sewage Treatment Plant (40 MLD) at Bank Plot , MG road , Joka	<ul style="list-style-type: none"> Construction of Sewage Treatment Plan (40 MLD) Construction of Sewer line up to outfall 	Start date-08.03.19 Target date of completion 30.06.2024	75.73	Construction at all four SBR basins , substation, chlorination building, CCT, inlet, centrifuge building, staff quarter are in progress.
SD-30R: Construction of 23MLDSewage Treatment Plant at Rajpur – Sonarpur , Rania including Operation & Maintenance for 15 years	<ul style="list-style-type: none"> Construction of Sewage Treatment Plan (23 MLD) Construction of Sewer line up to outfall 	Start date-04.05.21 Target date of completion 30.06.2024	97.50	Construction at all four SBR basins are in progress. Work in progress for administrative building.
SD-31LOT-1 - Development of S&D network in	<ul style="list-style-type: none"> Construction of S&D network in Churial 	Start date-18.10.19 Target date of	50.50	RCC pipe laying work completed upto 8646 m out of total 14222 m.

Package Name and No.	Work components	Start date & Target date of completion	% Physical Progress as on 30 th November, 2023	Status off progress of work up to 30 th November, 2023
Churial extension PS catchment and Diamond Park catchment and construction of Churial extension pumping station (annex) in Borough XVI (part of ward 124, 143 and 144)	<p>extension PS catchment and Diamond Park catchment</p> <ul style="list-style-type: none"> • Construction of Churial extension pumping station 	completion 30.06.2024		Construction of wet well, screen chamber, inlet chamber are in different stages of progress. House Drainage Connection completed 306 numbers out of total 1580 numbers.
SD-31R2 - Development of S&D network in Bakrahat road catchment (Ward 125) by cut & cover method and laying of RCC sewer line along Bakrahat road and DH road by micro tunneling	<ul style="list-style-type: none"> • RCC sewer line along Bakrahat Road and DH Road by micro tunneling and cut & cover method 	Start date- 04.01.21 Target date of completion 30.06.2024	54.50	<ul style="list-style-type: none"> • S&D Network laying work completed upto 1600 m out of total 2500 m. • 3Nos micro tunneling pit construction are completed at Bakrahat road. • 7Nos micro tunneling pit construction are completed at DH road
SD – 32: Improvement of S&D system in Mukundapur area (part of ward 109) including construction of pumping station at Mukundapur & North Sreerampur	<ul style="list-style-type: none"> • Construction of pumping station at Mukundapur Improvement of S&D system in Mukundapur area 	Start date 30.06.2021 Target date of completion 30.06.2024	92	RCC pipe laying work completed upto 6430 m out of total 6700 m. Laying of pumping main completed for 4680 m out of 5450 m. 40% of construction of pumping station is completed. Excavation completed for compensatory pond. House Drainage Connection completed 433 numbers out of total 500 numbers.
SD – 34: Construction of pumping station at Lalababu	<ul style="list-style-type: none"> • Construction of pumping station 	Start date- 29.11.19 Target date of	91.50	<ul style="list-style-type: none"> • Construction of pumping station at Behala Sakuntala Park completed and

Package Name and No.	Work components	Start date & Target date of completion	% Physical Progress as on 30 th November, 2023	Status off progress of work up to 30 th November, 2023
Nikashi and Shakuntala Park	at Lalababu Nikashi <ul style="list-style-type: none"> • Upgrading of existing pumping station at Shakuntala Park 	completion 30.06.2024		commissioned on 21.09.2022. <ul style="list-style-type: none"> • Sub-station building, inlet chamber, diversion of box drain has been completed. Well sinking is completed and DWF pumping main almost completed. • Procurement of electromechanical items including pumps almost completed and erection of 2nos transformers is completed. Screen chamber and pump house structure work are in progress.

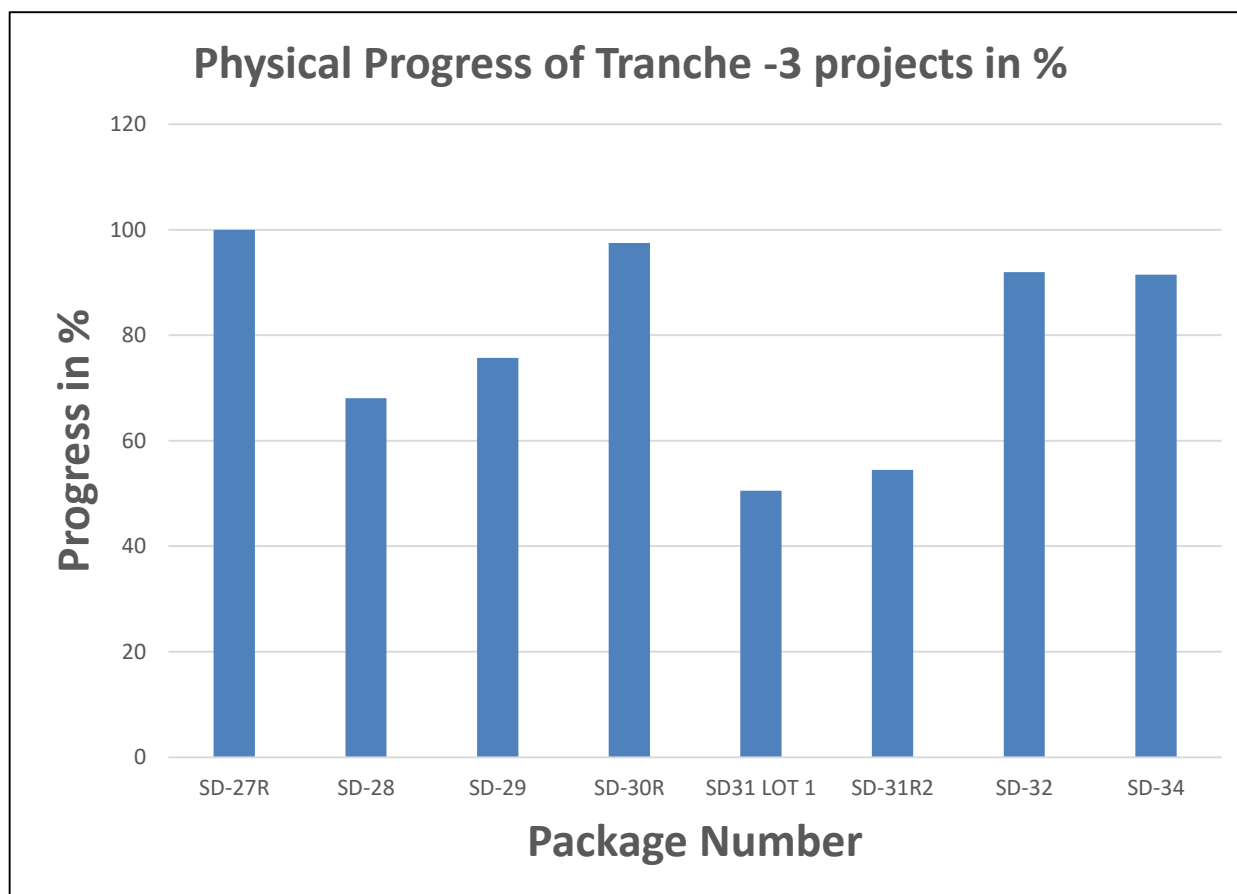


Figure 1 : Status of contract package wise progress of work under Tranche 3

C. Compliance of Safeguard Loan Covenants

8. The loan agreement for KEIIP Project 3 was signed on 3rd October 2018 and details are available in ADB website (<http://www.adb.org/projects/documents/loan-3689-ind-keiip>). **Table 2** provides a summary of compliance to the loan covenants related to environmental safeguards.

Table 2 : Compliance of Loan Covenants – Environment part

Serial no. Schedule 5 of loan agreement	Program Specific Covenants	Status / Issues
Environment		
7	The Borrower shall ensure or cause the EA to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all projects' facilities comply with (i) all applicable laws and regulations	Under compliance Documents have been prepared/ by complying all relevant State and National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF) for Tranche-3 program.

Serial no. Schedule 5 of loan agreement	Program Specific Covenants	Status / Issues
	<p>of the Borrower and the State relating to environment, health, and safety; (ii) the Environmental Safeguards; (iii) the EARF; and (iv) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	<p>For Tranche 3 project Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB.</p> <p>Initially, IEE for all packages have been submitted to ADB for disclosure in website. Further, IEE for subprojects SD-30R, SD-31R2, SD-32 have been updated in the month of October 2020 and IEE for SD32 and SD30R have been updated in April and May 2022 due to further change in scope of work and submitted to ADB.</p> <p>Statutory clearances (Consent to establish, NOC) from State Pollution control board have been obtained for proposed STPs (SD-28, SD-29, SD30R)⁵</p> <p>Tree cutting permission has been obtained from DFO for SD–29 packages⁶, total 40 No. of tree felling already done. Compensatory plantation will be done after the completion of the project during green belt development around the STP.</p> <p>All measures and requirements as prescribed in IEE and EMP are being considered during implementation.</p> <p>Corrective or preventive action plans will be reflected in Environment Monitoring Report and project implementation authority will take care of such actions when required.</p>
Human and Financial Resources to Implement Safeguards Requirements		
11	<p>The Borrower shall ensure or cause the EA to ensure that all necessary budgetary and human resources to fully implement the EMP and RP, as required, are made available.</p>	<p>Complied</p> <p>Budgetary provisions have been included in EMP of Tranche 3 projects.</p> <p>An Environment Specialist appointed in Project Management Unit who is responsible for monitoring EMP compliances.</p>

⁵ Refer appendix 4A & 4B

⁶ Refer appendix 4C

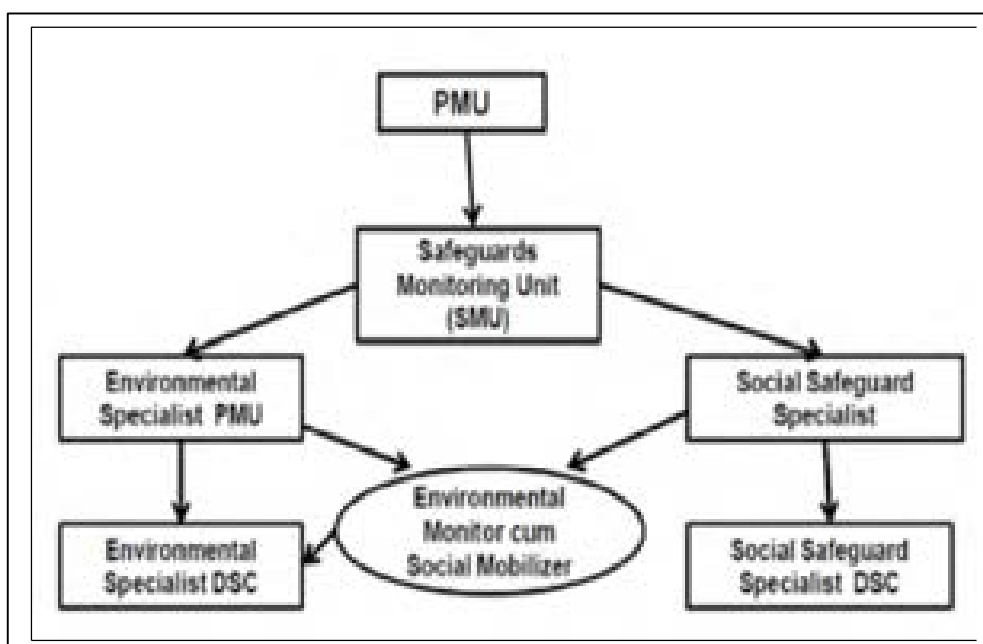
Serial no. Schedule 5 of loan agreement	Program Specific Covenants	Status / Issues
		Environmental Specialist and Environment Engineer of DSC for implementation of EMPs are in place for regular monitoring to ensure EMP compliance in the projects.
Safeguards – Related Provisions in Bidding Documents and Works Contracts		
12.	<p>The Borrower shall ensure, or cause the EA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RP and the IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental measures;</p> <p>(c) provide the EA with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the IPP;</p> <p>(d) adequately record the condition of roads, agricultural</p>	<p>Under compliance</p> <p>(a) IEE and EMP are part of contract document. Approved IEE, EMP for Tranche 3 project is attached in Bidding documents. This process will be followed for all the sub projects within the present Tranche.</p> <p>In case of any change of scope, revised IEEs with EMP(s) and revised IEE log sheet will be prepared and corrective measures will be disclosed to the contractor and same will be reflected in the “Environment Monitoring Report”.</p> <p>Initially, IEE for all packages have been submitted to ADB for disclosure in website. Further, IEE for subprojects SD-30R, SD-31R2, SD-32 has been updated in the month of October 2020 and IEE for SD32 and SD30R have been updated in April and May 2022 due to further change in scope of work and submitted to ADB.</p> <p>(b) IEE indicates budgetary provisions for implementation of EMP.</p> <p>(c) During implementation of any sub project if additional impacts/risks arise due to change in scope/area, those will be reflected in the revised IEEs, EMPs and Environment Monitoring Report and accordingly project Executing Agency will inform the Construction Agency for taking relevant corrective measures.</p> <p>(d) Haul roads will be marked properly (by avoiding residential and agricultural land) before commencement of transportation of materials.</p>

Serial no. Schedule 5 of loan agreement	Program Specific Covenants	Status / Issues
	<p>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>(e) Pathways, infrastructure and land which are likely to be affected for varying periods during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report.</p>
Safeguards Monitoring and Reporting		
13	<p>The Borrower shall cause the EA 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 IEEs, the EMPs, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) Report any breach of compliance with the measures and requirements set forth in the EMPs, promptly after becoming aware of the breach.</p>	<p>Under compliance</p> <p>(a) This is 10th Semi-annual safeguard monitoring report on Environment for Project 3 (Tranche 3) for the period June, 2023 to November, 2023.</p> <p>(b) During implementation of any sub project, if additional impacts/risks arise due to change in scope /area, those will be reflected in revised IEEs with EMPs and accordingly PMU, KEIIP will inform the ADB such change along with corrective action plan which will be reflected in the subsequent Monitoring Reports. An addendum to the IEE, SOP- Health & Safety Plan in response to COVID-19 has been disclosed in ADB website in June 2020</p> <p>(c) In case of any breach of compliance with the measures and requirements set forth in the EMP, EA will promptly inform ADB and suitable corrective action program will be planned /initiated.</p>
Prohibited List of Investments		
14	<p>The Borrower shall ensure or cause the State to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>	<p>Complied</p> <p>Under Tranche -3, there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5.</p>

Serial no. Schedule 5 of loan agreement	Program Specific Covenants	Status / Issues
Other Social Measures		
15	The EA shall ensure that civil works contracts under the Project follow all applicable labor laws of the Borrower and the State, and that these further include provisions to the effect that contractors: (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors.	<p>Complied in Bid documents and being complied during implementation</p> <p>Provision is included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours.</p> <p>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.</p> <p>All activities including awareness program will be reflected in "Monitoring Report".</p>

D. Implementation Arrangement

9. The institutional arrangement follows KEIIP's organizational structure and functions (**Figure 2**). The subproject is being implemented and monitored by the Project Management Unit (PMU). The KEIIP's PMU Environment Specialist is the overall in-charge on Environmental safeguard of the program. The responsibilities of the Environmental Specialist are to ensure that (i) environmental safeguard issues are addressed; (ii) EMP & approved Site Environment Management Plan (SEMP) is implemented; (iii) physical and non-physical activities under the subproject are monitored; and (iv) monitoring reports are prepared on time and submitted to ADB. Safeguard Monitoring Unit (SMU) of PMU is ensuring field level monitoring and safeguard documentation.



Notes: PMU = Project Management Unit; DSC = Design and Supervision Consultants

Figure 2 : Institutional Arrangement – Safeguard

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

11. The Safeguards Monitoring Unit will:

- (i) prepare the REA checklist, draft the EIA/IEE and arrange for disclosure of the approved EIA/IEE in the website
- (ii) Ensure that Environmental Clearance (EC), Consent to Establishment and Consent to Operate and other certificates, as required, are obtained in time from appropriate authorities and ensure compliances with conditions imposed.
- (iii) ensure incorporation of the EMP, environmental mitigation and monitoring measures into the contract documents
- (iv) monitor disclosure and public consultation arranged by DSC during IEE process and ensure that comments are reflected in the IEE report
- (v) ensure disclosure of information throughout the duration of the subproject through suitable visual means and publications
- (vi) provide necessary input for grievance redress
- (vii) approve contractor's proposed locations for construction work camps, storage areas, hauling roads, lay-down areas, and disposal areas for solid and hazardous wastes on recommendations of DSC
- (viii) guide the contractor for drawing up of Site Environmental Management Plan and to approve the same
- (ix) induct the contractor for taking up the construction following environmental and

social safeguards

- (x) Facilitate scheduled monitoring during implementation of the project.
- (xi) Carry out regular onsite monitoring and guide the contractor to adopt the required site management standard.
- (xii) ensure the required health and safety measures at work sites as per “Standard Operating Procedure” during COVID pandemic situation issued by DSC, KEIIP and approved by ADB
- (xiii) obtain in time and to review the monthly monitoring report of the contractors
- (xiv) prepare 6-monthly monitoring and EMP implementation report, including the status of project compliance, statutory clearances and relevant loan covenants, and submit the approved 6-monthly report to ADB and seek permission to disclose the same in the investment program website
- (xv) prepare monitoring report on post-construction activities by the contractors as specified in the EMP

12. The contractor’s responsibilities included:

- (i). Submission of Site environmental plan (SEP) covering proposed sites / locations for construction work camps, storage areas, haul roads, lay down areas, disposal areas for solid and hazardous wastes
- (ii). Compliance with all applicable legislation and be conversant with the requirements of the EMP/ approved SEMP;
- (iii). Briefing of his staff, employees, and Labours about the requirements of the EMP/ approved SEMP;
- (iv). Ensuring that all sub-contractors/suppliers engaged within the context of the contract comply with the environmental requirements of the EMP/ approved SEP. The contractor will be held responsible for non-compliance on their behalf;
- (v). Providing methodology/information for all activities requiring special attention as specified and/or requested by the DSC Environment Specialist during the duration of the Contract;
- (vi). Providing environmental awareness training to staff, employees, and Labours;
- (vii). Bearing the costs of any damages/compensation resulting from non-adherence to the EMP/ approved SEMP or written site instructions;
- (viii). Conducting all activities in a manner that minimizes disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment.
- (ix). Ensuring that the PMU and DSC Environment Specialists are timely informed of any foreseeable activities that will require their expert input
- (x). Site specific health and safety plan in response to Coronavirus disease (COVID – 19) pandemic as per “Standard Operating Procedure” issued by KEIIP, PMU
- (xi). Site specific health and safety plan needs to be approved by Environment specialist of DSC/PMU and ADB

13. Environment Specialist and Environment Engineer of DSC visited all construction sites every month and arranged orientation training program for contractors (Tranche 3) and supervisory staff and instructed contractors for application of corrective action measures to mitigate impacts. **Table 3** shows detail of environment safeguard team for KEIIP.

Table 3 : Details of KEIIP Environmental Safeguard Team

Designation	Name and Contact Details
PMU, Environment officer	Name: Mrs. Runkini Ghosh Office Address: Kolkata Environmental Improvement Investment Program (KEIIP), 206 A. J. C Bose Road, Kolkata 700017 Phone:033 2283 0169 Email:pdkeiip@gmail.com, o:rdas085@gmail.com
DSC, Environment Specialist	Name: Dr. Bidisha Mukherjee Office Address: Kolkata Environmental Improvement Investment Program (KEIIP), 206 A. J. C Bose Road, Kolkata 700 017 Phone:033 2283 0044 Email: bidisha1809@gmail.com , keiipenvs@gmail.com ,
DSC, Environmental Engineer	Name: Anushka Chakraborty Office Address: Kolkata Environmental Improvement Investment Program (KEIIP), 206 A. J. C Bose Road, Kolkata 700 017 Phone:033 2283 0044 Email: keiipenvs@gmail.com

III. ENVIRONMENTAL PROCEDURE REVIEW

A. Environmental Legal Requirement

14. For implementation of the project both national and state rules & regulations need to be followed. **Table 4** in next section indicates environment legal requirement for the projects under KEIIP.

B. Compliance with Environmental Legal Requirements

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

16. Under **Tranche 3** present status of Environment, forest and other clearances are mentioned below.

Table 4: Status of Compliance with National and State Legal Requirements
(up to 31st May, 2023)

Package	Main package work	National and State Legal Requirement Applicable to the sub-project	Conditions of the Clearance/NOCs
SD-27R	Improvement of S&D network and construction of a pumping station in Alipore body guard	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987	NA

Package	Main package work	National and State Legal Requirement Applicable to the sub-project	Conditions of the Clearance/NOCs
	line premises in ward 74	In case of setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO) from SPCB	
SD-28	Construction of Sewage Treatment Plant (45 MLD) near WBSETCL, Joka	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Consent to Establish (CTE) and Consent to Operate (CTO) to be obtained from SPCB Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	CTE (NOC) from West Bengal Pollution Control Board obtained. (refer appendix-4A)
SD-29	Construction of Sewage Treatment Plant (40 MLD) at Bank Plot , MG road , Joka	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Consent to Establish (CTE) and Consent to Operate (CTO) to be obtained from SPCB West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006- Tree felling permission Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO) from CPCB.	CTE (NOC) from West Bengal Pollution Control Board obtained. (Refer appendix-4B) Tree cutting permission has been obtained from Divisional Forest Officer vide permit No. 122/FUD/19 dated 19.02.2020 (Refer appendix-4C)
SD-30R	Construction of Rajpur-Sonarapur Sewage Treatment Plant (30 MLD)	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Consent to Establish (CTE) and Consent to Operate (CTO) to be obtained from SPCB Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	CTE (NOC) from West Bengal Pollution Control Board obtained (Refer appendix-4D).

Package	Main package work	National and State Legal Requirement Applicable to the sub-project	Conditions of the Clearance/NOCs
SD-31 LOT-1 -	Development of S&D network in Churial extension PS catchment and Diamond Park catchment and construction of Churial extension pumping station (annex) in Borough XVI (part of ward 124, 143 and 144).	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	NA
SD-31R2	Laying of RCC sewer line along Bakrahat Road and DH Road by micro tunneling and cut & cover method	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	NA
SD – 32	Improvement of S&D system in Mukundapur area (part of ward 109) including construction of pumping station at Mukundapur area	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	NA
SD – 34	Construction of pumping station at Lalababu Nikashi and upgrading of existing pumping station at Shakuntala Park	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	NA

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

17. Total eight packages of Sewerage and Drainage have been considered under Tranche 3. Out of which 3 are STP projects⁷, 4 projects include S&D network with pumping station⁸ and 1 package includes laying of RCC sewer line⁹.
18. Till date (31st May) Contract has been awarded and Notice to Proceed (NTP) has been issued to all the contract packages. Work in different stages of progress at all contract packages.
19. Statutory clearances¹⁰ have been issued by West Bengal Pollution Control Board for SD-28, SD-29 and SD 30R. Tree felling permission has been obtained from the Divisional Forest Officer for SD 29.
20. Environment Specialist from DSC and PMU carried out periodic site visits and monitoring of EMP implementation through mainly desk review of contractor's records and periodic site visit. Package wise summarised compliance to EMP implementation for the period June 2023 to November 2023 are presented in Table 5 of this report.
21. Contractors have been asked to submit site specific EMP before starting of each construction packages.
22. Baseline environmental monitoring have been conducted for all construction packages at the beginning of work and construction stage monitoring has been carried out during reporting period.
23. Over all, most of the sites are environmentally well managed. However, scopes for further improvement in site management measures have been explained to the contractors. Necessary action to minimize deficiencies in EMP implementation has been communicated verbally and also in writing to the concerned contractors.

⁷ SD-28, SD-29 & SD-30

⁸ SD-32

⁹ SD-31 (Lot-2)

¹⁰ Consent to Establish (NOC)

Table 5: Summarized Compliance to EMP Implementation for Tranche -3 Packages

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
Pre Construction - Design phase												
1	Site clearance	Site preparation work including necessary clearance and permission.	<ul style="list-style-type: none"> Tree felling requirement – site environment plan. NOC – paper documents from line agency. Method - Site observation and document 	Environment Specialist of DSC and PMU	All Project locations, before commencement of physical work.	Tree felling not required. NOC (CTE) issued by West Bengal Pollution Control Board for Consent to Establish (Refer Appendix 4A)	40 (forty) nos. of tree felling done in the STP premise, for that permission has already been obtained from Divisional Forest Officer vide permit	Tree felling not required. NOC (CTE) issued by West Bengal Pollution Control Board for Consent to Establish. (Refer Appendix 4D)	Tree felling not required.	Tree felling not required.	Tree felling not required.	Tree felling not required.

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
			checking.				No. 122/FUD/19 dated 19.02.2020 (Refer appendix - 4C) NOC (CTE) issued by West Bengal Pollution Control Board for Consent to Establish					

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
							(Refer Appendix 4B					
2	Access to Site	<ul style="list-style-type: none"> maintained via existing roads Involve ment of local Traffic Department in the planning stages for road closure 	<ul style="list-style-type: none"> Involve ment of traffic dept. Road closure planning Method – Site observation 	Environment Specialist of DSC and PMU	Specific project location	Site is accessible.	Working site is accessible.	Site is accessible .	Working site is accessible,	Site is accessible.	Site is accessible.	Site is accessible .

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		traffic diversion.										
3	Affected utilities	Shifting of affected utilities like electric and telephone lines, cable lines, pipe lines etc.	<ul style="list-style-type: none"> List of affected utilities if any, contact operators. Bid document to include requirement for a contingency plan for service interruptions. Method 	Environment Specialist of DSC and PMU	Specific project location	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.	Done as per requirement with the help of concerned authority.

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
			- Site observation and document checking.									
4	Water supply	Health risk due to damage in water supply line	<ul style="list-style-type: none"> Schedule of closure. Delivery of KMC potable water to affected people. Method - Site observation 	Environment Specialist of DSC and PMU	Specific project location	Not required as per present nature of work	Not required as per present nature of work	Not required as per present nature of work	Immediate repairing done with the help of concerned authority in case of any damage of water supply pipeline occur	Immediate repairing done with the help of concerned authority in case of any damage of water supply pipeline occur during the	Immediate repairing done with the help of concerned authority in case of any damage of water supply pipeline occur during the construction activity.	Immediate repairing done with the help of concerned authority in case of any damage of water supply pipeline occur during the construction activity.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
									during the construction activity.	construction activity.	supply pipeline occur during the construction activity.	
5	Traffic Management	Planning for Traffic Management	Ensure traffic management plan is part of contract documents and being implemented. Method - Site observation	Environment Specialist of DSC and PMU	-	Not required as per present nature of work	Not required as per present nature of work	Not required as per present nature of work	Traffic management plant has been approved by DSC/PMU and Traffic	Traffic management plant has been approved by DSC/PMU and Traffic Police Dept.	Traffic management plant has been approved by DSC/PMU	Traffic management plant has been approved by DSC/PMU and Traffic Police Dept.

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
			and document checking.						Police Dept.		and Traffic Police Dept.	
6	Setting of construction camps, hot mix plants, stockpile areas, storage areas, and disposal areas.	<ul style="list-style-type: none"> Planning for setting up construction camp, hot mix plants, stockpile areas, storage areas, and disposal areas – to be submitted to DSC for prior 	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas. Method - Site observation and document checking.	Environment Specialist of DSC and PMU	Camp and other sites, before start of physical work & Continuous	Setting of hot mix plant is not required. Labour camp is located within project site	Setting of hot mix plant not required. site office has been established with labor hutment.	Setting of hot mix plant is not required. Labour camp is located within project site	Setting of hot mix plant is not required.	Setting of hot mix plant is not required.	Setting of hot mix plant is not required.	Setting of hot mix plant is not required.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		approval • Prioritize areas within or nearest possible vacant space in the sub-project location • No use of residential areas • No disposal of waste in water										
7	Establishing Equipment	• Choice of location	List of selected location and facility.	Environment Specialist of DSC	Proposed locations considered in the	Equipment lay down and storage areas have been	Equipment lay down	Equipment lay down and	Equipment lay down	Equipment lay down	Equipment lay	Equipment lay down and

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	Lay-down and Storage Area ¹¹	for equipment lay-down and storage areas must take into account prevailing winds, distances to adjacent land uses, general on-site topography and water	Method - Site observation and document checking.	and PMU	package. Before start of physical work & Continuous	designated, demarcated and fenced	and storage areas have been designated demarcated and fenced	storage areas have been designated, demarcated and fenced	and storage areas have been designated demarcated and fenced	and storage areas have been designated, demarcated and fenced	down and storage areas have been designated, demarcated and fenced	storage areas have been designated demarcated and fenced.

¹¹ Storage areas can be hazardous, unsightly and can cause environmental pollution if not designed and managed carefully

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		erosion potential of the soil. • Storage areas shall be secure so as to minimize the risk of crime. • Away from school and direct residential areas • Fire prevention facilities must be										

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		present at all storage facilities • Proper storage facilities for the storage of oils, paints, grease, fuels, chemicals and any hazardous materials • These storage facilities (includin										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		g any tanks) must be on an impermeable surface <ul style="list-style-type: none"> • Staff must be aware of their potential impacts and follow the appropriate safety measures 										
8	Education of site	<ul style="list-style-type: none"> • Ensure that all site 	Documentation –	Environment Specialist	-	Training has been provided to	Training has	Training has been	Training has	Training has	Training has	Training has been

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	staff on general and Environmental Conduct ¹²	personnel have a basic level of environmental awareness training <ul style="list-style-type: none"> All employees must undergo safety training and wear the necessary protective clothing 	Training and awareness. Method - Materials and records on awareness training program	of DSC and PMU		safety officer by DSC.	been provided to safety officer by DSC.	provided to safety officer by DSC	been provided to safety officer by DSC.	been provided to safety officer by DSC	has been provided to safety officer by DSC	provided to safety officer by DSC.

¹² These points need to be made clear to all staff on site before the subproject begin.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	Construction											

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	Materials Management – Sourcing	<ul style="list-style-type: none"> Contractors shall prepare a source statement indicating the sources of all materials (including topsoil, sands, natural gravels, crushed stone, asphalt, clay liners etc), and submit 	<ul style="list-style-type: none"> List of approved quarry sites and sources of materials Bid document to include requirement for verification of suitability of sources and permit for addition 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Quarries and material source areas. Daily visit by construction supervisor of DSC. Weekly visit by Construction Manager. Fortnight visit by Environment Specialist / Environmental Engineer.	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources	Before construction at site, contractor has submitted list of construction materials and its sources

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	g ¹³	these to the DSC for approval prior to commencement of any work. <ul style="list-style-type: none"> • Use of Govt. approved quarry sites for procurement of materials • Verify suitability of all material sources and 	all quarry sites if necessary. <ul style="list-style-type: none"> • Construction Contractor documentation • Method - Site observation and document checking. 									

¹³ Materials must be sourced in a legal and sustainable way to prevent offsite environmental degradation.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		obtain approval of Investment from PMU/DSC										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
10	Maintenance of Construction Camp	<ul style="list-style-type: none"> Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement Train employees in the storage and 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste. Method – site 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Camp site. Same as above.	Satisfactory	Satisfactory	Satisfactory	Partial Satisfactory, need to be further improve.	Partial Satisfactory, need to be further improve.	Partial Satisfactory, need to be further improve.	Partial Satisfactory, need to be further improve.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		handling of materials • Remove all wreckage, rubbish, or temporary structures	observation									

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
11	Landscaping and Aesthetics	<ul style="list-style-type: none"> Removal of overburden and excavated material from working site and use / preservation of the same – as per mitigation measures Fencing of storage areas 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/DSC to report in writing that the necessary environmental restoration work has 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations. Same as above.	Maintained as per EMP	Maintained as per EMP	Maintained as per EMP	Maintained as per EMP	Maintained as per EMP	Maintained as per EMP	Maintained as per EMP

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		<ul style="list-style-type: none"> • Disposal of construction debris if any as per mitigation measures • Prepare and implement Waste Management List • Avoid stockpiling of excess excavated soils 	<p>been done.</p> <ul style="list-style-type: none"> • Method – checking of records, visual observation 									

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		<ul style="list-style-type: none"> Coordinate with KMC for beneficial uses of excess excavated soils 										

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
12	Dust and Air Pollution ¹⁴	<ul style="list-style-type: none"> • Selection of materials storage area • Water sprinkling at construction site for arresting dust (if any during dry period) • Use tarpaulins to cover 	<ul style="list-style-type: none"> • Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations, same as above.	Construction equipment and vehicles are being maintained in good condition, Pollution under control certificate has been renewed periodically for construction vehicles, sprinkling of water to minimize fugitive dust at site and covering up the material loaded vehicle need to be maintained at site	Construction equipment and vehicles are being maintained in good condition, Pollution under control certificate has been renewed periodically for	Construction equipment and vehicles are being maintained in good condition, Air quality monitoring is done on 17.11.2023	Mitigation measures has been adopted at work site to minimize air pollution like sprinkling of water during construction, covering	Construction equipment and vehicles are being maintained in good condition, Air quality monitoring is done on 08.08.2023	Construction equipment and vehicles are being maintained in good condition, Air quality monitoring	Construction equipment and vehicles have been maintained in good condition Air quality monitoring is done on 30.11.2023-01.12.2023 Refer Appendix 6 for Photograph

¹⁴ Main causes of air pollution during construction are dust from vehicle movements and stockpiles, vehicle emissions and fires.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		sand and other loose material- Reducing dust hazard • All vehicles and equipments mobilized to construction site and producing emission, have Pollution Under	<ul style="list-style-type: none"> • Cover materials. • Method – checking of records, visual observation 			throughout the construction period Last monitoring was conducted on 30.05.2023	construction vehicles, sprinkling of water to minimize fugitive dust at site and covering up the material loaded vehicle need to be maintained at site throughout the construct	hours of monitoring	covering up of materials carrying vehicle, air quality monitoring has been carried out at pre construction stage and to be continued through		is done on 28.08.2023 Refer Appendix 6 for Photographs of monitoring	hours of monitoring

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		Control certification • No fire wood burning is allowed on site • Carry out air quality monitoring					ion period Last monitoring was conducted on 30.05.2023		out the construction period. PUC certificate for all vehicles engaged at site, portable toilet system Air quality monitoring is done			

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
									on 30.11.2023. Refer Appendix 6 for Photographs of monitoring			
13	Noise level	<ul style="list-style-type: none"> Noise producing work needs to be conducted 	<ul style="list-style-type: none"> Complaints from sensitive receptors 	For mitigation - contractor, for monitoring	Project Locations, same as above.	Noise level is within permissible level of commercial area	Maintenance of silencers to all	Construction activities has been restricted	Construction activity has been	Construction activities has been	Construction activities	Construction activities has been restricted

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		ed at day time • Regular maintenance of noise producing equipment • Horns not be used unless it is necessary to warn other road users • Maintain maximum sound	<ul style="list-style-type: none"> Use of silencers in noise-producing equipment and sound barriers Monitoring data. Method – checking of records, visual observation 	- Environment Specialist of DSC and PMU.		Last monitoring was conducted on 30.05.2023	machinery is ensured. Baseline noise level monitoring has been conducted near project sites. Construction activities has been restricted within	within a reasonable working hours Noise quality monitoring is done on 17.11.2023	limited within reasonable working hours, all machineries are well maintained, baseline monitoring has already been carried out and monitoring	restricted within a reasonable working hours Noise quality monitoring is done on 08.08.2023 Refer Appendix 6 for Photographs of	has been restricted within a reasonable working hours Noise quality monitoring is done on 28.08.2023	within a reasonable working hours Noise quality monitoring is done on 30.11.2023 3 - 01.12.2023 Refer Appendix 6 for Photographs of monitoring

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s • At sensitive locations, enclosures provided around generator set or					a reasonable working hours. Adjacent landowners will be informed about any noisy activities if needed during night time. Last monit		during construction stage to be continued throughout the construction period Noise quality monitoring is done on 30.11.2023	monitoring	Refer Appendix 6 for Photographs of monitoring	

							oring was conduc ted on 30.05. 2023					
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Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		other noise producing machinery.							Refer Appendix 6 for Photographs of monitoring			
14	Storm water management	Arrangement of drainage of waste water and arresting of solid waste/silt from waste water generated at construction site	<ul style="list-style-type: none"> • Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project location same as above	This site has been planned in such a way that efficient drainage has been achieved from site during monsoon	This site has been planned in such a way that efficient drainage has been achieved from site during	This site has been planned in such a way that efficient drainage has been achieved from site during monsoon	The site surface has been engineered and shaped in such a way that rapid and efficient evacuation	This site has been planned in such a way that efficient drainage has been achieved from site during	This site has been planned in such a way that efficient drainage has	Moderately satisfactory

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
			leading to water bodies. • Method – checking of records, visual observation.				monsoon		tion of runoff is achieved. No major ground disturbance has been observed till date, waste management practices has been maintained.	monsoon	been achieved from site during monsoon	

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
15	Water Quality ¹⁵	<ul style="list-style-type: none"> Contractor to ensure run-off from vehicle or plant washing does not enter pond / Hooghly river Contractor to ensure every effort is made that any 	Non entry of pollutant in water body. Method – site observation	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations	Not applicable as per present nature of work. Last monitoring was conducted on 30.05.2023	Applicable as per present nature of work. Last monitoring was conducted on 25.05.2023	Not applicable as per present nature of work.	Not applicable as per present nature of work. During construction stage the monitoring is done on	Not applicable as per present nature of work. During construction stage the monitoring is done on 08.08.2023	Applicable as per present nature of work. During construction stage the monitoring is done	applicable as per present nature of work. During construction stage the monitoring is done on 30.11.2023-01.12.2023

¹⁵Water quality is affected by the incorrect handling of substances and materials. Soil erosion and sediment is also detrimental to water quality. Mismanagement of polluted run-off from vehicle and plant washing and wind dispersal of dry materials into rivers and watercourses are detrimental to water quality.

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		chemicals or hazardous substances do not contaminate the soil, Hooghly river, or groundwater on site.							30.11.2023		on 28.08.2023 Refer Appendix 6 for the monitoring photographs of surface water	
16	Conservation of Natural	• Contract to ensure removal of only	Tree felling requirement and afforestation after final	For mitigation - contractor, for	Project Locations	No tree cutting is required as per present nature of work.	40 (forty) nos. of tree felling was	No tree cutting was needed as per	No tree cutting as per present working	No tree cutting as per present	No tree cutting as per	No tree cutting as per present

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
	Environment	<p>trees that have been marked beforehand</p> <ul style="list-style-type: none"> • Contract or to immediately re-vegetate stripped areas • Contract or to prohibit site staff from gathering firewood , fruits, plants, 	design. Method – checking of records, visual observation .	monitoring - Environment Specialist of DSC and PMU.			done in the STP premises . Compensatory plantation will be done after the completion of the project during green belt development around the STP.	present working condition	condition	working condition	present working condition	working condition

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		crops or any other natural material on-site or in areas adjacent to the sites.										
17	Materials Management	<ul style="list-style-type: none"> Contractor to ensure stockpiles do not obstruct natural water pathways. Contractor to cover 	Stockpile management. Method – checking of records, visual observation.	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Stockpile / storage area	Stockpiling of materials has been done as per approved site plan.	Stockpiling of materials has been done as per approved site plan.	Stockpiling of materials has been done as per approved site plan.	Stockpiling of materials will be done as per approved site plan. Housekeeping need to improve	Stockpiling of materials has been done as per approved site plan. Housekeeping need to improve further.	Stockpiling of materials has been done as per approved site plan. House	Stockpiling of materials will be done as per approved site plan. Housekeeping need to improved further.

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		stockpiles exposed to windy conditions or heavy rain with vegetation, cloth, or tarps. • Contract or to ensure all concrete mixing take place on a designated, imperme							ed further.		ekeeping need to improved further.	

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		able surface.										
18	Occupational Health & safety	<ul style="list-style-type: none"> Develop and implement site-specific Health and Safety (H&S) Plan Use Personal Protective Equipment like helmet, gumboot, gloves, nose mask 	<ul style="list-style-type: none"> Site-specific Health and Safety (H&S) Plan Equipped first-aid stations; Medical insurance coverage for workers Number of accidents 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations	Site-specific Health and Safety (H&S) Plan has been followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan has been followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan will be followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan will be followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan will be followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan will be followed during construction. Use of PPE among work has to be ensure all the time.	Site-specific Health and Safety (H&S) Plan will be followed during construction. Use of PPE among work has to be ensure all the time.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		and earplugs • H&S Training for all site personnel • Documentation of work-related accidents; • Designate a safeguard focal person and undertake safeguards	<ul style="list-style-type: none"> • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipment's • Sign boards for hazardous areas such as 								work has to be ensure all the time.	

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		orientation by PMU/PIU • Provide specific guidance for suitable PPE for every on-site work assignment • Ensure availability of First aid box at all working sites and labour camp	energized electrical devices and lines, service rooms. • Method – checking of records, visual observation.									

Sl. No.	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		<ul style="list-style-type: none"> • Provide medical insurance coverage for workers; • Provide supplies of potable drinking water at working sites; • Provide H&S orientation training to all new workers 										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		<ul style="list-style-type: none"> • Mark and provide sign boards for hazardous areas such as energized electrical devices and lines • Disallow worker exposure to noise level greater than 85 dBA for a 										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		duration of more than 8 hours per day without hearing protection.										

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
19	Social Impacts ¹⁶ - Community Health & safety, accessibility	<ul style="list-style-type: none"> Plan truck routes (for carrying construction materials including pipes) to avoid narrow or congested roads and tourist sites Contractor to ensure 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. Method – checking of 	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations	Sight fencing done, project information board implemented at site, sufficient access maintained at site.	Sight fencing done, project information board implemented at site, sufficient access maintained at site.	Project information board implemented at site, sufficient access maintained at site	Need further improvement.	Need to be maintained.	Need further improvement.	Need further improvement.

¹⁶ Regular communication between the Contractor and the interested and affected parties is important for the duration of the contract.

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		disruption of access for local residents is minimized • Contract or to restrict activities and movement of staff to designated construction areas • Contract or to provide	records, visual observation.									

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		walkways and metal sheets where required to maintain access across for people and vehicles • Consideration of public safety - as per prescribed mitigation										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		measures • Contractors to ensure lighting on the construction site • Provide protective fencing around open trenches • Provide road signs and flag persons to warn • Schedule										

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		transport and hauling activities during non-peak hours										

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
20	Socio cultural resources	<ul style="list-style-type: none"> Strictly follow the protocol for chance archaeological finds in any excavation work Stop work immediately to allow further investigation if any finds are suspected 	Chances find protocol. Method - Checking of records	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations	Not required till date. Instruction has been given	Not required till date. Instruction has been given	Not required till date. Instruction has been given	Not required till date. Instruction has been given	Not required till date	Not required till date	Not required till date. Instruction has been given

Sl. No	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
21	Employment generation	<ul style="list-style-type: none"> The use of labor intensive construction measures will be used where appropriate Employ local (unskilled) labour if possible Training of 	Employment record. Method - Checking of records	For mitigation - contractor, for monitoring - Environment Specialist of DSC and PMU.	Project Locations	Local labour is mostly engaged. Few outside skilled workers are also engaged.	Local labour is mostly engaged. Few outside skilled workers are also engaged.	Local labour is mostly engaged. Few outside skilled workers are also engaged.	Local Workers are mostly engaged at all working site. Refer appendix 5	Local labour is mostly engaged	Local labour is mostly engaged	Local Workers are mostly engaged at all working site. Refer appendix 5

Sl. No .	Environmental Issues	Mitigation Activities and Method	Parameters monitored & Monitoring method adopted	Responsible for Mitigation & Monitoring	Location & Date of Monitoring	Compliance Status/ Explanation SD 28	Compliance Status/ Explanation SD 29	Compliance Status/ Explanation SD 30R	Compliance Status/ Explanation SD 31 LOT-1	Compliance Status/ Explanation SD 31R2	Compliance Status/ Explanation SD 32	Compliance Status/ Explanation SD 34
		labor to benefit individuals beyond completion of the subproject										

V ENVIRONMENTAL MONITORING AND EVALUATION

24. In addition to desk reviews and site inspections, monitoring of selected environmental parameters have been conducted during the reporting period. The frequencies of the environmental monitoring activities are commensurate to the type and significance of the impacts. For **Tranche 3** subprojects, the parameters to be monitored are ambient air quality, noise levels and nearby surface water quality.

25. Construction stage air quality and noise level monitoring have been conducted for all the packages i.e. SD 28, SD 29, SD 30R, SD-31LOT1, SD 31R2, SD 32 and SD-34 during the reporting period (December to May, 2023) while surface water quality monitoring has been done only for SD-29 package and drinking water quality monitoring has been done for SD-28, SD-31LOT1, SD-31R2 , SD-32 and SD-34.

26. Air quality monitoring results are shown in **Table 6** and comparison with standards has been presented in **Figure 3, Figure 4** and **Figure 5**.

Table 6 : Ambient Air Quality Monitoring Results June to November 2023

Constructi on Package No.	Monitoring location	Monitoring stage	Date of monitorin g	Parameters, µg/m3			
				PM ₁₀	PM _{2.5}	SO ₂	NO ₂
SD -28	No monitoring was conducted during the reporting period						
SD- 29	No monitoring was conducted during the reporting period						
SD-30R	at STP location	Constructio n stage	17.11.202 3	76.8	53.7	11.0	26.7
SD-31LOT1	Taltala, M.G. road, Joka	Constructio n Stage	30.11.202 3	87	50	7.7	30.5
SD-31 R2	Bakrahat Road (2 no bacharpara road)	Constructio n Stage	08.08.202 3	89.59	36.58	21.28	45.50
SD32	Near pump house	Constructio n Stage	28.08.202 3	85	51	7.4	32.8
SD- 34	Inside project area, Laketown	Constructio n Stage	30.11.202 3- 01.12.2023	124	61	7.9	30.5
National Ambient Air Quality Standard (NAAQS)				100	60	80	80

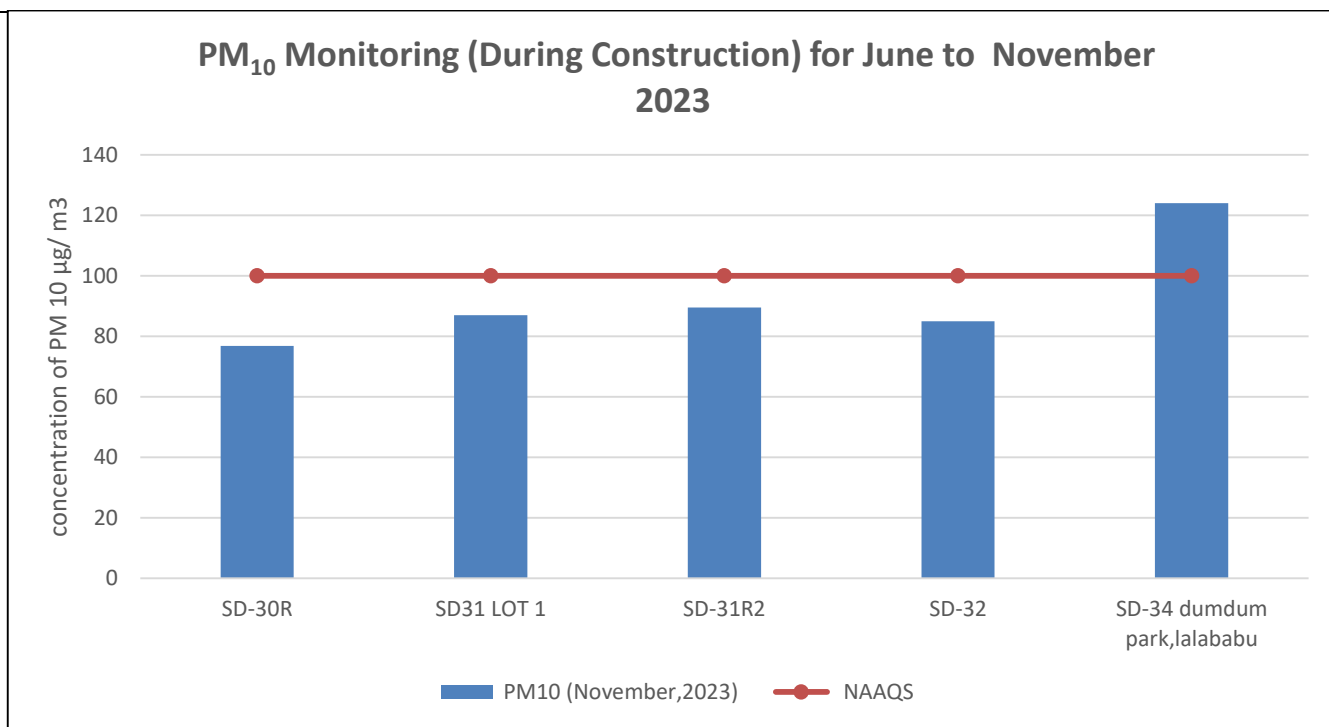


Figure 3: During Construction Air Quality Monitoring at Project Sites (Concentration of PM₁₀)

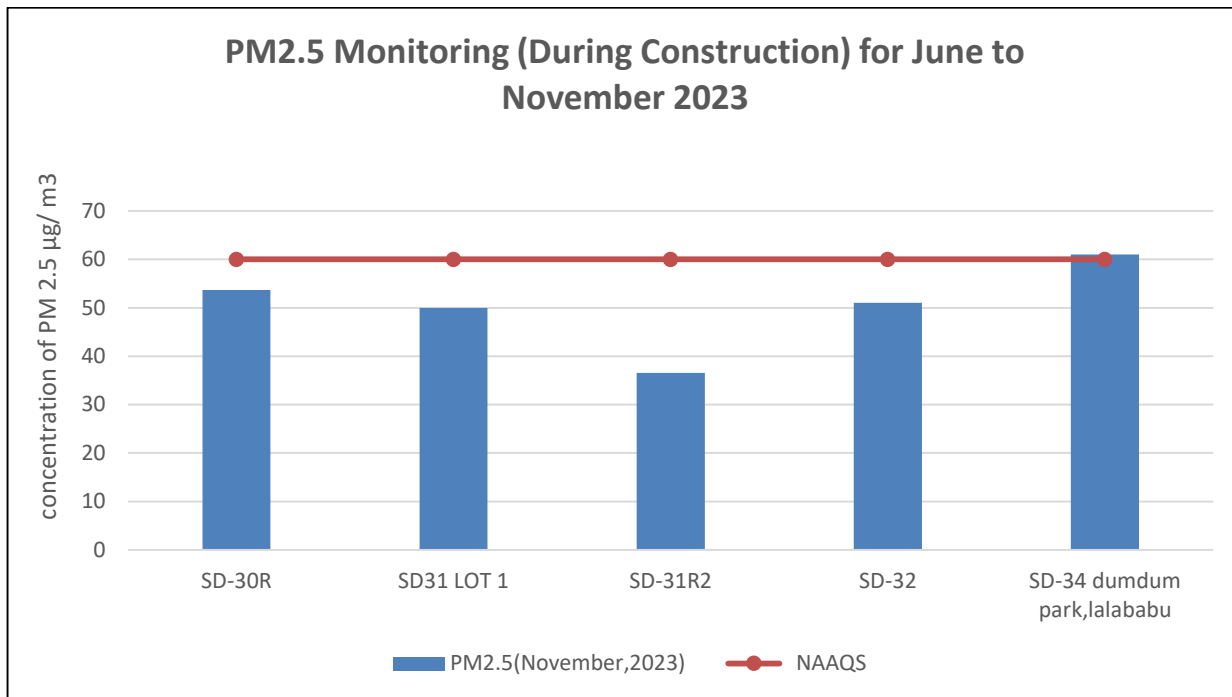


Figure 4: During Construction Air Quality Monitoring at Tranche - 3 Project Sites (Concentration of PM_{2.5})

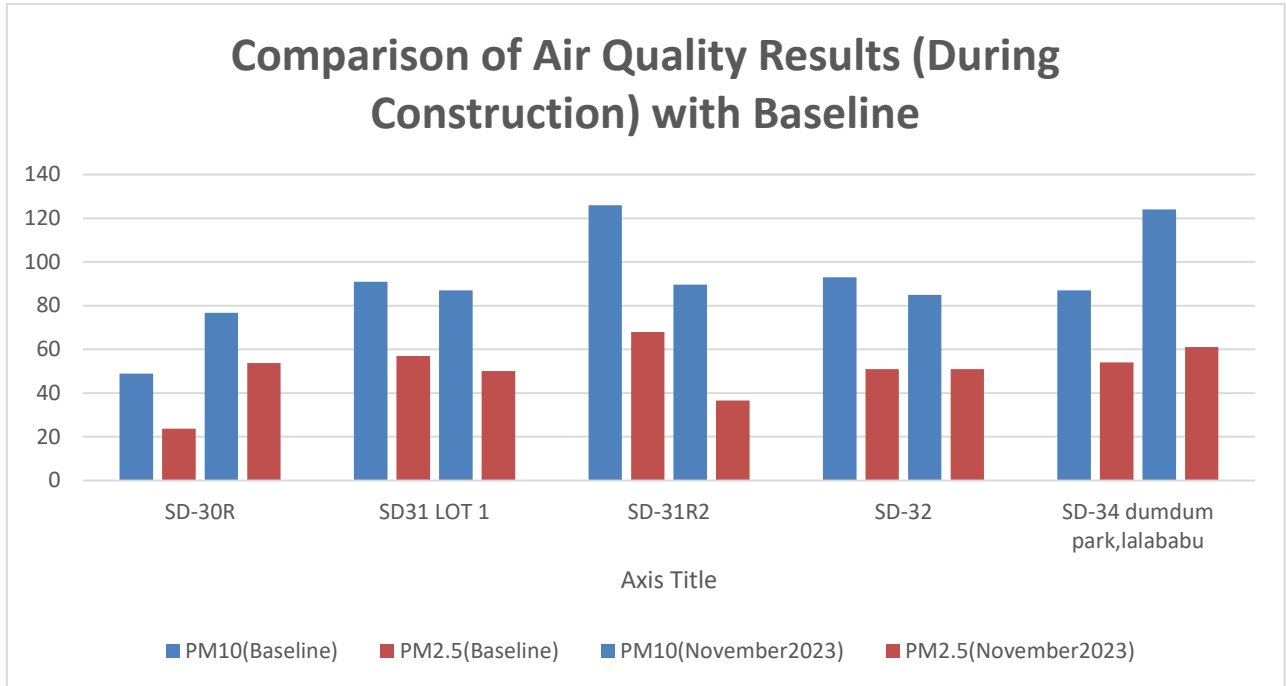


Figure 5: Comparison of During Construction Monitoring Results with Baseline

26. By analysing the above results, it is noted that in May, the concentration of PM₁₀ and PM_{2.5} have exceeded the permissible limit as set by NAAQS SD 34(Laketown) package. For SD 34, substantial progress of work has been done in last 12 months, resulting high level of dust concentration.

27. By comparing the results with Baseline values, it was observed that, the concentration of both the parameters were much higher than their baseline values at package SD 30R and SD 34 (Sakuntala Park). This is mainly resulting from dust particles arising from construction activities. The concentration of dust particles is less than their baseline values at package SD

34 (Laketown). The comparison was not possible for rest of the packages due to shifting of pipe laying location.

28. Contractors have been advised to take necessary action on dust suppression (during dry periods) by sprinkling of water whenever required so that ambient air quality can be maintained during the construction

29. Noise quality monitoring results are shown in **Table 7** and comparison with standards has been presented in **Figures 6 and 7**.

Table 7 : Noise Monitoring Status June to November 2023

Package No.	Sampling Locations- Area	Implementation Stage	Date of Monitoring	Day Time Leq dB(A)	Night Time Leq dB(A)
SD -28	No monitoring was conducted during the reporting period				
SD- 29	No monitoring was conducted during the reporting period				
SD-30R	at STP site	Construction stage	17.11.2023	65.92	-
SD-31LOT1	Taltala, M.G. road, Joka	Construction Stage	30.11.2023	63.0	48.9
SD-31 R2	Bakrahat Road (2 no bacharpara road)	Construction Stage	08.08.2023	71.51	-
SD-32	Near pump house	Construction stage	28.08.2023	61.4	50.4
SD- 34	Inside project area, Laketown	Construction stage	30.11.2023- 01.12.2023	58.9	46.8

Code/Category	Leq Day Time dB(A) - Standard	Leq Night Time dB(A) - Standard	Note	Remarks
A/Industrial	75	70	Day Time: 6:00 Hr. to 22:00 Hr. Night Time: 22:00 Hr. to 6:00 Hr.	Except SD 31 LOT 1, SD 31R2 and SD 32 all other noise monitoring sites are considered under Residential Category.
B/Commercial	65	55		
C/Residential	55	45		
D/Ecological- Sensitive	50	40		
Note: National level Central Pollution Control Board's, CPCB's (Govt. of India) guideline/ protocol used for sampling				

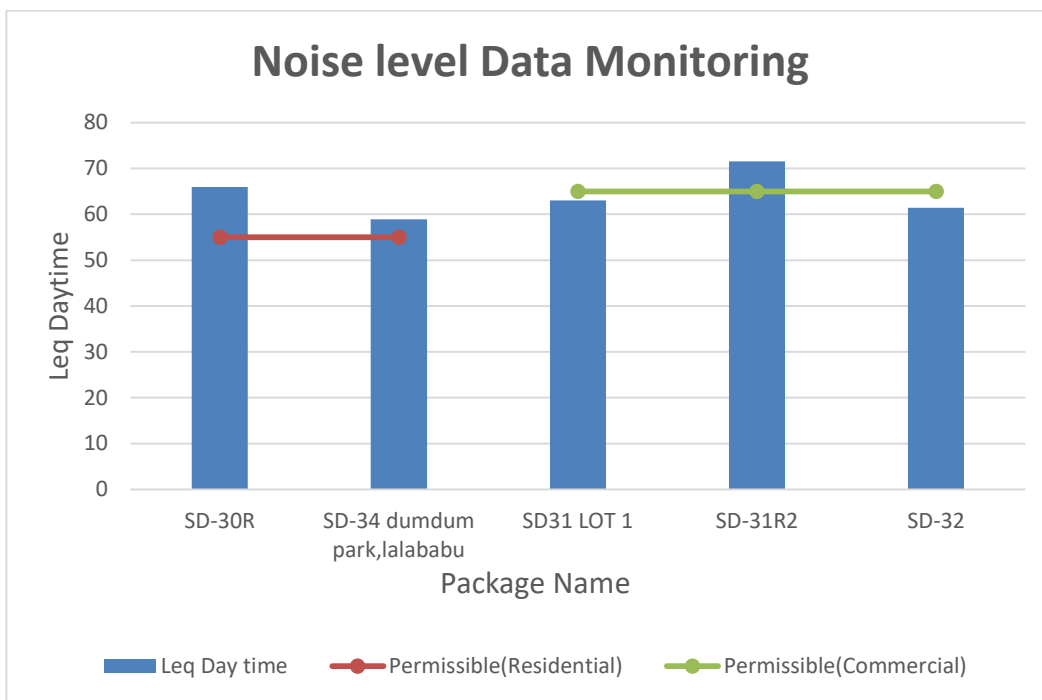


Figure 6: During Construction Noise Level Monitoring at Tranche - 3 Project Sites (Day Time)

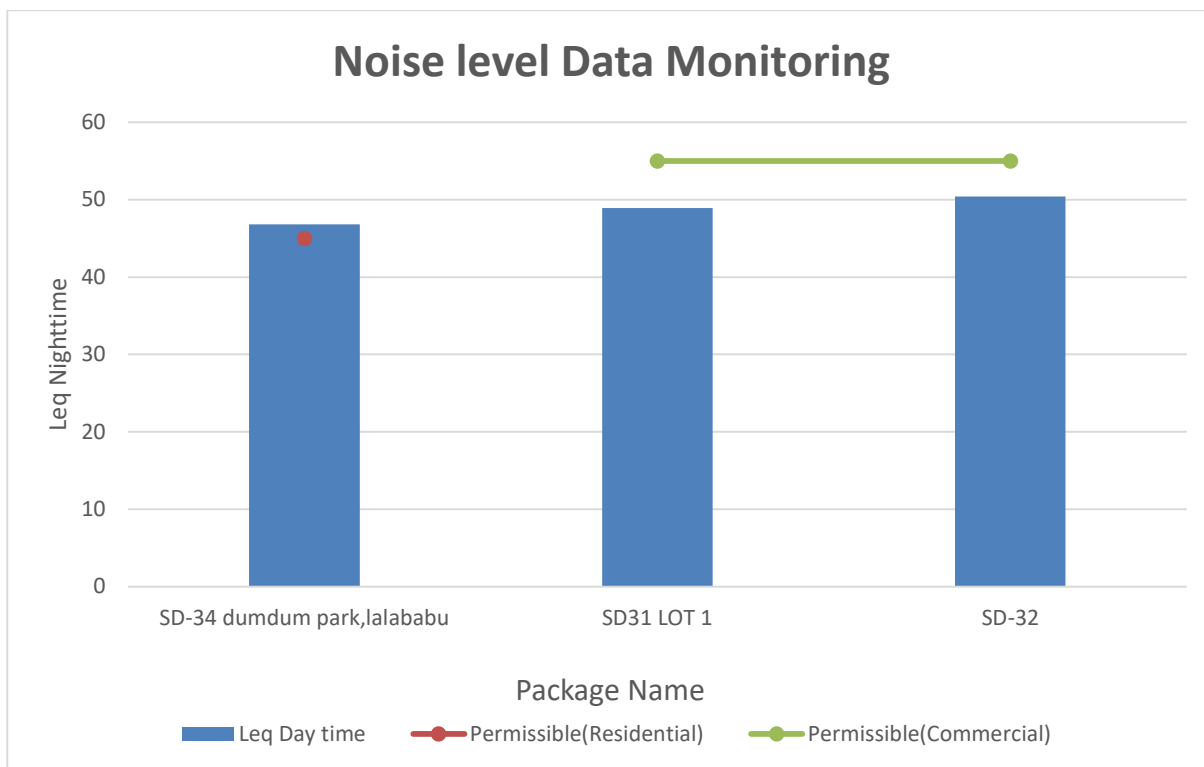


Figure 7: During Construction Noise Level Monitoring at Tranche - 3 Project Sites (Night Time)

30. While comparing the noise level data observed at various project sites, package no SD30R and SD34 (Laketown & Sakuntala Park) are compared with the standard as set for residential areas. By analysing the results, it was found that for all these packages, during construction noise level values have exceed the maximum permissible limit as set by CPCB for residential areas during day and night time, mostly due to construction activities.

31. Package no. SD 31LOT1, SD 31R2 and SD 32 are compared with the value of commercial areas as the sites are located beside the road side and within the market areas. The observed values are within the maximum permissible limit as set by CPCB for commercial areas during day and night time for SD 31LOT1 and SD 32 .For SD 31R2, during construction noise level values have exceed the maximum permissible limit as set by CPCB for residential areas during day time, mostly due to construction activities.

**Table 7 : Water Monitoring Status June to November 2023
Drinking Water**

SI.No.	Parameters	Unit	Contract Package: Trance -3				National Standards for Drinking Water- BIS 10500-2012 Acceptable limit (Maximum permissible limit)
			Results (During Construction) Construction Stage In June to November 2023				
			SD- 31R2	SD- 31LOT1	SD- 32	SD- 34	
1	pH	-	7.02	7.39	7.04	6.93	6.5-8.5
2	Colour	Hazan Unit	-	-	<5	-	5 (15)
3	Taste and Odor	-	-	-	-	Agreeable	Agreeable
4	Turbidity	NTU	-	<1.0	<1.0	<1.0	1 (5)
5	TDS	Mg/l	72.0	532	118	42	500 (2000)
6	Total Hardness	Mg/l	10.1	203.5	45	20.0	200 (600)
7	Chloride	Mg/l	18.9	109.6	28.4	7.7	250 (1000)
8	Alkalinity	Mg/l	-	327.6	50.8	23.7	200 (600)
9	Sulphate	Mg/l	-	36.7	4.6	2.3	200 (400)
10	Nitrate	Mg/l	<0.1	<0.5	<0.5	<0.5	45
11	Fluoride	Mg/l	<0.04	-	-	<0.1	1 (1.5)
12	Calcium	Mg/l	1.6	50.7	10.5	4.8	75(200)
13	Iron	Mg/l	0.12	0.31	<0.05	<0.05	0.3

26. By analysing the above water quality test results, it is found all the parameters are within the permissible limit, the concentration of DO and BOD slightly exceeds the permissible limit and in the case of drinking water the concentration of total hardness slightly exceeds the permissible limit at the site SD-31LOT1.
27. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Tranche 3 subproject packages (**Table 9**)

Table 9 : Performance Fact Sheet for Required Environmental Consents/Clearances of KEIIP Tranche 3 (Package-wise)

Sl. No.	Package No.	Name of Contractor	EMP Part of contract Document(Yes/ No)	Environmental Consents / Clearances Required				Remarks
				Tree Cutting	i. Crusher ii. Batching Plant iii. Hot mix plant	Diesel Generator Set	Pollution Under Control Certificates (PUC) for Contractor's Vehicles	
1	SD -27R	RG- JYOTI JV	Yes	Not required	Not Required as per present work program	Using green generator	Submitted by the contractor	Satisfactory
2	SD -28	SNET-SSG JV	Yes	Not required	NR as per present work program	Using green generator	Submitted by the contractor	Satisfactory
3	SD -29	SNET-Eagle JV	Yes	Required and permission has been obtained from DFO Compensatory plantation will be done after the completion of the project during	NR as per present work program	Using green generator	Submitted by the contractor	Satisfactory

Sl. No.	Package No.	Name of Contractor	EMP Part of contract Document(Yes/ No)	Environmental Consents / Clearances Required				Remarks
				Tree Cutting	i. Crusher ii. Batching Plant iii. Hot mix plant	Diesel Generator Set	Pollution Under Control Certificates (PUC) for Contractor's Vehicles	
				greenbelt development around the STP.				
4	SD -30R	TEPL-SNET JV	Yes	Not required	Not Required as per present work program	Using green generator	Submitted by the contractor	Satisfactory
5	SD -31 LOT-1	Simplex Infrastructure ltd	Yes	Not required	Not Required as per present work program	Using green generator	Submitted by the contractor	Partial Satisfactory
6	SD -31 R-2	A TO Z ADHUNIK JV	Yes	Not required	Not Required as per present work program	Using green generator	Submitted by the contractor	Partial Satisfactory
7	SD -32	Laxmi-WM JV	yes	Not required	Not Required as per	Yet to arrange.	Submitted by the contractor	Partial Satisfactory

Sl. No.	Package No.	Name of Contractor	EMP Part of contract Document(Yes/ No)	Environmental Consents / Clearances Required				Remarks
				Tree Cutting	i. Crusher ii. Batching Plant iii. Hot mix plant	Diesel Generator Set	Pollution Under Control Certificates (PUC) for Contractor's Vehicles	
					present work program			
8	SD – 34	Ramky infrastructures Ltd.	Yes	Not required	Not Required as per present work program	Yet to arrange.	Submitted by the contractor	Partial Satisfactory

VI. CONSULTATIONS AND DISCLOSURES CONDUCTED

28. As per approved IEE, consultations and disclosure will be a continuous process throughout Tranche 3 project implementation involving public consultations and focus group discussions. Informal consultations were carried out with local people, pedestrian, etc.

29. Types of consultations and disclosure conducted in active packages of Tranche 3 during June to November 2023 are presented in **Table 10** of this report.

Table 10: Types of consultations and disclosure conducted in different packages of Tranche – 3

Type of Consultation/ Disclosure	Location	Target Participants	Responsible Person and Source of Funds
Local level consultation / FGD	At construction locations/ nearby location	General public, pedestrian	Construction supervisor, contractor Project budget – continuous process
Local level consultation / FGD with Councillor	Office of the councillor	Local people and councillor office staff	Construction Manager, Environment social team of DSC and PMU, contractor

30. Orientation training has been conducted for all ongoing packages on contractual obligations of the contractor.

31. Photographic evidences of training and awareness programme at different project sites of Tranche 3 and consultations at sites have been provided in Appendix-8 of this report.

32. **Table 11** indicates different types of consultations, issues raised and resolved in different packages of Tranche 3 during June to November 2023.

Table 11: Issues raised during public consultation in different packages of Tranche - 3 during June, 2023 to November, 2023

SI No.	Packages Name	Place & Date of Consultation	Topic for discussion
Public Consultation arranged by contractors			
2	SD-30R	Rania, near Sabuj Sangha club 19.07.23	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
3	SD 31LOT 1	Ward No:143 18.07.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
		Ward No:143 11.08.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.

		Ward No:143 25.09.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
		Ward No:143 14.10.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
4	SD-31R2	Bakrahat road 20.11.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
5	SD 32	Pump house (Nitai nagar road) 01.08.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
		Pump house (Nitai nagar road) 14.07.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
		Pump house (Nitai nagar road) 29.09.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation GRM information register suggestion and complain if any.
		Pump house (Nitai nagar road) 16.10.2023	Benefit and impact of the project, discussion on few problems raise by local people during implementation
			GRM information register suggestion and complain if any.

VII. GRIEVANCE REDRESSAL

33. **Common Grievance Redress Mechanism.** A common grievance redress mechanism (GRM) has been established for social, environmental or any other subproject related grievances.
34. **Grievance Redress Process.** PMU is maintaining a Complaint Cell at KEIIP office located in 206 A J C Bose Road Kolkata 700017 headed by a designated Grievance Officer (currently the Administrative Officer) under Project Director. The Complaint Cell will also be serving as Public Information Centre, where, apart from grievance registration, information on the Project, subprojects, social and environmental safeguards, etc. can be provided.
35. At every Borough of KMC under which works are in progress, a Public Relations & Grievance Redressal Unit has been established for information disclosure on request from public and for receipt of complaints.
36. At contractors' site offices, complaint and suggestion books available for lodging any complaint. The concerned Executive Engineers of KEIIP will monitor these books and if possible take necessary actions for redressal of minor complaints with intimation to the complainant.
37. The Grievance Registration/Suggestion Form will be available at the Complaints Cell and in Borough Offices and will also be downloadable from the KEIIP/KMC websites. Grievances/ suggestions of affected persons can be dropped in suggestion boxes or conveyed through phone or mail. Affected Persons will also be able to register grievances - social, environmental or other, personally at the Complaint Cell and at Borough offices of KMC. The Grievance Officer and designated official at the Boroughs will be able to correctly interpret/record verbal grievances of non-literate persons and those received over telephone.
38. All complaints (unresolved at local site/Borough level) relating to KEIIP will be sent to the Project Director, KEIIP including those received in the KMC/KEIIP website for redressal. The Grievance Officer will resolve simple unresolved issues and in case of complicated issues, consult/seek the assistance of the Environment/Social Specialist of the DSC/PMU. Grievances not redressed through this process within one month of registration will be brought to the notice of the Project Director, KEIIP. Action taken in respect of all complains will be communicated to the complainant by letter, over phone or e-mail or WhatsApp as the case may be.
39. Periodic community meetings with affected communities to understand their concerns and help them through the process of grievance redress (including translation from local dialect/language, recording and registering grievances of non-literate affected persons and explaining the process of grievance redress) will be conducted if required. The above Grievance Redress Process will be discussed with the stakeholders at the proposed disclosure workshop.
40. **Grievance Redressal Committee (GRC).** A PMU level GRC has already been constituted by the Project Director to address grievances. Grievances not resolved at borough level are referred to PMU level. However grievances that cannot be resolved at PMU level will be referred to an apex grievance redress committee (GRC).¹⁷¹⁸ Still unresolved issues will be referred to an appropriate court of law. Despite the project GRM, an aggrieved person shall have access to the country's legal system at any stage, and accessing the country's legal

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¹⁸ The apex GRC will have the following members: KMC Commissioner as Chairperson, KEIIP Project Director, Director General (P), KEIIP, Environment/Social Safeguard Officer, Administrative Officer as the convener, representatives of APs, Community Based Organizations (CBOs), and eminent citizens. The GRC must have at least two women members.

system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM.

41. The time limit for grievance redressal will be as follows,

- ✓ Site level – 7 days
- ✓ Borough level – 7 days
- ✓ GRC – PMU level – 15 days
- ✓ Apex GRC- 15 days

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

43. **Record-keeping.** Records will be kept by PMU/Borough Office/contractors' site office of all grievances received including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were in effect, and final outcome.

44. **Information Dissemination Methods of the GRM.** Grievances received and responses provided will be documented and reported back to the affected persons (**Appendix 8** -Sample Grievance Registration Format). The number of grievances recorded and resolved and the outcomes will be displayed/disclosed in the offices of the different Boroughs of KMC and web. The phone number where grievances are to be recorded will be prominently displayed at the construction sites.

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

46. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication and reporting / information dissemination) will be borne by PMU.

47. A GRM flow chart has been provided in **Figure 8** of this report.

48. Grievance recorded and resolved in different packages of Tranche 3 during December, 2022 to May, 2023 has been summarised in **Table 12**.

49. Physical activity has been initiated in Tranche 3 for all subprojects and over all sites is environmentally well managed.

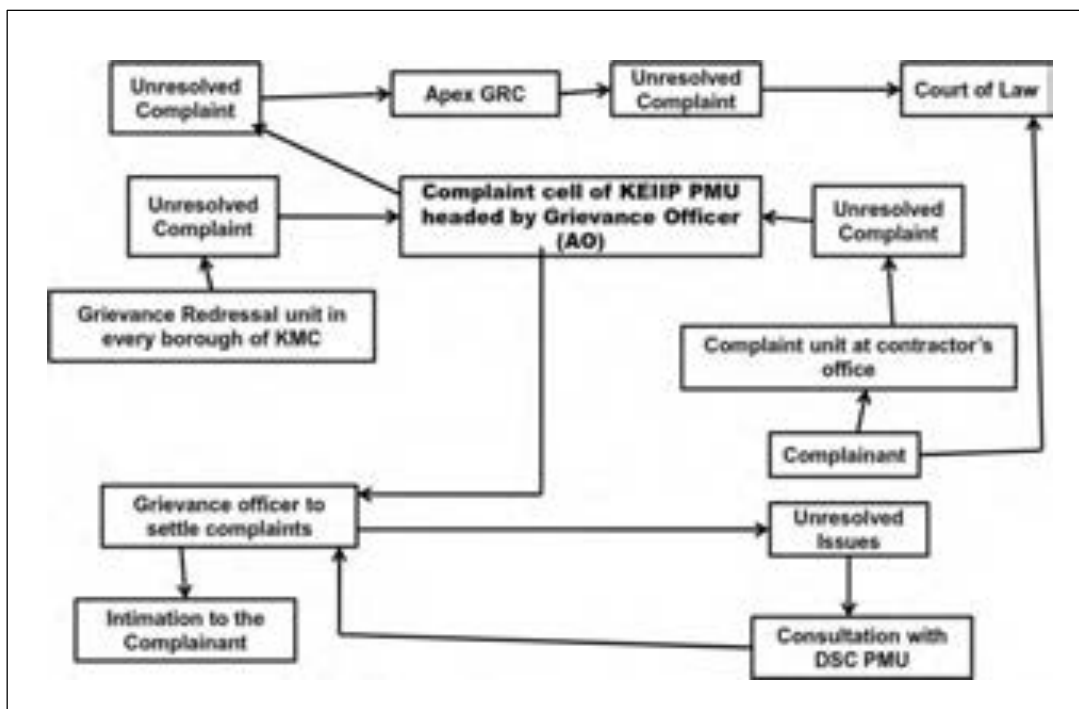


Figure 8 : Grievance Redress Mechanism

Table 12 : Grievance recorded and resolved in different packages of Tranche 3 during June, 2023 to November, 2023

SI No.	Packages Name	Nature of complaint	Status of the issues register
1	SD 29	Water pipe line repairing	Resolved within 1 day
2	SD 31LOT1	Guard Wall Repairing, Slab Repairing, road restoration, House Connection Repairing, Excavated Soil Cleaning	Resolved within 2 days
3	SD 31R2	Water pipe line repairing, Drain slab damage repairing, Water pipe line repairing, Drain slab damage repairing	Resolved within 3/4 days
4	SD 32	Water pipe line repairing, Excavated Soil Cleaning, proper access at Madurdha Road due to pipe line work	Resolved within 1 day
5	SD 34	Water pipe line repairing, Excavated Soil Cleaning,	Resolved within 1 day

VIII. FINDINGS AND RECOMMENDATIONS

50. Overall, the sites are environmentally well managed. However, scopes for further improvement in public access, housekeeping for material storage, mandatory use of PPE, labour camp management etc, these issues have been explained to the contractors and also site observation notes have issued. It is expected that during next report period EMP compliance of all the packages will be improved as EMP.
51. Statutory clearances – consent to establish (NOC) from West Bengal Pollution Control Board (WBPCB) has been obtained for STPs of SD-28, SD- 29 and SD 30.
52. During construction environmental monitoring has been done for all the packages.
53. Contractors have appointed full time Environment safety officer at their sites and submitting monthly EHS compliance as well as EMP compliances reports.
54. Based on the above, it may be concluded that KEIIP Tranche 3 sub projects are being implemented with satisfactory compliances of the required environmental safeguards during June to November 2023. EMP compliance within this period is thus satisfactory.
55. In order to further improvement and maintain satisfactory EMP compliances the following corrective action plan (**Table 13**) is recommended with target dates of compliance. The concerned contractors have been suitably advised. Contractors have also been advised to provide written commitment for implementation of corrective action plan.

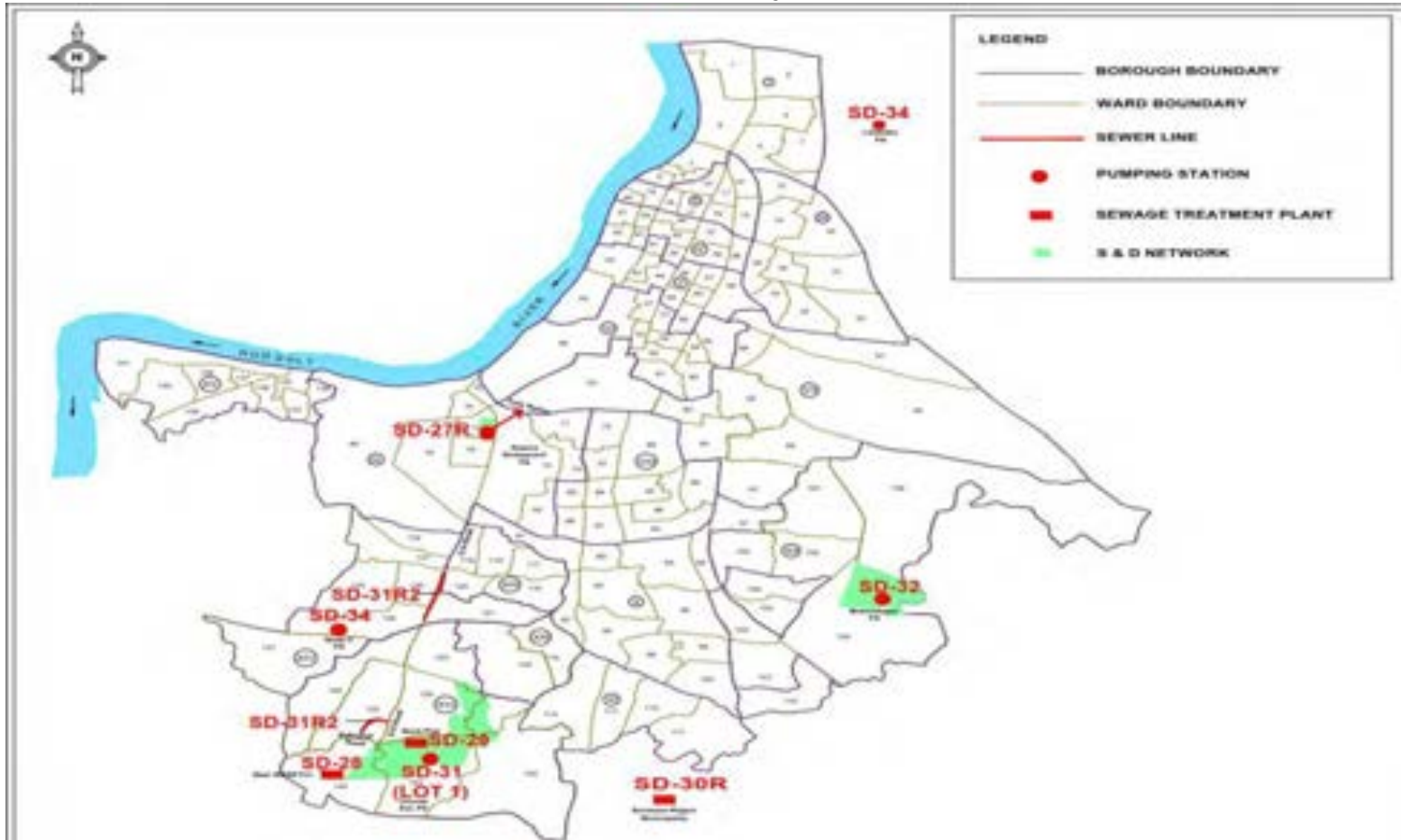
Table 13 : Corrective and Improvement Action Plan

Sr. No.	Issues to be complied	Action Required	Responsible	Target Date	Indicator of Compliance
Improvement Action Plan					
1	Application of EMP	Continue on regular basis	Contractor in association with PIU and DSC	Continuous process	Site observation and checking
2	Use of PPEs (particularly working shoes/ gumboots, hand gloves) by contractors at different work locations	Complete use of PPEs, particularly use of working shoes, gumboots	Contractor	Immediate	Availability and use of PPE
3	Caution tape/ barricade at all required locations of packages	Complete use of caution tape/ barricade at all working sites	Contractor	Immediate	Site observation and checking
4	Availability of emergency contact no. at display/ caution board	Complete arrangement of display / caution board with all emergency contact no.	Contractor	Immediate	Site observation

Sr. No.	Issues to be complied	Action Required	Responsible	Target Date	Indicator of Compliance
5	No Problem of public access	Sufficient access need to be provided at all working sites.	Contractor	Immediate	Site observation and checking
6	Satisfactory Housekeeping at work site	Immediate improvement of housekeeping	Contractor	Immediate	Site observation
7	Arrangement of labour camp/ rented house for contractor	Arrangement as per requirement	Contractor	Continuous process	Site observation and checking
8	Training to workers	Regular tool box training for labour. Safeguard orientation training for contractor	Contractor, PIU, DSC	Continue process	Record keeping and safeguard implementation
9	Renewal of Labour License	Continue on regular basis	Contractor, PIU, DSC	Continue process	Record keeping
Corrective Action Plan					
10	No air pollution and increase in dust at work sites of the running package SD 34.	Immediate action to be taken like, water sprinkling, maintaining of stack height in DG set, use of CPCB approved green DG set etc.	Contractor	Immediate	Monitoring result
11	No noise disturbance especially in sensitive locations and in night Package no SD 30R, SD31R2 and SD34	Immediate action to be taken like, use of less noisy instrument and no such activity during night time	Contractor	Immediate	Monitoring result

Sr. No.	Issues to be complied	Action Required	Responsible	Target Date	Indicator of Compliance
12	Conduct environmental monitoring at SD 28 and SD 29 packages	Immediate action to be taken for compliance of the same	Contractor	Immediate	Submission of monitoring report

Appendix 1: Tranche -3 projects location map



Appendix-2: Project activities at different Project Sites (in the month of June 2023 to November 2023)

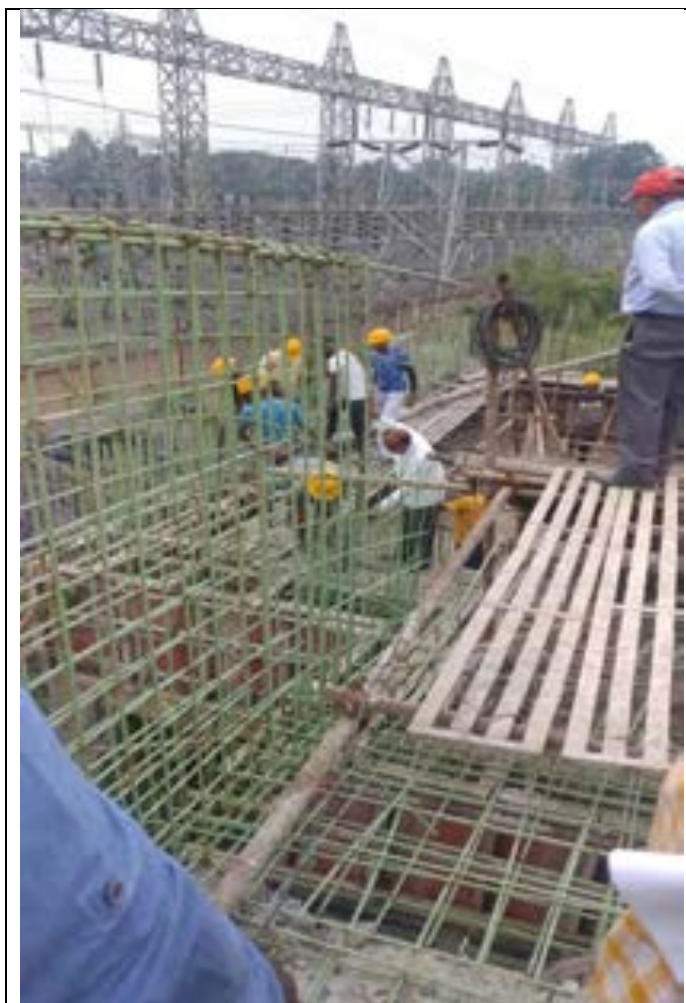


Figure 9: Launder base slab shuttering & reinforcement work are under progress in SD28



Figure 10: Casting of columns of main building in SD29



Figure 11: Casting of columns above 3rd floor slab of admin building in SD30R



Figure 12: Safe pipe laying activities in progress in SD 31LOT1



Figure 13: RCC pipe is being laid by microtunneling method at Thakurpukur Bazar in SD 31R2



Figure 14: Road restoration work is in progress at Mukundapur in SD 32

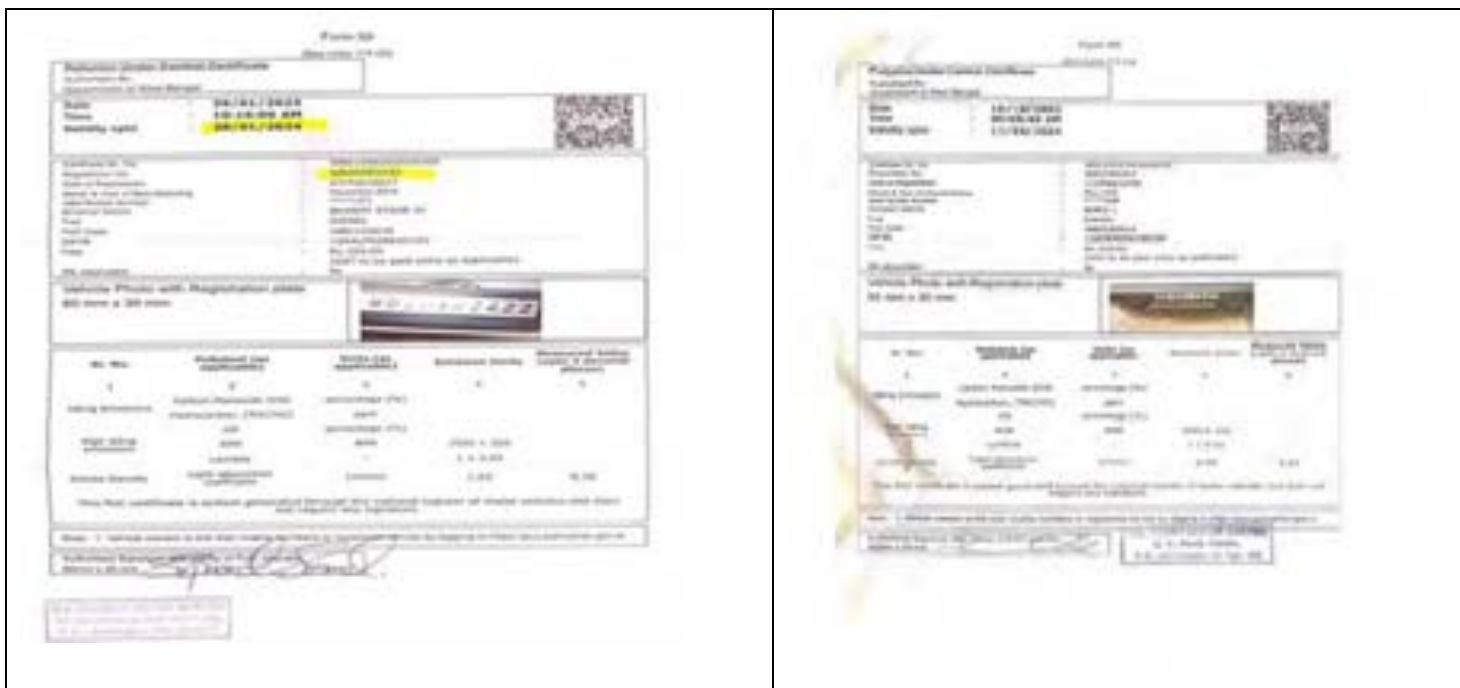


Figure 15: PH column reinforcement at Lalababu site in SD 34

Appendix 3: Sample of PUC's



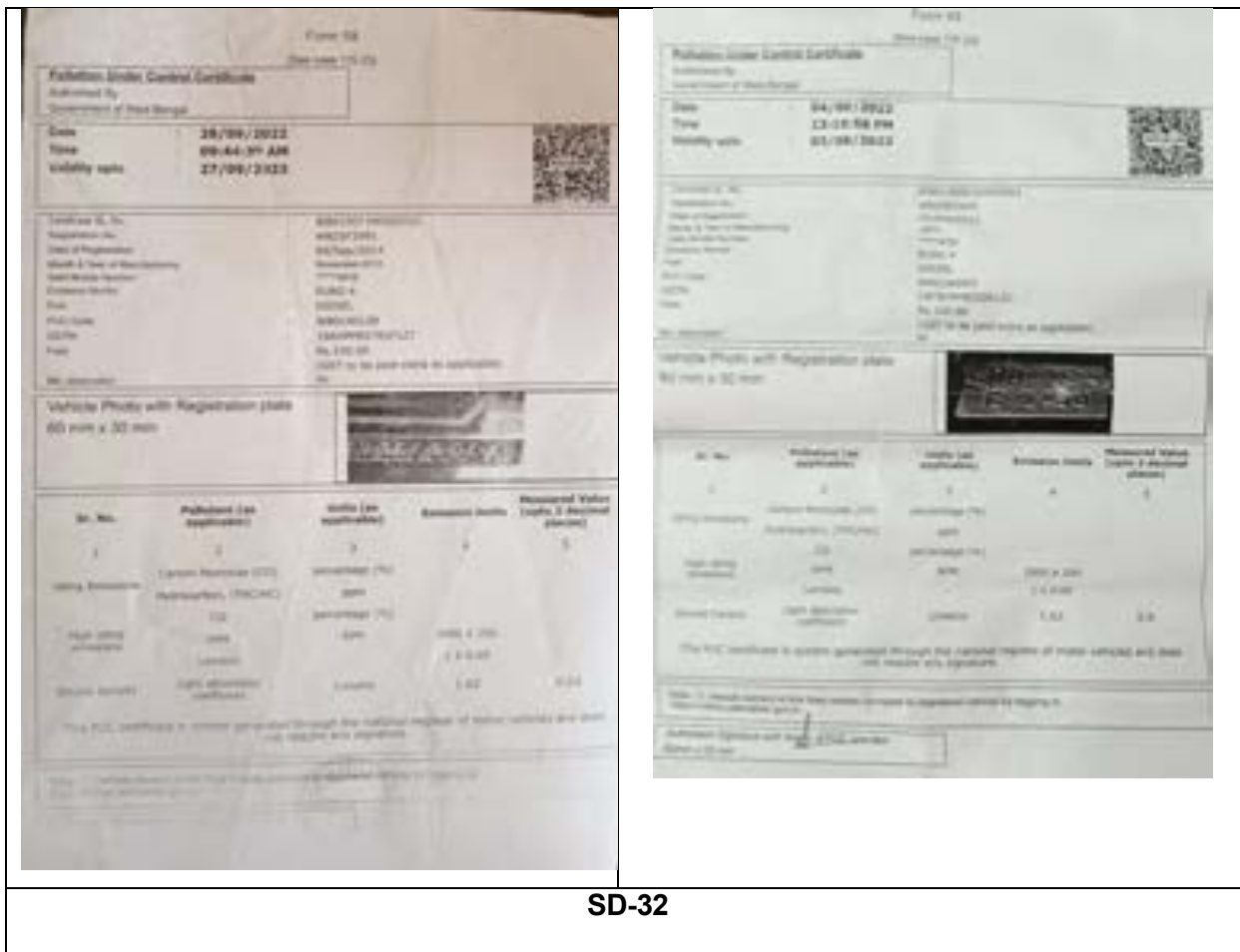
SD-28



SD-31 LOT 1



SD-31R2



SD-32

Form 09
(New rules 198/17)

Emission Under Control Certificate
As issued by
Government of West Bengal

Date: **14/07/2023**
Time: **11:07:43 AM**
Validity upto: **13/07/2024**

Vehicle No. No. **WB2019 00012003**
Registration No. **WB2019 00012003**
Date of Registration **28/04/2019**
Make & Year of Manufacturing **Maruti Suzuki**
Vehi Model Number **SW1600 51**
Engine Number **WB2019 00012003**
Fuel **PETROL/DIESEL**
Vehi Class **Motorcar**
Color **White**
No. observations **0**
Remarks **TEST TO BE DONE PERIODICALLY AS PER**

Vehicle Photo with Registration plate
CO mm x 30 mm

Sr. No.	Pollutant (as applicable)	Unit (as applicable)	Emission Limit	Measured Value (upto 2 decimal places)
1	Carbon Monoxide (CO)	percentage (%)	0.5	0.02
2	Hydrocarbon (HC)	ppm	200	1.0
3	NOx	percentage (%)	0.2	0.02
4	Particulate Matter (PM10)	ppm	2500 + 200	1420
5	Lead	ppm	0.1	0.0

The PUC certificate is issued/generated through the national register of motor vehicles and shall not require any signature.

Note: 1. Vehicle owners to use their mobile numbers to register and receive by logging in their own personal profile on the national register of motor vehicles.

Authorized Signature and Stamp of PUC Operator

SDS **Sundar Singh**
No. 100, KOLKATA

SD-34

Appendix 4 A: NOC from WBPCB for SD 28

Date: 11.5.19

NOC NO-187177
WEST BENGAL POLLUTION CONTROL BOARD
 Paribesh Bhawan
 10A, Block - LA, Sector III, Beliaghata
 Kolkata - 700 102

Phone No. 816 - 01-20-2-19-0098 Date: 10-05-2022

From:
 Member Secretary
 West Bengal Pollution Control Board
 M/S KEIIP (STP near WBPCB, TONA)
 206, ATC Base Road, P. O. - CHANDRANAGAR
 Kolkata - 700 017

To:

Sub: Consent to Establish (COE) from Environmental Point of View
 Ref: Your letter No. ~~_____~~ dated on 08-04-19

WEST BENGAL

Dear Sir,

In response to the application for Consent to Establish (COE) for proposed Unit of M/s. KEIIP
 STP NEAR WBPCB, TONA

for manufacturing (name of the product) consisting
 of coarse aggregate, sand, cement, brick, etc.
 at Chandra Nagar, Sector III, Beliaghata, P.O. Beliaghata,
 Kolkata - 700 102.

The environmental point
 of the above subject to the following conditions:

1. The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS : 2430-SP. 1 of 1974, and/or its subsequent amendment and Environment Protection Act, 1986.
2. Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above.
3. You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.
4. All emission from your factory shall conform to the standards as laid down by this Board.
5. No emission shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1981.
6. No industrial plant, furnace, kiln, chimneys, control equipment, etc. shall be constructed/reconstructed/modified/erected without prior approval of this Board.

No-159177

7. You shall comply with
- (i) Water (Prevention and Control of Pollution) Act, 1977, if applicable.
 - (ii) Water (Prevention and Control of Pollution) Act, 1978, if applicable.
 - (iii) Environment (Protection) Act, 1986
 - (iv) Environment (Protection) Rules, 1986
 - (v) Hazardous Wastes (Management and Handling) Rules, 1989 and Amended Rules, 2000
 - (vi) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amended Rules, 2000
 - (vii) Manufacture, Use, Import and Storage and Hazardous Micro-Organisms, Genetically Engineered Organisms or Cells Rules, 1989
 - (viii) The Public Liability Insurance Act, 1981 and Amended Act, 1992
 - (ix) The Public Liability Insurance Rules, 1991 and Amended Rules 1993
 - (x) Biomedical Wastes (Management & Handling) Rules, 1986 and Amended Rules 2000 if applicable.
 - (xi) Recycled Plastic Manufacture and Usage Rules 1999, if applicable and
 - (xii) Ozone Depleting Substances (Regulation & Control) Rules, 2000, if applicable
8. You will have to abide by any other stipulations as may be prescribed by any authority/local bodies/Government Departments etc.

SPECIAL CONDITION: *Please refer to annexure*

Any violation of the aforesaid conditions shall entail cancellation of this Consent to Establish (NOC)
Gross capital Investment - Rs 70,18,00,000/-



Yours faithfully,
[Signature]
 Member Secretary,
 West Bengal Pollution Control Board
 Senior Environmental Engineer
 W.B. Pollution Control Board

Memo No. _____

Copy forwarded for information to :

1. Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001
2. Director of Industries/Director of Cottage & Small Scale Industries, Government of West Bengal, N. S. Building, Kolkata-700 001
3. Guard file, West Bengal Pollution Control Board.
4. Environmental Engineer, IBWALP R.O./Howrah R.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./Asansol Sub-R.O./WBPC Board

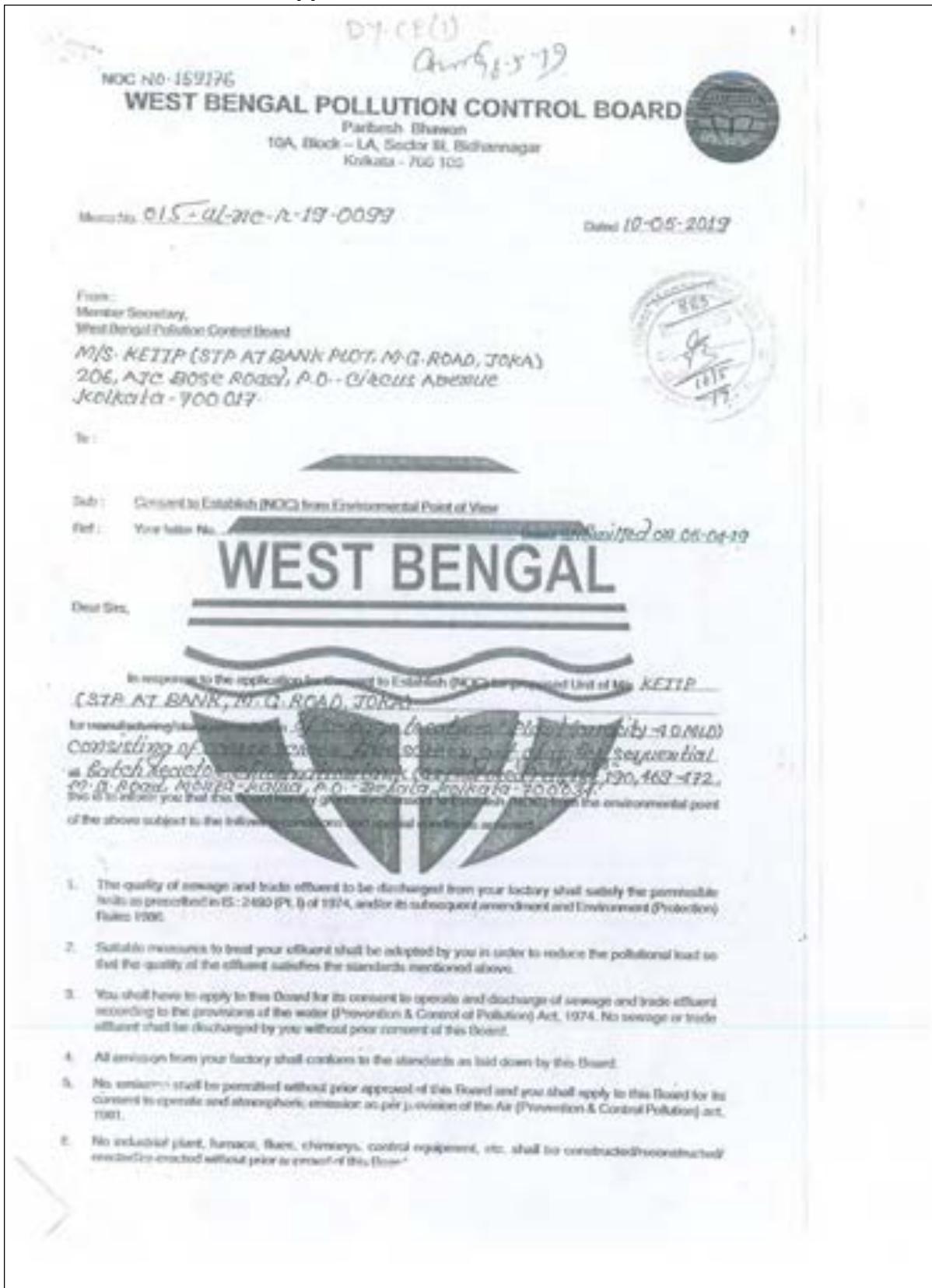
Himalaya Bhawan Daha Road, Dankuni Dist. Hooghly	VII, Paragur Kalyani Expressway P.O. Narayanpur Dist. 24 Pgs. (N)	Sahid Khudiram Sarani City Centre, Durgapur-16 Dist. Burdwan	10, Camac Street 2nd Floor Kolkata-700 017
Paribesh Bhawan 10A, LA-Block, Sector-III Salt Lake City, Kolkata - 700 098	Block-05 at 40 Flats Complex Adjacent to Piyashwata Housing Estate P.O. : Khonejanchak, P.S. Durgachak Haldia-721002 Dist. : Purba Medinipur	Paribesh Nagar Matigara, Siliguri Dist. Darjeeling	

Satyajit Chowdhury
 Indoor Stadium
 Baluchar (Bardhaman Road)
 Malda-732101

Asansol Sub-Regional Office
 ADDA Commercial Market (2nd Floor)
 Opposite Asansol Fire Station
 G.T. Road, Asansol-713 301

Member Secretary,
 West Bengal Pollution Control Board

Appendix 4B : NOC from WBPCB for SD – 29



Appendix 4C :Tree cutting permission for SD-29

[Page 11] THE KOLKATA GAZETTE, EXTRAORDINARY, FEBRUARY 9, 2007 12

Form III
Form for Permission for Felling / Disposing of Trees in Non-Forest Areas
[see Rule 5 (2)]

Permit No. 121/FUD/19 Date: 19/02/2019

Whereas the applicant, Sri / Smt/Messrs : Prady Kumar Saha (EK KEIIP),
Address: Bahama Tower, 208 A.L.C. Boat Road, Kolkata-700 017, has submitted an application with the
prescribed fee on 25.10.2018 for permission for felling / disposing of trees for the purpose of removal
of 40 (Forty) trees which are standing in construction of Ecological Treatment Plant. (as per inquiry report) at
the following site :-

(a) Location : Premises under Prady Kumar Saha, (EK, KEIIP)
At 248, H.C. Road, Kolkata-700 104.

(b) Details of Plot (s) of Land : Premises mentioned under (a) above in Ward No. 142 of
Kolkata Municipal Corporation, P.O. -Haridaspur.

AND Whereas the undersigned is satisfied with regard to the legality of documents towards
the proof of ownership or lease of the land on which such tree stands;

AND Whereas the purpose for which the trees are required to be felled is in conformity
with rule 4 (1) of the West Bengal Trees (Protection and Conservation in Non-Forest Areas)
Rules, 2007.

AND Whereas an inquiry in the prescribed manner has been carried out on 11.03.19 and the
undersigned has examined the inquiry report with due care;

AND Whereas the land in question belongs to the ~~.....~~ Tea Garden and the
applicant has produced a specific scheme framed under the provisions of the Plantation Labour Act,
1951 for utilizing the sale proceeds strictly for the purpose of welfare of the labourers ;

AND Whereas the applicant is a developer who has already obtained a Certificate of Clearance
No. 177/Clearance/19, dated 14.12.2018, issued by the undersigned and sanctioned of the building /
construction plan by the sanctioning authority Project Director of The Kolkata Municipal
Corporation/KEIIP vide his Notification Contract Package NR/KEIIP/NCB/TR-3/SD19/2017-18
(Ref : P/41/09/387/2018-19, dated: 28/09/2018.

AND Whereas it is found on inquiry that the proposed felling will not alter nature or character
or mode of use of the land.

OR

The applicant has produced the requisite permission under section 4C of the West Bengal
Land Reforms Act, 1955.

Page 1 of 5

(FORM I) THE KOLKATA GAZETTE EXTRAORDINARY FEBRUARY 9, 2007 14

~~AND Whereas the applicant has deposited the prescribed security amount for protection of trees in the undersigned;~~

~~OR~~

~~The applicant has been exempted by the undersigned from the obligation of payment of trees under sub-rule (2) of rule 6 of the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007;~~

~~OR~~

~~The applicant has expressed his inability to undertake the plantation to trees by himself and has deposited in the undersigned the amount for the designated agency as prescribed under sub-rule (1) of rule 6 West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007;~~

~~OR~~

~~The applicant is a developer and not required to deposit the security amount.~~

- * ~~Strike off if not applicable.~~
- * ~~Strike off the option which is not applicable.~~

~~Now, therefore, in pursuance to the power conferred under sub-section (1) of section 5 of the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006, the undersigned permits the applicant to undertake the felling of the trees as indicated in the annexure.~~

~~The undersigned also permits applicant (not a developer) under the first proviso to section 3 of West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 to plant only number of trees instead of the number prescribed under sub-rule (1) of rule 6 of West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007. OR permits the applicant to plant number of trees over different plot (s) of land (as indicated in Condition No-3 below) because (give reasons) which is in conformity with sub-rule (2) of rule 6 of the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007;~~

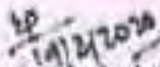

~~The permission as given above is subject to the following conditions:-~~

~~This Permit is non-transferable and valid only up to 10th March, 2026...~~

- ~~1. The applicant (if a developer) shall take up plantation of trees in accordance with the approved Plantation Plan and the Certificate of Clearance within maintenance & protection of the newly raised plantation and maintain the same as per approved norms, etc. fixed under the Rules, month (s) from the date of sanction of the building construction plan by the sanctioning authority;~~
- ~~2. The applicant (if not a developer) shall take up plantation of numbers of trees over the plot (s) to within months from the date of issue of this permit;~~

15 THE KOLKATA GAZETTE, EXTRAORDINARY, FEBRUARY 9, 2023 [Part I]

- 3. ~~As provided in section 15 of the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006, the applicant (if not a developer) shall start preparatory work for plantation within sixty days from the date for permit or the date of receipt of directions from the undersigned, as the case may be, and shall undertake plantation for trees in accordance with such directions;~~
- 4. ~~The applicant shall inform the undersigned in writing immediately on completion of the plantation of trees;~~
- ✓ 5. The applicant shall, within a week of carrying out felling of trees submit a report to the undersigned indicating the total number of logs and firewood produced against each species;
- ✓ 6. Stamp of the felled trees shall be retained for a at least one month from the date of felling;
- ✓ 7. The felling and carriage of trees shall not be carried out after the sun-set and before the sun-rise.
- 8. This permission is subject to the provisions of the West Bengal (Establishment and Regulation of Saw Mills and Other Wood-based Industries) Rules, 1982 and The West Bengal Forest Produce Transit Rules, 1959.
- 9. This permit should be produced for inspection on demand to the undersigned or any of the authorities specified in sections 15 and 17 of West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006.


 (Signature of the Competent Authority)
 Name U. K. Nag.....
 Designation Divisional Forest Officer.....
 Official Seal: 

* Strike off if not applicable.

The Kolkata Gazette Extraordinary-February 9, 2007 Part-I

Annexure of Form III

Permit Number: 122/PUD/19

Date: 19/02/2006

Number of Tree	Localite (Plot No)	Species	Diameter Girth at breast height (in cm)	Condition of the tree
1	Premises of Paddy Kurmi Saha (U.K. KEIP) at 222, M.G. Road, Kolkata-700 104 in Ward No. 143, of Kolkata Municipal Corporation, P.S. Hadbapat.	Shit	135	good
3		Shit	60	good
1		Shit	145	good
1		Shit	240	good
1		Shit	130	good
1		Shit	240	good
1		Dala	180	good
1		Shit	168	good
1		Horn	130	good
1		Kadam	80	good
1		Kadam	130	good
1		Kadam	200	good
1		Kadam	92	good
1		Kadam	78	med
1		Kadam	82	med
1		Amra	102	good
1		Amra	80	good
1		Amra	60	good
1		Amra	70	good
1		Saje	80	good
1		Saje	68	good
1		Saje	40	good
1		Saje	154	good
1		Saje	158	good
1		Bala	15	med
1	Sugri	45	good	
1	Sugri	48	good	
1	Sugri	35	good	
1	Sugri	48	good	
1	Sugri	40	good	
1	Alango	45	good	
1	Alango	50	good	
1	Jackfruit	60	good	
1	Jackfruit	50	med	
1	Jamun	70	med	
1	Jam	75	good	
1	Jam	72	good	
1	Daryun	210	good	
1	Jeta	80	good	
1	Jeta	100	good	


Page 4 of 5

Species	Total No. of Trees
A	
B. Nera, Jambu, Jambakfruit,	1+1=2
C. Mango, Siris, Jam...	3+2+2=7
D. Kadon	1
E. Bayan, Sagu, Amra, Supari, Jeta, Jambul	5+1+4+5+2+1=18
Grand Total : 40 (Forty) Nos.	

(Signature of the Competent Authority)
Name: UPG Nag
Designation: Divisional Forest Officer
Official Seal: Divisional Forest Officer
Forest, U.P. Khatola Complex

Page 2 of 2

Appendix 4D: NOC from WBPCB for SD 30R



NOC No. 171899
WEST BENGAL POLLUTION CONTROL BOARD
 Paribesh Bhawan
 10A, Block - LA, Sector III, Bidhannagar
 Kolkata - 700 106

Memo No. 67-2N/2II/R/12-22 Dated 03/03/2022

From: Member Secretary,
 West Bengal Pollution Control Board
 To: The Project Director,
M/S. Kolkata Environmental Improvement Treatment Program (KEIP), KMC,
206, A.J.C. Bose Road,
Kolkata - 700017.

Sub: Consent to Establish (NOC) from Environmental Point of View
 Ref: Your letter No. 17/10/2022 Dated 17/10/2022

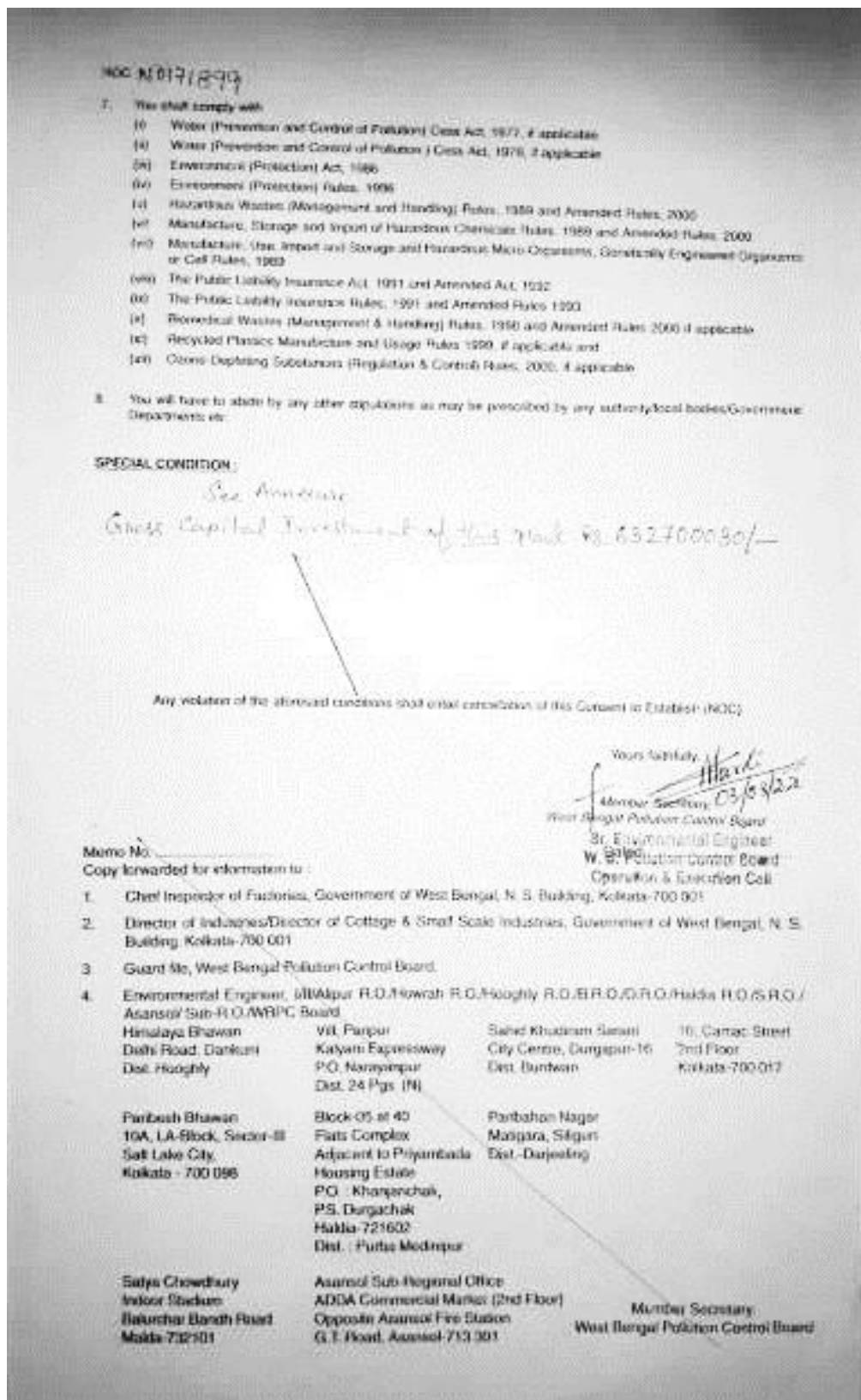
WEST BENGAL

Dear Sirs,

In response to the application for Consent to Establish (NOC) for proposed Unit of M/s. Kolkata Environmental Improvement Treatment Program (KEIP), KMC,
 for manufacturing of water for STP Plant Effluent - 4000 KL/day.
at Plot No - 237, Zone - 02, Phase - Paribesh Bhawan, P.O. - Sonarpur,
 this is to inform you that this Board hereby grants the Consent to Establish (NOC) from the environmental point of the above subject to the following conditions and special conditions approved:

Rajpara Sonarpur Municipality, Dist - 24 Pgs (S), Pin - 700154.

- The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS: 2450 (Pt. I) of 1974, and/or its subsequent amendment and Environment (Protection) Rules: 1986
- Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above
- You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade effluent shall be discharged by you without prior consent of this Board.
- All emission from your factory shall conform to the standards as laid down by this Board
- No ~~noise~~ shall be permitted without prior approval of this Board and you shall apply to this Board for its consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) act, 1986.
- No industrial plant, fumans, fans, chimneys, control equipment, etc. shall be constructed/reconstructed/erected/extended without prior approval of this Board.



Annexure to NOC SL NO171899

Special Conditions issued to Sewage Treatment Plant - 23 MLD by Kolkata Environmental Improvement Investment Program (KEIIP) of Kolkata Municipal Corporation located at Rania, P.O & P.S-Sonarapur, Rajpur- Sonarapur Municipality, Dist-24 Pgs(S), PIN-700154.

A. Emission:- NIL.

B. Sewage Treatment Plant :-

23 MLD to be treated in Sewage Treatment Plant based on Sequential Batch Reactor (SBR) technology and discharged to Rania Canal with pumping arrangements.

C. Solid Waste :- sludge to be used as manure.

D.General :-

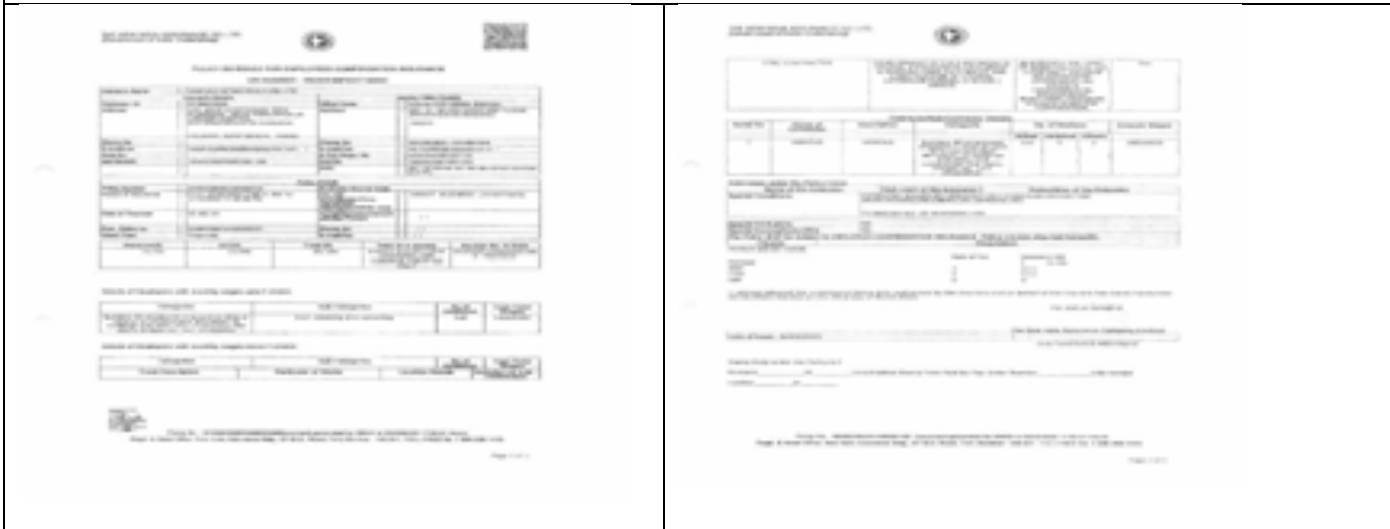
1. The project proponent shall take proper measures to be taken to control air, water and noise pollution.
2. This NOC is valid only subject to obtaining permission/clearances from the other Competent Authorities as applicable.
3. The Project proponent shall comply the treated effluent discharge standards as prescribed in Notification No.G.S.R.1265 (E) dated 13.10.2017 issued by the MOEF&CC, Govt. of India.
4. Ambient noise level not to exceed the permissible limit.
- 5.No addition/alteration/modification can be done without prior permission from the State Board.
- 6.The project proponent shall obtain Consent to Operate of the State Board before starting operation.
- 7.Good housekeeping to be maintained.
- 8.Adequate green belt around the unit to be developed.
- 9.This NOC is valid upto 28.02.2029 for setting up the Sewage Treatment Plant – 23 MLD capacity.


03/03/22
Sr. Environmental Engineer
West Bengal Pollution Control Board

Sr. Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell



Labour Liscence Certificate of SD 31OT1



Workman comensation policy of SD-31LOT1



Labour Liscence Certificate of SD 34



Workman comensation policy of SD-34

Appendix 6: Monitoring activities at project sites

Environmental monitoring at SD30R



Environmental monitoring at SD 31LOT 1



Environmental monitoring at SD 31R 2




Environmental monitoring at SD 32



Environmental monitoring at SD 34




Appendix 7: Sample Site Inspection Report



Taka Tumbakot
 Inspection Date - 30/11/2023
 Project Name: KEIIP/MD/IR-2/20-21/23
 Sample Checklist for Construction Site Safety Inspection

No.	Safety Issues	Yes	No	Not Applicable
1	Safety officer responsible for engineering during inspection	/		
2	Approved the construction plan	/		
3	Proper protection provided over to the pedestrian	/		
4	Traffic Management			/
5	• YAP		/	
6	• Safety signs		/	
7	• Traffic signs		/	
8	• Traffic lights		/	
9	• Traffic cones		/	
10	• Traffic barriers		/	
11	• Traffic lights		/	
12	• Traffic cones		/	
13	• Traffic barriers		/	
14	• Traffic lights		/	
15	• Traffic cones		/	
16	• Traffic barriers		/	
17	• Traffic lights		/	
18	• Traffic cones		/	
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37	• Traffic barriers		/	
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39	• Traffic cones		/	
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41	• Traffic lights		/	
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99	• Traffic cones		/	
100	• Traffic barriers		/	

Inspector: Ehsan Ahmad
 Name: Ehsan Ahmad
 Position: Asst.



Taka Tumbakot
 Inspection Date - 30/11/2023
 Project Name: KEIIP/MD/IR-2/20-21/23
 Sample Checklist for Construction Site Safety Inspection

No.	Safety Issues	Yes	No	Not Applicable
1	Safety officer responsible for engineering during inspection	/		
2	Approved the construction plan	/		
3	Proper protection provided over to the pedestrian	/		
4	Traffic Management			/
5	• YAP		/	
6	• Safety signs		/	
7	• Traffic signs		/	
8	• Traffic lights		/	
9	• Traffic cones		/	
10	• Traffic barriers		/	
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94	• Traffic barriers		/	
95	• Traffic lights		/	
96	• Traffic cones		/	
97	• Traffic barriers		/	
98	• Traffic lights		/	
99	• Traffic cones		/	
100	• Traffic barriers		/	

Inspector: Dobal Hill Dutt
 Name: Safety off.
 Position: Sub-Inspector

Site inspection Report of SD 28

Site inspection Report of SD 29

Site of Inspection - 28/1/2023
 Date of Submission - 02/05/2023

Project Name: KEIP/ICB/TK 3/SD 31R2 Site for Inspection: Phase 1, Chandy

Inspector: Subramanian
 Name: SUBRAMANIAN
 Position: Project Assistant

Sl. No.	Check Item	Yes	No	Remarks
1	General site conditions			
2	Access to site			
3	Site boundaries			
4	Site safety signs			
5	Site safety barriers			
6	Site safety lighting			
7	Site safety fencing			
8	Site safety gates			
9	Site safety locks			
10	Site safety gates			
11	Site safety gates			
12	Site safety gates			
13	Site safety gates			
14	Site safety gates			
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26	Site safety gates			
27	Site safety gates			
28	Site safety gates			
29	Site safety gates			
30	Site safety gates			

Date of Submission: 02/05/2023

Site inspection Report of SD 31 Lot 1

Site of Inspection - 06/11/2023

Project Name: KEIP/ICB/TK 3/SD 31R2 Site for Inspection: Phase 1, Chandy

Inspector: Subramanian
 Name: SUBRAMANIAN
 Position: Project Assistant

Sl. No.	Check Item	Yes	No	Remarks
1	General site conditions			
2	Access to site			
3	Site boundaries			
4	Site safety signs			
5	Site safety barriers			
6	Site safety lighting			
7	Site safety fencing			
8	Site safety gates			
9	Site safety locks			
10	Site safety gates			
11	Site safety gates			
12	Site safety gates			
13	Site safety gates			
14	Site safety gates			
15	Site safety gates			
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17	Site safety gates			
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27	Site safety gates			
28	Site safety gates			
29	Site safety gates			
30	Site safety gates			

Date of Submission: 07/11/2023

Site inspection Report of SD 31 R 2

Improvement of S.S System in Mahalingpur Area (Part of 2004-05) including construction of Raising Station

Inspection date: 23/10/2023

Project Name: Mahalingpur Area

Inspected by: [Signature]

Checked by: [Signature]

Sl. No.	Particulars	Yes	No	Remarks
1	Availability of S.S. System	✓		
2	Availability of Raising Station	✓		
3	Availability of Sewerage Lines	✓		
4	Availability of Sewerage Treatment Plant	✓		
5	Availability of Sewerage Disposal	✓		
6	Availability of Sewerage Collection	✓		
7	Availability of Sewerage Treatment	✓		
8	Availability of Sewerage Disposal	✓		
9	Availability of Sewerage Collection	✓		
10	Availability of Sewerage Treatment	✓		
11	Availability of Sewerage Disposal	✓		
12	Availability of Sewerage Collection	✓		
13	Availability of Sewerage Treatment	✓		
14	Availability of Sewerage Disposal	✓		
15	Availability of Sewerage Collection	✓		
16	Availability of Sewerage Treatment	✓		
17	Availability of Sewerage Disposal	✓		
18	Availability of Sewerage Collection	✓		
19	Availability of Sewerage Treatment	✓		
20	Availability of Sewerage Disposal	✓		

Signature of Inspected by: [Signature]
 Signature of Checked by: [Signature]
 Date: 23/10/2023

Site inspection Report of SD 32

Improvement of S.S System in Mahalingpur Area (Part of 2004-05) including construction of Raising Station

Inspection date: 24/10/2023

Project Name: Mahalingpur Area

Inspected by: [Signature]

Checked by: [Signature]

Sl. No.	Particulars	Yes	No	Remarks
1	Availability of S.S. System	✓		
2	Availability of Raising Station	✓		
3	Availability of Sewerage Lines	✓		
4	Availability of Sewerage Treatment Plant	✓		
5	Availability of Sewerage Disposal	✓		
6	Availability of Sewerage Collection	✓		
7	Availability of Sewerage Treatment	✓		
8	Availability of Sewerage Disposal	✓		
9	Availability of Sewerage Collection	✓		
10	Availability of Sewerage Treatment	✓		
11	Availability of Sewerage Disposal	✓		
12	Availability of Sewerage Collection	✓		
13	Availability of Sewerage Treatment	✓		
14	Availability of Sewerage Disposal	✓		
15	Availability of Sewerage Collection	✓		
16	Availability of Sewerage Treatment	✓		
17	Availability of Sewerage Disposal	✓		
18	Availability of Sewerage Collection	✓		
19	Availability of Sewerage Treatment	✓		
20	Availability of Sewerage Disposal	✓		

Signature of Inspected by: [Signature]
 Signature of Checked by: [Signature]
 Date: 24/10/2023

Site inspection Report of SD 34

Appendix 8: Environmental Standards

National Ambient Air quality Standards, 2009

[संकेत] - [संशोधन]		संकेत सं. सं. सं. : संशोधन		3	
NATIONAL AMBIENT AIR QUALITY STANDARDS					
CENTRAL POLLUTION CONTROL BOARD					
NOTIFICATION					
New Delhi, the 18th November, 2009					
<p>No. B-29016/2009/PC-L.—[In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981), and in supersession of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-</p>					
NATIONAL AMBIENT AIR QUALITY STANDARDS					
S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 30	- Improved Wet and Gask - Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	10 30	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	60 100	60 100	- Gravimetric - TOEM - Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	40 60	- Gravimetric - TOEM - Beta attenuation
5	Ozone (O ₃), µg/m ³	8 hours** 1 hour**	100 180	100 180	- UV photometric - Chemiluminescence - Chemical Method
6	Lead (Pb), µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper - ED-XRF using Teflon filter
7	Carbon Monoxide (CO), mg/m ³	8 hours** 1 hour**	02 04	02 04	- Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammonia (NH ₃), µg/m ³	Annual* 24 hours**	100 400	100 400	- Chemiluminescence - Indophenol blue method

4 THE GAZETTE OF INDIA : EXTRAORDINARY [Part III—Sec. 4]					
(1)	(2)	(3)	(4)	(5)	(6)
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	- Gas chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benz[a]Pyrene (BaP) - particulate phase only, ng/m ³	Annual*	01	01	- Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As), ng/m ³	Annual*	06	06	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m ³	Annual*	20	20	- AAS /ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note. — Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

SANT PRASAD GAUTAM, Chairman
[ADVT-III/4/19409/Exy]

Note: The notifications on National Ambient Air Quality Standards were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 334(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998.

Printed by the Manager, Government of India Press, Ring Road, Mayapuri, New Delhi-110024
and Published by the Controller of Publications, Delhi-110024.

Inland surface water categories (CPCB,1978)

The Central Pollution Control Board has classified the inland Surface water into five categories A to E. On the basis of their designated best use and the desired class. The principal concern has been the end use to which man may put to water. The classification has been made in such a manner that with the degradation in quality, the water quality requirement becomes progressively lower from A to E. The CPCB classification of the inland surface water is give as under: -

Designated Best Use	Class of Water	Criteria
Drinking water Source without Conventional treatment but after disinfections.	A	<ol style="list-style-type: none"> Total coli form organisms MPN/100 ml shall be 50(max.) pH between 6.5 to 8.5 Dissolved Oxygen (Min) 6 mg/l BOD (max) 5 days < 2.00 mg/l
Outdoor bathing(Organised)	B	<ol style="list-style-type: none"> Total coli form organisms MPN/100 ml shall be 500 (max.) Fecal Coli form MPN/100 mg. to be 2500 (max.) for Ganga Action Plan. pH between 6.8 to 8.5. Dissolved Oxygen (min) 4 mg/l BOD (Max.) 5 days @ 3 mg/l
Drinking water with conventional treatment Followed by disinfections	C	<ol style="list-style-type: none"> Total coli form organisms MPN/100 ml shall be 5000 (max.) pH between 6.8 to Dissolved Oxygen (min) 4 mg/l BOD (max.) 5 days @ 3 mg/l
Propagation of wild life Fisheries.	D	<ol style="list-style-type: none"> pH between 6.5 to 8.5 Dissolved Oxygen (min) 4 mg/l. Free Ammonia (as N) (max)1.2mg/l.
Irrigation, industrial cooling, and Controlled disposal	E	<ol style="list-style-type: none"> pH between 6.0 and 8.5

		<p>2. Electrical conductivity less than 2250 micro mhos/cm,</p> <p>3. Sodium Aborption Ratio less than 26, and Boron less than 2 mg/l</p>
--	--	---

SCHEDULE

(see rule 3(1) and 4(1))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area / Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

- Note:-
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
 3. Silence zone is an area comprising not less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority
 4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq: It is an energy mean of the noise level over a specified period.

(Source: The Noise Pollution (regulation and control) rules, 2000 and its amendment in 2010 and 2012)

Appendix 9: Health camp at Project Sites



HEALTH CAMP AT SD 28



HEALTH CAMP AT SD 31 R2



HEALTH CAMP AT SD 30 R

Appendix 10: Public consultation at Project Sites

Participation Sheet for					Participation Sheet for				
Date: 11/11/23					Date: 11/11/23				
No.	Name & Mobile no.	Age	Designation	Signature	No.	Name & Mobile no.	Age	Designation	Signature
1	16	...	...	...	...
2	17	...	...	...	...
3	18	...	...	...	...
4	19	...	...	...	...
5	20	...	...	...	...
6	21	...	...	...	...
7	22	...	...	...	...
8	23	...	...	...	...
9	24	...	...	...	...
10	25	...	...	...	...
11	26	...	...	...	...
12	27	...	...	...	...
13	28	...	...	...	...
14	29	...	...	...	...
15	30	...	...	...	...
16	31	...	...	...	...
17	32	...	...	...	...
18	33	...	...	...	...
19	34	...	...	...	...
20	35	...	...	...	...
21	36	...	...	...	...
22	37	...	...	...	...
23	38	...	...	...	...
24	39	...	...	...	...
25	40	...	...	...	...

Attendance sheet of Public Consultation at SD 30R



Public Consultation at SD 30R

COMMUNITY INTERACTION REPORT (PROJECT SITES)

Project Name: BANGALORE SOUTH PROJECT
Project No: 3689-IND-001
Date: 15/06/2023

Sl. No.	Name	Address	Phone No.	Signature
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature of Project Director: _____
Signature of Community Representative: _____

COMMUNITY INTERACTION REPORT (PROJECT SITES)

Project Name: BANGALORE SOUTH PROJECT
Project No: 3689-IND-001
Date: 15/06/2023

Sl. No.	Name	Address	Phone No.	Signature
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Signature of Project Director: _____
Signature of Community Representative: _____

Attendance sheet of Public Consultation at SD 31Lot 1



Public Consultation at SD 31Lot 1

PUBLIC CONSULTATION REPORT
 LOCATION: Bukmant Road
 DATE: 20/11/2023

Rajy Mallo	shopkeeper	Duty name
Ravi Gupta	-	name
Tarikul Sheikh	-	20/11/2023
Farhat Ali	local Public	20/11/2023
Sayyid Dost	shopkeeper	20/11/2023
Sayyid Javed	"	20/11/2023
Dilip Mandal	Local Public	20/11/2023
Abbas Khan	"	20/11/2023
MAS Mandal	shopkeeper	H. Mandal
Sayyid Sultan	"	S. Sayyid

Attendance sheet of Public Consultation at SD 31R2



Public Consultation at SD 31R2



Community Consultation of ward No-109
 Package No: 10000000000000000000 - 11

Contractor Name: LAXMI WKS
 Project: *Gangaganga Band Abatement work*
 Date: *26.07.2023*

No.	Name of participant	Organization	Signature
1	Mr. Anand Singh	Local (M)	
2	Mr. Arun Chandra	Local (M)	
3	Mr. Subodh Mishra	MEA Jharkhand	
4	Mr. Anand Singh	Consulting	
5	Local Member	Local	Local Member
6	Local Member	Local	Local Member
7	Local Member	Local	Local Member
8	Local Member	Local	Local Member
9	Local Member	Local	Local Member
10	Local Member	Local	Local Member
11	Local Member	Local	Local Member
12	Local Member	Local	Local Member
13	Local Member	Local	Local Member



Community Consultation at SD32 (Ward No:109)

Appendix 11: Toolbox Training

Distributors			Distributors		
No.	Name	Signature	No.	Name	Signature
1	1	...	...
2	2	...	...
3	3	...	...
4	4	...	...
5	5	...	...
6	6	...	...
7	7	...	...
8	8	...	...
9	9	...	...
10	10	...	...

Attendance sheet of training at SD-28



SAFETY TOOLBOX TALK CONDUCTED AT SD-28

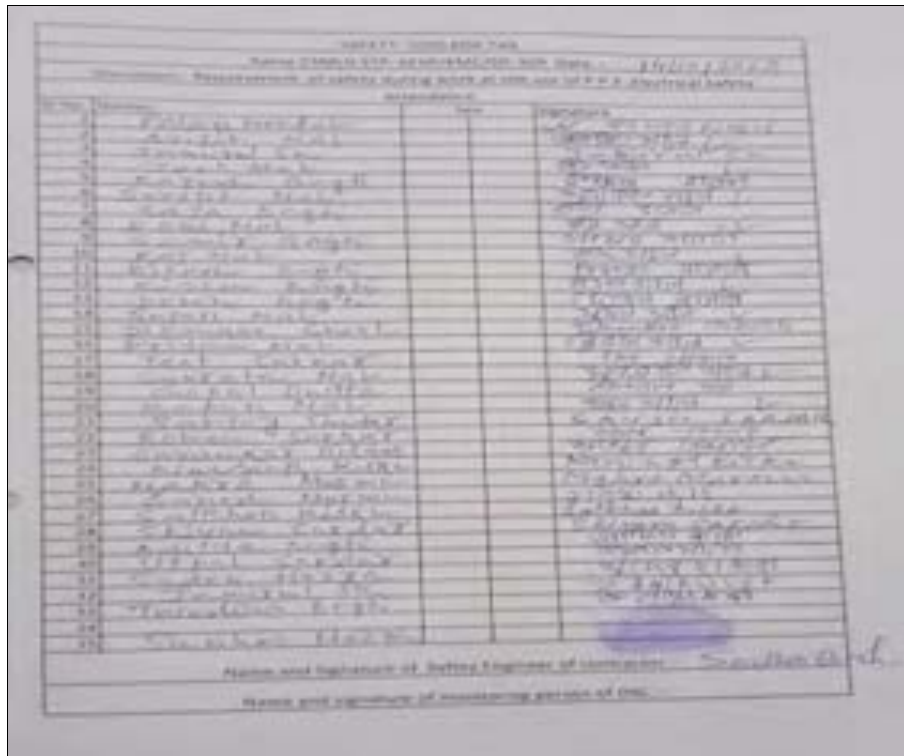
Attendance sheet of training at SD-29

SAFETY TOOLBOX TALK CONDUCTED AT SD-29

The image shows two pages of handwritten environmental monitoring records. Each page is a table with multiple columns and rows. The text is written in blue ink on lined paper. The right page has a signature at the bottom right corner.



SAFETY TOOLBOX TALK CONDUCTED AT SD-30R ON 12TH JUN, 2023



The image shows a handwritten attendance sheet for a training session. The sheet is titled 'ATTENDANCE SHEET' and contains columns for 'NAME', 'DATE', and 'SIGNATURE'. The names listed include various individuals, some with their full names and others with initials. The dates are mostly from October 2023. The sheet is signed at the bottom by 'Sudhakar Reddy'.

Attendance sheet of training at SD-30R



SAFETY TOOLBOX TALK CONDUCTED AT SD-30R ON 14th OCT, 2023

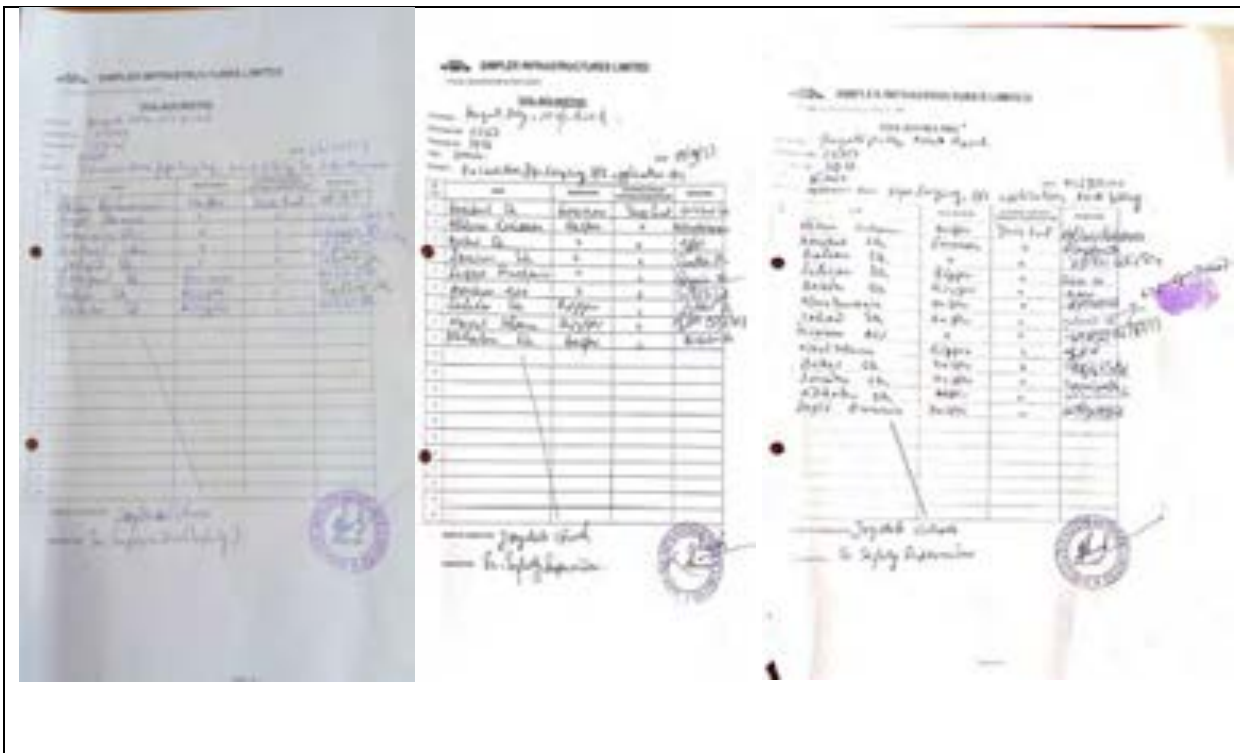


A photograph of a handwritten attendance sheet for training at SD-30R. The sheet is a grid with multiple columns and rows, containing names and other details in handwritten text. At the bottom, there are two lines for signatures: 'Name and Signature of In-charge Engineer of contractor' and 'Name and Signature of monitoring person of host'. The signature 'T. S. Srinivas' is visible in the second line.

Attendance sheet of training at SD-30R



SAFETY TOOLBOX TALK CONDUCTED AT SD-30R ON 26th AUG, 2023



Attendance sheet of training at SD-31LOT1

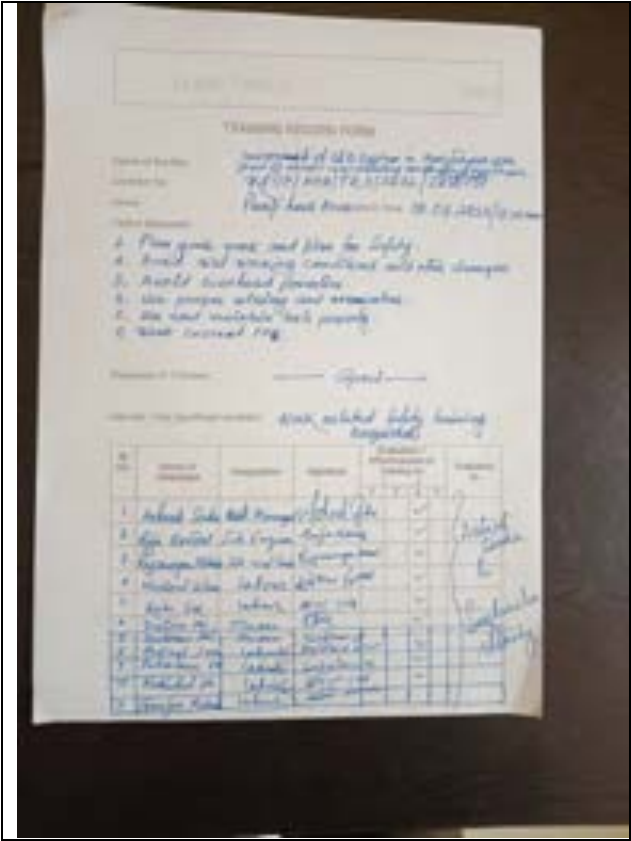


Training to generate awareness in safe practices in sewage management and safety gear in Package SD-31Lot1 27.09.2023 and 03.10.2023

Attendance sheet of training at SD-31R2



Training to generate awareness in safe practices in sewage management and safety gear in Package SD-31R2 – 17.11.2023 and 22.11.2023



Attendance sheet of training at SD-32

Training to generate awareness in safe practices in sewage management and safety gear in Package SD-32 – 13.03.2023

RAMKY INFRASTRUCTURE LIMITED
TOOLBOX TALK RECORD

Project Name: KEIP SD-34 Location: Lalabaha
 from: Hills And Flying Date: 15/07/2023

ATTENDEES

S.No	Name of person	Designation	Contractor Name	Signature
1	Mitangil	Contractor	Ignition Etc	[Signature]
2	Abdul Basit	Officer		[Signature]
3	Abdul Qadir	Contractor		[Signature]
4	Yusuf Hussain	"		[Signature]
5	Qasim Nazeem	"		[Signature]
6	Qasim Nazeem	"		[Signature]
7	Abdul Qadir	Officer		[Signature]
8				
9				
10				

Additional Information:

Conducted By:
 Name: Mr. Asif Ali Designation: Officer

Reviewed By:
 IEO in charge: Mr. Asif Ali Project in charge: [Signature]

RAMKY INFRASTRUCTURE LIMITED
TOOLBOX TALK RECORD

Project Name: KEIP SD-34 Location: Lalabaha
 from: Height Work Date: 15/07/2023

ATTENDEES

S.No	Name of person	Designation	Contractor Name	Signature
1	Qasim Nazeem	Officer	Ignition Etc	[Signature]
2	Abdul Qadir	"		[Signature]
3	Yusuf Hussain	"		[Signature]
4	Qasim Nazeem	"		[Signature]
5	Qasim Nazeem	Contractor		[Signature]
6	Abdul Qadir	Contractor		[Signature]
7				
8				
9				
10				

Additional Information:

Conducted By:
 Name: Mr. Asif Ali Designation: Officer

Reviewed By:
 IEO in charge: Mr. Asif Ali Project in charge: [Signature]

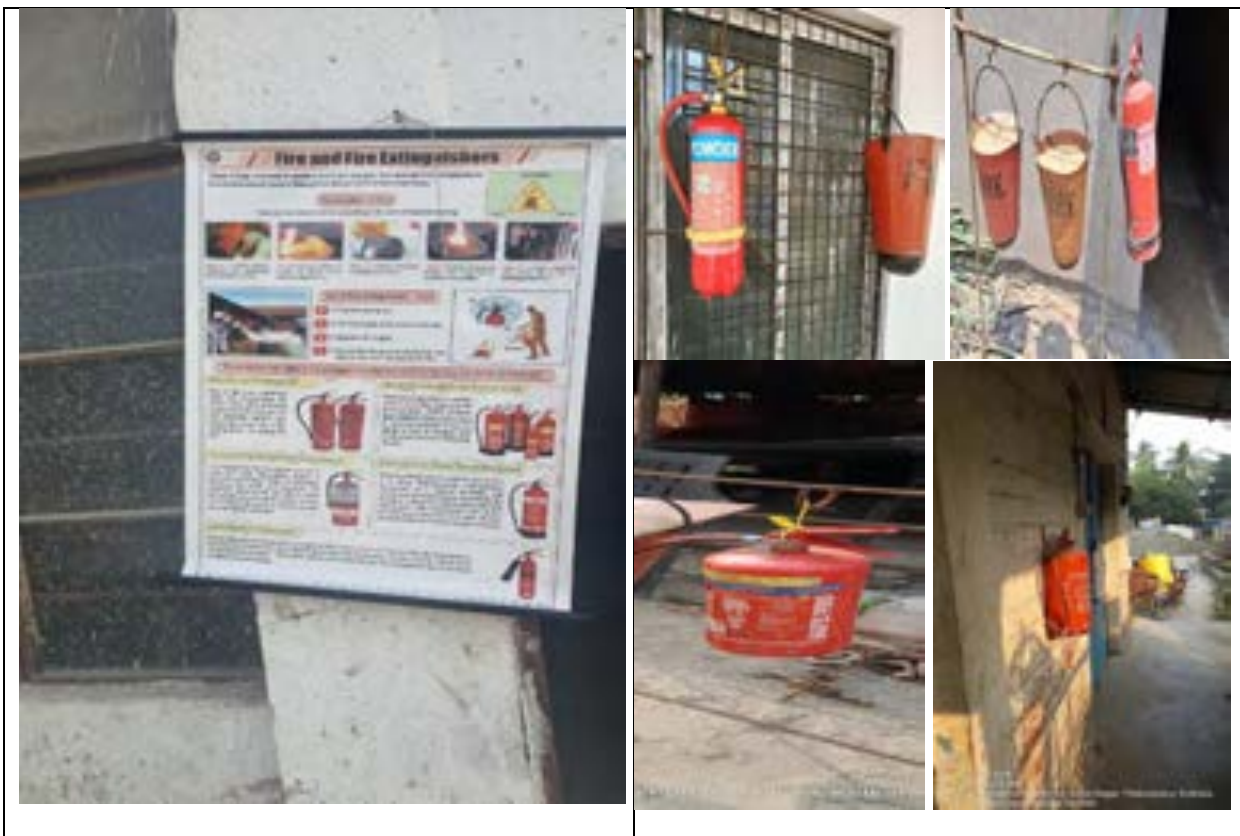
Attendance sheet of training at SD-34



SAFETY TOOLBOX TALK CONDUCTED IN PACKAGE SD-34

Appendix 12: Good Practices at Project Site

	
	
<p>Availability of first-aid box</p>	<p>TEMEPHOS IS BEING SPRAYED ON WORKER CAMP AND TOILETS AND PROJECT SITE</p>
	
<p>Assembly point</p>	<p>Alert Posters on Electrical Equipment</p>



Fire Extinguishing Training Posters and fixed fire extinguisher near the DG room and main panel room



Emergency contact number display at site



Barricading approach for public safety



Glucose water distribution to workers during summer



Project description board at site



Secure cylinders in an upright position



Rubber mat used in front of main panel board



Safety caution board at project site



Use of safety arrangement with proper PPEs for manhole seal breaking

Appendix 13: Sample Grievance Redress Form

The **Kolkata Environmental Improvement Investment Program (KEIIP)** welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing ***(CONFIDENTIAL)*** above your name. Thank you.

Date		Place of registration			
Contact Information/Personal Details					
Name		Gender	Male Female	Age	
Home Address					
Village / Town					
District					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:					
If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of official registering grievance)	
If – then mode:	
<ul style="list-style-type: none"> • Note/Letter • E-mail • Verbal/Telephonic 	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	<ul style="list-style-type: none"> • Yes • No
Means of Disclosure:	

GRIVENCE REDRESS REGISTRAR GRIVENCES RECORD AND ACTION TAKEN

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

LAXMI - WM JV
Grievance Redressal Register

Name of Project: Improvement of S & D System in Mukundapur Area (Part of Ward 109) including Construction of Mukundapur Pumping Station (Ward 109).

Package No: K09/NCB/TR - 3/5002/2020-21

Month: June 2023

Date: 01.07.2023 – 31.07.2023

COMPLAINT NUMBER	DATE	COMPLAINT THROUGH FROM (LITTER/SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PMP/MD/CC	SATI - CASE RESOLVED DATE REQUIRED	REMARKS- FURTHER ACTION IF ANY
1	01.07.2023	Site	<u>Subhash Sarda</u>	No proper excess at <u>Nita, Nagar Road</u> .	LAXMI - WM JV.	Same Day	Completed
2	08.07.2023	Site	<u>Sudhat Shakti</u>	Water line damaged near <u>Purbalik, main Road</u> .	LAXMI - WM JV.	10.07.2023	Completed
3	19.07.2023	Phone	<u>Dhanrajyee Halder</u>	Disposal of <u>Surplus earth</u> at <u>Nita, Nagar road</u> .	LAXMI - WM JV.	22.07.2023	Completed
4	27.07.2023	Site	<u>Aryan Kumar</u>	House connection damaged at <u>Nita, Nagar road</u> .	LAXMI - WM JV.	28.07.2023	Completed
Prepared By: <u>Subhash Maiti</u> Safely Dept. _____ / (Site Engineer)							

Sample Grievance Record of SD 32