Environmental Monitoring Report

Project Number: 37143-033
September 2019

Period: June 2018 – December 2018

IND: North Eastern States Roads Investment Program (Project 2)

Subproject: Improvement & Up Gradation of Road Sections of Tamulpur – Paneri (AS-02) and Paneri – Udalguri (AS-03)

Submitted by
Project Implementation Unit, North Eastern State Roads Investment Program (NESRIP), Assam

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Asian Development Bank
No. CE/NESRIP/ADB/168/12-13/Pl/20

Dated: Guwahati the 29th Aug/2019

To

The Director, MoDNER,
Vigyan Bhawan Annex, Moulana Azad Road, New Delhi

Sub: Submission of Environmental Monitoring Report for Improvement and Upgradation of Road Section 1) Tamulpur to Paneri (AS-02), 2) Paneri to Udalguri (AS-03), 5 (Five) No’s of Major Bridges on (AS-02) & (AS-03) for Project-2 Roads in the state of Assam under NESRIP Project. (Package No. AS-CW-2(R))


Dear Sir,

With reference to the above, I have the honour to submit herewith the Semi Annual Environmental Monitoring Report (Revised) for the period of July/2018 to December/2018 for the above mentioned Project as submitted by the CSC for your kind information.

Enclo: - As above.

Yours faithfully,

Project Director, PIU
NESRIP Project, Assam Cum
Chief Engineer, PWD
Border Roads and NEC Works,
Assam, Chandmari, Guwahati-3

Dated: Guwahati the 29th Aug/2019

Memo No. CE/NESRIP/ADB/168/12-13/Pl/20

Copy to:-

1) The Commissioner & Special Secretary to the Govt of Assam, PWRD, Dispur, Guwahati - 6 for favour of kind information.
2) The Country Director, ADB for kind information.
3) Mr. Jagir Kumar, Senior Project Officer, INRM, ADB for kind information.
4) The Executive Engineer, PWD, Guwahati NEC Division, Guwahati-3 for information.
5) The Team Leader, CSC, AFCOM, Rodic Consultant, House No.3, Goswami Bhaban, Ward Street, Uzan Bazar, Guwahati-781001, for information.
PUBLIC WORKS DEPARTMENT (ROADS)

ADB - FUNDED PROJECT

GOVERNMENT OF ASSAM

IMPROVEMENT AND UP GRADATION OF ROAD FROM TAMULPUR TO PANERI (AS-02) & PANERI TO UDALGURI (AS-03) AND 5 NOS. OF MAJOR BRIDGES ON AS-02 AND AS-03 (TRANCHE-2 ROADS IN THE STATE OF ASSAM) UNDER NESRIP PROJECT

ENVIRONMENTAL MONITORING REPORT

JUNE-2018-DECEMBER-2018

PREPARED AND SUBMITTED BY

AECOM ASIA COMPANY LIMITED IN ASSOCIATION WITH RODIC CONSULTANT PVT LTD

FIRST FLOOR SARBOODAI PATH, PANIKAL M.G.ROAD,
UZAN BAZAR, GUWAHATI, ASSAM, INDIA-781001
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>CSC</td>
<td>Construction Supervision Consultant</td>
</tr>
<tr>
<td>EARF</td>
<td>Environmental Assessment &amp; Review Framework</td>
</tr>
<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
</tr>
<tr>
<td>IEE</td>
<td>Initial Environmental Examination</td>
</tr>
<tr>
<td>MDONER</td>
<td>Ministry of Development of North Eastern Region</td>
</tr>
<tr>
<td>MFF</td>
<td>Multi Tranche Financing Facility</td>
</tr>
<tr>
<td>NESRIP</td>
<td>North Eastern State Roads Investment Program</td>
</tr>
<tr>
<td>PIU</td>
<td>Project Implementation Unit</td>
</tr>
<tr>
<td>PWD</td>
<td>Public Work Department</td>
</tr>
<tr>
<td>SEIAA</td>
<td>State Environmental Impact Assessment Authority</td>
</tr>
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1.0 EXECUTIVE SUMMARY

The report on Environmental safeguards compliance of the Tamulpur – Paneri (AS-02) and Paneri – Udalguri (AS-03) sub projects in the state of Assam, covers the periods from June-2018 to December 2018. These sub projects have been included in tranche 2 of the ADB multi tranche financing facility (MFF) for the North Eastern state roads investments Programme (NESRIP). The sub projects include improvements of 61.6 km of existing state roads to double lane (7 m carriage way) standards. The sub periods roads have been grouped into a sole civil contract package as ASCW2 (AS-02 & AS-03). The sub projects are being financed by ADB (Under project 2) with accost of Rs.289,16,50,960.63.

The Ministry of Development of North Eastern Regions (MDONER) is the Executing Agency (EA) for the investments Programme and public works departments (PWD) of Government of Assam, through project implementation unit (PIU), is the implementing Agency (IA) for AS-02 and AS-03 sub projects. The sole civil works contracts package was awarded to the JV of M/s. DRA-SGCCCL-ANPL India in February 2015 and commencement of work was from May-2015. The construction Supervision Consultant (CSC) Overseeing the supervision of physical works is the JV of AECOM Asia Company Ltd and Rodic Consultants Pvt. Ltd, India. As of December-2018, the overall Physical and financial accomplishments are AS-02 80.25% and 74.29%, AS-03 92.19% and 92.77% and Major bridges 39.22% and 41.77% respectively.

The Environmental safeguards of the sub projects are being implemented in compliance with the EARF, loan covenants, projects agreements and contractor is complying with the proposed mitigation measures described in the Environmental Management Plan (EMP) and the contract specifications. The implementations of environmental safeguards are being monitored at CSC and PIU levels. PIU Environmental focal person is actively involved in the coordinating and liaising with statutory agencies and CSC to implement the environmental safeguards of the sub projects. The CSC Environmental Specialist has been working closely with the PIU Environmental focal person and conducting site inspections regularly.

PIU and Contractor are following up to get the required statutory requirements for both the sub-projects. PIU has obtained the roadside tree cutting permission from state forest departments and payments for the same has been released. PIU has already released the funds to APDCL for shifting of electric poles. Contractors of AS-02 & AS-03 has obtained consent to establish and Consent to operate for crusher, HMP, Batching plant and Wet mix plant from State Pollution Control board.

The construction work is proceeding in accordance with the provisions of the Environmental Management Plan (EMP) such as review of monitoring report format. Regulatory compliances action plan and camp lay out review and approved by the CSC. Environmental quality (Air, Water, and Noise) Monitoring will be carried out at work sites along the project roads as well as at camp and crusher locations. Measures such as sprinkling of water on roads, maintenance of construction vehicles and machineries etc. are implemented by contractor to control dust emissions and noise pollution.

Measures are being carried out to address concerns of the local communities such as provisions of
traffic management at work site, sprinkling of water on roads, traffic diversions plan, road safety measures awareness on health and safety etc. Various proactive measures are being taken to implementing sub project in compliance with regulatory, health, and safety requirements. PIU is coordinating with relevant agencies to get necessary permits/NOC, also communicating with the public to address grievances of the local public.

There were no significant environmental impacts observed during the reporting periods and a few short comings on coordination’s with government authorities to get NOC/permits, dust control, road safety measures, documentations and reporting were observed for which necessary corrective measures have to be taken.

2.0 INTRODUCTION

The Public Work Department (PWD) of Government of Assam has initiated North East State Road Investment Programme (NESRIP) to implement the up gradation and improvements work of road stretches in the state of Assam for capacity augmentations for safe and efficient movements of traffic through loans from Asian Development Bank (ADB). The ADB Loan was provided by using multi tranche financing facility. The road improvements will focus on improving the conditions of the existing road network by carrying out rehabilitations and reconstructions works, which are confined within the existing right of way (ROW).

The state roads in north eastern regions have deteriorated over the years due to heavy rains and floods in some areas of the states. Failure of subgrade and subbase courses under increasing traffic load and paucity of maintenance funds and resources for the timely and adequate maintenance of such roads. Developments in the regions is therefore hindered by the low quality of existing transport infrastructures, unreliable services, restriction on transit traffic through Bangladesh, and the largely hilly and rolling terrain besides excessive rainfall and floods in the area resulting in damages to the existing roads. The project roads under this Programme are situated in various regions of 8 states in North-East of the country, known as seven sisters’ states of India and the state of Sikkim.

Every project road has its own merits and demerits, connecting places of importance from traffic, transportations, trade, natural resources, tourism and interstate connectivity considerations and bituminous roads, earthen roads, or non-existence of roads. The improvements program for the project roads specifies widening and strengthening of existing road sections. Widening scheme and improvements proposal for the project road proposed is mainly within the available ROW to avoid land acquisition/private properties as far as possible. The consultancy services for construction and supervision (CSC) FOR TANCHE-01 (AS-37C&AS-11) and Tranche-02 (AS-02-&AS-03) awarded to JV of AECOM Asia Co Ltd a joint venture with the RODIC Consultants Pvt. Ltd (here afterwards described as CSC).

2.1. PROJECT ROAD-TAMULPUR TO PANERI (AS-02)

Project road AS-02, lies in the state of Assam. Assam is the biggest state in the North East region, with a unique landscape, sprawling tea gardens, unending stretches of paddy fields interspersed with groves of coconut, betel nut and banana plantation and mineral wealth in coal and oil. The main
refineries are bongaigaon, Digboi, Noonmati and Numaligarh. A member of rivers and tributaries join Brahmaputra river, following: East to West through the state of Assam and giving it a status Brahmaputra valley in the North and break valley in the narrow protruding south and the states hilly regions and Meghalaya Separating the two states. The altitude of the region extends up to 1200 m sea level.

The Project road (AS-02) Section between Tamulpur to Paneri (43.00 KM) & Paneri to Udalguri (AS-03),18.60 KM are proposed for improvement and up-gradation. The project road passes through two districts i.e. Baska & Udalguri with Guwahati as the capital city of the state continues to provide the political, social, economic and intellectual leadership in the state. All of two districts provide an enormous contribution towards the agrarian economy of the state.

The socio-economic profile in the report covers the population composition, demographic profile, literacy and education, occupational pattern, agriculture, Forests, Industrial development, transport, etc.

Existing Project road, between Tamulpur to Paneri is an intermediate stone aggregate road with length of about 43.00 km. The entire road section passes through northern bank of Brahmaputra River. The project road takes off at Tamulpur: NH-127D through the state Highway and ends beyond to Paneri. The road passes through large number of villages and a few towns.

The existing road alignment generally follows the topography of the terrain which is mainly plain with land use being agriculture in general. The vertical profile is flat, with step gradients in approaches to the newly constructed bridges. There are a large number of roads, stone aggregated and bituminous which meet and cross the project road. There is no railway line crossing the project road. Existing cross section of the project road is generally consistent throughout the length, appropriate to an intermediate lane carriageway configuration.

### 2.2 PROJECT ROAD –PANERI TO UDALGURI (AS-03):

The project road AS-03 is a State Highway and is part of the corridor between Baska & Udalguri district. The corridor provides connectivity to the thickly populated area in lower Assam between Paneri to Udalguri Darrang districts is connected by road network and rail and well connected to Tamulpur and beyond to NH-127D, Whereas on the lower end Udalguri is connected to Tezpur, on NH-52.For all practical purposes this road corridor is a link between NH-31,NH127D and NH-52 through the interior lower Assam plain of the State.

The project road takes off from Paneri, from the end of AS-02. The road passes through plain terrain having flat gradient. The horizontal geometrics of the project road are easy without sharp and substandard curves. The embankment is low and almost entire length of the roads gets submerged every year during floods resulting in erosion of shoulders and disintegration of road pavement. The existing single lane road is reduced up to 2 m width and in almost all stretches: The road passes through a number of villages enroot between Paneri and Udalguri. Land use along the project road is predominantly agricultural but with stretches passing through roadside villages and built-up areas. Total length of the project road as per design is 18.60KM.

### 3.0 OBJECTIVE OF THE ENVIRONMENTAL MANAGEMENT PLAN
Environmental Management plan focuses on the protection of the environment during the planning, operation and construction of all project related activities and the impacts of the development as defined by the (EMP) Environmental Management Plan.

A Well-designed Environmental Management Plan addresses issues related both to the construction and operation phases of a project it includes.

- Define the environmental management principles and guidelines for the pre and post constructions phases of the road improvements.
- Describe the practical mitigation measures that will be implemented on road improvement works and ancillary sites quarry and borrow areas to prevent or mitigate any negative environmental impacts and enhance the positive issues.
- Establish the roles and responsibilities of all parties involved in the implementation of environmental controls.
- Establish monitoring and reporting systems for facilitating appropriate implementations of Environmental Management Plan.

Water bodies that have not been affected by the project roads, the livestock along the road regions are mapped. The trees and forest have been mapped in the Environmental Management Plan. A chainage wise some places of water bodies along the project road are identified but those water bodies can’t affect in during the construction of road projects. Deepened and bounded to act as rainwater collection sources and provide water for cattle and livestock in many villages.

Social Components of the Environmental Management plan has been designed for rehabilitations, resettlements of the affected peoples and property as per rehabilitations Action Plan (RAP).

The Environmental safety as good engineering practices in terms of sign boards, diversions, speed limits, tapes at culverts and bridges during work in progress are currently followed despite local disturbances. The reports give the final environmental status of the project roads.

3.1 ENVIRONMENTAL MANAGEMENT ACTION PLAN (EMAP)

One-time submissions and verifications required for various activities which will be undertaken by the contractors before commencements of constructions including the identifications of locations for Noise barriers, Wire fencing, sitting bench, Quarry. Crushers units, Drum mix plants, Wet mix plants, borrow area, Construction camp site, Labour camp sites, Automobiles, Ready mix plants, Vehicle maintenance yard, Material storage yards, cafeteria and waste disposal yards etc. The contractor submit for entire documents are under the supervision of CSC review. Environmental Management Plan (EMP) has also outlined the requirements of various permits Consent from various statutory authorities which are necessary for sitting and operations of various plants.

The following projects activities are considered for effective environmental management through periodic inspections and supervisions during the construction of works:

- Construction Camp site
- Labour camp site
- Identification of borrow area
- Identification Quarry area
- Preservation of Topsoil and storage
- Debris disposal
- Environmental Quality Monitoring (EQM)
- Health and Sanitation
- Safety Measures
- Tree cutting
- Traffic Management
- Safety signage board
- Borrow area opening and closing
- Noise barriers
- Wire fencing

The update on the Environmental Management Plan measures completed was reviewed monthly in the Team leader office in Guwahati milestone wise completion dates were set as deadlines. The license and validities were checked for operation. Renewal and updation are in place currently. Specific targets set in the EMP division wise were individually reviewed and implementations targets were shared with all the times. The completion of EMP assigned to divisions were submitted to project manager, environmental officer has attended the meeting and Acknowledged the issues discussed.

4.0 ENVIRONMENTAL COMPLAINECE – PROJECT STATUS ON ENVIRONMENTAL MANAGEMENT PLAN DECEMBER-2018

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Description</th>
<th>Permission Issued By Whom</th>
<th>AS-02</th>
<th>AS-03</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Tree Felling – Permission for roadside tree cutting</td>
<td>The Divisional Forest Officer, Guwahati, Assam</td>
<td>1887 Trees are felling</td>
<td>826 Trees are felling</td>
<td>Completed</td>
</tr>
<tr>
<td>02</td>
<td>CONSENT TO OPERATE (CTO) Under the Air (Prevention and Control of Pollution Act, 1981 and the Water (Prevention and Control of Pollution Act, 1974- for Establishing of Construction camp, Construction plant, Crusher, Batchig plant etc.,)</td>
<td>The Member Secretary Assam State Pollution Control boards (ASPCB) Guwahati, Assam.</td>
<td>A) W.M.M Plant</td>
<td>A) W.M.M Plant</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B) R.M.C Plant</td>
<td>B) R.M.C Plant</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C) Hot mix plant</td>
<td>C) Hot mix plant</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D) Stone Crusher</td>
<td>D) Stone Crusher</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Consents Valid up to 31.03.2019</td>
<td>Consents Valid up to 31.03.2019</td>
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ENVIRONMENTAL MONITORING REPORT (JUNE 2018 - DECEMBER 2018)
<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Description</th>
<th>Permission Issued By Whom</th>
<th>AS-02</th>
<th>AS-03</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>Permission to withdraw water for construction from surface water sources such as Rivers/Pond-use of surface water for construction</td>
<td>Assam water boards/Irrigation department/Ground water Authority</td>
<td>Using Surface water</td>
<td>Using surface water</td>
<td>Contractor advised to furnish the permission certificate.</td>
</tr>
<tr>
<td>05</td>
<td>Permission for storage handling and transport of hazardous materials</td>
<td>ASPCB and CPCB Guidelines</td>
<td>Contractor advised to furnish the permission certificate.</td>
<td>Contractor advised to furnish the permission certificate.</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>EXPLOSIVE LICENCE-For storing fuel oil lubricants, diesel etc., at Construction camp</td>
<td>Deputy Chief Controller of Explosives. Ministry of Commerce &amp; Industry petroleum and explosive safety organization (PESO)</td>
<td>N/A</td>
<td>N/A</td>
<td>-</td>
</tr>
<tr>
<td>07</td>
<td>PUC for Vehicles for Constructions Under Central Motor and Vehicle Act 1988</td>
<td>Regional Transport Officer/Motor vehicles department of Guwahati. Assam</td>
<td>Renewal in-Progress</td>
<td>Obtained</td>
<td>All the project vehicles pollution under control certificates renewal in progress</td>
</tr>
<tr>
<td>08</td>
<td>Labor License</td>
<td>Labour Commissioner Office/District Labour office</td>
<td>Obtained</td>
<td>Obtained</td>
<td>-</td>
</tr>
<tr>
<td>09</td>
<td>N.O.C for Construction and Operation of Camps Site.</td>
<td>Landowner/ Village Panchayat/</td>
<td>Obtained</td>
<td>Own Land</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Electrical License For D.G Sets 1.250 KVA×1 Nos 2.125 KVA×1 Nos 3.125 KVA×1 Nos</td>
<td>State Pollution Control Board and Inspectorate of Electricity</td>
<td>Valid Expiry to 31.11.2018</td>
<td>Renewal in-Progress</td>
<td>AS 02 &amp; AS 03 Renewal in-Progress</td>
</tr>
<tr>
<td>11</td>
<td>Tree Plantations LHS &amp; RHS</td>
<td>Divisional Forest Department office Guwahati.(DFO)</td>
<td>The forest department 5000 Plants with bamboo guards are done either side Except working in progress sections.</td>
<td>Tree plantation In-progress</td>
<td>CSC Instructed to AS-03 Start the tree plantation before monsoon. 1:3 Ratio</td>
</tr>
<tr>
<td>13</td>
<td>Environmental Monitoring</td>
<td>Air, Water, Noise, Soil and Drinking Water</td>
<td>In-Progress</td>
<td>Partially</td>
<td>Contractor advised to carried</td>
</tr>
<tr>
<td>Sr.No</td>
<td>Description</td>
<td>Permission Issued By Whom</td>
<td>AS-02</td>
<td>AS-03</td>
<td>Remarks</td>
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<tr>
<td></td>
<td></td>
<td>Quality</td>
<td></td>
<td></td>
<td>out environmental monitoring</td>
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</tbody>
</table>

**5.0 ENVIRONMENTAL COVENANT COMPLAINT REQUIREMENTS AS PER LOAN AGREEMENT AND PRESENT STATUS.**

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Loan Agreement References</th>
<th>Environmental Compliance Requirements</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Article IV, Particular Covenants section 4.01</td>
<td>To carry out the project with due diligence and efficiency and in conformity with sound administrative, Financial, Engineering, Environmental and Tourism industry Practices</td>
<td>Complied</td>
</tr>
<tr>
<td>02</td>
<td>Schedule 5 Para 11 of loan Agreement Environment Safeguard</td>
<td>1.1 The Borrower shall cause the state to ensure that 1.2 The project is designed, Constructed, Operated, and maintained in accordance with the environmental laws and regulations of the Borrower the state and ADB Environmental Policy-2002 1.3 The EMP and mitigation measures included therein as specified in the IEE re properly implemented. 1.4 The EMP is incorporated into the bidding documents and works contracts and works contracts and is updated if necessary in the course of project implemented with prior approval. 1.5 All Environmental Permits, Licenses, and Clearances are obtained in a timely manner prior to commencement of civil works in the relevant section of the project roads. 1.6 Any adverse Impact on the Environment that may arise from Project Implementations is promptly mitigated or minimized in accordance with the EMPs. 1.7 Implementations of the EMPs including any safety breaches, Violation of Environmental Standards, and corrective measures taken in respect thereof are provided to ADB on request to enable it to verify that the Goods, works, and Consulting services financed out of the Proceeds of the loan have been produced in a responsible manner with a view to resource efficiency, Waste minimization, and other Environmental Considerations.</td>
<td>Complied</td>
</tr>
<tr>
<td>03</td>
<td></td>
<td>1.8 The state shall report to ADB any change in the alignment of any project road, so as to determine if additional environmental assessments study and mitigation measures are necessary</td>
<td>Complied as required</td>
</tr>
</tbody>
</table>

**6.0 APPROACH AND METHODOLOGY ENGAGED FOR ENVIRONMENTAL MONITORING OF THE PROJECT:**

Various Environmental issues are likely to occur during the implementations of such project like air pollution encroachment into ecologically sensitive area, loss of agriculture soil, Noise and vibration, deforestation, solid and hazardous waste disposal, soil and water contamination etc.

During the project construction stages efforts will be made to identify, mitigate and compensate these likely impacts on the environment. Now in the construction stages, the environmental quality monitoring provides an opportunity to assess the effectiveness of the environmental management
During June-2018 to December-2018, no environmental complaint was recorded relating to construction activities. The Contractor is the first point of contract to lodge public complaints regarding of Environmental and social related matters. Instruction have been given not only to lodge all public complaints to be entered into the complaints registers but also to promptly investigate and review environmental complaints and adopt appropriate corrective action to address or mitigate the cause of the complaints.

All the complaints received will be placed before the RE and the decision of the TL/ RE/ Environmental Specialist will be implemented. On site instruction have regularly been given that the site order book to be kept at a convenient place, easily accessible by site engineers like first aid boxes. The overall methodology for the assessment and monitoring of EMP Implementation involves following stages.

1. Onsite training to workers of contractor regarding Environmental Management Plan items and their Implementation

2. Written intimation to RE/Project Manager of Contractor, PMU Offices regarding any non-compliances observed and making them aware regarding the significance of having compliances with statutory and other Environmental Management Plan (EMP) Requirements.

3. Comprehensive onsite training to RE/Project Manager of contractor for working and monitoring of EMP Compliances.

4. Checking of contractor’s files/records with respect of EMP Items.

5. Preparations and evaluations of EMP Compliances monitoring checklists in consultations with project managers of Contractors.

6. Submission of evaluated of EMP Compliances status report for verifications to nodal officers of respective PIU.

7. Meeting of Environmental Specialist PMU, Nodal officers of respective PIU, TL, RE, PM, Contractor Accident prevention officer as and when any issues related with EMP implementation arises. Preparation of Environmental Compliances reports and communications of the same to PIU office.

**7.0 COMPLAINTS STATUS WITH ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS STIPULATED IN THE ENVIRONMENTAL DOCUMENTATION AS AGREED WITH ADB.**

The Environmental Management and monitoring plans (EMPP) are being implemented with respect to the guidelines defined in the initial Environmental Examination (IEE) report of ADB. The leading project personnel are trained and aware of their responsibility towards:

Recording the conditions of roads, agriculture land and other infrastructures prior to transport of materials and construction commencement and upon completion of construction fully reinstate
roads, agriculture land and other infrastructures to at least their pre-projects conditions the overall implementation of EMPP is generally adequate.

The Environmental Specialist of CSC Periodically visited all two sections in the packages along with respective resident engineer CSC, Field engineer, project staffs following to the observations and review, information’s were sought from the contractor on various aspects relating to the EHS compliances which was then reported on monthly and quarterly basis. During June-2018 to December-2018 the following issues were observed, and the contractor was advised to take corrective action to ensure early compliances

1. Environmental Monitoring
2. Road safety
3. Occupational Health and safety measures
4. Implementation of Construction camp sites.
5. Tree plantations

8.0 ENVIRONMENTAL SCOPE CHANGES IN PROJECTS

There are no changes in categorization of project. The ADB Categorizes project based on their potential Environmental Impacts. This project has been classified as category B according to the ADB Fact-Finding mission undertaken. The finding of the consultants Initial Environmental Examinations further confirms that this project fall under category B. After reviewing the gazette notification and as per General Conditions GC of gazette notification MOEF 2006 any project or activity specified in category B will be treated as Category A if located in whole or in part within 5 KM from the boundary of:

1. Protection area notified under, Wildlife Protection Act, 1972;
2. Critically polluted area as notified by the Central and State Pollution Control Board from time to time;
3. Eco-sensitive zones; and
4. Interstate and International Boundaries.

As per Government of India (GoI) EIA Notification 2006 and its amendment thereafter, the project falls under category “B”

9.0 OVER ALL COMPLIANCES STATUS TO THE ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION FOR THE MONTH OF JUNE-2018 TO DECEMBER-2018
<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Activity</th>
<th>Management/ Mitigation Measures</th>
<th>Location</th>
<th>Responsibility</th>
<th>As-02</th>
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<tbody>
<tr>
<td>1.0 PRE-CONSTRUCTION</td>
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<tr>
<td>1.1</td>
<td>Project route</td>
<td>Ensure that the rights of way alignment option for the sub project are decided taking into account effective utilization of land and resources and avoiding any adverse environmental impacts. The acquisition of land and private properties as per requirements will be carried out in accordance with the resettlement action plan and entitlement framework for the project</td>
<td>Corridor of Impact</td>
<td>PIU</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td></td>
<td>Land Acquisition</td>
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<td></td>
<td>R&amp;R</td>
<td>All R.R activities are to be completed before the construction activities start, on any sub section of the project Specific Plan for Project will include specific actions in relations to health hygiene and plantation</td>
<td>Corridor of Impact</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
</tr>
<tr>
<td>1.2</td>
<td>Clearance</td>
<td>All Clearance required for environmental aspects during the construction shall be ensured and made available before start of work.</td>
<td>Corridor of Impact</td>
<td>PWD Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>1.3</td>
<td>Tree Protection</td>
<td>Retaining the existing trees and giving due protection to them, if they fall in the shoulders shall be the prime focusing during design and pre-construction /Construction. This will also include planning for the provision of tree guards for the existing trees on the slope /embankment of the proposed road refer BOQ. With retro reflective studs on them to facilitate better visibility during night time. Where the trees guards are necessary care should be taken to ensure that they do not impede natural movements or restrict growth. Bamboo made tree guards may be considered where necessary. Where the trees that fall within corridor of impact have been identified for inevitable removal as per BOQ, The trees will be removed from construction intimation to DFO. Clearance from district collector. The site should be cleared off the cut trees Immediately to ensure smooth flow of traffic.</td>
<td>Corridor of Impact</td>
<td>Contractor</td>
<td>Being Implemented as and when required</td>
<td>Being Implemented as and when required</td>
</tr>
<tr>
<td>1.4</td>
<td>Tree Planting</td>
<td>Compensatory plantation of at least thrice the number of tree cut shall be planned along the project road with a 3 year nurturing periods. Where major portion of the project road pass through open lands planting of tress along the entire stretches of the road is recommended as an enhancement measures, which would also serve as a mechanism to delineate ROW and prevent future encroachments / Squatters in to the right of way, wherever possible. (Quantum of trees as mentioned in BOQ)</td>
<td>Corridor of Impact</td>
<td>PWD/CSC Contractor</td>
<td>5000 Trees are planting in both side except working progress section</td>
<td>In-Progress</td>
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<td>1.5</td>
<td>Environmental Parameters</td>
<td>Base line parameters of air, water and noise shall be measured/established before commencement of work. (Refer table EMP-3) and NOC, where required from State Pollution Control Board shall be obtained.</td>
<td>Corridor of impact and neighborhood</td>
<td>PWD/CSC Contractor</td>
<td>In-Progress</td>
<td>Partially Complied</td>
</tr>
<tr>
<td>1.6</td>
<td>Noise Pollution Management</td>
<td>For Sensitive receptors like schools, hospitals, as may be found en route, mitigation measures are to be planned which may include: Noise barriers including raising the compound walls, land scapping, etc.</td>
<td>Corridor of impact and neighborhood</td>
<td>PWD/CSC Contractor</td>
<td>In-Progress</td>
<td>In-Progress</td>
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<td>1.7</td>
<td>Utility Relocation</td>
<td>All utilities lost due to the project will be relocated with prior approval of the concerned agencies before construction starts, on any sub section of the project road (shifting of electric poles, Telephone poles and Water/tapes etc., along the project roads.</td>
<td>Corridor of impact and neighborhood</td>
<td>PWD/CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>1.8</td>
<td>Replacements of common amenities</td>
<td>All affected common amenities such as community sources of water, bus shelters, Cultural properties, etc. Will be relocated wherever necessary. The relocation site identification will be accordance with the choice of the community and completed before construction starts. Refer MoRT&amp;H 110.</td>
<td>Corridor of impact and neighborhood</td>
<td>PWD/NGO</td>
<td>Being Complied</td>
<td>Being Complied</td>
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<tr>
<td>1.9</td>
<td>Planning Temporary Traffic diversion and pedestrian safety</td>
<td>Temporary diversion will be provided with the approval of the Environmental Specialist. Detailed traffic control plans will be prepared and submitted to the Environmental Specialist for approval one week prior to commencement of works. The Environmental specialist will assess the environmental impacts associated with such plans with regards to the loss of vegetation, productive lands and the arrangements for the temporary diversion of the land prior to the finalization of diversion and detours. Temporary diversion, details of arrangements for construction under traffic details of traffic arrangements after cessation of work each day, signage, safety measures for transport Of hazardous materials and arrangement of flagmen. Special considerations will be given to the preparation of the traffic control plan for safety of pedestrians and workers at night. The mitigations measures should refer the traffic management measures as per SP55 of IRC Codes. Provision of MoRTH 112 shall apply.</td>
<td>Corridor of Impact and the diversion route</td>
<td>PWD/CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>1.10</td>
<td>Crushers HMP, RMC, WMM</td>
<td>Specification of crushers, Hot mix plant, Ready mix plant and Wet mix plant will comply with the requirements of the relevant current emission control legislation and should be included in the contract documents. Hot mix plant and batching plants will be sufficiently away from habitation. Agriculture operation or industrial establishments such plants will be located at least 1000 m away from the nearest habitation preferably in the down wind direction.</td>
<td>Along the project corridor and the location of construction sites</td>
<td>CSC/ Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>1.11</td>
<td>Other Construction s vehicles equipment’s and machinery</td>
<td>The discharge standards promulgated under the Environmental Protection act 1986 will be strictly adhered. All vehicles equipment’s and machinery to be procured for construction will confirm to the relevant bureau of Indian standards(IS) Noise limits for construction equipment’s to be procured such as compactors, rollers, front loaders, concrete mixers, Cranes, (movable) Vibrators and saws will not exceed 75 Db. (A) Measured at one meter from the edge of the equipment’s in free field, as specified in the Environmental Protection Rules 1986, The contractor shall maintain a record of PUC for all vehicles and machinery used during the contract periods.</td>
<td>Corridor of Impact</td>
<td>CSC Contractor</td>
<td>In-Progress</td>
<td>Complied</td>
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<tr>
<td>1.12</td>
<td>Identification and selection Of borrow areas</td>
<td>Arrangement for locating the sources of supply of materials for embankment and sub grade as well as compliances to environmental requirements, as applicable will be the sole responsibility of the contractor. Location identified by the contractor shall be reported to the Environmental specialist and environmental specialist shall in turn report to the state highways. Planning of haul roads for accessing borrows materials should be routed to avoid agriculture areas. In addition to testing for the quality of borrow materials by the highways department. The environmental specialist of the department will be required to inspect every borrow area location prior to approval. Location finalized by the contractor shall be reported to the Environmental Specialist for Executing authority who will in turn report to PIU. Format for reporting will be as per the reporting format for borrow areas and will include a reference map. The Contractor will not start borrowing earth from selected borrow area until the formal agreement is signed between land owner/Panchayat and contractor and a copy is submitted to the CSC and the PIU</td>
<td>Along the project corridor and the location of construction sites</td>
<td>CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>1.13</td>
<td>Identification and selection of Quarry</td>
<td>The contractor will identify materials from existing licensed quarries with the suitable materials for construction. Apart from approval of the quality of the quarry materials, the Environmental specialist representative will verifying the legal documents of the quarry operation as to whether approval under Assam minor minerals concession rules is obtained</td>
<td>Location of Approved quarry</td>
<td>CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>1.14</td>
<td>Water</td>
<td>The Contractors shall consult the local peoples before finalizing the locations. The contractor will sources the requirements of water preferentially from surface water bodies. Such as rivers and tank in the project area. Boring of any tube wells will be prohibited. To avoid disruption /disturbance to other water users, the contractors will extract water from fixed locations. Only at locations where surface water source are not available, the contractor can contemplate extraction of ground water. Consent from the engineer that no surface water resource is available in the immediate area for the project is a prerequisite prior to extraction of ground water. The contractor will need to comply with the requirements of the state Ground water department and seek their approval for doing so. The use of surface water by the contractor shall be allowed only after written permission/consent of the community/Panchayat/owner indicating the quantum of water allowed to be drawn. In case of Irrigation sources, consent shall be obtained by the competent authority and any such use shall be informed to the local community in advance.</td>
<td>All the locations where surface or ground water is utilized for the construction purposes</td>
<td>CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>1.15</td>
<td>Sand</td>
<td>The contractor will identified sand quarries with requisite approvals for the extraction of sand under Assam minor and minerals concession rules, for use in the project.</td>
<td>Riverbeds identified for sand extraction</td>
<td>CSC Contractor</td>
<td>Complied</td>
<td>Complied</td>
</tr>
<tr>
<td>1.16</td>
<td>Arrangement for temporary land arrangement</td>
<td>The contractor as per prevalent rules will carry out negotiation with the land owners for obtaining their consent for temporary use of lands for constructions sites / Hot mix plants / traffic detours / Borrow area etc. The engineers will be required to ensure that the clearing up of the prior to handling over to the owner (after construction or completion of the activity) is included in the contract.</td>
<td>Areas temporarily acquired for construction</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>1.17</td>
<td>Labour requirements</td>
<td>The contractor will use unskilled labour drawn from local communities to avoid any additional stress on the existing infrastructures facilities in the project area. Strict adherence to avoid child labour for any form of work should be followed at the construction site and camp sites.</td>
<td>Around project corridor</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
</tr>
<tr>
<td>1.18</td>
<td>Orientation</td>
<td>Organize orientation sessions and regular training sessions during all stages of the project for implementing Agency and contractors this shall include on-site training (General as well as in the specific context of a sub-Project). These sessions shall invoice all staffs of Environmental Cells, field level implementations staffs of highways departments on Contractors.</td>
<td>Suitable reachable place.</td>
<td>CSC/PWD</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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</tbody>
</table>

2.0: CONSTRUCTION CAMP
2.1 Location of Construction labour camps Accommodation

The Contractors will provide, erect and maintain necessary (temporary) living accommodations and ancillary facilities during the progress of work for labour to standards and scales approved by the engineers. Contractors will follow all relevant provisions of the factories Act 1948 and the building & others constructions workers (Regulations of Employments and conditions of services) Act 1996 for constructions and maintenance of labour camp. Construction camps will not be proposed within 1000 m from the nearest habitations to avoid conflicts and stress over the infrastructures facilities, with the local community. The location Lay out and basic facility provisions of each labour camp will be submitted to Engineer prior to their construction. The constructions will commerce only upon the written approval of the Environmental Specialist.

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<tr>
<td>2.1</td>
<td>Location of Construction labour camps Accommodation</td>
<td>The Contractors will provide, erect and maintain necessary (temporary) living accommodations and ancillary facilities during the progress of work for labour to standards and scales approved by the engineers. Contractors will follow all relevant provisions of the factories Act 1948 and the building &amp; others constructions workers (Regulations of Employments and conditions of services) Act 1996 for constructions and maintenance of labour camp. Construction camps will not be proposed within 1000 m from the nearest habitations to avoid conflicts and stress over the infrastructures facilities, with the local community. The location Lay out and basic facility provisions of each labour camp will be submitted to Engineer prior to their construction. The constructions will commerce only upon the written approval of the Environmental Specialist.</td>
<td>Camp for Project</td>
<td>CSC/Contractor</td>
<td>Complied</td>
<td>Complied</td>
</tr>
<tr>
<td>2.2</td>
<td>Portable water</td>
<td>The contractor will construct and maintain all labour accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing with ion presents of every work place in an accessible place as per standards set by the building and other construction workers (Regulations of Employments and conditions of service) Act1996. The contractor will also guarantee the following: 1. Supply of sufficient quantity of portable water as per IS In every work place/labour Camp site at suitable and easily accessible place and regular maintenance of such facilities. 2. If any water storage tank is provided that will be kept such that the bottom of the tank is at least 1 mtrs from the surrounding ground levels. 3. If water is drawn from any existing well, which is within 30 mtrs. Proximately of any toilet, drain or other source of pollution, the well will be disinfected before water is used for drinking. 4. All such wells will be entirely covered and provided with a trap door, which will be dust proof and water proof. 5. A reliable pump will be fitted to each covered well.</td>
<td>Construct ion labour camps</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>2.3 Sanitation and Sewage system</td>
<td>Construction Labour camp</td>
<td>Contractor</td>
<td>Complied</td>
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<td>The contractor will ensure that-</td>
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<td>The sewage system for the camp are designed, built and operated in such a fashion that no health hazardous occurs and no pollution to the air, ground water or adjacent water courses take place.</td>
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<td>Separate toilets/bathrooms, wherever required screened from those from men (marked in vernacular) are to be provided for women.</td>
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<td>Adequate water supply is to be provided in all toilets and urinals.</td>
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<td>All toilets in work places are attached with septic tank which is to be cleaned and kept in strict sanitary conditions.</td>
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<td>2.4 Waste Disposal</td>
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<td>Contractor</td>
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<td>The Contractor will provide garbage bins in the campus and ensure that these are regularly emptied and disposed of in a hygienic manner as per the compressive solid waste management plan approved by the Environmental specialist</td>
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<td>2.5 Stock Yard</td>
<td>Along the Project Corridor</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>Location of stockyard for construction materials will be identified at least 1000 m from water course and separated and sufficiently away from the labour camps.</td>
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<td>Separate enclosures shall be planned for storing construction materials containing fine particulars such that sediment-laden water does not drain into nearby storm water drain &amp; underground sewerage pipes (MoRTH-306)</td>
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<td>2.6 Fuel storage and refueling areas</td>
<td>Camp/ All along the project corridor</td>
<td>CSC/Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>The Contractor will ensure that all construction vehicle parking location, fuels, lubrications storage sites, vehicles, Machinery and equipment maintenance and refueling sites are located at least 500 M from rivers and irrigations</td>
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<td>Canal/Ponds. All locations and lay out plans of such sites will be submitted by the contractors prior to their establishments and will be approved by the Environmental Specialist. In all fuel storage and refueling areas if located on agricultural land or areas supporting vegetation the topsoil will be stripped stockpiled and returned after completion of such storage and refueling activities. Fuel storage will be provided with bunds. The plan for the construction camp site should also include the process of collection and disposal of spent oil and grease. The collection and disposal methods for the spent oil and grease submitted as part of the construction camp plan should be duly approved by the Environmental Specialist.</td>
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<td>3.0</td>
<td>CONSTRUCTION STAGE (A) PREPARATORY WORKS</td>
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<td>3.1</td>
<td>Clearing and grubbing</td>
<td>Vegetation will be removing from the RoW before the commencement of construction and will be carried out such that the damage or disruption to flora is minimal. Only ground water/shrubs that impinge directly on the permanent works or necessary temporary works will be removed with prior approval from the environmental specialist. The contractors, under any circumstances will not damages tree in addition to those already identified and felled with prior permission from the forest department.</td>
<td>Corridor of impact</td>
<td>Contactor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>3.2</td>
<td>Dismantling of Culverts</td>
<td>The culverts will be dismantled carefully and the resulting materials so removed without causing any damage to the part of the structures retained and other properties and structures nearby. All necessary measures will be taken especially while working close drainage channels to prevent earth work, stone work, materials, and appendages as well as the method of operation from impending cross drainage at rivers, streams, water, canal, and existing irrigation and drainage system.</td>
<td>All location where bridge works and culverts are proposed</td>
<td>Contractor</td>
<td>Being Implemented as and when required</td>
<td>Being Implemented as and when required</td>
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<td>3.3</td>
<td>Generation of debris from dismantling of</td>
<td>Re-Use of debris: Debris generated shall be suitability reused in the proposed construction subject to the suitability of the materials with the approval of the Environmental Specialist. Contractor shall utilize at least</td>
<td></td>
<td>Contractor</td>
<td>Implemented</td>
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<td>disposal</td>
<td>30% of debris generated for road construction purposes including. Sub grade of the existing pavement shall be used as embankment fill materials. The existing base and sub-base materials shall be recycled as sub-base of the road or access roads. The Existing bituminous surface debris may be considered for the paving of cross roads, access roads and paving works in construction camps, traffic diversion roads, haulage routes etc. (Feasibility or otherwise of these measures will be decided on case to case basis and approved by engineer). DISPOSAL: Unutilized debris materials shall be suitably disposed of by the contractor; either through filling up of borrow areas created for the project or at pre designed dump locations, subject to the approval of the engineer. Debris generated from other construction activities shall be disposed such that it doesn’t contaminate water bodies in the project area. Location of disposal sites: The contractor shall identify the sites for debris disposal and should be finalized prior to start of the earth works: taking into account the following. The dumping does not impact natural drainage courses. No endangered rare flora is impacted by such as dumping. Settlements are located at least 1.0 km away from the site. Should be located in non-residential areas located in the downwind side. Located at least 100 m from the designated forest land. Avoid disposal on productive land. Should be located with the consensus of the local community in consultation with the engineer and shall be approved by the highway department.</td>
<td>Throughout project corridor</td>
<td>Contractor</td>
<td>Implemented-Partially</td>
<td>Implemented-Partially</td>
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<td>3.4</td>
<td>Bituminous waste disposal</td>
<td>The disposal of residual bituminous wastes will be done by the contractor at secure land fill sites with the required approval for the same from the concerned government agencies. Location of disposal sites should be finalized prior to start of the earth works and shall be approved by the environmental specialist of the CSC Confirming to the following.</td>
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<td>The dumping does not impact natural drainage courses. No endangered /rare flora is impacted by such dumping. Settlement is located at least 1.0km way from the site. Site should be located with the consensus of the local community. Should be located in non-residential areas located in the down side wind. Located at least 100 m from the designated forest land. Avoid disposal on productive land. In case of non-availability of secured land fill the contractor shall dispose at location approved by the engineers for disposal of residual bituminous wastes. The disposal will be carried out over a 60 mm thick layer of rammed clay so as to eliminate the possibility of leaching of waste into the ground water. The contractor will ensure that the surface area of such disposal pits is covered with a layer of soil.</td>
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<td>3.5</td>
<td>Stock-Yards</td>
<td>Stockyards for construction materials shall be constructed at the approved location and separated and sufficiently away from the labour camps. Separate enclosures shall be planned for storing construction materials containing fire particles such that sediment-laden water does not drain into nearby storm water drain &amp; underground sewerage pipes (MoRTH306)</td>
<td>Along the project corridor</td>
<td>Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<tr>
<td>3.6</td>
<td>Borrow area</td>
<td>The area should be located with applicable consent/clearances from the local community, Panchayats, local bodies and as per Minor mineral concession rules. No borrow area will be opened without permission of the Environmental Specialist. Materials soil shall be taken from either waste/Open land. Borrow pits will not be dug continuously in a stretch. The location, shape and size of the designated borrow areas will be as approved by the Environmental specialist and in accordance to the IRC recommended practice for borrow pits for road embankments (IRC 10:1961). Low lying, Productive and forest lands should be avoided with depth of cutting not to exceed 2 m and should be away from toe of embankment road formation river banks etc.</td>
<td>All along the project corridor all access roads sites temporarily acquired and all borrow areas.</td>
<td>CSC/Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>Sr. No</td>
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<td>In the case of borrow areas identified and used specifically for this project the contractor should submit a borrow area restoration plan and get it approved by the Environmental specialist. The unpaved surface used for the haulage of borrow materials will be maintained dust free by the contractor since dust rising is the only impact along the haul roads. Sprinkling of water will be carried out for a minimum of twice a day or as required along such roads during their periods of use.</td>
<td>Throughout the project corridor</td>
<td>CSC / Contractor</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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<td>3.7</td>
<td>Planning for temporary Traffic Diversion</td>
<td>Before taking up of construction on any section of the existing lanes of the highway a traffic control plan will be devised and implemented to the satisfaction of the Environmental specialist. Construction shall be taken phase-wise so that sections are available for traffic. Temporary diversion will be provided with the approval of the Environmental Specialist. The detailed traffic control plans prepared and submitted to the Environmental Specialist for approval one week prior to commencement of work shall contain details of temporary diversion, details of traffic arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage’s safety measures for transport of hazardous materials and arrangements of flagman. The mitigation measures should be referring the traffic management measures as per SP55 of IRC codes &amp; MoRT&amp;H 111 (111.9, 111.11 &amp; 111.12). The arrangement for the temporary diversion of the land shall ensure to minimize the environmental impacts like loss of vegetation, productive land etc. Prior to the finalization of diversion and detours. Special Consideration will be given to the preparation of the traffic control plan for safety of pedestrians and workers at night. The Contractor will ensure that the diversion/ detour is always maintained in running condition particularly during the monsoon to avoid disruption to traffic flow he shall inform local community of changes to traffic routes,</td>
<td>Throughout the project corridor</td>
<td>CSC / Contractor</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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<td>3.8</td>
<td>Informatory signs</td>
<td>The Contractor will provide, erect and maintain informatory/Safety/sign boards/hoarding written in English and local languages, wherever required or as suggested by the Environmental Specialist. The top soil from borrow areas, areas of cutting and areas to be permanently covered will be stripped to a specified depth of 150 mm and stored in stockpiles. At least 10% of the temporary acquired area will be Earmarked for storing topsoil. The stockpile will be designed such that the slope does not exceed 1:2 (Vertical to horizontal) and the height of the pile is to be restricted to 2 m.</td>
<td>All Construction sites</td>
<td>CSC/Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<td>3.9</td>
<td>Stripping stocking and preservation of top soil</td>
<td>Stockpiles will not be surcharged or otherwise loaded and multiple handling will be kept to a minimum to ensure that no compaction will occur. The stockpiles will be covered with gunny bags or tarpaulin. It will be ensured by the contractor that the topsoil will not be necessarily trafficked either before stripping or when in stockpiles. Such stockpiles topsoil will be returned to cover the disturbed area and cut slopes. The contractor shall maintain record of topsoil stocks and location. The stockpiled top soil shall be utilized for: 1. Top dressing of the road embankment and fill slopes 2. Plantations in the median and sides of main carriageway 3. Covering all disturbed areas including borrow areas not those in barren areas 4. Agricultural fields acquired temporarily for construction works. The Contractor shall prepare a utilization plan and report topsoil use to</td>
<td>CSC/Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<td>3.10</td>
<td>Quarries</td>
<td>The quarry operation will be undertaken within the rules and regulations in force. All possible &amp; practical measures to control noise emissions during Drilling/excavations shall be employed. Contractor will ensure that the work is being done in accordance with the plans and regulations.</td>
<td>All along the project corridor and all haul roads</td>
<td>Contractor</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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<tr>
<td>3.11</td>
<td>Excavations</td>
<td>All excavations will be done in such a manner that the suitable materials available from excavations are satisfactory utilized. The excavations shall confirm to the lines, grades, side slopes, and levels shown in the drawing or as directed by the Environmental specialist. While planning or execution the contractor shall take all adequate precautions against soil erosion, water pollution etc., and take appropriate drainage measures to keep the site free of water, through use of mulches, grasses, slopes, drains and other devices. The contractor shall take adequate protective measures to see that excavation operations do not affect or damage adjoining structures and water bodies. Contractor will ensure that the work is being done in accordance with the plans and regulations.</td>
<td>Along the project corridor</td>
<td>Contractor</td>
<td>Implemented</td>
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<tr>
<td>3.12</td>
<td>Earth fill</td>
<td>Embankments and other fill area, unless otherwise permitted by the Environmental specialist, be constructed evenly over their full width and the contractor will control and direct movements of constructions vehicles and machinery over them. Contractor will ensure that the work is being done in accordance with the plans and regulations.</td>
<td>Along earth fill areas</td>
<td>Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<tr>
<td>3.13</td>
<td>Water Extractions</td>
<td>The extraction/Procurement of water is to be carried out as per provisions given and the contractor will minimize wastages of water during the construction. Contractor will ensure that the work is being done in accordance with the plans and regulations.</td>
<td>All water bodies recommended to be used in the project</td>
<td>Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<tr>
<td>3.14</td>
<td>Water pollution from constructions wastes</td>
<td>The contractor will take all precautionary measures to prevent the waste water generated during construction from entering into streams, water bodies or the irrigation system. Contractor will avoid construction works close to the streams or water bodies during monsoon. All waste arising from the projects to be disposed of in the manner that the acceptable to the state pollution control boards or as directed by the Environmental Specialist. The Environmental specialist will certify that all liquid wastes disposed of from the sites meet the discharge standards. Contractor will ensure that the work is being done in accordance with the plans and regulations.</td>
<td>All along the project corridor</td>
<td>Contractor</td>
<td>Being Implemented</td>
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<td>3.15</td>
<td>Silting Contamination of water bodies</td>
<td>Silt fencing will be provided around stockpiles at the construction site close to water bodies. The fencing needs to be provided prior to commencement of earth works and continue till the stabilization of the embankment slope on the particular section of the road. Construction materials containing fine particles will be stored in an enclosure such that sediments laden water does not drain into nearby water courses. All discharges standards promulgated under environmental protection act 1986 will be adhered to all liquid wastes generated from the site will be disposed of acceptable to the Environmental specialist.</td>
<td>Water bodies close to the project corridor</td>
<td>Contractor</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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<tr>
<td>3.16</td>
<td>Cutting and Filling near surface water bodies</td>
<td>Earth work shall be undertaken such that the existing embankments of water bodies are not disturbed. In case of cutting of embankments the same shall be reconstructed with appropriate slope protection measures and adequate erosion control measures.</td>
<td>Surface water bodies whose embankments are being cuts.</td>
<td>Contractor</td>
<td>Proper care has been taken</td>
<td>Proper Care has been taken</td>
</tr>
<tr>
<td>3.17</td>
<td>Drainage requirements at construction sites.</td>
<td>In addition to the drainage requirements the contractor will take all measured as directed by the environmental specialist such measures to prevent temporary or permanent flooding of the site or any adjacent area.</td>
<td>All along the project corridor</td>
<td>Contractor</td>
<td>Implemented</td>
<td>Implemented</td>
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<tr>
<td>3.18</td>
<td>Pollution from fuel and lubricants contaminations of soil</td>
<td>Contractor will ensure that all vehicles and machinery, equipment operation maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubrications does not contaminate the ground. Oil interceptors will be provided for vehicles parking wash down and refueling areas as per the design provided. In all fuel storage and refueling areas if located on agricultural land or areas supporting vegetation the top soil will be stripped stockpiles and returned after cessation of such storage. Contractor will arrange for collection, storing and disposal of oily wastes for the pre-identified disposal sites list od be submitted disposal sites (list to be submitted to Environmental Specialist) and approved by the Environmental specialist. All spills and collected petroleum products will be disposed of in accordance with MoEF and state PCB guidelines.</td>
<td>All along the Project corridor</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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### Sr. No | Activity | Management/ Mitigation Measures | Location | Responsibility | As-02 | As-03
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3.19 | Noise Pollution from vehicles Plants, Equipments | Environmental Specialist will certify that all arrangement comply with the guidelines of Pollution control board/ MoEF or any other relevant laws. | All along the project corridor | Contractor | Being Implemented | Being Implemented

3.19 | Noise Pollution from vehicles Plants, Equipments | The contractor will confirm the following:  
All plants and equipment used in construction shall strictly confirm to the MoEF/CPCB Noise Standards.  
All vehicles and equipment’s used in construction will be fitted with exhaust silencers.  
Serving of all construction vehicles and machinery will be done regularly and during routine servicing operations the effectiveness of exhaust silences will be checked and if found defective will be replaced.  
Limits for constructions equipment’s used in the project such as compactors, rollers, front loaders, concrete mixtures, cranes (movable) vibrators and saws shall not exceed 75 Db (A) measured at one meter from the edge of equipment’s in the free fields as specified in the Environmental Protection Act 1986.  
Maintenance of vehicles equipment’s and machinery shall be regular and up to the satisfactions of the engineer to keep noise levels at the minimum.  
Idling of temporary trucks or other equipment’s shall not be permitted during periods of unloading or when they are not in active use.(MoRTH:201.2)  
Contractor will provide noise barrier (Designs of Noise Barriers provided to the suggested location of selected schools, health centers, list of locations for noise barriers is given in specific EMP.  
Monitoring shall be carried out at the constructions sites as per the monitoring schedules and results will be submitted to Environmental Specialist. The environmental specialist will be required to inspect regularly to ensure the compliances of EMP.(Refer MoRT&H 111.3) | Contractor | Being Implemented | Being Implemented

3.20 | Operations of Construction equipment and vehicles | Not with standing any other condition of contract, noise level from any item of plant must comply with the relevant legislation for levels of noise emission.  
The contractor will ensure that the AAQ Concentrations at these constructions sites are with the acceptable limits of industrials uses in case of hot mix plants and crushers and | Contractor | Complied | Complied
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<th>Sr. No</th>
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<th>Location</th>
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<tr>
<td>3.21</td>
<td>Transporting Construction materials</td>
<td>All vehicles delivering materials to the site will be covered to avoid spillage of materials all existing highways and roads used by vehicles of the contractors or any of his subs- Contractors or suppliers of materials and similarly roads which are part of the work will be kept clean and clear of dust/mud or other extraneous materials dropped by such vehicles. The fall height shall be kept low so that least amount of dust is airborne during unloading of materials.</td>
<td>All along the project corridor and haul roads</td>
<td>Contractor</td>
<td>Being Implemented</td>
<td>Being Implemented</td>
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<td>3.22</td>
<td>Dust</td>
<td>All earth work will be protected in manner acceptable to the engineer to minimize generation of dust. Area under constructions shall be covered &amp;equipped with the dust collector. Construction materials shall be covered or stored in such a manner so as to avoid being affected by wind direction. The contractor will take every precaution to reduce the level of dust along construction sites involving earth works by frequent application of water.</td>
<td>All along the project corridor</td>
<td>Contractor</td>
<td>Partially Implemented</td>
<td>Partially implemented</td>
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<td>3.23</td>
<td>Tree Protection</td>
<td>Giving due protection to the trees that fall in the shoulders / Corridor of impact shall be the prime focus during the constructions and post construction. This will also include the provision of tree guards for the existing trees on the slope/embankments of the proposed road refer BOQ with retro reflective studs on them to facilities better visibility during night time where the tree guards are necessary care should be taken to ensure that they do not impede natural movements or restrict growth. Bamboo tree guards may be considered where necessary Tree planting / green belt development plan as per BOQ shall be carried out by concerned agency.</td>
<td>All tree Plantations Greenery areas of the project</td>
<td>Contractor/ CSC/PWD</td>
<td>For Compliance as and when required</td>
<td>For Compliance as and when required</td>
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<tr>
<td>3.24</td>
<td>Barricading site</td>
<td>The construction site shall be barricaded at all times in a day with adequate marking, flags, reflectors, etc. For safety of general traffic management, movements workers and pedestrians.</td>
<td>All construction sites</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<tr>
<td>3.25</td>
<td>Personnel safety measures for Labour activities.</td>
<td>Contractor will provide all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc.to workers and staff.</td>
<td>Construction activities areas</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>3.26</td>
<td>Materials Handlings</td>
<td>Protective footwear and protective goggles to all workers</td>
<td>Construction activities</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>3.27</td>
<td>First Aid</td>
<td>The contractor will arranged for A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances as per the factories rules in every work zone. Availability of suitable transport ambulance at all times to take injured or sick persons to the nearest hospitals. Equipment and trained nursing staff at constructions camp.</td>
<td>Construction activities areas</td>
<td>Contractor</td>
<td>Complied</td>
<td>Complied</td>
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<td>employed on mixing asphalt materials, cement, lime motors, concrete etc. Welder’s protective eye shields to workers engaged in welding workers. Protective goggles and clothing to workers engaged in stone breaking activities and workers will be seated at sufficiently safe intervals. Earplugs to workers exposed to loud noise and workers working in crushers, compaction, and concrete mixing operations. Adequate safety measures for workers during handling of materials at site are taken up. The contractor will comply with all regulations regarding safe scaffolding, ladders, working platforms. Gangway, stairwells, excavations, trenches and safe means of entry and egress. The contractors will not employ any person below the age of 14 yrs. for any work and no women will be employed on the work of painting with products containing lead in any form. The contractors will also ensure that no paint containing lead or lead product is used except in the form of paste or readymade paint. Contractor will provide face makers for use to the workers when paints is applied in the form of spray or surface having lead paint dry is rubbed and scrapped. The contactor will mark hard hat and no smoking and other high risk areas and enforce noncompliance of use PPE with zero tolerance these will be reflected in the constructions safety plans to be prepared by the contractors during mobilizations and will be approved by the Environmental Specialist.</td>
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<td><strong>CONSTRUCTION STAGE SAFETY MEASURES AND WORKMEN</strong></td>
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<td>3.28</td>
<td>Traffic and Safety</td>
<td>The contractor will take all necessary measures for the safety of traffic during the construction and provide reaction and maintenance such barricades including signs, marking, flags, lights and flagman as proposed is the traffic control plans/Drawing and as required by the engineer for the information’s and protection of traffic approaching or passing through the sections of any existing cross roads. The contractors will ensure that all signs, barricading, pavements marking are provided as per MoRT&amp;H Specifications. Pedestrians safety shall be ensured ,pedestrians circulations shall be demarcated prior to start &amp; unsafe areas shall be cordoned off MoRT&amp;H 112.2)</td>
<td>Construction activities areas</td>
<td>Contractor</td>
<td>Complied</td>
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<td>3.29</td>
<td>Risk from Electrical Equipment</td>
<td>The Contractor will take all required precautions to prevents to prevents danger from electrical equipment and ensure that. No materials will be so stacked or placed as to cause danger or inconvenience to any persons or the public. All necessary fencing and lights will be providing to protect the public in construction zones. All machines to be used in the construction zones will confirm to the relevant Indian standards (IS) Codes will be free from patent defect will be kept in good working order will be regularly inspected and properly maintained as per IS provisions and to the satisfaction of the Environmental Specialist.</td>
<td>All construction zones</td>
<td>Contractor</td>
<td>Implemented</td>
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<td><strong>ENVIRONMENTAL ENHANCEMENT AND SPECIAL ISSUES-CONSTRUCTIONS</strong></td>
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<td>3.30</td>
<td>Enhancement measures</td>
<td>Enhancement of all incidental spaces shall be planned and carried out prior to completion of construction along the project road. Some of the enhancement measures to be considered along the project roads include avenue tree plantation along the entire stretch of the road adequate storm water drainage landscaping at junctions to improve aesthetic etc.</td>
<td>At suitable locations along the project road</td>
<td>CSC Contractor</td>
<td>To be implemented</td>
<td>To be implemented</td>
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<td>3.31</td>
<td>Road side plantation strategy</td>
<td>Growth and survival of trees planted shall be ensured and monitoring done at least for a period mention in BOQ Survival status shall be reported</td>
<td>All tree plantations Greenery area of the project at</td>
<td>CSC Contractor</td>
<td>5000 trees are planting both side</td>
<td>To be done in consultation with</td>
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<td>3.32</td>
<td>Flora and Chance found Fauna</td>
<td>The contractor will take reasonable precaution to prevent his workmen or any other person from removing and damaging any flora plant/Vegetation and fauna animal including fishing in any water body and hunting of any animal. If any wild animals is found near the constructions site at any point of time the contractor will immediately upon discovery thereof acquaint the Environmental specialist and carry out The Environmental specialist instructions for dealing with the same. The Environmental specialist will report to the nearby forest office range office or divisional office and will take appropriate steps/measures if required in consultation with the forest officials.</td>
<td>Along the Project Road</td>
<td>Contractor</td>
<td>For Compliance as and when required</td>
<td>For Compliance as and when required</td>
</tr>
<tr>
<td>3.33</td>
<td>Chance Found Archaeological Property</td>
<td>All fossil, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be property of the government and shall be deal with as per previous of the relevant legislation. The contractor will take reasonable precautions to prevent his workman any other persons from removing and damaging any such articles or thing. He will immediately upon discovery thereof and before removal acquaint the Environmental Specialist of such discovery and carry out the CSCs instructions for dealing with the same waiting which all work shall be stopped. The Environmental specialist will seek direction from the archeological survey of India (ASI) before instructing the Contractor to recommence the work in the site.</td>
<td>Along the Project road</td>
<td>Contractor</td>
<td>For Compliance as and when required</td>
<td>For Compliance as and when required</td>
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<tr>
<td>3.34</td>
<td>Sensitive Areas</td>
<td>The sensitive areas like schools, hospitals to be provided with suitable noise barriers and safety measures refer BOQ prior to the start of work in order to minimize the dust and noise impacts due to vehicles movements.</td>
<td>Concerned locations</td>
<td>Contractor</td>
<td>For Compliance as and when required</td>
<td>For Compliance as and when required</td>
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<tr>
<td>3.35</td>
<td>Clearing of construction camps and restoration</td>
<td>Contractor to prepare sites restorations plans for approval by the Environmental Specialist. The plans is to be implemented by the contractor prior to demobilizations.</td>
<td>All constructions workers camps</td>
<td>Contractor</td>
<td>Shall be done after completion of the project</td>
<td>Shall be done after completion of the project</td>
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<td>Management/ Mitigation Measures</td>
<td>Location</td>
<td>Responsibility</td>
<td>As-02</td>
<td>As-03</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>----------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>On Completions of the works, all temporary structures will be cleared away all rubbish cleared excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor’s expenses to the entire satisfactions of the Environmental Specialist. Residual topsoil will be distributed on adjoining /Proximate barren /rocky areas as identified by the Environmental Specialist in layer of thickness of 75 mm-150mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.36</td>
<td>Redevelopment of borrow areas.</td>
<td>Redevelopment of borrow areas will be taken up in accordance with the borrow area restorations plan approved by the Environmental specialist.</td>
<td>All borrow areas of the project</td>
<td>Contractor</td>
<td>To be implemented</td>
<td>To be implemented</td>
</tr>
</tbody>
</table>
10.0 SUMMARY OF ENVIRONMENTAL MONITORING AND CORRECTIVE ACTION

During the reporting period the following issues were reviewed, and the contractor was advised to take required action for improvements and compliance.

1. Improvements in the provisions of safety measures for road users at work sites.
2. Maintained of drainage system within camp premises.
3. Provisions of adequate PPE and ensure their use by workers
4. Ambulance and medical aid facility within campus.
5. Increasing the frequency of water sprinkling to reduce the dust problem.
6. Monitoring of Ambient Air, Noise and Water Quality

Monitoring of Ambient Air, Noise and Water Quality

Environmental quality data collection (monitoring) has been carried out at and the results were found satisfactory. Contractor is implementing various measures to control dust, noise and water pollution. The mitigation measures adopted to reduce the air pollution are sprinkling of water on the roads and plant areas, vehicle speed restriction to 10-20 km/hr.

At site, Tyre washing facility for cleaning of vehicles at camps. To control noise pollution construction vehicles and machineries are being maintained regularly, timely scheduling of construction activities and controlled movement of construction vehicles.

Public consultations and addressing of grievances.

Consultations are being held regularly by contractor with the local peoples and affected peoples in the project areas including relevant government agencies. Besides contractor, CSC and PIU have also been consulting with local communities and government agencies. PIU has taken all possible measures to ensure that the following concerns are regularly addressed.

1. Controlled constructions activities in settlements locations.
2. Traffic diversions during constructions and inclusion of all key stake holders.

During the reporting periods no major grievances on environmental issues were recorded. Contractor is addressing the minor issues in consultations with PIU, CSC and local communities. The complaints and grievances are being addressed as per the project provisions and in consultations with communities.

11.0 CONCLUSIONS

The Implementation of environmental management measures in this project faces some difficulties. The CSC Environmental Specialist has been working closely with the Environmental officer of the PIU and Conducting regular site inspections contractors have been instructed regularly to fulfill the requirements of the implementations of Environmental Management Plan.
12.0 PHOTOS FOR SITE INSPECTION AND WORK IN PROGRESS SECTIONS

WMM at Km 26 +720

MJ Br 13/1 superstructure in progress

Soffit casting of A1-P1 Box girder (Br.no 18/1) AS-02

Soffit casting of A1-P1 Box girder (Br.no 18/1) AS-02

Deck Slab casting at Barla Bridge 7/3(AS-03)

Deck Slab casting at Barla Bridge 7/3(AS-03)
Engineer PWD visited at Barla bridge  
Compacting of DBM surface at (AS-02)
Reinforcement checking of span P1-P2 at Barla Br. 7/3

Roadway excavation on progress at AS-02
CONSENT TO OPERATE- (CTO) STONE CRUSHER & SCREENING PLANT

Pollution Control Board:: Assam
Bamunimaidam; Guwahati-21

Phone: 0361-2552774 & 2550258; Fax: 0361-2550258
Website: www.picbassam.org

No. WB/GUW/T-3178/16-17/116

To

Ms. DRA-SGCCL-ANPL (JV) Stone Crusher & Screening Plant
Vll.: No. 2 Donger Gaoni, P.O.: Nagrijuli
Dist.: Baksa (BTAD) (Assam)

Dated Guwahati the 27th 2018


Ref: Your online application vide UAN: PC5/F50/BK003753/05/2018.

Dear Sir,

With reference to your application in the name and style as mentioned above, the Pollution Control Board, Assam is pleased to grant the “Consent to Operate” under the Air Act upto 31st March, 2019 under the terms and conditions as per Annexure- “A” enclosed.

You are also requested to apply for “Consent to Operate” for the year 2019-2023 within November, 2018.

Yours faithfully,

Memo No. WB/GUW/T-3178/16-17/116-A.
Dated Guwahati the 27th 2018

Copy to:

1. The Under Secretary, Environment & Forest Department, Govt. of Assam, Dispur, Guwahati—6 for favour of information.
2. The Deputy Commissioner, Baksa (BTAD) district for favour of information.
3. The General Manager, DICCC, Baksa (BTAD) for information.
4. The Addl. Chief Env. Engineer, Regional Office, Guwahati, Pollution Control Board, Assam for information & necessary action.

Member Secretary
CONSENT TO OPERATE- (CTO) WET MIX MACADAM

Pollution Control Board:: Assam
Bamunimaidam; Guwahati-21


Dear sir,

With reference to your application in the same and style as mentioned above the Board is pleased to grant the “Consent to Operate” under the Water Act and Air Act for the period up to 31st March, 2019 subject to pollution control measures taken by the unit throughout the period and the compliance of all necessary guidelines notified from time to time for such type of units. The grant of “Consent to Operate” will be automatically withdrawn if any genuine complaint against your unit is received by this office. The terms & conditions applicable will be as per order No RLO/BON/T-24/4/15-16/33/37.dtt.1.1/2011.

You are also requested to apply for “Consent to Operate” for the year 2019-20 within December, 2018.

Consent Order have been issued against UAIN NO:PCB/FSO/86/003754/05/2016.

Yours faithfully,

Member Secretary

Dated Guwahati the 22/5/2016

Member Secretary

Dated Guwahati the 22/5/2016

Copy to:
1. The Under Secretary, Environment & Fore, Department, Govt. of Assam, Guwahati-6 for favour of information.
2. The Deputy Commissioner, Baska (BTAD) District for favour of information.
3. The General Manager, D&CC, Baska (BTAD) for Information.
4. The Addl. Chief Engr. Engineer, Regional Office, Guwahati, Pollution Control Board, Assam for Information & necessary action.
Pollution Control Board: Assam
Bamunimaidam, Guwahati-21

Phone: 0361-2562774 & 2550258; Fax: 0361-2550259
Website: www.pebasam.org

ADB LOAN NO - 3730

CONSENT TO OPERATE - (CTO) BATCHING PLANT

No. WB/GUWWT-3178/16-17/89

To

M/S. DRA-SGCCL-ANPL (IV) Batching Plant
Vill: No. 2 Dangar Gaon, P.O.: Nagrijuli
Dist: Baska (BTAD) (Assam)

Dated Guwahati the 22/12/2018


Dear Sir,

With reference to your application in the name and style as mentioned above the Board is pleased to grant the "Consent to Operate" under the Water Act and Air Act for the period upto 31st March, 2019 subject to pollution control measures taken by the unit throughout the period and the compliance of all necessary guidelines notified from time to time for such type of units. The grant of "Consent to Operate" will be automatically withdrawn if any genuine complaint against your unit is received by this office. The Terms & Conditions applicable will be as per Order No R/O/30/NT-2434/15-16/53/377/dtd. 14/11/2017.

You are also requested to apply for "Consent to Operate" for the year 2019-20 within December, 2018.

Yours faithfully,

[Signature]

Member Secretary

Consent Order have been issued against UAIN NO: PCB/F50/BK/003754/05/2013.

Memo No. WB/GUWWT-3178/16-17/89-A,

Copy to:

1. The Under Secretary, Environment & Forest Department, Govt. of Assam, Dispur, Guwahati for favour of information.
2. The Deputy Commissioner, Baska (BTAD) district for favour of information.
3. The General Manager, D&CC, Baska (BTAD) for information.
4. The Addl. Chief Env. Engineer, Regional Office, Guwahati, Pollution Control Board, Assam for information & necessary action.

[Signature]

Member Secretary
CONSENT TO OPERATE- (CTO) HOT MIX PLANT & D.G SET-3 Nos.

To

Ms. DR-6CGL-ANPL (3V) Hot Mix Plant
VIII: No. 2 Donger Gom. P.O.: Nagoji
Dist. Bongaigaon (BTAD): (Assam)

Sub: “Consent to Operate” upto 31st March, 2018 under Air (Prevention & Control of Pollution) Act 1981 for the unit & 3 Nos. DG Set of capacity – 250 KVA, 125 KVA & 125 KVA.

Ref: Your online application vide UAN: PCB/F/537/B/V/002784/18/2018.

Dear Sir,

With reference to your application in the name and style as mentioned above, the Pollution Control Board, Assam is pleased to grant the “Consent to Operate” under the Air Act, upto 31st March, 2018 under the terms and conditions as per Annexure - A & B enclosed alongwith this office letter.

You are also requested to apply for “Consent to Operate” for the year 2019-2020 within November, 2018.

Yours faithfully,

[Signature]

Memo No. WB/GUWT-3/78/16-17/69-A

Copy to:
1. The Under Secretary, Environment & Forest Department: Govt. of Assam, Dispur, Guwahati-6 for favour of information.
2. The Deputy Commissioner, Bongaigaon (BTAD) district for favour of information.
3. The General Manager, DIACC, Bongaigaon (BTAD) for information.
4. The Addl. Chief Eng. Engineer, Regional Office, Guwahati, Pollution Control Board, Assam for information & necessary action.

[Signature]
LABOUR LICENCE

Government of Assam
Office of the Addl. Labour Commissioner- Cum
Licensing Officer, Assam, Guwahati - 781016

Sl. No.: 202

Licence No. GLJ(202) Date: 13-7-2010

Labour Licence

[Stamp: Employment of Child Labour]

Licence

1. Licence is hereby granted to M/s. ASWALAM NIRMAN PVT. LTD.

2. This licence is for doing the work of Construction

3. The licence shall remain in force till 13-07-2018

Signature and Seal of the Licensing Officer
Licensing Officer Assam

RENEWALS [rule 29]

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Date of renewal</th>
<th>Fee paid for renewal</th>
<th>Date of expiry</th>
<th>Signature and Seal of the Licensing Officer, Assam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13-07-2016</td>
<td>Rs 50/-</td>
<td>13-07-2017</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>13-07-2017</td>
<td>Rs 100/-</td>
<td>13-07-2018</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>13-07-2018</td>
<td>Rs 70/-</td>
<td>13-07-2019</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PAYMENT CLEARANCE FOR STONE AND SAND FROM FOREST DEPARTMENT

ADB LOAN NO - 3730
AECOM IN ASSOCIATION WITH RODIC CONSULTANTS PVT. LTD.

OFFICE OF THE DIVISIONAL FOREST OFFICER EASTERN FOREST DIVISION
MUHALIPUR

Letter No. B/BK/RHR/AM/MC/ 1191-95

Date: 16/09/15

Sr: Khubon Bhowmik
S/O: Smt. Satab Bhowmik
Village: Mankartanagar
P.O: Dumagordon
Dist: Bakela
P.O: 781368

Sub: Refundment of Bank Cheque No. 31 for the Period 2015-22.

Resub: This office letter No. 6/BK/RHR/AM/MC/309-17, dt. 21/07/2015.

Dear Sir,

In continuation to the letter under reference, I am to inform you that, Refundment of Bank Cheque No. 31 for the Period 2015-22 under Bakela Forest Division, Muzaffarpur is hereby settled with you at your earliest convenient value of Rs. 24,950/- (Rupees Twenty Four Thousand Ninety Five Only).

You are hereby requested to deposit the subsequent quarterly installments of 2nd year as per schedule along with other due charges as per excluded re-scheduled 1st payment schedule. Please ensure to attend the office of the undersigned for verification of Mining Contract (Form WC-11) on or before 30-09-2015. The payment schedule for subsequent year up to 7th year will be notified in due time. Please note that the period of the mining contract has expired on 31-08-2022 subject to the fulfillment of conditions of environmental clearance, mining contract and adoption of rules under Assam Forest General Concession Rules, 2009.

Yours faithfully,

[Signature]
Divisional Forest Officer
Bakula Forest Division,
Muzaffarpur

Enclosure: As above

Copy to:
1. The Secretary, Forest Department, Teacher's Hall, Bakula for his kind information.
2. The Range Officer, Tamborpur Range, Tamluk for information and necessary action.

Redirect to:
1. The Principal Chief Conservator of Forest and Head of Forest Force, Assam, Tahanbari, Guwahati-8 for his kind information.
2. The Additional Chief Conservator of Forest (FSC), Regional Head, Department, Bodo and Terropical Council, Fourah, for his kind information and necessary action.

[Signature]
Divisional Forest Officer
Bakula Forest Division,
Muzaffarpur
To,
Sri Khukan Bhawas
S/O Lt. Satish Bhawas
Vll:- Mahendra nagar
P.O:- Dongergaon
Dist:- Baksas
Pin:- 781368

Sub:- Provisional Letter of Intent
Ref:- Your Tender dated 28/10/2015 in respect of the mining contract area Barnali Stone and Sand Mahal -1 (A).

Dear Sir,

The provisional Letter of Intent (LOI) is hereby issued to you being the successful bidder the competitive bid, invited through tender notice dated 05/01/2015 for granting of mining contract to grant the mineral concession in respect of the mining area "Barnali Stone and Sand Mahal -1 (A)" for the period of 7 (seven) years for the annual quantity of Stone 5250 (Five Thousand Two hundred Fifty) m3, Ordinary Sand 1250 (One Thousand Two Hundred Fifty) m3 at your annual offered price of Rs. 24,55,020.50 (Rupees Twenty Four Lacs Fifty Five Thousand Twenty and Fifty Paise) only.

So you are hereby requested to deposit the following amounts within 7 (seven) days from the date of receipt of this letter in the form of Bank Draft in favour of the Divisional Forest Officer, Baksas Forest Division, Mushalpur drawn in a nationalized bank for each item separately from the date of issue of this letter.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Particulars of deposit to be made</th>
<th>Amount in Rs. (to be deposited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25% of Rs. 24,55,020.50 Being the Annual dead rent/contract money as the “security” under section 37 (2) of Assam Minor Mineral Concession rule, 2013</td>
<td>Rs. 6,13,755.00</td>
</tr>
<tr>
<td>2</td>
<td>Additional amount equal to 1 (one) month’s annual dead rent/contract money in advance under the provision of Rule 37 (2) of Assam Minor Mineral Concession Rule, 2013</td>
<td>Rs. 2,04,585.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Rs. 8,18,341.00</td>
</tr>
</tbody>
</table>

(Rupees Eight Lacs Eighteen Thousand Three Hundred Forty-One Only.)

Further you are requested to submit additional proof in support of your Financial Soundness within 7 (seven) days from the date of receipt of this letter to show your ability to operate the mining contract.

In this regard, you are requested to produce the Environment Impact assessment clearance from the Environment: Impact Assessment Authority, Assam and duly approved “Mining Plan” under provision of Rule 48 of the Assam Minor Mineral Concession rule, 2013 within a period of 45 days at your own costs from the date issue of this letter.

(Please 1 of 2)
No. WB/TEZ/T-1715/18-19/08

To

M/s Shree Gautam Construction Co. Ltd.
Hot Mix Plant
MB Road, Vill.: Ratanpur,
P.O.: Tangla – 784521
Dist.: Udalguri (Assam).


Dear Sir,

With reference to your application in the name and style as mentioned above, the Pollution Control Board, Assam is pleased to grant the “Consent to Operate” under the Air Act upto 31st March, 2019 under the terms and conditions as per Appendix – “A” & “B” enclosed alongwith this office letter.

You are also requested to apply for “Consent to Operate” for the year 2019–2020 within November, 2018.

Yours faithfully,

Member Secretary

Memo No. WB/TEZ/T-1715/18-19/08-A,

Copy to:

1. The Under Secretary, Environment & Forests Department, Govt. of Assam, Dispur, Guwahati–6 for favour of information.
2. The Deputy Commissioner, Udalguri for favour of information.
3. The General Manager, Di&CC, Udalguri for information.
4. The Sr. Env. Engineer, Regional Office, Tezpur, PCBA for information & necessary action.

Member Secretary
CONSENT TO OPERATE- (CTO) STONE CRUSHER UNIT

No. WB/TEZ/T-1512/15-16/124
To: M/s Shree Gautam Construction Co. Ltd.
(Stone Crusher Unit)
Vill.: Ratanpur, P.O.: Tangla
Dist.: Udalguri (Assam).

UAIN: PCB/F50/UD/003636/05/2018
Dated Guwahati, the 16/7/2018


Dear Sir,

With reference to your application in the name and style as mentioned above, the Pollution Control Board, Assam is pleased to grant the “Consent to Operate” under the Air Act upto 31st March, 2019 under the terms and conditions as per Appendix – “A” & “B” enclosed alongwith this office letter.

You are also requested to apply for “Consent to Operate” for the year 2019–2020 within November, 2018.

Yours faithfully,

Member Secretary
Dated Guwahati, the 16/7/2018

Memo No. WB/TEZ/T-1512/15-16/124-A,
Copy to:

1. The Under Secretary, Environment & Forests Department, Govt. of Assam, Dispur, Guwahati–6 for favour of information.
2. The Deputy Commissioner, Udalguri for favour of information.
3. The General Manager, Di&CC, Udalguri for information.
4. The Sr. Env. Engineer, Regional Office, Tezpur, PCBA for information & necessary action.

Member Secretary
CONSENT TO OPERATE - (CTO) WET MIX MACADAM

REGIONAL OFFICE: TEZPUR
POLLUTION CONTROL BOARD, ASSAM
NABAPUR, BYE-LANE 2, MAZGAON, TEZPUR: SONITPUR
PIN-784001 :: PHONE – 03712-224823

NO. PC/ROT/T-2551/16-17/ 51/A

To
M/s SGCL WMM Plant
(Unit of Shree Gautam Construction Company Ltd)
Vill: Ratnapur, MB Road
P.O: Tangla
Dist. Udalguri (Assam)

Subject: Consent to operate for the year 2018-19.

Reference: 1) UAIN: PCB/ F-50/UD/003635/05/2018
2) UBIN: AA14945/AAGCS4032F/05/2018

Dear Sir,

With reference to your application in the name and style as mentioned above, “Consent to Operate” under Air Act’ 1981 is hereby granted to you up to 31-03-19, with effect from the date of issue of this letter, under the same terms and conditions as issued earlier and as per ‘Appendix – A’ enclosed herewith.

You are requested to apply for “Consent to Operate” for 2019-20 within Nov’ 2018.

Yours faithfully,

(M. NATH)
Sr. Environmental Engineer
R.L.O, Tezpur

Copy to:
1. The Member Secretary, Pollution Control Board, Assam, Guwahati – 21 – for favour of kind information.

(M. NATH)
Sr. Environmental Engineer
R.L.O, Tezpur
CONSENT TO OPERATE- (CTO) Batching Plant

REGIONAL OFFICE: TEZPUR
POLLUTION CONTROL BOARD, ASSAM
NABAPUR, BYE-LANE 2, MAZGAON, TEZPUR, SONITPUR
PIN-784001 :: PHONE – 03712-224823

NO. PC/ROT/T-2552/16-17/51-A

Date: 16-18

To:
M/s SGCCCL Batching Plant
(Unit of Shree Gautam Construction Company Ltd)
Vill: Ratnapur, MB Road
P.O: Tangla
Dist. Udalguri (Assam)

Subject: Consent to operate for the year 2018-19.

Reference:
1) UAIN: PCB/ F-50/UD/003634/05/2018
2) UBIN: AA14942/AAGCS4032F/05/2018

Dear Sir,

With reference to your application in the name and style as mentioned above, “Consent to Operate” under Air Act, 1981 is hereby granted to you up to 31-03-19, with effect from the date of issue of this letter, under the same terms and conditions as issued earlier and as per Appendix – A enclosed herewith.

You are requested to apply for “Consent to Operate” for 2019-20 within Nov’ 2018.

Yours faithfully,

(M.NATH)
Sr. Environmental Engineer
Dated Tezpur, the 16th November 2018

Memo NO. NO. PC/ROT/T-2552/16-17/51-A
Copy to:

1. The Member Secretary, Pollution Control Board, Assam, Guwahati 01 – for
favour of kind information.

(M.NATH)
Sr. Environmental Engineer
R.L.O, Tezpur
LABOUR LICENCE

Form - VI
(See Rule-25 (1))
GOVERNMENT OF ASSAM
OFFICE OF THE LICENSING OFFICER :: KOKRAJHAR

Licence No. CLJ. 1/49 Dated 14.09.2016 Fee paid Rs. 100/-

Licence

1. Licence in hereby granted to M/S. Shree Gautam Construction Company ltd. under section 12 (1) of the Contract Labour (Regulation and Abolition) Act, 1970 subject to the Conditions specified in Annexure.

2. This Licence is for doing the work (nature of work to be indicated) Border Road Construction, as (place of work to be indicated) Uthalguri District.

In the establishment of (Name of Principal employer to be indicated) Chief Engineer, PWD, Border and NEC Works, Assam, Chinthar, Guwahati-3.


Date….. 14.09.2016.

Sd/-
(S.K. Brahman)
Signature and Seal of the
Licensing Officer, Kokrajhar.

RENEWAL (Rule 29)

Date of Renewal Fee paid for Renewal Date of Expiry


Sd/-
(Licensing Officer)
Signature and Seal of the
Licensing Officer, Kokrajhar.

Date……………………

Signature and Seal of the
Licensing Officer, Kokrajhar.
POLLUTION CERTIFICATES FOR CONSTRUCTION VEHICLES - AS-03
# ENVIRONMENTAL MONITORING

**AMBIENT AIR QUALITY ANALYSIS - AS-03**

---

### TEST REPORT

- **Name & Address of Client**: Guwahati Construction Company Ltd. Tangle, Assam
- **Description of Study**: Ambient Air Quality Study
- **Work Order No**: Teletonic Request
- **Date of Sampling**: 30-02-2018
- **Equipment Details**: Benelux PM-10 & PM-2.5 with Gasssus Attachment
- **Sample Collection Incharge**: Mr. Sabhas Baruah

### Sampling Locations:

<table>
<thead>
<tr>
<th>Air Quality (AQ) Locations</th>
<th>GPS Coordinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ1: Non Mix Plant</td>
<td>N26°41'31.5&quot; E99°15'50.8&quot;</td>
</tr>
<tr>
<td>AQ2: Near WNM Plant</td>
<td>N26°41'31.3&quot; E99°15'50.8&quot;</td>
</tr>
<tr>
<td>AQ3: Near Back Mix Plant</td>
<td>N26°41'32.8&quot; E99°15'50.8&quot;</td>
</tr>
<tr>
<td>AQ4: Near Main Gate</td>
<td>N26°41'32.7&quot; E99°15'50.8&quot;</td>
</tr>
<tr>
<td>AQ5: Near Stone Crusher</td>
<td>N26°41'28.8&quot; E99°15'50.8&quot;</td>
</tr>
</tbody>
</table>

### Results:

#### AMBIENT AIR QUALITY MONITORING (24 HRS AVERAGE)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parameters</th>
<th>Unit</th>
<th>AQ1</th>
<th>AQ2</th>
<th>AQ3</th>
<th>AQ4</th>
<th>AQ5</th>
<th>CPCB Limit</th>
<th>Weather Condition</th>
<th>Test Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particulate Matter (PM10)</td>
<td>µg/m³</td>
<td>92.8</td>
<td>91.6</td>
<td>94.4</td>
<td>91.2</td>
<td>96.1</td>
<td>100</td>
<td>Clear</td>
<td>IR5182(23)</td>
</tr>
<tr>
<td>2</td>
<td>Particulate Matter</td>
<td>µg/m³</td>
<td>51.8</td>
<td>57.6</td>
<td>54.8</td>
<td>54.2</td>
<td>57.7</td>
<td>60</td>
<td></td>
<td>CPCB Guideline</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>µg/m³</td>
<td>11.2</td>
<td>11.6</td>
<td>14.2</td>
<td>12.8</td>
<td>11.8</td>
<td>80</td>
<td></td>
<td>IR5182(2)</td>
</tr>
<tr>
<td>4</td>
<td>Nitrogen Dioxide(NO₂)</td>
<td>µg/m³</td>
<td>12.4</td>
<td>9.8</td>
<td>16.2</td>
<td>14.2</td>
<td>16.2</td>
<td>80</td>
<td></td>
<td>IR5182(4)</td>
</tr>
<tr>
<td>5</td>
<td>Carbon Monoxide (CO)</td>
<td>mg/m³</td>
<td>0.6</td>
<td>0.7</td>
<td>1.1</td>
<td>0.8</td>
<td>1.2</td>
<td>04</td>
<td></td>
<td>CPCB Guideline</td>
</tr>
</tbody>
</table>

* Fill in Clear/Cloudy/Rainy/Dust Storm/Dust conditions
** Carbon Monoxide (CO) Limit is One Hour Average

### Remarks

The Parameters Monitored and analyzed on the specific date are found to be within the National Ambient Air Quality Standards (NAAQS).

---

**Authorized Signatory**

ETS-Guwahati

---

**Ref: ETS/CC/1/AQM/01/2018**

**Date:** 10 March 2018
ENVIRONMENTAL MONITORING
AMBIENT NOISE QUALITY ANALYSIS - AS-03

TEST REPORT

Name & Address of Client: Guwahati Industrial Estate, Assam
Description of Study: Ambient Air Quality Study
Work Order No: T3428
Date of Sampling: 10-03-2018
Equipment Details: Digital Noise Meter (SLM-100)
Sample Collection Details: Mr. Subhas Borah

Results:

<table>
<thead>
<tr>
<th>S/N</th>
<th>Noise Quality (NQ) Location</th>
<th>Daytime SPL (dB) [5 am to 10 pm]</th>
<th>Nighttime SPL (dB) [10 pm to 6 pm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Leq</td>
<td>Range</td>
</tr>
<tr>
<td>1</td>
<td>AQP: Near Mix Plant</td>
<td>73.1</td>
<td>61 - 94</td>
</tr>
<tr>
<td>2</td>
<td>AQP: Near WNM Park</td>
<td>72.2</td>
<td>56 - 87</td>
</tr>
<tr>
<td>3</td>
<td>AQP: Near Bush Mix Plant</td>
<td>71.8</td>
<td>48 - 92</td>
</tr>
<tr>
<td>4</td>
<td>AQP: Near Main Gate</td>
<td>73.2</td>
<td>58 - 91</td>
</tr>
<tr>
<td>5</td>
<td>AQP: Near Stone Crusher</td>
<td>73.4</td>
<td>54 - 89</td>
</tr>
</tbody>
</table>

Applicable Zone: CPCB Ambient Noise Standards [Limit in dB (A) Leq]

<table>
<thead>
<tr>
<th></th>
<th>Day Time</th>
<th>Night Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>75</td>
<td>70</td>
</tr>
</tbody>
</table>

Remarks:
The Noise Level monitored and analyzed on the specific date is found to be within the CPCB Prescribed Limit.

Authorized Signatory

ETS, Guwahati
# ENVIRONMENTAL MONITORING

## DRINKING WATER QUALITY ANALYSIS - AS-03

### TEST REPORT

**ADB Loan No:** 3730  
**Location:** Guwahati  
**Date:** 10th March 2018

**Name & Address of Client:** Assam Corporation Company Ltd., Tenga, Assam  
**Description of Sample:** Drinking Water Quality Sample  
**Work Order No.:** Telephonic Request  
**Date of Sampling:** 09-02-2018  
**Sampling Locations:** Site Office  
**Sample Collection Incharge:** Mr. Subhas Baruah

## Results:

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parameter</th>
<th>BW</th>
<th>Test Methods</th>
<th>IS-10500</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Odour</td>
<td>NS</td>
<td>APHA 20th Edition, 2150-B</td>
<td>Unobjectionable</td>
</tr>
<tr>
<td>2</td>
<td>Temperature (°C)</td>
<td>27</td>
<td>Thermometry Method</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Turbidity (NTU)</td>
<td>3.0</td>
<td>APHA 20th Edition, 2730-B</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>pH</td>
<td>7.1</td>
<td>APHA 20th Edition, 4500-H11-B</td>
<td>6.5 8.5</td>
</tr>
<tr>
<td>5</td>
<td>Conductance (mS/cm)</td>
<td>0.32</td>
<td>APHA 21st Edition, 2510-B</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Total Dissolved Solid (mg/L)</td>
<td>115.0</td>
<td>APHA 20th Edition, 2540-B</td>
<td>500</td>
</tr>
<tr>
<td>7</td>
<td>Total Suspended Solid (mg/L)</td>
<td>18.6</td>
<td>APHA 20th Edition, 2540-B</td>
<td>-</td>
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<tr>
<td>8</td>
<td>Chloride (mg/L)</td>
<td>18.2</td>
<td>APHA 20th Edition, 4500-CI-B/D</td>
<td>250</td>
</tr>
<tr>
<td>9</td>
<td>Residual Chlorine (mg/L)</td>
<td>0.01</td>
<td>APHA 20th Edition, 4500-CI-B</td>
<td>0.2</td>
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<tr>
<td>10</td>
<td>Sulphates as SO4 (mg/L)</td>
<td>21.2</td>
<td>APHA 20th Edition, 4500-SO4^2-</td>
<td>250</td>
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<tr>
<td>11</td>
<td>Nitrate (mg/L)</td>
<td>2.3</td>
<td>APHA 20th Edition, 4500-NO3-B</td>
<td>45</td>
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<tr>
<td>12</td>
<td>Fluoride (mg/L)</td>
<td>0.08</td>
<td>APHA 20th Edition, 4500-F</td>
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<tr>
<td>13</td>
<td>Calcium (mg/L)</td>
<td>18.4</td>
<td>APHA 20th Edition, 3500-B</td>
<td>75</td>
</tr>
<tr>
<td>14</td>
<td>Magnesium (mg/L)</td>
<td>19.6</td>
<td>APHA 20th Edition, 3500-B</td>
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<tr>
<td>15</td>
<td>Iron (mg/L)</td>
<td>0.13</td>
<td>APHA 20th Edition, 311.1-B</td>
<td>0.3</td>
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<tr>
<td>16</td>
<td>Total Coliform (MPN/100 mL)</td>
<td>NIL</td>
<td>APHA 20th Edition, 9221-B</td>
<td>0</td>
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<td>17</td>
<td>Faecal Coliform (MPN/100 mL)</td>
<td>NIL</td>
<td>APHA 20th Edition, 9221-B</td>
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</tbody>
</table>

### Remarks

The Parameters monitored and analyzed on the specific date are found to be within the IS 10500 Limit.