



**L&T Construction**  
Water & Effluent Treatment

Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)

Doc. No. L&T/ SEMP /07  
Last Revision No. 00  
Last Revision Date: 00  
Page 1 of 58  
Original Issue Date:

## Site Specific Environmental Management Plan


### SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

WBDWSIP BANKURA PKG-04

GANGAJALGHATI BLOCK

LOCATION- KAPISTA(KENDUADIHI) (ZONE - 09)

| REV | DATE     | PREPARED BY   | CHECKED BY   | APPROVED BY<br>DSISC   | ARRPROVED<br>BY PIU   |
|-----|----------|---|--|--|---|
| 1   | 22.01.20 | <br>SAFETY OFFICER<br>L&T Construction Ltd.<br><br>Project Manager<br>Mejhia Distribution | <br> | <br>TEAM LEADER<br>DSISC- Bankura<br>WBDWSIP | <br>Assistant Engineer-I<br>PIU Bankura WBDWSIP, PHE Dis<br>Govt. of West Bengal |

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| <b>Site Specific Environmental Management Plan</b>  |   |  |

## **LIST OF ATTACHMENTS**

- Attachment O1:** Details of construction Work sites and Site Layout Plan
- Attachment O2:** Details of construction camp sites
- Attachment O3:** List of clearances & statutory requirements
- Attachment O4:** Contractor's OHS Policy & Organization
- Attachment O5:** Utility shifting/relocation
- Attachment O6:** Details of Construction Materials
- Attachment O7:** Spoil Management Plan
- Attachment O8:** Procedure for on-site Grievance Redressal Mechanism
- Attachment O9:** Procedure for information disclosure prior to start of works

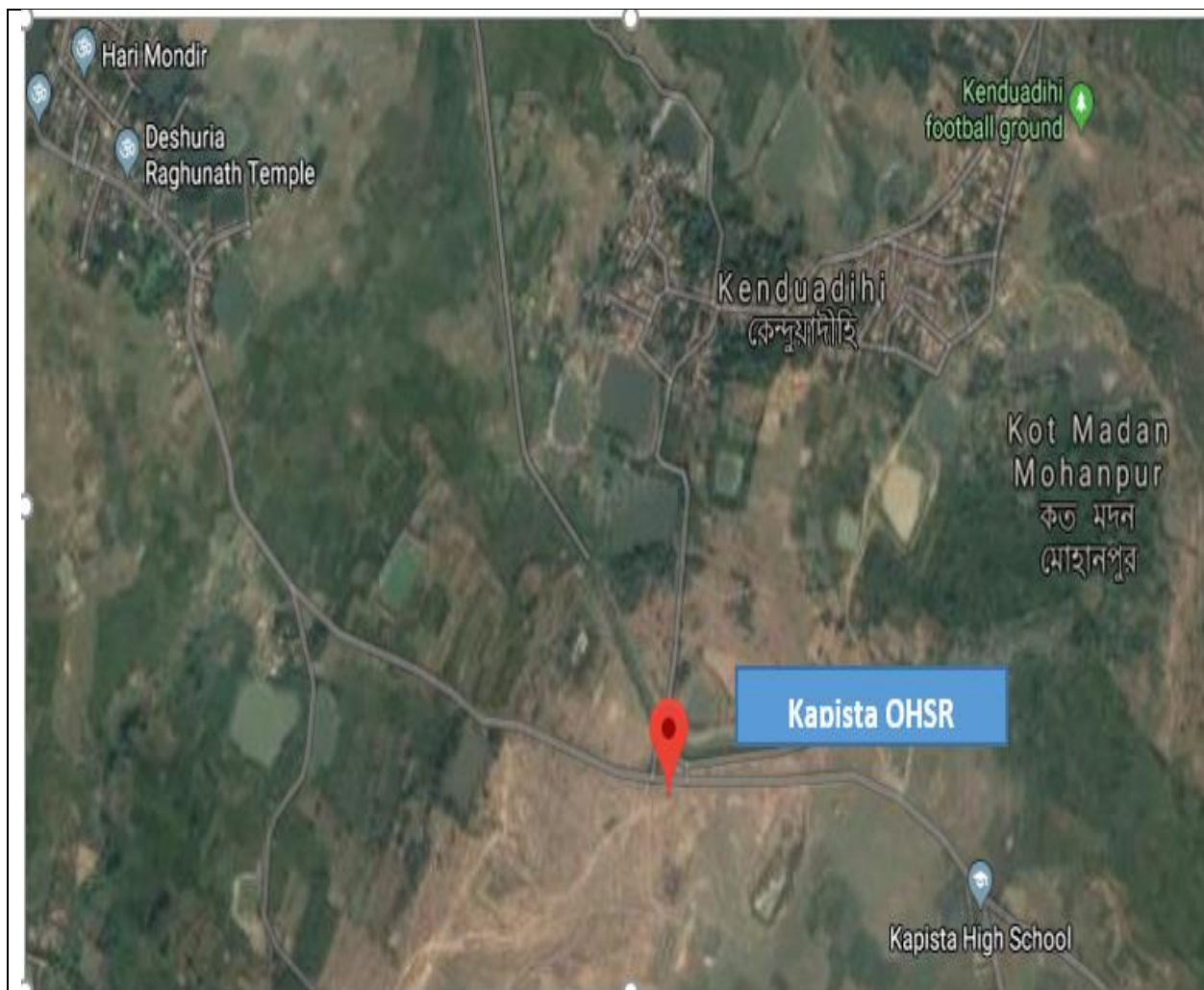
## **LIST OF APPENDICES**

- Appendix O.A:** Site Layout Plan
- Appendix O.B:** Labour License
- Appendix O.C:** Workman Compensation
- Appendix O.D:** Risk Policy
- Appendix O.E:** Medical Tie up Letter
- Appendix O.F:** PUC Certificates
- Appendix O.G:** Contractor's OHS Policy Statement
- Appendix O.H:** Sample Grievance Registration Form

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| <b>Site Specific Environmental Management Plan</b>   |   |   |

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| <b>Package No.</b>   | <b>WBDWSIP/DWW/NCB/BK/04/2018-19, ZONE – 09 OHSR Kapista village under PIU Bankura</b>   |
| <b>Package title</b>   | Design, Construction and Operation-Maintenance of Overhead Reservoirs Including Water Supply Distribution Network and Metering Works in Mejia and Gangajalghati blocks in Bankura including Rehabilitation of Existing Schemes<br>SEMP is as per requirement of the Draft IEE covering package no. DWW/NCB/BK/04/2018-19 |
| <b>Contractor</b>  | Larsen & Toubro Ltd.   |
| <b>Date of Contract Award</b>  | 27/05/2019   |
| <b>Date of works commencement for particular site</b>                  | 03/02/2020   |
| <b>Contract period</b>   | Construction: 3 Years; O&M: 2 Years  |
| <b>SEMP Component</b>  | Construction of Overhead Reservoir – 400 KL  |
| <b>Demolition Activity</b>   | No demolition activity involved  |
| <b>Project area</b>  | Kapista village of Kapista Gram panchayat.   |
| <b>Project Description</b>   | Individual household water supply schemes for the project Gram Panchayets  |
| <b>Indicative Budget for EMP Implementation for the entire package</b> | INR 67,25,000/-  |
| <b>Project Components</b>  | As per project detailed design   |
| <b>Gram Panchayet:</b>   | Kapista GP of Gangajalghati Block  |
| <b>Land Status</b>   | Private and Transferred  |
| <b>OHSR Capacity</b>   | 400 KL   |
| <b>Location</b>  |  |

## Site Specific Environmental Management Plan



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| <b>Site Specific Environmental Management Plan</b>   |   |   |

| <b>Details of contractors on-site-personnel and workers</b> | <b>Zone- 09, OHSR, Kapista (Kenduadihi)</b>                 |
|---|---|
| Project Manager   | Mr. Jayaganthan A; 9575177767                               |
| Site Engineer   | Mr. Elangovan Perumal; 8310062545                           |
| Site Supervisor   | Mr. Rahull Nandy ;7501750728                                |
| EHS Supervisor  | Mr. Tarak Das; Mob: 8001652220                              |
| Archeological supervisor                                    | NA  |
| Skilled / semi-skilled workers                              | 10 skilled and 8 semi-skilled                               |
| Unskilled workers   | 12  |
| Women workers   | Nil   |
| Workers – local / migrant                                   | Local-30 / Migrant-00 (From other districts of West Bengal) |
| <b>Details of facilities</b>                                |   |
| Construction camps, (no's and locations)                    | Not required because all are local workers                  |

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| <b>Site Specific Environmental Management Plan</b>   |   |  |

**Table 1: Anticipated Impacts and Mitigation Measures – Pre-construction Environmental Mitigation Plan**

| Field<br>(1)   | Anticipated Impact<br>(2)   | Mitigation Measures<br>(3)  | Actions Taken/<br>Status<br>(4)  | Responsibility of Implementation<br>(5)                           | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                 |
|--|---|---|--|---|---|--|
| Utilities  | Telephone lines, electric poles and wires, water lines within proposed project area | <ul style="list-style-type: none"> <li>Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase; and</li> <li>Require construction contractors to prepare a contingency plan to include actions to be taken in case of unintentional interruption of services.</li> <li>Require contractors to prepare spoils (waste) management plan and traffic management plan.</li> </ul> | <ul style="list-style-type: none"> <li>There are no utilities in mention OHSR site.</li> <li>Details SMP has been attached in <b>(Attachment 07)</b>.</li> </ul> | <ul style="list-style-type: none"> <li>Contractor, PIU</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |
| Construction work camps, stockpile areas, storage areas, and | Conflicts with local community; disruption to traffic flow and sensitive            | <ul style="list-style-type: none"> <li>Prioritize areas within or nearest possible vacant space in the project location;</li> <li>If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result</li> </ul>   | <ul style="list-style-type: none"> <li>Storage area has been established away from water body.</li> <li>Spoil generated from construction</li> </ul>             | <ul style="list-style-type: none"> <li>Contractor, PIU</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |



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| <b>Site Specific Environmental Management Plan</b>   |   |  |

| Field<br>(1)    | Anticipated<br>Impact<br>(2) | Mitigation Measures<br>(3)  | Actions Taken/<br>Status<br>(4)   | Responsibility of<br>Implementation<br>(5) | Monitoring of<br>mitigation<br>(6) | Cost and<br>source of<br>fund<br>(7) |
|-----------------|------------------------------|---|---|--|------------------------------------|--------------------------------------|
| disposal areas. | receptors.                   | <p>in destruction of property, vegetation, irrigation, and drinking water supply systems;</p> <ul style="list-style-type: none"> <li>Do not consider residential areas;</li> <li>Take extreme care in selecting sites to avoid direct disposal to water body which will inconvenience the community.</li> <li>For excess spoil disposal, ensure (a) site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not lessees) will be obtained; (b) debris disposal site shall be at least 200 m away from surface water bodies; (c) no residential areas shall be located within 50 m downwind side of the site; and (d) site is minimum 250 m away from sensitive locations like</li> </ul> | <p>activity has been used for labelling/backfilling.</p> <ul style="list-style-type: none"> <li>Disposal area has been selected at barren, infertile land nearest to the project zone.</li> <li>Employees are trained for storage and handling of materials which can potentially cause soil contamination and water contamination;</li> <li>Solid waste managed according to the following preferential</li> </ul> |  |                                    |                                      |

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|  |  |  |
|  | Site Specific Environmental Management Plan  |  |

| Field<br>(1)         | Anticipated<br>Impact<br>(2)   | Mitigation Measures<br>(3)   | Actions Taken/<br>Status<br>(4)  | Responsibility of<br>Implementation<br>(5)                        | Monitoring of<br>mitigation<br>(6)  | Cost and<br>source of<br>fund<br>(7)                           |
|----------------------|--|--|--|---|---|--|
|                      |  | settlements, ponds/lakes or other water bodies.  | hierarchy: reuse, and disposal to designated areas; Kitchen wastes collected in a dustbin then it is disposed outside from area to designated disposal location.                                 |   |   |  |
| Sources of Materials | Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage | <ul style="list-style-type: none"> <li>Obtain construction materials only from government approved quarries with prior approval of PIU;</li> <li>PIU to review, and ensure that proposed quarry sources have all necessary clearances/permissions in place prior to approval</li> <li>Contractor to submit to PIU on a monthly basis documentation on</li> </ul> | <ul style="list-style-type: none"> <li>No involvement of any new borrow area or quarry is anticipated.</li> <li>Materials collected from- <b>Cement-</b> Ambuja, Nuvoco and Ultratech</li> </ul> | <ul style="list-style-type: none"> <li>Contractor, PIU</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |



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| <b>Site Specific Environmental Management Plan</b>   |   |  |

| Field<br>(1)  | Anticipated<br>Impact<br>(2)  | Mitigation Measures<br>(3)  | Actions Taken/<br>Status<br>(4)   | Responsibility of<br>Implementation<br>(5)                        | Monitoring of<br>mitigation<br>(6)  | Cost and<br>source of<br>fund<br>(7)                           |
|---|---|---|---|---|---|--|
|   | patterns, ponding and water logging, and water pollution.               | material obtained from each source (quarry/ borrow pit) <ul style="list-style-type: none"> <li>Avoid creation of new borrow areas, quarries etc., for the project; if unavoidable, contractor to obtain all clearances and permissions as required under law, including Environmental Clearance prior to approval by PIU</li> </ul> | <b>Reinforcement-</b> Tata Steel, SAIL, RINL<br><b>Coarse Aggregates-</b> Pachami/ Rampurhat quarry.<br><b>Fine Aggregates-</b> River Damodar/ Kangsabati.<br>Mention source are government approved. |   |   |  |
| Consents, permits, clearances, No Objection Certificates (NOCs), etc. | Failure to obtain necessary consents, permits, NOCs, etc. can result to | <ul style="list-style-type: none"> <li>Obtain all necessary consents, permits, clearance, NOCs, etc. prior to award of civil works.</li> <li>Ensure that all necessary approvals for construction to be obtained by contractor are in place before start of construction</li> </ul>   | <ul style="list-style-type: none"> <li>Already done land acquisition, electric connection etc.</li> <li>Tree felling requirement for this site is not anticipated.</li> </ul>                         | <ul style="list-style-type: none"> <li>Contractor, PIU</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |

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|  |  |   |
|  | Site Specific Environmental Management Plan  |   |

| Field<br>(1)          | Anticipated<br>Impact<br>(2)                      | Mitigation Measures<br>(3)  | Actions Taken/<br>Status<br>(4)  | Responsibility of<br>Implementation<br>(5)                        | Monitoring of<br>mitigation<br>(6)  | Cost and<br>source of<br>fund<br>(7)                           |
|-----------------------|---|---|--|---|---|--|
|                       | design revisions and/or stoppage of works         | <ul style="list-style-type: none"> <li>Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.</li> <li>Include in detailed design drawings and documents all conditions and provisions if necessary</li> </ul> | <ul style="list-style-type: none"> <li>Green DG sets only being used at site (<b>Appendix O.F</b>).</li> <li>Please refer <b>Attachment O3</b> for list of relevant permits and clearances.</li> </ul> |   |   |  |
| Asbestos Cement Pipes | Health risk due to exposure to asbestos materials | <ul style="list-style-type: none"> <li>Obtain details on location of underground Asbestos Cement pipes</li> <li>Locate the new piper carefully to avoid encountering AC pipes</li> <li>Leave the Asbestos Cement pipes undisturbed in the ground.</li> </ul>          | <ul style="list-style-type: none"> <li>Mention OHSR site free from any underground asbestos cement pipes.</li> </ul>   | <ul style="list-style-type: none"> <li>Contractor, PIU</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |

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| Site Specific Environmental Management Plan  |   |   |

**Table 2: Anticipated Impacts and Mitigation Measures – Construction Environmental Mitigation Plan**

| Field/Issues<br>(1)   | Anticipated Impact<br>(2)  | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5)                      | Monitoring of mitigation<br>(6)  | Cost and source of fund<br>(7)                                 |
|---|--|--|---|--|--|--|
| Environmental Management Plan (EMP) Implementation Training | Irreversible impact to the environment, workers, and community   | <ul style="list-style-type: none"> <li>Project manager and all key workers will be required to undergo training on EMP implementation including spoils/waste management, Standard operating procedures (SOP) for construction works; occupational health and safety (OHS), core labor laws, applicable environmental laws, etc.</li> </ul> | <ul style="list-style-type: none"> <li>EMP implementation training session has been planned for all workers and community.</li> </ul>   | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul>  | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |
| Air Quality   | Emissions from construction vehicles, equipment, machinery and DG set used for excavation and construction | <ul style="list-style-type: none"> <li>Following air pollution/dust control measures for construction activities stipulated by the “Direction of West Bengal Department of Environment under the Air Act, 1981 Direction No.</li> </ul>  | <ul style="list-style-type: none"> <li>Only vehicles having valid PUC certificate have been engaged in the project <b>(Appendix O.F)</b>.</li> <li>Mixer machine, winch machine and DG set used for concreting</li> </ul> | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking.</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |

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| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2)  | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)   | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|--|--|--|---|---------------------------------|--------------------------------|
|                     | resulting in dust and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulphur dioxides, particulate matter, nitrogen oxides, and hydrocarbons | EN/3170/T-IV-7/001/2009 dated: 10 December 2009":<br><ul style="list-style-type: none"> <li>Only vehicles having valid Pollution Under Control Certificates should be engaged in the project.</li> <li>Vehicles transporting (cement, sands etc) should be covered and cleaned prior to release at site, sprinkling of water and stabilization of soil for dust hazards to be carried out on site.</li> <li>Damp down soil, sand/ earth stockpiled at site should be maintained as per site condition.</li> <li>Control unnecessary movement of vehicle, public trespassing into work areas</li> </ul> | and pilling are not left for idling, after completion of work.<br><ul style="list-style-type: none"> <li>Sprinkling and dust screen arrangement have been made, and will be used when required.</li> <li>Site has been access controlled to prevent trespassing.</li> <li>Stock piles will be maintained in such a way to minimise dust rising.</li> <li>Air quality monitoring for base line data completed. Monitoring has been conducted for 10 locations (Durlabhpur-</li> </ul> |   |                                 |                                |

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| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1)    | Anticipated Impact<br>(2)  | Recommended Mitigation Measures<br>(3)  | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6)     | Cost and source of fund<br>(7) |
|------------------------|--|---|---|---|-------------------------------------|--------------------------------|
|                        |  | for control of dust generation.<br>• If required, then provide a dust screen/high compound wall around the construction sites (OHSR).   | Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati) to fulfilment the criteria.  |   |                                     |                                |
| Drainage and hydrology | Due to the nature and locality of the projects there is unlikely to be any significant impacts on water resources within the immediate area. | • The effluent should be discharged into local drains after passing through a sediment basin to prevent contamination of existing drains and local water bodies.<br>• Where no local drains are available, a soak pit will be created on-site away from water bodies. | • The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved.<br>• Arrangements have been made to release effluent from the site to a local drain after passing through a sedimentation basin, so that it does not | • Contractor                            | • PIU and DSISC observation at site | • Project cost                 |

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| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1)          | Anticipated Impact<br>(2)   | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5)                        | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                   |
|------------------------------|---|--|---|--|---|--|
|                              |   |  | contaminate existing drain and pond around the project site.  |  |   |  |
| River/ Surface water quality | Mobilization of settled silt materials, run-off from stockpiled materials, and chemical contamination from fuels and lubricants during construction works can contaminate nearby surface water quality. | <ul style="list-style-type: none"> <li>• Avoid stockpiling of earth fill; especially in monsoon season, cover it with tarpaulins or plastic sheets.</li> <li>• Prioritize and implement reuse of excess spoil and materials in the construction work; if necessary, dispose in designated disposal area.</li> <li>• Storage locations should have impervious floors</li> <li>• Fuels and lubricants should be stored away from drainage and spillage protection should be provided</li> <li>• Provision for temporary silt traps or sedimentation basins along the drainage</li> </ul> | <ul style="list-style-type: none"> <li>• No stockpiles have been planned near drainage locations/ nearby water bodies.</li> <li>• Storage areas are compacted and made impervious.</li> <li>• Locations for fuels and lubricants store is away from drainage path and spill kits have been obtained.</li> <li>• All excavated materials expected to be utilized on-site only. No excess spoil anticipated.</li> <li>• Surface water quality monitoring for</li> </ul> | <ul style="list-style-type: none"> <li>• Contractor</li> </ul> | <ul style="list-style-type: none"> <li>• PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>• Project cost</li> </ul> |



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| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2)   | Recommended Mitigation Measures<br>(3)  | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5)                        | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                   |
|---------------------|---|---|---|--|---|--|
|                     |   | <p>leading to the water bodies should be provided, according to situation.</p> <ul style="list-style-type: none"> <li>• Temporary drainage channel around the work area should be made to accumulate the entry of runoff from upper areas into the work area.</li> <li>• Provision of pumping out of the water from the pits/excavations to a temporary sedimentation pond or disposal after sedimentation should be taken into consideration.</li> </ul> | <p>baseline data has been conducted in 10 locations (Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati) as per environmental monitoring plan recommended in the IEE.</p> |  |   |  |
| Noise Levels        | Increase in noise level due to earth-moving and excavation equipment, and the | <ul style="list-style-type: none"> <li>• Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers minimising the sound impact</li> </ul>   | <ul style="list-style-type: none"> <li>• Consultation made with local communities in advance of the work to identify and avoid working at sensitive</li> </ul>  | <ul style="list-style-type: none"> <li>• Contractor</li> </ul> | <ul style="list-style-type: none"> <li>• PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>• Project cost</li> </ul> |

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|  <div><b>L&amp;T Construction</b><br/><i>Water &amp; Effluent Treatment</i></div> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No:<br>WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 16 of 58<br>Original Issue Date: |
|  |  |   |
|  | Site Specific Environmental Management Plan  |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2)                         | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---|--|---|---|---------------------------------|--------------------------------|
|                     | transportation of equipment, materials by labours | to surrounding sensitive receptor;<br>• Horns not to be used unless it is necessary to warn other road users;<br>• Ensure maximum work place noise level exposure not exceeding 85 decibels (dbA);<br>• Ensure noise level at site boundary comply with standard prescribed for local landuse; and<br>• Baseline and construction phase Noise Monitoring (Day & Night time) should be conducted. | times, such as religious and cultural festivals.<br>• Planned activities in consultation with DSISC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance.<br>• Mixer machine, winch machine and DG sets used for concreting and pilling are properly maintained and stopped immediately after completion of work.<br>• Baseline monitoring |   |                                 |                                |

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|--|---|---|
|  <div><b>L&amp;T Construction</b><br/><i>Water &amp; Effluent Treatment</i></div> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 17 of 58<br>Original Issue Date: |
|  |   |   |
|  | Site Specific Environmental Management Plan   |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2) | Recommended Mitigation Measures<br>(3) | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---------------------------|--|---|---|---------------------------------|--------------------------------|
|                     |                           |  | has been conducted.<br>• Noise quality monitoring for baseline data partially completed and has been conducted in 20 locations (Durlabhpur, Choto Nabagram, Mohona, Chusalk, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati Lakhyara, Subaira, Lachmanpur, Mejhia, Benabad, Purbator, Banashuriya, Sarangapur, Kenduadihi, Rangnathpur) as per environmental monitoring plan |   |                                 |                                |

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|--|---|---|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 18 of 58<br>Original Issue Date: |
| Site Specific Environmental Management Plan  |   |   |

| Field/Issues<br>(1)            | Anticipated Impact<br>(2)                        | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5)                      | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                 |
|--------------------------------|--|--|---|--|---|--|
|                                |  |  | recommended in the IEE.   |  |   |  |
| Occupational Health and Safety | Occupational hazards which can arise during work | Develop and implement a site-specific occupational health and safety (OHS) plan which will include measures such as:<br>(a) excluding public from the site;<br>(b) ensuring all workers are provided with and use personal protective equipment like Helmet, Gumboot, Safety Belt, Gloves, Nose mask etc.<br>(c) documentation of work-related accidents.<br>(d) Providing qualified first aider at all times.<br>(e) Providing to all workers reflective jacket,<br>(f) Marking and providing sign boards for most of | <ul style="list-style-type: none"> <li>Based on L &amp; T's OHS Plan, a site specific OHS plan has been developed.</li> <li>Site OHS plan is attached at <b>Attachment O4.</b></li> <li>All workers have been provided with and made to use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs;</li> <li>H&amp;S Training for all site personnel has been arranged and it will be continued;</li> </ul> | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |

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|  <div><b>L&amp;T Construction</b><br/><i>Water &amp; Effluent Treatment</i></div> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No:<br>WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 19 of 58<br>Original Issue Date: |
|  |  |   |
|  | Site Specific Environmental Management Plan  |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2) | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---------------------------|--|---|---|---------------------------------|--------------------------------|
|                     |                           | hazardous areas such as high voltage equipment,<br>(g) Workers allowed exposure to noise level up to 85 dB (A) only. | <ul style="list-style-type: none"> <li>• H&amp;S orientation training provided to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuries to fellow workers;</li> <li>• Documented procedures are followed for all site activities;</li> <li>• Work-related accidents will be recorded;</li> <li>• Drinking water provided after proper testing.</li> </ul> |   |                                 |                                |

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|  <div><b>L&amp;T Construction</b><br/><i>Water &amp; Effluent Treatment</i></div> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No:<br>WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 20 of 58<br>Original Issue Date: |
|  |  |   |
|  | Site Specific Environmental Management Plan  |   |

| Field/Issues<br>(1)       | Anticipated Impact<br>(2)  | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)   | Responsibility of Implementation<br>(5)                      | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                 |
|---------------------------|--|--|--|--|---|--|
|                           |  |  | <ul style="list-style-type: none"> <li>First Aid box provided at working sites;</li> <li>Clean eating areas provided to workers;</li> <li>Moving equipment maintained with audible back-up alarms</li> </ul> |  |   |  |
| Socio Economic Employment | Generation of temporary employment and increase in local revenue                                 | <ul style="list-style-type: none"> <li>Employ local labour force as far as possible</li> <li>Comply with labour laws</li> </ul>  | <ul style="list-style-type: none"> <li>Local labours are employed, on priority, whenever available.</li> <li>Refer <b>Attachment O3</b> for documents relating to statutory compliances.</li> </ul>          | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |
| Construction Camps        | Temporary air, noise, land and water pollution from machine operation and after establishment of | <ul style="list-style-type: none"> <li>Camp sites shall be away from residential areas (100 m), sensitive areas (schools, hospitals, etc. 250 m), water bodies (500 m) and forests (more than 1 km)</li> </ul> | <ul style="list-style-type: none"> <li>Before locating project offices, sheds, and construction plants we discussed with DSISC and within or nearest place has been selected,</li> </ul>                     | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>PIU and DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |



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|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 21 of 58<br>Original Issue Date: |
| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2) | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---------------------------|--|---|---|---------------------------------|--------------------------------|
|                     | habitation                | <ul style="list-style-type: none"> <li>• Use unused, vacant lands; no trees shall be cut</li> <li>• Provide a proper fencing/compound wall</li> <li>• Prepare a site layout plan &amp; display at the site; uniformly label (name boards) all the places in the facility</li> <li>• Entire site/facility area shall be provided with hard levelled surface as appropriate; no loose soil, slush, water logging etc.,</li> <li>• Living quarters and construction camps shall be provided with standard materials; no shacks or huts</li> <li>• Adequate lighting and ventilation</li> <li>• Provide drinking water, water for other uses, and sanitation facilities; drinking</li> </ul> | <ul style="list-style-type: none"> <li>• Till date no trees have been cut and no any destruction of property, irrigation and drinking water supply systems observed,</li> <li>• Employees are trained for storage and handling of materials which can potentially cause soil contamination and water contamination;</li> <li>• Solid waste managed according to the following preferential hierarchy: reuse, and disposal to designated areas; Kitchen wastes collected in a dustbin then it is disposed</li> </ul> |   |                                 |                                |

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|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 22 of 58<br>Original Issue Date: |
| Site Specific Environmental Management Plan  |   |   |


| Field/Issues<br>(1) | Anticipated Impact<br>(2) | Recommended Mitigation Measures<br>(3)  | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---------------------------|---|---|---|---------------------------------|--------------------------------|
|                     |                           | <p>water should be regularly tested</p> <ul style="list-style-type: none"> <li>• Provide clear pathways for safe movement</li> <li>• Provide cooking fuel (cooking gas); and a separate safe place to cook; fire wood not allowed</li> <li>• Construct septic tanks and soak pit arrangement for wastewater disposal</li> <li>• Solid waste shall be properly managed – provide separate bins, compost biodegradable waste; sell recyclable waste</li> <li>• According to rule and regulation camp will be vacated and restored to pre-project conditions before acceptance of work.</li> </ul> | <p>outside from area to designated disposal location,</p> <ul style="list-style-type: none"> <li>• Daily generated effluent disposed by arrangements already present in camp/ household.</li> </ul> |   |                                 |                                |

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|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 23 of 58<br>Original Issue Date: |
| <b>Site Specific Environmental Management Plan</b>   |   |   |

| Field/Issues<br>(1)                | Anticipated Impact<br>(2)   | Recommended Mitigation Measures<br>(3)  | Actions Taken/ Status<br>(4)  | Responsibility of Implementation<br>(5)                      | Monitoring of mitigation<br>(6)   | Cost and source of fund<br>(7)                                 |
|------------------------------------|---|---|---|--|---|--|
| Ecological Resources – Terrestrial | <ul style="list-style-type: none"> <li>Loss of vegetation and tree cover</li> </ul>                                   | <ul style="list-style-type: none"> <li>Minimize removal of vegetation and disallow cutting of trees, by adopting best site layout and pipeline alignments</li> <li>If tree-removal will be required, obtain tree-cutting permit and</li> <li>Plant 5 native trees for every one that is removed.</li> </ul>   | <ul style="list-style-type: none"> <li>Tree removal is not required for OHSR site.</li> </ul>   | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |
| Accessibility                      | <ul style="list-style-type: none"> <li>Traffic problems and conflicts near project locations and haul road</li> </ul> | <ul style="list-style-type: none"> <li>Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites</li> <li>Schedule transport and hauling activities during non-peak hours;</li> <li>Locate entry and exit points in areas where there is low potential for traffic congestion;</li> </ul> | <ul style="list-style-type: none"> <li>Transportation and hauling activities have been planned during non-peak hours.</li> <li>Project details has been displayed on project site.</li> </ul> | <ul style="list-style-type: none"> <li>Contractor</li> </ul> | <ul style="list-style-type: none"> <li>DSISC observation at site and document checking</li> </ul> | <ul style="list-style-type: none"> <li>Project cost</li> </ul> |

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|--|---|---|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 24 of 58<br>Original Issue Date: |
| Site Specific Environmental Management Plan  |   |   |

| Field/Issues<br>(1) | Anticipated Impact<br>(2) | Recommended Mitigation Measures<br>(3)   | Actions Taken/ Status<br>(4) | Responsibility of Implementation<br>(5) | Monitoring of mitigation<br>(6) | Cost and source of fund<br>(7) |
|---------------------|---------------------------|--|------------------------------|---|---------------------------------|--------------------------------|
|                     |                           | <ul style="list-style-type: none"> <li>• Drive vehicles in a considerate manner</li> <li>• Notify affected public by public information notices, providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints.</li> </ul> |                              |   |                                 |                                |

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|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 25 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

**Table 3: Construction Phase Environmental Monitoring Plan for Entire Package**

| Monitoring Field      | Monitoring Location   | Monitoring Parameters   | Frequency   | Locations*  | Cost as per budget (in Rs.) |
|-----------------------|---|---|---|---|-----------------------------|
| Ambient air quality   | 10 locations (to be selected during implementation to represent the overall project area) | PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> , SO <sub>2</sub> , CO                           | Once before start of construction. Yearly 3- times except monsoon period during construction (3-year period considered) | Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati  | Rs. 500000/-                |
| Ambient noise         | 20 locations (same as air quality monitoring)   | Day time and night time noise levels (24 hours)   | Once before start of construction. Yearly 3- times except monsoon period during construction (3-year period considered) | Durlabhpur, Choto Nabagram, Mohona, Chusalk, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati Lakhyara, Subaira, Lachmanpur, Mejhia, Benabad, Purbator, Banashuriya, Sarangapur, Kenduadihi, Rangnathpur | Rs.- 300000/-               |
| Surface water quality | 10 locations (to be selected during implementation)                                       | pH, Oil and grease, Cl, F, NO <sub>3</sub> , TC, FC, Hardness, Turbidity BOD, COD, DO, Total Alkalinity | Once before start of construction. Yearly 3- times except monsoon period during construction (3-year period considered) | Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghat   | Rs.- 500000/-               |
| Soil quality          | 10 locations (including, construction camps, workers camps)                               | pH, Elect. Conductivity (at 250C), Moisture (at 1050C), Texture (silt, clay, sand),                     | Once before start of construction. Yearly 3- times except monsoon period during construction (3-year period considered) | Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli,  | Rs.- 500000/-               |

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|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 26 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

| Monitoring Field     | Monitoring Location  | Monitoring Parameters   | Frequency   | Locations*  | Cost as per budget (in Rs.) |
|----------------------|--|---|---|---|-----------------------------|
|                      |  | Calcium (as CaO), Magnesium (as Mg), Permeability, Nitrogen (as N), Sodium (as Na), Phosphate (as PO <sub>4</sub> ), Potassium (as K), Organic Matter, oil and grease | considered)   | Bankdaha, Gangajalghati   |                             |
| Ground Water Quality | 10 locations (including workers camp site & Construction camp/storage yards) | As per IS10,500: 2012   | Once before start of construction. Yearly 3- times except monsoon period during construction (3-year period considered) | Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghat | RS.- 600000/-               |

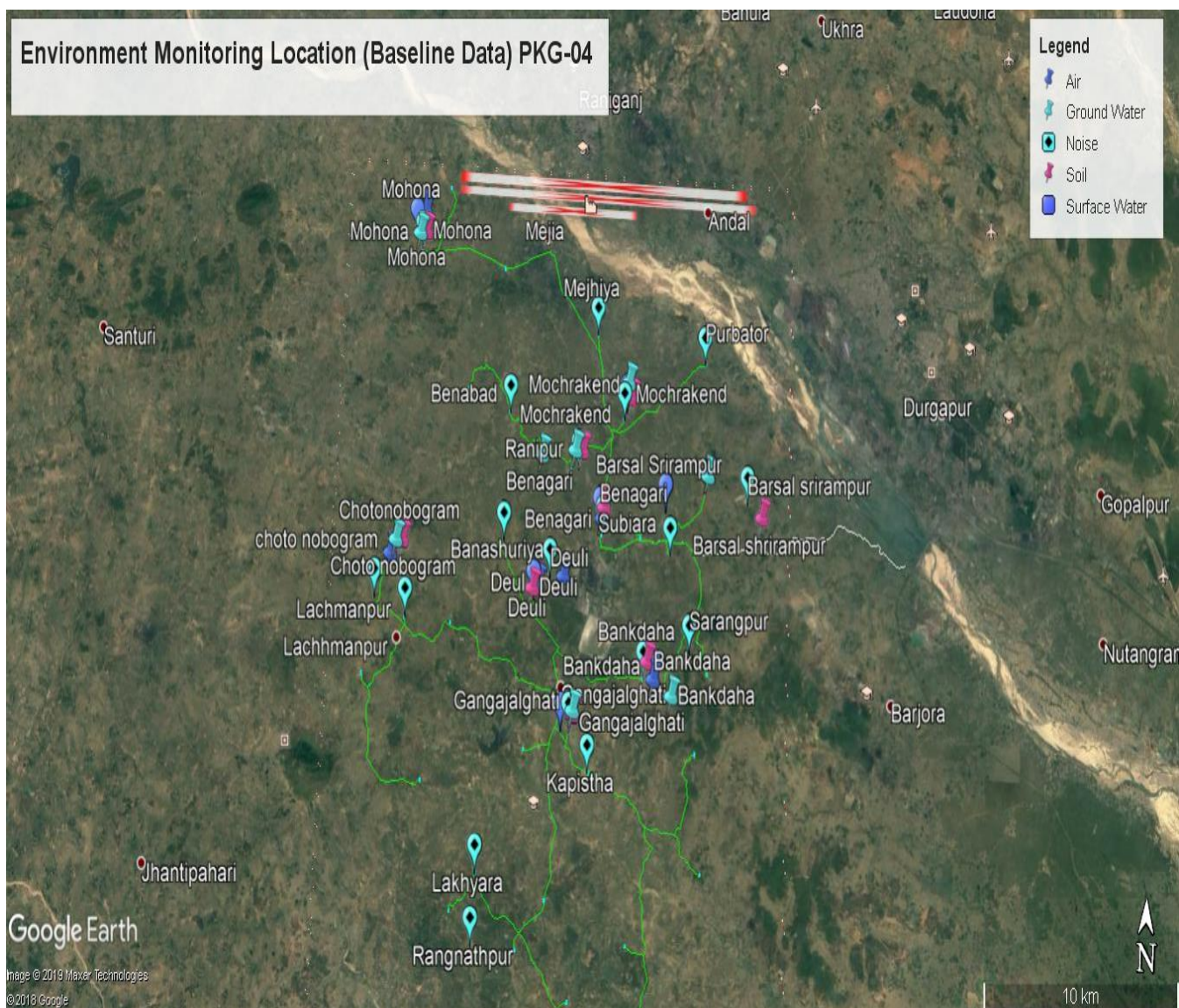


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|---|--|--|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 27 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>  |  |  |

**Note-** Mention locations had been selected for Baseline data. Sampling were done, report pending.

During construction locations are changeable with progress of work. Present locations as mentioned in mitigation tables are base line monitoring conducted as per EMP provision. The exact locations of these monitoring are reported in SEMR over google earth image. For all the packages conduct of these monitoring is responsibility of concerned Contractor and cost for such already budgeted in the IEE

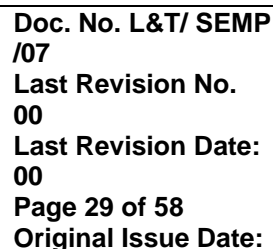
### **Monitoring Locations on Google Earth**



|  |   |   |
|--|---|---|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 28 of 58<br>Original Issue Date: |
| <b>Site Specific Environmental Management Plan</b>   |   |   |




## **LIST OF ATTACHMENTS**

- Attachment O1:** Details of construction Work sites and Site Layout Plan
- Attachment O2:** Details of construction camp sites
- Attachment O3:** List of clearances & statutory requirements
- Attachment O4:** Contractor's OHS Policy & Organization
- Attachment O5:** Utility shifting/relocation
- Attachment O6:** Details of Construction Materials
- Attachment O7:** Spoil Management Plan
- Attachment O8:** Procedure for on-site Grievance Redressal Mechanism
- Attachment O9:** Procedure for information disclosure prior to start of works

[illegible]




|   |   |   |
|---|---|---|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 30 of 58<br>Original Issue Date: |
| Site Specific Environmental Management Plan   |   |   |

| H                         | Site photographs  |  |
|---------------------------|---|--|
| Original site photographs |   |  |
|                           | OHSR before Construction  |  |
|                           |  |  |
|                           | Project information display board   | First aid box  |

|  |   |   |
|--|---|---|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 31 of 58<br>Original Issue Date: |
| <b>Site Specific Environmental Management Plan</b>   |   |   |

**Attachment O2: Details of construction camp sites**

|   |  |
|---|--|
| 1.  | Labour accommodation, Zone 09, OHSR Site, Kapista (Kenduadihi) |
| Location- Kapista- Not required because all are local workers |  |

|  |   |   |
|--|---|---|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 32 of 58<br>Original Issue Date: |
| <b>Site Specific Environmental Management Plan</b>   |   |   |

**Attachment O3: List of clearances & statutory requirements**

| Sl. No.  | Project related   | Status   |
|----------|---|--|
| <b>A</b> | <b>Construction/work related</b>                                      |  |
| 1        | Possession of land  | Available  |
| 2        | Notice to Proceed from PIU  | Available  |
| <b>B</b> | <b>Labour Safety / Welfare Related</b>                                |  |
| 1        | Labour license  | Obtained [Refer <b>Appendix O.B</b> ]                        |
| 2        | Workmen Compensation  | Obtained [Refer <b>Appendix O.C</b> ]                        |
| 3        | Risk Policy   | Obtained [Refer <b>Appendix O.D</b> ]                        |
| <b>C</b> | <b>Safety / liability safety related</b>                              |  |
| 1        | Medical Insurance   | Tie-up with local hospital made [Refer <b>Appendix O.E</b> ] |
| <b>D</b> | <b>Others</b>   |  |
| 1        | Fitness certificate for vehicles, equipment used in construction      | Obtained   |
| 2        | Pollution under control (PUC) certificates for vehicles and equipment | Available [Refer <b>Appendix O.F</b> ]                       |
| 3        | Driving licenses for drivers  | Obtained   |
| 4        | Insurance for vehicles / equipment, as required                       | Obtained   |



|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 33 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

#### Attachment O4: Contractor's OHS Policy & Organization

|          |  |   |
|----------|--|---|
| <b>1</b> | <b>Contractor agency has a OHS policy</b>  | <b>Yes/ No</b>  |
| A        | If yes, provide policy details<br><br>1. Policy statement:<br><br>2. EHS organization & responsibilities:  | Yes [Refer Appendix-O.G]<br><br>Yes   |
| B        | List safety risks anticipated in the project<br><br>Work area - OHSR<br>• Trips and falls<br>• Head injury from falling objects<br>• Confined work space<br>• Slope failure / trench collapse<br>• Accidents from open excavations   | -   |
| C        | List of personal protection equipment provided to workers<br>• Boots- 20 Nos.<br>• Safety shoes- 32 Nos.<br>• Gloves- 32 nos.<br>• Helmet-32 nos.<br>• Safety jacket- 32 nos.<br>• Goggles- 20 nos.  | Yes   |
| D        | Preventive Measures  |   |
|          | • Orientation of all workers on OHS  | Tool Box Talk conducted.  |
|          | • Work permit system   | Yes – for work at height  |
|          | • Toolbox/safety meetings (how often will this be conducted, what are the minimum topics)  | Twice Weekly on work at height, firefighting, first-aid, housekeeping, etc. |
|          | • Safety signage   | Displayed on site   |
|          | • Barricades (more than 1 m deep requires hard barricading)  | Yes   |
| <b>2</b> | <b>Contractor emergency procedure</b>  |   |
| A        | • In case of accident, first aid treatment to injured labour/person shall be provided.<br>• In case hospitalization is required, concerned site in-charge will immediately take necessary action for hospitalization and he will inform to our Project Manager.<br>• Details of accident shall be reported in accident register and the same shall be informed to client also. |   |
| B        | <b>Contact information, staff and responsibilities for emergency situations</b>  |   |
|          | <b>Designation</b>   | <b>Staff name &amp; contact</b>   |
|          |  | <b>Emergency responsibility</b>   |

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 34 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

|                                |  |  |
|--------------------------------|--|--|
| Site Engineer                  | Mr.Elangovan Perumal<br>Mob: 8310062545  | Site Engineer shall be responsible for arranging of first aid treatment and other necessary action required in case of emergency.<br>He will also be responsible for informing to EHS Supervisor.                        |
| EHS Manager                    | Mr. Tarak Das      Mob: 8001652220   | EHS Supervisor should assess the emergency situation and accordingly instruct the Site Engineer of appropriate actions. Depending on the gravity of the situation, he should also inform Project Manager Representative. |
| Project Manager Representative | Mr. Jayaganthan      A<br>Mob: 9575177767  | Project Manager Representative shall be responsible for taking all necessary action and decisions.   |
| C                              | <b>Reporting procedure in case of work accidents</b> <ul style="list-style-type: none"> <li>• Details of accidents shall be recorded in accident register.</li> <li>• Copy of accident register shall be submitted to client at the end of every month.</li> <li>• In case of any major accidents client shall be informed immediately.</li> </ul> | Yes  |
| D                              | Mandatory Reporting to Authorities   | Yes  |
| E                              | Prohibited Acts and Penalties for Violations   | Yes  |

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 35 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

**Attachment O5: Utility shifting/relocation**






| Sl. No. | List work sites that require utility shifting, relocation, temporary shut off | Remarks      |
|---------|---|--------------|
| 1       | Area work sites (OHSR)  | Not Required |

**Attachment O6: Details of Construction Materials**

| Sl. No | Material  | Approximate quantity (MT) required for project | Source                                   | Indicate if source has all necessary government clearances |
|--------|-----------|--|--|--|
| 1      | Steel     | 36.353   | Approved supplier                        | -  |
| 2      | Cement    | 107.16   | Approved supplier                        | -  |
| 3      | Sand      | 153.07 (Cum)                                   | From approved quarries at Damodar River. | Yes  |
| 4      | Aggregate | 232.3652(Cum)                                  | From approved quarries at Panchami.      | Yes  |

|   |   |   |
|---|---|---|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /07<br>Last Revision No. 00<br>Last Revision Date: 00<br>Page 36 of 58<br>Original Issue Date: |
| Site Specific Environmental Management Plan   |   |   |

# Attachment O7: Spoil Management Plan

|  |          |  |   |  |   |
|--|----------|--|---|--|---|
| <h2 style="text-align: center;">SPOIL MANAGEMENT PLAN(SMP)</h2> <p style="text-align: center;"><b>WBDWSIP BANKURA PKG-04</b></p> <p style="text-align: center;"><b>GANGAJALGHATI BLOCKS</b></p> <p style="text-align: center;"><b>LOCATION- KAPISTA(KENDUADIHI) (OHSR) (ZONE-09)</b></p> |          |  |   |  |   |
| REV  | DATE     | PREPARED BY  | CHECKED BY  | APPROVED BY DSISC  | APPROVED BY PIU   |
| 0  | 22.01.20 | <br>Project Manager<br>Mejhia Distribut | <br><br>Technical Consultant<br>DSISC Bankura WBDWSIP | <br>TEAM LEADER<br>DSISC- Bankura WBDWSIP | <br>Assistant Engineer-I<br>PIU Bankura WBDWSIP, PHE Ote<br>Govt. of West Bengal |

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 37 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

## 1. INTRODUCTION OF SMP:

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.

## 2. SCOPE:

This Spoil Management Plan developed for **OHSR site in Zone-09**. For the OHSR site. We do not anticipate any excess Spoil for disposal as all excavated material will be reuse at site only.

## 3. LEGAL AND OTHER REQUIREMENTS:

In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will confirming the Environmental Protection Rules and Regulations of Govt. of India and the State Govt.

## 4. ROLES AND RESPONSIBILITY:

### SITE ENGINEER:

- Will strictly work as per drawing.
- Will stay at site during activity is going on.
- Will see excess earth is kept at a particular place after completion of backfilling.
- Will ensure quality of the work by discussing daily about the type of activity on that day with the workmen.
- Will check site drain outlets are not blocked due to excavated earth on the drain.

### SAFETY PERSONNEL:

- Will constant Job specific Tool Box Talk with Supervisor and Workmen.
- Will check excavated earth kept away from top.
- Will check if any underground pipeline is there or live electric cable there water should be sprayed to avoid dust hazard from excavation.
- Necessary Safety signage, Cones to be used.
- Vehicles reverse horn etc. to be checked will ensure zero tolerance in safety.

### WORKER:

- They will start activity only after Tool Box Talk done.
- They will wear job specific safety items before start of work.
- During working inside the excavated trench, they should use ladder for easy access.
- They should barricade the area of activity with Safety barricading tape.
- Worker should be skilled to carry out the work.

It is the responsibility of the Engineers and all department head to implement this procedure and ensure that delegated staff and worker under their supervision carry it out in this project. Major roles and responsibilities are mentioned below:

- Excavated earth should be utilized like refilling at site only.
- Traffic movement should not be obstructed by dumping soil during the work.
- No low land, pond, ditch etc. will be filled up by extra soil outside the work place.

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /07</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date: 00</b><br><b>Page 38 of 58</b><br><b>Original Issue Date:</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

- Ensuring no accident occurs during rainy season by excavated earth during or finished the work.
- All the drains, outlet should be free from excavated earth.

5. IDENTIFICATION AND ASSESSMENT OF SPOIL ASPECTS AND IMPACTS:

In this project, places will be identified jointly along with design engineer for utilization. Main places where the excavated earth can be utilized are the trench of pipes and backfilling location.

6. SPOIL VOLUMES AND CHARACTERISTICS:

In this project, approx. Generation of excavated earth will be **approx. 757 cum**. There is **approx. 352 CUM** excess earth in this project as the same earth is to be used to fill the low land area.

As per report from soil expert, excavated earth is cohesive in nature.

7. SPOIL REUSES OPPORTUNITIES, IDENTIFICATION AND ASSESMENT:

In this project, there is no excess quality of excavated earth; total excavated earth should be reuse as per plan.

8. ON SITE SPOIL MANAGMENT APPROACH:

In this project, no need of the approach as there is no extra soils for disposal.

9. SPOIL TRANSPORTATION METHODOLOGY:

In this project, no need for spoil transport as there is no extra soils for disposal.


10. MONITORING, REPORTING, REVIEW AND IMPROVEMENTS:

Monitoring, Reporting and all necessary improvements will be done as per requirements.

**SPOIL DETAILS**

| Sl. No.                | Zone | Name Of Structure | Excavation Total Qty (C.U.M) | Back Filling Total Qty (C.U.M) | Reuse Excess Qty (C.U.M) |
|------------------------|------|-------------------|------------------------------|--------------------------------|--------------------------|
| 1.                     | 09   | Boundary wall     | 295                          | 108.21                         | 186.79                   |
| 2                      | 09   | OHSR              | 462                          | 295.6                          | 166.4                    |
| <b>Total (approx.)</b> |      |                   | <b>757</b>                   | <b>403</b>                     | <b>352</b>               |

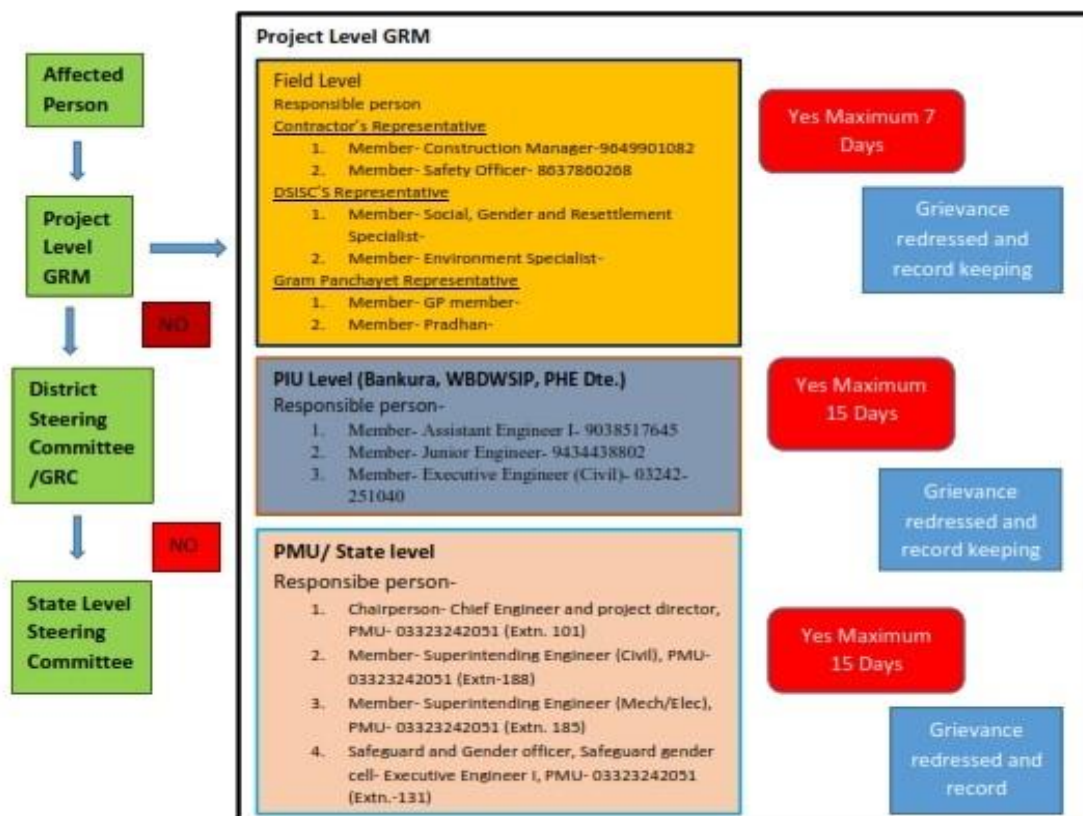


|   |   |  |
|---|---|--|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 39 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>  |   |  |

## Attachment O8: Procedure for on-site Grievance Redressal Mechanism


A common Grievance Redressal Mechanism (GRM) is in place to redress social, environmental or any other project and/or subproject related grievances. The GRM presented below has been developed in consultation with stakeholders. Public awareness campaign has been conducted to ensure that awareness on the project and its grievance redress procedures is generated. The campaign has ensured that the poor, vulnerable and others are made aware of grievance redress procedures and entitlements per project entitlement matrix, and PMU and PIU will ensure that their grievances are addressed in time.

### Grievance Redressal Mechanism (GRM)




All grievances are recorded in site grievance register and resolved at the earliest. The sample grievance registration form is included in [Refer **Appendix O.H**]



|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 40 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

#### **Attachment O9: Procedure for information disclosure prior to start of works**

- Local population is informed through community leaders as well as by visiting individual households of the locality.
- Information board is placed at construction site
- Stakeholder consultation carried out at Gram Panchyat level and work details including time period is informed.

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 41 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

#### **LIST OF APPENDICES**

- Appendix O.A:** Site Layout Plan
- Appendix O.B:** Labour License
- Appendix O.C:** Workman Compensation
- Appendix O.D:** Risk Policy
- Appendix O.E:** Medical Tie up Letter
- Appendix O.F:** PUC Certificates
- Appendix O.G:** Contractor's OHS Policy Statement
- Appendix O.H:** Sample Grievance Registration Form

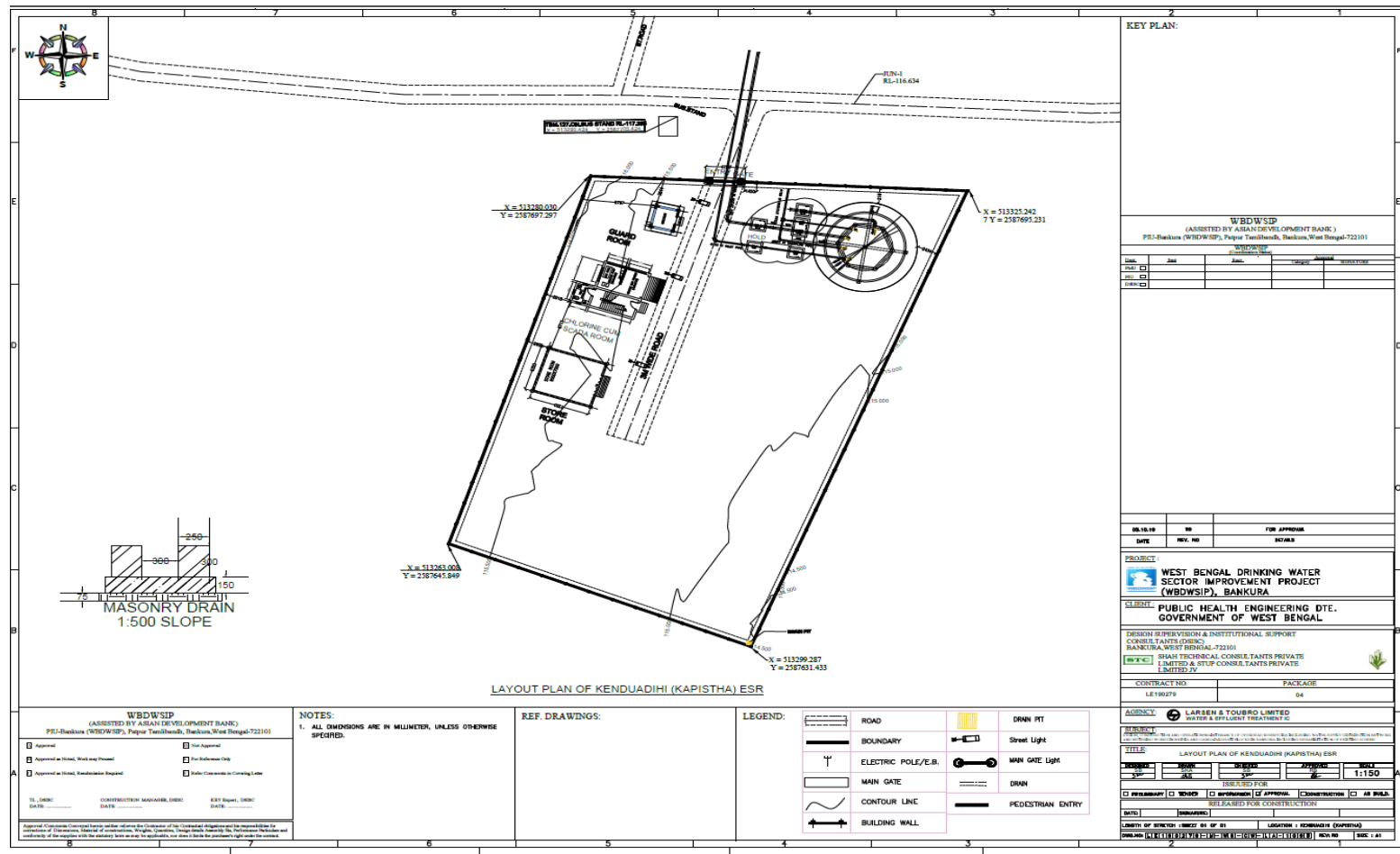


Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)

Doc. No. L&T/ SEMP /01  
Last Revision No. 00  
Last Revision Date : 00  
Page 42 of 58  
Original Issue Date :

## Site Specific Environmental Management Plan

### Appendix O.A: Site Layout





**L&T Construction**  
Water & Effluent Treatment

Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)

Doc. No. L&T/ SEMP /01  
Last Revision No. 00  
Last Revision Date : 00  
Page 43 of 58  
Original Issue Date :

## Site Specific Environmental Management Plan

### Appendix O.B: Labour License

04



**GOVERNMENT OF WEST BENGAL**  
OFFICE OF THE DEPUTY LABOUR COMMISSIONER, BANKURA SADAR  
OFFICE OF THE DEPUTY LABOUR COMMISSIONER, BANKURA, 1/2/B, CHANDMARIDANGA, BANKURA - 722101.

**FORM VI**  
[ See Rule 25(1) ]

Licence No. : **BAN04/CLL/000187** Date : **13th Aug, 2019**

|            |       |
|------------|-------|
| Lic Fees   | 250   |
| S. Deposit | 10000 |

**LICENCE**

Licence is hereby granted to **Larsen & Toubro Limited at Banashree pally, Barjora, Block- Barjora, Bankura Sadar, PS - Barjora, District - Bankura, Pin Code - 722202** under Section 12(1) of the Contract Labour (Regulation and Abolition) Act, 1970 subject to the conditions specified in Annexure.

The Licence shall remain in force till: **11th Aug, 2020.**

**ASHIS KUMAR GARAI**

Digitally signed by ASHIS KUMAR GARAI  
Date: 2019.08.13 17:30:37 +05'30'

*Licensing Officer*  
Under the Contract Labour(R&A) Act, 1970  
&  
Assistant Labour Commissioner  
Bankura Sadar, Bankura

**Establishment Information:**  
Project Implementation Unit, Public Health Engineering Directorate [BAN08/CLR/000038]  
W.Site - Ailakundi, PHE Complex .  
Anchuri, Block - Bankura -I, Bankura Sadar- 722102, PS - Bankura, Bankura

**Work site exact location:**  
Mejhia Distribution Project  
Gangajalghati, Block- Gangajal Ghati, Bankura Sadar  
PS - Gangajalghati, District - Bankura, Pin Code - 722133

1 of 2

## Site Specific Environmental Management Plan

### ANNEXURE


The licence is subject to the following conditions:

- (1). The licence shall be non-transferable.
- (2). The number of workmen employed as contract labour in the establishment shall not on any day, exceed **100 (One Hundred )**.
- (3). Except as provided in the rules the fees paid for the grant, or as the case may be, for renewal of the licence shall be non-refundable.
- (4). The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Schedule of employment under the Minimum Wages Act, 1948, where applicable, and where the rates have been fixed by agreement, settlement or award, not less than the rates fixed.
- (5). In cases where the workmen employed by the contractor perform the same or similar kind of work: as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Labour Commissioner, West Bengal, whose decision shall be final.
- (6). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Labour Commissioner, West Bengal.
- (7). In every establishment where 50 or more, women having children are ordinarily employed as contract labour there shall be provided 2 rooms of reasonable dimensions for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the creches may be such as may be specified in this behalf by the Labour Commissioner, West Bengal.
- (8). The Licensee shall notify any change in the number of workmen or the conditions of work to the Licensing Officer.

**ASHIS KUMAR  
GARAI**

Digitally signed by ASHIS  
KUMAR GARAI  
Date: 2019.08.13 17:31:17  
+05'30'



|   |   |   |
|---|---|---|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /01<br>Last Revision No. 00<br>Last Revision Date : 00<br>Page 45 of 58<br>Original Issue Date : |
| Site Specific Environmental Management Plan   |   |   |

## Appendix O.C: Workman Compensation

PACKAGE - 04

**ICICI Lombard**  
— GENERAL INSURANCE —

Certificate No: 696      Date: 02-Dec-2019

To whomsoever it may concern

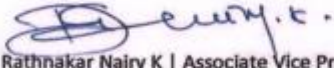
This is to certify that we have issued Group Personal Accident Policy No. 4005/102843874/04/000 to M/S. Larsen & Toubro Limited valid for the period 31-03-2019 to 30-03-2020.

This Policy covers all Permanent Workers, Temporary Workers, Sub-contractor's Workers, Piece-rate workers, Trainee Workers working at Project/Office of L&T Ltd and their Subsidiary & Associate Companies, Factories & Consortiums, SPVs, JVs, L&T Infrastructure Development Projects Ltd, L&T Hydrocarbon Engineering Ltd located anywhere in India.

This Policy covers the above workers in the following project site.

**LE190279 - Design and Construction of Overhead Reservoir including Water Supply Distribution Network and Metering Works in Mejhia and Gangajalghati Blocks including Rehabilitation of Existing Schemes**


For ICICI Lombard General Insurance Co Ltd

  
Rathnakar Nairy K | Associate Vice President – Specialized Industries


AA

**ICICI Lombard General Insurance Company Limited**

|  |  |  |
|--|--|--|
| <b>Mailing Address:</b><br>401 & 402, 4th Floor, Interface 11,<br>New Linking Road, Malad (West),<br>Mumbai - 400 064. | <b>Registered Office:</b><br>ICICI Lombard House, 414, Veer Savarkar Marg,<br>Near Siddhi Vinayak Temple, Prabhadevi,<br>Mumbai - 400 025. | <b>Toll free No. :</b> 1800 2666<br><b>Alternate No.:</b> 0 92236 22666 (chargeable)<br><b>Email :</b> customersupport@icicilombard.com<br><b>Website :</b> www.icicilombard.com |
|--|--|--|

|   |  |  |
|---|--|--|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 46 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>  |  |  |

## Appendix O.D- Risk Policy



Date: 13-08-2019

Customer ID : 101770109

Customer Name : LARSEN AND TOUBRO LIMITED

Address : 11<sup>th</sup>,tower-II,Godrej Water Side Building Salt Lake city, North 24 Paraganas,  
West Bengal ,700091

Dear Sir,

**Subject: Interim Held Cover Letter**

In consideration of having received the below premium – we hereby confirm our coverage with effect from 12-Aug-2019 00:00 Hrs strictly as per terms quoted by us on 07-Aug-2019 and subject to our standard Policy Terms and Conditions.


|   |   |
|---|---|
| <b>Line of Business</b>                 | Engineering   |
| <b>Type of Policy</b>                   | Erection All Risk Policy  |
| <b>Insured</b>                          | <b>Principal</b><br>Public Health Engineering Directorate, Project Management Unit, West Bengal Drinking Water Sector Improvement Project, Utility Building, 1st Floor, (Premises No-09/1-0024)<br>AA-1A, (Tank No.3), New Town Kolkata -700156 |
|   | <b>Contractor</b><br>M/s Larsen & Toubro Limited, 11th, Tower –II, Godrej Water Side Building, Salt Lake City, North 24 Paraganas, West Bengal-700091   |
| <b>Perils Covered</b>                   | As per quote submitted  |
| <b>Sum Insured / Limit of liability</b> | EAR Section 1 : INR 214,10,00,000<br>EAR Section 2 (Third Party Liability ) : INR 25,00,00,000  |
| <b>Period of Insurance</b>              | From 12-Aug-2019 00:00 Hrs To Midnight of 26-May-2022 + 12 Extended Maintenance Period as per Proposal form   |
| <b>Project Period</b>                   | From 27-May-2019 00:00 Hrs To Midnight of 26-May-2022   |
| <b>Deductible/ Retention</b>            | As per quote submitted  |
| <b>Exclusions</b>                       | As per quote submitted  |
| <b>Premium Payable(Including Taxes)</b> | EAR Total Premium : INR 30,31,656   |
|   | EAR 1 <sup>st</sup> Instalment Premium : INR 6,31,595   |

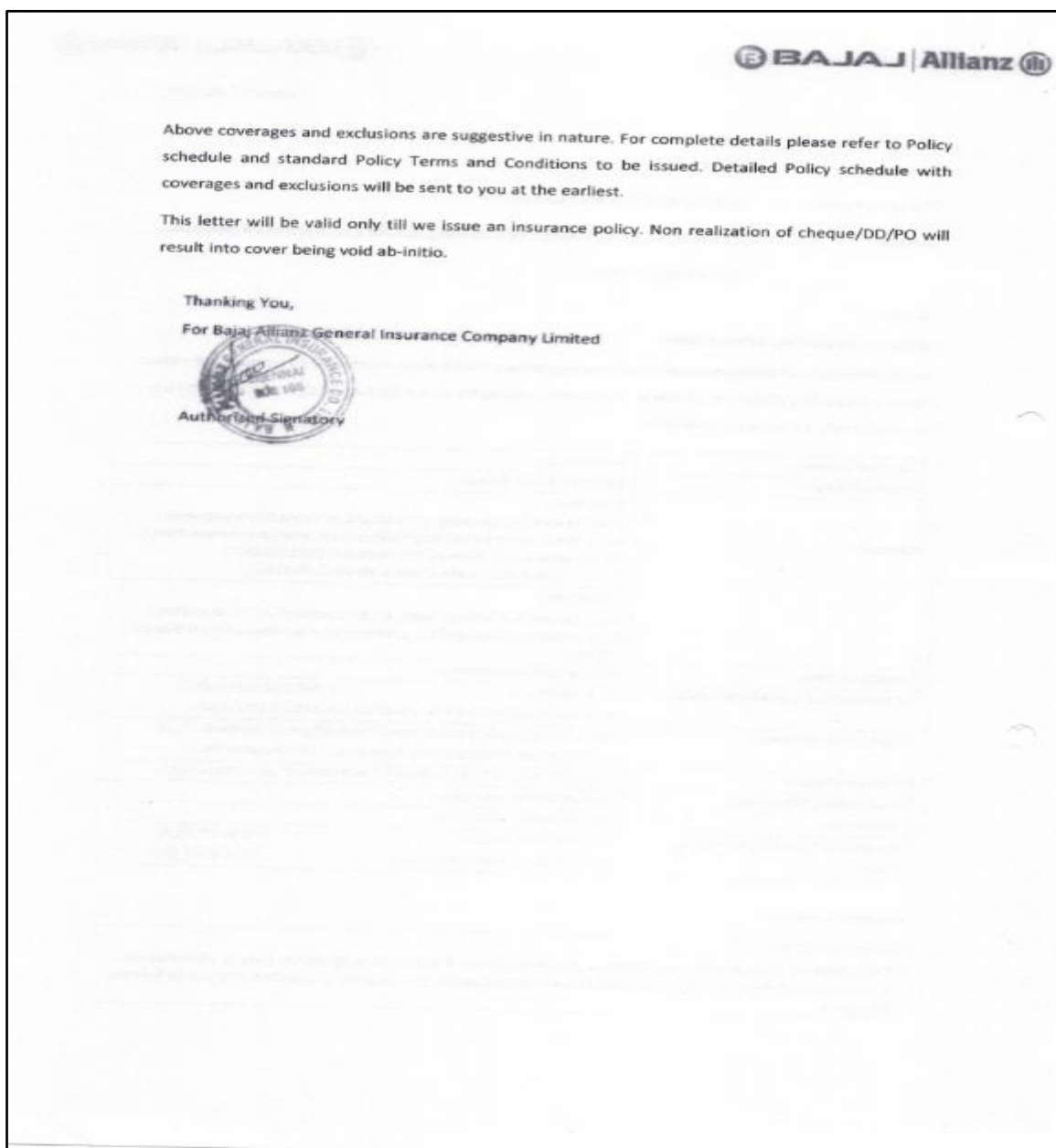
**Additional terms:-**


**Job No :** LE190279

**Description:** Design and Construction of Overhead Reservoir including Water Supply Distribution Network and Metering Works in Mejhia and Gangajalghati Blocks including Rehabilitation of Existing Schemes.





|   |  |  |
|---|--|--|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 47 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>  |  |  |



|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 48 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |


## Appendix O.E- Medical Tie up Letter

|  |   |
|--|---|
|  <b>LARSEN &amp; TOUBRO</b>   | <p><i>Project Office :</i><br/> L&amp;T Construction<br/> Water &amp; Effluent Treatment<br/> Barjora, Notaji Colony<br/> PO+PS- Bankura-722202<br/> West Bengal -India</p> |
| <p>Ref: PMU/WBDWSIP/PHED/84/186. Dated: 28/02/2019&amp;<br/> PMU/WBDWSIP/PHED/84/410. Dated: 27/05/2019</p>  |   |
| <p>Date:22-10-2019</p>   |   |
| <p>To,<br/> KCP Memorial Hospital<br/> Barjora – Gangajhal Ghati,<br/> District- Bankura,<br/> West Bengal -722202</p>   |   |
| <p><b>Sub: "MoU for Staff &amp; Workers Medical Health Checkup"-Reg.</b></p>   |   |
| <p>Dear Sir,</p>   |   |
| <p>With reference to the above subject we are pleased to sign this MoU for staff's and worker's Medical Health Checkup as per the following:</p>   |   |
| <p><b>Purpose &amp; Scope:</b> Medical Health Checkup for Staff and Workers whenever necessary.</p>  |   |
| <p><b>Condition &amp; Arrangements:</b> Medical Health Checkups needs to be performed whenever required. You are also required to attend our staffs or workers in case of any emergency. The location/ premises will be as the convenience of both the parties.</p>  |   |
| <p><b>Timings:</b> 24 x 7</p>  |   |
| <p><b>Payment Terms:</b></p>   |   |
| <p>Bill is to be submitted on Monthly basis &amp; payment is to be made within fifteen days of Bill submission.</p>  |   |
| <p>Tax as applicable will be recovered.</p>  |   |
| <p>Payment will be made by NEFT/RTGS only.</p>   |   |
| <p>The present MoU elucidates the general conditions and arrangements for future cooperation between concerned parties.</p>  |   |
| <p><small>Kolkata Cluster Office :- Godrej Waterside Building, 11 Th. Floor, Salt Lake, Sector-V Block-Dp-5, Kolkata-700091, West Bengal, India.<br/> Headquarters: Mount Poonamallee Road, Manapakkam, P.B. No. 979, Chennai - 600 089. INDIA<br/> Registered Office: L&amp;T House, N. M. Marg, Ballard Estate, Mumbai - 400 001. INDIA<br/> Licence No. : CIN - L99999MH1946PLC004758 Website: www.Lntecc.com</small></p> |   |
| <p><small>L&amp;T Construction - Water &amp; Effluent Treatment is a brand of Larsen &amp; Toubro Limited</small></p>  |   |

|   |  |  |
|---|--|--|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 49 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>  |  |  |

|  |   |
|--|---|
|  <b>LARSEN &amp; TOUBRO</b>   | <p style="font-size: small;">Project Office :<br/>L&amp;T Construction<br/>Water &amp; Effluent Treatment<br/>Barjora, Netaji Colony<br/>PO+PS- Bankura-722202<br/>West Bengal -India</p> |
| <p>Signature</p>  <p>For and on behalf of: Larsen &amp; Toubro Limited</p> <p>Date: 22/10/19.</p>   | <p>Signature</p>  <p>For and on behalf of: KCP Memorial Hospital</p> <p>Date: 22/10/19.</p>             |
| <p>Thanking you in anticipation.</p>  <p>For L&amp;T Construction,</p> <p><b>ADMIN &amp; IR</b><br/> <b>Bankura Packages (3&amp;4),</b><br/> <b>West Bengal</b></p> <p><b>Bankura- Mejia Intake &amp; WTP Project</b><br/> <b>Bankura- Mejhia Distribution</b></p>  |   |
| <p style="font-size: x-small;">Kolkata Cluster Office - Godrej Waterside Building, 11 Th. Floor, Salt Lake, Sector-V Block-Dp-5, Kolkata-700091, West Bengal, India<br/> Headquarters: Mount Poonamallee Road, Manapakkam, P.B. No. 979, Chennai - 600 089, INDIA<br/> Registered Office: L&amp;T House, N. M. Marg, Ballard Estate, Mumbai - 400 001, INDIA<br/> Licence No.: CIN - L96999MH1946PLC004768 Website: www.Lntec.com</p> <p style="font-size: x-small;">L&amp;T Construction - Water &amp; Effluent Treatment is a brand of Larsen &amp; Toubro Limited</p> |   |



|   |   |   |
|---|---|---|
|  <b>L&amp;T Construction</b><br>Water & Effluent Treatment | Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.<br>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19) | Doc. No. L&T/ SEMP /01<br>Last Revision No. 00<br>Last Revision Date : 00<br>Page 50 of 58<br>Original Issue Date : |
| Site Specific Environmental Management Plan   |   |   |

#### Appendix O.F: PUC Certificates


**POLLUTION UNDER CONTROL CERTIFICATE**  
(Under the West Bengal Motor Vehicles Rules, 1989)

Vehicle Registr. No. : **WB67B 7218** WB-01-**D 3723953**

Date of issue: **22-11-2019** Valid upto: **21-11-2020**

Pollution Level:

|          |             |
|----------|-------------|
| CO (%)   |             |
| HC (ppm) | <b>0.25</b> |
| SD (HSU) |             |

PUC Certificate issued by:  License No. and Seal: **23/2010**

Signature

Scanned by CamScanner

**POLLUTION UNDER CONTROL CERTIFICATE**  
(Under the West Bengal Motor Vehicles Rules, 1989)

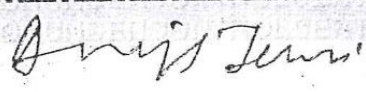
Vehicle Registr. No. : **WB67B-4292** WB-01-**D 4961694**


Date of issue: **01/Jul/2019** Valid upto: **31/Dec/2019**

Pollution Level:


|          |             |
|----------|-------------|
| CO (%)   | <b>4.12</b> |
| HC (ppm) |             |
| SD (HSU) |             |

PUC Certificate issued by: **P.C POLLUTION CHECKING CENTRE** License No. and Seal: **BANK/40/2016**

Signature:  **INDIA VALID**




## Site Specific Environmental Management Plan

| GOVERNMENT OF WEST BENGAL  |  |   |                           |
|--|--|---|---------------------------|
| State Transport Department Bankura RTO   |  |   |                           |
| FORM 23  |  |   |                           |
| CERTIFICATE OF REGISTRATION  |  |   |                           |
| Registration No  | : WB67B7218  | Registration Date   | : 20-Mar-2019             |
| Description of Vehicle   | : EXCAVATOR<br>(COMMERCIAL)                                  | Purpose For Printing RC   | : NEW                     |
| Dealer's Name & Address  | : JAYASHREE AUTOMOBILES(I) P LTD, ANDAL MORE, BURDWAN, . . . |   |                           |
| Owner Name   | : BIBHAS MISHRA  | Son/wife/daughter of  | : MANIK MISHRA            |
| Full Address: (Permanent)  | : PATDOHA, SHYAMPUR, SALTORA, BANKURA, WEST BENGAL-722158    |   |                           |
| Full Address: (Temporary)  | : PATDOHA, SHYAMPUR, SALTORA, BANKURA -WEST BENGAL-722158    |   |                           |
| Fitness UpTo   | : 19-Mar-2021  | Tax UpTo  | : 19-Mar-2020             |
| Owner Serial No  | : 1  |   |                           |
| Detailed Description   |  |   |                           |
| Class of Vehicle   | : EXCAVATOR<br>(COMMERCIAL)                                  | Link Vehicle No   | :                         |
| Ownership  | : INDIVIDUAL   | Norms   | : Bharat Stage III (CEV)  |
| Maker's Name   | : JCB INDIA LIMITED  |   |                           |
| Front HSRP No  | : AA121054168  | Rear HSRP No  | : AA121054169             |
| Type of Body   | : SIDE SHIFT BACKHOE LOA<br>DER                              | Month/Year of Manuf.  | : 02/2019                 |
| No of Cylinders  | : 4  | Chassis No  | : HAR3DXXTT02718703       |
| Engine No  | : H00215832  | Fuel  | : DIESEL                  |
| Horse Power(BHP)   | : 75.04  | Cubic Capacity  | : 4765.00                 |
| Maker's Classification   | : JCB 3DX XTRA   | Wheel base  | : 2200                    |
| Seating Cap(in all)  | : 1  | Standing Cap  | : 0                       |
| Sleeper Cap  | : 0  | Unladen Wt (kgs)  | : 7600                    |
| Colour   | : YELLOW   | Laden/GV Wt (kgs)   | : 7660                    |
| Other Criteria   | :  | AC Fitted   | : NO                      |
| Vehicle Purchase As  | : Fully Built  |   |                           |
| <b>Additional Particulars of all transport vehicles other than motor cabs (Gross Vehicle Weight)</b>   |  |   |                           |
| By Manuf.  |  | As Regd.  |                           |
|  | Description  | Weight(in kgs)  |                           |
| a) Front:  | 1  | 1   |                           |
| b) Rear:   | 1  | 1   |                           |
| c) Other:  | 1  | 0   |                           |
| d) Tandem:   | 1  | 0   |                           |
| The motor vehicle above described is subject to Hypothecation in favour of SUNDARAM FINANCE LTD, DURGAPUR, . . . Paschim Burdwan, West Bengal-713216 w.e.f. 08-Mar-2019. |  |   |                           |
| Purchase dt  | : 08-Mar-2019  | Sale Amt  | : 2620000/-               |
| OTT Date   | : 20-Mar-2019  | Amount/Rcpt No  | : 6528 / WB67R19030003101 |
| TaxUpTo  | : 19-Mar-2020  | Vehicle is Govt./ Pvt.  | : PRIVATE                 |
| Tax Exempted or Not  | : NOT EXEMPTED   | Date of Approval  | : 20-Mar-2019             |
| <b>Other State/Transfer/Conversion Details</b>   |  |   |                           |
| Previous Owner   | :  | Previous RegNo  | :                         |
| Old State  | :  | Entry Date  | :                         |
| Transfer Date  | :  | Conversion Date   | :                         |
| Date : 20-Mar-2019 18:28:55  |  | <br>Registering Authority<br>Bankura |                           |
| Taxation Particulars / Advance Registration Mark Fee Details   |  | Signature of Registering Authority<br>Date : 20-Mar-2019  |                           |



## Site Specific Environmental Management Plan

**POLLUTION UNDER CONTROL CERTIFICATE**  
Authorised By: Bankura RTO  
Transport Commissionerate, West Bengal



**TEST RESULT : PASS**  
**VALID TILL: 29/Jun/2020**


**DIESEL DRIVEN VEHICLES**  
Certified that the vehicle conforms to the standards prescribed under rule 115(2) of CMV Rules 1959

| FUEL   | Light Absorption Coefficient<br>(Permissible Limit) | Measured Value |
|--------|---|----------------|
| DIESEL | 2.45  | 0.02           |

Certificate No.: WB06700030000039  
Registration No: **WB6785394**  
Chassis No.: TEP740B2CHB012356  
Engine No.: 4H3202/1720489  
Class of Vehicle: Excavator  
(Commercial)  
Make: MANITOU EQUIPMENT  
Model: INDIA PVT LTD  
BSSTWD  
Vehicle Category: MEDIUM GOODS  
VEHICLE  
Date of Registration: 02/Apr/2018  
Emission Norms: BHARAT STAGE III  
Fuel: DIESEL  
Date of Testing: 31/Dec/2019

Time of Testing: 17:51:32  
Fee Charged: Rs.100.0  
in case of any complain Please write to Transport Commissioner, West Bengal / email to: transportdept.wb@gmail.com / Call us 033 2262 5404

Auto Emission Testing Centre Code: WB0670003  
Testing Centre Name: SINHA MOTORS  
Centre Address: GANGAJAL GHATI  
Test Conducted By: UMA SANKAR SINHA



**TEST RESULT FOR DIESEL VEHICLE**

|        | IDLE RPM | MAX RPM    | K VALUE | OIL TEMP  |
|--------|----------|------------|---------|-----------|
| TEST 1 | 1198.0   | 1198.0     | 0.02    | 197.0     |
| TEST 2 | 3065.0   | 1198.0     | 0.02    | 202.0     |
| TEST 3 | 1197.0   | 1197.0     | 0.02    | 176.0     |
| AVG    | 1820.0   | 1197.66667 | 0.02    | 191.66667 |

This is a computer generated certificate and does not require signature

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**L&T Construction**  
Water & Effluent Treatment

Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)

Doc. No. L&T/ SEMP /01  
Last Revision No. 00  
Last Revision Date : 00  
Page 53 of 58  
Original Issue Date :

## Site Specific Environmental Management Plan



Enriching Lives

**KIRLOSKAR OIL ENGINES LIMITED**

## KOEL CHHOTA CHILLI GENSET TEST CERTIFICATE

This is to certify that KOEL CHHOTA CHILLI Genset Model KG1-10AS5 bearing Serial No. D8.5326... / 1800281

with Engine Serial No. D8.9303/1800921 and Alternator Serial No. LAS3C218E6209-H complies with the provisions of Ministry of Environment & Forests, Government of India notification GSR No.371(E) dated 17.05.2002.

The full load at N.T.P. condition is 10 KVA with 0.8 Power Factor at 50 Hz.

Date: 09-JUN-2018

  
Quality Assurance

Genset rating conforms to ISO-8528 or equivalent.



Regd. Office : Laxmanrao Kirloskar Road, Khadki, Pune - 411003 INDIA Tel. : +91 (20) 2581 0341, 6608 4000. Fax : +91 (20) 2581 3208, 2581 0209.  
email : koel.helpdesk@kirloskar.com Website : www.koel.co.in

QA/F/607/00

D3.340.17.0.PR





**L&T Construction**  
Water & Effluent Treatment

Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)

Doc. No. L&T/ SEMP /01  
Last Revision No. 00  
Last Revision Date : 00  
Page 54 of 58  
Original Issue Date :

## Site Specific Environmental Management Plan



Enriching Lives

**KIRLOSKAR OIL ENGINES LIMITED**

## ENGINE TEST CERTIFICATE

This is to certify that Kirloskar Engine Model EA16 G1.  
bearing Serial No. D8.9303 / 1800921 complies with Central  
Pollution Control Board (CPCB) norms as per the Environment (Protection)  
Rules 1986, in the Schedule I, in serial number 95 relating to Emission Limits for  
new diesel engine up to 800 KW for generator set(Genset) application- G.S.R.  
771(E) dated 11 DEC 2013 & G.S.R. 232 (E) dated. 31<sup>st</sup> MARCH, 2014  
notified by Ministry of Environment & Forests, Government of India.

The full load power at N.T.P. condition is 16 B.H.P. at  
1500 RPM

Date: JUN-2018


Quality Assurance

Power rating is gross and conforms to ICXN/IFN/HD/LD/ISO3046/BS5514/IS10001/DIN6271  
or equivalent.

Regd. Office : Laxmanrao Kirloskar Road, Khadki, Pune - 411003 INDIA. Tel. : +91 (20) 2581 0341, 6608 4000. Fax : +91 (20) 2581 3208, 2581 0209,  
email : koel.helpdesk@kirloskar.com Website : www.koel.co.in

QA/F/122/00

02.549.02.0.00

|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 55 of 58</b><br><b>Original Issue Date :</b> |
| <b>Site Specific Environmental Management Plan</b>   |   |  |

## Appendix O.G: Contractor's OHS Policy Statement

# Corporate Environment, Health & Safety (EHS) Policy

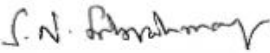
**We remain committed to safeguarding the health and safety of our employees and other stakeholders and preserving the environment.**


**To fulfil the above commitment, we will ensure the following:**

- Incorporate applicable EHS requirements across all processes, right from tendering, planning, design, recruitment and procurement, production, execution, operation and maintenance to align with their respective business objectives
- Meet or exceed all applicable legal and other compliance obligations, irrespective of the stipulations of the enforcement authorities in the country of operation
- Pay serious attention to workmen welfare, especially to their habitat, to improve morale, retention and thereby productivity
- Impart structured training and augment resources for effective EHS performance
- Prevent adverse environmental impact and occupational health and safety risks
- Conserve natural resources, minimize waste generation and environmental emissions
- Encourage communication, consultation and collaboration with all stakeholders
- Establish SMART EHS objectives to permanently reduce EHS risks by eliminating hazards or substituting with less harmful equipment, material, methods and review implementation to achieve continual improvement.

This policy to be communicated to all our stakeholders and reviewed every year to ensure that it remains relevant to our business and effective to improve performance.

Date: 1<sup>st</sup> July, 2019

  
**S N SUBRAHMANYAN**  
 Chief Executive Officer  
 & Managing Director

  
**LARSEN & TOUBRO**  
 It's all about Imagineering

## Site Specific Environmental Management Plan

### ENVIRONMENT HEALTH & SAFETY POLICY

The **Water and Effluent Treatment IC** of L&T Construction is committed to conserve the Environment and to provide a Healthy, Safe and Cordial Workplace to Employees and Stakeholders.

#### EHS Philosophy

- Minimize the Environmental Aspect & Impacts
- All incidents are preventable
- "Zero Harm" across the work places and offices
- Preserve natural resources for future generations and
- No task is so important that risk of injury to people or damage to the environment is justified

#### The objectives of this EHS Policy shall be achieved by

- Integrating the EHS Plan and Procedures into every operations of the Independent Company.
- Achieving an incident free work places and offices through proactive capturing and correcting of maximum number of UA/UC/UB, Near Miss and First-Aid cases and subsequent reduction of Severity Rate, Frequency & Fatality Rates
- Compliance to applicable Legal and Other Requirements.
- Elimination & Reduction of OH&S Hazards and Risks.
- Encouraging the preparation of HIRA & EAISR across the sites and offices to have better proactive EHS hazard control measures and minimize the environmental aspect and impact
- Inculcating a positive EHS culture among employees through continuous training and awareness programs
- Encouraging Communication, Consultation and Coordination among Employees, Stakeholders and External Agencies
- Achieving continual improvement by integrating EHS procedures into every process and through periodic internal/external auditing of IMS Management System
- Continuous monitoring of EHS Implementation across the IC through various software modules
- Assessing and employing the Sub-Contractors complying with L&T/WET-IC IMS Standard.
- Engages, Motivates and Develops Employees to promote Sustainability Initiatives that result in Innovative ideas, Operational efficiencies, Cost savings and a reduced Environmental footprint.
- Preserving water through Reduce, Reuse and Recycle principles.


The Top management is committed to provide Manpower, Infrastructure and Financial assistance for achieving the above EHS objectives. Employees are accountable and responsible for implementing and maintaining the EHS Management System across the WET-IC. Business Units, Tendering & Contracts, EDRC, P&M, HR, HR (W), IR & Admin, Supply Chain & Sub-Contractor Management and other Functional departments and Sites shall support and implement the above Management directives to achieve "Zero Harm" across the WET-IC as per employment conditions.

  
**S. Rajavel**

SR. VP & Head  
 Water & Effluent Treatment IC & SWC BU

Date: 18<sup>th</sup> September, 2018



|  |   |  |
|--|---|--|
|  <b>L&amp;T Construction</b><br><i>Water &amp; Effluent Treatment</i> | <b>Design and construction of overhead reservoir including water supply distribution network and metering works in Mejhia and Gangajalghati blocks including rehabilitation of Existing schemes.</b><br><b>(Contract Package No: WBDWSIP/DWW/NCB/BK/04/2018-19)</b> | <b>Doc. No. L&amp;T/ SEMP /01</b><br><b>Last Revision No. 00</b><br><b>Last Revision Date : 00</b><br><b>Page 57 of 58</b><br><b>Original Issue Date :</b> |
|  | <b>Site Specific Environmental Management Plan</b>  |  |

## Appendix O.H: Sample Grievance Registration Form

(Available in Bengali and English)

The \_\_\_\_\_ Project welcomes complaints, suggestions, queries, and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

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

|   |                       |              |                    |     |  |
|---|-----------------------|--------------|--------------------|-----|--|
| Date  | Place of registration | Project Town |                    |     |  |
|   |                       | Project:     |                    |     |  |
| Contact information/personal details  |                       |              |                    |     |  |
| Name  |                       | Gender       | * Male<br>* Female | Age |  |
| Home address  |                       |              |                    |     |  |
| Place   |                       |              |                    |     |  |
| Phone no.   |                       |              |                    |     |  |
| E-mail  |                       |              |                    |     |  |
| Complaint/suggestion/comment/question Please provide the details (who, what, where, and how) of your grievance below: |                       |              |                    |     |  |
| If included as attachment/note/letter, please tick here:  |                       |              |                    |     |  |
| How do you want us to reach you for feedback or update on your comment/grievance?                                     |                       |              |                    |     |  |

### FOR OFFICIAL USE ONLY

|  |                |
|--|----------------|
| Registered by: (Name of official registering grievance)              |                |
| Mode of communication:<br>Note/letter<br>E-mail<br>Verbal/telephonic |                |
| Reviewed by: (Names/positions of officials reviewing grievance)      |                |
| Action taken:  |                |
| Whether action taken disclosed:                                      | Yes<br>s<br>No |
| Means of disclosure:   |                |

# Site Specific Environmental Management Plan

### অভিযোগ নিবন্ধন ফর্মের নমুনা

..... প্রকল্পকে বাস্তবায়িত করার লক্ষে অভিযোগ, পরামর্শ, অনুসন্ধান এবং  
মন্তব্যের জন্য স্বাগত।

আমরা অভিযোগকারীকে অভিযোগ সহ নাম জানাতে উৎসাহিত করি এবং আপনার সাহচর্যে এসে এর শোধন ও প্রতিক্রিয়া জানাতে সক্ষম হই।

অবশ্যই আপনি আপনার ব্যক্তিগত বিষয় বিস্তারিত ভাবে যুক্ত করতে ইচ্ছাপ্রকাশ করবেন। যে তথ্য আপনি দেবেন, তা অবশ্যই গোপন থাকবে। তাই অনুগ্রহ করে আপনার নাম লিখে / টাইপ করে জানান।

|   |                  |                           |
|---|------------------|---------------------------|
| তারিখ   | নিবন্ধনের জায়গা | প্রকল্পের শহর<br>প্রকল্পঃ |
| যোগাযোগের তথ্য / বিস্তারিত ব্যক্তিগত তথ্য   |                  |                           |
| নাম   | লিঙ্গ            | পুরুষ<br>মহিলা            |
| বাড়ীর ঠিকানা   |                  |                           |
| জায়গা / স্থান  |                  |                           |
| ফোন নং  |                  |                           |
| ই-মেল   |                  |                           |
| যেকোন অভিযোগ / পরামর্শ / মন্তব্য / প্রশ্ন অনুগ্রহ করে নিচে বিস্তারিতভাবে (কে, কি, কোথায় এবং কেমন করে) আপনার অভিযোগ জানান |                  |                           |
| যদি কোন সংযুক্তি / চিরকুট / চিঠি অন্তর্ভুক্ত করতে চান, অনুগ্রহ করে সেখানে টিক দিন।  |                  |                           |
| আপনার অভিযোগ / মন্তব্যের হালনাগাদ (আপডেট) বা প্রতিক্রিয়া কিভাবে পেতে চান?  |                  |                           |

Office ব্যবহারের জন্যঃ

|  |             |
|--|-------------|
| অভিযোগ নিবন্ধনকারী আধিকারিকের নামঃ                   |             |
| যোগাযোগ ব্যবস্থাঃ                                    |             |
| ডিরকুট / চিঠি-                                       |             |
| ই-মেল-   |             |
| মৌখিক / টেলিফোন-                                     |             |
| নিবন্ধকৃত অভিযোগ পর্যালোচনাকারী আধিকারিকের নাম ও পদঃ |             |
| অভিযোগের বিরুদ্ধে গৃহীত ব্যবস্থা-                    |             |
| গৃহীত ব্যবস্থা প্রকাশ্যে আনা হয়েছে কি না            | হ্যাঁ<br>না |
| প্রকাশের উপায়                                       |             |