

# Site-Specific Environmental Management Plan

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Project number: 49107-006  
November 2019

**IND: West Bengal Drinking Water Sector Improvement Project – Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering Works in Taldangra Block (Zone 18 - OHSR Harmasra)**

**Package No: WBDWSIP/ BK/02BP/02B**

Prepared by Public Health Engineering Department, Government of West Bengal for the Asian Development Bank.

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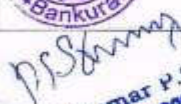
## Site Specific Environmental Management Plan

### SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

WBDWSIP BANKURA-PKG-02B  
TALDANGRA BLOCK

LOCATION- HARMASRA OHSR (ZONE -18)

REV	DATE	PREPARED BY	CHECKED BY	APPROVED BY DSISC	APPROVED BY PIU
0		 	 	 TEAM LEADER DSISC WBDWSIP, BANKURA Shah Technical Consultants Pvt. Ltd.	 Assistant Engineer-I PIU Bankura WBDWSIP, PHE Div. Govt. of West Bengal

  
Sasikumar P.S.  
(Project Manager)  
Larsen & Toubro Limited  
Bankura Taldangra Project

  
24/12/19  
Junior Engineer  
PIU Bankura WBDWSIP, PHE Div.  
Govt. of West Bengal

## Site Specific Environmental Management Plan

<b>Package No</b>	Package No :WBDWSIP/ BK/02BP/02B Zone 18- OHSR (Harmasra) under PIU Bankura
<b>Package title</b>	Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block SEMP is as per requirement of the Draft IEE covering package no. <b>DWW/NCB/BK/02B/2018-19</b>
<b>Contractor</b>	<b>Larsen &amp; Toubro Ltd.</b>
<b>Date of Contract Award</b>	27/05/2019
<b>Date of works commencement for particular site</b>	21/11/2019
<b>Contract period</b>	Construction: 3 Years ; O&M: 2 Years
<b>SEMP Component</b>	Construction of Overhead Service Reservoir – 400 KL
<b>Demolition Works</b>	No demolition activity involved
<b>Project Area</b>	Harmasra village, Harmasra Gram Panchayet of Taldangra Block
<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 40,75,000/-
<b>Project Components</b>	As per project detailed design

### Gram Panchayet: Harmasra

<b>Land Status</b>	Government and Transferred
<b>OHR Capacity</b>	400 KL

### Location



## Site Specific Environmental Management Plan

<b>Details of contractors on-site-personnel and workers</b>	Zone 18 - OHSR ( <b>Harmasra</b> ), Harmasra Gram Panchayet of Taldangra Block
Project Manager	Mr. Sasikumar PS; 8927252613
Site Engineer	Mr. Soumya Jana; 9547174116
Site Supervisor	Mr. Seshapu Bala Sai Aravind Kumar ;9346466373
EHS Supervisor	Mr. Dhabaleswar Biswal- 9939691579
Archeological supervisor	NA
Skilled / semi-skilled workers	5 skilled and 5semi-skilled
Unskilled workers	5
Women workers	Nil
Workers – local / migrant	Local-10 / Migrant-05 (From other districts of West Bengal)
<b>Details of facilities</b>	
Construction camps, (no's and locations)	One labor accommodation at a rented apartment at Harmasra  [Ref. Attachment O2: Details of construction camp sites]

## Site Specific Environmental Management Plan

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

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
Utility	Electric poles and wires, water lines within proposed project area of OHR site.	<ul style="list-style-type: none"> <li>Locations and operators of these utilities to be identified as per detailed design documents to prevent unnecessary disruption of services during construction phase.</li> <li>Prepare spoils(Waste ) management plan.</li> </ul>	<ul style="list-style-type: none"> <li>Contingency Plan has been developed by informing to emergency services like WBSEDCL, Telecommunication, local administration and police etc.</li> <li>First, we are digging the trial pit manually, if any obstruction arise the same is removed as per direction of end user</li> <li>The construction work to continue without disturbing the existing pipeline and electric poles.</li> <li>Spoil Management Plan is included in <b>Attachment O7</b> included with this SEMP</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>
Climate	The nature and intensity of rainfall events in an area, has implications for surface water management.	<ul style="list-style-type: none"> <li>Seasonal climatic variations should be taken into account during scheduling of construction in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Excavation works schedule during dry season have been approved by PMU.</li> <li>If excavation work is to be conducted during rainy season, then preventive measures will be taken as per PMU approved method.</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</li> </ul>	<ul style="list-style-type: none"> <li>Project cost</li> </ul>
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> </ul>	<ul style="list-style-type: none"> <li>No involvement of any new borrow area or quarry is anticipated.</li> <li>Sand has been collected from <b>Damodar River</b> and Aggregate has been collected from <b>Panchami</b> quarry.</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>



## Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
	patterns, ponding and water logging, and water pollution.	<ul style="list-style-type: none"> <li>On a monthly basis documentation on material obtained from each source (quarry/borrow pit) should be submitted.</li> <li>In case of involvement of new quarries/ borrow areas, prior steps will follow for all clearances and permissions as required under law.</li> </ul>				
Consents, permits, clearances, objection certificates (NOCs), etc.	Failure to obtain necessary consents, permits, NOCs, etc can result to design revisions and/or stoppage of works.	<ul style="list-style-type: none"> <li>All necessary consents, permits, clearance, NOCs, etc prior to award of civil works should be obtained.</li> <li>All necessary approvals for construction to be obtained before start of construction.</li> <li>Acknowledge in writing and report on compliance consents, permits, clearance, NOCs etc.</li> </ul>	<ul style="list-style-type: none"> <li>Already done land requisition, electric connection, water source etc.</li> <li>Tree felling requirement for this site is not anticipated.</li> <li>Made provision for detailed design drawing and documented all conditions</li> <li>Please refer <b>Attachment O3</b> for list of relevant permits and clearances.</li> </ul>	Contractor, PIU	PIU and DSISC observation at site and document checking	Project cost

## Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
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>OHR site free from any 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>

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

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
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>Training has been conducted on EMP, Spoil Management Plan, SOP for construction activity, EHS plan, Tool box Talk.</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"</li> </ul>	<ul style="list-style-type: none"> <li>Only vehicles having valid PUC certificate have been engaged in the project.</li> <li>Mixer machine, winch machine and DG set used 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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Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
	resulting in dust and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulphur dioxides, particulate matter, nitrogen oxides, and hydrocarbons	Direction No. EN/3170/T-IV-7/001/2009 dated: 10 December 2009": <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 for control of dust generation.</li> <li>If required, then provide a dust screen/high compound wall around the construction sites (OHR).</li> </ul>	concreting and pilling are not left for idling, after completion of work. <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 has been conducted at following five places <b>(Shibdanga more, Harmasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh)</b> in the Bankura – Taldangra Package.</li> </ul>			
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	<ul style="list-style-type: none"> <li>The effluent should be discharged into local drains after passing through a sediment basin to prevent contamination of existing drains and local water bodies.</li> <li>Where no local drains are available, a soak pit will be</li> </ul>	<ul style="list-style-type: none"> <li>The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved.</li> <li>Arrangements</li> </ul>	<ul style="list-style-type: none"> <li>Contractor</li> </ul>	<ul style="list-style-type: none"> <li>PIU and DSISC observati on at site</li> </ul>	<ul style="list-style-type: none"> <li>Project cost</li> </ul>



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Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
	area.	created on-site away from water bodies.	have been made to release effluent from the site to a local drain after passing through a sedimentation basin, so that it does not contaminate existing drain and pond around the project site			
River/Surface water quality	Mobilization of settled silt materials, runoff 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 leading to the water bodies should be provided, according to situation.</li> <li>Temporary drainage channel around the work area should be made to accumulate the entry of runoff from upper areas</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 monitoring has been conducted already following two places</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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		into the work area. <ul style="list-style-type: none"> <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>	<b>(Shibdangamore, Harmasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh)</b> in the Bankura - Taldangra as per Environmental Monitoring Plan recommended in the IEE.			
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials by labours	<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 to surrounding sensitive receptor;</li> <li>Horns not to be used unless it is necessary to warn other road users;</li> <li>Ensure maximum work place noise level exposure not exceeding 85 decibels (dbA);</li> <li>Ensure noise level at site boundary comply with standard prescribed for local land use; and</li> <li>Baseline and construction phase Noise Monitoring (Day &amp; Night time) should be conducted.</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 times, such as religious and cultural festivals.</li> <li>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.</li> <li>Mixer machine, winch machine and</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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Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
			DG sets used for concreting and pilling are properly maintained and stopped immediately after completion of work. <ul style="list-style-type: none"> <li>Baseline monitoring has been conducted.</li> <li>Noise quality Monitoring has been conducted at following five places  <b>(Shibdanga more, Harmasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchurya - Patrabandh)</b> in the Bankura - Taldangra Block as per requirements prescribed in IEE.           </li> </ul>			
Landscape and Aesthetics character, and sense of place	Construction wastes as well as excess construction materials may show some impact.	<ul style="list-style-type: none"> <li>Prepare a construction waste management plan for site.</li> <li>Hazardous wastes e.g. waste oil, empty paint cans, etc. should be stored on site and then shifted to a central location from where these will be disposed in accordance with Hazardous Wastes Management Rule,</li> </ul>	<ul style="list-style-type: none"> <li>Spoil management plan has been developed</li> <li>Waste/construction waste is being managed according to the following preferential hierarchy: reuse and dispose.</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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		2016. <ul style="list-style-type: none"> <li>As far as possible utilize the debris and excess soil in construction purpose such as for site filling and labelling purpose.</li> <li>Avoid stockpiling any excess spoils at the site for long time, if required, dispose at the site selected, in consultation with local GP preferably from barren, infertile land, which is located away from any sensitive area.</li> </ul>	<ul style="list-style-type: none"> <li>Waste material like concrete and excavated soils are utilized for reuse and filling purpose. Also, other solid waste like cement bags are collected in a place on site and then shifted to our godown, from where these are disposed as per law.</li> </ul>			
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: (a) excluding public from the site; (b) ensuring all workers are provided with and use personal protective equipment like Helmet, Gumboot, Safety Belt, Gloves, Nose mask etc. (c) documentation of work related accidents. (d) Providing qualified first aider at all times. (e) Providing to all workers reflective jacket, (f) Marking and providing sign boards for most of hazardous areas such as high voltage equipment, (g) Workers allowed exposure to noise	<ul style="list-style-type: none"> <li>Based on L &amp; Ts OHS Plan, a site specific OHS plan has been developed.</li> <li>Site OHS plan is attached at <b>Attachment - 04</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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Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
		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> <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 Employment	Economic 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</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</li> </ul>	<ul style="list-style-type: none"> <li>Project cost</li> </ul>

## Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
			Attachment O3 for documents relating to statutory compliances		checking	
Environmental Management Plan (EMP) Implementation Training	Irreversible impact to the environment, workers, and community	1. 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 labour laws, applicable environmental laws etc.	Training session for all employees has been arranged.	Contractor	PIU and DSISC observation at site and document checking	Project cost
Construction Camps	Temporary air, noise, land and water pollution from machine operation and after establishment of habitation	<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> <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</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> <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</li> </ul>	Contractor	PIU and DSISC observation at site and document checking	Project cost



## Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Recommended Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
		with standard materials; no shacks or huts <ul style="list-style-type: none"> <li>• Adequate lighting and ventilation</li> <li>• Provide drinking water, water for other uses, and sanitation facilities; drinking water should be regularly tested</li> <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>	cause soil contamination and water contamination; <ul style="list-style-type: none"> <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 outside from area to designated disposal location,</li> <li>• Daily generated effluent disposed by arrangements already present in camp/ household.</li> <li>• The details of labour accommodation is presented in <b>Attachment O2.</b></li> </ul>			
Archaeological and Cultural characteristics	Risk of archaeological chance finds	<ul style="list-style-type: none"> <li>• Strictly follow the protocol for chance finds in any excavation work;</li> <li>• Construction staff members should be made aware of the likelihood of heritage resources being unearthed and of the scientific importance of such discoveries.</li> </ul>	<ul style="list-style-type: none"> <li>• No archaeological chance finds are reported at project sites till date.</li> <li>• If there is any such finding, action will be taken up as per requirement.</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>



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

**Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.**  
**(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)**


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**Original Issue Date :**

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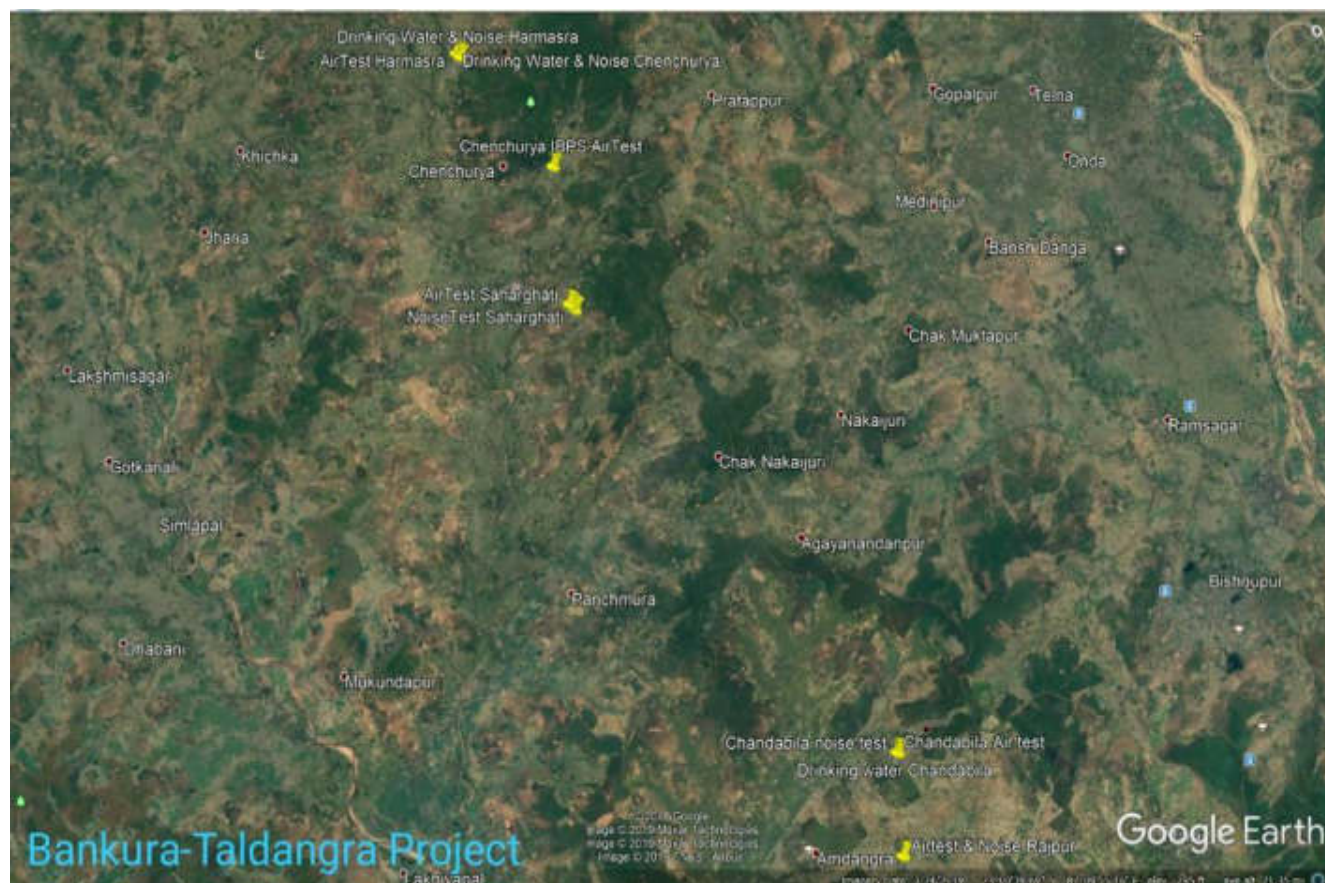
## Site Specific Environmental Management Plan

**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	<b>5 locations</b> (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 Quarterly (yearly 3-times) during construction (3-year period considered)	(Shibdanga more, Harnasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh)	250,000/-
Ambient noise	<b>10 locations</b> (same as air quality monitoring)	Day time and night time noise levels (24 hours)	Once before start of construction Quarterly (yearly 3-times) during construction (3-year period considered)	(Shibdanga more, Harnasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh). At 5 locations will be conducted shortly.	150,000/-
Surface water quality	<b>5 locations</b> (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 Quarterly (yearly 3-times) during construction (3-year period considered)	(Shibdanga more, Harnasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh)	250,000/-
Soil quality	<b>5 locations</b> (including construction camps, workers camps)	pH, Elect. Conductivity (at 250C), Moisture (at 1050C), Texture (silt, clay, sand), 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	Once before start of construction Quarterly (yearly 3-times) during construction (3-year period considered)	Sampling will be conducted shortly	250,000/-
Ground Water Quality	<b>5 locations</b> (including workers camp site & Construction camp/storage yards)	As per IS 10,500: 2012	Once before start of construction Quarterly (yearly 3-times) during construction (3-year period considered)	(Shibdanga more, Harnasra-Jemuya, Rajpur-Gamarbani, Chandabila-Satmouli, Chenchuriya-Patrabandh)	300,000/-

 <b>L&amp;T Construction</b> Water & Effluent Treatment	<b>Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.</b> (Contract Package No: <b>WBDWSIP/DWW/NCB/BK/02B/2018-19)</b>	<b>Doc. No. L&amp;T/ SEMP /01</b> <b>Last Revision No. 00</b> <b>Last Revision Date : 00</b> <b>Page 17 of 46</b> <b>Original Issue Date :</b>
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### Monitoring Locations on Google Earth



Note- Sampling were done, report pending.

 <b>L&amp;T Construction</b> <i>Water &amp; Effluent Treatment</i>	<b>Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.</b> <b>(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)</b>	<b>Doc. No. L&amp;T/ SEMP /01</b> <b>Last Revision No. 00</b> <b>Last Revision Date : 00</b> <b>Page 18 of 46</b> <b>Original Issue Date :</b>
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### **List of Attachments**

Attachment O1: Details of construction Work sites  
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

Appendix O.A: Site Layout Plan  
Appendix O.B: Labour License  
Appendix O.C: Workman Compensation  
Appendix O.D- Risk Policy  
Appendix- O.E- Tie up Letter with local Hospital  
Appendix O.F- Certificate of Fitness  
Appendix O.G.: PUC Certificates  
Appendix O.H: Contractor's EHS Policy Statement  
Appendix O.I- Attendance sheet and photographs of Tool Box Talk  
Appendix O.J: Sample Grievance Registration Form

Enclosure 1 : Project EHS Plan-Taldangra Distribution\_ Pack BK 02B

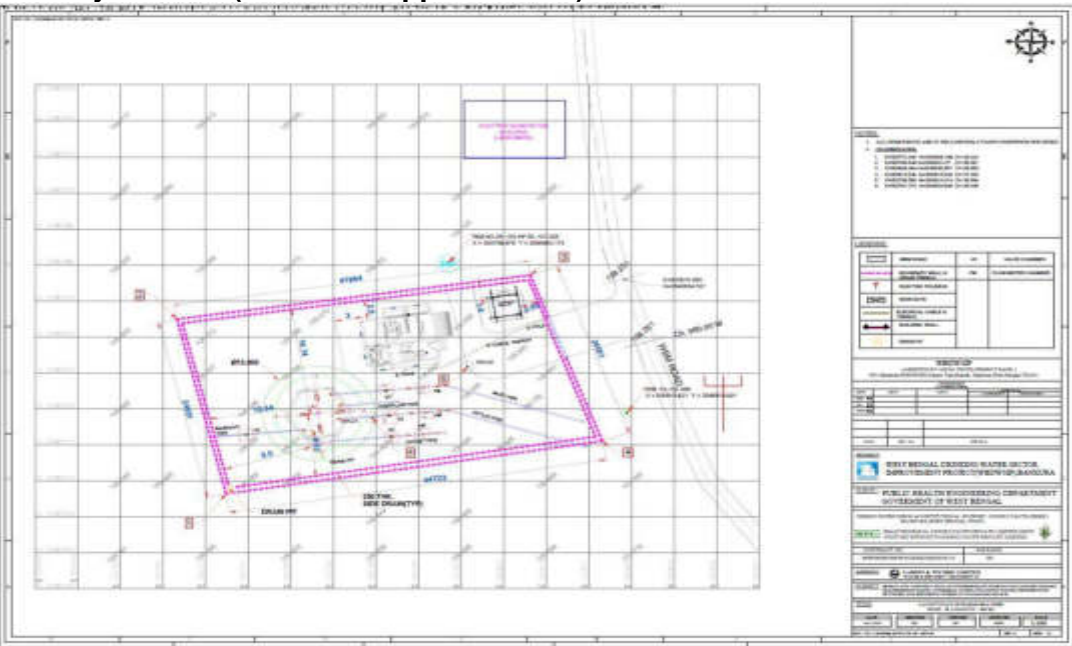


## Site Specific Environmental Management Plan

### Attachment O1: Details of construction Work sites

#### 1. Zone 4: OHR construction Site

##### Location- HARMASRA

A	<b>Material storage</b> <ul style="list-style-type: none"> <li>• Cement</li> <li>• Steel</li> <li>• Fine Aggregate</li> <li>• Coarse Aggregate</li> <li>• Shuttering Material</li> <li>• Shuttering Oil</li> </ul>
B	<b>Plant &amp; Machinery</b> Concrete Mixer – 1 No Needle Vibrator – 2 Nos Steel Cutter – 1 No JCB- 1 No Truck- 1 No. Ajax Cement Mixture Machine- 1 Nos.
C	<b>Site office – Yes</b> (at Taldangra), not yet established at particular site
D	<b>Laboratory – Yes</b> (at Taldangra), not yet established at particular site
E	<b>Security cabin – No (Yard Provided)</b>
F	<b>Labor welfare facilities at Site</b> <ul style="list-style-type: none"> <li>• Labor rest area</li> <li>• Toilets</li> <li>• Drinking water</li> <li>• First Aid Box.</li> </ul>
G	<b>Site Layout Plan (Details in Appendix-O.A)</b> 







## Site Specific Environmental Management Plan

H	Site photographs		
Original site photographs			
	OHSR site before Construction		
Project facilities at Site			
	Project Information Board	Safety signage at site	Toilet on OHR site
			
	PPEs use at site	First Aid Box at site	Labour Rest Area

## Site Specific Environmental Management Plan

### Attachment O2: Details of construction camp sites

<b>1.</b>	<b>Labour accommodation, Location- HARMASRA</b>		
	<b>Location- Harmasra</b>		
<b>A</b>	Accommodation – For 5 Nos construction workers No women / families in the camp Facilities provided at camp site <ul style="list-style-type: none"> <li>• Type of living accommodation – Rented house</li> <li>• Accommodation provided for 15 workers</li> <li>• Separate cooking area</li> <li>• Cooking gas</li> <li>• Drinking water</li> <li>• Bathrooms</li> <li>• Toilets</li> <li>• Drainage system</li> <li>• First aid box</li> </ul>		
<b>B</b>	<b>Camp photographs</b>		
Original site Photographs	Not applicable as camp is not located on OHSR site.		
Photos of camp and facilities provided			
	Rented labour House		
			
	Arrangement of kitchen		
			
	Toilet facility		
			
	Sleeping area with electrical lights		



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

Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)

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## Site Specific Environmental Management Plan

### 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 [Refer <b>Appendix – O.F</b> ]
2	Pollution under control (PUC) certificates for vehicles and equipment	Available [Refer <b>Appendix – O.G</b> ]
3	Driving licenses for drivers	Obtained
4	Insurance for vehicles / equipment, as required	Obtained

## Site Specific Environmental Management Plan

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

<b>1</b>	<b>Contractor agency has a EHS policy</b>	<b>Yes/ No</b>
A	If yes, provide policy details  1. Policy statement:  2. EHS organization & responsibilities:	Yes [Refer <b>Appendix-O.H</b> ]  Yes
B	List safety risks anticipated in the project  Work area - OHSR <ul style="list-style-type: none"> <li>Trips and falls</li> <li>Head injury from falling objects</li> <li>Confined work space</li> <li>Slope failure / trench collapse</li> <li>Accidents from open excavations</li> </ul>	-
C	List of personal protection equipment provided to workers <ul style="list-style-type: none"> <li>Boots- 5 Nos.</li> <li>Gloves-5 no.</li> <li>Helmet-15 nos.</li> <li>Safety jacket- 15 nos.</li> <li>Goggles- 4 nos.</li> <li>Safety shoes- 15 nos.</li> <li>Ear buds- 15 nos.</li> </ul>	Yes
D	Preventive Measures	
	<ul style="list-style-type: none"> <li>Orientation of all workers on EHS</li> </ul>	Tool Box Talk has been conducted. [Refer <b>Appendix – O.I</b> ]
	<ul style="list-style-type: none"> <li>Work permit system</li> </ul>	Yes – for work at height
	<ul style="list-style-type: none"> <li>Toolbox/safety meetings (how often will this be conducted, what are the minimum topics)</li> </ul>	Twice Weekly on work at height, firefighting, first-aid, housekeeping, etc.
	<ul style="list-style-type: none"> <li>Safety signages</li> </ul>	Displayed on site
	<ul style="list-style-type: none"> <li>Barricades (more than 1 m deep requires hard barricading)</li> </ul>	Yes
<b>2</b>	<b>Contractor emergency procedure</b>	
A	<ul style="list-style-type: none"> <li>In case of accident, first aid treatment to injured labour/person shall be provided.</li> <li>In case hospitalization is required, concerned site in-charge will immediately take necessary action for hospitalization and he will inform to our Project Manager.</li> <li>Details of accident shall be reported in accident register and the same shall be informed to client also.</li> </ul>	
B	<b>Contact information, staff and responsibilities for emergency situations</b>	
	<b>Designation</b>	<b>Staff name &amp; contact</b>
	<b>Emergency responsibility</b>	

## Site Specific Environmental Management Plan

Site Engineer	Mr. Soumya Jana; 9547174116	Site Engineer shall be responsible for arranging of first aid treatment and other necessary action required in case of emergency. He will also be responsible for informing to EHS Supervisor.
EHS Supervisor	Dhabaleswar Biswal: 9939691579	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. Sasikumar PS; 8927252613	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 accident's client shall be informed immediately.</li> </ul>	Yes
D	Mandatory Reporting to Authorities	Yes
E	Prohibited Acts and Penalties for Violations	Yes



## Site Specific Environmental Management Plan

### 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 required for project	Source	Indicate if source has all necessary government clearances
1	Steel	40 MT	Approved supplier SAIL, RINL & TATA	-
2	Cement	135.75 MT	Approved supplier Novoco, UltraTech & Ambuja.	-
3	Sand	137.92 Cum	From approved quarries at Damodar River	Yes
4	Aggregate	174.22 Cum	From approved quarries at Panchami	Yes



## Site Specific Environmental Management Plan

### Attachment O7: Spoil Management Plan

# SPOIL MANAGEMENT PLAN(SMP)

**WBDWSIP BANKURA-PKG-02B**

**TALDANGRA BLOCK**

**LOCATION- HARMASRA OHSR (ZONE -18)**

REV	DATE	PREPARED BY	CHECKED BY	APPROVED BY DSISC	ARRPROVED BY PIU
0		  <b>Basikumar P.S.</b> (Project Manager) Larsen & Toubro Limited Bankura Taldangra Project	  <b>DSISC</b> <b>WBDWSIP</b> <b>BANKURA</b>	  <b>TEAM LEADER</b> <b>WBDWSIP</b> <b>Bankura</b>	  <b>Assistant Engineer-I</b> <b>PIU Bankura WBDWSIP, PHE Div.</b> <b>Govt. of West Bengal</b>

  
**Junior Engineer**  
**PIU Bankura WBDWSIP, PHE Div.**  
**Govt. of West Bengal**

## Site Specific Environmental Management Plan

### 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 (18)**. 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 be 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 their 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.

## Site Specific Environmental Management Plan

- 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. 2350 cum**. There is no 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**

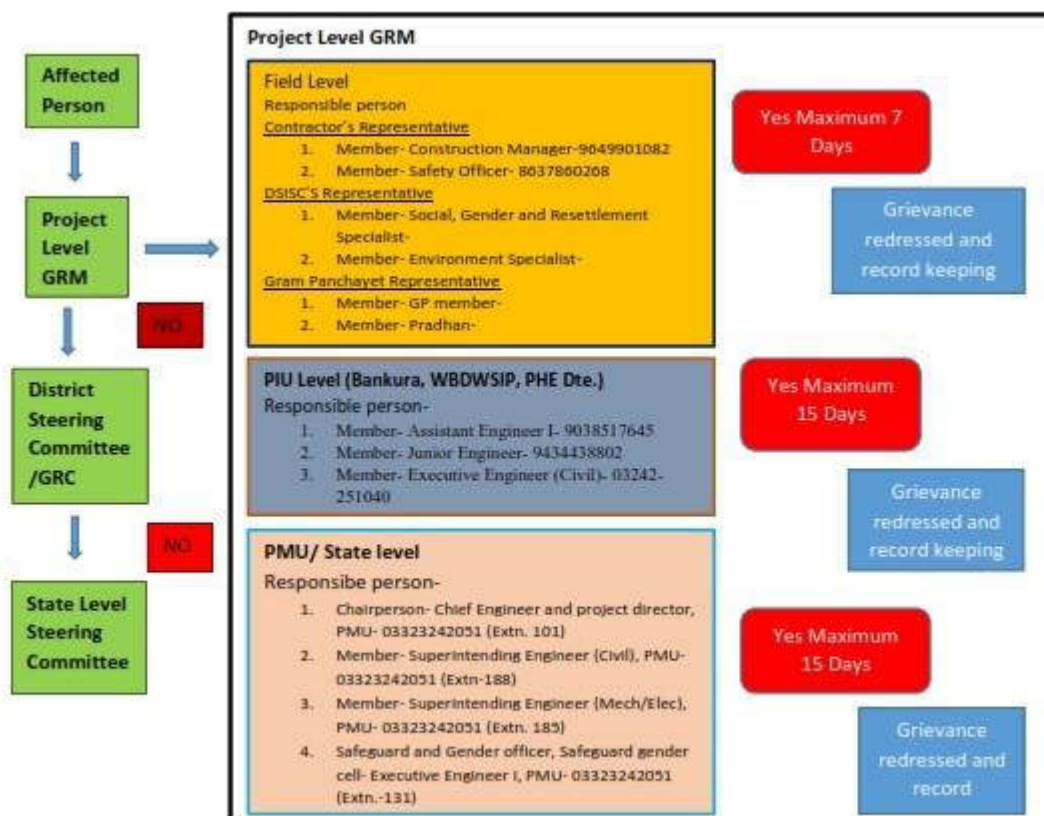
Sl. No.	Zone	Name Of Structure	Excavation Total Qty (C.U.M)	Back Filling Total Qty (C.U.M)	Reuse Excess Qty (C.U.M)
1.	18	Boundary wall	180.833	148.541	32.292
2.	18	OHSR	2169.36	1786	383.36

## Site Specific Environmental Management Plan


### 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.J**]

 <b>L&amp;T Construction</b> <i>Water &amp; Effluent Treatment</i>	<b>Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.</b> <b>(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)</b>	<b>Doc. No. L&amp;T/ SEMP /01</b> <b>Last Revision No. 00</b> <b>Last Revision Date : 00</b> <b>Page 30 of 46</b> <b>Original Issue Date :</b>
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#### **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 ime period is informed.

## Appendix O.A: Site Layout Plan





## Site Specific Environmental Management Plan

### Appendix O.B: Labour License



#### GOVERNMENT OF WEST BENGAL

OFFICE OF THE ASSISTANT LABOUR COMMISSIONER, KHATRA

Office Of The Assistant Labour Commissioner, Khatra Dhalai Road PO & PS- khatra Dist.- Bankura Pin-722140

#### FORM VI

[ See Rule 25(1) ]

Licence No. : **KTR16/CLL/000043**

Date : **21st Aug, 2019**

Lic Fees	250
S.Deposit	10000

#### LICENCE

Licence is hereby granted to **Larsen & Toubro Limited** at **Ward No. 9 Holding no. 95/B/11, Uttar Aurobindo Nagar, Junbedia More, Bankura Municipality, Ward- 9, Bankura Sadar, PS - Bankura, District - Bankura, Pin Code - 722101** 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: **19th Aug, 2020.**

**AMIT  
RAY**

Digitally signed  
by AMIT RAY  
Date: 2019.08.21  
15:23:34 +05'30'

Licensing Officer

Under the Contract Labour(R&A) Act, 1970  
&

Assistant Labour Commissioner  
Khatra, Bankura

#### Establishment Information:

Project Implimentation Unit, Public Heath Engineering Directorate [BAN08/CLR/000038]

W.Site - Ailakundi, PHE Complex.

Anchuri, Block - Bankura -I, Bankura Sadar - 722102, PS - Bankura, Bankura

#### Work site exact location:

Taldangra Project, Vill:- Chechuriya, Near Chechuriya Eco park.

Taldangra, Block- Taldangra, Khatra

PS - Taldangra, District - Bankura, Pin Code - 722152

## Site Specific Environmental Management Plan

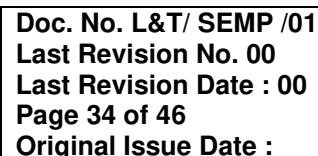
### ANNEXURE

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'





## Site Specific Environmental Management Plan

### 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.

Line of Business	Engineering
Type of Policy	Erection All Risk Policy
Insured	<b>Principal</b> Public Health Engineering Directorate, Project Management Unit, West Bengal Drinking Water Sector Improvement Project, Utility Building, 1st Floor, (Premises No-09/1-0024) AA-1A, (Tank No.3), New Town Kolkata -700156
	<b>Contractor</b> M/s Larsen & Toubro Limited, 11th, Tower –II, Godrej Water Side Building, Salt Lake City, North 24 Paraganas, West Bengal-700091
Perils Covered	As per quote submitted
Sum Insured / Limit of liability	EAR Section 1 : INR 196,43,00,000 EAR Section 2 (Third Party Liability) : INR 20,00,00,000
Period of Insurance	From 12-Aug-2019 00:00 Hrs To Midnight of 26-May-2022 + 12 Extended Maintenance Period as per Proposal form
Project Period	From 27-May-2019 00:00 Hrs To Midnight of 26-May-2022
Deductible/ Retention	As per quote submitted
Exclusions	As per quote submitted
Premium Payable(Including Taxes)	EAR Total Premium : INR 27,81,449
	EAR 1 <sup>st</sup> Instalment Premium : INR 5,79,469

**Additional terms:-**

Job No : LE190280

**Description:** Design and Construction of Intermediate Pumping Station, Secondary transmission mains, overhead reservoirs including water distribution network and metering works in Taldangra block.



Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.  
(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)

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Above coverages and exclusions are suggestive in nature. For complete details please refer to Policy schedule and standard Policy Terms and Conditions to be issued. Detailed Policy schedule with coverages and exclusions will be sent to you at the earliest.

This letter will be valid only till we issue an insurance policy. Non realization of cheque/DD/PO will result into cover being void ab-initio.

Thanking You,

For Bajaj Allianz General Insurance Company Limited





**Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.**

**(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)**

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## Site Specific Environmental Management Plan

### Appendix- O.E- Tie up Letter with local Hospital



Larsen & Toubro Limited  
L&T Construction  
Water & Effluent Treatment  
Indpur & Taldangra Packages  
Word No. 9, Holding No. 95/03/11  
Uttar Anubhindo Nagar,  
Jashbada More,  
PO+PS- Bankura  
Dist- Bankura -722101  
West Bengal -India  
www.lntsec.com

Ref: PMU/WBDWSIP/PHED/82/207 &  
PMU/WBDWSIP/PHED/83/208 DT. 08/03/2019

Date: 06-06-2019

To,  
Bankura Seva Niketan Hospital  
Patpur, Jail Road  
Bankura (W.B.) – 722101

Kind Attention : Mr. Sibaram Sana

**Sub: MoU for Staffs & Workers Medical Health Checkup.**

Sir,

With reference to the previous discussions had with you, we are pleased to sign this MoU for staff's and worker's Medical Health Checkup as per the following:

**Purpose & Scope :** Medical Health Checkup for Staffs and Workers whenever necessary.

**Conditions & Arrangements:** 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 per the convenience of both the parties.

**Timings :** 24 x 7

**Payment Terms:**

Bill is to be submitted on Monthly basis & payment is to be made within fifteen days of Bill submission.

Tax as applicable will be recovered.

Payment will be made by NEFT/ RTGS only.

Kolkata Cluster Office :- Godrej Waterside Building, 11 Th. Floor, Salt Lake, Sector-V Block-Dp-5, Kolkata-700061, West Bengal, India  
Headquarters: Mount Poonamallee Road, Marapakkam, P.O. No. 979, Chennai - 600 089, INDIA  
Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001, INDIA  
Licence No.: CIN - L99999MH1946PLC004768

L&T Construction - Water & Effluent Treatment is a brand of Larsen & Toubro Limited





Larsen & Toubro Limited  
L&T Construction  
Water & Effluent Treatment  
Indipur & Taldanga Packages  
Wood No. 9, Building No. 953371  
Officer Anandkumar Nagor,  
Jambhala Boro,  
PO-PS-Bankura  
Dist. Bankura - 722101  
West Bengal - India  
www.Lntco.com

EMP /01  
0.00  
ite : 00  
ate :

The present MoU elucidates the general conditions and arrangements for future cooperation between the concerned parties.

Signature

For and on behalf of: Larsen & Toubro Limited

Date: 06/06/2019

Signature

For and on behalf of: Bankura Seva Niketan Hospital

Date: 06.06.19

Thanking you in anticipation.

Yours Faithfully,

For Larsen & Toubro Limited

Spdith Rose,  
Project Manager.

Bankura Packages

Kolkata Cluster Office :- Godraj Wateraid Building, 11 Th. Floor, Salt Lake, Sector-V Block-Dp-5, Kolkata-700091, West Bengal, India  
Headquarters: Mount Poonamthine Road, Manapakkam, P.O. No. 979, Chennai - 600 099, INDIA  
Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001, INDIA  
Licence No.: CIN - L9599MH1040P1C004768

L&T Construction - Water & Effluent Treatment is a brand of Larsen & Toubro Limited



**Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.**  
(Contract Package No:  
WBDWSIP/DWW/NCB/BK/02B/2018-19)

**Doc. No. L&T/ SEMP /01**  
**Last Revision No. 00**  
**Last Revision Date : 00**  
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**Original Issue Date :**

## Site Specific Environmental Management Plan

### Appendix O.F- Certificate of Fitness

<https://vahan.parivahan.gov.in/vahan/vahan/ui/reports/formFitnessCerti...>



**GOVERNMENT OF WEST BENGAL**  
State Transport Department  
Bankura RTO  
FORM 38  
[See Rule 62(1)]  
**CERTIFICATE OF FITNESS**  
(Applicable in the case of transport vehicles only)



Vehicle No: WB67A6810 (Omni Bus) is certified as complying with the provisions of the Motor vehicles Act, 1988 and the rules made there under.

Certificate will expire on : 03-May-2021  
Next Inspection Due Date : 05-Mar-2021  
Inspection Fee Receipt : WB67R19050000251  
No  
Application No : WB19050355191330  
Receipt Date : 03-May-2019  
Chassis No : MA1WG2GRKD2K71412  
Engine No : GRD4K64095  
Seating Capacity : 9 (Including Driver)  
Type of Body : SALOON  
Registration No : WB67A6810  
Category of Vehicle : LPV  
Printed on : 08-May-2019 16:16:15

Manufacturing Year : 2013  
Inspected on : 03-May-2019

Inspected by (RISHIKESH JAISWAL)

  
Signature of Inspecting Authority  
Bankura RTO  
92/05/19

## Site Specific Environmental Management Plan

### Appendix O.G: PUC Certificates

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

Vehicle Registr. No. : **WB67A 6810** WB-01-**D 3723914**

Date of issue: **19-11-2019** Valid upto: **18-05-2020**

Pollution Level:  
CO (%) **0.32**  
HC (ppm) **0.42**  
SD (HSU) **0.52**

PUC Certificate issued by: **TUKUN AUTO EMISSION TESTING CENTRE**

Signature: **[Signature]**

License No. and Seal: **23/2010**

**COMPUTERISED EMISSION TEST CERTIFICATE**  
WB-01-**D 3723914**

Authorised Transport Dept. of West Bengal  
**TUKUN AUTO EMISSION TESTING CENTRE**  
SHIVDANGA MORE, TALDANGRA, BANKURA

Liscence Number :- **23/2010**

I.D. Number :- **000147** Date :- **19-11-2019**  
Year Of Registration :- **2014** Time :- **10:00:49 AM**  
Vehicle Registration Number :- **WB67A 6810**  
Speedometer:-  
Engine Number :- **64095**  
Chasis Number :- **71412**  
Vehicle Color :- **WHITE**  
Vehicle Make :- **M.M**  
Vehicle Model :- **BOLERO.**  
Type Of Engine :- **4S**  
Type of Vehicle :- **4W**  
Owner :- **AJAHAR ALI**  
Driver :-

Contact :- **9932778899**  
Oil Temperature :- **33**  
Fuel :- **Diesel**  
Test Fee :- **100**  
Result :- **Pass**

Valid Upto :- **18-05-2020**

	Ideal RPM	Max RPM	K. Value	HSU Value	Oil Temp
1	850	1890	0.01	0.32	33
2	850	2000	0.01	0.42	33
3	850	2090	0.01	0.52	33
Avg	850.00	1993.00	0.01	0.42	

Name of Authorise Signatory  
with Seal of Testing Center

**TUKUN AUTO EMISSION TESTING CENTRE**  
SHIVDANGA MORE, TALDANGRA, BANKURA

CS Scanned with CamScanner

## Site Specific Environmental Management Plan

**प्रदूषण नियंत्रित प्रमाण-पत्र**  
**POLLUTION UNDER CONTROL CERTIFICATE**  
**परिवहन विभाग, उत्तर प्रदेश, लखनऊ**  
**TRANSPORT DEPARTMENT, GOVT. OF UTTAR PRADESH, LUCKNOW**

ALL INDIA  
VALID

संख्या **834**  
S.No. **834**  
प्रमाणपत्र संख्या  
PUCC No. **00000000**  
वाहन पंजी संख्या  
Vehicle Reg. No. **UP17AT 7753**  
ब्रेक  
Make  
मॉडल  
Model  
वर्ग  
Category  
इंजन स्ट्रोक  
Engine Stroke  
वर्ष  
Year  
इंधन  
Fuel  
दिनांक  
Date  
समय  
Time

प्रमाणित किया जाता है कि इस वाहन का CO एमिशन HC उत्पन्न स्तर के.जी.वा. नियम 1989 के नियम 115(2) के निर्धारित स्तर के अनुसार है।

यदि आप को कोई शिकायत या टिप्पणी है तो कृपया प्रदूषण नियंत्रण प्रकोष्ठ, परिवहन आयुक्त कार्यालय, टी.कोठी लखनऊ, 2000 को भेजें।

In case of any comment/ complaint, Please write to Pollution Control Cell, Transport Commissioner Office, Tehari Kothi Lucknow, U.P.

अधिकृत हस्ताक्षर  
Authorised Signature  
नाम  
Name

वैधता  
Valid upto

फ्लशिंग चक्र  
Flushing Cycle  
Avg. RPM Min. RPM Max  
S.No. RPM Min. RPM Max  
1 730 2968 0.43 15.3 75  
2 741 3086 1.46 46.8 75  
3 578 2992 1.46 45.8 75  
4 583 3038 1.54 46.6 75  
5 588 2970 1.25 41.7 75  
Mean HSD/Km-1 1.23 40.2

नन्दरा प्रयावरण सेवा समिति  
NARENDRA PRAYAVARAN SEWA SAMITI  
VIII. Shiv Nagar, Dhoshri, P.O. Jakota, Distt. Bulandshahr (U.P.) Mob.: 9761953426

M/S SRIV SHAKTI PETROLEUM  
TATISILWAY  
RANCHI  
9264436881

Transport Department  
Govt. of JHARKHAND

**POLLUTION UNDER CONTROL CERTIFICATE**  
COMPUTERISED EMISSION TEST CERTIFICATE  
Rule 163B(3) of JMV Rules 1992

PUC NO.: 00000160  
Vehicle Reg. No.: JH 01DS 8413  
Date of Reg.: 22-11-2019  
Category: OTHERS  
Speedometer Reading

Make: ESCORTS LIMITED  
Model: TRX1550 4P WITH CASINER 59016  
Vehicle: Commercial  
Engine No.: 15385  
Oil Temp.: 0 °C  
Color: NA

License No. 81/2019  
Valid :  
Fuel: DIESEL  
Name: GLOBLE EQUIPMENT  
Address: NA  
NA

Flushing Cycle Mean RPM min.:0 RPM max.:0

S.No.	HSU (#)	K (#)	RPM min	RPM max	Oil T
01	49.5	1.5	00000	00000	000
02	47.5	1.5	00000	00000	000
03	46.6	1.46	00000	00000	000
MEAN ( HSD/K m-1 ):			47.9	01.52	

Result: PASS

Test Fee: Rs.200

Seal of Testing Centre

Authorised Signature

Date: 30/11/2019  
Time: 07:05 PM  
Valid UpTo: 29/05/2020

JH01  
DS8413

SSS15

Verified that the vehicle's CO Emission level conforms to the standards prescribed under Rule 115(2) of C.M.V. Rules 1989

15/2019

Appendix O.H. Contractor's EHS Policy Statement



## Site Specific Environmental Management Plan

### Appendix O.H: Contractor's EHS Policy Statement

## Corporate Environment, Health & Safety (EHS) Policy

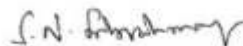
**We remain committed to safeguarding the health and safety of our employees and other stakeholders and preserving the environment.**

**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



### Appendix O.I- Attendance sheet of Tool Box Talk

Sensitivity: LNT Construction Internal Use



**Design and Construction of Intermediate Pumping Station, Ground Storage Reservoirs, Overhead Reservoirs, Water Distribution Networks and Metering works in Taldangra Block.**  
**(Contract Package No: WBDWSIP/DWW/NCB/BK/02B/2018-19)**

**Doc. No. L&T/ SEMP /01**  
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## Site Specific Environmental Management Plan

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

### FOR OFFICIAL USE ONLY

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

## Site Specific Environmental Management Plan

অভিযোগ নিবন্ধন ফর্মের নমুনা

..... প্রকল্পকে বাস্তবায়িত করার লক্ষ্যে 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 প্রকল্পঃ			
যোগাযোগের তথ্য / বিস্তারিত ব্যক্তিগত তথ্য					
নাম		লিঙ্গ	পুরুষ মহিলা	বয়স	
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 ব্যবস্থার জন্যঃ

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