

Site-Specific Environmental Management Plan

Project number: 49107-006
November 2019

IND: West Bengal Drinking Water Sector Improvement Project – 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 (Zone 20 - OHSR Chhoto Nabagram)

Package No: WBDWSIP/BK/04

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-04
GANGAJALGHATI BLOCK

LOCATION- CHHOTO NABAGRAM (ZONE – 20)

REV	DATE	PREPARED BY SMPM	CHECKED BY	APPROVED BY DSISC	APPROVED BY PIU
1		 	 	 27/12	 27/12/19

Project Manager
Mejhia Distribution

TEAM LEADER DSISC
WBOWSIP, BANKURA
Shah Technical Consultants Pvt. Ltd

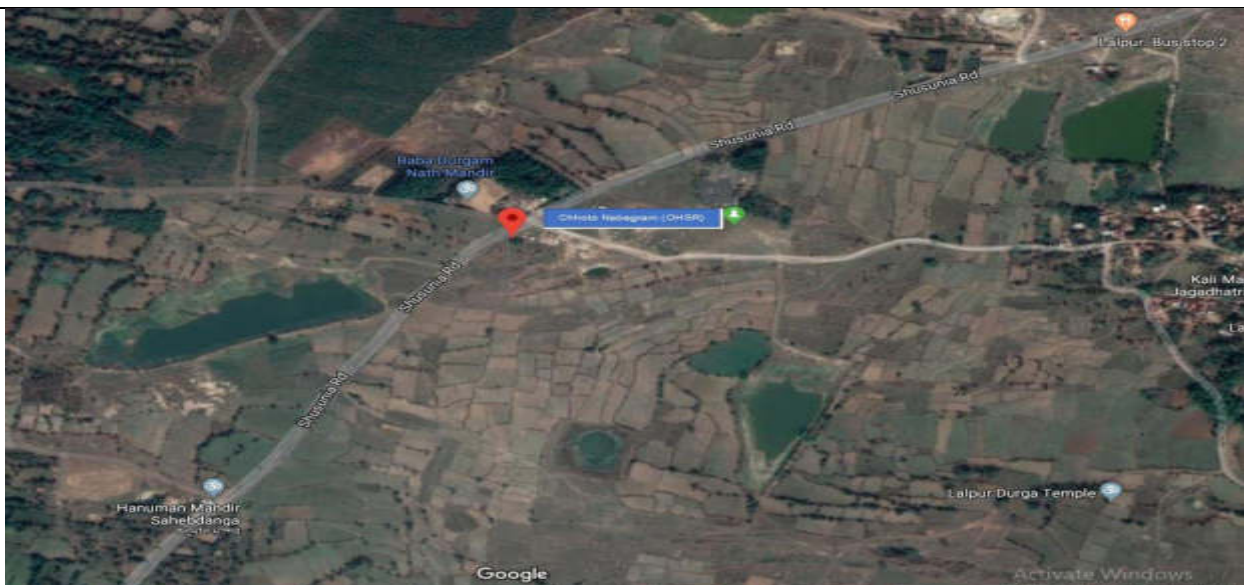
Assistant Engineer-1
PIU Bankura WBOWSIP, PHE Div.
Govt. of West Bengal

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

 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 2 of 45 Original Issue Date :
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Package Area	Package No :WBDWSIP/ BK/04 Zone 20- OHSR (Chhoto Nabagram) under PIU Bankura
Package title	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. SEMP is as per requirement of the Draft IEE covering package no. DWW/NCB/BK/04/2018-19
Contractor	Larsen & Toubro Ltd.
Date of Contract Award	27/05/2019
Date of works commencement	07/11/2019
Contract period	Construction: 3 Years ; O&M: 2 Years
SEMP Component	Construction of Overhead Reservoir – 300 KL
Demolition works	No demolition activity involved
Project Area	Chhoto Nabagram village, Banasuriya Gram Panchayet of Gangajalghati block
Project Description	Individual household water supply schemes for the project Gram Panchayets
Indicative Budget for EMP Implementation for the entire package	INR 67,25,000/-
Project Components	As per project detailed design
Gram Panchayet: Banasuriya	
Land Status	Government and Transferred
OHR Capacity	300 KL

Location



 L&T Construction <i>Water & 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. (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 3 of 45 Original Issue Date :
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Details of contractors on-site-personnel and workers	Zone 20- OHSR (Chhoto Nabagram) Banasuriya Gram Panchayet of Gangajalghati block
Project Manager	Mr. Jayaganthan A; 9575177767
Site Engineer	Mr. Biswaranjan Sahoo; 8252532709
Site Supervisor	Mr. Deepak Maji;8016431876
EHS Supervisor	Mr. Sujan Goswami; Mob: 7837175749
Archeological supervisor	NA
Skilled / semi-skilled workers	10 skilled and 10 semi-skilled
Unskilled workers	15
Women workers	Nil
Workers – local / migrant	Local-20 / Migrant-15 (From other districts of West Bengal)
Details of facilities	
Construction camps, (no's and locations)	One labor accommodation at a rented apartment at Lalpur Village

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

Field	Anticipated Impact	Mitigation Measures	Actions Taken/ Status	Responsibility of Implementation	Monitoring of mitigation	Cost and source of fund
Utilities	Telephone lines, electric poles and wires, water lines within proposed project area	<ul style="list-style-type: none"> Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase; and Require construction contractors to prepare a contingency plan to include actions to be taken in case of unintentional interruption of services. Require contractors to prepare spoils (waste) management plan and traffic management plan. 	<ul style="list-style-type: none"> There are no utilities in mention OHR site. Details SMP (Attachment-O-7) has been attached below- 	<ul style="list-style-type: none"> Contractor, PIU 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost
Construction work camps, stockpile areas, storage areas, and disposal areas.	Conflicts with local community; disruption to traffic flow and sensitive receptors.	<ul style="list-style-type: none"> Prioritize areas within or nearest possible vacant space in the project location; If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems; Do not consider residential areas; Take extreme care in 	<ul style="list-style-type: none"> Lalpur village has been selected for rented house where all the basic facilities like kitchen, drinking water, toilet, first aid box, light, fan etc. provided to workers. Storage area has been established away from water body. Spoil generated from 	<ul style="list-style-type: none"> Contractor, PIU 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost

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		<p>selecting sites to avoid direct disposal to water body which will inconvenience the community.</p> <ul style="list-style-type: none"> 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 settlements, ponds/lakes or other water bodies. 	<p>construction activity has been used for labelling/ backfilling.</p> <ul style="list-style-type: none"> Disposal area has been selected at barren, infertile land nearest to the project zone. Employees are trained for storage and handling of materials which can potentially cause soil contamination and water contamination; 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. 			
Sources of Materials	Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and	<ul style="list-style-type: none"> Obtain construction materials only from government approved quarries with prior approval of PIU; PIU to review, and ensure that proposed quarry sources have all necessary clearances/ permissions in place prior to approval 	<ul style="list-style-type: none"> No involvement of any new borrow area or quarry is anticipated. Materials collected from- Cement- Ambuja, Nuvoco and Ultratech Reinforcement- Tata Steel, 	<ul style="list-style-type: none"> Contractor, PIU 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost

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	water logging, and water pollution.	<ul style="list-style-type: none"> Contractor to submit to PIU on a monthly basis documentation on material obtained from each source (quarry/ borrow pit) 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 	<p>SAIL, RINL</p> <p>Coarse Aggregates- Pachami/ Rampurhat quarry.</p> <p>Fine Aggregates- River Damodar/ Kangsabati. Mention source are government approved.</p>			
Consents , permits, clearances, No 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"> Obtain all necessary consents, permits, clearances, NOCs, etc. prior to award of civil works. Ensure that all necessary approvals for construction to be obtained by contractor are in place before start of construction Acknowledge in writing and provide report on compliance all obtained consents, permits, clearances, NOCs, etc. Include in detailed design drawings and documents all conditions and provisions if necessary 	<ul style="list-style-type: none"> Already done land requisition, electric connection, water source (bore well) etc. Tree felling requirement for this site is not anticipated. Made provision for detailed design drawing and documented all conditions. DG sets of capacity less than 5 kVA only being used for pipeline works. Please refer Attachment O-3 for list of relevant permits and clearances. 	Contractor, PIU	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	Project cost

 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 7 of 45 Original Issue Date :
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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"> 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. 	<ul style="list-style-type: none"> EMP implementation training session has been planned for all workers and community. 	<ul style="list-style-type: none"> Contractor 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost
Air Quality	Emissions from construction vehicles, equipment machinery and DG set used for excavation and construction resulting in dust and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulphur dioxides, particulate matter, nitrogen oxides, and hydrocarbons	<ul style="list-style-type: none"> 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. EN/3170/T-IV-7/001/2009 dated: 10 December 2009": <ul style="list-style-type: none"> Only vehicles having valid Pollution Under Control Certificates should be engaged in the project. 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. 	<ul style="list-style-type: none"> Only vehicles having valid PUC certificate have been engaged in the project. Mixer machine, winch machine and DG set used for concreting and pilling are not left for idling, after completion of work. Sprinkling and dust screen arrangement have been made, and will be used when required. Site has been access controlled to prevent 	<ul style="list-style-type: none"> Contractor 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost

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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
		<ul style="list-style-type: none"> Damp down soil, sand/ earth stockpiled at site should be maintained as per site condition. Control unnecessary movement of vehicle, public trespassing into work areas for control of dust generation. If required, then provide a dust screen/high compound wall around the construction sites (OHR). 	<ul style="list-style-type: none"> trespassing. Stock piles will be maintained in such a way to minimise dust rising. Air quality monitoring for base line data completed. Monitoring has been conducted for 9 locations (Durlabhpur-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.	<ul style="list-style-type: none"> The effluent should be discharged into local drains after passing through a sediment basin to prevent contamination of existing drains and local water bodies. Where no local drains are available, a soak pit will be created on-site away from water bodies. 	<ul style="list-style-type: none"> The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved. Arrangements have been made to release effluent from the site to a local drain after passing through a 	Contractor	PIU and DSISC observation at site	Project cost

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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
			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"> • Avoid stockpiling of earth fill; especially in monsoon season, cover it with tarpaulins or plastic sheets. • Prioritize and implement reuse of excess spoil and materials in the construction work; if necessary, dispose in designated disposal area. • Storage locations should have impervious floors • Fuels and lubricants should be stored away from drainage and spillage protection should be provided • Provision for temporary silt traps or sedimentation basins along the drainage leading to the water bodies should be provided, according to situation. • Temporary drainage channel around the work area should be made to accumulate the entry of runoff from upper areas into the work area. 	<ul style="list-style-type: none"> • No stockpiles have been planned near drainage locations/ nearby water bodies. • Storage areas are compacted and made impervious. • Locations for fuels and lubricants store is away from drainage path and spill kits have been obtained. • All excavated materials expected to be utilized on-site only. No excess spoil anticipated. • Surface water quality monitoring for baseline data has been conducted in 10 locations (Durlabhpur-Benagari, Choto Nabagram, Mohona, Basudevpur, Barasal) 	<ul style="list-style-type: none"> • Contractor 	<ul style="list-style-type: none"> • PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> • Project cost

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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
		<ul style="list-style-type: none"> 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. 	Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati) 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"> Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers minimising the sound impact to surrounding sensitive receptor; Horns not to be used unless it is necessary to warn other road users; Ensure maximum work place noise level exposure not exceeding 85 decibels (dbA); Ensure noise level at site boundary comply with standard prescribed for local landuse; and Baseline and construction phase Noise Monitoring (Day & Night time) should be conducted. 	<ul style="list-style-type: none"> Consultation made with local communities in advance of the work to identify and avoid working at sensitive times, such as religious and cultural festivals. 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. Mixer machine, winch machine and DG sets used for concreting and pilling are properly maintained 	<ul style="list-style-type: none"> Contract or 	<ul style="list-style-type: none"> PIU and DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost



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)

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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
			<p>and stopped immediately after completion of work.</p> <ul style="list-style-type: none"> Baseline monitoring has been conducted. Noise quality monitoring for baseline data partially completed and has been conducted in 19 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 recommended in the IEE. 			
Occupational Health and Safety	Occupational hazards which can arise	Develop and implement a site specific occupational health and	<ul style="list-style-type: none"> Based on L & T's OHS Plan, a site specific 	<ul style="list-style-type: none"> Contract or 	<ul style="list-style-type: none"> PIU and DSISC observ 	<ul style="list-style-type: none"> Project cost

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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
	during work	<p>safety(OHS) plan which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use personal protective equipment like Helmet, Gumboot, Safety Belt, Gloves, Nose mask etc.</p> <p>(c) documentation of work related accidents.</p> <p>(d) Providing qualified first aider at all times.</p> <p>(e) Providing to all workers reflective jacket,</p> <p>(f) Marking and providing sign boards for most of hazardous areas such as high voltage equipment,</p> <p>(g) Workers allowed exposure to noise level up to 85 dB (A) only.</p>	<p>OHS plan has been developed.</p> <ul style="list-style-type: none"> • Site OHS plan is attached at Attachment – O-4. • All workers have been provided with and made to use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs; • H&S Training for all site personnel has been arranged and it will be continued; • H&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; • Documented procedures are followed for all site activities; • Work-related accidents will 		ation at site and document checking	

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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
			<ul style="list-style-type: none"> be recorded; • Drinking water provided after proper testing. • First Aid box provided at working sites; • Clean eating areas provided to workers; • Moving equipment maintained with audible back-up alarms 			
Socio Economic Employment	Generation of temporary employment and increase in local revenue	<ul style="list-style-type: none"> • Employ local labour force as far as possible • Comply with labour laws 	<ul style="list-style-type: none"> • Local labours are employed, on priority, whenever available. • Refer Attachment O3 for documents relating to statutory compliances 	• Contract or	• 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"> • 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) • Use unused, vacant lands; no trees shall be cut • Provide a proper fencing/compound wall • Prepare a site layout plan & display at the site; uniformly label (name boards) all the 	<ul style="list-style-type: none"> • Before locating project offices, sheds, and construction plants we discussed with DSISC and within or nearest place has been selected, • Till date no trees have been cut and no any destruction of property, irrigation and drinking water 	• Contract or	• PIU and DSISC observation at site and document checking	• Project cost

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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
		<p>places in the facility</p> <ul style="list-style-type: none"> Entire site/facility area shall be provided with hard levelled surface as appropriate; no loose soil, slush, water logging etc., Living quarters and construction camps shall be provided with standard materials; no shacks or huts Adequate lighting and ventilation Provide drinking water, water for other uses, and sanitation facilities; drinking water should be regularly tested Provide clear pathways for safe movement Provide cooking fuel (cooking gas); and a separate safe place to cook; fire wood not allowed Construct septic tanks and soak pit arrangement for wastewater disposal Solid waste shall be properly managed – provide separate bins, compost biodegradable waste; sell recyclable waste According to rule and regulation camp will be vacated and restored to pre-project conditions before acceptance of work. 	<p>supply systems observed,</p> <ul style="list-style-type: none"> Employees are trained for storage and handling of materials which can potentially cause soil contamination and water contamination; 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, Daily generated effluent disposed by arrangements already present in camp/ household. The details of labour accommodation is presented in Attachment O2. 			

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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
Ecological Resources – Terrestrial	<ul style="list-style-type: none"> Loss of vegetation and tree cover 	<ul style="list-style-type: none"> Minimize removal of vegetation and disallow cutting of trees, by adopting best site layout and pipeline alignments If tree-removal will be required, obtain tree-cutting permit and Plant 5 native trees for every one that is removed. 	<ul style="list-style-type: none"> Tree removal is not required for OHSR site. Demarcation of ROW is pending that's why design of pipeline laying is under process. 	<ul style="list-style-type: none"> Contractor 	<ul style="list-style-type: none"> DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost
Accessibility	<ul style="list-style-type: none"> Traffic problems and conflicts near project locations and haul road 	<ul style="list-style-type: none"> Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites Schedule transport and hauling activities during non-peak hours; Locate entry and exit points in areas where there is low potential for traffic congestion; Drive vehicles in a considerate manner Notify affected public by public information notices, providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. 	<ul style="list-style-type: none"> Transportation and hauling activities have been planned during non-peak hours. Project details has been displayed on project site. Demarcation/ collection of detail of ROW is under process 	<ul style="list-style-type: none"> Contractor 	<ul style="list-style-type: none"> DSISC observation at site and document checking 	<ul style="list-style-type: none"> Project cost

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Table 3: Construction Phase Environmental Monitoring Plan for Entire Package

Monitoring Field	Monitoring Location	Monitoring Parameters	Frequency	Locations*
Ambient air quality	10 locations (to be selected during implementation to represent the overall project area)	PM ₁₀ , PM _{2.5} , NO ₂ , SO ₂ , CO	Once before start of construction Quarterly (yearly 4- times) during construction (2-year period considered)	Durlabhpur-Benagari, Nabagram, Mohona, Basude Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati
Ambient noise	20 locations (same as air quality monitoring)	Day time and night time noise levels (24 hours)	Once before start of construction Quarterly (yearly 4- times) during construction (2-year period considered)	Durlabhpur, Choto Nabagram, Mohona, Chusalk, Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati, Lakhyara, Subaira, Lachma, Mejhia, Benabad, Purbi Banashuriya, Sarang Kenduadihi, Rangnathpur
Surface water quality	10 locations (to be selected during implementation)	pH, Oil and grease, Cl, F, NO ₃ , TC, FC, Hardness, Turbidity, BOD, COD, DO, Total Alkalinity	Once before start of construction Half yearly during construction (2- year period considered)	Durlabhpur-Benagari, Nabagram, Mohona, Basude Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati
Soil quality	10 locations (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 ₄), Potassium (as K), Organic Matter, oil and grease	Once before start of construction Quarterly (yearly 3- times) during construction (3-year period considered)	Durlabhpur-Benagari, Nabagram, Mohona, Basude Barasal Shrirampur, Ranipur, Mochrakend, Deuli, 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 Quarterly (yearly 3- times) during construction (3-year period considered)	Durlabhpur-Benagari, Nabagram, Mohona, Basude Barasal Shrirampur, Ranipur, Mochrakend, Deuli, Bankdaha, Gangajalghati

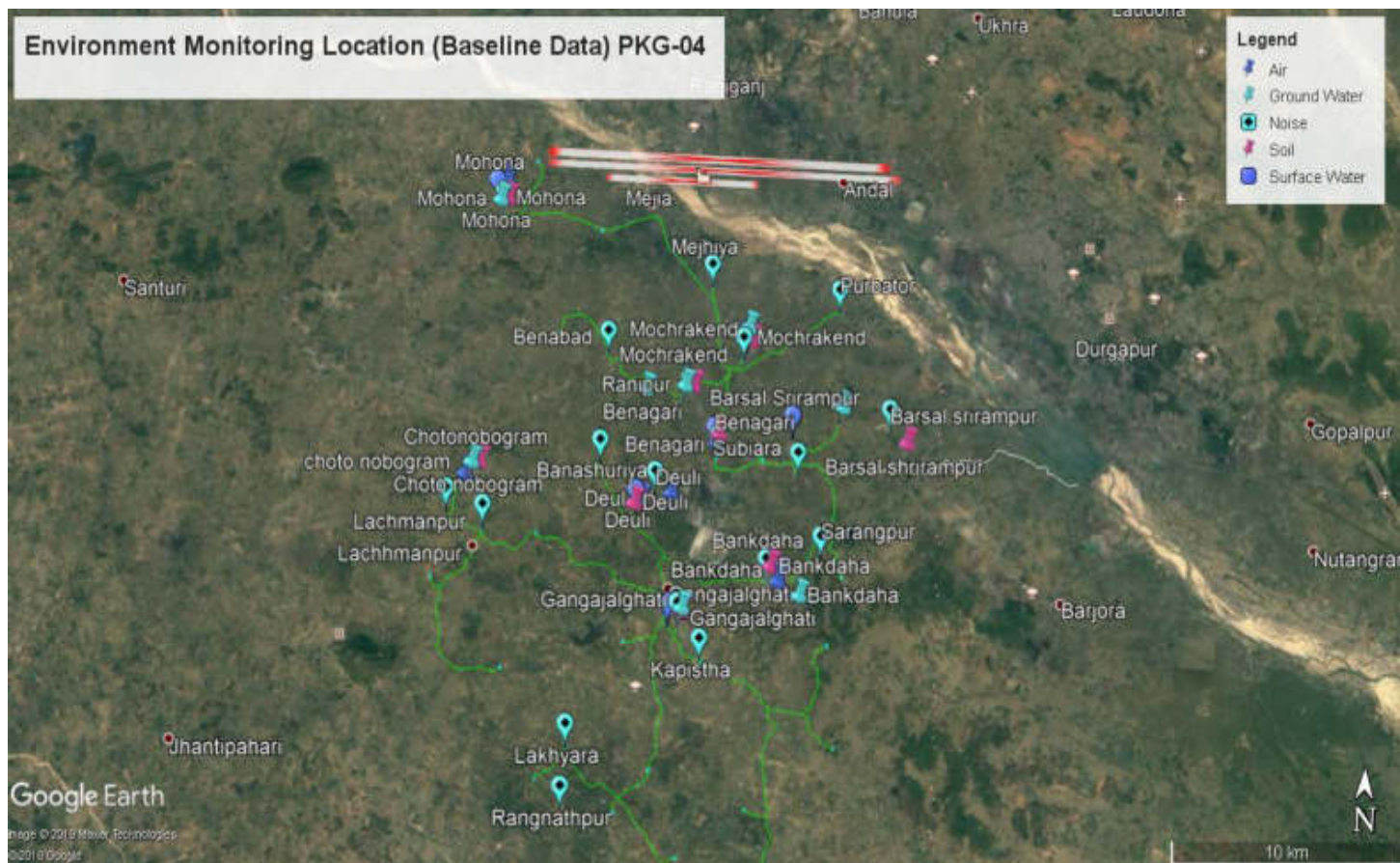


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Monitoring Locations on Google Earth



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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.: PUC Certificates

Appendix O.G: Contractor's EHS Policy Statement

Appendix O.H- Attendance sheet and photographs of Tool Box Talk

Appendix O.I: Sample Grievance Registration Form

Enclosure 1 : Project EHS Plan-Mejia-Gangajalghati Distribution_ Package BK 04



L&T Construction
Water & Effluent Treatment


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Attachment O1: Details of construction Work sites





1. Zone 20: OHR construction Site	
Location- Chhotonabagram	
A	Material storage <ul style="list-style-type: none"> • Cement • Steel • Fine Aggregate • Coarse Aggregate • Shuttering Material • Shuttering Oil
B	Plant & Machinery <ul style="list-style-type: none"> • Concrete Mixer – 1 Nos • Needle Vibrator – 1 Nos • Steel Cutter – 1Nos
C	Site office – No
D	Laboratory – No
E	Security cabin – No
F	Labor welfare facilities at Site <ul style="list-style-type: none"> • Labor rest area • Bio-Toilets • Drinking water (Bore well) • First Aid Box.
G	Site Layout Plan (Details in Appendix-O.A) 

 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 21 of 45 Original Issue Date :
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H	Site photographs		
Original site photographs			
	OHR land before Construction		
Project facilities at Site			
	Project Information Board	First Aid Box at site	Bio-Toilet on OHR site
			
	PPEs use at site	Safety signage at site	Labour Rest Area

 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 22 of 45 Original Issue Date :
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Attachment O2: Details of construction camp sites

1.	Labour accommodation, OHR site – Zone 20: Chhotonabagram	
Location- Chhotonabagram, Bansuriya		
A	Accommodation – For 15 Nos construction workers No women / families in the camp Facilities provided at camp site <ul style="list-style-type: none">• Type of living accommodation – Rented house• Accommodation provided for 35 workers• Separate cooking area• Cooking gas• Drinking water• Bath rooms• Bio-Toilets• Drainage system• First aid box	
B	Camp photographs	
Original site Photographs	Not applicable as camp is not located on OHR site.	
Photos of camp and facilities provided		
	Rented labour camp for OHR site	Arrangement of kitchen
		
	Toilet facility at Labour camp	Sleeping room with light facility

 L&T Construction <i>Water & 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. (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 23 of 45 Original Issue Date :
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Attachment O3: List of clearances & statutory requirements

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

 L&T Construction <i>Water & 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. (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 24 of 45 Original Issue Date :
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Attachment O4: Contractor's OHS Policy & Organization

1	Contractor agency has a OHS policy	Yes/ No
A	If yes, provide policy details 1. Policy statement: 2. EHS organization & responsibilities:	Yes [Refer Appendix-O.G] Yes
B	List safety risks anticipated in the project Work area - OHR • Trips and falls • Head injury from falling objects • Confined work space • Slope failure / trench collapse • Accidents from open excavations	-
C	List of personal protection equipment provided to workers • Boots- 20 Nos. • Safety shoes- 15 Nos. • Gloves- 35 nos. • Helmet-35 nos. • Safety jacket- 35 nos. • Goggles- 20 nos.	Yes
D	Preventive Measures	
	• Orientation of all workers on OHS	Tool Box Talk conducted. [Refer Appendix – O.H]
	• 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
2	Contractor emergency procedure	
A	• In case of accident, first aid treatment to injured labour/person shall be provided. • In case hospitalization is required, concerned site in-charge will immediately take necessary action for hospitalization and he will inform to our Project Manager. • Details of accident shall be reported in accident register and the same shall be informed to client also.	

 L&T Construction <i>Water & 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. (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 25 of 45 Original Issue Date :
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B	Contact information, staff and responsibilities for emergency situations		
Designation	Staff name & contact	Emergency responsibility	
Site Engineer	Mr. B. Sahoo Mob: 8252532709	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	Mr. Sujan Goswami Mob: 7837175749	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 Mob: 9575177767	Project Manager Representative shall be responsible for taking all necessary action and decisions.	
C	Reporting procedure in case of work accidents <ul style="list-style-type: none"> • Details of accidents shall be recorded in accident register. • Copy of accident register shall be submitted to client at the end of every month. • In case of any major accident client shall be informed immediately. 		Yes
D	Mandatory Reporting to Authorities		Yes
E	Prohibited Acts and Penalties for Violations		Yes

 L&T Construction <i>Water & 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. (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 26 of 45 Original Issue Date :
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Attachment O5: Utility shifting/relocation





Sl. No.	List work sites that require utility shifting, relocation, temporary shut off	Remarks
1	Area work sites (OHR)	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	25.067	Approved supplier	-
2	Cement	78.71	Approved supplier	-
3	Sand	123.5 (Cum)	From approved quarries at Damodar River.	Yes
4	Aggregate	168.38 (Cum)	From approved quarries at Panchami.	Yes

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Attachment O7: Spoil Management Plan

<h1 style="margin: 0;">SPOIL MANAGEMENT PLAN(SMP)</h1> <p style="margin: 5px 0;">WBDWSIP BANKURA PKG-04</p> <p style="margin: 5px 0;">GANGAJALGHATI BLOCKS</p> <p style="margin: 5px 0;">LOCATION- CHHOTO NABAGRAM (OHSR) (ZONE-20)</p>					
REV	DATE	PREPARED BY SO/PM	CHECKED BY	APPROVED BY DSISC	ARRPROVED BY PIU
0		 Project Manager Mejhia Distribution	 TEAM LEADER DSISC WBDWSIP - BANKURA Shail Technical Consultants Pvt. Ltd.	 Junior Engineer PIU Bankura WBDWSIP, PHE Dis. Govt. of West Bengal	 Assistant Engineer-1 PIU Bankura WBDWSIP, PHE Dis. Govt. of West Bengal

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 **OHR site in Zone-20**. For the OHR site. We do not anticipate any excess Spoil for disposal as all excavated material will be reuse at site only.

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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 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.
- 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:

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In this project, approx. Generation of excavated earth will be **approx. 621 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

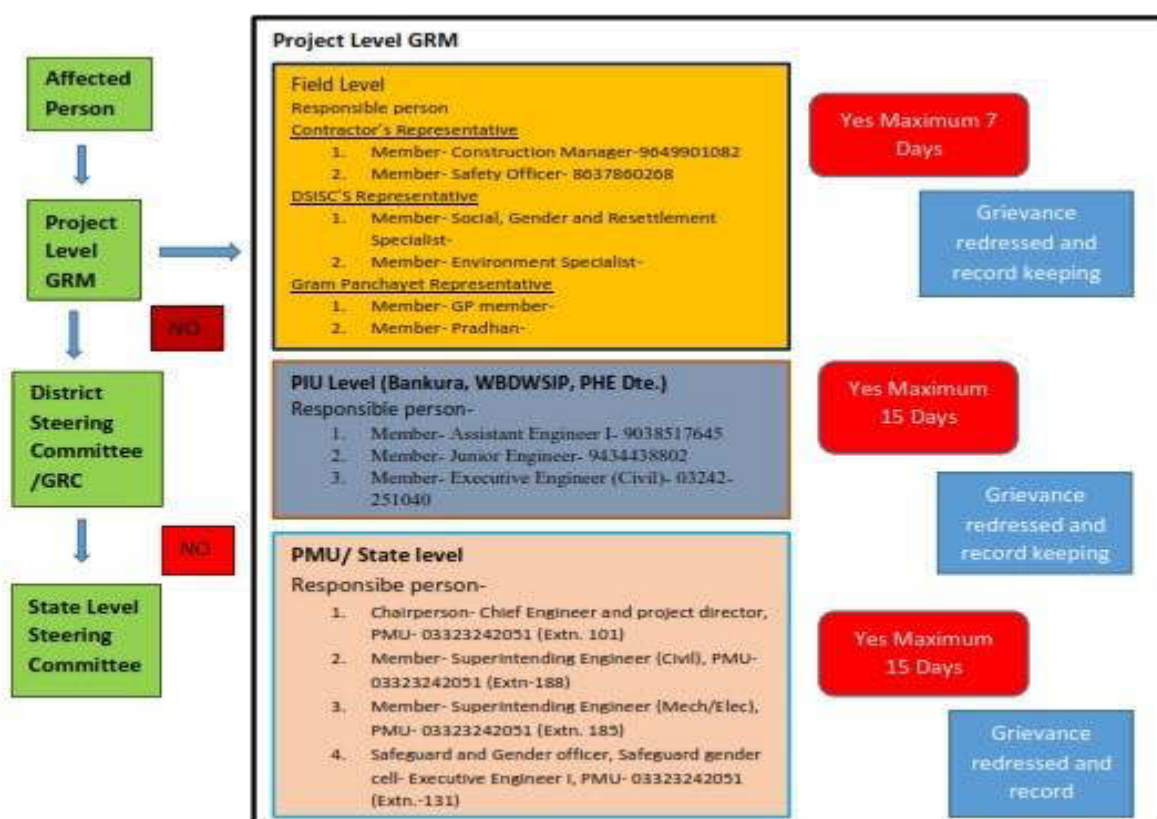
Sl. No.	Zone	Name Of Structure	Excavation Total Qty (C.U.M)	Back Filling Total Qty (C.U.M)	Reuse Excess Qty (C.U.M)
1.	20	Boundary wall	621	420.21	200.79

 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 30 of 45 Original Issue Date :
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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)

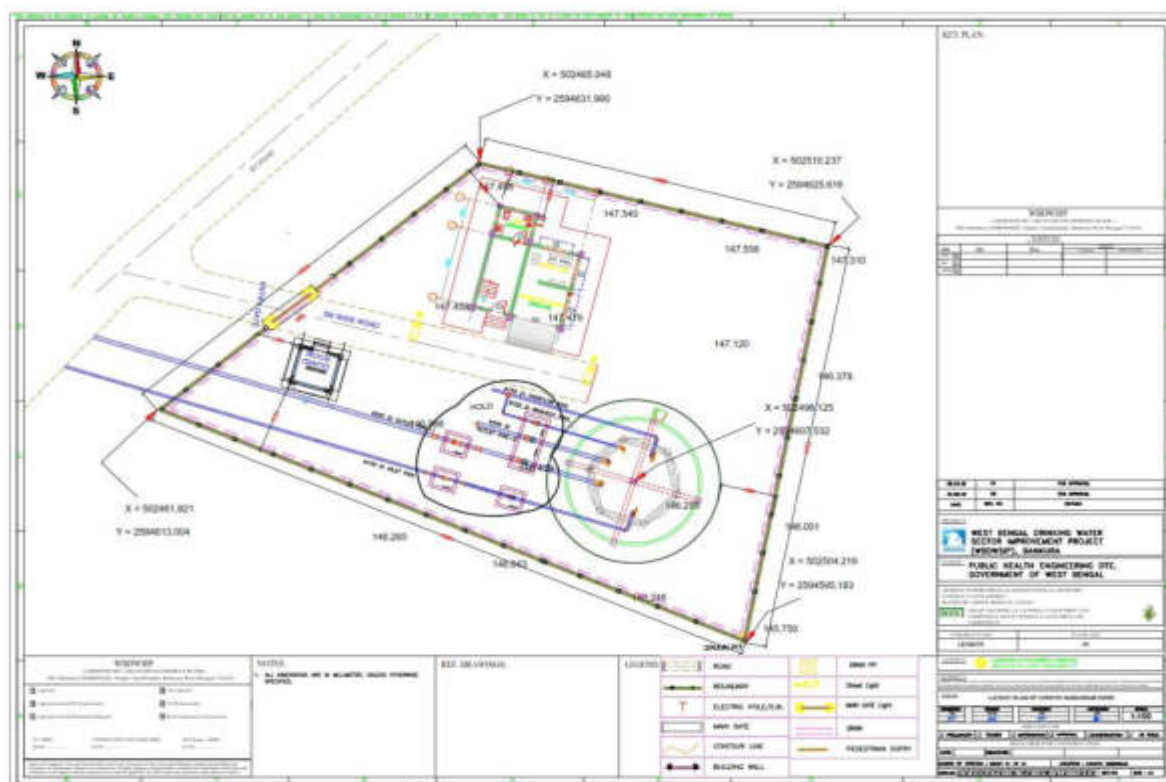


All grievances are recorded in site grievance register and resolved at the earliest. The sample grievance registration form is included in [Refer **Appendix – O.I**]

 L&T Construction <i>Water & 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. (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 31 of 45 Original Issue Date :
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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 time period is informed.



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

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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'

 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 35 of 45 Original Issue Date :
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Appendix O.C: Workman Compensation

PACKAGE - 04

ICICI Lombard
— GENERAL INSURANCE —

Certificate No: 696 Date: 02-Dec-2019

To whomsoever it may concern

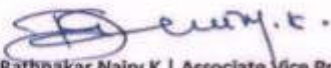
This is to certify that we have issued Group Personal Accident Policy No. 4005/102843874/04/000 to M/S. Larsen & Toubro Limited valid for the period 31-03-2019 to 30-03-2020.

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

ICICI Lombard General Insurance Company Limited AA

Mailing Address:	Registered Office:	Toll free No. : 1800 2565
401 & 402, 4th Floor, Interface 11, New Linking Road, Malad (West), Mumbai - 400 064.	ICICI Lombard House, 614, Veer Savarkar Marg, Near Siddhi Vinayak Temple, Prabhadevi, Mumbai - 400 025.	Alternate No.: 0 92236 22565 (chargeable)
		Email : customersupport@icicilombard.com
		Website : www.icicilombard.com



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)

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Appendix-O.D- Risk Policy

Date: 13-08-2019

Customer ID : 101770109

Customer Name : LARSEN AND TOUBRO LIMITED

Address : 11th, 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	<p>Principal 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</p> <p>Contractor M/s Larsen & Toubro Limited, 11th, Tower -II, Godrej Water Side Building, Salt Lake City, North 24 Paraganas, West Bengal-700091</p>
Perils Covered	As per quote submitted
Sum Insured / Limit of liability	<p>EAR Section 1 : INR 214,10,00,000</p> <p>EAR Section 2 (Third Party Liability) : INR 25,00,00,000</p>
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]	<p>EAR Total Premium : INR 30,31,656</p> <p>EAR 1st Instalment Premium : INR 6,31,595</p>

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.

 L&T Construction <i>Water & 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. (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 37 of 45 Original Issue Date :
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Appendix- O.E- Medical Tie up Letter

 LARSEN & TOUBRO	<p><small>Project Office : L&T Construction Water & Effluent Treatment Barjora, Netaji Colony PO+PS- Bankura-722202 West Bengal -India</small></p>
<p>Ref: PMU/WBDWSIP/PHED/84/186. Dated: 28/02/2019& PMU/WBDWSIP/PHED/84/410. Dated: 27/05/2019</p>	<p>Date:22-10-2019</p>
<p>To, KCP Memorial Hospital Barjora – Gangajhal Ghati, District- Bankura, West Bengal -722202</p>	
<p>Sub: "MoU for Staff & Workers Medical Health Checkup"-Reg.</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>Purpose & Scope: Medical Health Checkup for Staff and Workers whenever necessary.</p>	
<p>Condition & 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 the convenience of both the parties.</p>	
<p>Timings: 24 x 7</p>	
<p>Payment Terms:</p>	
<p>Bill is to be submitted on Monthly basis & 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 Headquarters: Mount Pleasant Road, Manipalokam, P.B. No. 979, Chennai - 600 089, INDIA Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001, INDIA Licence No. : CIN - L99999MH1946PLC004758 Website: www.Lntec.com L&T Construction - Water & Effluent Treatment is a brand of Larsen & Toubro Limited</small></p>	



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)

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Signature

For and on behalf of: Larsen & Toubro Limited

Date: 22/10/19.

Thanking you in anticipation.

For L&T Construction,

ADMIN & IR
Bankura Packages (3&4),
West Bengal

Bankura- Mejia Intake & WTP Project
Bankura- Mejia Distribution

Project Office :
L&T Construction
Water & Effluent Treatment
Bachra, Netaji Colony
PO-PIS - Bankura-722002
West Bengal - India

Signature



For and on behalf of: KCP Memorial Hospital

Date: 22/10/19.

Kolkata Client Office - Gange Waterside Building, 11 Th Floor, Salt Lake Sector-V Block-Dy-5, Kolkata-700091, West Bengal, India
Headquarters: Mount Poonamtee Road, Manapakkam, P.O. No. 976, Chennai - 600 089, INDIA.
Registered Office: L&T House, M. M. Mang. Balant Estate, Mumbai - 400 051, INDIA.
Licence No.: CRI - U50920MH1946PLC004766 Website: www.lntco.com

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

 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 39 of 45 Original Issue Date :
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Appendix- O.F: PUC Certificates

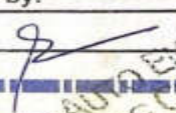
POLLUTION UNDER CONTROL CERTIFICATE
(Under the West Bengal Motor Vehicles Rules, 1989)

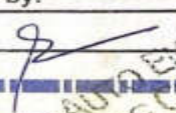
Vehicle Registrn. No. : **WB67B 7218** WB-01-**D** 3723953

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

Pollution Level:

CO (%)	
HC (ppm)	0.25
SD (HSU)	

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

Signature: 

WB 67B 7218

Scanned by CamScanner

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

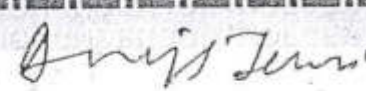
Vehicle Registrn. No. : **WB67B-4292** WB-01-**D** 4961694

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

Pollution Level:

CO (%)	4.12
HC (ppm)	
SD (HSU)	

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

Signature:  **INDIA VALID**

WB 67B 4292

12:36

Site Specific Environmental Management Plan

GOVERNMENT OF WEST BENGAL
State Transport Department Bankura RTO
FORM 23
CERTIFICATE OF REGISTRATION



Registration No	WB6787218	Registration Date	20-Mar-2019
Description of Vehicle	EXCAVATOR (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		
<u>Detailed Description</u>			
Class of Vehicle	EXCAVATOR (COMMERCIAL)	Link Vehicle No	
Ownership	INDIVIDUAL	Norms	Bharat Stage III (CEV)
Maker's Name	JCB INDIA LIMITED	Rear HSRP No	AA121054168
Front HSRP No	AA121054168	Month/Year of Manuf.	02/2019
Type of Body	SIDE SHIFT BACKHOE LOA DER		
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 3DXXTRA	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		
<u>Additional Particulars of all transport vehicles other than motor cabs (Gross Vehicle Weight)</u>			
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
<u>Other State/Transfer/Conversion Details</u>			
Previous Owner		Previous RegNo	
Old State		Entry Date	
Transfer Date		Conversion Date	

Date : 20-Mar-2019 18:28:55
 Taxation Particulars / Advance Registration Mark Fee Details


 Registering Authority
 Bankura
 Signature of Registering Authority
 Date : 20-Mar-2019

Site Specific Environmental Management Plan

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: 1st July, 2019



S N SUBRAHMANYAN
 Chief Executive Officer
 & Managing Director



LARSEN & TOUBRO
 It's all about Imagination

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: 18th September, 2018

Site Specific Environmental Management Plan

Appendix O.H: Attendance Sheet of Tool Box Talk

L&T Construction, Water & Effluent Treatment IC		Pep Talk Report	
Document No: IM-12-A	Revision No: 05	Date: 18/09/2018	Page 2 of 2
Date: 14/12/19 Time: 8:30am Location: Chotomabagram Topics: use of PPE's during concrete work.			
Conducted By: Bipradasjan Bhow			
S. No.	Name	Designation	Signature
01	Dipak K. Maji	Supervisor	Dipak K. Maji
02	Dhananjay Maji	Writer	Dhananjay Maji
03	Rajib Ojha	Helper	রাজীব ওজা
04	Mohit Bauli	"	মহিত বসু
05	Ashok Bauli	"	অশোক বসু
06	Prabandhu Mondal	"	প্রবন্ধু মন্ডল
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 40px; opacity: 0.5;">/</div> </div>			
Signature of Trainer			
"We are committed to achieve the "Zero Harm" across the sites of WET IC." Sensitivity: LNT Construction Internal L&T Department - HQ, WET IC © L&T Construction. All rights reserved			

 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 44 of 45 Original Issue Date :
Site Specific Environmental Management Plan		

Appendix O.I: 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 * 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 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	প্রকল্পঃ
যোগাযোগের তথ্য / বিস্তারিত ব্যক্তিগত তথ্য			
নাম		লিঙ্গ	পুরুষ 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	
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	