Quarterly Environmental Monitoring Report

Project number: 37378-014, 37378-013

Period: January – March 2020
Submission Date: January 2021

SRI: Jaffna and Kilinochchi Water Supply Project – Additional Financing

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JAFFNA KILINOCHCHI WATER SUPPLY PROJECT

NATIONAL WATER SUPPLY & DRAINAGE BOARD

FIRST QUARTER ENVIRONMENTAL MONITORING REPORT- 2020

Project Management Coordination and Implementation Unit

Jaffna Kilinochchi Water Supply Project

National Water Supply & Drainage Board

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1. INTRODUCTION

Jaffna Kilinochchi Water Supply Project (JKWSP) was launched in year 2009 with a total cost of US$ 164.04 million (US$ 90 million from ADB, US$ 48 million from AFD France and the balance US$ 26.04 million being the Government contribution). The objective of the project is to improve the health standard and enhancement of the standard of living of people in Jaffna peninsula and to support resettlement, economic development and social welfare of the entire Northern Province. The project was designed to provide safe drinking water to 300,000 people in water scarcity areas of Jaffna and Kilinochchi districts and to provide pipe borne sewerage facilities for around 80,000 people in the Jaffna Municipal Council area. The initial design of the drinking water scheme was entirely dependent on abstracting raw water from Iranaimadu Irrigation Tank but the progress of the project was hampered due to a dispute over water sharing between drinking water requirement and irrigation needs. As consensus could not be reached for sharing water for drinking purposes due to social and political reasons, the Iranaimadu source has to be suspended after lengthy negotiations process which ran over a period of 2 years (2013/14) involving farmers, Provincial Irrigation Department, Northern Provincial Council and the Central Government.

As such it was concluded that desalination option combined along with a limited ground water abstraction is the most technically suitable and economically viable option to serve the immediate water need. As a result of restructuring of project the AFD (the co-financing partner) had withdrawn its funding amounting to 35 million euros, dedicated for Iranaimadu based Water Treatment Plant (WTP) and Raw Water conveyance from Iranaimadu Tank to WTP and ADB decided not to fund for Sewerage Component of the project.

After in-depth technical studies and a lengthy evaluation process the consensus has finally been reached to construct a Desalination Plant of 24,000 m^3/day capacity at Thalaiyadi village (Vadamaradchi East DS division) in Jaffna district. All technical, financial and social safeguard studies were carried out. The donor agency ADB and the Northern Provincial Council have extended their cooperation and now all stakeholders consider the Desalination as the most viable and practical option under the current circumstances. The ADB is providing funds for the Desalination Plant, treated water transmission system and the distribution network in Jaffna Municipal Council area and Jaffna Peninsula to cover around 300,000 people with pipe borne drinking water supply. Apart from already committed US$ 90 million the ADB is extending additional financing of US$ 120 million for this purpose.

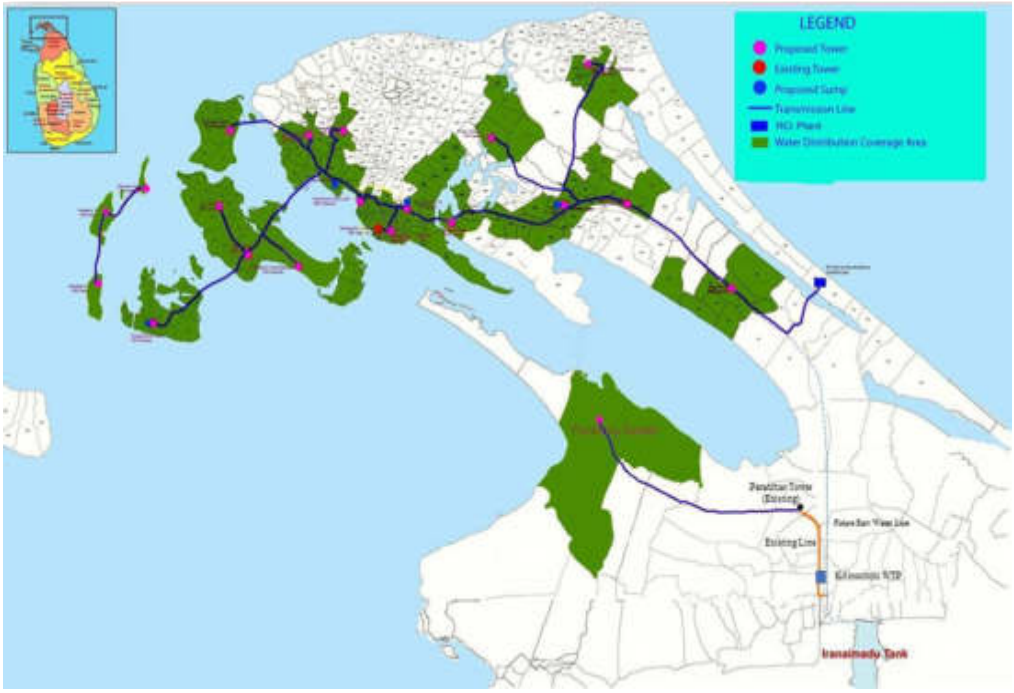
ADB has classified the project as environmental Category A (the highest category), because it involves construction and operation of a large industrial complex at a coastal green field site and is therefore expected to have significant adverse impacts. An EIA study was conducted from December 2015 to July 2017 by Lanka Hydraulic Institute Ltd. The study and report are intended to comply with ADB's Safeguard Policy Statement (SPS) 2009, and it is anticipated that they also fulfil the requirements of Sri Lankan EIA regulations. EIA approval had been obtained from Central Environmental Authority on 02.06.2017 and the ADB approval also was obtained for the same.

1.1 Scope of the Project

The following contract packages are coming under additional financing – 120 million USD

- SWRO plant
- Distribution package 02 (Balance)
- JMC area Distribution network
- Consultancy for supervision of SWRO - PMSC
- Consultancy for Social and Environmental Monitoring – SEMC

Fig 1.1: Project implementing area



1.2 Environmental category as per ADB Safeguard Policy Statement, 2009

Under the ADB guidelines SWRO plant is a Category A project, and all other sub packages are under category B.

1.3 Environmental category of each sub project as per national laws and regulations

Under the National Environmental Act (NEA) No 47 of 1980, SWRO plant is category and all other sub packages are under category III.

2. Environmental Safeguard Team

Name	Name of the Officer	Designation/ Office	Email Address	Contact Number	Roles
PMCIU[1]	T.Barathithasan	Project Director	pdjkwssp@gmail.com	212220256	Review sub-project and activity plan, design, cost, and bid documents to ensure environmental factors and mitigations are incorporated, and
	S.Malathy	Deputy Project Director	malathycejkwssp@gmail.com		
		Chief Engineer	balendrajkwssp@gmail.com		

[1] Project Engineering and Institutional Consultancy (PEIC) for the Project, a consortium led by Grontmij A/S of Denmark in association with Hifab of Sweden, Green Tech Consultants (Pvt.) Ltd., TMS and the Lanka Hydraulics Institute (LHI) of Sri Lanka has been appointed. Contract of the consultants has been finished and there is not any external monitors engaged for this project except environmental officer of contractor site staff.

Name	Name of the Officer	Designation/ Office	Email Address	Contact Number	Roles
	R.Balendra				sub-project documents and environmental documents are in harmony. PD /DPD /CE /SE are monitoring and checking the reports regularly submitted by Environmental officer assigned for monitoring works.
	V.Vijaykanth	Senior Engineer	vijayjkwssp@gmail.com		
	S.Sivathasan	Chemist	s.thas13@gmail.com		Monitor the environmental related issues at the sites during implementation of projects and activities, and provide feedback to the PD/DPD/CESE of the PMCIU[2]. The Environmental Officer, Sivathasan got the training as Advanced environmental safeguards training from planning action and Arani got knowledge about Environmental Engineering. Information on other trainings, including future training sessions to be attended, will be discussed in subsequent QEMRs. Proof of trainings such as copies of certificates will be included as attachments as
	S.Arani	Project Engineer	seearani@gmail.com		

[2] S. Sivathasan – Chemist and S. Arani – Project Engineer assigned for monitoring environmental issues.

Name	Name of the Officer	Designation/ Office	Email Address	Contact Number	Roles
					well.
Contractor Side	T. Basil Steve	Project Manager	pperera@sierra.lk	112584681 0718742306	Review project and activity plan to ensure environmental factors and mitigations are incorporated and environmental documents are in harmony. Monitoring and checking the reports regularly submitted by Environmental officer assigned for monitoring works.
	S. Udayan	Environmental officer	udayan@sierra.lk	0112-584681	Internal auditing in all sites for monitoring and enforcing health and hygiene legislation. And also investigate when there's an incident, such as pollution, a noise problem, toxic contamination, pest infestation or an outbreak of food poisoning and provide feedback to the PM. The environmental officer has a Bachelor degree, and a Diploma in Construction Safety and Occupational Health.
Consultant	T. Thirunavukkarasu	Team Leader (Individual Consultant)	thirudtladb6@gmail.com	077352 1346	Monitoring short coming and taking corrective measure.
ultancy Firm (PMS		Team leader Environmental Social Compliance Officer	Negotiation completed and the agreement to be signed. These recruitment will be done after award of the RO plant contract.		

Name	Name of the Officer	Designation/ Office	Email Address	Contact Number	Roles
		Health and Safety Officer			
Consultancy Firm (EMT)		Environmental Compliance Officer	Proposal under review. These recruitment will be done after award of the RO plant contract.		
		Safety Compliance Officer			
		Safety Expert			
		Team Leader/Environmentalist			

3. Overall project and sub-project progress and status

Package Number	Components/List of Works	Type of Contract *(specify if DBO, DB or civil works)*	Status of Implementation *(specify if Preliminary Design, Detailed Design, On-going Construction, Completed Works, or O&M phase)*[3]	Contract Status *(specify if under bidding or contract awarded)*	If Ongoing Construction	
					%Physical Progress	**Expected Completion Date**
Water Treatment Plant						
PEIC/JKWSSP/SEA WATER REVERSE OSMOSIS PLANT /2015/01	Design, Build and Operate a Sea Water Reverse Osmosis Desalination Plant of 24 MLD Capacity at Thalaiyadi, Jaffna District (SWRO Desalination Plant)	*DBO*	*Not yet awarded*	*Tender notice was advertised on 7th Dec 2016. Pre bid meeting held on 16th Feb 2017 and Bid closed on 17.07. 2017. Technical evaluation and Financial evaluation completed, ADB's no objection received. Preparation of cabinet paper on progress.*		
Distribution Network Systems						
PEIC/JKWSSP/Network/2014/02	Supplying and Laying of Water Distribution Networks in Palai, Kodikamam,Meesalai, Poonakary, Puttur, Nawatkuli, Karainagar, Pungudutivu, Vaddukkodai, Kattudai, Nallur Zones, JMC Transmission Pipeline & Construction of Office/Stores, Quarters at	*Civil works*	*Construction is Ongoing.*	*contract awarded (Awarded (29.10.2018) to M/s Sierra Construction Ltd)*	*55.2%*	*02.12.2020*

[3] If on-going construction, include %physical progress and expected date of completion

	Velanai, Kaddudai, Navatkuli, Pokkanai, Poonery and Karaveddy					
PEIC/JKWSSP/Distribution Networks /2017/ 01	Supplying and Laying of Water Distribution Networks in Jaffna City Area	*Civil Works*	*Not yet awarded*	*Tender document advertised on 25th July 2018 and closed on 27th September 2018. Technical evaluation completed. Financial evaluation completed & ADB asked another clarification. The SCAPC meeting held on 04.03.2020 and waiting for the meeting minutes.*		

Package-wise Contractor/s' Nodal Persons for Environmental Safeguards

Package Number	Contractor	HSE Nodal Person	Email Address	Contact Number
PEIC/JKWSSP/SEA WATER REVERSE OSMOSIS PLANT /2015/01	***Not yet awarded***			
PEIC/JKWSSP/Network/2014/02	*M/s Sierra Construction Ltd*	*Project Manager*	*pperera@sierra.lk*	*112584681/ 112598171*
PEIC/JKWSSP/Distribution Networks /2017/01[4]	***Not yet awarded***			

[4] An updated IEE was prepared for the whole the JKWSSP project and that revised report submitted to ADB on 24.07.2014. And additional IEE report was prepared for Supply and Laying of Distribution Network in Jaffna City Area and that revised report submitted to ADB. ADB has given no objection to award the contract and Cabinet approval to be obtained.

4. STATUS OF IEE PER SUBPROJECT/PACKAGE

Package-wise Implementation Status

Package Number	**Final IEE based on Detailed Design**				**Site-specific EMP (or Construction EMP) approved by Project Director?**[5] *(Yes/No)*	**Remarks**
	Not yet due *(detailed design not yet completed)*	**Submitted to ADB** *(provide date of submission)*	**Disclosed on project website** *(provide link)*	**Final IEE provided to Contractor/s** *(Yes/No)*		
PEIC/JKWSSP/SEA WATER REVERSE OSMOSIS PLANT /2015/01			*EIA report has been disclosed on project website (link is http://jkwssp.org/index.php/environmental-issues) Note: The landing page of this link on project website provides another hyperlink to the disclosed EIA report on ADB website.*			Preparation of cabinet paper in progress.
PEIC/JKWSSP/Network/2014/02	*On-going Construction* ***(Length of the DN is 247 km)***	***24.07.2014***	*Not yet.*	***Yes***	***Yes***	The IEE report will be disclosed on project website and will be reported in the next applicable QEMR.
PEIC/JKWSSP/Distribution Networks /2017/ 01	*Under bid evaluation*					

[5] Works will not be allowed until SEMP/CEMP is approved by project implementation unit or project management unit.

5. COMPLIANCE STATUS WITH NATIONAL /STATE/LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS

Package No.	**Statutory Environmental Requirements**	**Status of Compliance** *(Specify if obtained, submitted and awaiting approval, application not yet submitted)*	**Validity Date(s)** *(if already obtained)*	**Action Required**	**Specific Conditions that will require environmental monitoring**
PEIC/JKWSSP/ Sea Water Reverse Osmosis Plant /2015/01	• Environmental Clearance - CEA	*The procurement process is finalized by 07th January 2020 and SCAPC recommended to award the contract to M/s Suez International. Waiting for Cabinet approval. Per EIA report, the approval of the CEA (for Environmental Clearance) is valid up to 2 June 2021 (i.e. four years from issuance date of 2 June 2017). A copy of the environmental clearance is included in the appendix. Once renewed, a copy of the environmental clearance, including translation in the English language, will be included in the next applicable QEMR.*			
PEIC/JKWSSP/Network/2014/02	• Environmental Clearance - CEA	*Approval received. Environmental clearance is not required. Copy of the letter of exemption is attached in the appendix.*			
PEIC/JKWSSP/Distribution Networks /2017/ 01	• Environmental Clearance - CEA	*Under bid evaluation*			

6. Compliance status with environmental loan covenants

Schedule No. and Item (see Project Loan Agreement and list provisions relevant to environmental safeguards, core labor standards and occupational health and safety)	**Covenant**	**Status of Compliance**	**Action Required**
Schedule 4, Item 7: - Condition for Award of contract	The borrower shall not award any works contract which involves environmental consequences until: the borrower has obtained the final approval of the EIA, and the borrower has incorporated the relevant provisions from the EMP into the works contract.	complied	
Schedule 5, Item 5: - Safeguards environment	The borrower through the MUD, WS & HF shall ensure that the preparation, design, construction, implementation and operation of the Project facilities comply with; all applicable laws and regulations of the Government relating to environment, health and safety. The Environmental Safeguards as set out in the SPS, all measures and requirements set forth in the EIA, the EMP and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied with	
Schedule 5, Item 6: - Human and financial resources to implement safeguards requirements	The Borrower through the MUD, WS & HF and the NWSDB shall make available necessary budgetary and human resources to fully implement the EMP and the RP.	Being complied with	
Schedule 5, Item 7: - Safeguards-related provisions in bidding documents and works contracts	The Borrower through the MUD, WS & HF and the NWSDB shall ensure that all bidding documents and contract for works contain provision that the contractors to: comply with the measures relevant to the contractor set forth in the EIA, the EMP and the RP (to extent they concern impacts on affected people during construction), and any corrective or preventive actions set forth in a SMR. provide the borrower with a written notice of any unanticipated environmental, resettlement or indigenous people risks or impacts that arise during construction, implementation or operation of the project that were not considered in the EIA, the EMP and the RP.	complied	
Schedule 5, Item 8: - Safeguards monitoring and reporting	The Borrower through the MUD, WS & HF and the NWSDB shall do the following: submit safeguards monitoring Reports to ADB (quarterly during construction and semi-annually during		

	implementation in relation to the environment safeguards requirements, and semi-annually in relation to the social safeguards requirements) and disclose relevant information from such reports to affected persons promptly upon submission; if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the EIA, the RAP and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan: no later than commencement of construction activities under the Works contract, engage qualified and experienced external experts under a selection process and terms of reference acceptable to ADS, to verify information produced through the Project monitoring process	Being complied with. The unanticipated impacts due to COVID-19 are addressed through a health and safety plan prepared by Contractor and received by PMU. A copy of the health and safety plan is included in the appendix.	
Schedule 5, Item 9: - Prohibited list of investments	The Borrower shall ensure that no proceeds of the Loans are used to finance any activity included in the list of prohibited investment activities	complied	
Schedule 5, Item 10: - Labor standards, health and safety	The Borrower shall ensure that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower through the MUD, WS & HF and the NWSDB shall include specific provisions in the bidding documents and contracts financed by ADO under the Project requiring that the contractors, among other things: comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms, do not use Child labor do not discriminate workers in respect of employment and occupation do not use forced labor; and disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area_ particularly women.	Being complied with	

7. Compliance status with the environmental management plan (refer to EMP Tables in APPROVED IEE/S)

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
Activity: 1. 1.Site clearing before starting construction							
Removal of greenery by cutting large trees shall tend to pollute environment	(i)To avoid unnecessary tree cutting by demarcating trees exactly to be removed	(i)Trees exactly to be removed are demarcated	Yes	-	-	complied	
	(i)To implement tree re-planting program	(i)Suitable land is selected	Yes	-	-	complied	
Activity: 1.2 Foundation Excavation for structures (buildings)							
Insufficient protective measures around deep excavation shall endanger safety of workers at ground level	(i)To provide adequate warning boards and barricades and maintained	(i)Adequate warning boards and barricades are provided and well maintained	Yes	-	-	complied	
Unstable deep excavation shall endanger safety of workers inside the pit	(i)To provide shoring as per engineer's recommendation	(i)Shoring arrangements are provided as per engineer's recommendations	Yes	-	-	complied	
Activity: 1. 3. Construction of structures (water towers, sumps, pump houses and buildings)							
Occupational injuries and illness caused by substandard working arrangements (warning boards, scaffoldings, safety nets, form work, ladders, temporary access	(i)To provide adequate warning boards, barricades, safety nets, temporary access and standard scaffoldings, form work and ladders	(i)Adequate warning boards, barricades, safety nets, temporary access are provided and maintained well	Partly	Moderate	To be improved	complied	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
etc.)	and maintained until construction is over						
Night works disturb neighbors and environment	(i) Minimize the work in night. Schedule the minor works at night. Inform the neighbors regarding the working time prior	(i) Night works are arranged as planned without affecting the neighbors and environment	Yes	-	-	being complied with	
Activity: 1. 4. Excavation of Trial pits and trenches							
Insufficient protective measures around pits and trenches shall endanger safety of workers/ pedestrians /road users	(i)To provide sufficient protective measures around pits and trenches for the safety of workers/ pedestrians /road users	(i)Adequate warning boards, barricades, luminous stickers, night lamps are provided and maintained well	Yes	Moderate	To be improved	complied	
Unstable trenches shall endanger safety of workers inside the pits and trenches	(i)To provide shoring as per engineer's recommendation	(i)Shoring arrangements are provided as per engineer's recommendations	Partly	Moderate	To be improved	complied	
Material stockpiles at the edges of the pits and trenches shall endanger the safety of workers inside the pit	(i)To place material stockpiles away from the edges of the pits and trenches	(i)Material stockpiles are away from the edges of the pits and trenches	Yes	Fair	To be continue	complied	
Activity: 1. 4. Rock excavation							

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
Dust generation during rock drilling shall endanger health of drillers and others working/moving around	(i)To provide dust control arrangements while rock drilling (wet gunny bags)	(i)Dust control arrangements are provided while rock drilling (wet gunny bags)	Partly	Moderate	To be continue	complied	
	(ii)To provide dusk masks for rock drillers while drilling	(i)Rock drillers are equipped with dust masks while drilling	Partly	Moderate	To be continue	complied	
Activity: 1. 5. Hauling of material							
Dust blowing from uncovered material heaps during dry weather shall endanger public health	(i)To make sure that dusty material is transported only by covered trucks.	(i)Dusty material is transported only by covered trucks.	Partly	Moderate	To be improved	complied	
Trucks overloaded with hauling material shall endanger public safety.	(i)To make sure that trucks are not overloaded while material transport	(i)Trucks are not overloaded while material transport	Yes	Fair	To be continue	complied	
Activity: 1. 6. Pipe-laying, installation of valves and hydrants, pressure testing, installation of service connection and reinstatement of trenches							
Insufficient protective measures around re-excavation shall endanger public safety	(i)To provide sufficient protective measures around trenches for the safety of workers/ pedestrians /road users	(i)Adequate warning boards, barricades, luminous stickers, night lamps are provided and maintained well	Partly	Moderate	To be improved	complied	
Dust generated during cutting the asphalt layer of the trench shall endanger occupational health	(i)To provide on-site dust control arrangement while cutting the asphalt layer	(i)On-site dust control arrangement is provided while cutting asphalt layer	Partly	Moderate	To be improved	complied	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(ii)well maintain the water spray at all time when using the asphalt cutter.	Partly	Moderate	To be improved	complied	
Activity: 1. 7. Maintenance of storage areas							
Inadequate protective measures taken for storing flammable/hazardous material/lubricant/oils shall endanger occupational safety and health.	(i)To provide adequate protective measures for storing flammable/ hazardous material/ lubricant/oils	(i)Hazardous material (flammable/hazardous material/ lubricant/oils) are separated from human moving area	Partly	Fair	To be continue	complied	
		(ii)Adequate protective measures are taken to avoid access of authorized persons	Partly	Fair	To be continue	complied	
		(iii)Safety of hazardous material is regularly checked.	Partly	Moderate	To be improved	complied	
Material stockpiles (at open storage) wash away shall pollute surrounding environment.	(i)Washable material stockpiles (at open storage) are protected by rains	(i)Washable material stockpiles (at open storage) are covered by tarpaulins during the rainy seasons and surrounded by small conservation bunds	Partly	Moderate	To be improved	complied	
Dust generation inside storage areas shall endanger workers' health.	(i)To provide dust masks for the store labors working in dusty areas.	(i)Dust masks are provided for the store labors working in dusty areas.	Partly	Moderate	To be improved	complied	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
Activity: 1. 8. Maintenance of office/ labour camps/stores/sites							
Lack of sanitary facilities provided at office/camps shall endanger occupational health	(i)To provide adequate sanitary facilities for the use of office/camp occupants	(i)Adequate sanitary facilities are provided for the use of office/camp occupants	Yes	Fair	To be improved	complied	
Lack of safety precautions (e.g. Fire extinguishers, first aide, emergency exits, safe meeting point)shall endanger occupational safety	(i)To provide safety precautions (e.g. Fire extinguishers, first aide, emergency exits, safe meeting point)	(i)Safety precautions such as Fire extinguishers, first aide, emergency exits, safe meeting point have been taken	Partly	Moderate	-	complied	
		(ii)Fire extinguishers are not outdated and first aid requirements are available	Partly	Moderate	-	complied	
Activity: 1. 9. Use of machinery/equipment at construction work							
Construction vibration shall damage nearby public properties	(i)To take safety precautions to avoid damages nearby public properties due to vibration	(i)Crack survey has been carried out, prior to commence the construction.	Partly	Moderate	To be improved	complied	
		(iii)Post crack survey has been carried out	No	-	-	complied	
Noise generated during construction shall cause public nuisance	(i)To provide noise barriers when and where necessary	(ii)Bi-annual baseline survey is carried out to test the noise level	Yes	Fair	-	complied	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
Fuel/oil spills shall cause environmental pollution	(i)To deploy quality tested machinery and vehicles	(i)Quality certified machinery and vehicles are deployed	No	-	-	complied	
		(ii)Quality of machinery and vehicles are regularly observed	No	-	-	complied	
Activity: 1. 10.Common items							
Employees attending work without wearing standard PPEs shall endanger occupational safety	(i)To provide standard PPEs (in correct size) to all employees	(i)To provide standard PPEs (in correct size) to all employees	Partly	Fair	To be continue	being complied with	
		(ii)All employees are fully equipped with standard PPEs while attending work	Partly	Moderate	To be improved	being complied with	
Vehicle exhaust during traffic congestion at roadside construction shall cause atmospheric pollution	(i)To implement engineer approved traffic management plan	(i)Traffic management plan (TMP) is approved by the engineer	Yes	Fair	To be continue	being complied with	
		(ii)Warning boards, speed limits, barricades, luminous stickers, night signal lamps, are adequately provided where necessary as per approved TMP	Partly	Moderate	To be continue	being complied with	
		(iii)Safe temporary access, pedestrian passes and road humps are adequately provided	Partly	Moderate	To be improved	being complied with	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(iv)Traffic controllers are deployed as and when required	Yes	Moderate	To be improved	being complied with	
Construction waste scattered at sites, yards, public moving areas shall endanger occupational/public health and safety.	(i)To provide construction waste collecting and disposal arrangement and to maintain regularly	(i)Construction waste collecting arrangement is implemented.	Yes	Fair	To be continue	being complied with	
		(ii)Local authority permission is obtained for disposal yards.	Yes	Fair	To be continue	being complied with	
		(iii)Regular construction waste disposal arrangements are implemented	Yes	Fair	To be continue	being complied with	
		(iv)Disposal yards are regularly reinstated	Partly	Moderate	To be improved	being complied with	
		(v)Construction waste is not disposed at unauthorized locations	Yes	Fair	To be continue	being complied with	
		(vi)Construction waste is not scattered at sites, camps and office premises	Yes	Fair	To be continue	being complied with	
Office waste/camp waste scattered around shall pollute surrounding environment	(i)To provide office/camp waste collecting and disposal arrangements	(i)Adequate garbage bins are provided at office/camp to collect segregated waste	Partly	-	-	being complied with	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(ii)Waste segregation is introduced and implemented	Partly	-	-	being complied with	
		(iii)Waste is regularly collected by the local authority	No	-	-	being complied with	
		(iv)Waste is not scattered over the ground	Yes	-	-	being complied with	
Dust generation during construction under dry weather shall endanger occupational/public health	(i)To provide regular water spreading system or to deploy sprinkler attached water bowsers regularly	(i)Regular water spreading system is provided or sprinkler attached water bowsers are regularly deployed	Partly	-	-	being complied with	
		(ii)Dust is not generated at construction area	Partly	-	-	being complied with	
		(iii)Dust is not deposited over the surrounding area	Partly	-	-	being complied with	
		(iv)Baseline survey for air quality is regularly conducted	No	-	-	being complied with	
Vehicles/machinery/trucks movement during construction without standard signals, warning alarms, helping assistants shall	(i)To deploy vehicles/ machinery/ trucks having standard signals, warning alarms (in working order) by employing qualified	(i)All vehicles /machinery trucks deployed are fitted with standard signals, warning alarms and	Partly	Moderate	To be improved	being complied with	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
endanger occupational/public safety	drivers/ operators with helping assistants	which are working order					
		(ii)All drivers/operators are qualified and no unqualified driver/ operator is deployed whatsoever	Partly	Moderate	To be improved	being complied with	
		(iii)Helping assistants are employed for all heavy machinery and trucks while working at sites	Partly	Moderate	To be improved	being complied with	
Handling of unsafe power tools and equipment shall endanger safety of workers (substandard insulation, broken plug tops and bases)	(i)To provide standard power tools without substandard insulation, broken plug tops and plug bases etc.	(i)Standard power tools are used by employees without substandard insulation, broken plug tops and plug bases etc.	Partly	Moderate	To be improved	being complied with	
Fine aggregate wash away from material heaps during rains shall pollute surrounding environment	(i)To protect fine aggregate material stockpiles at site from wash away during rains	(i)Washable material stockpiles at site are covered by tarpaulins during the rainy seasons and surrounded by small conservation bunds	Partly	Moderate	To be improved	being complied with	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/Timely
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(ii)Roads and surrounding environment is not polluted by washed material deposits	Partly	Moderate	To be improved	being complied with	
		(iii)Baseline survey for water quality is regularly conducted	Partly	-	-	being complied with	
Careless handling of tools, equipment, accessories, heavy items, lengthy items shall endanger safety of workers and others around	(i)To train employees for handling tools, equipment, accessories, heavy items, lengthy items associated with construction	(i)Employees are trained for handling tools, equipment, accessories, heavy items, lengthy items associated with construction	Partly	Moderate	To be improved	being complied with	
		(ii)Employee safety programs are conducted	Yes	Fair	To be continue	being complied with	
		(iii)Tool-box meetings are regularly conducted	Yes	Fair	To be continue	being complied with	
Lacking public awareness about safety and construction activities shall endanger community health and safety	(i)To conduct public awareness program about safety and construction activities	(i)Public awareness programs about safety and construction activities were conducted	Yes	-	-	complied	
		(ii)Safety awareness programs for school children are conducted	Yes	-	-	complied	

8. Overall Compliance with CEMP/ EMP

Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required
Supplying and Laying of Water Distribution Networks in Palai, Kodikamam, Meesalai, Poonakary, Puttur, Nawatkuli, Karainagar, Pungudutivu, Vaddukkodai, Kattudai, Nallur Zones, JMC Transmission Pipeline & Construction of Office/ Stores, Quarters at Velanai, Kaddudai, Navatkuli, Pokkanai, Poonery and Karaveddy	Y	Y	Satisfactory	CEA informed that CEA approval/ clearance not required for the pipe laying works and the tower construction works.

9. Trainings, Workshops and Seminars Conducted

Date	Topic	Conducted by	No. of Participants (Total)	No. of Participants (Female)	Remarks
There are Trainings or Workshops or Seminars not yet conducted during the reporting period. As per the additional loan, the trainings, workshops and seminars will be conducted by separate TA after recruited the PMSC Consultant. PMSC Consultancy recruitment is in progress and the agreement to be signed.					

10. Summary of Environmental Monitoring Activities (for the Reporting Period)

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
Insufficient protective measures around deep excavation shall endanger safety of workers at ground level	(i)To provide adequate warning boards and barricades and maintained	(i)Adequate warning boards and barricades are provided and well maintained	*Visual*	Work has been done		
Unstable deep excavation shall endanger safety of workers inside the pit	(i)To provide shoring as per engineer's recommendation	(i)Shoring arrangements are provided as per engineer's recommendations	*Visual*			
Shoring arrangements may cause sound pollution to the environment	(i)Soundless machinery can be used for drill sheet piles	(i)machinery were used with soundproof	*Visual*			
Activity: 1. 3. Construction of structures (buildings)						
Occupational injuries and illness caused by substandard working arrangements (warning boards, scaffoldings, safety nets, form work, ladders, temporary access etc.)	(i)To provide adequate warning boards, barricades, safety nets, temporary access and standard scaffoldings, form work and ladders and maintained until construction is over	(i)Adequate warning boards, barricades, safety nets, temporary access are provided and maintained well	*Visual*	9.735516, 79.986660	12/1/2020	S. Sivathasan S. Arani
Night works disturb neighbors and environment	(i) Minimize the work in night. Schedule the minor works at night. Inform the neighbors regarding the working time prior	(i) Night works are arranged as planned without affecting the neighbors and environment	*Visual*	9.735516, 79.986660	12/1/2020	
Activity: 1. 4. Excavation of Trial pits and trenches						

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
Insufficient protective measures around pits and trenches shall endanger safety of workers/ pedestrians /road users	(i)To provide sufficient protective measures around pits and trenches for the safety of workers/ pedestrians /road users	(i)Adequate warning boards, barricades, luminous stickers, night lamps are provided and maintained well	*Visual*	Work has been done		
Unstable trenches shall endanger safety of workers inside the pits and trenches	(i)To provide shoring as per engineer's recommendation	(i)Shoring arrangements are provided as per engineer's recommendations	*Visual*	Work has been done		
Material stockpiles at the edges of the pits and trenches shall endanger the safety of workers inside the pit	(i)To place material stockpiles away from the edges of the pits and trenches	(i)Material stockpiles are away from the edges of the pits and trenches	*Visual*	Work has been done		
Activity: 1. 4. Rock excavation						
Dust generation during rock drilling shall endanger health of drillers and others working/moving around	(i)To provide dust control arrangements while rock drilling (wet gunny bags)	(i)Dust control arrangements are provided while rock drilling (wet gunny bags)	*Visual*	9.735516, 79.986660	12/1/2020	S. Sivathasan S. Arani
	(ii)To provide dusk masks for rock drillers while drilling	(i)Rock drillers are equipped with dust masks while drilling	*Visual*	9.735516, 79.986660	12/1/2020	
Activity: 1. 5. Hauling of material						
Dust blowing from uncovered material heaps during dry weather shall endanger public health	(i)To make sure that dusty material is transported only by covered trucks.	(i)Dusty material is transported only by covered trucks.	*Visual*	9.735516, 79.986660	20/1/2020	S. Sivathasan

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
Trucks overloaded with hauling material shall endanger public safety.	(i)To make sure that trucks are not overloaded while material transport	(i)Trucks are not overloaded while material transport	*Visual*	9.735516, 79.986660	20/1/2020	S. Arani
Activity: 1. 6. Pipe-laying, installation of valves and hydrants, pressure testing, installation of service connection and reinstatement of trenches						
Insufficient protective measures around re-excavation shall endanger public safety	(i)To provide sufficient protective measures around trenches for the safety of workers/ pedestrians /road users	(i)Adequate warning boards, barricades, luminous stickers, night lamps are provided and maintained well	*Visual*	9.735769, 79.984391	28/1/2020	S. Sivathasan S. Arani
Dust generated during cutting the asphalt layer of the trench shall endanger occupational health	(i)To provide on-site dust control arrangement while cutting the asphalt layer	(i)On-site dust control arrangement is provided while cutting asphalt layer	*Visual*	9.735769, 79.984391	28/1/2020	
		(ii) well maintain the water spray at all time when using the asphalt cutter.	*Visual*	9.735769, 79.984391	28/1/2020	
Activity: 1. 7. Maintenance of storage areas						
Inadequate protective measures taken for storing flammable/hazardous material/lubricant/oils shall endanger occupational safety and health.	(i)To provide adequate protective measures for storing flammable/ hazardous material/ lubricant/oils	(i)Hazardous material flammable/ hazardous material/ lubricant/oils) are separated from human moving area	*Visual*	9.732675, 79.981116	4/3/2020	S. Sivathasan S. Arani
		(ii)Adequate protective measures are taken to avoid access of authorized persons	*Visual*	9.732675, 79.981116	4/3/2020	
		(iii)Safety of hazardous material is regularly checked.	*Visual*	9.732675, 79.981116	4/3/2020	

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
Dust generation inside storage areas shall endanger workers' health.	(i)To provide dust masks for the store labors working in dusty areas.	(i)Dust masks are provided for the store labors working in dusty areas.	*Visual*	9.732675, 79.981116	4/3/2020	
Activity: 1. 8. Maintenance of office/ labour camps/stores/sites						
Lack of sanitary facilities provided at office/camps shall endanger occupational health	(i)To provide adequate sanitary facilities for the use of office/camp occupants	(i)Adequate sanitary facilities are provided for the use of office/camp occupants	*Visual*	9.721383, 79.950861	11/2/2020	S. Sivathasan S. Arani
Unsafe electrical work (unsafe wiring, power outlets, and fixtures) shall endanger occupational safety	(i)To provide safe electrical works at office/camps/stores/sites	(i)To obtain electrical works standards certification by a qualified officer in regular intervals (quarterly)	*Visual*	9.721383, 79.950861	11/2/2020	
Lack of safety precautions (e.g. Fire extinguishers, first aide, emergency exits, safe meeting point)shall endanger occupational safety	(i)To provide safety precautions (e.g. Fire extinguishers, first aide, emergency exits, safe meeting point)	(i)Safety precautions such as Fire extinguishers, first aide, emergency exits, safe meeting point have been taken	*Visual*	9.721383, 79.950861	11/2/2020	
		(ii)Fire extinguishers are not outdated and first aid requirements are available	*Visual*	9.721383, 79.950861	11/2/2020	
		(iii)Fire-drill has been carried out	*Visual*	9.721383, 79.950861	11/2/2020	
Activity: 1. 9. Use of machinery/equipment at construction work						
Construction vibration shall damage nearby public properties	(i)To take safety precautions to avoid damages nearby public properties due to vibration	(i)Crack survey has been carried out, prior to commence the construction.	*Visual*	9.732675, 79.981116	18/2/2020	S. Sivathasan S. Arani
		(iii)Post crack survey has been carried out	*Visual*	9.732675, 79.981116	18/2/2020	

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
Noise generated during construction shall cause public nuisance	(i)To provide noise barriers when and where necessary	(i)Noise barriers are provided as necessary	*Visual*	9.732675, 79.981116	18/2/2020	
		(ii)Bi-annual baseline survey is carried out to test the noise level	*Visual*	9.732675, 79.981116	18/2/2020	
Fuel/oil spills shall cause environmental pollution	(i)To deploy quality tested machinery and vehicles	(i)Quality certified machinery and vehicles are deployed	*Visual*	9.732675, 79.981116	18/2/2020	
		(ii)Quality of machinery and vehicles are regularly observed	*Visual*	9.732675, 79.981116	18/2/2020	
Activity: 1. 10.Common items						
Employees attending work without wearing standard PPEs shall endanger occupational safety	(i)To provide standard PPEs (in correct size) to all employees	(i)To provide standard PPEs (in correct size) to all employees	*Visual*	9.738932, 79.885790	25/2/2020	
		(ii)All employees are fully equipped with standard PPEs while attending work	*Visual*	9.738932, 79.885790	25/2/2020	
Vehicle exhaust during traffic congestion at roadside construction shall cause atmospheric pollution	(i)To implement engineer approved traffic management plan	(i) Traffic management plan (TMP) is approved by the engineer	*Visual*	9.738932, 79.885790	25/2/2020	
		(ii) Warning boards, speed limits, barricades, luminous stickers, night signal lamps, are adequately provided where necessary as per approved TMP	*Visual*	9.738932, 79.885790	25/2/2020	S. Sivathasan S. Arani

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
		(iii) Safe temporary access, pedestrian passes and road humps are adequately provided	*Visual*	9.738932, 79.885790	25/2/2020	
		(iv)Traffic controllers are deployed as and when required	*Visual*	9.738932, 79.885790	25/2/2020	S. Sivathasan S. Arani
Construction waste scattered at sites, yards, public moving areas shall endanger occupational /public health and safety.	(i)To provide construction waste collecting and disposal arrangement and to maintain regularly	(i)Construction waste collecting arrangement is implemented.	*Visual*	9.738932, 79.885790	10/3/2020	
		(ii)Local authority permission is obtained for disposal yards.	*Visual*	9.738932, 79.885790	10/3/2020	
		(iii)Regular construction waste disposal arrangements are implemented	*Visual*	9.738932, 79.885790	10/3/2020	
		(iv)Disposal yards are regularly reinstated	*Visual*	9.738932, 79.885790	10/3/2020	
		(v)Construction waste is not disposed at unauthorized locations	*Visual*	9.516065, 80.203632	10/3/2020	
		(vi)Construction waste is not scattered at sites, camps and office premises	*Visual*	9.516065, 80.203632	16/3/2020	
Office waste/camp waste scattered around shall pollute surrounding environment	(i)To provide office/camp waste collecting and disposal arrangements	(i)Adequate garbage bins are provided at office/camp to collect segregated waste	*Visual*	9.516065, 80.203632	16/3/2020	
		(ii)Waste segregation is introduced and implemented	*Visual*	9.516065, 80.203632	16/3/2020	

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
		(iii)Waste is regularly collected by the local authority	*Visual*	9.741314, 79.882732	16/3/2020	
		(iv)Waste is not scattered over the ground	*Visual*	9.741314, 79.882732	16/3/2020	
Dust generation during construction under dry weather shall endanger occupational /public health	(i)To provide regular water spreading system or to deploy sprinkler attached water bowsers regularly	(i)Regular water spreading system is provided or sprinkler attached water bowsers are regularly deployed	*Visual*	9.741314, 79.882732	16/3/2020	
		(ii)Dust is not generated at construction area	*Visual*	9.741314, 79.882732	16/3/2020	
		(iii)Dust is not deposited over the surrounding area	*Visual*	9.741314, 79.882732	18/3/2020	
Vehicles/machinery/trucks movement during construction without standard signals, warning alarms, helping assistants shall endanger occupational/public safety	(i)To deploy vehicles /machinery/trucks having standard signals, warning alarms (in working order) by employing qualified drivers/ operators with helping assistants	(i)All vehicles /machinery trucks deployed are fitted with standard signals, warning alarms and which are working order	*Visual*	9.741314, 79.882732	18/3/2020	
		(ii)All drivers/operators are qualified and no unqualified driver/ operator is deployed whatsoever	*Visual*	9.741314, 79.882732	18/3/2020	
		(iii)Helping assistants are employed for all heavy machinery and trucks while working at sites	*Visual*	9.741314, 79.882732	18/3/2020	
Handling of unsafe power tools and equipment shall endanger safety of workers (substandard	(i)To provide standard power tools without substandard insulation, broken plug tops and	(i)Standard power tools are used by employees without substandard insulation, broken plug tops and plug bases etc.	*Visual*	9.741314, 79.882732	18/3/2020	

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
insulation, broken plug tops and bases)	plug bases etc.					
Fine aggregate wash away from material heaps during rains shall pollute surrounding environment	(i)To protect fine aggregate material stockpiles at site from wash away during rains	(i)Washable material stockpiles at site are covered by tarpaulins during the rainy seasons and surrounded by small conservation bunds	*Visual*	Rain is not received during the reporting period		
		(ii)Roads and surrounding environment is not polluted by washed material deposits	*Visual*			
		(iii)Baseline survey for water quality is regularly conducted	*Visual*			
Careless handling of tools, equipment, accessories, heavy items, lengthy items shall endanger safety of workers and others around	(i)To train employees for handling tools, equipment, accessories, heavy items, lengthy items associated with construction	(i)Employees are trained for handling tools, equipment, accessories, heavy items, lengthy items associated with construction	*Visual*	9.509902, 80.206798	15/3/2020	
		(ii)Employee safety programs are conducted	*Visual*	9.509902, 80.206798	15/3/2020	
		(iii)Tool-box meetings are regularly conducted	*Visual*	9.509902, 80.206798	15/3/2020	
Lacking public awareness about safety and construction activities shall endanger community health and safety	(i)To conduct public awareness program about safety and construction activities	(i)Public awareness programs about safety and construction activities were conducted	*Visual*	Awareness programs has been arranged each and every DS Divisions and schools to explaining the tower construction works and the pipe lying works. Public was instructed to inform the disturbances or difficulties during the construction works. Prior information also were given to public and school student regarding the		Conducted by Sociologist
		(ii)Safety awareness programs for school children are conducted	*Visual*			

Impacts *(List from SEMP/CEMP)*	**Mitigation Measures** *(List from SEMP/CEMP)*	**Parameters Monitored** *(As identified in the SEMP/CEMP)*	**Method of Monitoring** *(Visual, Actual Sampling,etc)*	**Location of Monitoring** *(Provide GPS Coordinates)*	**Date of Monitoring Conducted**	**Person Who Conducted the Monitoring**
				works.		

11. Monitoring of environmental IMPACTS on PROJECT SURROUNDINGS

(Confirm records of pre-work condition of roads, agricultural land or other infrastructure prior to starting to transport materials and construction.)

Package No.	Status of Pre-Work Conditions *(Recorded / Not Recorded)*	Baseline Environmental Conditions (*air, water, noise) Documented*[6] *(Yes / No)*	Action Proposed and Additional Measures Required
PEIC/JKWSSP/Network/2014/02	Recorded	Yes	CEA informed that CEA approval/ clearance not required for the pipe laying works and the tower construction works[7]

- Provide information on monitoring activities conducted during reporting period. If not conducted, provide justification. Compare results with baseline and internationally recognized standards.

12. INFORMATION DISCLOSURE AND CONSULTATIONS

(Confirm PMU/PIU/contractors provide project-related information to stakeholders, communities and/or affected people before and during construction works. Provide information on consultations conducted during reporting period such dates, topics discussed, type of consultation, issues/concerns raised, safeguards team member present. Attach minutes of meetings (ensure English translation is provided), attendance sheet, and photos.)

13. GRIEVANCE REDRESS MECHANISM

Grievances Redress Committee formed in all Divisional Secretariat Divisions and having quarterly meeting to discuss the issues and complaints. After the restructured of the project, now quarterly meetings are ongoing. So far 36 meetings held on DS Offices and it was explained to the community about the complaint process and the GRC details. If the complaint arise at the site, contractors immediately solve and submit the report to PD/ PMCIU.

All works are monitoring by the PMCIU and the complaints are less. Grievance redress/ suggestion forms, complaints / suggestion boxes and complain register were placed at the following five locations:

1. DS Offices (where the project activities ongoing)
2. PMCIU
3. PEIC
4. NWSDB, Regional Manger's Office
5. Contractor's site Office

Grievances Redress Committee formation, Officers and their designation.

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[6] The client, PMCIU**,** Jaffna Killinochchi Water Supply and Sanitation Project, requested the Environmental Division of National Building Research Organization (NBRO) to measure the baseline noise levels, vibration and air quality at selected locations within the project area of the proposed Jaffna Kilinochchi Water Supply and Sanitation Project, to be located in Jaffna.

[7] CEA informed Environmental recommendation is not necessary for Laying of pipes for water distribution.

This Committee is supported to record and resolve grievances regarding the ongoing project under the guidance of the Divisional Secretary. No GRC were established during the reporting period.

14. SUMMARY OF KEY ISSUES/CONCERNS IDENTIFIED DURING THE REPORTING PERIOD AND REMEDIAL ACTIONS

There is any issues not received during the reporting period.

15. HEALTH AND SAFETY PROTOCOLS FOR THE PREVENTION OF COVID-19

Contractor has prepared a health and safety plan for COVID-19, which was received by PMU. A copy of the health and safety plan is included in the appendix. There is a special committee formed for monitoring health and safety in offices and sites by the project Director. And he informed the following instruction to prevent staff of JKWSSP from COVID-19.

Issues/Concerns	Action	Status	Responsible officer	Remarks
Transport to the staffs	Transport facilities will be given to the staff within the Jaffna district including the Maruthankerni area. If any staff using public transport facilities, they have to wear proper masks and gloves. Gloves need to be placed outside the office.	Ongoing	Manager	
Entrance to the PMCIU Office	Staff entering the office are advised to clean footwear- Staff should be clean footwear by Chlorinated Doormat carpet	Ongoing	Office assistant and Security officer.	
	Staff requested to wash the hands properly and enter the office	Ongoing	Security officer.	
	Staff should use fingerprint and signing of attendance for daily attendance.	Ongoing	Office assistant and Security officer.	

Issues/Concerns	Action	Status	Responsible officer	Remarks
	Staffs should wear a proper mask when they are in the office, if any staff do not to wear a mask, head of the section will take necessary actions	Ongoing	Office assistant and Security officer.	
Temperature measurement	At the entry temperature checked and if high temperature (>37 Celsius) found then the officer is not allowed enter the office.	Ongoing	Security officer	
Meeting	• All members will use Zoom software to attend meetings. • Quality sanitizer and masks need to be provided	Ongoing	Office assistant	
Contractor staffs	• Unless otherwise requested or needed only contractor staff could come to the office • Outside conference hall Space allocated for discussions. Registration of details – name, designation, working place, telephone number	Ongoing	Office assistant and Security officer.	
	• Suggest working in separate			

Issues/Concerns	Action	Status	Responsible officer	Remarks
	groups. Engineer and relevant office staffs could work in the main office and respective EAs could work in site offices • Take precautions during a site visit • Check the implementation of submitted health and safety arrangements in sites • Frequently check the approved staffs are working in sites. Inform MOH with details when contractor staff return from other districts and get relevant instructions from the health sector • Progress review meeting could be held with limited staffs in DN 2 conference hall	Ongoing	DPD{D/CE/PE/one EA/ TL/Maximum two to three contractor personnel	

16. APPENDIXES

Hand wash set up – In front of Office -20/04/2020

Water spreading system is used for controlled dust generation during pipe laying under dry weather at Vaddukoddai -16/3/2020

Pipe laying work is ongoing at Karainagar - 28/1/2020

Pipe laying work is ongoing at Vaddukoddai - 12/1/2020

Pipe laying work is ongoing at Vaddukoddai - 12/1/2020

Trucks are not overloaded while material transport at Vaddukoddai -20/1/2020

Wash Out water test carried out at Paranthan – Poonakary chainage -23/1/2020

In readiness for tower base concreting at Pommaiveli – 16/06/2020

Copy of Environmental Clearance of Package PEIC/JKWSSP/ Sea Water Reverse Osmosis Plant /2015/01

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மத்திய சுற்றாடல் அதிகாரசபை

Central Environmental Authority

Your Ref:

Our Ref: ND/UA07/ER/82211

Date: 02.06.2017

"පරිසර පියස", 104, දෙනවිල කොබ්බෙකඩුව මාවත, බත්තරමුල්ල, ශ්‍රී ලංකාව.
"புறச் சூழல்", 104, டெனவில கொப்பெகடுவ மாவத்தை, பத்தரமுல்ல, இலங்கை.
"Parisara Piyasa", 104, Denzil Kobbekaduwa Mawatha, Battaramulla, Sri Lanka.
Web : www.cea.lk Northern Provincial Office, Jaffna. Tel: 021 2224050

RECEIVED
Date: 05 JUN 2017
Time:
Name: E. Engg. Vijayakanth

Project Director,
Jaffna - Kilinochchi Water Supply & Sanitation Project,
Jaffna.

Environmental Recommendation from Central Environmental Authority for Seawater Desalination Plant at Thalayady, Maruthankeny

This has reference to the Questionnaire on Environmental Impact Identification and relevant documents dated 23.12.2014 and Environmental Study Report prepared by Lanka Hydraulic Institute Ltd. submitted to this Authority on behalf of Jaffna - Kilinochchi Water Supply & Sanitation Project on 06th March 2017 for the above subject.

According to your letter No. JKWSSP/PM/CIU/CEA/RO PLANT, dated 15.05.2017, the previous Environmental Recommendation issued on 29.03.2017 by this Authority is hereby cancelled. Instead, this Environmental Recommendation in respect of the proposed Seawater Desalination Plant at Thalayady, Maruthankeny is granted subject to the following terms and conditions, which should be strictly adhered to by the Project Director in order to abate environmental pollution likely to arise from the operation of Sea Water Desalination Plant.

This Environmental recommendation is valid only for four years from the date of issue of this letter. The construction work should be completed within this period. Any extension will be considered on re-application one month prior to expiry of the validity period.

01 **Project Proponent and Location**

1.1 The Project Director, Jaffna - Kilinochchi Water Supply & Sanitation Project for Desalination Plant at Thalayady, Maruthankeny (hereafter referred to as the Project Proponent) is legally bound to ensure the terms and conditions stipulated in this Environmental Recommendation are adhered to and shall not have full control over a third party that may be involve in construction and operation.

1.2 The proposed Seawater Desalination plant should be located within Lot 1 and 2 as shown in the Preliminary Plan No: ca 2779, dated 2017.01.30 of Senior Superintendent of Surveys.

02 **Noise Control**

2.1 Noise levels at the boundary of the site during the construction stage should be maintained at or below 75dB (A) during day time (between 0600 hrs to 2100 hrs) and at or below 50 dB (A) during night time (between 21.00 hrs to 06.00 hrs).

2.2 Noise levels at the boundary of the site during the operation should be maintained at or below 55dB (A) during day time (between 06.00 hrs to 18.00 hrs) and at or below 45 dB (A) during night time (between 18.00 hrs to 06.00hrs) as per Gazette Extra Ordinary No: 924/12 dated 23rd May 1996.

03. Air Pollution Control

3.1 Dust generated due to vehicle movement, transportation of materials and other construction activities should be minimized by adopting adequate mitigatory measures during constructions period.

4.0 Solid waste management

4.1 Solid waste arising from any process should be disposed of at regular intervals in consultation with the relevant Local Authority in such way that there should not be environmental pollution.

4.2 Solid waste shall not be burnt within the premises or outside in an open environment.

4.3 Discarded RO filters should be stored in safe place and returned to supplier.

4.4 According to the Gazette Extraordinary No: 1466/5 dated 10.10.2006, Polythene or polythene products in thickness 20 micron or less than 20 micron (20µm) shall not be used for industrial or domestic activities

5.0 Waste Water Management

5.1 The brine outfall arrangement and diffuser system shall be designed, constructed and operated to allow the salinity to be dissipated rapidly and to reach ambient seawater levels in less than 100 m from the point of discharge.

5.2 Project Proponent should obtain dumping permit, thirty days prior to the commencement of operation, to dump treated waste to the sea as per the regulation (Issuance of permits for dumping at sea) of Marine Environmental Protection Authority

5.3. Outlet tube/ sampling manhole of the wastewater treatment plant shall always be safe & accessible [illegible]

5.4. Proper Environmental Control shall be implemented to prevent any [illegible] discharge into land, surface water or marine environment.

5.5. Any domestic wastewater arising from cleaning and washing shall only be released into a properly designed septic tank and such wastewater shall not be released into storm water drains at any time.

6.0 Sea Water Intake system

6.1 Offshore intake structure, grilles and arrangements shall be to minimize and adverse impact to the local fishing community by minimizing entrainment by location of the grilles away from sensitive marine habitats and by generously sizing the intake grilles so that the inlet velocity is kept low and it allows small fish to swim back without getting sucked into the intake conduit or pipe.

6.2. Proper Environmental Control shall be implemented during the deep excavation time for installing sea water conduits and providing foundation for sea water intake pump, buildings, tanks and equipment to prevent excessive drainage of any aquifers.

6.3. Sea water intake pipe line should be suitably anchored along the sea bottom profile to minimize erosion.

7.0 Sea Water outfall system

7.1 Diffuser arrangement with smooth contours shall be made to mitigate adverse impact to local fishing community.

7.2 Sea water outfall pipe line should be suitably anchored along the sea bottom profile to minimize erosion.

8.0 Storm water Management

8.1 Removal of trees and shrubs in the proposed site shall be minimized. The construction activity should be carried out in such a way it does not cause any physical damages to the environment like sand deposits, vegetation cover, etc.

8.2 A Proper storm water management plan should be prepared in consultation with Sri Lanka Land Reclamation and Development Cooperation and implemented.

8.3 Natural drainage network within the site should not be obstructed by any activity of the project.

8.4 Suitable soil conservation measures should be adopted during and after construction activities.

8.5 Silt traps should be constructed and properly maintained in order to prevent silt being washed off into Adjacent lands, canal and properties.

9.0 Environmental Monitoring

9.1 Environmental Management Plan submitted along with the Environmental Study Report dated on Dec 2016 should be implemented.

9.2 A monitoring committee consisting of representatives of Central Environmental Authority (CEA), Coast Conservation and Coastal Resource Management Department, Marine Environmental Protection Authority, Urban Development Authority, Divisional Secretariat / Vadamaradchi East, Pradeshiya Sabha / Pala Pitiya and any other concerned decided authority will be established by the CEA to monitor the implementation of mitigation measures by the Project Proponent.

9.3 The Project Proponent shall forward the progress report of Environmental Management Plan (EMP) incorporating the mitigatory measures suggested in the Environmental Study Report dated on Dec. 2016 for every six months.

9.4 Suitably trained qualified officer's who would be responsible for implementation of the EMP shall be assigned.

9.5 All costs incurred by the monitoring committee appointed by the CEA to oversee implementation of the EMP shall be borne by the Project Proponent.

10.0 General Conditions

10.1 This Environmental Recommendation only covers the Seawater Desalination Plant at Thalayady, Maruthankeny Intake and outfall structures and not covers the water distribution system.

10.2 Prior approval shall be obtained from Department of Coast Conservation and Coastal Resource Management for the construction of intake and out fall structure and surge chamber within the coastal zone.

10.3 Construction and operation of Seawater Desalination Plant shall not affect the local fishing community.

10.4 The health and safety of workers shall be ensured as stipulated in the Factories Ordinance and its amendments.

10.5 In accordance with section 23 (A) of the National Environmental act No. 47 of 1980 and its amendments, one month prior to commencement of operation of the Seawater Desalination Plant the Project Proponent shall submit an Environmental Protection Licence application to the CEA with other necessary approvals.

10.6 Any changes or expansion of the project activities should not be carried out without prior approval of the CEA.

10.7 Installation or operation of any machinery other than those stated in the application dated 23.12.2014 should not be carried out without prior approval of CEA.

10.8 Any additional conditions stipulated by the CEA as and when required for controlling any kind of pollution arising from the operation of the Seawater Desalination Plant shall be strictly adhered to.

10.9 The Environmental Recommendation is issued to carry on only the permitted activities therein. It shall not and is not intended to confer the recipient therefore any right to assert ownership to the land where the permitted activities are carried on.

M.A.C. Najeeb
Director (Northern Province
Central Environmental Authority
Northern Provincial Office
Jaffna

M.A.C.Najeeb
Director(Northern Province
Central Environmental Authority
Northern Provincial Office
Jaffna.

Copy to:

1. Divisional Secretary, Divisional Secretariat, Vadamaradchi East, Kankesanthurai
2. Secretary, Pradeshiya Sabha, Point Pedro
3. Director, Environmental Pollution Control, CEA.

Letter of Exemption from Environmental Clearance (PEIC/JKWSSP/Network/2014/02)

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மத்திய சுற்றாடல் அதிகாரசபை

Central Environmental Authority

Your Ref.

Our Ref. NO/KN/08/ER/67/1

Date 15.07.2014

"පරිසර පියස", 104, දෙන්සිල් කොබ්බෙකඩුව මාවත, බත්තරමුල්ල, ශ්‍රී ලංකාව.
"புரிசர பியச", 104, டெ.சில் கொப்பெகடுவ மாவத்தை, பத்தரமுல்ல, ஸ்ரீ லங்கா.
"Parisara Piyasa", 104, Denzil Kobbekaduwa Mawatha, Battaramulla, Sri Lanka.
Web : www.cea.lk
Northern Provincial Office, Jaffna. T.P : 0212224050

PD's Office, NWSSDB
RECEIVED
15 JUL 2014
JKWS & SP, Jaffna

Project Director,
JKWSSP,
Jaffna.

Construction Of Water Towers at Puttur, Meesalai, Poonakari, Navatkuly, Kaddudai, Velanai and Mandaitivu (Package1) and Supplying and Laying of pipes of Water Distribution network in Kayts Velanai and Mandaitivu.

Reference to your letter No: PD/JKWSSP/PMCIU/CEA, dated 16.06.2014 on the above subject;

I kindly inform you that the construction of water towers and laying of pipes for water distribution is not a prescribed activity. Therefore, the Environmental Recommendation of Central Environmental Authority is not necessary.

Thanking you.

Actg. Deputy Director,
Central Environmental Authority,
Northern Provincial Office,
Jaffna.

Actg. Deputy Director
Central Environmental Authority
Northern Provincial Office
Jaffna.

Chairman	Tel : 2872361, 2872340 Fax : 2872347	Director General	Tel : 2872359 Fax : 2872608	Gen. Office	Tel : 2872278, 2873447, 2872273-280, 2873448 Hot Line : 2888999	Media Unit : 2873449
Deputy Director Generals	HRD, Admin & Finance Division Tel : 2869296 Fax : 2872301	Envt. Pollution Control Division Tel : 2873453 Fax : 2872608	Envt. Mgt & Assess. Division Tel : 2872288 Fax : 2872206	Envt. Edu. & Awareness Division Tel : 2872293 Fax : 2872609		
Directors	2872601 (Admin) 2872301 (HRD), 2872290 (Finance) 2872601 (Admin), 2869364 (Finance)	2873452 (EPC), 2872606 (Lab) 2882335 (WM)	2872346 (MRM), 2876643 (EIA) 2867263 (R&D)	2867266 (EEA) Fax : 2872609	2872604 (Legal) (Western Province) Tel : 2862851 Fax : 2868201	

පරිසරවේදය සඳහාවූ අමාත්‍යාංශය | சுற்றாடல் மற்றும் புதுப்பிக்கத்தக்க சக்தி அமைச்சு | Ministry of Environment and Renewable Energy

Contractor's Health and Safety Plan for COVID-19

HEALTH AND SAFETY PLAN IN VIEW OF COVID19

Jaffna Kilinochchi Water Supply and Sanitation Project

Supply & Laying of Water Distribution Networks in Palai, Kodikamam, Meesalai, Poonakary, Puttur, Navatkuli, Karainagar, Punguduthivu, Vaddukkodai Katttidai, Nallur Zones, JMC Transmission Pipeline and Construction of Office/Stores, Quarters at Velanai, Kaddudai, Navatkuli, Pokkanai, Poonery and Karaveddy

Contract No. – PEIC/JKWSSP/Network/2014/02

sierra

1. Staff / Labors for office work and site work

Following categories of staff / labors shall not be allowed to report for work.

- Those having fever, with or without acute onset respiratory symptoms such as cough, runny nose, sore throat and/or shortness of breath.
- Those who have had contact with suspected or confirmed case of COVID-19 for the last 14 days.
- Those who are quarantined for COVID-19.
- Sick individuals or those at particularly high risk of infection.
- Those who have temperature above 37° C

Attendance record shall be maintained for office and each site and movement of staff / labors shall be maintained.

A check list (sample attached) shall be maintained in office and each site.

2. Basic Infection Prevention Measures

- It shall be made mandatory to clean their hands before entering the workplace by staff / labors.
- Hand washing facilities or sanitizing hand rub dispensers shall be made available to staff / labors to clean their hands at the main entrances of project office, site office and suitable other places.
- Hand rub dispensers shall be regularly refilled and soap and water are freely available at all time.
- The correct hand washing technique shall be demonstrated by posters and leaflets.
- Al staff / labors shall be instructed to wear a suitable face mask and it shall be provided to them when necessary.

3. Cleanliness and hygiene of the workplace

- Regular disinfection shall be carried out for surfaces and objects with a suitable disinfectant twice a day.
- Doors shall be kept open as much as possible to ensure adequate ventilation and to minimize the necessity to touch the door handles.
- Overcrowding of staff / labors shall be avoided inside the workplace.

- At least 3 m gap shall be kept between staff inside office.
- Closed dust bins shall be kept inside the office hygienic disposal.

4. Following guidelines shall be strictly adopted in office / site

- Public Health Inspectors shall be invited regularly to visit the office / sites.
- Body temperature of the workers shall be checked at the entrance of each construction site, by a hand held equipment.
- If any construction worker has developed symptoms of CORONA (COVID-19) or high fever he shall be directed to nearest Government Hospital.
- Unnecessary visitors shall not be allowed in office / sites.
- Construction workers shall be educated to restrain from touching their face, eyes, nose or mouth.
- A register and the contact details of all staff /labors shall be maintained at the site.
- Lunch room shall be kept clean and disinfected and number of persons using the lunch room at one time shall be minimized.
- Accommodation facilities shall be temporally closed and local staff / labors shall be engaged to work.
- Meeting shall be arranged with minimum participants to educate about the present health guidelines.
- Guide lines given by **Ministry of Health & Indigenous Medical Services** and **Ministry of Urban Development, Water Supply & Housing Facilities** shall be strictly followed.

5. Special arrangement for pipe laying sites for Basic Infection Prevention

- A mini truck with water tank filled with clean water shall be sent to pipe laying sites frequently. The mini truck will also carry soap / hand wash to facilitate the site staff, operators and labors.
- Safety officer will travel to sites with this truck and supervise the hand washing arrangements.
- Warm water (drinking water) shall be supplied to sites frequently.
- Face masks shall be provided to site staff, operators and labors. Safety officer will ensure that face masks are properly worn.
- All site people shall be provided with hand gloves.

- All labors shall be instructed not to interchange tool among them without proper cleaning / disinfecting.
- Other safety and health guidelines mentioned above also shall be applied to site level.

6. Staff / workers details

Staff Details

No	Name	Address	Site
1	T.B.Steve	24/8, Forest Office Lane, Jaffna	Office, Chavakacheri
2	P.Miruna	Vaddu South West,Vaddukoddai	Office, Chavakacheri
3	P.Pathmanila	Murugan Kovilady,Thurayamoolai,Puloly North West,Puloly.	Office, Chavakacheri
5	T.Kokulan	Valliyawathai Karanavai West,Karaveddy	Office, Chavakacheri
6	S.Kirushnaraj	Kurumbalkaddy Puloly North West,Puloly	Office, Chavakacheri
7	S.Piranavan	Uduvil West Chunnakam	Office, Chankanai
8	T.Sinthusan	Velanai West Velanai	Office, Chankanai
9	S.Kajanan	Vidaththatpalai Mirusuvil.	Office, Chankanai
10	T.Thavathaas	Kokuvil west,Kokuvil.	Office, Chankanai
11	S.Santhiraboss	Ward No 02,Allaipiddy	Office, Chankanai
13	T.Kajaruban	Dutch Road,Siththankerney	Puthur
14	S.Pirashanthan	Kurumbalkaddy Puloly North West,Puloly	Puthur
15	A.Kishan	Ward No-02,Allaippiddy	Navatkuli

Labors Details

No	Name	Address	Site
1	S.Thanabalasingam	Madduvil North Madduvil,Chandrapuram,Chavakachcheri	Puttur
2	S.Ganaraj	Meesalai North ,Kodikamam	Puttur
3	R.Anojan	Puttur East , Puttur	Puttur
4	S.Sanojan	Puttur East , Puttur	Puttur
5	S.Tharsan	Puttur East , Puttur	Puttur
6	S.Raguvaran	Maduvil North,Chanthirapuram	Nawatkuli
7	N.Ramesh	Periyanavaladai, Kodikamam	Nawatkuli
8	S.Purusothaman	Sivan Koviladi, Chavacheri	Nawatkuli
9	N.Nitharsan	Sivan Koviladi, Chavacheri	Nawatkuli
10	K.Sajeevan	Court Road,Mallaakam	Katudai
11	V.Vinusan	Court Road,Mallaakam	Katudai
12	S.Yuvaraj	Iyanar kovil,Sandilippay	Katudai
13	S.Kabilraj	Iyanar Kovil,Sandilippay	Katudai
14	N.Ramanraj	Court Road,Mallaakam	Katudai
15	T.Janothan	Puttur west,Thokka Thidal	Katudai

Drivers Details

No	Name	Address	Details
1	A.Jenathas	Urumbirai East, Urumbirai	Navatkuli
2	M.Sooriyas	S Houseing Scheme,Nawatkuli Junction, Kaithadi	Puthur
3	N.Kesarivarnan	Puttur East, Puttur	Puthur
4	S.Sasitharan	Kodikamam Hospital Road , Mirusuvil	Puthur

7. Mobilization Plan for Project office

- Chavakacheri MOH office shall be informed by writing before starting the work.
- One third of staff shall be reporting work rotation wise. Rest of the staff shall be work from home.
- Necessary software shall be installed to staff PC at their home.
- Frequent disinfection shall be carried out at office as described above.
- As we are not planning to run accommodation facilities for the time being, local staff / labors will be employed. They will travel from home as usual to office / site by private transport. All staff and labors shall be instructed to wash hands and legs before enter the office / site. Necessary washing arrangements shall be provided as described above. Further everybody will be advised to take bath before enter their home after finishing the work.

8. Daily Site mobilization

- Hand washing arrangement and other safety arrangement as described above shall be made available at site.
- Staff / labors will travel to site in site vehicle while keeping 1 m distance.
- Before get in to the vehicle everybody will wash their hands.
- At site minimum distance will be maintained between people.
- Health and safety demonstrations shall be given to site staff / labors by safety office.
- Attendance register and movement register shall be maintained at site.
- Check list (sample attached) shall be maintained at site.