

# Quarterly Environmental Monitoring Report

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Project number: 37378-014, 37378-013

Period: April – June 2020

Submission Date: January 2021

## SRI: Jaffna and Kilinochchi Water Supply Project – Additional Financing

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## **JAFFNA KILINCHCHI WATER SUPPLY PROJECT**

### **NATIONAL WATER SUPPLY & DRAINAGE BOARD**

## **SECOND QUARTER ENVIRONMENTAL MONITORING REPORT- 2020**

Project Management Coordination and Implementation Unit

Jaffna Kilinochchi Water Supply Project

National Water Supply & Drainage Board

No.127, MPCS building 1<sup>st</sup> Floor, K.K.S Road, Jaffna

Tel: 021 – 222 0256

## 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 As a result of restructuring of project the AFD (the co-financing partner) had withdrawn its funding amounting to 35 million euros, dedicated for Iranaimadu based Water Treatment Plant (WTP) and Raw Water conveyance from Iranaimadu Tank to WTP and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<sup>3</sup>/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.

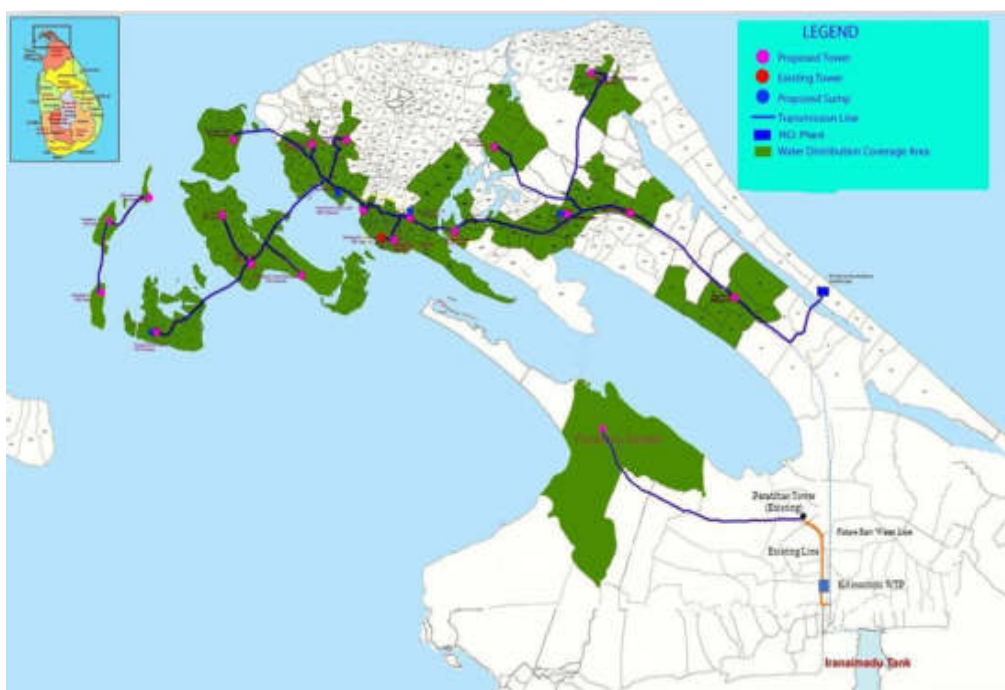
ADB has classified the project as environmental Category A (the highest category), because it involves construction and operation of a large industrial complex at a coastal green field site and is therefore expected to have significant adverse impacts. An EIA study was conducted from December 2015 to 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 <sup>1</sup>	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		

<sup>1</sup> 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 <sup>2</sup> . 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		

<sup>2</sup> 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.
Consultant Firm		Team leader	Negotiation completed and the agreement to be signed. These recruitment will be done after award of the RO plant contract.		
		Environmental Social Compliance Officer			

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/Environmenta list			

### 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) <sup>3</sup>	Contract Status (specify if under bidding or contract awarded)	If On-going 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	Awarding stage	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 Velanai, Kaddudai, Navatkuli, Pokkanai, Poonery and Karaveddy	Civil works	Construction is Ongoing.	contract awarded (Awarded (29.10.2018) to M/s Sierra Construction Ltd)	58.44%	02.12.2020
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		

<sup>3</sup> If on-going construction, include %physical progress and expected date of completion



				clarification. The SCAPC meeting held on 04.03.2020 and waiting for the meeting minutes.
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**Package-wise Contractor/s' Nodal Persons for Environmental Safeguards**

<b>Package Number</b>	<b>Contractor</b>	<b>HSE Nodal Person</b>	<b>Email Address</b>	<b>Contact Number</b>
PEIC/JKWSSP/SEA WATER REVERSE OSMOSIS PLANT /2015/01	<i>Not yet awarded</i>			
PEIC/JKWSSP/Network/2014/02	<i>M/s Sierra Construction Ltd</i>	<i>Project Manager</i>	<i><a href="mailto:pperera@sierra.lk">pperera@sierra.lk</a></i>	<i>112584681/ 112598171</i>
PEIC/JKWSSP/Distribution Networks /2017/01 <sup>4</sup>	<i>Not yet awarded</i>			

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<sup>4</sup> 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? <sup>5</sup> (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			<p><i>EIA report has been disclosed on project website (link is <a href="http://jkwssp.org/index.php/environmental-issues">http://jkwssp.org/index.php/environmental-issues</a>)</i></p> <p><i>Note: The landing page of this link on project website provides another hyperlink to the disclosed EIA report on ADB website.</i></p>			Preparation of cabinet paper in progress.
PEIC/JKWSSP/Network/2014/02	<i>On-going Construction (Length of the DN is 247 km)</i>	<b>24.07.2014</b>	<i>Not yet.</i>	<b>Yes</b>	<b>Yes</b>	The IEE report will be disclosed on project website and will be reported in the next applicable QEMR.
PEIC/JKWSSP/Distribution Networks /2017/ 01	<i>Under bid evaluation</i>					

<sup>5</sup> 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	<ul style="list-style-type: none"><li>Environmental Clearance - CEA</li></ul>	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). Copy of the letter of approval was attached in the QEMR for January – March 2020. 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	<ul style="list-style-type: none"><li>Environmental Clearance - CEA</li></ul>	Approval received. Environmental clearance is not required. Copy of the letter of exemption was attached in the QEMR for January – March 2020.			
PEIC/JKWSSP/Distribution Networks /2017/ 01	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	complied	

	considered in the EIA, the EMP and the RP.		
Schedule 5, Item 8: - Safeguards monitoring and reporting	<p>The Borrower through the MUD, WS &amp; 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</p>	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 endorsement letter of the plan is attached in the Appendix. A copy of the health and safety plan was attached in the QEMR for period January – March 2020.	
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	<p>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 &amp; 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</p>	Being complied with	

	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.		
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**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/Time
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
Activity: 1.1. 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 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	Partly	Moderate	To be improved	being complied with	
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	Moderate	To be improved	being complied with	
Activity: 1. 2. 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)	Partly	Moderate	To be continue	being complied with	
	(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	being complied with	
Activity: 1. 3. Hauling of material							
Dust blowing from uncovered material heaps during dry weather shall endanger public	(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	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
health							
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	being complied with	
Activity: 1. 4. 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	being complied with	
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	being complied with	
		(ii)well maintain the water spray at all time when using the asphalt cutter.	Partly	Moderate	To be improved	being complied with	
Activity: 1. 5. 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	



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) 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	
<b>Activity: 1. 6. Maintenance of office/ labour camps/stores/sites</b>							
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	being complied with	
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	-	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) Fire extinguishers are not outdated and first aid requirements are available	Partly	Moderate	-	being complied with	
<b>Activity: 1. 7. Use of machinery/equipment at construction work</b>							
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	being complied with	
		(iii) Post crack survey has been carried out	No	-	-	being complied with	
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	-	being complied with	
<b>Activity: 1. 8. Common items</b>							
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	(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	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
atmospheric pollution		(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	
		(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	

Environmental Issues to consider	Mitigation measures	Monitoring Parameter	Mitigation Implemented	Mitigation effectiveness		Status of Corrective Action	Further Corrective Actions Required/
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(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	Moderate	To be improved	being complied with	
		(ii)Waste segregation is introduced and implemented	Partly	Moderate	To be improved	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	Moderate	To be improved	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	Moderate	To be improved	being complied with	
		(ii)Dust is not generated at construction area	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/
				Current Quarter	Overall Perform		Nature of Further Corrective Actions
		(iii)Dust is not deposited over the surrounding area	Partly	Moderate	To be improved	being complied with	
		(iv)Baseline survey for air quality is regularly conducted	No	Moderate	To be improved	being complied with	
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	Partly	Moderate	To be improved	being complied with	
		(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	

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
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	

## 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<sup>6</sup>

Date	Topic	Conducted by	No. of Participants (Total)	No. of Participants (Female)	Remarks
27/05/2020	1. GPS System Description 2. GPS Applications 3. Geodesy and Satellite Orbits 4. Satellites and Control Segment	<i>M/s Sierra Construction Ltd</i>	20	5	

## 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
<b>Activity: 1. 1. Construction of structures ( buildings)</b>						
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	(i)Adequate warning boards, barricades, safety nets, temporary access are provided and maintained well	Visual	9.740003, 79.886904	18/5/2020	S. Sivathanan S. Arani

<sup>6</sup> 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.

[illegible]



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 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	9.743857, 79.885900	18/5/2020	S. Sivathasan  S. Arani
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	9.743857, 79.885900	18/5/2020	
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	9.743857, 79.885900	18/5/2020	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	9.743857, 79.885900	18/5/2020	

<b>Impacts</b> (List from SEMP/CEMP)	<b>Mitigation Measures</b> (List from SEMP/CEMP)	<b>Parameters Monitored</b> (As identified in the SEMP/CEMP)	<b>Method of Monitoring</b> (Visual, Actual Sampling, etc )	<b>Location of Monitoring</b> (Provide GPS Coordinates)	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
		(ii) well maintain the water spray at all time when using the asphalt cutter.	Visual	9.743857, 79.885900	18/5/2020	
<b>Activity: 1. 7. Maintenance of storage areas</b>						
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	23/5/2020	
<b>Activity: 1. 8. Maintenance of office/ labour camps/stores/sites</b>						
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	9.744239, 79.947367	06/06/2020	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	Visual	9.744239, 79.947367	06/06/2020	

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
		regular intervals (quarterly)				
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	9.744239, 79.947367	06/06/2020	
		(ii)Fire extinguishers are not outdated and first aid requirements are available	Visual	9.744239, 79.947367	06/06/2020	
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.	No observed			S. Sivathanan  S. Arani
		(iii)Post crack survey has been				

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
		carried out				
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	9.742319, 79.947259	06/06/2020	
		(ii)Bi-annual baseline survey is carried out to test the noise level	Visual	9.742319, 79.947259	06/06/2020	
Fuel/oil spills shall cause environmental pollution	(i)To deploy quality tested machinery and vehicles	(i)Quality certified machinery and vehicles are deployed	Visual	9.742319, 79.947259	06/06/2020	
		(ii)Quality of machinery and vehicles are regularly observed	Visual	9.742319, 79.947259	06/06/2020	
Activity: 1. 10.Common items						

<b>Impacts</b> (List from SEMP/CEMP)	<b>Mitigation Measures</b> (List from SEMP/CEMP)	<b>Parameters Monitored</b> (As identified in the SEMP/CEMP)	<b>Method of Monitoring</b> (Visual, Actual Sampling, etc )	<b>Location of Monitoring</b> (Provide GPS Coordinates)	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
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	9.681050, 80.004827	16/6/2020	S. Sivathanan  S. Arani
		(ii)All employees are fully equipped with standard PPEs while attending work	Visual	9.681050, 80.004827	16/6/2020	
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	9.681050, 80.004827	16/6/2020	
		(ii) Warning boards, speed limits, barricades, luminous stickers, night signal lamps, are adequately provided where necessary as per	Visual	9.681050, 80.004827	16/6/2020	

<b>Impacts</b> (List from SEMP/CEMP)	<b>Mitigation Measures</b> (List from SEMP/CEMP)	<b>Parameters Monitored</b> (As identified in the SEMP/CEMP)	<b>Method of Monitoring</b> (Visual, Actual Sampling, etc )	<b>Location of Monitoring</b> (Provide GPS Coordinates)	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
		approved TMP				
		(iii) Safe temporary access, pedestrian passes and road humps are adequately provided	Visual	9.738932, 79.885790	16/6/2020	
		(iv) Traffic controllers are deployed as and when required	Visual	9.738932, 79.885790	16/6/2020	
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	(i) Construction waste collecting arrangement is implemented.	Visual	9.723871, 79.943356	16/6/2020	S. Sivathanan S. Arani
		(ii) Local authority permission is obtained for disposal yards.	Visual	9.723871, 79.943356	16/6/2020	

<b>Impacts</b> (List from SEMP/CEMP)	<b>Mitigation Measures</b> (List from SEMP/CEMP)	<b>Parameters Monitored</b> (As identified in the SEMP/CEMP)	<b>Method of Monitoring</b> (Visual, Actual Sampling, etc )	<b>Location of Monitoring</b> (Provide GPS Coordinates)	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
	regularly	(iii)Regular construction waste disposal arrangements are implemented	Visual	9.723871, 79.943356	16/6/2020	
		(v)Construction waste is not disposed at unauthorized locations	Visual	9.723871, 79.943356	16/6/2020	
		(vi)Construction waste is not scattered at sites, camps and office premises	Visual	9.723871, 79.943356	16/6/2020	
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	16/6/2020	
		(ii)Waste segregation is introduced and implemented	Visual	9.516065, 80.203632	24/6/2020	

<b>Impacts</b> (List from SEMP/CEMP)	<b>Mitigation Measures</b> (List from SEMP/CEMP)	<b>Parameters Monitored</b> (As identified in the SEMP/CEMP)	<b>Method of Monitoring</b> (Visual, Actual Sampling, etc )	<b>Location of Monitoring</b> (Provide GPS Coordinates)	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
		(iii)Waste is regularly collected by the local authority	<i>Visual</i>	9.741314, 79.882732	24/6/2020	
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	<i>Visual</i>	9.741314, 79.882732	24/6/2020	
		(ii)Dust is not generated at construction area	<i>Visual</i>	9.741314, 79.882732	24/6/2020	
		(iii)Dust is not deposited over the surrounding area	<i>Visual</i>	9.741314, 79.882732	24/6/2020	
Vehicles/machinery/trucks movement during construction without standard signals, warning alarms, helping assistants shall endanger	(i)To deploy vehicles /machinery/trucks having standard signals, warning alarms (in	(i)All vehicles /machinery trucks deployed are fitted with standard signals, warning alarms	<i>Visual</i>	9.741314, 79.882732	24/6/2020	



<b>Impacts</b> <i>(List from SEMP/CEMP)</i>	<b>Mitigation Measures</b> <i>(List from SEMP/CEMP)</i>	<b>Parameters Monitored</b> <i>(As identified in the SEMP/CEMP)</i>	<b>Method of Monitoring</b> <i>(Visual, Actual Sampling, etc )</i>	<b>Location of Monitoring</b> <i>(Provide GPS Coordinates)</i>	<b>Date of Monitoring Conducted</b>	<b>Person Who Conducted the Monitoring</b>
occupational/public safety	working order) by employing qualified drivers/operators with helping assistants	and which are working order				
		(ii)All drivers/operators are qualified and no unqualified driver/ operator is deployed whatsoever	<i>Visual</i>	9.741314, 79.882732	24/6/2020	
		(iii)Helping assistants are employed for all heavy machinery and trucks while working at sites	<i>Visual</i>	9.741314, 79.882732	24/6/2020	

#### 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 <sup>7</sup> (Yes / No)	Action Proposed and Additional Measures Required
PEIC/JKWSSP/Network/2014/02	Recorded	Yes	Contractor should be advice Health and safety protocols for the prevention of COVID-19. A copy of the health and safety protocol developed by the Contractor was attached in the QEMR for period January – March 2020.
PEIC/JKWSSP/Distribution Networks /2017/ 01	Recorded	Yes	Contractor should be advice Health and safety protocols for the prevention of COVID-19. A copy of the health and safety protocol developed by the Contractor was attached in the QEMR for period January – March 2020.

- 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.

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<sup>7</sup> 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.

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.

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 was attached in the next QEMR for period January – March 2020. 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.

<b>Issues/Concerns</b>	<b>Action</b>	<b>Status</b>	<b>Responsible officer</b>	<b>Remarks</b>
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	Staff entering the office are advised to clean footwear- Staff should be clean footwear by Chlorinated Doormat carpet	Ongoing	Office assistant and Security officer.	

Issues/Concerns	Action	Status	Responsible officer	Remarks
PMCIU Office				
	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.	
	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	<ul style="list-style-type: none"> <li>• All members will use Zoom software to attend meetings.</li> <li>• Quality sanitizer and masks need to be provided</li> </ul>	Ongoing	Office assistant	
Contractor staffs	<ul style="list-style-type: none"> <li>• Unless otherwise requested or needed only contractor staff could come to the office</li> <li>• Outside conference hall Space allocated for discussions.</li> </ul> Registration of details – name, designation, working place, telephone number	Ongoing	Office assistant and Security officer.	

Issues/Concerns	Action	Status	Responsible officer	Remarks
	<ul style="list-style-type: none"> <li>• Suggest working in separate groups. Engineer and relevant office staffs could work in the main office and respective EAs could work in site offices</li> <li>• Take precautions during a site visit</li> <li>• Check the implementation of submitted health and safety arrangements in sites</li> <li>• 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</li> <li>• Progress review meeting could be held with limited staffs in DN 2 conference hall</li> </ul>	Ongoing	DPD {D/CE/PE/one EA/ TL/Maximum two to three contractor personnel	

**16. APPENDIXES**



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



Pipe laying works is ongoing at Karainagar – 18/5/2020



Disinfection process is ongoing at the Office – 12/5/2020





GPS training on progress at Old Park – 27/05/2020



GPS training on progress at Old Park – 27/05/2020



All employees are provided with PPEs while going to the site at Analaitivu – 17/07/2020



Rock drillers are equipped with dust masks during the drilling

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All employees are fully equipped with standard PPEs while attending work at Pommaiveli -16/06/2020



Construction waste collecting arrangement was implemented at Vaddukkodai – 23/05/2020



Wash Out water test carried out at Nainativu -23/05/2020