

Environmental Monitoring Report

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Quarterly Report (January-March 2025)
April 2025

Maldives: Greater Male Waste-to-Energy Project

PART A: Main Report

Prepared by the Ministry of Tourism and Environment for the Ministry of Finance and Planning and the Asian Development Bank (ADB).

CURRENCY EQUIVALENTS

(As of 1 October 2024)

Currency unit	–	Equivalent
1 MVR	=	\$ 0.065
\$1.00	=	MVR15.46

ABBREVIATIONS

ADB	–	Asian Development Bank
CVRA	–	climate vulnerability and risk assessment
CCA	–	Climate change assessment
DBO Contractor	–	design-build-operate
EA	–	executing agency
EIA	–	environmental impact assessment
EMP	–	environmental management plan
EPA	–	Environmental Protection Agency
ER	–	employer's representative
IA	–	implementing agency
IEE	–	initial environmental examination
MoTE	–	Ministry of Tourism and Environment
MoFP	–	Ministry of Finance and Planning
MTCC	–	Maldives Transport and Contracting Company
PMDSC	–	project management, design and construction supervision consultant
PMU	–	project management unit
URA	–	Utility Regulatory Authority of the Maldives
WAMCO	–	Waste Management Corporation Limited
WTE	–	waste-to-energy

WEIGHTS AND MEASURES

°C	degree Celsius
dB	decibel
tpd	tons per day
cm	centimetre
km	kilometre
kg	kilogram
MW	megawatt
kW	kilowatt
µg/L	microgram per litre
µg/m ³	microgram per cubicmetre

NOTE

In this report, "\$" refers to United States dollars.

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I. INTRODUCTION

A. Greater Male Waste-to-Energy Project

1. The project will establish a sustainable regional solid waste treatment system in the Greater Malé capital region by (i) developing treatment (proven waste-to-energy [WTE] technology), recycling and disposal infrastructure; (ii) strengthening institutional capacities for sustainable solid waste services delivery and environmental monitoring; and (iii) improving public awareness on WTE and reduce-reuse-recycle (3Rs). The project is designed to reduce disaster risk and improve climate change resilience while creating a cleaner environment and reducing greenhouse gas (GHG) emissions.
2. The Greater Malé capital region and its outer islands (see Figure 1 for the project implementation area) suffer from inadequate collection and haphazard disposal of solid waste leading to environmental pollution and deteriorating livability. The project area covers 32 inhabited islands in the North Ari Atoll (Alifu Alifu Atoll), South Ari Atoll (Alifu Dhaalu Atoll), Malé' Atoll (Kaafu Atoll) and Vaavu Atoll, including the capital city of Malé, with a total population of 295,000 (53% of Maldives) as stated by the National Bureau of Statistics (2018), Maldives Population Projections 2014-2054.
3. Lack of a sustainable system to manage the 836 tons per day (tpd) of solid waste (Feasibility Study, 2018) generated in the project area resulted in waste spillage into the ocean, and open dumping and burning of garbage at the 30-year-old, 10-hectare dumpsite on Thilafushi Island which has no pollution control measures, creating a public health and environmental hazard. Plumes of smoke visible from the capital Malé, the international airport and nearby resorts compromise air quality and pose nuisance to residents and tourists, while leachate and plastics contaminate the surrounding marine environment. This poses a critical threat to tourism and fisheries, both of which rely heavily on the country's pristine environment and are cornerstones to Maldives' economy. This project will establish a sustainable regional solid waste treatment and disposal system. Proposed project site is shown in Figure 2.

B. Project Outcome and Outputs

4. The project will have two outputs and Table 1 presents the subprojects and/or packages:
 - 4.1. **Output 1:** Disaster- and climate-resilient regional waste management facility developed. This will include (i) a 500 tpd WTE plant with 15-year operations and maintenance (O&M) contract, including two treatment lines of 250 tpd each, energy recovery and air pollution control (APC) system; and (ii) a landfill for safe disposal of APC residues and non-marketable bottom ashes. The facility is expected to export 10.5 megawatt (MW) of electricity to the grid and will be designed to accommodate a third 250 tpd treatment line, required to respond to further demand increase. All facilities will adopt disaster- and climate-resilient features such as raised floor elevations, flood-proof mechanical and electrical equipment and landfill cells, and enhanced drainage systems.
 - 4.2. **Output 2:** Institutional capacity in sustainable solid waste management (SWM) services delivery (WTE) and environmental monitoring strengthened and public awareness on WTE and 3Rs improved. This will include (i) capacity building support in monitoring sustainable WTE operations, including the Ministry of Tourism and Environment (MoTE) and the Environmental Protection Agency (EPA) institutional capacity strengthening and training to monitor WTE O&M and environmental standards; (ii) public awareness on WTE and 3Rs in Greater Malé improved; and (iii) project management and supervision consultant support provided.

Table 1: Subprojects/Packages

No.	Subproject / package	Type of contract
1	WTE plant and auxiliary facilities of plant with 15 years O&M contract	Design-Build-Operate (DBO Contractor)
2	Project management and supervision	Consulting services contract
3	Community awareness consultant	Consulting services contract
4	Individual Environmental Monitor	Consulting services contract
5	Joint Crediting Mechanism Auditor	Consulting services contract

C. Environmental Category

5. The project is classified as environmental category A according to Safeguard Policy Statement (SPS) 2009 of the Asian development Bank (ADB) due to construction and operation of a large WTE facility which may have potential significant adverse impacts. This project is classified as a Schedule D project by the Environmental Protection Agency (EPA), Republic of Maldives based on the Regulation on the Preparation of Environmental Impact Assessment (EIA) Report (2012/R-27). The Approval/Decision Statement for this project has been received from the EPA on 21 January 2020 and extended until December 2021. As site preparation work and demarcation work and site levelling work started within the EIA extension period, the EIA is valid till the end of project construction phase and operation phase. However, any change or any new activity which require permit should follow a screening process with the EPA. As such an addendum was prepared for construction and operation of a domestic sewerage treatment plant which was not covered in the EIA. ¹

D. About this Report

6. This is the quarterly environmental monitoring report (QEMR) prepared by the Project Management Unit (PMU), the Ministry of Tourism and Environment (MoTE), for the monitoring period from 1st January 2025 to 31st March 2025. This QEMR provides the status of project implementation, presents the preparation and implementation of environmental management, details of mitigation and monitoring actions, and status reports of compliance with the environmental management plan (EMP) and ADB loan covenants. This report covers the contract packages implemented under this project.

¹ According to EIA regulation 2012 validity of EIA is one year and can only be extended once for another year. Before validity of decision statement expires, construction related work such as site clearance and mobilization of equipment and materials can be carried out. EPA considers such preliminary works as site activities as project initiation. Once a project is initiated within the validity period of EIA decision statement validity period of the permit will remain.

II. PROJECT IMPLEMENTATION ARRANGEMENTS

A. Project and Safeguards Implementation Arrangements

7. The project's executing agency (EA) is the Ministry of Finance and Planning (MoFP), while the implementing agency (IA) is the MoTE. The PMU at the MoTE will assist in: (i) project management; and (ii) function as project implementation unit to assist in day-to-day project implementation and operation of water supply, water resource management, and capacity building components.
8. A project steering committee (PSC), with membership comprising of officials from relevant ministries, representatives from other relevant institutions/agencies, provides overall policy and strategic guidance to the Project and ensures collaboration among central level agencies. The PSC is Chaired by the Minister, MoTE (or a senior official designated by the Minister), and representative from Ministry of Finance, Ministry of Housing, Land and Urban Development, Waste Management Corporation Limited (WAMCO), Ministry of Tourism, Ministry of Health, Ministry of Social and Family Development, Local Government Authority, Environmental Protection Agency and State Electric Company Limited (STELCO).
9. MoTE, through the PMU, is responsible for ensuring the project's compliance with the ADB loan covenants. Headed by the Project Director, PMU is responsible for the overall project and for the day-to-day implementation of the project. The PMU is staffed with technical, financial, safeguards, capacity building/governance and procurement officers to manage all technical, procurement, safeguards, and loan account administration. The PMU's key technical and managerial staff are supported by the Project Management Design and Construction Supervision Consultant (PMD CSC).
10. PMU is responsible for the implementation of this project in compliance with ADB's SPS 2009 and the applicable government rules and regulations. PMU, through a Safeguards Specialist, oversees the implementation and monitoring of environmental safeguards and is responsible for implementation, monitoring, reporting and compliance with safeguards related ADB loan covenants. PMU is supported by various experts, and the details of consultants, DBO Contractor and monitoring experts involved in the project are given below:
 - 10.1. Consultants for implementation and monitoring. PMU is assisted by specialist consultants of PMDCSC in environment safeguards.
 - 10.2. DBO Contractor. The WTE plant will be designed, constructed, operated, and maintained by a single contractor using the DBO Contractor contract. The O&M period under the DBO Contractor Contract will be 15 years. The DBO Contractor is responsible for the implementation of the EMP at all stages of the project. The DBO Contractor includes a full-time HSE manager with extensive experience. As part of back-to-back contract, EPC contractor has engaged a team of HSE professionals in compliance with contractual obligations.
 - 10.3. External monitoring. As required by SPS 2009 for a category A project, an Independent External Monitor (IEM), an environmental expert has been contracted for this project to verify its monitoring information and reports directly to ADB. The IEM shall not be involved in the day-to-day project implementation or supervision of the project but will closely coordinate his/her site visits and work with the PMU.

B. Status of Staff Resources

Current status. Table 2 shows the environmental safeguards staff engaged at all levels in the project including project agencies, consultants, contractors, and monitoring personnel.

According to the DBO Contractor's obligations, one environment manager, one health and safety manager, three health and safety inspectors and three environment officers must be on site, one for each shift. However, there are a total of four subordinates for environment and health and safety as at present most of construction work is executed/envisaged in one shift and on a need basis in second shift.

Table 2: Environmental Safeguards Team

Sl. No.	Positions	Name of the expert/staff	Contact Number & Email	Remarks
A	PMU			
1	Social and Environmental Safeguards Specialist	Fathimath Yamna Mohamed	+9609995153 fathimath.yamna@environment.gov.mv	-
B	PMDCSC (Fichtner GmbH & Co. KG together with Renewable Energy Maldives)			
1	Team Leader	Javier Varon	+34608147897 Javier.varon@fichtner.es	-
2	Project Manager	Maximilian Schrade	+601112201489 Maximilian.schrade@fichtner.de	-
3	Environmental Expert (international)	Sunil Chandra Gupta	+91- 9759955477, 9412230242 heenagrawal1@yahoo.co.uk	Work on hold from 05/03/2025 as time allocated for the project is exhausted and contract amendment of PMDCSC is pending for approval from Ministry of Finance and Planning (MoFP).
4	Environmental Safeguard Expert (local)	Zaha Waheed	+9607904730 zaha.waheed@renewableenergymaldives.com.mv	
C	DBO Contractor (URBASER SA)			
1	Project Manager, URBASER (DBO Contractor)	Javier Gamero Sutil	+34914122000 / +34 914122907 infoMaldivesWtE@urbaser.com	-
2	EHS Manager, URBASER (DBO Contractor)	Roshan Thomas	+960 911 0165 rthomas@urbaser.com	-
3	Contractor's Engineers (Project Manager)	Raymond Lee	+6590057789 rlee@ramboll.com	Ramboll as a company has been contracted as contractor's engineer by URBASER on 15 th March 2022
4	Environmental Manager	Sujith Sudhakaran	+9609502431 sujith@aawte.com	-

Sl No	Positions	Name of the expert/staff	Contact Number & Email	Remarks
5	HS manager	Dhamothara Kannan	+9609188331 dhamu@aawte.com	-
D	Independent External Monitor			
1	Independent environmental monitor	Nicholas Skinner	<a href="mailto:nick.skinner@vistaenvironme
nt.com">nick.skinner@vistaenvironme nt.com 0046736504583	-

III. PROJECT IMPLEMENTATION STATUS

A. Status of Bidding and Contract Award

11. The project has five contract packages. Details of contract packages are given in Table 3.

Table 3: Status of Contract Packages

No.	Package Number/Name	Project components	Status	Name of contractor	Duration of contract	Contract start date
1	DBO Contractor a WTE plant in Thilafushi	WTE plant and balance of plant with 15 years O&M	Contract awarded	Urbaser SA	18.5 years	10 October 2021
2	Project management, design and construction supervision	Project management, design and construction supervision	Contract awarded	Fichtner GmbH & Co. KG and Renewable Energy Maldives (REM)	66 months	30 January 2022
3	Community/Public Awareness consultant	Community Awareness consultant	Awaiting Ministry of Finance and Planning to issue notification of award letter	-	-	Consultant will be finalized within the next quarter.
4	Independent Environment Monitor	Independent environment monitor for environment category A project	Contract signed. Site visits ongoing	Vista Environnent AB - Nicholas Skinner	60 months	19 December 2021
5	Joint Crediting Mechanism (JCM) Auditor	To validate proposed JCM project and verify GHG emissions reduction	Not advertised yet and to be hired in Q2 of 2025	-	-	-

B. Implementation Status

12. Implementation status of awarded civil work contract packages is presented in Table 4.

Table 4: Implementation Status of Civil Works Contract Packages

No.	Package	Progress during reporting period	Cumulative progress as of 31 st March 2025	List of main activities/works conducted during reporting period	Activities / Components completed to date
1	WTE plant and balance of plant with 15 years O&M.	Design: 4.59% Construction: 3.24% Procurement & Manufacturing: 4.23% Overall Progress 2.51%	Design: 68.94% Construction: 26.76% Procurement & Manufacturing: 25.92% Overall Progress 26.38%	<ul style="list-style-type: none"> ▪ Detailed Design, documentation and review process is ongoing. ▪ Monitoring of ambient air quality, noise level, ground water and marine water quality is ongoing. ▪ Development of construction related method statements. ▪ Concrete works for the main process building continues. ▪ Stack foundation test piles have been installed and tested. ▪ Firefighting water tank and pump room building foundation work has been started. ▪ Bunker concrete works continue on the staircase and elevators. ▪ Turbine service building foundation level works have been started. ▪ Manufacturing works for the turbine, boiler systems, feedwater pump and hydraulic station is ongoing. ▪ Seawater intake structure - Excavation for first layer started. ▪ 	<ul style="list-style-type: none"> ▪ Geotechnical investigation. ▪ Concept design ▪ Permitting design ▪ EIA update based on conceptual design. ▪ Installation of wastewater treatment plant (WWTP) ▪ Foundation detailed design of the main process building approved by ER. ▪ Bunker Wall up to 13th layer has been completed. ▪ Spun pile driving completed. ▪ Pile caps concrete work has been completed for the bunker and main process area. ▪ Turbine area pile caps has been completed. ▪ Commissioning and operation of batching plant. ▪ Main process building Area 1,2,3 foundation slab completed. ▪ Finalization of HSE Plans. ▪ Dewatering from Bunker and turbine area has been stopped. ▪ Boiler foundation has been completed.

No.	Package	Progress during reporting period	Cumulative progress as of 31 st March 2025	List of main activities/works conducted during reporting period	Activities / Components completed to date
					<ul style="list-style-type: none"> ▪ Bunker Wall concrete work completed.

C. Work Planned for the Upcoming Quarter (April – June 2025)

13. Main work that is planned for the upcoming quarter is presented in Table 5. However, the actual work and progress may vary.

Table 5: Work planned for the upcoming quarter (April - June 2025)

No.	Package	Cumulative progress as of 31 st March 2025	Expected cumulative progress up to 30th June 2025	List of main activities/works planned for next reporting period	Key HSE aspects
1	WTE plant and balance of plant with 15 years O&M.	Design: 68.94% Construction: 26.76% Procurement & Manufacturing: 25.92% Overall Progress: 26.38%	Design: 84.09% Construction: 28.46% Procurement & Manufacturing 39.60% Overall Progress 32.91%%	<ul style="list-style-type: none"> ▪ Pedestal & Column for Incinerator ▪ Turbine foundation. ▪ Boiler Slab +15m level. ▪ Excavator Shaft Wall. 	<ul style="list-style-type: none"> ▪ Timely compliance of permits required as per details given in Table 6 ▪ Removal of STELCO cable is required for further excavation work for sea water intake structure.

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

A. Status of Clearances

14. Details of clearances, permits and approvals required for the implementation of the projects, status, and further actions required for compliance are presented in Table 6 and copy of updated legal register and each permit obtained during reporting period is enclosed as Appendix-1

Table 6: Status of Statutory Clearances

Clearance/Permit Required	Status	Further Actions/Remarks
DBO Contractor Contract		
Environmental Clearance from EPA	<ul style="list-style-type: none"> ▪ Decision Statement (DS) obtained on 21 January 2020 and extended until 31 December 2021 ▪ EIA Addendum for commissioning of domestic Wastewater Treatment Plant (WWTP) at the WtE site has been approved by EPA and the documents were sent to URA for approval on 23 February 2023. URA issued the permit for operation of STP via letter dated 12 April 2023. 	<ul style="list-style-type: none"> ▪ There is no need to apply or renew for the construction phase as site clearance and levelling works started on 28 December 2021 by the contractor and has been informed to EPA. As site works already started no renewal of permit required from EPA. Site works undertaken after levelling involved securing of required Government permits, boundary fencing, setting up of project site office. ▪ Monitoring program outlined in the approved EIA are being implemented during construction phase and summary of environmental monitoring reports is being submitted to MoTE as outlined in paragraph 8 of the Decision Statement. Failure to submit may result in the suspension or revocation of the permit. All quarterly environmental monitoring reports which include all details of monitoring are submitted to EPA.
Dewatering Permit	<ul style="list-style-type: none"> • Dewatering has not been carried out during February and March 2025, however: <ol style="list-style-type: none"> 1. Dewatering permit for excavation has been renewed from URA until 11.02.2025. 2. Dewatering location permits from HDC was valid till 11.02.25. 3. To comply with stipulated condition of dewatering permit, water quality tests has been conducted only for January 2025. 	<ul style="list-style-type: none"> ▪ Permit for discharge of water is to be obtained from the Maldives Utility Regulatory Authority (URA) and after every 28 days till completion of dewatering. ▪ Location permit is to be obtained Housing Development Corporation (HDC) for laying pipeline and need to be renewed after 28 days.
Sewerage and wastewater treatment permit from the Utility	<ul style="list-style-type: none"> ▪ Permit via ref no 485-TE/PRIV/2023/233 dated 12 April 2023 has been obtained from URA to start operation of domestic WWTP 	<ul style="list-style-type: none"> ▪ Permit has been obtained for discharging of treated grey water or black water to sea or ground. ▪ Monthly testing report from discharge point of unit is submitted to URA on regular basis.

Clearance/Permit Required	Status	Further Actions/Remarks
Regulatory Agency (URA).	<ul style="list-style-type: none"> Unit has started operation from May 2023. Treated wastewater quality is being tested for specified parameter @ once in a month for submission to URA. 	
Operation of DG sets	<ul style="list-style-type: none"> At present 7 DG sets (4x180 KVA+ 1x200 KVA+ 1x385 KVA+1x300KVA) of total capacity of more than 1245 KVA are being used at project site during construction phase. Permit has been obtained from URA for three DG sets (2x180KVA+1x200 kVA) as per copy enclosed in Appendix.” However, permit for remaining four DG sets (1x385 KVA+1x300 KVA+2x180 KVA) is yet to be obtained. 	<ul style="list-style-type: none"> Contractor to follow up with URA for getting final permits from URA for all DG sets in compliance with regulation 2024/G-7 which include following main points to comply such as <ol style="list-style-type: none"> Generator should be installed inside a canopy to make it soundproof, or the generator hut shall be soundproofed; To ensure that Day-Night average sound level (LDN) measured at 1 meter from the generator containment wall should not be higher than 65 dB,A; An energy meter is to be installed on the Generator incoming line such that total energy consumed from the generator is logged; Exhaust stack height should not be lower than 3 meters from the top of the roof/building; etc
Excavation	<ul style="list-style-type: none"> Excavation works have been commenced for bunker area, turbine area, boiler area and first layer for sea water intake structure. 	permit from HDC needs to be obtained and renewed after every 14 days till completion of excavation.
Approval of drilling of one borewell for getting ground water for proposed desalination plant.	<ul style="list-style-type: none"> Approval has been obtained from URA Reference No. 485-TE/PRIV/2024/423 dated 26 August 2024. 	Borewell drilling is completed.
Desalination plant registration and License to operate desalination plant from the URA	<ul style="list-style-type: none"> It is no more valid and plan for commissioning has been dropped and water for batching plant shall be procured from vendor as per existing practice. 	For the desalination plant, it is required to submit the EIA Decision Note for EIA report and completed application forms with all details of the plant to be registered must be submitted to URA. A copy of the relevant section of the EIA may be appended to the forms as justification for the desalination plant. However, this is no longer required as the contractor has decided not to commission the desalination plant.
Registration with transport authority and permits from MNDF for mobile diesel tanker of 5000 L	<ul style="list-style-type: none"> The permit from MNDF has been received on 8th October 2024. Permit from Transport authority is still awaited. On receipt of same URA shall issue final permit. 	Permit from Transport Authority .is to be obtained.

Clearance/Permit Required	Status	Further Actions/Remarks
Registration of vehicles which are in use within project site	<ul style="list-style-type: none"> DBO has shared a list of equipment and vehicles used on site. While some equipment and vehicles are registered, others are pending registration. 	DBO to ensure that vehicles and equipment have the required registration.
Fire Safety (Kitchen and Worker Accommodation)	<ul style="list-style-type: none"> Permit from MNDF (Fire Approval Letter) has been obtained on 15 February 2023 for accommodations and offices at the camp site for the construction phase. Additional approval was given for new accommodation units on 7th February 2024. Inspection was conducted by MNDF on 3.07.23 for verification of firefighting system installed for compliance with standards. 	Permit is to be obtained for warehouses especially used for chemical storages from MNDF.
Health center with one full time doctor and one nurse	<ul style="list-style-type: none"> Registration completed and certificate issued on 19th March 2025. 	-

V. COMPLIANCE STATUS WITH ENVIRONMENTAL REQUIREMENTS

A. Compliance with Loan Covenants

15. The status of compliance with environmental safeguard related loan covenants is given in Table 7. All loan covenants are being complied with

Table 7: Status of Compliance with Loan Covenants

Loan Agreement	Covenant	Compliance Status	Proposed actions, if any
Schedule 4, paragraph 4 Environment	The Borrower, through the Project Executing Agency and the Implementing Agency, shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety (b) the Environmental Safeguards; and (c) 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. Majority of activities are in compliance except for the non-compliances identified within this report. PMU and PMDCSC are continuously monitoring project activities.	
Schedule 4, paragraph 6 Human and Financial Resources to Implement	The borrower shall make available necessary budgetary and human resources to fully implement the EMPs.	Being complied. The Social and Environmental Safeguard Specialist and PMDCSC are assisting PMU in monitoring and in	

Loan Agreement	Covenant	Compliance Status	Proposed actions, if any
Safeguards Requirements		reviewing of documents and approval process.	
Schedule 4, paragraph 7 Safeguards-Related Provisions in Bidding Documents and Works Contracts	<p>The Borrower through the Project Executing Agency and the Implementing Agency, shall ensure that all bidding documents and contracts for Works contain provisions that require the contractors to:</p> <p>a) comply with the measures relevant to the contractor set forth in the EIA and the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report;</p> <p>b) make available a budget for all such environmental measures; and,</p> <p>c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in</p>	<ul style="list-style-type: none"> • Complied. All bidding documents related to the project included the EIA and the EMP, and compliance have been ensured by the Safeguards Specialist, PMU. • EIA update considering approved conceptual design details, prepared by contractor has been approved in September-23 and is in use. • Report on CVRA study conducted by contractor has been submitted to ADB for review. However, PMDCSC has already submitted comments to contractor. 	<ul style="list-style-type: none"> • Any updated version of the EIA will be provided to the Contractor. Contractor shall be required to comply with all relevant requirements in the updated EIA (including any new requirements not included in the draft EIA and/or any amended requirements from the draft EIA). • As per contract, further EIA update is to be made considering the approved design details which is still under process of finalization. • Air dispersion modelling on design parameter is to be finalized and approved. Design needs to be reviewed, based on findings, if any. • Recommendations shall be implemented after finalization of CVRA study.

Loan Agreement	Covenant	Compliance Status	Proposed actions, if any
	the EIA and the EMP.		
<p>Schedule 4, paragraph 8</p> <p>Safeguards Monitoring and Reporting</p>	<p>The Borrower, through the Project Executing Agency and the Implementing Agency, shall do the following:</p> <p>a) submit quarterly Safeguards Monitoring Reports to ADB during construction of the project facilities and semi-annual Safeguards Monitoring Reports thereafter, and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>b) 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 and the EMP, promptly inform ADB of this occurrence of each risks or impacts, with detailed description of the event and proposed</p>	<p>Being complied. Environmental monitoring reports are submitted to ADB accordingly and the Independent External Monitor has been engaged on 19 December 2021 to verify the monitoring information of the project. Any breach or potential breach will be reported.</p>	

Loan Agreement	Covenant	Compliance Status	Proposed actions, if any
	<p>corrective action plan;</p> <p>c) no later than 3 months after the Effective Date, engage qualified and experienced external experts or qualified NGOs under a selection process and terms of reference acceptable to ADB, to verify information produced through the project monitoring process and facilitate the carrying out of any verification activities by such external experts; and,</p> <p>d) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.</p>		

B. Status of Environmental Assessment Reports and Approval

16. The Environmental Impact Assessment (EIA) Report has been approved by ADB and disclosed in their website in July 2020 as complying with the requirements of SPS 2009. The EIA report has been further updated by the DBO Contractor considering the approved concept design and baseline environment monitoring results during pre-construction activity, reviewed, and cleared by PMDCSC / PMU and submitted to ADB. Updated EIA report has been cleared by ADB.
17. Table 8 presents the status of the EIA report.

Table 8: Status of the EIA Report

No.	Package	Status		Remarks
		Concept Design	Detailed Design	
1	WTE plant	EIA update considering change in power production from 10 MW to 13 MW capacity and the required additional baseline data, as well as the environmental monitoring results during pre-construction activity has been approved in September-2023.	In the process EIA will be further updated considering detailed design	<ul style="list-style-type: none"> ▪ Draft EIA disclosed in ADB website in December 2019 ▪ Updated draft EIA disclosed in ADB website in March 2020 and July 2020 provide explanatory notes for the updates. ▪ The updated EIA is disclosed by ADB on 11th September 2023 ▪ Air quality dispersion modelling based on detailed design is in process. ▪ CVRA study based on design details is in process. ▪ Also, EIA update including thermal plume modeling will be done based on the detailed design by the DBO Contractor after approval of the detailed design.

18. The link for the EIA update disclosed in July 2020 at the ADB website is <https://www.adb.org/projects/documents/mld-51077-003-eia-2> while the link for the project website is <https://www.environment.gov.mv/v2/en/download/10368>. The link for EIA updated in August 2023 in ADB website is <https://www.adb.org/projects/documents/mld-51077-003-eia-3> and link from Project website is https://mymaldiveshome.environment.gov.mv/knowledge_articles/environmental-impact-assessment-greater-male-waste-to-energy-project-waste-to-energy-plant-part-a/

C. Safeguards in Bid Documents and Contracts

19. The EIA including the EMP has been included in the bid documents as well as in the DBO Contractor Contract for implementation and compliance.

VI. STATUS OF EMP IMPLEMENTATION

A. Implementation of Design and Pre-construction Stage EMP

20. Table 9 presents the status of EMP implementation during the design and pre-construction stage. Table 11 was based on Table 64 (Environmental Management Plan Matrix) from the EIA (July 2020) which was disclosed in ADB website as well as in the project website. The design EMP being implemented and mitigation measures shall be duly integrated into the project detailed design.

Table 9: Design/Pre-Construction Mitigation Measures Implementation & Compliance

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
	Category of compliance				<i>“Complied”, “Being complied”, “Partially complied”, “Not complied”²</i>
1	Invitation for Bids	<ul style="list-style-type: none"> No bidding documents shall be issued without having the mitigation measures and monitoring requirements in the EIA report included in the safeguard clauses of technical specifications in bidding and contract documents. 	<ul style="list-style-type: none"> Bidding and contract documents include safeguard provisions 	<ul style="list-style-type: none"> Completed 	<ul style="list-style-type: none"> Complied
2(i)	Locating intake and outfall of cooling/thermal water.	<ul style="list-style-type: none"> If necessary, undertake coral and benthic study following Reef Check protocol. 	<ul style="list-style-type: none"> Findings of marine ecological survey being conducted 	<ul style="list-style-type: none"> Marine ecological survey is being conducted on quarterly basis. 	<ul style="list-style-type: none"> Being Complied
2(ii)		<ul style="list-style-type: none"> Confirm that the pre-identified best location for intake and outfall is acceptable to the DBO Contractor. If changes are planned, the DBO Contractor shall ensure that withdrawal of cooling water and discharge of cooling water will have no 	<ul style="list-style-type: none"> Due to proposed planned shoreline reclamation work by the Housing Development Department (HDC) at the southern shoreline of Thilafushi Island, the depth and locations may be changed which 	<ul style="list-style-type: none"> HDC has confirmed during June 2024 that reclamation will be carried out to accommodate a road on the south side of the project area, between the site plot and the sea, in which water intake 	<ul style="list-style-type: none"> Being complied

² Complied: Mitigation measures have been implemented, Being complied: Some mitigation measures have been implemented and some are in the process of implementation, Partially complied: There is a gap in compliance and a remedial action is required, Not complied: Mitigation measures have not been implemented.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		or minimum impact to underwater ecosystem.	<p>will be determined in detailed design phase. The shoreline extension is necessary to create space for the road construction passing the site at the Southern boundary. As per contract, the hot water discharge with maximum temperature difference of 3°C compared with the intake water temperature must be complied with.</p> <ul style="list-style-type: none"> Finding of marine ecological survey. 	<p>and outfall pipelines have been proposed.</p> <ul style="list-style-type: none"> PMD CSC has issued an instruction to the DBO Contractor via letter 4169Ao1/330/144 dated 26 July 2024 to consider the revised shoreline in their design considering basic design drawings as received from HDC. Thermal plume modelling will be carried out considering updated design details. It is currently unclear when the detail design is completed and when the study can be submitted. Study area and monitoring locations for quarterly marine ecological survey will be changed accordingly and as part of the EIA update; impacts and 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				EMP shall be revised.	
2(iii)		<ul style="list-style-type: none"> Contract documents to include performance guarantee by the facility that hot water discharge shall have maximum temperature difference of 3 degrees Celsius from the ambient temperature. 	<ul style="list-style-type: none"> Hot water discharge - maximum temperature difference of 3°C from the ambient temperature 	<ul style="list-style-type: none"> Completed 	<ul style="list-style-type: none"> Being Complied
2(iv)		<ul style="list-style-type: none"> Undertake hot water dispersion modelling along the planned area of discharge. Ensure that this area is with no or least marine species that could be affected based on the underwater ecology study. 	<ul style="list-style-type: none"> Hot water discharge - maximum temperature difference of 3°C from the intake temperature. Findings of marine ecological survey being conducted on regular basis 	<ul style="list-style-type: none"> As per given above under item 2(ii) 	<ul style="list-style-type: none"> Being complied
2(v)		<ul style="list-style-type: none"> If there will be changes in the location of cooling water discharge location, the DBO Contractor shall conduct confirmatory numerical modelling for brine discharge– both near and far-field, covering all 4 seasons (2 monsoon and 2 inter-monsoon) to ensure the location of discharge will not have significant impact to marine environment. 	<ul style="list-style-type: none"> Findings of detailed design and revised thermal dispersion modelling. Hot water discharge - maximum temperature difference of 3°C from the intake temperature. Findings of marine ecological survey being conducted 	<ul style="list-style-type: none"> As per given above under item 2(ii) 	<ul style="list-style-type: none"> Being complied
2(vi)		<ul style="list-style-type: none"> Ensure that design considers achievement of 		<ul style="list-style-type: none"> System is being designed to ensure 	Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
2(vii)		<p>proper mixing and rapid dilution within a small area around the outfall.</p> <ul style="list-style-type: none"> Consider in the design of the combined outfall for hot water and treated wastewater to minimize impact to marine ecosystem. 	<ul style="list-style-type: none"> Outcome of detailed design and proposed modelling 	<p>proper mixing and rapid dilution, though it is yet to be finalized and approved.</p> <ul style="list-style-type: none"> Findings of design will be verified via modelling to be carried out as part of EIA update considering approved detailed design parameters. 	
3 (i)	Location of ambient air quality monitoring stations	<ul style="list-style-type: none"> Contract documents to include performance guarantee for the facility that emissions comply with applicable standards. 	<ul style="list-style-type: none"> Copy of work orders Findings of performance guarantee tests 	<ul style="list-style-type: none"> Performance Guarantees: minimum air emission standards for both the WtE and the bottom ash processing plant has been prescribed in contract with DBO Contractor. 	<ul style="list-style-type: none"> Being complied
		<ul style="list-style-type: none"> Collect/Conduct meteorological data on daily basis for various seasons of the year to map projected wind directions, speeds at any season during plant operations. 	<ul style="list-style-type: none"> Site specific meteorological data including wind rose diagram 	<ul style="list-style-type: none"> Meteorological data is received from Maldives Meteorological department on a monthly basis and is included in the Environment Monthly Reports. Windssocks have been provided at two 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				locations within project site. 1. Online anemometer has been installed at site to monitor wind speed, direction, temperature and humidity only to display of data and no data logger has been provided for data recording.	
3 (ii)		<ul style="list-style-type: none"> Design smoke stacks with height that will ensure emissions will have no or minimum impact to surrounding receptors within the direct and indirect impact zones. 	<ul style="list-style-type: none"> Final design details on stack height, diameter, location, gas temperature, gas velocity, emission rate of each pollutant etc. 	<ul style="list-style-type: none"> Stack design is still in progress and stack height is subject to satisfactory outcome of the ADM. Air Dispersion Modelling is in the process of revision as per given under item 3 (iii). 	<ul style="list-style-type: none"> Being complied
3 (iii)		<ul style="list-style-type: none"> Undertake air dispersion modelling to show and understand the behaviour and movement of components of flue gas from the stacks. 	<ul style="list-style-type: none"> Findings of dispersion modelling on GLCs of relevant pollutants 	<ul style="list-style-type: none"> Modified report considering the detailed design has been submitted on 14 November 2024 for review. Comments from PMDCSC and ADB have also been shared with the 	<ul style="list-style-type: none"> Not complied for parameter as per detailed design

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				Contractor for revision of the report	
3 (iv)		<ul style="list-style-type: none"> Based on the dispersion modelling, identify the appropriate sampling locations for ambient air quality in Thilafushi island and other islands nearby, if necessary and practical. 		<ul style="list-style-type: none"> Existing monitoring locations will be reviewed on finally approved air dispersion modelling report as referred in item 3 (iii). 	<ul style="list-style-type: none"> Being complied
3 (v)		<ul style="list-style-type: none"> Undertake baseline ambient air quality data gathering with due consideration of the direction of flow of smoke from the existing dumpsite 	<ul style="list-style-type: none"> Results of monitoring of ambient air quality. 	<ul style="list-style-type: none"> Ambient air quality at seven locations as per approved EIA report has been conducted on regular basis as per modified CEMP. 	<ul style="list-style-type: none"> Complied
4(i)	Locating proper drainage system around the facility	<ul style="list-style-type: none"> To prepare and implement wastewater management, dewatering and storm water drainage plan. 	<ul style="list-style-type: none"> Approved plans and system 	<ul style="list-style-type: none"> There is no stormwater drainage facilities in place for construction phase. However: <ol style="list-style-type: none"> Sewerage treatment plant has been provided and treated wastewater is being discharged into sea. For dewatering of water from excavated area, a sedimentation pond has been commissioned to 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>provide retention time before discharging to the sea.</p> <p>3. No wastewater is generated from the cooling system of concrete batching plant.</p> <p>4. Wastewater generated during washing of transit mixers is being taken out of the site by Villa subcontractor.</p> <ul style="list-style-type: none"> ▪ No disturbance to natural drainage from site construction activities for storm water has been observed during construction phase. ▪ Drainage plans for the roads and facilities, as well as runoff, are to be finalized. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
4(ii)		<ul style="list-style-type: none"> Identify and demarcate drainage lines within and around the WTE site, including approach roads. Ensure that these channels do not disturb or impede natural flow of storm water from the island to the sea. 	<ul style="list-style-type: none"> System/ plan in place and followed Base line details and EMP given in approved EIA update Findings of geotechnical report 	<ul style="list-style-type: none"> As per given under item 4(i) 	<ul style="list-style-type: none"> partially complied
4(iii)		<ul style="list-style-type: none"> Provide cross drainage structures wherever necessary along the new approach roads. 		<ul style="list-style-type: none"> As per given under 4(i) 	<ul style="list-style-type: none"> partially complied
4(iv)		<ul style="list-style-type: none"> Integrate the above considerations in the final drainage plan for the project site. 			
5(i)	Physical integrity of proposed project site.	<ul style="list-style-type: none"> Integrate results of geotechnical study undertaken to the design of project infrastructures. 	<ul style="list-style-type: none"> Findings of review and approval of detailed design at various levels 	<ul style="list-style-type: none"> Geotechnical report has been approved and all recommendations are/will be considered during detailed designing which is in the process. 	<ul style="list-style-type: none"> Being Complied
5(ii)		<ul style="list-style-type: none"> Undertake and include results of climate vulnerability and risk assessment (CVRA) in the design of the project. Provide site protections based on the risks identified in the CVRA. 	<ul style="list-style-type: none"> Findings and recommendations of CVRA report in the detailed design. Findings of review and approval of detailed design at various levels 	<ul style="list-style-type: none"> Modified report has been submitted on 23 October 2024 for review. PMDCSC has submitted comments for modification. 	<ul style="list-style-type: none"> Not complied as recommendation s shall be implemented only after finalization of CVRA study.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> Modified report has also been submitted to ADB for review and comments are awaited. Response from ADB is awaited for finalization of report. 	
5(iii)		<ul style="list-style-type: none"> Coordinate with WAMCO to ensure the stability of the municipal dumpsite. 	<ul style="list-style-type: none"> Physical condition of the slope of piles of municipal waste dumped adjacent to project site. Reported incidents of fall of materials etc. 	<ul style="list-style-type: none"> The site boundary facing the western side of the dumping site of WAMCO has been shifted away by approx. 20m and a fence is installed. 	partially complied during period and is an ongoing process. However, WAMCO has further informed

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> ▪ The slope of the dump is to be levelled by WAMCO and reinforced with construction waste. WAMCO has re-assured that the risk of waste slides is low. However, the current slope is very steep and does not appear to be stable. ▪ An incident of slide of dump waste has been reported on 6th January 2025 towards project site which partially damaged fencing. ▪ Waste bales are placed near the project site and are starting to split. This poses a fire safety hazard. ▪ Communication system is in place to resolve the related issue with WAMCO on immediate basis. 	that they are working on closing the west side of the landfill (adjacent to the project site) to prevent waste from slipping into the project site.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
6(i)	Work program and pre-approved plans	<ul style="list-style-type: none"> ▪ Develop the following plans (but not limited to) that shall be included in the final detailed design and implemented during construction stage: <ul style="list-style-type: none"> a. Construction Waste Management Plan. b. Occupational Health and Safety Plan following international best practices on occupational health and safety such as those in Section 4.2 of IFC EHS Guidelines on Construction and Decommissioning Activities. c. Construction Camp Development and Management Plan. d. Spill Control and Containment Plan e. Marine and Beach Area Construction Work Plan f. Erosion Control Plan for pipeline works - Traffic Management Plan including via sea around the construction site to ensure easy access and passage of workers and 	<ul style="list-style-type: none"> ▪ H&S plan, CEMP and relevant HSE plans. ▪ Findings of inspections, audits and environment monitoring. 	<ul style="list-style-type: none"> ▪ Modified CEMP and HSE plans approved in April 2024. HSE plans as mentioned in the CEMP are in place and as per details of status provided in Table 11 ▪ Activity wise method statement and SOPs are developed by the Contractor in an ongoing manner, targeting relevant construction and commissioning activities. ▪ Regular inspections and audits by contractor and PMDCSC. ▪ However as per audit conducted by PMDSCS, additional SOPs are recommended to ensure safety of workers. 	<ul style="list-style-type: none"> ▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		employees of establishments at two sides of the project site.			
6(ii)		<ul style="list-style-type: none"> To prepare and implement mitigation measures and emergency response plan including SOPs and checklists during construction phase. 	<ul style="list-style-type: none"> As per given above under item 6(i) 	<ul style="list-style-type: none"> As per given above under item 6(i) 	<ul style="list-style-type: none"> Being complied
6(iii)		<ul style="list-style-type: none"> Develop the following plans or manuals that shall be utilized during operation stage: <ol style="list-style-type: none"> Operation and Maintenance Manual Waste Screening Procedure / Plan to ensure all waste inputs to the facility comply with quantity and quality requirements, including accounting of hazardous / halogenated organic components in wastes. In-house Solid Waste Management Plan. Occupational Health and Safety Plan following international best practices on occupational health 	<ul style="list-style-type: none"> All manual and plans as mentioned. 	<ul style="list-style-type: none"> Requisite plans and manuals will be developed on finalization of detailed design and before start of operation of proposed project. 	<ul style="list-style-type: none"> Yet to be complied with as project is in construction phase.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>and safety such as those in IFC EHS Guidelines on Waste Management Facilities.</p> <p>e. Spill Control and Containment Plan.</p> <p>f. Emergency and Disaster Preparedness and Response Plan.</p>			
7	Consents, permits, clearances, no objection certificate (NOC), etc.	<ul style="list-style-type: none"> Obtain all necessary consents, permits, clearance, NOCs prior to start of civil works. Ensure the compliance of stipulated conditions 	<ul style="list-style-type: none"> Copies of necessary consents, permits, clearance, NOCs prior to start of civil works Compliance report of stipulated conditions 	<ul style="list-style-type: none"> By and large Consents, permits, clearance, NOCs are in place as per details provided in Table 6 and in Appendix-1. However, some permits and registration processes are currently ongoing. 	<ul style="list-style-type: none"> Partially Complied,
8(i)	Shifting of Utilities	<ul style="list-style-type: none"> Identify and include locations and operators of these utilities in the detailed design to prevent unnecessary disruption of services during the construction phase. 	<ul style="list-style-type: none"> As per approved layout plan, likely disruptions are due to live power cable of STELCO passing through the project site. 	<ul style="list-style-type: none"> The contract for relocation between HDC and STELCO has been signed on 3rd June 2024. However, work has not been started. To avoid delay in construction, DBO Contractor has laid above ground dewatering pipe crossing the live 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>power cable of STELCO with mitigation measures such as extra spun piles for safety. The cable is located 1m below ground level.</p> <ul style="list-style-type: none"> ▪ The delay in shifting the live cable has caused a stop of excavation work of the seawater intake structure. 	
8(ii)		<ul style="list-style-type: none"> ▪ Prepare a contingency plan to include actions to be taken in case of unintentional interruption of services, such as the following: <ol style="list-style-type: none"> a. In case of water supply disruption, provide temporary water supply source for the affected establishments. b. In case of power interruption, provide prior notice to affected establishments. If interruption is unscheduled due to unforeseen incidents, provide a standby 	<ul style="list-style-type: none"> ▪ Uses of standby DG sets ▪ Plan for transportation of materials by using quay wall due to presence of shipwreck 	<ul style="list-style-type: none"> ▪ Seven DG sets (4x180KVA+1x200KVA+1x300 KVA+1x385 KVA) are in operation. ▪ Water can be supplied by other commercial sources in Thilafushi in the event of disruption of MWSC water supply. ▪ During this monitoring period, MWSC water tanks were damaged and water supply within Thilafushi was stopped on 12 February-25. The contractor arranged 	<ul style="list-style-type: none"> ▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>generator set to serve as temporary power supply to affected establishments.</p> <ul style="list-style-type: none"> Identify the list of affected utilities and operators and coordinate closely with relevant government departments. 		<p>for Villa Pvt Ltd to supply water to the site via their RO plant. The MWSC connection was restored within Thilafushi during March 2025.</p> <ul style="list-style-type: none"> Regarding removal of shipwreck, details are as per given below under item 11(i) 	
9(i)	Locating sites for construction work, camps, areas for stockpile, storage, and disposal	<ul style="list-style-type: none"> Except disposal sites, all the work sites (camps, storage, stockpiles etc.) will be located within the selected site. No construction camp shall be located on the beach or overwater. Material shall be brought to site as and when required, and temporary storage of material (pipe, sand etc.,) shall be made near the work site. No temporary storage shall be located at the lagoon section 	<ul style="list-style-type: none"> Use of pre-approved sites for construction work camps, areas for stockpile, storage, and disposal 	<ul style="list-style-type: none"> A site organization plan was submitted in May 2022 and was approved by the PMU before mobilization and pre-construction activities on site were permitted. All work sites (camps, storage, stockpiles etc.) are located within the boundary of project site 	<ul style="list-style-type: none"> Being Complied
9(ii)		<ul style="list-style-type: none"> Waste shall be disposed in existing approved disposal 	<ul style="list-style-type: none"> Records of waste generation and 	<ul style="list-style-type: none"> All type of solid wastes is stored at 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		sites; any new sites shall be developed considering siting guidelines, maintained, and operated accordingly	disposal as per waste management plan and procedure, Soil management plan and relevant method statements for STP, dewatering etc	<p>dedicated places within project site and handed over to WAMCO for disposal. However, needle and syringes generated from health centre are stored in health centre. The contractor has sent a request to WAMCO for disposal of this waste. Requisite facilities such as storage area for excavated soil for temporary storage has been provided.</p> <ul style="list-style-type: none"> ▪ Sludge being generated from STP is being disposed via WAMCO. ▪ The compliance is verified through regular review of data/details provided in monthly report submitted by DBO Contractor, regular site inspections and audit carried out by PMDCSC and PMU. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
10 (i)	Sourcing of construction materials	<ul style="list-style-type: none"> Obtain construction materials for this project from the licensed quarries acceptable to government. 	<ul style="list-style-type: none"> Permits and compliance to stipulated condition in case construction material will be sourced from quarries. Records of sources of procured construction materials. 	<ul style="list-style-type: none"> Most of the construction material is being/will be imported from overseas, as it is not available locally. Only internationally accepted suppliers are/will be used for supply of construction materials. The government of Maldives does not maintain a register of licensed parties. Hence, PMU/PMDSCC verifies and approves supplier's information before material approval is given to contractor. 	<ul style="list-style-type: none"> Will be complied, if any
10 (ii)		<ul style="list-style-type: none"> For new borrow sites to borrow fill material and backfill material, prior permission must be obtained from Maldives EPA, and the environmental impacts of the operation should be properly examined and mitigated as necessary 	<ul style="list-style-type: none"> Clearance/permission from EPA, MOE, Maldives and compliance to stipulated conditions 	<ul style="list-style-type: none"> Same as given under item 10(i) If new borrow site is envisaged then all regulatory compliance will be complied. 	<ul style="list-style-type: none"> Being Complied, if any

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
10 (iii)		<ul style="list-style-type: none"> Make efforts to minimize the overall material requirement for the project by adopting various approaches –balanced cut and fill, re-use as much excavated material from this project as possible 	<ul style="list-style-type: none"> Records of materials procured, used and disposed as waste 	<ul style="list-style-type: none"> All records of material procured, used and disposed as waste are being kept as part of Daily Progress Report (DPR) which is shared with relevant stakeholders on daily basis and summary of same is being reported in monthly report. Excavated material is being stored on site for possible usages for backfilling work. The compliance is being verified by site engineer of PMDCSC and regular site inspections carried out by PMDCSC and PMU. 	<ul style="list-style-type: none"> Being Complied
10 (iv)		<ul style="list-style-type: none"> Submit to PMU monthly, documentation (materials quantities with source). 	Records of materials procured and source	<ul style="list-style-type: none"> Same as given under item 10(i) 	<ul style="list-style-type: none"> Being complied
11(i)	Delivery route for construction materials and equipment	<ul style="list-style-type: none"> Identify a separate berth location for loading and unloading construction heavy equipment and raw materials that will not disrupt day-to-day 	<ul style="list-style-type: none"> Smooth delivery of all construction related materials, machinery/equipment etc as all will be transported to project 	<ul style="list-style-type: none"> Shipwreck blocking access to the ramp at Gate 4 has been removed during the previous quarter. This enables access 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>activities in the island. Avoid use of the common ports being used by locals.</p> <ul style="list-style-type: none"> ▪ If no other areas available, execute agreement with WAMCO to use WAMCO's berths/docking ports when delivering heavy equipment and big-sized construction materials to the site. 	<p>site via sea as per dedicated delivery routes provided by maritime authorities.</p>	<p>to the ramp and Gate 4 by the Contractor. However, other shipwrecks remain at the northern quay wall.</p> <ul style="list-style-type: none"> ▪ Private jetty owned by Villa Pvt Ltd is used for unloading of construction materials to be used for batching plant located within project site as same has been engaged as sub-contractor for supply of material for batching plant and its operation. ▪ Cargo ferry is also used for small quantities of materials such as food items and other consumable materials for camp and kitchen. This is unloaded at the main port of Thilafushi and transported to project site via road. 	
12	Final Detailed Design Components	<ul style="list-style-type: none"> ▪ Ensure the final detailed design will integrate the 	<ul style="list-style-type: none"> ▪ Approval of detailed design documents. 	<ul style="list-style-type: none"> ▪ The Detailed design is in progress and best practices for 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>following mandatory requirements:</p> <p>a. Use of best practical incineration technology as recommended in the EIA.</p> <p>b. Use of stack height recommended in the EIA. If circumstances based on the recommended stack height is to be changed (e.g., change in dimensions of the WTE plant building structure), ensure to use a stack height that is based on a new modelling calculation.</p> <p>c. Installation of air pollution control device that will ensure emissions in compliance with the emission standards as indicated in the EIA.</p> <p>d. Ensure to include installation of a continuous monitoring system (CEMS) as a mandatory requirement in the design.</p>	<ul style="list-style-type: none"> Findings of air dispersion modelling based on final detailed design 	<p>incineration and pollution control and management in line with contractual obligations are/will be applied to ensure implementation of:</p> <p>a. Adequate Stack height</p> <p>b. CEMS</p> <p>c. Leachate plant</p> <ul style="list-style-type: none"> Status of air dispersion modelling is as per given above under item 3(iii) The capacity of the landfill is sufficient to take the APCr but not the bottom ash which is why the PMDCSC has repeatedly pointed towards the necessity to legitimate the repurposing of bottom ash. PMDCSC has given a presentation to the PMU about next steps of establishing a regulation and usage of bottom ash, 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<ul style="list-style-type: none"> e. Appropriate sampling port at the stack for random grab sampling activities. f. Leachate treatment plant designed based on (i) maximum expected volume of leachate generated, and (ii) full capacity operation of the WTE plant. g. Residual waste landfill designed based on (i) maximum volume of fly ash and bottom ash generation, and (ii) full capacity operation of the WTE plant. h. Provision of a sampling port for thermal water (heated cooling water) at appropriate and accessible location along the cooling water line. 		<p>refer to 4169A01-540-15.</p> <ul style="list-style-type: none"> ▪ Each document of detailed design is to be approved by PMDCSC to ensure compliance of given items. ▪ Notification of inspection is to be approved by PMDCSC before start of construction of all activities as per contract. 	
13	Additional Baseline Environmental Data Gathering	<ul style="list-style-type: none"> ▪ DBO Contractor shall: <ul style="list-style-type: none"> a. Undertake ambient air quality and noise level measurements (monthly), marine water and ground water quality analysis, and marine underwater 	<ul style="list-style-type: none"> ▪ Compliance of modified CEMP and method statement of OHS monitoring reports. 	<ul style="list-style-type: none"> ▪ Sampling and testing are carried out as per method statement enclosed with modified CEMP as per given above under section VII- 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>ecology survey (quarterly) on first year after DBO Contractor mobilization, at the identified sampling locations in the EIA report (and any other locations in and around Thilafushi island as may be deemed by the DBO Contractor as important sampling locations).</p> <p>b. follow required sampling methodologies, including appropriate averaging time for ambient air quality and noise level measurements as indicated in the WHO standards; and</p> <p>c. include results of analyses in the updating of the EIA, and consider these results in the final detailed design of the project as applicable.</p>		<p>Environment monitoring</p> <p>All results of monitoring are being submitted by contractor as part of monthly report as per details given under section VII.</p> <ul style="list-style-type: none"> ▪ PMDCSC has reviewed monitored data submitted for its adequacy. 	

B. Details of site visits/field verifications by Safeguard Staff

21. Table 10 provides the details of field/construction site visits conducted by the environmental safeguards' officers/experts for supervision and monitoring. The purpose of the site visits was to ensure compliance to contractual obligations on the HSE aspects including the status of documents (CEMP, CEMP Guide, H &S Plan, SOPs and others) for pre-construction and construction period, and the HSE requirements during pre-construction and construction period etc.

Table 10: Field Verification Visits by Safeguards Supervision and Monitoring Staff

N o	Position of staff/expert	Name	Date of visit	Purpose of visit	Name of work sites visited	Indicate if the onsite environmental staff of the contractor is available onsite during the visit
1	PMU Safeguards Specialist	Fathimat h Yamna Mohamed	<ul style="list-style-type: none"> • 22nd January • 10th, 19th, 20th and 23rd February • 18th March 	Joined Inspections and visits by ADB/Consultants	WtE facility construction site in Thilafushi	EHS manager of DBO Contractor was on-site during site visits. H&S manager and Environment manager of EPC including H&S inspectors and Environment officer were available during all visits.
2	<u>PMDCSC</u> ; Site Engineer	Sofi bin Ismail	Deputed on project site on full time basis.	Supervision		
3	<u>PMDCSC</u> ; Deputy Team Leader	Naahee Nazim	<ul style="list-style-type: none"> ▪ 30th January ▪ 5th 10th February ▪ 18th, 19th and 27th March 	Inspection		
4	<u>PMMDCS</u> <u>C</u> ; Internation al Environme nt Safeguard	Sunil Gupta	<ul style="list-style-type: none"> ▪ 19th, 20th and 23rd February 	Inspection cum audit		
5	PMDCSC: Local Environme nt Safeguard	Zaha Waheed	<ul style="list-style-type: none"> ▪ 19th and 30th January ▪ 19th, 20th and 23rd February ▪ 19th March 	Inspection		

N o	Position of staff/expert	Name	Date of visit	Purpose of visit	Name of work sites visited	Indicate if the onsite environmental staff of the contractor is available onsite during the visit
6	Independent Environment Monitor	Nick Skinner	No visit during this quarter	-		

22. The inspections and audit included verification of status of compliance of CEMP, H&S plan, all HSE plans, Method of statements, SOPs etc. The verification of baseline environmental monitoring is also part of the scope of work. Reports of onsite inspections and audit done by the PMDCSC during this quarter are enclosed as Appendix-2.

C. Implementation of Construction Stage EMP

i. Status of HSE Plans mentioned in CEMP

23. Status of plans as on 31st March 2025 is given in Table 11.

Table 11: Status of HSE Plans mentioned in the CEMP

Sn	Documents	Status	Remarks
1	Occupational Health and Safety Management	Accepted by PMDCSC as part of modified H&S plan	-
2	Air Quality Management including fugitive and point source emission Noise/Vibration Management	Accepted by PMDCSC as part of modified CEMP	-
		Method statement for OHS monitoring has also been accepted by PMDCSC	-
3	Waste Management Plan	Accepted by PMDCSC	-
4	Soil Management plan	Accepted by PMDCSC	-
5	Traffic Management plan	Accepted by PMDCSC	-
6	Stakeholder Engagement Plan	Accepted by PMDCSC	-
7	Spill Control and Containment Plan	Accepted by PMDCSC	-
8	Grievance Redressal Mechanism Plan	Accepted by PMDCSC	-

Sn	Documents	Status	Remarks
9	Marine and Beach Area Management Plan	Accepted by PMDCSC	-
10	Chemicals and Hazardous Material Management Plan	Accepted by PMDCSC	-
11	Emergency Response Plan	Accepted by PMDCSC	-
12	Security Management Plan	Accepted by PMDCSC	-
13	COVID-19 Management Plan	Accepted with comments by PMDCSC	Not required as it is not applicable
14	Construction Camp Development Plan	Accepted by PMDCSC	-
15	Public Health, Security and Safety Management Plan	Accepted by PMDCSC	-
16	Incident reporting and investigation procedure	Accepted by PMDCSC	-
17	Tool and Technique to review the CEMP	Accepted by PMDCSC as part of modified CEMP	-
18	Flora & Fauna Management	Accepted by PMDCSC	-
19	Human Resources Management	Accepted by PMDCSC	-
20	Regulatory Compliance Evaluation Procedure	Accepted by PMDCSC	-
21	Procedure for Corrective & Proactive Actions	Accepted by PMDCSC	-
22	Training Procedure and Plan	Accepted by PMDCSC	-
23	HSE obligation register	Accepted by PMDCSC	-
24	ESMS including SOP checklists to be developed and reviewed on a regular basis considering ADB Safeguard Policy Statement 2009, IFC EHS Guidelines, IFC Performance Standards, and international good practices and guidelines (i.e., ISO 9001: 2008 – Quality Management System, ISO 14001: 2015 – Environment Management System, ISO 45001: 2018 – Occupational Health and Safety) Management System).	Accepted by PMDCSC as part of modified CEMP	-

ii. Implementation of Construction Environment Management Plan (CEMP)

24. Table 12 presents the status of the EMP implementation during the construction works which is based on Environmental Management Plan Matrix from the EIA Report which is disclosed in ADB website as well as in the project website.

Table 12: Construction Mitigation Measures Implementation & Compliance

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
	Category of compliance				<i>“Complied”, “Being complied”, “Partially complied”, “Not complied”³</i>
1(i)	Overall project site management	<ul style="list-style-type: none"> Designate one full time and qualified Environment, Health and Safety (EHS) Manager who will be in charge of overall EMP implementation and other tasks as required in the EIA report. He/she shall be in place from the day of mobilization of DBO Contractor. 	<ul style="list-style-type: none"> Organization chart and compliance with CEMP and H&S plan in compliance with contract. 	<ul style="list-style-type: none"> EPC contractor has hired one full time Environment Manager and one H&S manager as per contract (Refer Table 2 for details). DBO Contractor also has hired a full time HSE manager on site. 	<ul style="list-style-type: none"> Complied
1(ii)		<ul style="list-style-type: none"> In addition to the EHS Manager, designate one qualified trained engineer separately on Environment and H&S and EMP/SEMP implementation for every shift during construction stage who will assist the EHS Manager (either 	<ul style="list-style-type: none"> Organization chart. 	<ul style="list-style-type: none"> Four HSE officers (three H&S inspectors and one Environment officer) have been hired by EPC contractor on full time basis During this period, construction activities are normally carried out in single shift from 7 a.m. to 6 p.m. but 	<ul style="list-style-type: none"> Being Complied

³ Complied: Mitigation measures have been implemented, Being complied: Some mitigation measures have been implemented and some are yet to be implemented, Partially complied: There is a gap in compliance and a remedial action is required, Not complied: Mitigation measures have not been implemented.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		in his/her presence or absence) at all times.		<p>concreting was also commenced beyond shift time on SOS basis and considered as working for extended period. During Ramadhan in March 2025, work was carried on 2 shifts. 8:30 – 5:00hrs for staff and site teams and construction workers from 20:00 – 04:00 hrs.</p> <ul style="list-style-type: none"> ▪ Requisite additional one H&S Inspector and two Environment officer are to be recruited according to increase in number of shifts. 	
1(iii)		<ul style="list-style-type: none"> ▪ H&S plan to be aligned with ISO 45001 and CEMP to be aligned with ISO 14001 	<ul style="list-style-type: none"> ▪ Approved H&S plan and CEMP. 	<ul style="list-style-type: none"> ▪ Modified H&S plan and CEMP have been approved in April 2024 ▪ Status of HSE plans as mentioned in CEMP are as per given in Table 11. ▪ Additionally, method statements and SOPs are being/will be developed as no approval is required for internal documents by 	<ul style="list-style-type: none"> ▪ Being Complied. However, SOPs such as for fall prevention, handling of hazardous chemicals, hot works and safety of working platforms which are high risk and do not have a system in place need to be developed.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>PMU/PMD CSC by DBO Contractor. Method statements for STP, dewatering, excavation, spun piling works etc. and SOPs such as operation of batching plan, electrical safety etc. are in place.</p> <ul style="list-style-type: none"> ▪ PMDCSC is reviewing details submitted by DBO Contractor in monthly reports. ▪ Inspections and audits are being conducted on regular basis by PMU/PMD CSC in line with project manual. 	
1(iv)		<ul style="list-style-type: none"> ▪ Coordinate with the PMU on confirmatory surveys determined during design stage that need to be conducted once the DBO Contractor is selected; and complete these studies as required with support of external experts. 	<ul style="list-style-type: none"> ▪ Approval of design documents including drawings, method statements, approval of credential of sub-contractor(s), Notification of Inspection etc before start of any construction 	<ul style="list-style-type: none"> ▪ Aconex document platform is in place to manage the status of each document submitted, reviewed and approved by PMDCSC/PMU. ▪ Team of qualified and experienced professional have been engaged by PMDCSC to review and approve the designed documents, drawings, method statements etc 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<p>activity by PMU/PMDSC.</p> <ul style="list-style-type: none"> Approval of Notification of Inspection before start of any activity by PMDCSC. Observations made during regular site inspection by PMDCSC. 	<p>submitted by DBO Contractor.</p> <ul style="list-style-type: none"> To ensure compliance, a full-time civil engineer has been deputed at site by PMDCSC. In addition to above, Deputy team leader makes visits the site on regular basis and local environment safeguard also visits the site at least twice in a month for inspection. However international safeguard makes site visit for inspection cum audit at least on quarterly basis. Also, critical review of details as part of monthly report submitted by DBO Contractor is made by PMDCSC team. Regular inspections and audits are being conducted by PMDCSC to ensure the compliance. 	
2(i)	Marine Traffic	<ul style="list-style-type: none"> Avoid using the docking ports used by the local people and industries in 	<ul style="list-style-type: none"> Compliance to CEMP & traffic management plan. 	<ul style="list-style-type: none"> Traffic management plan and GRM Plan as part of CEMP are in place. 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		Thilafushi when transporting construction heavy equipment and raw materials at the site.	<ul style="list-style-type: none"> Complaints, if any received via GRM 	<ul style="list-style-type: none"> The shipwreck blocking access to the ramp at Gate 4 has been removed. This enables access to the ramp and Gate 4 by the Contractor. However, other shipwrecks remain at the northern quay wall. Private jetty owned by Villa Pvt Ltd is used for unloading of construction materials for the batching plant located within project site for which same has been engaged as sub-contractor for supply of material for batching plant and its operation. Cargo ferry is used to unload food and small quantities of materials at the main port of Thilafushi. No complaint or feedback has been received via GRM. 	
2(ii)		<ul style="list-style-type: none"> Utilize the exclusive docking port area being used by WAMCO 	As per given above under 2(i)	<ul style="list-style-type: none"> In addition to given above under 2(i), HSE procedure for working at night and General 	As per given above under 2(i)

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
2(iii)		<ul style="list-style-type: none"> Transport and unload heavy equipment and raw materials at night time when marine traffic is low within and around the island. 		<ul style="list-style-type: none"> lifting, unloading and transportation procedure are in place. As per details given under Section VII, illumination flux is also monitored on monthly basis. 	
3(i)	Marine water quality	<ul style="list-style-type: none"> Implement spoils management plan. 	<ul style="list-style-type: none"> Compliance to CEMP and plans such as soil management, waste Management Procedure and plan, Marine Beach Area etc. Compliance to relevant method statements such as spun piling, excavation work, dewatering plan, STP, batching plan etc Results of quarterly marine water quality results. Complaints, if any received via GRM. 	<ul style="list-style-type: none"> Soil management plan, waste Management Procedure and plan, Marine Beach Area Plan etc. are in place. Internal documents such as Method statements for spun piling, excavation work, dewatering plan, STP, batching plant etc are in place. Solid wastes generated, stored and disposed at project site are being reported in Daily Progress Report (DPR) and monthly report submitted by DBO Contractor. However, records of soil excavated and reused for backfilling are not being reported and kept. 	<ul style="list-style-type: none"> Being Complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<ul style="list-style-type: none"> Findings of walk downs, inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> Status of wastewater management is as per given under 4(i) of Table 9. As per details given under Section VII, quarterly marine water quality and marine ecological survey are being conducted. Inspections and audit are being made by PMDCSC. No complaint has been received via GRM 	
3(ii)		<ul style="list-style-type: none"> Reuse excess spoils and materials. 		<ul style="list-style-type: none"> In addition to details given above, construction concrete debris are also being stored within project site for possible reuse. It is taken by HDC for reuse. However, waste generated from batching plant is handed over to WAMCO for disposal. Records of same is being reported in DPR and monthly report. 	<ul style="list-style-type: none"> Being complied.
3(iii)		<ul style="list-style-type: none"> Temporary storage areas for excess spoils prior to 	<ul style="list-style-type: none"> As per given above under 3(i) 	<ul style="list-style-type: none"> All temporary storages for spoils are being located within project 	<ul style="list-style-type: none"> Being complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		disposal should be located as far as possible from the edge of the island or seawalls.		site and away from edge of the island to the maximum possible extent.	
3(iv)		<ul style="list-style-type: none"> Disposal site in designated areas only. 	As per given above under 3(i)	<ul style="list-style-type: none"> As per given above under 7(i) 	<ul style="list-style-type: none"> Being complied.
3(v)		<ul style="list-style-type: none"> Earthworks during dry season. Avoid earthworks during heavy rainy days, especially during monsoon season, to prevent run-off. 	As per given above under 3(i)	<ul style="list-style-type: none"> Efforts are being made to maximum possible extent to avoid rainy days for earthworks. 	<ul style="list-style-type: none"> Being complied.
3(vi)		<ul style="list-style-type: none"> Stockyards are covered when possible and provided with drainage canals around. 	As per given above under 3(i)	<ul style="list-style-type: none"> Stockyards in batching plant area are covered with metal sheets from three sides. Temporary excavated soil storage area has not been covered. Also, no drainage canal/trench around temporary excavated soil storage area has been provided as mentioned in soil management plan. However, as per DBO Contractor/EPC, it is not required as 	<ul style="list-style-type: none"> Being complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				rainwater is percolated through the soil and no runoff is discharged into sea. As per observations made by PMU and PMDCSC, due to high permeability of soil, chances of runoff flowing to sea/lagoon is very unlikely.	
3(vii)		<ul style="list-style-type: none"> Install temporary silt traps or sedimentation basins along drainage leading to the lagoon and sea. 	As per given under item 3(vi) of this table and item 4(i) of Table 10.	<ul style="list-style-type: none"> As per given under item 3(vi) of this table and item 4(i) of Table 10. 	<ul style="list-style-type: none"> Being complied
3(viii)		<ul style="list-style-type: none"> Fuel, other petroleum products, and toxic and hazardous chemicals or substances stored at storage areas away from water drainage and protected by impermeable lining and bunded 110%. 	<ul style="list-style-type: none"> Compliance to CEMP and plans such as Chemicals and Hazardous Material Management Plan, emergency response etc. Findings of inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> Overall, dedicated storages for hazardous chemicals and materials are provided with second containment and polythene ground covers as impermeable layer. However: <ol style="list-style-type: none"> Non-compliance of local regulations as per given under Table 6. Risk Assessment as internal document has been 	<ul style="list-style-type: none"> Partially complied as: <ul style="list-style-type: none"> Requisite permits need to be obtained. Requirements of number and capacity of spill kit need to be justified.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>carried out and identified basic mitigation measures are in place.</p> <p>3. The diesel tanker has been inspected and approval obtained from MNDF. However, the registration process is still ongoing. The tanker is still in use at the site.</p> <p>4. Two spill kits (one in batching plant area and other one in hazardous chemical storage area) have been provided within project site to handle maximum spillage of 50 litre by each kit. Additionally, one kit has also been provided in mobile diesel tanker. Reportedly, additional spill kits</p>	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				are in process of procurement. ▪ Record on real time inventory is kept.	
3(ix)		▪ Take precautions to minimize the over use of water	▪ Records of water usages ▪ Findings of inspections and audit conducted by PMDCSC on regular basis.	▪ All outlet of water to be used are provided with taps/valves. ▪ No record on water usages for domestic purpose and construction except bill paid to MWSC has been kept and reported.	▪ Being Complied
3(x)		▪ Divert all wash water generated from site into sedimentation ponds prior to discharge to canals.	▪ Compliance to relevant Method statements such as excavation work, dewatering plan, batching plant, STP etc ▪ Testing report of discharged water on monthly basis.	▪ Status of wastewater management is as per given under 4(i) of Table 9	▪ Being Complied
3(xi)		▪ During excavations, water accumulation in the pits / should be disposed of only after being diverted in sedimentation basis or equivalent and clarified prior to discharge.	▪ Findings of inspections and audit conducted by PMDCSC on regular basis.		

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
3(xii)		<ul style="list-style-type: none"> Conduct water quality monitoring at least quarterly or as necessary. 	<ul style="list-style-type: none"> Reports of marine water quality 	<ul style="list-style-type: none"> Quarterly water quality monitoring is being conducted at seven locations on quarterly basis as per details provided in section VII. 	<ul style="list-style-type: none"> Being complied
4(i)	Dust and air pollution	<ul style="list-style-type: none"> Use of physical controls such as water sprays, covers, compaction, screening, enclosure, windbreakers, binders and/or road surfacing to avoid or minimize airborne dust from construction activities and vehicle movements. Undertake water spraying several times of the day or as often as needed especially on windy days / dry seasons. 	<ul style="list-style-type: none"> Compliance to CEMP & HSE plans mentioned in CEMP and H&S plan Findings of ambient air quality monitoring and OHS monitoring conducted within and outside project site Findings of walk downs, inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> Metal sheets provided to cover construction materials storage area from three sides in batching plant area. However, there are no additional covers/ windbreakers/ enclosures in place. <ul style="list-style-type: none"> Water spraying is conducted on site regularly on need basis. Air quality is being monitored as per modified CEMP and MOS of OHS on regular basis. As per details under section VII, <ol style="list-style-type: none"> higher values of PM10 and PM2.5 are mainly contributed by local activities and contribution from construction 	Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>activities of the project is marginal. However, for this quarter, online ambient air quality data at Male and Villimale could not be obtained to compare.</p> <p>.2. Erroneous monitoring data reported for ambient air quality at six workplaces during whole quarter. Calibration of ambient air and work place air monitoring instruments need to be done</p>	
4(ii)		<ul style="list-style-type: none"> Construction vehicle's speed limited to 30 kilometres per hour (kph). 	<ul style="list-style-type: none"> Compliance to Traffic management plan Findings of inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> During inspection, speed was always found below 20 km/hr as mentioned in Traffic management plan but no monitoring is being conducted and kept records by DBO Contractor. However, site has very limited vehicle movement. 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
4(iii)		<ul style="list-style-type: none"> Prohibition of open burning of solid waste. 	<ul style="list-style-type: none"> Compliance to CEMP and waste management procedure and plan Findings of walk downs, inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> No solid waste is being burnt within project site. All solid waste is being collected and stored at dedicated places within project site and handed over to WAMCO for disposal at dumping site. Plastic bottles are collected separately and handed over to Parley for recycling. Cooking is not allowed within the rooms by individuals. Food for all staff and workers is prepared in kitchen located within project site. 	<ul style="list-style-type: none"> Being Complied
4(iv)		<ul style="list-style-type: none"> Minimize stockpile height. 	<ul style="list-style-type: none"> Compliance to Soil management plan. Findings of inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> Height provided to temporary soil stockpile is ~4 m. 	<ul style="list-style-type: none"> Being Complied
4(v)		<ul style="list-style-type: none"> If dust generation is significant, provide a dust screen of appropriate height 	<ul style="list-style-type: none"> As per given under item 4(i) 	<ul style="list-style-type: none"> As per details provided under item 4(i), wind screens are only provided as per details 	<ul style="list-style-type: none"> Partially complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				mentioned etc. However, no screen has been provided in construction areas and temporary excavated soil storage area.	
4(vi)		<ul style="list-style-type: none"> Workers and staff should be provided with dust masks & instructed to use them on site 	<ul style="list-style-type: none"> Compliance to H&S plan and SOPs of PPE Findings of inspections and audit conducted by PMDCSC on regular basis. 	<ul style="list-style-type: none"> As per real time inventory on 17.02.25, total 1728 FFP2 masks are available in stock to provide to workers on need basis and 722 FFP2 have been issued. Workers are provided with masks. But during inspection by PMDCSC, non-compliances were observed on usages of and DBO has been notified for corrective actions. 	<ul style="list-style-type: none"> Partially complied as more effective supervision and awareness training is required to ensure proper use of masks.
4(vii)		<ul style="list-style-type: none"> Conduct work in stages to reduce dust impacts, clearing and then conducting construction in only a portion of the site at a time. 	<ul style="list-style-type: none"> Daily Progress reports and monthly reports submitted by DBO Contractor. Approval of Notification of approval by site 	<ul style="list-style-type: none"> Construction activities during this period are detailed in Table 4. 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<p>engineer of PMDCSC</p> <ul style="list-style-type: none"> Findings of environment monitoring Findings of inspections and audit conducted by PMDCSC on regular basis. 		
4(viii)		<ul style="list-style-type: none"> Control access to work area, prevent unnecessary movement of vehicles, workers, public trespassing into work areas; limiting soil disturbance will minimize dust generation. 	<ul style="list-style-type: none"> Compliance to traffic management plan, Security management plan, H&S plan, public health and safety plan etc. 	<ul style="list-style-type: none"> Site boundary is established with a dedicated gate for vehicles entry and exit and guardhouse is located at entrance and exit point. Traffic movement via road is very limited as transportation of men and materials is being carried out via sea. Access is controlled as per procedure given in security management plan. Identified routes are used by vehicles within project site. Records are being kept for each vehicle coming in and going out. 	<p>Being complied, however,</p> <ul style="list-style-type: none"> Mark clearly vehicle routes and ensure driver follows the same. Create awareness among workers, operators /drivers

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
4(ix)		<ul style="list-style-type: none"> Contractor's environmental manager should monitor these activities and act to apply the mitigation if dust production becomes significant. 	<ul style="list-style-type: none"> In-house Inspections and records Findings of ambient air quality conducted within and outside project site Findings of inspections and audit conducted by PMDCSC on regular basis Number of complaints received. 	<ul style="list-style-type: none"> Walk down visits are being made by environment manager and environment officer on daily basis. Findings of daily walkdowns are shared via a group chat and recorded in an observation register. As per given above under item 4(i) and 4 (vi). No complaint has been reported. 	<ul style="list-style-type: none"> Being complied
4(x)		<ul style="list-style-type: none"> Use tarpaulins to cover loose material (soil, sand, aggregate) when transported by trucks 	<ul style="list-style-type: none"> Compliance to Traffic management plan and soil management plan. 	<ul style="list-style-type: none"> Construction materials such as fly ash and cement are being transported in jumbo packs containing 1 tonne of materials. Construction materials such as gravel, sand and others and backfilling material are transported to project site via road in both Jumbo bags and in loose form in dumpers. No cover has been provided in case it is transported in loosed 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>form while transportation is from jetty owned by Villa Pvt Ltd which is about 2 km.</p> <ul style="list-style-type: none"> Soil from temporary soil storage area within project site is transported to backfilling site in open dumpers without any cover. 	
4(xi)		<ul style="list-style-type: none"> Clean wheels and undercarriage of haul trucks prior to leaving construction site/quarry 	<ul style="list-style-type: none"> Compliance to traffic management plan Facility made available for cleaning and washing. Records of entry and exit of vehicles. 	<ul style="list-style-type: none"> Transportation of materials via road is very limited as described under 4(ii) and 4 (x). Cleaning of wheels and undercarriage of hauling trucks prior to leaving the site is carried out in the batching plant area. 	<ul style="list-style-type: none"> Being complied.
4(xii)		<ul style="list-style-type: none"> Stabilize surface soils where loaders, support equipment and vehicles will operate by using water and maintain surface soils in a stabilized condition 	<ul style="list-style-type: none"> Compliance to activities wise method statements and SOPs. Approval of notification of inspection by site engineer of PMDCSC. Findings of walk downs, 	<ul style="list-style-type: none"> In-house system is in place to plan and implement site-specific requirements by Area authority, Area manager and others before allowing the construction activities to start and to conduct inspections during execution. 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			inspections and audit conducted by PMDCSC on regular basis	<ul style="list-style-type: none"> Deputy team leader of DBO Contractor and Site engineer of PMDCSC review the planning to provide go ahead as part of Notification of Inspection (NIA) before start of activities and conduct inspections during execution on regular basis. 	
4(xiii)		<ul style="list-style-type: none"> Ensure that all the construction equipment, machinery is fitted with pollution control devices, which are operating correctly. 	<ul style="list-style-type: none"> Results of exhaust emissions monitoring. Records of preventive maintenance 	<ul style="list-style-type: none"> In-house facility and system are in place for preventive maintenance of vehicles and equipment and records are being kept for equipment/machinery owned by EPC contractor. Fitness check is carried out by external authorized agency on annual basis for equipment owned by EPC contractor however it does not include exhaust emissions. As per DBO, fitness check is carried out for 	<ul style="list-style-type: none"> Partially complied as no testing of exhaust emission from vehicles and equipment/machinery
4(xiv)		<ul style="list-style-type: none"> Ensure that only those vehicles and equipment in good condition, and are in good maintenance are used for project construction 			

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>equipment from subcontractors.</p> <ul style="list-style-type: none"> No facility is available in Maldives for testing emission from exhaust of vehicles and equipment including DG sets. Hence same is not being carried out. 	
4(xv)		<ul style="list-style-type: none"> Vehicles / equipment should have a valid permits or licenses issued by relevant government agency. 	<ul style="list-style-type: none"> Vehicle registry at Ministry of Transport and Civil Aviation. Records of permits and licenses for all vehicles. 	<ul style="list-style-type: none"> A total of 12 vehicle/equipment has been registered. Registration is required for remaining vehicles/equipment including the Hiab truck and the Concrete pump truck. 	Partially complied
4(xvi)		<ul style="list-style-type: none"> Maintain record of these permits or licenses of all vehicles at all times for ready inspection at the work sites. 	<ul style="list-style-type: none"> Records of permits and licenses for all vehicles 	<ul style="list-style-type: none"> As per given above under 4(xv) 	Being complied
5(i)	Dust and air pollution (batching plant)	<ul style="list-style-type: none"> Ensure that batching plant is installed with built-in air pollution and dust control system for fugitive emissions and dust from loading area. 	<ul style="list-style-type: none"> Approval of design details Compliance of SOPs for operation of batching plant. As per given above under item 4(i), 4(ii), and 4 (vi), 4(ix), 	<ul style="list-style-type: none"> The batching plant in operation is installed with built-in air pollution and dust control system for fugitive emissions and dust from loading area as per Guidelines for concrete batching plants, 2016 by EPA, Maldives. However, as 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			4(x), 4(xi), 4(xiii), 4(xv) and 4(xvi).	<p>per guidelines, no emission standards are prescribed.</p> <ul style="list-style-type: none"> ▪ Villa Pvt Ltd has been engaged as sub-contractor for operation of batching plant and supply of construction materials for same. ▪ Design details have been approved by PMDCSC. ▪ As per given above under item 4(i), 4(ii), and 4 (vi), 4(ix), 4(x), 4(xi), 4(xiii), 4(xv) and 4(xvi). ▪ Additionally, dust resistance suit with suitable mask is being provided to worker engaged in transferring construction materials such as cement and fly ash to hoppers of batching plant from 1 tonne Jumbo packs. 	
5(ii)		<ul style="list-style-type: none"> ▪ Provide dust screen around the components that generate emissions or fugitive dusts. 	<ul style="list-style-type: none"> ▪ As per given under item 5(i) 	<ul style="list-style-type: none"> ▪ As per given above under item 4(i) 	<ul style="list-style-type: none"> ▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
5(iii)		<ul style="list-style-type: none"> Ensure that plant is well operated and maintained at all times according to O&M manual of batching plant (provided by the equipment manufacturer). 	<ul style="list-style-type: none"> Approval of design details Compliance of SOPs for operation of batching plant. 	<ul style="list-style-type: none"> Design details have been approved by PMDCSC. Regular inspection and scheduled maintenance work 	<ul style="list-style-type: none"> Being Complied
5(iv)		<ul style="list-style-type: none"> The concrete loading area is equipped with a leak-proof concrete floor, from which all drainage is collected and treated as necessary prior to discharge. 	<ul style="list-style-type: none"> As per given under item 5(iii) 	<ul style="list-style-type: none"> All discharges are being drained in RCC sedimentation tank provided for washing of mixer trucks and mixer drums. As per given above under item 5(iii) Water collected in tank is being taken in tanks by Villa Pvt Ltd to its facility at same island for disposal. 	<ul style="list-style-type: none"> Being complied.
5(v)		<ul style="list-style-type: none"> Mixer trucks and mixer drums are washed out only in a designated area, which should be equipped with a leak-proof floor, from which drainage is collected and treated as necessary. 	<ul style="list-style-type: none"> As per given under item 4(ix) 	<ul style="list-style-type: none"> As per given above under item 5(iv) 	<ul style="list-style-type: none"> Being complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
5(vi)		<ul style="list-style-type: none"> All chemicals used in concrete preparation are properly stored, whether dry, in powder or granular form, or as liquids, at storage areas away from water drainage and protected by impermeable lining and bunded 110%. Storage facilities should be as specified in the appropriate international standard and should include equipment to extract dust and completely contain any spillage from leaks. 	<ul style="list-style-type: none"> As per given above under item 3(viii) 	<ul style="list-style-type: none"> As per given above under item 3(viii) 	<ul style="list-style-type: none"> As per given above under item 3(viii)
6(i)	Noise pollution	<ul style="list-style-type: none"> Prepare work schedule and consult with local community and administration. 	<ul style="list-style-type: none"> Compliance of Grievance Redressal plan. 	<ul style="list-style-type: none"> GRM plan in place and no complaint has been received during this quarter as per details given under section X. 	<ul style="list-style-type: none"> Being Complied
6(ii)		<ul style="list-style-type: none"> Maintain low noise levels. Noise level at the boundary of site shall not exceed 70 dB(A) during day and night unless 	<ul style="list-style-type: none"> Compliance of method statement for noise monitoring. 	<ul style="list-style-type: none"> Ambient noise levels are monitored on monthly basis at five locations to comply with EMP on 24 hourly basis. However, two of 	<ul style="list-style-type: none"> Partially Complied as corrective measures for noise abatement at sources level need to be implemented.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		necessary to carry out construction works.	<ul style="list-style-type: none"> Results of ambient noise level monitored within project site Results of noise level monitoring at sources located within project site. Findings of, inspections and audit conducted by PMDCSC on regular basis 	<p>them (NQ3 and NQ5) are located within project site.</p> <ul style="list-style-type: none"> As per given under section VII and reported values of Leq daytime and Leq nighttime at all five locations within and outside project site are well within the prescribed limit of 70 dB(A) except at NQ3 during day time in February and during night time in March which are mainly contributed by construction activities. 	
6(iii)		<ul style="list-style-type: none"> When possible, schedule noisy works at night time when most establishments in Thilafushi are closed. Minimize any high noise-generating activities during the daytime. 	<ul style="list-style-type: none"> Same as above 	<ul style="list-style-type: none"> Construction work has been conducted mostly in single shift from 7.00 a.m. to 6.00 p.m. but concreting was also commenced beyond shift time on SOS basis and considered as working for extended period. Construction work during Ramadan during March has only been 	<ul style="list-style-type: none"> Being Complied .

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				carried out only from 8:00 pm to 4:00 am.	
6(iv)		<ul style="list-style-type: none"> Use low noise generating equipment. Use modern vehicles and machinery with low noise emissions. Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and use portable street barriers to minimize sound impact to surrounding sensitive receptor. 	<ul style="list-style-type: none"> Compliance of SOPs on operation of machinery and equipment Results of noise level monitored at source level. 	<ul style="list-style-type: none"> Mitigation measure provided are confined to manufacturer's instructions and preventive maintenance on regular basis only. Fitness test conducted on annual basis does not include verifying the fitness for noise emission. As per details given under section VII, noise levels at the various sources including machinery/equipment are monitored at source, 1m, 2 m and 3 m. As per Table 25 , reported noise levels exceed 85 dB(A) at 1m from majority of the equipment. Also, to comply with local regulation 2024/G-7, it is to ensure that Day-Night average sound level (LDN) measured at 1 meter from the diesel 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>generator containment wall should not be higher than 65 dB(A). This is part of one of condition need to be complied for getting permit from URA as per given under Table 6.</p> <ul style="list-style-type: none"> ▪ Enclosures provided to the generator sets are not able to meet applicable standards. ▪ DBO Contractor has been notified to take corrective actions to comply with above mentioned condition. ▪ As per real time inventory on 17 February 2025, 300 out of total 400 ear plugs, are issued to workers and all 20 number of earmuffs are available in stock. 	
6(v)		<ul style="list-style-type: none"> ▪ Minimize heights construction materials. drop for 	<ul style="list-style-type: none"> ▪ Compliance of activity wise method statements ▪ Compliance of SOPs on operation of 	<ul style="list-style-type: none"> ▪ Compliance is being ensured by approval of Notification of Inspection by DBO Contractor and PMDCSC, issuance of permit to work and regular inspection. 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<ul style="list-style-type: none"> machinery and equipment ▪ Approval of notification of approval by PMDCSC 		
6(vi)		<ul style="list-style-type: none"> ▪ No use of horns unless necessary. 	<ul style="list-style-type: none"> ▪ Compliance of Traffic management plan. 	<ul style="list-style-type: none"> ▪ Limited traffic movement as per details provided under 2(i), 4(ii) and 4 (x). ▪ Flag men direct the movement of movable machinery and equipment. 	<ul style="list-style-type: none"> ▪ Being Complied
6(vii)		<ul style="list-style-type: none"> ▪ Avoid loud random noise from sirens, air compression, etc. 	<ul style="list-style-type: none"> ▪ Compliance of activity wise method statements ▪ Compliance of SOPs on operation of machinery and equipment ▪ Compliance of method statement for OHS monitoring. 	<ul style="list-style-type: none"> ▪ Permit to work and approval of Notification of Inspections restrict the operation of machinery and equipment needed for execution of particular activity only. ▪ Siren is only operated in case of mock drill conducted and during emergency. ▪ Construction work is confined to small area and project site is also not big hence unnecessary operation of any equipment and machinery can be identified during walk 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				downs by construction team and HSE team.	
6(viii)		<ul style="list-style-type: none"> Avoid using multiple high noise generating equipment and activities simultaneously. 	<ul style="list-style-type: none"> As per given under 6(vii) 	<ul style="list-style-type: none"> As per given under 6(vii) 	<ul style="list-style-type: none"> Being complied
6(ix)		<ul style="list-style-type: none"> Install temporary or portable acoustic barriers around stationary construction noise sources. 	<ul style="list-style-type: none"> As per given under 6(vii) 	<ul style="list-style-type: none"> As per given under 6(iv). 	<ul style="list-style-type: none"> Partially complied
6(x)		<ul style="list-style-type: none"> Warning signs in noise hazard areas. 	<ul style="list-style-type: none"> Findings of walk downs, inspections and audit conducted by PMDCSC on regular basis 	<ul style="list-style-type: none"> No classification of area has been made. Warning signs have been provided. Permit to work system and approval of Notification of Inspection is in place to identify hazard, if any. 	<ul style="list-style-type: none"> Being Complied
6(xi)		<ul style="list-style-type: none"> Identify vibration risk to nearby structures. Take caution working in such areas. 	<ul style="list-style-type: none"> Compliance of activity wise method statements. Compliance of SOPs on operation of machinery and equipment 	<ul style="list-style-type: none"> No sensitive receptor is located adjacent to project site. Permit to work system and approval of Notification of Inspection is in place to identify hazard, if any and accordingly implementation of corrective measures. As given under 4(xiv) 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
6(xii)		<ul style="list-style-type: none"> Conduct noise level monitoring at least every quarter or as necessary. 	<ul style="list-style-type: none"> Compliance to monitoring plan as per CEMP and MOS of OHS monitoring Results of monitoring conducted 	<ul style="list-style-type: none"> Details are as per given under section VII. 	<ul style="list-style-type: none"> Being complied
7(i)	Aesthetics	<ul style="list-style-type: none"> Prepare and implement a Construction Waste Management Plan (CWMP) to identify specific steps on handling and disposal of all solid waste from construction activities, including the following: <ol style="list-style-type: none"> Reuse as much waste sand in this project as possible; Finding alternative beneficial uses for any unused sand, for example as infill in other construction works; Disposal of debris and bulky solid 	<ul style="list-style-type: none"> Compliance of soil management plan, waste management procedure and plan, activity wise method statements and SOPs. Inspection and audit conducted by PMDCSC Monthly report submitted by DBO Contractor Complaint(s) received 	<ul style="list-style-type: none"> Soil management plan, waste management procedure and plan, activity wise method statements and SOPs are in place. Excavated soil is being stored within project site at dedicated place for reuse and partially has been used for backfilling. However, no record of excavated soil and reused has been kept in Daily Progress Report. Sludge generated from STP is also being disposed via WAMCO. Construction debris waste is also being stored at dedicated place for possible usages. Wastes other than concrete residue 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>waste materials after construction stage.</p> <p>d. Minimizing stockpile size.</p> <p>e. Clearing wastes regularly.</p> <p>f. Avoiding stockpiling of excess spoils.</p> <p>g. Covering delivery trucks during transportation</p> <p>h. Cleaning roads.</p> <p>i. Using screening enclosure shade cloth, temporary walls around construction site.</p> <p>j. Cleaning site regularly.</p> <p>k. Following the principle of "Reduce, Reuse, Recycle, and Recover".</p>		<p>such as wood has been handed over to WAMCO for disposal while concrete residue from batching plant is given to HDC for reuse. Details of same are reported in DPR and monthly reports.</p> <ul style="list-style-type: none"> ▪ Other non-hazardous waste such as kitchen waste, waste from camp and office, wood debris etc is being stored at dedicated places and are being handed over to WAMCO for disposal. Details of same are reported in DPR and monthly reports. ▪ Hazardous waste such as waste oil, empty containers of hazardous chemicals etc are being stored at dedicated places and are being handed over to WAMCO for disposal. Details of same are reported in DPR and monthly reports. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> ▪ Medical waste (mainly needles and syringes) generated from health centre is being stored at dedicated places. Reportedly, the contractor has officially requested from WAMCO to dispose of this waste during this quarter. ▪ WAMCO accepts the waste in mix form for disposal on chargeable basis. This also includes collection from site and transportation to dumping site. ▪ Plastic bottles are collected and handed over to Parley for recycling. ▪ Housekeeping is being done on regular basis and details are being reported in monthly reports. ▪ In-house inspection is being carried out on regular basis. ▪ Inspections and audit carried out by PMDCSC on regular basis. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> No complaint has been received. 	
7(ii)		<ul style="list-style-type: none"> When applicable, solid wastes from the site shall be returned to the manufacturer of raw materials they were generated from, or dispose as per their specifications. 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> It mainly includes scrap metals and waste material. At present partly being handed over to WAMCO for disposal and rest is being stored within project site 	<ul style="list-style-type: none"> Being Complied
7(iii)		<ul style="list-style-type: none"> Hazardous waste shall be stabilized, encapsulated, and disposed as per internationally accepted practices. Provision will be made for secure storage of hazardous waste. 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> Being Complied
7(iv)		<ul style="list-style-type: none"> Residual and hazardous wastes such as oils, fuels, and lubricants shall be disposed of in approved disposal sites and/or third-party sources approved by Maldives EPA. 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> Being Complied.
7(v)		<ul style="list-style-type: none"> Prohibit burning of construction and/or domestic waste; 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> As per given under section 4(iii). 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
7(vi)		<ul style="list-style-type: none"> Ensure that wastes are not haphazardly thrown in and around the project site; provide proper collection bins, and create awareness to use the dust bins. 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> Dustbins are provided at the site and housekeeping is carried out on regular basis. As per given under section 7(i) 	<ul style="list-style-type: none"> Being Complied
7(vii)		<ul style="list-style-type: none"> Conduct site clearance and restoration to original condition after the completion of construction works. 	<ul style="list-style-type: none"> As per given under section 7(i) 	<ul style="list-style-type: none"> As per given under section 7(i) Site restoration will be carried out after completion of construction, if any. 	<ul style="list-style-type: none"> Being Complied.
8(i)	Amenities for community	<ul style="list-style-type: none"> Implement the Traffic Management Plan that will elaborate the following: <ol style="list-style-type: none"> Suitable transportation routes. Safe passage for vehicles and pedestrians. Temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours. 	<ul style="list-style-type: none"> Compliance to CEMP and traffic management plan, security management plan, public health and safety plan, GRM Plan, activity wise method statements and SOPs etc Complaints, if any received via GRM 	<ul style="list-style-type: none"> Traffic management plan, Security management plan, public health and safety plan and GRM Plan as part of CEMP is in place. Minimal movements within the Island via road as raw materials are directly transported to site via sea as per given under 2(i), 4(ii) and 4 (x). Construction materials unloaded at jetty of Villa Pvt Ltd, located at about 2 km is being transported in jumbo 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		d. Scheduling of material deliveries on low traffic hours, particularly at night time when most establishments in Thilafushi island are already closed.		<p>pack of 1 tonne to project site via road. This is confined to only concreting activity.</p> <ul style="list-style-type: none"> ▪ Gravel for backfilling is being unloaded at pvt jetty owned by Villa Pvt Ltd and transported to project site via road in Jumbo bags and loose material. ▪ While 12 vehicles/ equipment have registration, registration for some of the vehicles/ equipment is pending. ▪ Thilafushi island is an industrial island and has limited road traffic. ▪ Access roads to project site are not in good condition and need to be improved. However, this is outside of the project scope. ▪ No complaint and feedback have been received. 	
8(ii)		<ul style="list-style-type: none"> ▪ Erect and maintain barricades if required. 	<ul style="list-style-type: none"> ▪ As per given above under 8(i), ▪ Approval of notification of inspection by 	<ul style="list-style-type: none"> ▪ In addition to given above under 8(i): 1. Most of the construction activities are mainly confined 	<ul style="list-style-type: none"> ▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			PMD CSC and issuance of permit to work before start of particular activity	<p>within project site which is already fenced with restricted entry.</p> <p>2. Outside the project site, construction activities mainly include laying pipeline and construction of facilities for water intake and discharge of wastewater for operation phase. However same are yet to be commissioned and mitigation will be implemented based on findings of mapping of risks associated.</p> <p>3. At present pipelines for discharge of wastewater into sea generated from STP and dewatering tank are in operation which are buried under ground.</p> <p>4. Parking area is provided within project site.</p> <p>5. Based on need identified during inspection by PMDCSC and permit to work to be issued by Area</p>	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				authority/manager of EPC contractor, barricades are/will be provided.	
8(iii)		<ul style="list-style-type: none"> Consult with business and institutions for work schedules. 	<ul style="list-style-type: none"> Compliance to stakeholder engagement plan. 	<ul style="list-style-type: none"> Stakeholder engagement plan is in place and same was conducted as part of EIA study and will be conducted again as part of EIA update proposed to be carried out on finalization of detailed design. Thilafushi is an industrial island and there are no institutions which would be affected by the current work at site. A grievance box has also been placed at Thilafushi ferry terminal. 	<ul style="list-style-type: none"> Being complied
8(iv)		<ul style="list-style-type: none"> Erect display boards around strategic locations about nature, duration of construction and contact for complaints and/or issues about the project. 	<ul style="list-style-type: none"> Display boards with details 	<ul style="list-style-type: none"> Display board is placed at gate to provide information of nature, duration of construction and contact for complaints. 	<ul style="list-style-type: none"> Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
8(v)		<ul style="list-style-type: none"> Complete quickly any work that is near adjacent establishments. 	<ul style="list-style-type: none"> Compliance of relevant activity wise method statements and SOPs Approval of notification of inspection by PMDCSC and permit to work before start of particular activity. 	<ul style="list-style-type: none"> As per given under 8(ii). Need of additional mitigation measures including completion of work quickly is being/will be identified during inspection for approval of notification of inspection by PMDCSC and issuance of permit to work to be issued by Area authority/manager of EPC contractor. 	<ul style="list-style-type: none"> Being Complied
8(vi)		<ul style="list-style-type: none"> Restore damaged properties and utilities. 	<ul style="list-style-type: none"> Approval of design details of construction. Approval of notification of inspection by PMDCSC and permit to work before start of particular activity Complaint(s) received, if any Compliance with damage assessment section of the Emergency Response Plan 	<ul style="list-style-type: none"> Property and utility, if any will be identified during approval of design details and inspection for approval of notification of inspection by PMDCSC before start of construction activity. Property and utility, if damaged due to construction activities will be restored. An underground (at 1 m depth) live power cable of STELCO is passing through the project site and 	<ul style="list-style-type: none"> Being Complied. Work is on hold at the location of sea water intake / outfall until the live cable is deactivated.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>discharge pipeline from dewatering sedimentation pond is passing above the same with adequate protection. As per latest update, STELCO and HDC will commence the rerouting of the cable to de-activate the live cable going through the project site. Work has not been started yet in and around the area of influence as obstructions in the cable pathway are to be cleared.</p> <ul style="list-style-type: none"> ▪ No complaint has been registered on subject. 	
9(i)	Marine and terrestrial ecology	<ul style="list-style-type: none"> ▪ Implement the Marine and Beach Area during Construction Work Plan. 	<ul style="list-style-type: none"> ▪ Compliance of the Marine and Beach Area Management Plan ▪ Results of marine water quality and survey of marine ecology. 	<ul style="list-style-type: none"> ▪ Marine and Beach Area Management Plan is in place. Additionally, Spill Control and Containment Plan, Flora and Fauna management plan etc are also in place as complementary plans. ▪ Marine water quality and marine ecological surveys are carried out on quarterly basis. 	<ul style="list-style-type: none"> ▪ Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
9(ii)		<ul style="list-style-type: none"> Implement the Erosion Control Plan for pipeline works. 	<ul style="list-style-type: none"> Approval of design details. Compliance of the activity wise method statements and SOPs Approval of notification of inspection and regular inspection by PMDCSC 	<ul style="list-style-type: none"> Erosion Control Procedures are being addressed in the relevant construction procedures and respective method of statements PMDSCSC approves all design details before planning of any construction activity. A full-time site engineer is deputed on site by PMDCSC to grant approval of notification before start of construction activity and to conduct regular inspection. 	<ul style="list-style-type: none"> Being Complied
9(iii)		<ul style="list-style-type: none"> Ensure that all construction activities are conducted strictly within the site footprint (including offices, car parking and other activities that might normally be located in an exterior contractor's area). 	<ul style="list-style-type: none"> Approval of design details and layout plan. Compliance to approved site layout plan, CEMP, relevant HSE plans, method of activity wise method statements and SOPs Approval of notification of 	<ul style="list-style-type: none"> In addition to above given under 9(ii): 1. All construction activities are/will be conducted within the site boundary except laying of pipelines for water intake and discharges for which adequate permission and permits will be obtained. 2. Layout plan has been approved by PMDCSC. 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			inspection and regular inspection by PMDCSC		
9(iv)		<ul style="list-style-type: none"> Prohibit any deliberate killing or harming of animals on or off-site; any hunting or fishing at the site or in nearby areas by site personnel; preventive actions shall be put in place by contractor for protected marine species. 	<ul style="list-style-type: none"> Compliance with plans on Construction camp development, Flora and Fauna management and Marine Beach Area 	<ul style="list-style-type: none"> Thilafushi Island is almost devoid of terrestrial flora and fauna and as per IBAT study and no endangered species has been identified. As per camp policy, swimming and fishing is prohibited. Camp area is located within project premises and entry is recorded and restricted via two gates where in security guards are being posted. No cooking by workers is allowed within project site as Turkish food cooked is cooked in kitchen and for others who mainly Indian and Bangladeshi workers/staff do not want Turkish food, food is brought from outside for everyone staying 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				and/or working at project site.	
9(v)		<ul style="list-style-type: none"> Ensure that all construction work or other activities near the site perimeter are conducted with particular care and include measures to reduce noise and dust to minimum possible. 	<ul style="list-style-type: none"> As per given under other relevant sections. 	<ul style="list-style-type: none"> As per given under other relevant sections. 	<ul style="list-style-type: none"> As per given under other sections.
9(vi)		<ul style="list-style-type: none"> Create awareness in all site staff & workers on the importance of the marine animals/species and plants around the site and their vulnerability. 	<ul style="list-style-type: none"> Camp policy 	<ul style="list-style-type: none"> As per camp policy, swimming and fishing is prohibited. 	<ul style="list-style-type: none"> Complied
9(vii)		<ul style="list-style-type: none"> To protect site personnel, training should also be provided to enable them to recognize, and deal safely and humanely with all animals that may be encountered. 			
9(viii)		<ul style="list-style-type: none"> Implement the Spill Control and Containment Plan. 	<ul style="list-style-type: none"> Compliance with the Spill Control and 	<ul style="list-style-type: none"> Spill Control and Containment Plan is in place. However, no 	Partially complied and need to provide spill kits on the basis of

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			Containment Plan	<p>incident has been reported.</p> <ul style="list-style-type: none"> ▪ As per observation made during site inspections: <ul style="list-style-type: none"> a. Two spill kits: one near container used for storage of hazardous chemicals and one batching plant area are provided. Each kit is capable of handling 50 litres of spill only and maximum size of containers stored is 1000 litres. Reportedly, additional kits are in process of procurement. b. One spill kit has also been provided in mobile diesel tanker. c. No mapping of probable maximum size of spills has been done. d. Eye wash stations: Total three- one near batching plant area, second near 	mapping of probable maximum size of spills

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>container used for chemical storage and third one inside the newly constructed chemical storage area.</p> <p>e. Mask provided as part of Spill kit is not as per document on PPE procedure.</p>	
9(ix)		<ul style="list-style-type: none"> Marine works should be scheduled to occur in the north east monsoon season when the sea conditions are calmer to limit the spread of sediment around this operation 	<ul style="list-style-type: none"> Compliance with method statement for excavation and relevant SOPs. Approval of Notification of execution plan and notification of inspection. Permits from relevant local authorities Approval of notification of inspection and regular inspection by PMDCSC 	<ul style="list-style-type: none"> Marine works confined to only construction of intake and outfall structures and pipelines for operation phase is yet to be started. Mentioned aspects will be considered during preparation of method statement and SOPs for same. Based on available of site-specific details, mapping of environment impacts and hazards will be carried out to plan the requisite mitigation measures. SOPs will be developed considering all local legal requirement and 	<ul style="list-style-type: none"> To be Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				findings of relevant agencies such as HDC, URA and EPA. <ul style="list-style-type: none"> A full-time site engineer is deputed on site by PMDCSC to grant approval of notification before start of construction activity and to conduct regular inspection. 	
9(x)		<ul style="list-style-type: none"> Conduct the excavation, and deposit the excavated material in a more controlled manner minimizing the area that is disturbed. 	<ul style="list-style-type: none"> Compliance with soil management plan and method statement for excavation and relevant SOPs. Approval of notification of inspection by PMDCSC Findings of regular walkdowns, inspection and audit to be conducted by PMDCSC. 	<ul style="list-style-type: none"> In addition to given above under 9(ix): Design is approved before planning for work. Notification of Inspection is to be raised to PMDCSC for approval before start of excavation works to ensure the compliance of relevant plans and method statement. Work permit is to be issued by Area Authority/Manager considering environment and health and safety risks and required mitigation measures. Also approval of inspection notification from 	<ul style="list-style-type: none"> Being complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>PMDSC before start of construction work also include assessment of EHS risks.</p> <ul style="list-style-type: none"> Excavated material will be stored in a designated area and is being re-used for back filling. 	
9(xi)		<ul style="list-style-type: none"> Avoid the need to re-excavate by choosing right time (calmed sea conditions again), and quickly lowering the pipes into trench and refilling. 	<ul style="list-style-type: none"> As per given above under 9(ix) and 9(x) 	<ul style="list-style-type: none"> As per given above under 9(ix) and 9(x) 	<ul style="list-style-type: none"> Being complied
9(xii)		<ul style="list-style-type: none"> Limit the size of the construction area on the beach and to avoid any encroachment outside the specified area. 			
9(xiii)		<ul style="list-style-type: none"> Monitor the turbidity & DO levels due to spread of sediment throughout the trenching operation and work should be stopped if levels exceed pre-determined values as 	<ul style="list-style-type: none"> Compliance of method statements for dewatering. Results of monitoring of dewatering water quality. 	<ul style="list-style-type: none"> As per given above under 3(x) 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>per the guideline below:</p> <p>a. The turbidity of the water is to be measured (ISO 7027) at the edge of the construction zone during trenching and backfilling activities;</p> <p>b. When the turbidity exceeds the minimum of the background turbidity plus 20% or 100 NTU, the trenching is to cease until the turbidity returns to the background level plus 10%.</p>	<ul style="list-style-type: none"> Visual inspection. 		
10(i)	Socioeconomic status	<ul style="list-style-type: none"> Engage the local workforce to the maximum possible extent. 	<ul style="list-style-type: none"> Compliance of Human resource policies and procedures Complaints received 	<ul style="list-style-type: none"> Availability of local workers is limited and at present, only five local workers/staff have been engaged. However Human resource policies and procedures are in place. No complaint has been received 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
10(ii)		<ul style="list-style-type: none"> Procure construction materials from local market, wherever available. 	<ul style="list-style-type: none"> Number of local vendors Complaints received 	<ul style="list-style-type: none"> Based on availability, preference is given to locals. Local subcontractors are chosen where possible. Local sub contractors engaged are for supply of construction materials for batching plant and operation of batching plant, security, laboratory for civil works related testing, transportation of laboratory samples, excavation works and General Electric works etc. No complaint has been received 	<ul style="list-style-type: none"> Being Complied.
11(i)	Other amenities for community welfare	<ul style="list-style-type: none"> Before any excavation work, reconfirm location and nature of existing infrastructure, if any, identified during detailed design stage. 	<ul style="list-style-type: none"> Compliance of method statement for excavation. Approval of Notification of Inspection by PMDCSC. 	<ul style="list-style-type: none"> Notification of inspection is to be approved by site engineer of PMDCSC before start of any excavation work based on inspection of site to be excavated. As per given under 8(i). 	<ul style="list-style-type: none"> Being complied.
11(ii)		<ul style="list-style-type: none"> Minimize repeated disturbance to locals by integrating forms of infrastructures 	<ul style="list-style-type: none"> As per given under 11(i). 	<ul style="list-style-type: none"> Most of the excavation work is/will be carried out within project site which is fenced with 	<ul style="list-style-type: none"> Being Complied.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		such as temporary safe walkways in areas with ongoing excavation works. Provide alternate routes in the area, if necessary, to allow smooth movement of workers and vehicles in the area.		restricted entry. Construction activities outside project site is/will be mainly laying pipelines for intake water and discharge wastewater which is yet to be commenced. ▪ As per given above under 8(i)	
11(iii)		▪ Inform through continuous meaning consultations with local people about nature, duration and possible impacts of the construction and integrate their concerns.	▪ Compliance of GRM Plan.	▪ As per given section X	▪ Partially Complied
11(iv)		▪ Promptly relocate infrastructure materials if found to be obstructing or disturbing free movement of local people.	▪ Compliance of method statement for excavation. ▪ Approval of Notification of Inspection by PMDCSC ▪ Complaint, if any received	▪ As per given above under 9(ix) and section X. ▪ PMDCSC has deputed one full time site engineer on site for granting approval to Notification of Inspection and for inspections before start of activity and also visit site for inspection on regular basis.	▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
11(v)		<ul style="list-style-type: none"> Take prior permission from local authority for water use. 	<ul style="list-style-type: none"> Permit register 	<ul style="list-style-type: none"> Water is being taken from pipeline of Male Water and Sewage Company (MWSC) on chargeable basis for construction and domestic purposes. Villa subcontractor is purchasing water for usages in batching plant 	<ul style="list-style-type: none"> Being complied
11(vi)		<ul style="list-style-type: none"> Restore damaged properties and utilities to pre-work conditions. 	As per given above under 8(vi)	<ul style="list-style-type: none"> As per given above under 8(vi) 	<ul style="list-style-type: none"> Being Complied
12(i)	Community health and safety	<ul style="list-style-type: none"> Restrict work force in designated areas. 	<ul style="list-style-type: none"> Approved layout plan. Relevant Method statements and SOPs. Approval of Notification of Inspection by PMDCSC Compliance to CEMP, public health, Construction camp development plan and H&S plan 	<ul style="list-style-type: none"> Construction workers and activities, apart from laying of pipelines as described in other sections, mostly confined within the project site which is fenced. Transportation of material via road is very limited as described in other sections. 	<ul style="list-style-type: none"> Being Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
12(ii)		<ul style="list-style-type: none"> Identify stockyard areas in consultation with local administration. 	<ul style="list-style-type: none"> Approved layout plan. Relevant Method statements and SOPs. Approval of Notification of Inspection by PMDCSC Compliance of soil management plan, waste management procedure and Plan, relevant activity wise method statements and SOPs 	<ul style="list-style-type: none"> All construction activities are/shall be mainly confined to fenced project site and all stockyard areas are located within the project site. No stockyard is envisaged outside project premises. 	<ul style="list-style-type: none"> Being Complied
12(iii)		<ul style="list-style-type: none"> Work on private land to require written permission of landowners. 	<ul style="list-style-type: none"> Approved layout plan. Approval of Notification of Inspection by PMDCSC Permission of land acquired/to be acquired for usages, if any 	<ul style="list-style-type: none"> Most of the construction activities are/will be executed as per approved layout plan and within project site. Only pipelines and other requisite facilities for wastewater discharge and water intake are/will be developed outside the project site and on land owned by HDC. Accordingly 	<ul style="list-style-type: none"> Not applicable

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				permissions for usages are/will be obtained. ▪ No private land is envisaged for usages during construction activities.	
12(iv)		▪ Prefer small mechanical excavator for excavation works.	▪ Compliance of method statements of excavation and relevant SOPs. ▪ Approval of notification of inspection by PMDCSC.	▪ Excavation for laying the pipelines outside project site for wastewater discharge and water intake is/will be carried out as per relevant method statement and SOPs and after approval of notification of inspection by Site engineer of PMDCSC.	▪ Being Complied
12(v)		▪ Prohibit alcohol and drugs on site.	▪ Compliance of local regulations	▪ As per Drugs and Alcohol policy, use of alcohol and drugs are prohibited for workers within project site.	▪ Complied
12(vi)		▪ Prevent excessive noise.	▪ As per given above under 6(ii), 6(iv), 6(vi) and 6(vii).	▪ As per given above under 6(ii), 6(iv), 6(vi) and 6(vii).	▪ Being complied
12(vii)		▪ Code of conduct for workers includes restricting workers in designated areas, no open defecation, no littering, no firewood	▪ Compliance of Human resource polices and procedure, Construction camp	▪ As per given below under 14(i) and 14(ii)	▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		collection, no fire except designated places, no trespassing, no residence at construction sites, and no obligation to potentially dangerous work.	development and management plan, waste management procedure and plan. ▪ Regular inspection and audit by PMDCSC.		
12(viii)		<ul style="list-style-type: none"> ▪ Follow international best practices on community health and safety such as those in Section 4.3 of IFC Environmental Health and Safety (EHS) Guidelines on Construction and Decommissioning Activities. These requirements are discussed in Section VI of the EIA report. 	<ul style="list-style-type: none"> ▪ Approval of Notification of Inspection by PMDCSC ▪ Compliance to CEMP and all plans as mentioned including public health and safety plan and H&S plan. ▪ Records reported in Daily Progress Report (DPR) and monthly report by submitted by DBO Contractor. ▪ Regular inspection and 	<ul style="list-style-type: none"> ▪ Mapping of environment impacts and risk to health and safety has been done in approved EIA and on the basis of findings of EMP, public health and safety plan, GRM plan and other plans as per details given in Table 11 are in place to define the requirements of mitigation measures and way for implementation. ▪ Number of internal documents such as method statements and/or SOPs for each construction activities such as excavation, concreting, dewatering 	<ul style="list-style-type: none"> ▪ Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			audit by PMDCSC.	<p>etc and tools such as PPEs, electricity safety etc are also in place.</p> <ul style="list-style-type: none"> Environment monitoring is being carried out on regular basis as per details given under Section VII. Details of construction activities, real time inventory of construction materials, waste generated, stored and disposed are being reported in DPR and monthly report. Inspections and audit by PMDCSC are being conducted on regular basis. 	
12(ix)		<ul style="list-style-type: none"> Maintain a complaint logbook in workers camp and act promptly of complaints. 	<ul style="list-style-type: none"> Compliance of Grievance Redressal Mechanism plan 	<ul style="list-style-type: none"> GRM plan in place and details of status of implementation of same are as per given under section X. However, no complaint has been reported during this quarter. Complaint boxes are kept at security gates of project site and at 	<ul style="list-style-type: none"> Partially complied as public announcements through local newspapers, community bulletin boards, through the MoE, through the social media, websites, newsletters to reach a broader audience is to be made.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				public ferry terminal of Thilfushi.	
13(i)	Work site and Workers Health and Safety	<ul style="list-style-type: none"> Comply with labour act of Maldives. 	<ul style="list-style-type: none"> Compliance of modified CEMP & other plans including Human Resource Management Procedure and HSE Regulatory Procedure Status of permits to work issued by Maldivian Insurance policies in place Details of salary paid Findings of regular inspection and audit by PMDCSC Complaint received, if any 	<ul style="list-style-type: none"> Applicable provisions of local regulations have been considered in developing all plans as mentioned in Table 11. Personal Mediclaim insurance has been covered as part of permit to work issued by Maldivian Government and no separate insurance cover for individuals has been provided. However, other insurances such as third party, group insurance etc are in place. Appointment letters for permanent employees and contracts for contracted labours are in place. However, the contracts are in English and may not be understood by all workers. Contracts with sub-contractors are in place. 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> ▪ There are two to three months delays in payment of salaries to staff and workers on regular basis. DBO contractor has been notified for reminding them of their obligation to abide by contractual terms and local regulations and ensure timely payment of salaries for all workers and staff. ▪ No system was in place to verify the status of non-holding travel documents of workers and staff by contractor and sub-contractors. ▪ No system is in place to verify the compliance of labour laws and ADB SPS by subcontractors, though same is mentioned in contract. ▪ As per discussions with the contractor, grievances raised verbally by workers. have not been recorded. PMDCSC 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				and PMU notified the contractor that all grievances must be recorded and addressed through the GRM.	
13(ii)		<ul style="list-style-type: none"> Implement the Occupational Health and Safety Plan, which shall follow all occupational health and safety requirements discussed in Section VI of the EIA report. 	<ul style="list-style-type: none"> Compliance to H&S plan and CEMP & other plans such as emergency response plan, Chemical and hazardous material management plan etc Compliance of relevant activity wise method statements and SOPs Findings of OHS monitoring Details provided on health and safety of workers in monthly report Regular inspection and audit by PMDCSC 	<ul style="list-style-type: none"> As per given under section 3(viii), 4, 5, 6, 7, 9 and 14. Modified CEMP and H&S plan have been approved. Status of each plan is as per given in Table 11Table 11. Activity wise method statements such as excavation, spun piling, batching plant, wastewater treatment, dewatering SOPs such as PPE procedure, electrical safety procedure, permit to work procedure etc are in place. However, PMU/ PMDCSC notified contractor to develop SOPs for fall prevention, handling of hazardous chemicals, 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<ul style="list-style-type: none"> Complaints received, if any 	<p>hot works and safety of working platform, to mark hazard/risk areas, install warning signs, on entry etc. which are high risk and do not have a system in place</p> <ul style="list-style-type: none"> Requisite details on finding and actions taken training, toolbox talk, status of permits including copies of same, incident reports etc are being provided in monthly report submitted by DBO Contractor. Finding of OHS monitoring during period are summarised in section VII and as per given above under 4(i) and 6(iv). Inadequacy has been observed in reported values of ambient air quality and air quality at workplaces. Instruments used for ambient air monitoring within and outside premises and at workplaces need to be calibrated. The results 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>of air quality monitored at workplaces are not taken into consideration.</p> <ul style="list-style-type: none"> ▪ EHS committee has been constituted and meetings have been conducted during this quarter. ▪ Online real time inventory of chemicals is updated on weekly basis. ▪ Air exchange rate of container is to be verified in compliance with best practice of storage of chemicals and hazardous materials to ensure adequate ventilation. ▪ Following observations are recorded on the new hazardous chemical storage area for corrective measures: <ul style="list-style-type: none"> a. Design criteria have not been shared to verify the compliance of local regulations and ADB SPS. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<ul style="list-style-type: none"> b. No system in place to keep temperature low. c. Access has been restricted through the main entrance. However, there is an opening which still allows access. d. No SOP is in place to store and handle the chemicals /hazardous materials. ▪ Dos and don'ts are displayed in English only. However same need to be displayed in other languages also as English is hard to understand by most workers and leads to unawareness. Need to conduct trainings & Tool Box Talks to workers in language they understand. ▪ No date wise scheduling of activities and accordingly required mitigation measures have been mentioned in Composite permit to 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>work (combining various activities on one location) issued by construction team.</p> <ul style="list-style-type: none"> ▪ Non-compliances were found with working platforms. Some of the key observations included lack of competency for design and inspection, inadequate display of details on tag (such as number of person and load for which it is designed), usages of rusted planks etc. ▪ Portable toilets are provided at construction site. ▪ During inspection of records on random basis in compliance with all relevant documents, it is found that same need to be audited in detail to verify the compliance. ▪ Regular inspection and audit by PMDCSC. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
13(iii)		<ul style="list-style-type: none"> Provide compulsory health and safety orientation training to all new workers to ensure that they are apprised of Occupational Health and Safety Plan including rules of work, use of personal protective equipment (PPE), preventing injury to fellow workers, etc. 	<ul style="list-style-type: none"> Compliance of HSE Training Procedure Training schedule Details provided in monthly report 	<ul style="list-style-type: none"> As per given below under section VIII. Training is mostly provided in Hindi and English, and videos are also displayed on the subject. However, workers are mainly from various countries such as Afghanistan, India, Turkey, Bangladesh, Nepal, Sri Lanka etc. Reportedly, mapping of understanding of language has been conducted to make training session more effective. But no record has been shared to verify. HIV-AIDS awareness programme for workers needs to be conducted via an approved service. The contractor has initiated communications with the NGO providing trainings to conduct this programme. 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
13(iv)		<ul style="list-style-type: none"> Restrict public access to worksites. 	<ul style="list-style-type: none"> Approved project site and layout plan. Compliance to security management plan. 	<ul style="list-style-type: none"> Site boundary is fenced and only three gates are provided for entry/exit Out of three gates, two are open for use and two guards at each gate with guardhouses are placed to control and restrict entry. Each worker/ staff are provided identity card. Entry of everyone including visitors is allowed only after filling details in sheets provided at security gates. . 	<ul style="list-style-type: none"> Being complied
13(v)		<ul style="list-style-type: none"> Provide PPE to workers and ensure their effective usage. For example, require workers to (i) wear ear plugs while in noise hazard areas, and (ii) wear high visibility clothes or reflectorized vests at all times. 	<ul style="list-style-type: none"> Compliance to H&S plan, CEMP & other plans such as Risk Assessment Procedure, Chemicals and hazardous materials management plan, emergency response plan, HSE training procedure, PPEs procedure etc 	<ul style="list-style-type: none"> As per given above under 4(vi), 6(iv), 13(ii) and 13(iii) PPEs provided are by and large in compliance with British standards but need to be ensured by detailed inspection and audit. More awareness via training is required on ensuring the use of adequate PPE by all workers. 	<ul style="list-style-type: none"> Partially complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
			<ul style="list-style-type: none"> Activities wise method statements and SOPs including PPE procedure. Findings of OHS monitoring Regular inspection and audit by PMDCSC 	<ul style="list-style-type: none"> In-house supervision of applying PPEs by workers need to be made more effective as many workers were found not wearing all and/or inadequate PPEs as required. Permit to work has been revised to include details of PPE provided. 	
13(vi)		<ul style="list-style-type: none"> Document procedures to be followed for site activities. 	<ul style="list-style-type: none"> Same as given in other rows of this aspects 	<ul style="list-style-type: none"> Same as given in other rows of this aspects 	Same as given in other rows of
13(vii)		<ul style="list-style-type: none"> Maintain accident reports and records. 	<ul style="list-style-type: none"> Compliance of H&S plan and Incident reporting and investigation procedure. Medical register as maintained in health centre Incident reporting as part of monthly report. Regular inspection and audit by PMDCSC 	<ul style="list-style-type: none"> All accidents are being recorded and reported in compliance with Incident reporting and investigation procedure. Medical register of type of patient including injured during accident are being reported in monthly report. Details of reported incidents are as per given under section VI(F). 	<ul style="list-style-type: none"> Being Complied , however doctor need to declare injured person fit to work after recovery.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
13(viii)		<ul style="list-style-type: none"> Make first aid kits readily available. 	<ul style="list-style-type: none"> Compliance to H&S plan Regular inspection and audit by PMDCSC 	<ul style="list-style-type: none"> First aid kit needs to be in compliance with British Standard BS 8599-1:2019. During audit in February, following observations are made: <ol style="list-style-type: none"> First aid kit previously placed in the construction zone was removed and relocated to the clinic. List with photographs of 8 trained first aiders was not displayed in camp area and health centre. Contractor has been notified to take corrective measures. 	<ul style="list-style-type: none"> Partially Complied
13(ix)		<ul style="list-style-type: none"> Maintain hygienic accommodation in work camps. 	<ul style="list-style-type: none"> As per given below under 14(i) and 14(ii) 	<ul style="list-style-type: none"> As per given below under 14(i) and 14(ii) Water coolers have been placed at several locations within the construction site and workers have been provided with reusable water bottles. Testing of quality of drinking water is being carried out on monthly basis. Quality of water is per details given 	<ul style="list-style-type: none"> Partially Complied
13(x)		<ul style="list-style-type: none"> Ensure uncontaminated water for drinking, cooking and washing. 			
13(xi)		<ul style="list-style-type: none"> Ensure clean eating areas. 			
13(xii)		<ul style="list-style-type: none"> Ensure sanitation facilities are readily available. 			

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				under section VII. However, as per details given in section VII, variation in TDS in all five drinking water is attributed to different type of portable treatment system provided.	
13(xiii)		<ul style="list-style-type: none"> Provide medical insurance coverage for workers. 	<ul style="list-style-type: none"> As per given above under 13(i) 	<ul style="list-style-type: none"> As per given above under 13(i) 	Being complied
13(xiv)		<ul style="list-style-type: none"> Provide orientation for guest visitors. 	<ul style="list-style-type: none"> Compliance Security management plan, H&S plan, HSE training procedure etc 	<ul style="list-style-type: none"> In compliance with HSE training procedure, orientation including HSE is being provided to visitor by HSE staff in office building and records are kept. 	<ul style="list-style-type: none"> Being Complied
13(xv)		<ul style="list-style-type: none"> Ensure that visitors do not enter hazard areas unescorted. 	<ul style="list-style-type: none"> Records of visitors 	<ul style="list-style-type: none"> Security guards provide identity card, safety jacket, helmets at entry gate while, shoes are provided by HSE team in case visitor are to visit the construction site. Visitor is accompanied by a member of HSE team and/or construction team in case of visit to area under construction. 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
13(xvi)		<ul style="list-style-type: none"> Ensure moving equipment is outfitted with audible backup alarms. 	<ul style="list-style-type: none"> Compliance to H&S plan, General Lifting, Unloading and Transportation Procedure etc 	<ul style="list-style-type: none"> In compliance with documents in place, equipment is being fitted with all accessories provided by manufactures. Checklists of in-house inspection are in place and records are kept. 	<ul style="list-style-type: none"> Being Complied
13(xvii)		<ul style="list-style-type: none"> Chemical and material storage areas need to be marked clearly. Display MSDS, train staff on storage and handling. 	<ul style="list-style-type: none"> As per given above under 13(i) 	<ul style="list-style-type: none"> As per given above under 13 (ii) 	<ul style="list-style-type: none"> Partially complied
13(xviii)		<ul style="list-style-type: none"> Hearing protection equipment enforced in noisy environment. 	<ul style="list-style-type: none"> As per given above under various rows of 6 	<ul style="list-style-type: none"> As per given above under various rows of 6 	<ul style="list-style-type: none"> Partially Complied
13(xix)		<ul style="list-style-type: none"> Conduct of daily toolbox talks to reiterate repeatedly all the above measures and prioritize safety briefings; leanings from previous incidents, their causes and risks, and other safety 	<ul style="list-style-type: none"> Compliance to H&S plan Records of daily toolbox talks Regular inspection and audit by PMDCSC. 	<ul style="list-style-type: none"> Daily toolbox talks are conducted and records are kept. 	<ul style="list-style-type: none"> Being Complied, however same should be delivered to workers in language, they understand.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		procedures as may be identified.			
13(xx)		<ul style="list-style-type: none"> Conduct periodic safety audit, identify and remove potential hazards. 	<ul style="list-style-type: none"> Compliance to H&S plan and CEMP Regular inspection and audit by PMDCSC. 	<ul style="list-style-type: none"> In-house supervision and inspections are being carried out by EPC contractor on regular basis and findings are being communicated to construction team via WhatsApp group and records of findings and action taken are being kept in register and on-line tracker. HSE manager of DBO Contractor conduct inspection and also DBO has engaged Ramboll on periodic inspections on monthly basis and audits on quarterly basis and record of findings with action taken reports are kept. EHS committee is in place. Also, DBO Contractor and EPC contractor have weekly meeting Findings of inspections and audits carried out 	<ul style="list-style-type: none"> Being complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>by EPC and DBO Contractor are reported in monthly report.</p> <ul style="list-style-type: none"> ▪ PMDCSC is to conduct inspections via walk downs by local environment safeguard (twice in month) and quarterly audit by international environment safeguard by using checklists. Details are as per given below under section VI(A). ▪ Monthly HSE meeting is being conducted by PMDCSC, PMU and contractor to discuss the pending issues. 	
13(xxi)		<ul style="list-style-type: none"> ▪ For works in the marine environment, ensure that: <ul style="list-style-type: none"> a. all persons engaged in the marine construction are competent swimmers. b. Lifejackets are provided to workers and worn at all times. 	<ul style="list-style-type: none"> ▪ Compliance to H&S plan, emergency response plan, relevant method statements and SOPs, ▪ Approval of design details by PMDCSC. ▪ Approval of Notification of approval by PMDCSC. 	<ul style="list-style-type: none"> ▪ Most of the construction activities are mainly confined within project site which is already fenced with restricted entry. ▪ Outside the project site, proposed construction activities mainly include laying of pipelines and construction of facilities for water intake from sea and discharge of wastewater into sea. 	<ul style="list-style-type: none"> ▪ To be Complied

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		c. Properly functioning ship-to-shore communications are provided. d. No work during rough sea conditions. e. Emergency rescue team is available at all times at the site during the marine work (such as rescue boat with divers). f. Provide caution & information boards (traffic, safety, information etc.,)	<ul style="list-style-type: none"> Inspections and audit by PMDCSC on regular basis. 	<p>However same are in design stage and yet to be commissioned and mitigation will be implemented on the basis of findings of mapping of hazards associated.</p> <ul style="list-style-type: none"> Based on findings of mapping of hazards associated, activity wise method statement and SOPs, H&S plan and emergency response plan shall be reviewed and modified, if any for corrective mitigation measures and same will be complied with. 	
13(xxii)		<ul style="list-style-type: none"> Undertake all necessary public safety measures, precautions 	<ul style="list-style-type: none"> As given above under 11 for Other amenities for community welfare 	<ul style="list-style-type: none"> As given above under 11 for Other amenities for community welfare 	<ul style="list-style-type: none"> As given above under 11 for Other amenities for community welfare
13(xxiii)		<ul style="list-style-type: none"> Ensure proper maintenance and cleanliness of the site and facilities 	<ul style="list-style-type: none"> As per given hereunder 14(i) and (ii) 	<ul style="list-style-type: none"> As per given hereunder 14(i) and (ii) 	<ul style="list-style-type: none"> As per given hereunder 14(i) and (ii)
13(xxiv)		<ul style="list-style-type: none"> Demarcate assembly area for emergencies 	<ul style="list-style-type: none"> Compliance of H&S plan and Emergency response plan. 	<ul style="list-style-type: none"> There are two designated assembly areas provided almost in one direction i.e. one 	<ul style="list-style-type: none"> Complied, however capacity of assembly area needs to be assessed considering

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>in front of administrative building second one near gate no-1.</p> <ul style="list-style-type: none"> ▪ Windssocks are provided at two locations. 	<p>maximum number of workers/staff at project site.</p>
13(xxv)		<ul style="list-style-type: none"> ▪ Provide medical aid facilities (first aid, doctor on call etc.,) 	<ul style="list-style-type: none"> ▪ Compliance to H&S plan ▪ Record of medical register. ▪ Regular inspection and audit by PMDCSC 	<ul style="list-style-type: none"> ▪ One full time MBBS doctor and one nurse on 24x7 basis. Others are as per given above under 13(viii). ▪ In case of requirement of further treatment, patient is being referred to IGMH hospital, Male. ▪ Reportedly, records of Permit to work issued by Maldivian Govt including medical check-up conducted for same have been kept. However, no system in place to keep the record of blood group. ▪ Centre has been registered on 19th March 2025. ▪ Details as given under 13 (viii). 	<ul style="list-style-type: none"> • Partially complied, however a) Doctor deputed in health center needs to be trained for his role and responsibility especially for ensuring hygienic in camp area and food quality. b) Doctor needs to interact with all first aiders on regular basis.
14(i)	Labor Camps	<ul style="list-style-type: none"> ▪ Avoid establishing labour camps by employing local 	<ul style="list-style-type: none"> ▪ Compliance of Construction camp development 	<ul style="list-style-type: none"> ▪ Camp has been established within project site in compliance with 	<ul style="list-style-type: none"> ▪ Being complied but need to provide/adopt missing items/practices.

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>workers as far as possible.</p> <ul style="list-style-type: none"> ▪ In unavoidable cases, establish camp within the site; and implement the Construction Camp Development and Management Plan (CCDMP). ▪ Follow the layout plan included in the CCMP. 	<p>and management plan.</p> <ul style="list-style-type: none"> ▪ Complaints, if any received via GRM. ▪ Findings of inspection and audits conducted by PMDCSC 	<p>construction camp development and management plan which is developed considering details given in CCDMP and a guidance note by IFC and the EBRD on worker's accommodation and standards and local regulations.</p> <ul style="list-style-type: none"> ▪ Camp is developed in phases considering all workers and supervisory staff including subcontractors. ▪ As of 19 February 2025, 210 workers and staff are staying in camp area. DBO Contractor staff and workers of sub-contractors are not staying as accommodations for them have been arranged by themselves and provided by subcontractor. ▪ Total 64 single occupancy rooms are 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>available for manager and engineers and out of which 36 rooms are occupied.</p> <ul style="list-style-type: none"> ▪ Total 43 six-person occupancy rooms are available for workers and out of which 25 rooms are occupied. ▪ Total 12 triple occupancy rooms are available for foreman and supervisors and all are occupied. ▪ Details of facilities for worker's accommodations need to be provided/modified to comply with IFC EBARD guidelines: <ol style="list-style-type: none"> a. Furniture such as a table, a chair, a mirror and a bedside light b. mobile partitions or curtains to ensure privacy. c. Secured storage with lock & key to each worker ▪ Since the toilet facilities are located in a separate building 	

No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
				<p>from the accommodation, need a sheltered walk way to protect workers from rain.</p> <ul style="list-style-type: none"> ▪ Only one gate has been provided in each block of accommodation which is also designated as the emergency exit gate. ▪ Pest control is being carried out on monthly basis. ▪ Workers need to be educated and encouraged to keep rooms clean. ▪ In-house monthly audit has been carried out in March 2025. 	
14(ii)		<ul style="list-style-type: none"> ▪ The CCDMP will consider all construction camp requirements discussed in Section VI of the EIA report, which, among others, are the following: <ol style="list-style-type: none"> a. The camp, if possible, in 	<ul style="list-style-type: none"> ▪ As per given under 14(i) 	<ul style="list-style-type: none"> ▪ Camp is located more than 50 m from seashore and storage area and solid waste dumping site of WAMCO. ▪ STP is being in operation and treated wastewater is being tested on monthly basis 	Being complied





No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>Thilafushi Island, is at least 50 m away from water bodies.</p> <p>b. Clear separation of the workers living areas from material storage areas and work sites with fencing and separate entry and exit</p> <p>c. Provision of proper liquid waste and solid waste collection, treatment and disposal system.</p> <p>d. Provision of drinking water, water for other uses, and sanitation facilities (e.g. separate toilets for men and women).</p> <p>e. Liveability at the highest standards possible at all times; living quarters provided with standard materials, space,</p>		<p>before discharge into sea.</p> <ul style="list-style-type: none"> ▪ Solid waste is being collected and stored before handing over to WAMCO for disposal. ▪ Water supplied by Male Water and Sewage Company is being further treated for drinking purpose for workers and drinking water quality is monitored on monthly basis. This water is treated at five locations with potable system. During this quarter, water supply from MWSC was disrupted within Thilafushi and water was obtained from a third-party RO plant. ▪ However, for supervisor staff, bottled water is being provided for drinking. ▪ Mainly Turkish food to is cooked in kitchen and provided in separate dining hall for staff and workers. Same food is served to 	





No.	Field or Activity	Mitigation Measures	Indicator of Compliance	Status of implementation	Compliance
		<p>and proper lighting and ventilation.</p> <p>f. Fire safety, medical facilities</p>		<p>all. However, for personnel (mainly from India, Bangladesh and Sri Lanka), food is being brought from outside due to food habits.</p> <ul style="list-style-type: none"> ▪ Fire extinguishers duly inspected by third party have been provided. ▪ As per given above under 14(i) and 13(xxv). 	




D. Key Site Observations and Action Taken




25. Details of findings/observations based on weekly site walk down reports, inspection reports, etc. are given in Table 13 with specific details on status in line with reports enclosed as Appendix-2. However, major issues identified for actions are listed as per given below:
- a) EHS committee meetings have been conducted.
 - b) All HSE plans as referred in CEMP have been approved.
 - c) Separate monthly EHS meetings with DBO/EPC to discuss and resolve issues have been conducted.
 - d) Pending permits for four DG sets (1x385 KVA+ 1x300 KVA+2x180 KVA), mobile diesel tanker of 5000L and vehicles etc. Approval from MNDF is to be obtained for ware house especially used for chemical storages/hazardous material.
 - e) Non- compliance of stipulated conditions in permit for three DG sets.
 - f) Pending revision of CVRA report and air dispersion modelling based on comments.
 - g) Erroneous reported monitoring data for ambient air quality at six workplaces during whole quarter. Calibration of ambient air and work place air monitoring instruments need to be done.
 - h) Water spraying is conducted on site regularly on need basis.
 - i) Inadequate noise mitigation measures as noise level at 1 m distance from various source exceeded 85 dB(A).
 - j) PMDCSC and PMU have discussed safety of the working platforms with both DBO and EPC and it has been again highlighted during audit to ensure the competency of scaffolding inspector and supervisor and to develop a site-specific guidance manual including SOPs on QA/QC of parts /components used/to be used for working platforms, design, construction and inspection of working platforms. This should also include roles of construction team and HSE team, design aspects, quality inspection, dismantling etc.
 - k) Key issues found during site inspections by PMDCSC included two to three months delays in payment of salary to workers and staff on regular basis, ensuring compliance of local regulation on no holding of documents of workers by employer, use of PPE (especially mask and gloves) by some of the workers, barriers to act as wind breakers, marking of vehicle route, frequency of water spraying in high use area, awareness among workers on handling of chemicals/hazardous materials, adequacy of first aid kits & spill kits, provision of furniture such as table, chair, mirror, bedside light and secured storage with lock & key to each worker, safe access/walkways within the site, provide , signage, usage of existing unsafe stairs in construction area, effectiveness of trainings through translators etc.
 - l) SOPs as necessary such as for fall prevention, handling of hazardous chemicals, hot works and other activities which are high risk and do not have a system in place.
26. Improvement in compliance of GRM plan is required which mainly includes:
- a. Public announcements need to be made through local newspapers, community bulletin boards, through the MoE.
 - b. Record / register verbal complaints, follow up & resolution in compliance with internal GRM
 - c. GRM materials is to be translated in local language for public and work.




Table 13: Site Observations and Current Status



Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
PPE Use	<p>Some workers were found without the appropriate masks / masks which required replacement</p> <p>Workers found without safety goggles during pouring of cement into the columns</p>	 	<p>Ensure use of all required PPE by all workers.</p> <p>Ensure PPE is in good condition.</p>	<p>Contractor has provided refresher trainings on PPE use and committed to improving site monitoring. Observations of improper usage of PPE has decreased following trainings and inspections. However, non-compliances have been observed and ensuring proper usage of PPE is a continuous process.</p>	 




Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
Dewatering	<p>Dewatering without renewal of the permit from URA</p> <p>14/11/2024</p>		Permit to be obtained	Currently, no dewatering is taking place and the pond has dried up. The DBO informs that the permit application is tied to ongoing activity itself rather than having been obtained prior to its commencement.	
Potable Water	<p>Frozen plastic water bottle placed in water cooler</p> <p>Re-used, uncovered jam bottles placed near water cooler to be used as cups</p> <p>4/12/2024</p>		Improve drinking water conditions	<p>Management has provided refillable water bottles for each worker and improved the water shelters.</p> <p>Workers have easy access to a supply of clean/potable water in adequate quantities</p>	




Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
					
	A wheelbarrow was being used to transport drinking water to workers stations and the premises where the water coolers were filled. The dispensing station was unhygienic and there was no dish washing		Ensuring hygienic practices are followed when handling and transportation of drinking water.	Improved conditions and provision of a clean wheelbarrow for transportation.	




Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
	liquid, brushes or sponges to clean the bottles. The refilled water bottles were carried out in a very dirty wheel barrow 4/12/2024				
Noise levels	Very high noise levels were observed at the diesel generator set at the batching plant area 16/10/2024		DG set requires replacement	Replacement DG set has been brought to site. However, it has not been operationalised yet as it is to be tested for compliance with required standards.	



Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
	High noise levels at other generator sets located within the site, including new generator sets at the bunker area.		Noise mitigation measures are required.	Tin enclosure is being placed around the new generator sets.	Not closed
Safety signage and safe access	<p>Inadequate safety caution, information and awareness signage.</p> <p>19.03.2025</p> <p>Obstructed accessways.</p>		<p>Ensure safe access/walkways within the site, provide signage.</p> <p>Mark hazard/risk areas and install warning signs, no entry signs, etc</p>	Additional signage has been placed at the site in different languages. The contractor has also been advised to increase signage.	 <p>Not closed</p>





Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
					
First Aid Boxes	First aid boxes were not found with adequate content and are required to be placed at more locations within the site.		Procure first aid boxes which are in compliance with the British Standards and place at strategic locations within the work site.	First-Aid boxes have not been placed in the designated places after procuring the contents. Batching Plant and the Bunker Area are the only locations with stocked first aid boxes.	Not closed




Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
Erection of Scaffolding and working platforms	<p>Incompetent scaffolding inspectors without professional experience. The issue has been raised since last November 2024.</p> <p>19.03.2025</p>	 <p>(November 2024)</p>	<p>Ensure there is a system in place for inspection of scaffolding.</p> <p>Develop the required SOPs/ guidelines required for inspection and dismantling.</p>	<p>Not Closed.</p> <p>Majority of the scaffolding has been taken down as it is not required currently. Scaffolding tags have been provided.</p> <p>Specialized training conducted for 3 scaffolding inspectors in Sri Lanka by PWC. 2 scaffolding – one from HSE and one from construction side went under training as scaffolding supervisors. 23 scaffolders trained.</p> <p>The Contractor has informed that competent scaffolding inspectors will be on site in August 2025.</p>	 <p>Not Closed</p>
	<p>Unsafe conditions at the working platforms with inadequate safety tags and no barricades for platforms under construction.</p>	 <p>February 2025</p>			

Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
					
Spill Containment	At the Batching Plant, spill containment for the diesel gensets was not included and set standards are not adhered to		Spill containment to be provided	Completed. Secondary containment has been provided.	

Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
Chemical Storage	<p>Spill containment for the chemical warehouse and acquisition of MNDF inspection and approval for the chemical storage needs to be initiated</p> <p>19.02.2025</p>		<p>MNDF inspection and approval for chemical storage.</p> <p>Display essential information at the storage area.</p>	<p>MNDF inspection and approval of the chemical storage process is pending</p> <p>Regular inspections are conducted, specifically for "Chemical Store Inspection" and "Spill Kit Inspection" measures to prevent any spillage or leakage that could impact the surrounding environment.</p> <p>Awareness sessions conducted to train workers/operators in the safe handling of chemicals</p>	 <p>Not closed</p>
Fire extinguisher	<p>A fire extinguisher was observed to be missing from the steel workshop during January 2025 Audit.</p>		<p>Replace the fire extinguisher</p>	<p>Replaced</p>	<p>Closed</p>

Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
Illumination	The west side of the bunker and walkway to the bunker does not have adequate illumination.		Installing supplementary lighting, such as tower lights, in areas requiring adequate illumination.	<p>Additional lights have been ordered for required low illuminated areas.</p> <p>Work was conducted at night mostly during March (in Ramadan).</p>	Not closed
Registration	Registration is required for remaining vehicles and diesel generator sets.		Complete the registration process.	Not closed	Not closed

Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
		  			
Kitchen	The kitchen and the stores are very organized and up to the sanitary standard. No health issues has been reported		None required.	N/A	N/A

Aspect	Site Observation / Finding	Site photographs	Action to be taken	Current status	Close out photo
Workers Cafeteria	The workers cafeteria is very well maintained and cleaned. The floors are washed and drained every day.		None required.	N/A	N/A
Recycling of plastic bottles	plastic bottle interception with Parley Maldives has been initiated in December 2024.	 	None required.	N/A	N/A

E. Project Construction related Accidents and Incidents

27. Table 14 and 15 below presents details of work-related incidents reported from the project pre-construction and construction activities.

Table 14: Details of Construction related incidents (reporting period)

Date of occurrence of incident	Type of incident	Description of incident	Consequence of incidents	Action taken by contractor	Present status
18 th January 2025 [10:30] Steel Yard	First Aid Case	During steel bending using a bar-bending machine the injured person's right middle and index fingers were crushed by the roller along with the steel rod. This resulted in injuries (skin laceration) to both fingers.	Skin laceration on two fingers	<ul style="list-style-type: none"> • SOP for bar bending machine developed • Provided pinch point awareness training • Push rode made to guide the short length steel rebar • Risk assessment for carpentry and steel yard operation revised 	All hazards and risk associated have been mitigated.

Table 15: Construction related incidents

Particulars	Number of cases (previous reporting period)	Number of cases (this reporting period)	Cumulative up to end of this reporting period	Cases remaining outstanding
Minor / first aid cases	1	1	6	0
Major accidents	0	0	0	0
Fatal accidents	0	0	0	0
Accidents (only damage to assets, does not involve personnel injuries)	0	0	1	0
Near miss cases	2	0	4	0
Total	3	1	11	0

F. Unanticipated Impacts

28. No unanticipated environmental impacts were encountered during the pre-construction/design stage.

VII. ENVIRONMENTAL MONITORING

A. Monitoring Activities

29. Considering the findings of the EIA study report (July 2020), environment baseline monitoring is carried out as per details given in CEMP during construction.
30. Environmental monitoring of ambient air quality, marine water quality, groundwater quality, ambient noise levels, wastewater quality from the discharge point of the WWTP/STP, and water quality proposed to be used for construction and camp and marine ecology survey have been carried out as per details provided in Table 16. Sampling and testing have been carried out based on the method statement enclosed as Appendix of the CEMP.
31. Monitoring of ambient air quality, ambient noise level and illumination level have been carried out as part of OHS monitoring.

Table 16: Additional Baseline Data Gathering During Construction Stage

Assessment	Parameters	Location	Frequency	Status
Ambient air quality	TSP, PM10, PM2.5, NO2 and SO2	Total of 7 monitoring locations (Refer to Figure 3) <ul style="list-style-type: none"> ▪ AQ1 (downwind direction of the proposed project site) ▪ AQ2 (crosswind direction of the plume) ▪ AQ3 (crosswind direction of the smoke plume from the existing dump site at Thilafushi. ▪ AQ4 (Villingili as a control site) ▪ ASR2 ▪ ASR3 ▪ ASR5 	once in each quarter	Ambient air quality samplings were undertaken from 9 to - 14 February 2025
Ambient noise level	Leq _{daytime} and Leq _{nighttime}	Total of 5 monitoring locations (Refer to Figure 4)	Monthly sampling	Noise level sampling was undertaken on the following dates: 1) 18 to 19 January 2025 2) 24 th and 25 th February 2025 3) 23 to 24 March 2025
OHS monitoring	Ambient air quality for TSP, PM10, PM2.5, NO2 and SO2	24 hourly basis ambient air quality monitoring was conducted at two locations within project site	Once in a month	1) 22 to 24 January 2025 2) 12-13 February 2025 3) 10-12 March 2025

Assessment	Parameters	Location	Frequency	Status
		Only one hourly basis ambient air quality has been monitored at six workplaces within project site (Refer to Figure 3).	Once in a month	1)8 to 14 January 2025 2)8 to 13 February 2025 3)17 to 20 March 2025 Reported results were inaccurate and could not be considered for discussion. Monitoring instrument need calibration.
	Noise level for $Leq_{daytime}$ and $Leq_{nighttime}$	Noise level has been monitored at two locations once for 24 hours which are same as NQ3 and NQ5 for which has been done on monthly basis as per EMP of EIA (refer to Figure 4) as well as near grab monitoring at and near sources.	Once in a month	same as given under item ambient noise level
	Source Noise level at source, 1m, 2m and 3 m distance	Grab noise level at various sources in dB(A)	At least once in month	1) 13 th , January 2025 2) 16 th February 2025 3) 20 th March 2025
	Illumination level in Lux	Illumination levels have been monitored on grab basis at various locations within project site	Once in a month	1)28 th January 2025 2) 19 th February 2025 3)25 th March 2025
	Drinking water	Drinking water quality at five locations	Once in a month	Grab sample was collected on 5 th January 2025, 6 th February 2025 and 3rd March 2025.
Marine water quality	Heavy metals (As, Cr^{+6} , Cu, Ni, Pb, Zn, Hg, Cd), nitrite, pH, turbidity, and BOD ₅ etc.	Marine water samples to be collected from seven sampling stations - SW1, SW2, SW3, SW4, SW5, SW6, and SW7 (Refer Figure 6: Marine Water Quality Sampling Stations)	Quarterly sampling	Marine water samples were collected on 6 th February 2025
Groundwater quality	Oil and grease, fecal coliform, presence of petroleum, pH, Heavy metals (As,	<ul style="list-style-type: none"> Water samples to be collected from the eight monitoring locations (Refer 	Quarterly sampling	<ul style="list-style-type: none"> Groundwater Samples were collected from seven sampling stations - GW1, GW2, GW3, GW4, GW5,

Assessment	Parameters	Location	Frequency	Status
	Cr ⁺⁶ , Cu, Ni, Pb, Zn, Hg, Cd), etc.	Figure 7: Groundwater Sampling Stations) <ul style="list-style-type: none"> For each location, the sample was collected from mid-water level 		GW7 and GW8 on 6 th February 2025. GW5 was inaccessible.
Water quality proposed to be used for construction and other activities	pH, EC, TSS, fecal coliform, total coliform, aerobic plate count, Fe, Cd, As, Pb, Hg, Nitrate, etc.	<ul style="list-style-type: none"> Supply line of Male Water and Sewerage Company Supply network at project site. 	Monthly sampling	<ul style="list-style-type: none"> Grab sample was collected on 5th January, 6th February and 3rd March 2025. Parameters have been revised in compliance with supply water quality standard as prescribed by URA from August 2023 onwards.
Treated wastewater quality from WWTP/STP to be discharged into sea	pH, COD, BOD ₅ , heavy metals, EC, etc.	<ul style="list-style-type: none"> At discharge point from the WWTP/STP to the receiving body of water 	Monthly sampling	<ul style="list-style-type: none"> Grab sample was collected on 5th January, 6th February and 3rd March 2025 Parameters have been revised in compliance with National Waste Water Quality Guidelines 2007 and IFC General EHS Guidelines from August 2023 onwards.
Discharge water quality from dewatering	Fecal Coliform, pH, Total Dissolved Solids, Dissolved Oxygen, Turbidity, Total Hydrocarbon, Electrical Conductivity, Salinity, Hydrogen Sulphide, Oil & Grease, Ammonia, Nitrites and Phosphates	As discharge point of retention pond into sea	Monthly sampling	<ul style="list-style-type: none"> Grab sample was collected on 5th January 2025. Dewatering has not been carried out during February and March 2025.
Marine ecology survey	Live coral and fish	In and around locations (M8, M9 and M10) at 5 and 10 m depth as referred in EIA and CEMP	Once During the Pre – Construction Phase & Quarterly During the	Survey conducted on 28 th January 2025

Assessment	Parameters	Location	Frequency	Status
			Construction Phase	

B. Monitoring Results

i. Ambient Air Quality

32. There was one sampling event during this reporting period i.e. during February 2025. Measurements of parameter such as PM₁₀, PM_{2.5}, SO₂, NO₂, and TSP were done by using air quality monitoring station-based online sensor technology by AirQoon Sensor. Parameters measured with sensor devices consist of the averages of instantaneous measurements taken at 1-minute intervals and reported on hourly and 24-hourly basis.
33. Ambient air quality sampling was conducted at seven locations: 6 locations at Thilafushi (AQ1, AQ2, and AQ3 identified as baseline stations in the EIA and the ASR2, ASR3 and ASR5 based on the AERMOD study in the EIA), and one location at Villingili (AQ4) as control station. Figure 3 shows the ambient air quality sampling stations. Table 17 gives the description of the sampling stations while Table 18 shows the results of ambient air quality sampling. TSP levels reported for ASR3 could possibly be a reporting error.

Figure 3: Ambient Air Quality Sampling Stations



Table 17: Description of Ambient Air Quality Sampling Stations

Location	Description	Distance to Project Site (WtE facility construction) meter
AQ1	Represents dense industrial area	650
AQ2	Represents dense industrial area	1,000
AQ3	Represents dense industrial area	500
ASR2	Represents dense industrial area	700
ASR3	Represents dense industrial area	500
ASR5	Represents dense industrial area	1,000
AQ4	Represents residential area with moderate urbanisation	4,500

Table 18: Results of Ambient Air Quality Sampling, February 2025

Parameters	Air Quality Monitoring during February 2025							
	AQ1	AQ2	AQ3	AQ4	ASR2	ASR3	ASR5	WHO air quality standards
PM ₁₀ (µg/m ³)	32.8	33.2	33.1	32.9	32.7	33.1	32.8	45
PM _{2.5} (µg/m ³)	26.9	28.8	26.5	27.0	28.2	27.7	26.8	15
SO ₂ (µg/m ³)	ND	ND	ND	ND	ND	ND	ND	40
NO ₂ (µg/m ³)	ND	ND	ND	ND	ND	ND	ND	25
TSP (µg/m ³)	65.133.2	70.8	70.9	68.3	69.8	39.0	66.8	-

34. From Table 18, results of ambient air quality conducted during November-2024 show that levels of PM_{2.5} at all locations are exceeding the WHO air quality guidelines.
35. Variations in the ambient air quality results compared to the last year results may be attributed to the microclimate of the monitoring locations that may have background pollution sources as Thilafushi is an industrial site where various types of industrial works are conducted in addition to the local activities, and meteorological conditions at the time of sampling. Further analysis has been mentioned in sub section (iii) i.e. OHS monitoring -air quality.
36. Male and Hulhumale are located in the E-N quadrant of the Thilafushi island. Based on the meteorology of the area, more specific to monthly variations, easterly winds are predominant from December to February. In March, it is a combination of easterly and NW winds, while westerly winds are predominant for the rest of the year. Two monsoon seasons are observed in Maldives: The Northeast (*Iruvai*) and the Southwest (*Hulhangu*) monsoon. The southwest monsoon lasts from May to September and the northeast monsoon occurs from December to February. The transition period of southwest monsoon, which is the driest part of the year, occurs between March and April while that of northeast monsoon occurs between October and November. Refer paragraph 39 for additional details.

ii. Noise level monitoring

37. Ambient noise level measurements were conducted from, 18 to 19 January 2025, 24 to 25 February 2025, and 23 to 24 March 2025, at five sampling stations identified in the EIA (July 2020). These are NQ1 to NQ5 (refer to Table 18 for description of the sampling stations and Figure 4 for location map). Thilafushi is considered an industrial area and the EPA has no noise level standards, thus, results of ambient noise level measurements were referred to the WB-IFC EHS Guidelines April 2007 (Table 1.7.1) of 70 dBA for both daytime and night-time. Hourly noise levels were measured during daytime and night-time using a handheld instrument. Results of noise sampling are presented in Table 20.

Table 19: Description of Noise Sampling Stations

Station Identifier	Location	Description and rationale
NQ1	4°10'26.4 N 73°28'59.9 E	The station was selected as it represents a major industrial location of the island and is also located close to the harbour. The location lies north of the proposed facility on the opposite side of the lagoon.
NQ2	4°10'56.6 N 73°26'53.3 E	The station was selected as it represents a major industrial location of the island. The location lies east of the proposed facility on the opposite side of the lagoon. The location has various industrial activities in its proximity
NQ3	4°10'58.3 N 73°26'09.6 E	This station was selected as it is located near the boundary of the proposed WTE facility.
NQ4	4°10'57.3 N 73°25'59.4 E	This station was selected as it is located west of proposed WTE facility. The area has less development and less activity during the daytime.
NQ5	4°10'57.3 N	This station was selected as it is located at the proposed facility

Station Identifier	Location	Description and rationale
	73°26'14.4 E	

Figure 4: Noise Sampling Stations



Table 20: Results of Ambient Noise Level Measurements

Station	Measured during January 2025		Measured during February 2025		Measured during March 2025	
	Noise level (dBA) daytime	Noise level (dBA) night-time	Noise level (dBA) daytime	Noise level (dBA) night-time	Noise level (dBA) daytime	Noise level (dBA) night-time
NQ1	59.6	53.8	60.1	53.8	54.4	55.2
NQ2	57.1	48.9	55.4	48.6	51.8	50.7
NQ3	59.0	58.9	72.6	60.3	65.3	72.5
NQ4	55.5	46.8	54.7	45.3	54.4	46.1
NQ5	50.7	45.9	48.4	42.0	45.6	46.8
WHO Guidelines Value for Noise Levels Measured Out of Doors (One Hour LAeqin dBA) Source: Guidelines for Community Noise. WHO. 1999	70	70	70	70	70	70

38. Measurements of noise levels are conducted for duration of 5 minutes in one hour at each location and Leq values are reported on hourly basis for 24 hours. Considering the hourly Leq values, daytime Leq (from 7 hrs to 22 hrs) and night time Leq (from 22 hrs to 7 hrs) are calculated.
 39. Results of ambient noise levels were found to be within the applicable standards for commercial and industrial areas during the reporting period except at NQ3 during day time in February 2025 and night time in March 2025. This is due to construction activities within project site as NQ3 is located within project site.
 40. Compared to the ambient noise levels measured during January-March 2024, at same locations, monitored noise levels were found in same range except at NQ3, however variations in the results may be attributed to the commercial and industrial activities at the time of measurements.
- iii. OHS monitoring**
41. OHS monitoring included air quality, noise and illumination at several locations within the project site. Drinking water quality was also monitored at 3 locations. Description of the sites are given in Table 21 below.

Table 21: Description of OHS Monitoring Stations (Air quality, Noise and Illumination levels)

Monitoring	Location	Description
Air Quality on 24 hourly basis	Near Area 12 and near batching plant	Within the construction site
Air Quality	Workplaces	at six locations with construction site
Ambient Noise level	Near the process area and near the material storage area	Within the construction site
Source noise level	Equipment	DG sets, pumps, transit mixers, cranes etc.
Illumination	Workplace & accommodation	At several locations within the site
Drinking water - sample 1	Worker's accommodation	Filtered water
Drinking water-sample 2	Dining area	Filtered water
Drinking water – sample 3	Dining area	Filtered water
Drinking water-sample 4	Near steel workshop	Filtered water
Drinking water-sample 5	Inside steel workshop	Filtered water

Air Quality

42. Ambient air quality monitoring was carried out in all months at two locations within the project site on 24 hourly basis and results are presented in Table 22.
43. below. Levels of PM 2.5 were found exceeding the WHO standards for ambient air quality at all sites. Also, 8 hourly permissible limits by OSHA for respirable dust and total dust exposure

limit for workers are 5 mg/m³ and 10 mg/m³ respectively. The contractor has procured additional masks to be used by workers. However, non-compliances were found with PPE use during site inspections, the contractor will be improving supervision and providing increased awareness on PPE use to ensure the appropriate use of PPE.

44. Ambient air quality monitoring as a part of OHS monitoring was carried out at 6 locations representing workplaces on 1 hourly basis by using hand hold device. Due to errors in reported results, it has not been included in this section. However, DBO Contractor has been notified to take corrective measures including QA/QC and calibration.



1. AREA 12
2. Batching plant

Figure 5: Ambient Air Quality Sampling Stations within Project Site

Table 22: Results of OHS Air Quality Monitoring within the site

Parameters	OHS Air Quality Monitoring within the site						WHO Standards
	January		February		March		
	Near area 12	Near batching plant	Near area 12	Near batching plant	Near area 12	Near batching plant	
PM ₁₀ (µg/m ³)	33.4	37.6	32.8	32.7	32.4	32.6	45
PM _{2.5} (µg/m ³)	26.6	26.7	27.2	27.4	27.0	27.3	15
SO ₂ (µg/m ³)	ND	ND	ND	ND	ND	ND	40
NO ₂ (µg/m ³)	ND	ND	ND	ND	ND	ND	25
TSP (µg/m ³)	71.4	70.6	71.3	71.7	71.1	71.0	-
Averaging time is 24 hours							
LOQ for ND		<0.5 ppb (1.3µg/m ³) for SO ₂	<0.5 ppb (0.94µg/m ³) for NO ₂				

45. It is evident from previous QEM reports comparing ambient air quality monitoring in Male' and Villimale', that reported higher values of PM₁₀ and PM_{2.5} in ambient air are cumulative impacts of all surrounding domestic, commercial, construction and natural activities at Male, Villimale and Thilafushi including construction activities at project site. During this quarter, data of online ambient air quality conducted by MoTE could not be obtained.
46. DBO Contractor has been notified on reported values of higher values and compliance on mitigation measures as mentioned in EMP of approved EIA verbally and in writing. However, water spraying on regular basis is being done on need basis.

Illumination

47. Illumination levels in LUX at various locations during night within project site were monitored. Results are given for the accommodation area, bunker area and material storage area in Table 23.
48. Illumination levels were found to be lower than the recommended levels at some locations within the site. The contractor has stated that corrective actions will be implemented.

Table 23: Results of OHS Illumination Monitoring within the site

Locations	Average Lux			Type of workplace	IFC Minimum limits for workplace illumination intensity
	January	February	March		
Main office	56.2 (front side of central office), corridor	58.2 (front side), 134.3 (corridor up), 146.4 (corridor down)	54 (front side), 103.6 (corridor up side), 112.9 (corridor)	Workspace with occasional visual tasks	<ul style="list-style-type: none"> •Outdoor non-working areas – 20 lux •Simple orientation and temporary visits (machine storage, garage, warehouse) – 50 lux •Workspace with occasional visual tasks (corridors, stairways, lobby, elevator, auditorium) – 100 lux •Medium precision work (simple assembly, rough machine works, welding, packing, etc.) – 200 lux
	365.9 (Civil team room), 318.3 (Room-1), 343.5 (mechanical room), 392.2(QA/QC room)	318.9 (Civil engg room), 434 (Civil Chief room), 468 (mechanical room), 330.6 (technical room), 368.2 (construction manager room), 375.2 (QA/QC room), 462 (HSE room)	282.2 (office in warehouse), 246.6 (civil office), 348 (civil chief room), 353 (technical room), 446 (construction manager room), 344.4 (QA/QC room), 519 (HSE office)	Precision work	<ul style="list-style-type: none"> •Precision work (reading, moderately difficult assembly, sorting, checking, medium bench and machine works, etc, offices) – 500 lux

					<ul style="list-style-type: none"> •High precision work (difficult assembly, sewing, colour inspection, fine sorting etc) – 1000-3000 lux
Camp area	89.3 (front side of staff accommodation), 140.8 (front side of foremen accommodation), 142.8 (corridor down of old staff accommodation), 115.3 (corridor up of old staff accommodation) 17.9 (corridor of new staff accommodation), 162.1 (corridor of labour accommodation)	33.6 (walkway), 164.9 (front side of foremen accommodation), 143.9 (front side of accommodation-3), 152.8 (corridor of new staff accommodation), 136 (corridor of labour accommodation), 103.6 (corridor up of old staff rooms), 153.2 (corridor down of old staff rooms)	151.7 (corridor of labour accommodation), 143.3 (front side of foremen accommodation), 293.5 (front side of accommodation-3), 172.4 (front side of cafeteria), 259.2 (corridor of new staff accommodation), 123.4 (corridor upside of staff accommodation), 141.1 (corridor of staff accommodation)	Workspace with occasional visual tasks	
Toilet area	250.6 (frontside)	397.8 (front side)	227.3 (front area)	Workspace with occasional visual tasks	
First aid centre	160.7 (front side)	152.8 (front side)	188.1 (front side)	High precision work	

Bunker area	96.3(west side), 95.4 (road side), 61(south side)	158.2 (road side), 215.3 (east side), 184.5 (west side), 78.9 (south side)	107.2 and 263.4 (east side), 64.1 (south side), , 136.6 (road side)	Medium precision work
Material storage area	58.5 (road side of ware house)	50.4 (road side of warehouse)	58.5 (road side of warehouse) , 55.7 (inside of warehouse)	Simple orientation and temporary visits
Process area	282.2 (west side), 228.7 (east side), 104.4 (south side)	189.2 (east side), 224 (west side)	140.5 (east side), 240.5 (process area)	Medium precision work
Batching plant area	68.3 (concrete mixer side), 102.4 (feeder side), 126.5 (material storage), 36.4 (road side)	66.6 (mixer area), 56.2 (cement feeder side), 130.7 (storage area), 318 (cement storage), 194.3 (road side)	98.2 (road side),	Medium precision work
Steel yard	238.5(east side), 141.9 (in side)	418 (east side), 185.9 (inside centre)	125.7 (inside), 97.7 (front side), 387.5 (east side)	Medium precision work
Laboratory area (road side)	85.5 (road side)	120.6 (road area)	96.6 (road side)	Workspace with occasional visual tasks
Security Gate-02	85.4(front side), 69.4 (road side)	94.3(front side), 72.5 (road side)	145.6 (front side), 114.2 (walk way)	Medium precision work
Security Gate-03	314.4 (front side), 120.4(road side)	549 (front side), 141.6 (road side)	359.5 (front side), 126.2 (road side)	

Noise

49. As per Figure 4, two of the Noise Sampling Stations (NQ3 and NQ5) are located within the project site, therefore, noise level measurements from these two locations have been considered as a part of OHS noise monitoring as well as ambient noise monitoring. For the purpose of OHS monitoring, Leq have been calculated for 8 hours as reported in Table 24 and compared with ILO noise standards. Leq levels for 8-hour periods are in compliance with the ILO noise standard of 85 dBA.

50. Noise levels were monitored near equipment as per the contractor's OHS monitoring plan. Results are presented in Table 25 below. From the table, it is evident that during January 2025- noise levels were monitored for 16 different sources and out of which reported noise level at 1 m exceeds 85 dB(A) for 15 sources, during February-2025- noise levels were monitored for 19 different sources and out of which reported noise level at 1 m exceeds 85 dB(A) for 17 sources and during March-2025- noise levels were monitored for 18 different sources and out of which reported noise level at 1 m exceeds 85 dB(A) for all sources. Ear plug/ear muff as per requirements are being provided to workers.
51. DBO Contractor has been notified to provide temporary or portable acoustic barriers around stationary construction noise sources including compliance of stipulated condition in permit issued for all DG sets in operation.

Table 24 :Results of OHS Noise Monitoring within the site

Sn	Duration	8 hourly Leq dB(A)					
		January		February		March	
		NQ3	NQ5	NQ3	NQ5	NQ3	NQ5
1	7 a.m. to 2.00 pm	60.0	51.3	74.7	50.7	63.3	46.8
2	3 p.m. to 10.00 pm	58.6	50.8	72.3	47.3	79.0	47.1
3	11 p.m. to 6.00 a.m.	58.8	45.5	57.5	41.8	81.0	47.6
Applicable standards from OHS point of view		85.0	85.0	85.0	85.0	85.0	85.0

Table 25: Results of OHS Noise Monitoring Near Equipment

Noise levels recorded (DB)						
Sn	Equipment	Location	Very close	1 m from equipment	2 m from equipment	3 m from equipment
January-2025						
1	Diesel generator 1	Batching plant	105.0	99.7	95.6	91.1
2	Transmixer 1	Batching plant	99.7	96.9	94.8	93.1
3	Transmixer 2	Batching plant	98.9	95.6	92.3	90.9
4	Transmixer 3	Batching plant	100.0	99.3	97.3	94.4
5	Transmixer 4	Batching plant	99.3	96.0	93.1	91.2
6	Grinding machine	Bunker area	101.4	99.7	93.6	92.0
7	Concrete pump	Batching plant	97.4	95.0	91.1	90.3

8	Diesel generator 3	Steel yard	100.5	96.4	92.7	90.1
9	Fork lift	Steel yard	94.0	89.5	87.0	85.6
10	Carmix-02	Process area	98.3	96.1	95.5	92.3
11	Mobile crane	Bunker area	87.7	81.9	78.4	77.5
12	SANY V loader	Batching plant	97.5	92.6	89.4	87.8
13	JCB (Bull)	Bunker area	103.5	97.6	96.7	94.9
14	HY-UP Crane	Process area	90.0	86.3	84.5	83.6
15	Diesel Generator - Villa	Batching plant	108.0	105.7	103.4	99.3
16	Discharge water pump	Process area	92.3	88.3	86.2	83.8
February-2025						
1	V-loader	Batching plant	96.6	91.1	87.7	85.6
2	Mobile crane 80 ton	Process area	92.9	83.9	82.5	79.9
3	HY-UP crane	Steel yard	97.3	91.4	88.0	85.7
4	Concrete pump	Batching plant	88.7	86.5	83.7	83.2
5	BP (GNR) - Villa	Batching plant	108.1	105.6	103.2	99.2
6	GNR-06 (AAJV)	Bunker area	95.9	89.2	86.3	83.5
7	GNR-02 (AAJV)	Bunker area	86.6	81.8	78.9	77.1
8	GNR-07 (AAJV)	Bunker area	95.0	87.9	86.5	84.5
9	GNR-03(AAJV)	Steel Yard	102.4	95.6	90.8	87.9
10	GNR-1-AAJV	Batching plant	105.1	91.2	89.6	87.5
11	Cormix Applito 4x4 (AAJV)	Warehouse area	104.5	94.2	90.0	88.0
12	Fork lift	Steel yard	96.4	93.2	89.5	88.3
13	JCB 'Bull'	Fire station room	101.2	97.1	94.7	91.2
14	Transmixer 4	Batching plant	101.9	95.9	93.1	91.6
15	Transmixer - 2501	Batching plant	103.7	96.7	92.9	89.3
16	Transmixer - 2504	Batching plant	104.5	93.9	91.5	89.2
17	Transmixer - 2503	Batching plant	102.9	95.0	94.1	90.3
18	Tower light -01	Bunker area	101.9	89.6	87.6	85.8
19	Tower light -02	Bunker area	102.3	89.9	85.4	82.6
March-2025						
1	GNR-01 (AAJV)	Batching plant	103.1	91.4	89.6	87.4
2	GNR-02 (AAJV)	Bunker area	92.0	88.9	87.7	86.2
3	GNR-06 (AAJV)	Bunker area	95.2	87.9	85.3	84.9
4	GNR-07 (AAJV)	Bunker area	96.0	88.5	86.5	84.4

5	GNR-03 (AAJV)	Steel yard	100.7	95.9	92.4	90.2
6	Forklift	Steel yard	94.5	90.5	89.4	87.6
7	Hyup crane	Steel yard	99.1	94.9	87.1	85.3
8	Tower light-01	Process area	99.0	91.0	87.5	84.7
9	Tower light-01	Bunker area	98.9	93.3	89.5	84.3
10	Road Roller	Warehouse area	97.0	90.2	86.8	85.2
11	Tractor	Warehouse area	95.0	88.9	85.5	83.4
12	V-Loader	Batching plant	95.4	89.8	88.6	88.1
13	Transmixer-4	Batching plant	104.4	98.2	95.0	94.0
14	Transmixer-2501	Batching plant	99.2	92.0	87.9	85.8
15	Transmixer-2504	Batching plant	103.9	93.8	94.0	92.4
16	Transmixer-2503	Batching plant	101.8	95.5	92.4	90.7
17	Dump truck GNR-01-Villa	Batching plant	95.1	89.1	87.9	85.7
18	GNR-1- Villa	Batching plant	107.9	105.8	102.3	98.8

Drinking Water

52. Drinking water quality was monitored at five locations and results are provided in Table 26. All reported values of drinking water were found within limits.
53. Drinking water is supplied after treatment of water supplied by MWSC by a water filtration system.
54. All reported values are within the limits except for EC for sample 1 and 2. However, variation in electrical conductivity and TDS levels is noted and requires close monitoring.

Table 26: Drinking Water Quality

Parameter s	Drinking Water Quality															Unit	Limit s
	Sample 1			Sample 2			Sample 3			Sample 4			Sample 5				
	Jan uary	Feb ruar y	Mar ch	Jan uary	Feb ruar y	Mar ch	Janu ary	Feb ruar y	Mar ch	Janua ry	Febru ary	Marc h	Janua ry	Febru ary	Marc h		
pH	7.2	6.9	6.5	6.6	6.6	6.8	6.7	7.0	6.9	6.6	7.4	6.9	6.9	7.8	7.1	pH	6.5- 8.5
Turbidity	0.31	0.24	0.25	0.2	0.28	0.5	0.2	0.28	0.1	0.2	0.23	0.1	ND	0.27	0.1	NTU	< 1.0
Residual free chlorine*	<0.0 1	<0.0 1	<0.0 1	<0.0 1	<0.0 1	<0. 01	<0.0 1	<0.0 1	<0.0 1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	0.04- 0.2
Electrical conductiv ity	472	50	53	484	345	26	311	469	33	365	117	32	305	380	22	µS/c m	<100 0
Total Dissolved Solids	320	42	48	306	125	115	416	290	260	240	98	95	260	260	240	mg/l	<500
Total Coliform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	MPN/ 100 ml	0/100 ml
Faecal Coliform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	MPN/ 100 ml	0/100 ml
Escherichi a coli	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	MPN/ 100 ml	0/100 ml
Iron (as Fe)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/l	<0.3
Ammonia - N	<0.1	<0.1	<0.1	<0.1	<0.1	<0. 1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/l	<0.5
Nitrate (as NO ₃ ⁻)	ND	0.94	2.1	ND	1.1	0.9	ND	1.2	1.15	ND	1.0	1.12	ND	0.95	0.95	mg/l	<50
Chloride (as Cl ⁻)	9.2	11	51.4	10.1	37	2.1	59.2	59.2	0.9	8.9	23	0.95	7.1	8	3.4	mg/l	<200
Physical Appearanc e	Cle ar	Cle ar	Clea r	Cle ar	Cle ar	Cle ar	Clea r	Cle ar	Clea r	Clear	Clear	Clear	Clear	Clear	Clear		Clear /colo

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iv. Marine Water Quality

55. Marine water quality sampling was done on 6 February 2025 from the same seven locations identified in the EIA (July 2020) given in Figure 8 below. Laboratory analysis of marine water was done by the Bureau Veritas Laboratory, Sri Lanka for the following parameters - heavy metals (As, Cr, Cu, Ni, Pb, Zn, Hg, Cd), total nitrogen, nitrites, pH, turbidity, five-day biochemical oxygen demand (BOD)5 etc (Table 27). The samples were brought to Sri Lanka and delivered to the laboratory within 24 hours from the field sampling. All the samples are kept in ice boxes to maintain the appropriate temperature and to conserve the samples. In-situ recording of pH, dissolved oxygen (DO), and electrical conductivity (EC) for each sample was conducted by using a handheld Hach SensION +MM156 water quality measurement meter. These results show compliance to the Maldivian Marine Monitoring Standards [Reference: Great Barrier Reef Marine Park Authority (2009) Outlook Report 2009].

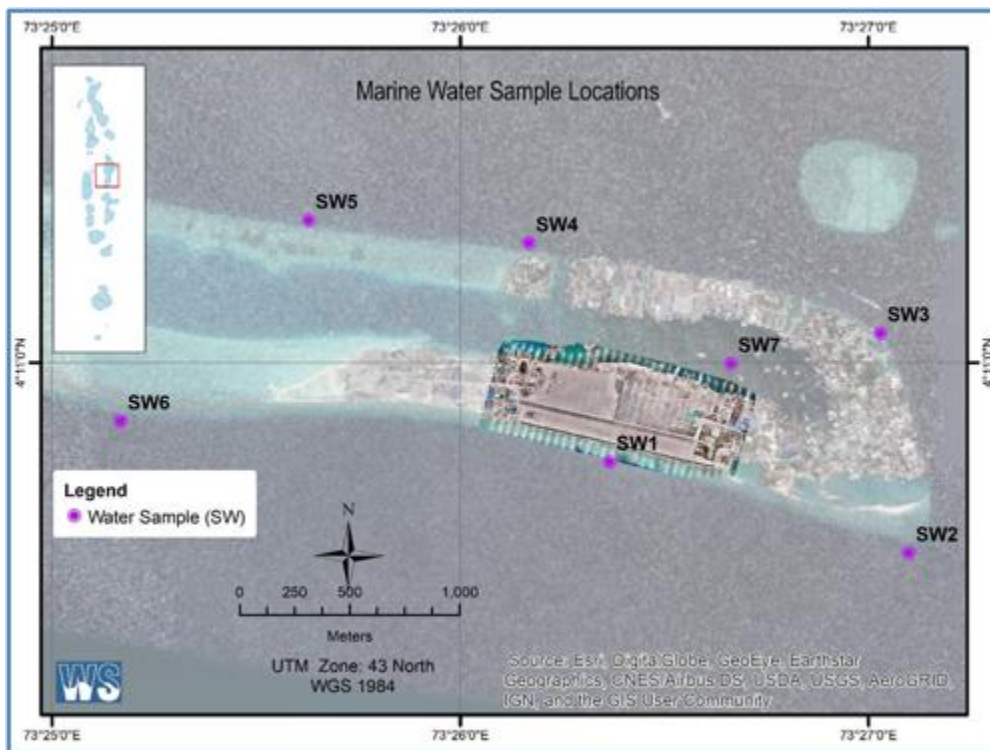


Figure 6: Marine Water Quality Sampling Stations

Table 27: Results of Marine Water Quality Sampling, February 2025

Parameters	Date of sampling: 6 th February 2025							Unit	Approved Marine water quality standard of Maldives EPA
	SW1	SW2	SW3	SW4	SW5	SW6	SW7		
Temperature indoor/laboratory	25.8	25.9	26.5	26.4	26.3	26.3	26.7	°C	18-32
Salinity	35	35	35	35	35	35	37	%	
TSS	5	6	7	6	4	5	6	mg/L	
Oil & Grease	ND	ND	ND	ND	ND	ND	ND	mg/l	
Faecal Coliform	ND	ND	20	ND	ND	13	20	MPN/100 ml	
Nitrite (as NO ₂)	1.3	1.3	1.4	1.3	1.6	1.4	1.5	mg/L	None proposed
pH at 24°C	8.1	8.2	8.2	8.2	8.2	8.3	8.0	-	8-8.3
COD	19	27	29	26	23	28	29	mg/L	
BOD ₅ at 20 °C	3	5	4	6	4	5	6	mg/L	<2mg/L
Turbidity	0.27	0.26	0.23	0.3	0.29	0.28	0.3	NTU	3 – 5 NTU (max)
Electrical Conductivity at 25°C	48	47	47	48	51	51	49	µS/cm	48994-62350
Total inorganic Nitrogen	5	4	5	4	5	6	6	mg/L	None proposed
Total Phosphates (as PO ₄ ³⁻)	ND	ND	ND	ND	ND	ND	ND	mg/L	1
Sulphate	ND	ND	ND	ND	ND	ND	ND	mg/l	NA
Ammonia	ND	ND	ND	ND	ND	ND	ND	mg/l	
Arsenic	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Cadmium	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Lead	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Hexavalent Chromium (asCr ⁶⁺)*	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Total Chromium	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Mercury	ND	ND	ND	ND	ND	ND	ND	mg/L	NA

Parameters	Date of sampling: 6 th February 2025							Unit	Approved Marine water quality standard of Maldives EPA
	SW1	SW2	SW3	SW4	SW5	SW6	SW7		
Nickel	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Zinc	ND	ND	ND	ND	ND	ND	ND	mg/L	NA
Copper	ND	ND	ND	ND	ND	ND	ND	mg/L	NA

56. As per Table 27, values ranged for EC from 47 $\mu\text{S}/\text{cm}$ to 51 $\mu\text{S}/\text{cm}$, for nitrite from 1.3 mg/L to 1.6 mg/L, and for total inorganic nitrogen from 4 mg/L to 6 mg/L. While pH values ranged from 8 to 8.3. Also, BOD_5 values ranged from 3 mg/L to 6 mg/L. while COD values ranged from 19 mg/L to 29 mg/l.
57. During February 2024 at same locations, values ranged for EC from 50,560 $\mu\text{S}/\text{cm}$ to 61,200 $\mu\text{S}/\text{cm}$, for nitrite from 1.1 mg/L to 2.2 mg/L, and for total inorganic nitrogen from 5.1 mg/L to 6.1 mg/L. While pH values ranged from 7.0 to 7.5. Also, BOD_5 values ranged from 14 mg/L to 20 mg/L. while COD values ranged from 45 mg/L to 57 mg/l. Levels of heavy metals in all the sampling stations were found to be low to below the detection limit.
58. From the EIA (July 2020), samples were collected from the same locations on 3 July 2018. Values of temperature (24.2°C), nitrate (0.3 mg/L to 0.5 mg/L), oil & grease (less than 2 mg/L), salinity (36 ppt to 37 ppt), free ammonia (ND to 0.05 mg/L), and BOD_5 (ND to 1 mg/L) were similarly within the prescribed standards. The pH values ranged from 8.2 to 8.4 which is slightly higher than the limit of 8.3 in all the sampling stations except in SW7. Heavy metals, except for Zn (ND to 0.008 mg/L for SW2, SW3, SW6 & SW7), were tested to be below the detection limit. Variations in the results of marine water quality (Table 27) compared to the results from the EIA (July 2020) may be attributed to the environmental conditions at the time of sampling.
59. Variation in values of EC observed needs to be established for its adequacy.

v. Groundwater Quality

60. Environmental monitoring of groundwater quality for the construction period was conducted on 6th February 2025. Water samples were collected from the monitoring stations identified in the EIA (July 2020) except at GW6 (refer to Figure 7: Groundwater Sampling Stations Figure 7 for locations) due to non-accessibility of location GW5, sampling could not be carried out. For each location, the sample was collected from mid-water level and brought for laboratory testing in Sri Lanka. General sampling procedure involves washing the glass sampling bottles with water from the sampling points. For microbial tests, samples were collected in sterile glass bottles and tested in the laboratory of Male' Water and Sewerage Company (MWSC). Table 28 presents the analytical results of groundwater quality.
61. Results from Table 28 show that levels of heavy metals were found below detection limit while other parameters are: Electrical conductivity (444 $\mu\text{S}/\text{cm}$ at GW1 to 4650 $\mu\text{S}/\text{cm}$ at GW2), pH (7.7 at GW2 and 8.2 at GW3 and GW6) and nitrate (ND at GW1 and 1.4 mg/l at GW7). While PAH were reported ND at all locations. As use of ground water in Thilafushi is not permissible except in toilet flushing tanks there is no specific standard for ground water quality. Wells closer to the sea show high conductivity.
62. During February 2024 at same locations, levels of heavy metals were found below detection limit except at GW6 while other parameter are: Electrical conductivity (266 $\mu\text{S}/\text{cm}$ at GW8 to 48,930 $\mu\text{S}/\text{cm}$ at GW2), pH (7.3 at GW2 and GW6 to 8.2 at GW3 and GW4), nitrate (1.7 mg/l at GW8 and 8.4 mg/l at GW4) etc. While PAH were reported ND at all locations. As use of ground water in Thilafushi is not permissible except in toilet flushing tanks there is no specific standard for ground water quality. Wells closer to the sea show high conductivity and wells near dumpsite show higher contamination of nitrates.
63. Ground water quality is not akin to drinking water standards as the island is originally reclaimed using waste and various sites have industrial activities. Water treatment will be required if groundwater in Thilafushi is to be used as drinking water. Use of ground water in Thilafushi is not permissible except in toilet flushing tanks there is no specific standard prescribed for ground water.

64. However, variation in values of various parameter observed needs to be established for its adequacy.
65. From the EIA (July 2020), samples were collected in the same sampling stations on 2 April 2019. Values of PAH, oil & grease, and heavy metals were found to be below the detection limit while for other parameters are: TDS (794 mg/L in GW1 to 12,946 mg/L in GW3), electrical conductivity (1.39 mS/cm in GW1 to 25mS/cm in GW6), total coliform (4 MPN/100 ml in GW8 to >2,420 MPN/100 ml in GW1, GW3, GW5, and GW7), pH(7.1 in GW5 to 8.0 in GW4), chloride (183 mg/L in GW1 to 6,325mg/L in GW6), and nitrate (1.7mg/L in GW1 to 34.5 mg/L in GW6).



Figure 7: Groundwater Sampling Stations

Table 28: Groundwater Quality Results, February 2025

Parameters	Results of Groundwater Quality Sampling								Unit
	Date of Sampling: 6 th February 2025								
	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	
Turbidity	0.26	0.2	0.24	0.21	-	0.28	0.27	0.28	NTU
pH	7.8	7.7	8.2	7.9	-	8.2	7.8	7.9	-
Iron	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Manganese (as Mn)	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Arsenic (as As)	ND	ND	ND	ND	-	ND	ND	ND	mg/L
TSS	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Electrical Conductivity at 25 °C	444	4650	986	4510	-	649	459	1345	µS/cm
Fecal Coliform	11	ND	ND	8	-	ND	ND	ND	MPN/100 ml
Oil and Grease	2.1	2	ND	ND	-	2.1	ND	2.1	mg/l
Nitrate (as NO ⁻³)	ND	0.8	0.9	1.1	-	1.3	1.3	1.4	mg/l
Cadmium (as Cd)	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Lead (as Pb)	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Mercury (as Hg)	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Total Phosphates (as PO ^{4 3-})	ND	ND	ND	ND	-	ND	ND	ND	mg/L
Chlorides	64.1	97	121	165	-	68.7	76.8	135	mg/L
Polycyclic Aromatic Hydrocarbons (PAH)									
Naphthalene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[a] anthracene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Acenaphthylene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Acenaphthene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Fluorene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Phenanthrene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Pyrene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Chrysene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo [b]fluoranthene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[k]fluoranthene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Dibenzo [a,h]anthracene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[g,h,i]perylene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[j]fluoranthene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[a]pyrene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Benzo[e]pyrene	ND	ND	ND	ND	-	ND	ND	ND	µg/l
Indenol [1,2,3-cd] pyrene	ND	ND	ND	ND	-	ND	ND	ND	µg/l

vi. Water quality proposed to be used for construction and camp

66. One grab sample during each month of this quarter was collected from the supply line network of MWSC (Male Water and Sewerage Company) at the project site. Samples were analyzed for limited parameter as per details given in Table 29 and findings of same are well within the acceptable limits.

Table 29: Water quality for domestic supply of water used in construction camp during January-March 2025

Test Parameter	Unit	Results			Acceptable Limits* Supply Water Quality Standards (5 December 2022) from the Utility Regulatory Authority
		January-2025	February 2025	March 2025	
Date of sampling		January-2025	February 2025	March 2025	
Physical Appearance		Clear	Clear	Clear	-
pH	--	6.7	6.9	6.7	6.5-8.5
Turbidity	NTU	0.21	0.29	0.21	< 1.0
Residual Free Chlorine	mg/l	<0.01	<0.01	0.05	-
Electrical Conductivity	µs/cm	401	32.9	531	<1000
Total Hardness	mg/l	69.2	10.0	59.1	
Total Suspended Solids	mg/L	ND	-	ND	5-750
Total Dissolved Solids	mg/L	313	26.4	286	5-750
Iron as Fe	mg/L	ND	ND	ND	< 0.3
Hydrogen Sulphide	mg/L	<0.01	<0.01	<0.01	-
Ammonia	Mg/l	<0.1	<0.1	<0.1	-
Nitrate (as NO ₃ -)	mg/L	0.17	0.94	1.11	<50
Chloride (as Cl ⁻)	mg/L	42.3	9.0	42.4	< 200
Fecal Coliform	MPN/100m l	ND	ND	ND	0/100 ml
Total Coliform	MPN/100m l	ND	ND	ND	0/100 ml
E.Coli	MPN/100m l	ND	ND	ND	0/100 ml

vii. Treated Wastewater Quality from WWTP/STP discharged into Sea

67. One grab sample of treated wastewater was collected during each month of the quarter from discharge point of WWTP/STP in operation at the project site and analyzed for limited parameter as per details given in Table 30. Quality of treated wastewater of three samples is well within the acceptable limits prescribed by IFC General EHS Guidelines and URA. Detailed report is enclosed as Appendix3.
68. All reported values are well within the applicable prescribed limits as mentioned in Table 30. However, values of COD and BOD₅ reported are error incurred at level of laboratory.

Table 30: Treated Wastewater Quality from WWTP/STP during January, February and March – 2025

Parameters	Unit	Results			Acceptable Limits National Wastewater Quality Guidelines URA (August 2023)	Acceptable limits as per IFC General EHS Guidelines 2007
		January-2025	February 2025	March 2025		
Total coliform	MPN/ ml	35	35	30	-	400
Fecal coliforms	Org/ml	ND	ND	ND	100	
E.coli	Org/ml	ND	17	ND	1	
Total suspended solids	mg/L	4	29	26	30	50
Residual free Chlorine	mg/L	<0.01	<0.01	0.02		
Temperature	°C	25.6	26.3	25.7		-
pH at 25°C	--	6.2	6.5	6.4	5-9.5	6-9
Nitrate (as NO ₃ -)	mg/L	4.1	1.3	1.9		-
Ammonia –N	mg/L	3.2	0.9	ND	10	
Ortho Phosphates	mg/L	ND	0.02	ND	10	2
Surfactants	mg/l	0.1	0.1	0.5		
Soap, oil and grease	mg/L	2.5	ND	ND	5	10
Electrical Conductivity	µs/cm	849	200	889	---	-
Chemical Oxygen Demand	mg/L	10	28	15	50	125
Biological Oxygen Demand 20°C	mg/L	14	6	9	40	30
Dissolved Oxygen	mg/L	5.9	6.0	5.2		-
Total nitrogen	mg/L	4.7	4.8	2.9	15	10
Metals (Pb, Cr, Ni, Cd, Se, As, Fe, Al, Sb, Cu, Mn, Hg)	mg/l	ND	ND	ND	-	

viii. Discharge water quality from de-watering

69. One grab sample of discharge water from dewatering was collected during November and December of this quarter from discharge point of retention pond and analyzed for limited parameter to comply with requirements of local regulations as per details given in Table 31. However, no limit for discharge quality has been prescribed by local regulations.

Table 31: Discharge Water Quality from Dewatering during January, February and March – 2025

Parameters	Unit	Results			
		January-2025	February 2025	March 2025	Limits
Fecal Coliform	MPN/100ml	ND	No dewatering has been carried out		Not prescribed
pH	pH	7.5			
Temperature	°C	29.4			
Total Dissolved Solids	mg/l	15,842			
Total Suspended Solids	mg/l	5			
Dissolved Oxygen	mg/l	6.8			
Turbidity	NTU	0.48			
Total Hydrocarbon	ppm	<0.1			
Electrical Conductivity	us/CM	38,765			
Salinity	ppm	3.9			
Hydrogen Sulphide	mg/l	0.2			
Oil& Grease	mg/l	ND			
Ammonia	mg/l	ND			
Nitrate (as NO ₃ ⁻)	mg/	2.31			
Phosphates	mg/l	0.16			

ix. Marine ecology assessment survey

70. As part of site environmental baseline monitoring, the 6th marine ecological survey for reef benthic cover and fish population was conducted on 28th January 2025 in M10 (This location has been identified in the EIA report as a potential alternative for the discharge of brine water and waste water.), M9 (This location was identified as an alternative for brine discharge and wastewater outfall) and M8 (The site is the location that will be used for discharge of waste water from the brine outfall as described in the EIA) as seen in Figure 8 below.



Figure 8 Marine Survey Locations

71. A standard approach, established by the Maldives EIA community and approved by the Environmental Protection Agency (EPA), was employed to study benthic cover and fish populations. The survey employed GPS locations, transects surveys conducted at two depths: 5m and 10m at each station (M8, M9 and M10 – as detailed in an earlier report). The methods followed were those outlined by Hodgson et.al (2006) in Reef Check Instruction Manual: A Guide to Reef Check Coral Reef Monitoring. Three transects of 20 m length were laid, one after the other along the reef, ensuring the transect falls to the specific depth. A quadrant of size 0.5 x 0.5 m was laid sequentially on the transect, and photo images were taken with the quadrant in the center. Details of findings of survey are summarized below and report is enclosed as Appendix-4
72. Status of Site M8: The survey showed that coral cover at 5m depth was 28-40% while coral cover at 10 m was between 31%-32%. The dominant benthic cover is rock and coral bleaching was not observed.
73. Status of Site M9: Live coral cover was observed as 14-23% at 5 m depth and 23-28% at 10 m depth . The dominant benthic cover is rock and coral bleaching was not observed.
74. Status of Site M10: Live coral cover was observed as 33% at 5m depth and 37% at 10 m depth. Sand and silt cover at this site have also been decreased at 5m and 10 m depth and from October 2024. This may be due the inability of silt to settle at shallow water due to strong wave and current action.

VIII. TRAINING AND CAPACITY BUILDING ACTIVITIES

75. Details of DBO Contractor/EPC Contractor-driven trainings are given in Table 32 and photos are shown in Appendix 6.

Table 32: Training and Capacity building activities conducted

No	Date	Training Activity	Training Objective	Venue and Duration	Target Group	Number of participants (male, female)
1	02.01.2025	Lifting and Rigging	Crane Hazards, Lifting Hazards, Planning, Competent Personals, Inspection, Load Capacity, Rigging and Slings, Training	WtE Site Thilafushi, 1hr	Staff/ Workers	8, Male
2	05.01.2025	Power and Hand Tools Safety	Power tools hazards, Control Measures, PPE, Inspection, Colour Coding systems, Training	WtE Site Thilafushi, 8hrs	Site workers	8, Male
3	13.01.2025	PTW Procedure	PTW Procedure, Roles and Responsibility, PTW Authorization Procedure, Supporting documents RA and SOP	WtE Site Thilafushi, 8 hrs	PTW Holders	6, Male
4	16.01.2025	Fire Warden	Emergency Planning and Preparation, Roles and Responsibilities, Conducting regular inspection of firefighting equipment, Evacuation Routes, Communication	WtE Site Thilafushi, 1hrs	Site workers	6, Male
5	18.01.2025	Emergency Response	Types of Emergency, Roles and Responsibility, Emergency Rescue Equipment, Evacuation Route, Communication, Assembly Point, Head Count	WtE Site Thilafushi, 1hrs	Site workers/ Staff	90, Male
6	22.01.2025	PPE	Hierarchy of Controls, PPE controls, Type of PPE, Care about PPE and Training	WtE Site Thilafushi, 1hrs	Site workers/ Staff	90, Male
7	20.01.2025	Work at Height / Fall Prevention	What is working at height, hazards, Risk Assessment, Training, Fall prevention, PPE, Supervision, Inspection of PPE	Online, 2 hrs	Site Staff	16, Male
8	04.02.2025	GRM Awareness	Scope of GRM, GRM structure, How to raise a GRM, Solving GRM, Feedback, Records	WtE Site Thilafushi, 1hrs	Staff/ workers	80, Male
9	09.02.2025	Refresh HSE Induction	HSE Policy, Site Safety Rules and Regulations,	WtE Site Thilafushi, 1hrs	Site workers	80, Male

No	Date	Training Activity	Training Objective	Venue and Duration	Target Group	Number of participants (male, female)
			Emergency Response, Incident Report, GRM, Camp Policy, PPE			
10	09.02.2025	Refresh HSE Induction	HSE Policy, Site Safety Rules and Regulations, Emergency Response, Incident Report, GRM, Camp Policy, PPE	WtE Site Thilafushi, 1hrs	Site Workers	80, male
11	17.02.2025	Risk Assessment	Hazard Identification and technique, Identify Who might be harm, (People, Asset, Environmental) Evaluate the risk, Mitigation Measures, Recovery measures	WtE Site Thilafushi, 1 hrs	Staff	29, Male
12	20.02.2025	Vector Based Disease Awareness	What are the vector-based diseases, Precautions, and Control Measures	WtE Site Thilafushi, 1 hrs	Site workers/ Staff	90, Male
13	23.02.2025	Security Management	Security officer Roles and Responsibilities, Incident Reporting, Checking and Inspecting at the Gate	WtE Site Thilafushi, 1hrs	Security Officer	8, Male
14	09.03.2025	Inhouse Scaffolding Training	What is Scaffolding, Risk Assessment, Control measures, Working at height, PPE, Training	WtE Site Thilafushi, 1 hrs	Workers	12, Male
15	13.03.2025	Manual Handling	Manual Handling Assessment, Lifting Technique, Awkward postures, Hazards, Control Measures, PPE	WtE Site Thilafushi, 1 hrs	Site Workers	80, Male
16	15.03.2025	PTW Procedure	PTW Procedure, Roles and Responsibility, PTW Authorization Procedure, Supporting documents RA and SOP	WtE Site Thilafushi, 1 hrs	Staff	6, Male
17	20.03.2025	PPE	Hierarchy of Controls, PPE controls, Type of PPE, Care about PPE and Training	WtE Site Thilafushi, 1 hrs	Site Workers/ Staff	80, Male
18	23.03.2025	Driving Safety	Safe Dependence driving, Driving Hazards, Blind Spot, Fatigue and Inspection and Maintenance	WtE Site Thilafushi, 1 hrs	Driver/ Operators	8, Male

76. A training on fall prevention was conducted by PMDCSC on 20th January 2025. The training was held online with a total of 20 participants, including DBO, EPC and PMU.

IX. STAKEHOLDER ENGAGEMENT

77. The PMU will be supported by a Public Awareness Consultant (PAC) a consulting firm that will help to generate awareness and strengthen skills in waste collection, segregation, composting, recycling, and O&M targeting the poor and the women, including community awareness campaign for strengthening disaster risk reduction and climate change readiness. The PAC will be responsible for the information, education, and communications initiatives and public awareness on waste-to-energy. The evaluation for PAC has been completed and no objection received from ADB. MoFPP is required to issue notification of award letter.
78. Public awareness and communications activities of the project during this period are given below:
79. The PMU conducted public engagement sessions from 24th – 27th January in Hulhumale', 2 sessions per day. The primary goal of the engagement was to raise awareness, through games and activities. For the first activity, a Segregation game using cards was set up for children. Alongside, a quiz was conducted for adults, the information required to complete the quiz was set up in the stall. The quiz enabled participants to learn about the project and also asked their view on the project. Around 91% of people who responded to quiz (202 participants) agreed that this is a very important project, 3% of respondents disagreed with the project, while 6% left the question blank. However, the project was able to engage with 488 people cumulatively through this approach. PMU staff also answered questions and clarified information asked by the public who approached the stall.



Figure 9: PMU public engagement stall at Central Park, Hulhumale'

80. From 3rd to 5th February 2025, the team travelled to V. Felidhoo to raise awareness on SWM, Segregation, 3R, and discuss about the project as well as plan SWM collection in the Island. The participants were eager to see the completion of Waste to energy plant. In addition, they wanted to discuss easier methods to export the waste out of their island. They were also interested to find out methods to manage food waste in the island.



Figure 10: IWMC Planning workshop in V.Felidhoo

81. Additionally, there was an awareness session held with the students of V. Felidhoo as well. The discussion mainly centered about the importance of segregation and recycling, in addition to the main goals of the project. The sentiment shared by participants was that this was a necessary work that needed to be completed.



Figure 11: Awareness session held for school students of V.Felidhoo

82. On the 18th, 19th and 20th of February, PMU with Local Government Authority (LGA) and WAMCO conducted Conflict management sessions for 89 Service delivery staff of WAMCO. The staff discussed their own challenges in service delivery, primarily that there was a huge communication gap in their own agency.

83. From 26th-28th February, The Project took part in Ramadan Fest 2025, in 4 sessions. During these 4 sessions PMU was able to engage with 170 people, with 98 people providing feedback. 98% people agreed that this was an important project, while the remainder said that they have not received ample information to decide.



Figure 12: PMU public engagement stall at Male', Artificial beach

X. GRIEVANCE REDRESS MECHANISM

A. Grievance Redress Mechanism

84. Project level grievance redress mechanism (GRM) has been established for the Project and is shown in Figure 13 below. Grievance Redress Committees are also in place at the PMU levels. The PMU (MoTE) has approved and published the GRM (July 2022) on its website and released the government notification of the same on 30 March 2023.
85. Aside from the project GRM, the DBO Contractor has also setup an internal and external GRM to receive and address grievances/complaints from its staff/workers and public.
86. As per the system in place, a GRC for each tier in the GRM has been established. In the 1st tier, the grievances will be handled by the GRC under the Thilafushi DBO Contractor which is composed of the Contractor's Project Manager, Contractor's Resident Engineer, Contractor's Environmental/H&S Officer, and one representative from the PMDCSC. At the 2nd tier, grievances will be dealt with by the GRC consisting of the Project Manager/Director of PMU, Environment and Social Safeguard Specialist of PMU, Civil Engineer of PMU and IEC Specialist of PMU. The DBO Contractor/EPC Contractor has installed sign boards on the GRM at the project site, which include details of focal persons, and contact phone numbers. GRM boxes with complaint forms are also provided at the entry gates of the project site and public ferry terminal at Thilafushi.
87. A GRM committee meeting was held on 12th March 2025. It was attended by DBO and EPC. It was recorded in the GRM committee meeting minutes that no written complaints were received. However, it notes that verbal complaints must be considered as grievances and recorded as well. This was repeated in monthly HSE meetings by PMU and PMDCSC.

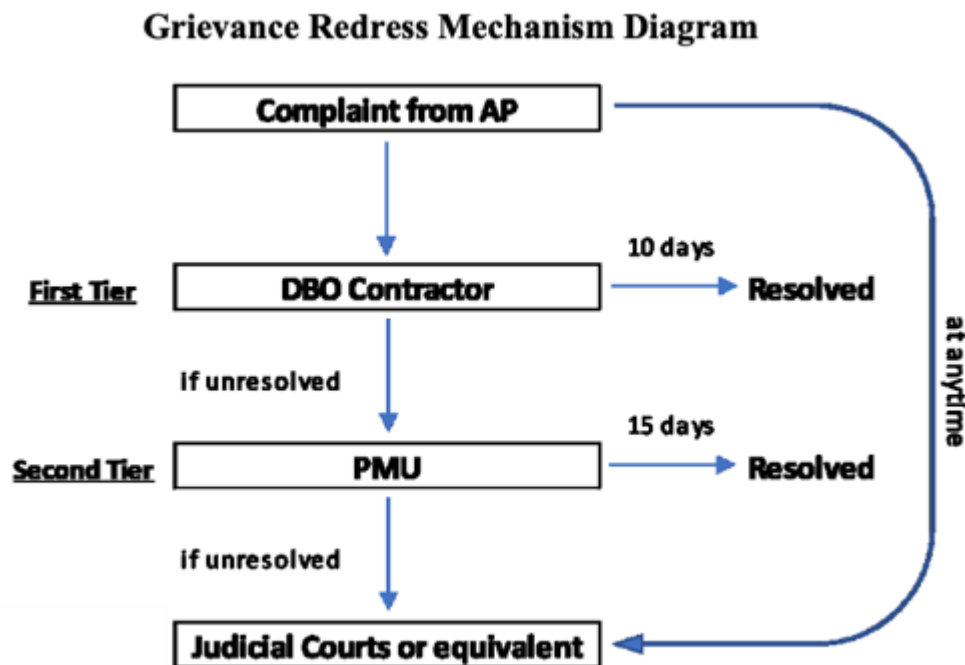


Figure 13: Grievance Redress Mechanism Flow Chart

88. Improvement in compliance of GRM plan is required which mainly includes:
- a) Improvements with the contractor's GRM procedures to ensure that all complaints whether verbal / written are recorded and addressed.
 - b) Public announcements need to be made through local newspapers, community bulletin boards, through the MoE. Also, through the social media, websites, newsletters to reach a broader audience.
 - c) GRM materials is to be translated in local language for public and workers.

B. Complaints Received

89. No grievance has been received for this reporting period from public or from staff. However complaints being conveyed by workers are not being registered.

XI. FINDINGS & RECOMMENDATIONS

Key Findings

Field Visits

- 90. Quarterly audit was conducted on 19th, 20th and 23rd February 2025 by the International environmental expert (on 23rd February, site visit was made along with ADB).
- 91. PMDCSC local environmental expert visits the site regularly on 18th and 30th January, 19th, 20th and 23rd February and 19th March 2025.

Environmental Monitoring

- 92. Regular environmental monitoring is carried out in compliance with the EIA. Data monitored for this quarter include ambient air quality, ambient noise level, marine ecology assessment, marine water quality, ground water quality, water quality of water used for construction and camp, treated wastewater quality and discharge water quality from dewatering.
- 93. OHS related monitoring is also carried out including drinking water quality monitoring, illumination monitoring, air quality and noise level monitoring as per MOS of OHS monitoring. However, equipment used for air quality monitoring at workplaces requires calibration and improvements are required in reporting of OHS monitoring data.

Documentation

- 94. All HSE plans as referred in approved CEMP have been submitted and approved.
- 95. The Air Dispersion Model and CVRA reports are under modification process.

Training & Stakeholder Engagement

- 96. A training plan has been prepared by PMDCSC to deliver regular trainings and training on fall from height was delivered on 12 January 2025.
- 97. Stakeholder engagement sessions were conducted this quarter through IWMC planning workshop held in V.Felidhoo and through stalls set up in fairs held in Hulhumale' and Male'.
- 98. Daily toolbox talks and HSE trainings are carried out regularly for workers at the site. However, conduct trainings & Tool Box Talks to workers in language they understand.
- 99. In person training on HIV awareness program for workers need to be provided.

Site Observations

- 100. The site boundary is established with security measures in place including provision of ID cards, guard posts and CCTV placement.
- 101. Safety measures such as placement of fire extinguishers, two spill kits, three eye wash stations and warning signs are in place on site. All staff are provided with and use basic PPEs. However, adequacy of spill kits is to be verified.

102. Designated areas have been created for storage of chemicals to be used on-site. However, mitigation measures as proposed need to be provided.
103. Improvements are required in condition of PPE, safety signage placed on site, mitigation measures for DG sets, contents and placement of first aid kits within the site etc.

Incidents & Status of compliance

104. There was an incident of waste slide from the WAMCO dumpsite, which resulted in damage to the outer fence of the Contractor's site.
105. One minor first aid case was reported within the quarter. A full-time doctor and nursing staff are available on site at all times. Basic first aid and medicine are stocked at the doctor's office.
106. There are regular delays in payment of salary to staff and workers, ensuring compliance of local regulations on holding travel documents, use of PPE (especially mask and gloves) by some of the workers, barriers to act as wind breakers, marking of vehicle route, frequency of water spraying in high use area, awareness among workers on handling of chemicals/hazardous materials, adequacy of first aid kits & spill kits, provision of furniture such as table, chair, mirror, bedside light and secured storage with lock & key to each worker, safe access/walkways within the site, provide , signage, usage of existing unsafe stairs in construction area, effectiveness of trainings through translators, higher source noise level etc.
107. There are regulatory compliance issue due to the lack of requisite permit/registration/NOC for diesel mobile tanker, DG sets & few vehicles which are in operation at site, warehouse used for chemical storage and compliance of stipulated conditions in permit of three DG sets by URA.
108. No grievances were reported during this quarter. Any grievances received by the Contractor verbally are to be recorded and addressed through the GRM.
109. Non-compliance reports were shared with DBO contractor in monthly HSE meetings and via letters, monthly inspection reports and audit reports

Key Recommendations

110. To ensure the competency of scaffolding inspector and supervisor and to develop a site-specific guidance manual including SOPs on QA/QC of parts /components used/to be used for working platforms, design, construction and inspection of working platforms. This should also include roles of construction team and HSE team, design aspects, quality inspection, dismantling etc.
111. To develop SOPs as necessary such as for fall prevention, handling of hazardous chemicals, hot works and other activities which are high risk and do not have a system in place.
112. To provide adequate noise level mitigation measures at sources to comply with prescribed standards (65 dB(A) and at 1 m distance for DG sets and 85 dB(A) at 1 m distance for others).
113. Table 33 and Table 34 present key issues identified in previous quarter and key issues identified and proposed remedial actions based on findings for this quarter respectively.

Table 33: Status of Key Issues identified in previous QEMR (October- December 2024)

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
1(i)	Regulatory compliance	Applicable registration from transport authority and URA, if any for 5000-liter mobile diesel tanker	31 st March 2025	DBO Contractor	PMU/ PMDCSC	Permit from MNDF obtained on 08/10/2024. Application for vehicle registration has been submitted to Transport Authority on 10/10/2024 and is in process.
1(ii)		Permits for operation of generator sets already installed and to be installed	15 th March 2025	DBO Contractor	PMU/ PMDCSC	Permits for 4 DG sets have not been obtained.
1(iii)		Applicable registration of pending vehicles and mobile machinery/equipment from transport authority	15 th March 2025	DBO Contractor	PMU/ PMDCSC	Pending registration of vehicles and equipment
1 (iv)		Registration for the clinic on site	31 st March 2025	DBO Contractor	PMU/ PMDCSC	Certificate issued on 19 th March 2025.
2	Status of HSE documents	Final approval of Regulatory Compliance Procedure - which has been approved with comments	15 th February 2025	DBO Contractor	PMU/ PMDCSC	All plans have been submitted and approved.

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
3 (i)	Implementation of HSE documents	Calibration of in-house monitoring instruments used for ambient air quality at workplaces within project site.	20 th February 2025	DBO Contractor	PMU/ PMDCSC	Not completed
3(ii)		Improve conditions of the water cooler and provide workers with proper bottles/ glasses/ cups for drinking water	8 th February 2025	DBO Contractor	PMU/ PMDCSC	Conditions have been improved and water bottles have been provided for workers.
3 (iii)		Take additional measures to ensure that workers use adequate PPE as required and that the PPE used is in good condition.	1 st January 2025	DBO Contractor	PMU/ PMDCSC	Increase in trainings and monitoring by the contractor. However, this is a continuous process.
4(i)	Compliance to EMP of approved EIA	Plan for providing temporary or portable acoustic barriers around stationary construction noise sources or replacement of equipment such as the diesel generator set at the batching plant area	28 th February 2025	DBO Contractor	PMU/ PMDCSC	Compliance with standards applicable is yet to be obtained.
4(ii)		Revised thermal dispersion modelling of discharge of wastewater into sea due to change of locations for water intake and outfall as well as wastewater	31 st April 2025	DBO Contractor	PMU/ PMDCSC	Design of new structures in process. Therefore, thermal

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
		discharge during operation phase. New model also considers change in shoreline due to reclamation.				dispersion modelling is pending.
4(iii)		Air dispersion modelling considering the design parameter is to be modified based on comments and to be submitted for review and approval.	10 th March 2025	DBO Contractor	PMU/ PMDCSC	Comments from PMDSCS and ADB have been submitted and modified report is awaited
4(i)	Storage areas for hazardous chemicals	Verify the adequacy of Spill kits provided referring to capacity of handling size of spill and numbers.	31 st March 2025	DBO Contractor	PMU/ PMDCSC	Procurement of additional spill kits in process.
5(i)	Drainage plans to be finalised	Operation phase	31 st March 2025	DBO Contractor	PMU/ PMDCSC	Detailed design is in progress
5(ii)		Construction phase	31 st March 2025	DBO Contractor	PMU/ PMDCSC	Detailed design is in progress
6	Climate vulnerability and risk assessment (CVRA) study	Project specific CRVA is to be modified based on comments and to be submitted for approval and accordingly mitigation measures are to be included in the design, if any.	31 st April 2025	DBO Contractor	PMU/ PMDCSC	CCA report was submitted and requires revised submission. PMDSCS has submitted comments and modified report is awaited due to pending

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
						comments from ADB.
7	Removal of live electrical cables of STELCO (passing through project site) and shipwrecks (present in sea adjacent to quay wall)	PMU to follow up with HDC and STELCO on progress of work to deactivate the live cable	31 st March 2025	PMU	PMU	STELCO has not been able to begin work due to obstructions in the cable pathway which require removal. All obstructions have not been removed yet.
8	Public Consultation	Public awareness and consultation to be conducted	31 st January 2025	PMU	PMU	PMU set up stalls in 2 fairs in Hulhumale' and Male' during January and March 2025, to provide information on the project and gain feedback from the public. Through this initiative, PMU was able to engage with a

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
						total of 658 people.
9	Appointment of Public Awareness consultant by PMU	Speed up the hiring process (final bid evaluation and contract signing). Until consultants are hired, PMU to conduct public awareness	1 st March 2025	PMU	PMU	The evaluation for PAC has been completed and no objection received from ADB. MoFPP is required to issue notification of award letter.
10	Ensuring Contractor's compliance with Employment and Labour laws and Regulations	Conduct a detailed HR/labour audit and verify from documentation to ensure timely payments are being made to all workers.	31 st April 2025	PMD CSC	PMU	Compliance is assessed regularly through site inspections and audits. Findings are shared with the Contractor via letters, audit/inspection reports and through Monthly meetings. However, there is no system in place to ensure

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
						compliance by subcontractors.

Table 34: Key Issues identified during January - March 2025 and Proposed Remedial Measures

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
1(i)	Regulatory compliance	Applicable registration from transport authority, if any for 5000-liter mobile diesel tanker	15 th April 2025	DBO Contractor	PMU/ PMDCSC	
1(ii)		Permits for operation of remaining generator sets	30 th June 2025	DBO Contractor	PMU/ PMDCSC	
1(iii)		Applicable registration of pending vehicles and mobile machinery/equipment from transport authority	30 th June 2025	DBO Contractor	PMU/ PMDCSC	
1 (iv)		Permit/NOC from MNDF for chemical storage	30 th June 2025	DBO Contractor	PMU/ PMDCSC	
1 (vi)		Legal permit register to identify requirements for new permits	10 th August 2025	DBO Contractor	PMU / PMDCSC	
3 (i)	Implementation of HSE documents	Calibration of in-house monitoring instruments used for ambient air quality at workplaces within project site.	20 th June 2025	DBO Contractor	PMU/ PMDCSC	
3(ii)		Ensure the competency of scaffolding inspector and supervisor and develop a site-specific guidance manual including SOPs on QA/QC of parts /components used/to be used for working platforms, design, construction and inspection of working platforms.	30 th June 2025	DBO Contractor	PMU/ PMDCSC	

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
		This should also include roles of construction team and HSE team, design aspects, quality inspection, dismantling etc.				
3(iii)		Adequate fall protection around the stairwell of the scaffolding built around the bunker	25 th May 2025	DBO Contractor	PMU/ PMD CSC	
3 (iv)		Additional measures to ensure that workers use adequate PPE as required and that the PPE used is in good condition.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
3 (v)		Verify the adequacy of Spill kits provided referring to capacity of handling size of spill and numbers.	25 th May 2025	DBO Contractor	PMU/ PMD CSC	
3 (vi)		Provide first aid kits at strategic locations at construction.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
3 (vii)		Develop SOPs as necessary such as for fall prevention, handling of hazardous chemicals, hot works and other activities which are high risk and do not have a system in place	30 th June 2025	DBO Contractor	PMU/ PMD CSC	

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
3 (viii)		Improvement in compliance of GRM plan such as public announcements to be made through local newspapers, community bulletin boards, through the MoE. Record / register verbal complaints, follow up & resolution in compliance with internal GRM, GRM materials to be translated in local language for public and work.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
3 (ix)		Provision of furniture such as table, chair, mirror, bedside light and secured storage with lock & key to each worker in accommodation	30 th October 2025	DBO Contractor	PMU/ PMD CSC	
3 (x)		Other improvements required in accommodation such as adequate space for workers, electrical safety and fire safety	30 th October 2025	DBO Contractor	PMU/ PMD CSC	
3 (xi)		Provision and barriers to act as wind breakers and increase in frequency of water spraying in high use area for dust suppression.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
4(i)		Provision of temporary or portable acoustic barriers	30 th June 2025	DBO Contractor	PMU/ PMD CSC	

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
	Compliance to EMP of approved EIA	around stationary construction noise sources or replacement of equipment such as the diesel generator sets				
4(ii)		Revised thermal dispersion modelling of discharge of wastewater into sea due to change of locations for water intake and outfall as well as wastewater discharge during operation phase. New model also considers change in shoreline due to reclamation.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
4(iii)		Air dispersion modelling considering the design parameter to be modified based on comments .	22 nd July 2025	DBO Contractor	PMU/ PMD CSC	
4 (iv)		Climate vulnerability and risk assessment (CVRA) study considering the design parameter to be modified based on comments.	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
5(i)	Drainage plans to be finalised	Operation phase	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
5(ii)		Construction phase	30 th June 2025	DBO Contractor	PMU/ PMD CSC	
6	Adequate barriers and	Barriers and signage to be placed at the batching plant.	15 th August 2025	DBO	PMU/PMD CSC	

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
	guards, and safety signs should be placed on equipment to ensure that unauthorized people cannot access the moving parts of the batching plant					
7	Ventilation within the hazardous material storage area to be improved with additional air vent		14 th January 2025	DBO Contractor	PMU/ PMDCSC	
8	Removal of live electrical cables of STELCO (passing through project site) and remaining shipwrecks	PMU to follow up with HDC and STELCO on progress of work to deactivate the live cable	31 st August 2025	PMU	PMU	

No	Key Issue / Concern	Remedial / Corrective Measures	Target Dates	Implementation Responsibility	Monitoring Responsibility	Status of implementation from last reporting period on pending issues identified
	(present in sea adjacent to quay wall)					
9	Appointment of Public Awareness consultant by PMU	Speed up the hiring process (final bid evaluation and contract signing). Until consultants are hired, PMU to conduct public awareness	30 th June 2025	PMU	PMU	
10	Compliance with Employment and Labour laws and Regulations	Conduct a detailed HR/labour audit and verify the status of compliance including timely payments of salaries made to all workers, no holding of any document employer including subcontractors etc.	31 st August 2025	DBO	PMD CSC/PMU	
11	Risk from WAMCO dump site & baled waste	Coordinate with WAMCO to arrange joint mock drills with contractor, to conduct more dump site surveillance and to implement preventive and control measures including preparation of emergency response plans	31 st August 2025	PMU	PMU	

Environmental Monitoring Report

PUBLIC

Project Number: 51077-003
Quarterly Report (January-March 2025)
April 2025

Maldives: Greater Male Waste-to-Energy Project

PART B: Appendices

Prepared by the Ministry of Tourism and Environment for the Ministry of Finance and Planning and the Asian Development Bank (ADB).

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**Appendix 1: Legal register and copies of permits
obtained during
reporting period**

PERMITS

Project Name: DESIGN. BUILD AND OPERATE OF A WASTE TO ENERGY FACILITY AT K. THILAFUSHI ISLAND

Project Manager Name: Mr. CIVAN

Completed	50
Not Started	9
In progress	4
total	63

No	Agency/Authority	Permit	Planned Submission Date	Actual Submission Date	Expected Approved Date	Actual Approved Date	Status	Progress/Comments	Permit Requirements	Focal Point	Updates (25.05.2023)
1a	HDC	Construction Permit (Main Building)	2/18/2023		3/4/2023		Not Started	~First, layout of facility to be submitted ~Each building drawings can be submitted seperately for permitting ~ 7 to 14 days of approval	~Final Layout ~Structural Drawings ~Architectural Drawings ◦2 Authorized Architect and 2 Authorized Engineer signature will be	HDC Hussain Ziyath Director - Planning and Development 778 87 41 ziyath@hdc.com.mv	
1b	HDC	Construction Permit (Other Buildings)	5/15/2023		5/29/2023		Not Started	~Each building drawings can be submitted seperately for permitting ~ 7 to 14 days of approval	~Final Layout ~Structural Drawings ~Architectural Drawings ◦2 Authorized Architect and 2 Authorized Engineer signature will be required		
2	HDC	Boundary fencing permit	4/26/2022	5/22/2022	5/29/2022	6/7/2022	Completed	• Submitted for HDC approval on 22.05.2022 Submission No: HDC(161)-MNS/H14/2022/00049 <i>Issued.</i>	• Site Handover Form • Fence Design		
3	EPA	Environmental Clearance	1/31/2023		2/14/2023		Not Started	• An addendum will be issued for EIA report after design is completed	• Additional Baseline Data reports to be submitted	Musab Sabree Assistant Engineer 9838806 musab.sabree@epa.gov.mv	
4	URA	Dewatering Permit for Exavation of Banker	4/15/2023		4/29/2023	5/25/2023	Completed		• Water Quality Test Report • Site Plan • Foundation Plan+Section • Construction Permit • EIA Decision Statement • Pump Details • Road Closure Permit • Work Schedule	Water & Sewerage Mohamed Shujuan Assistant Oceanographic Observer 7772026 mohamed.shujuan@ura.gov.mv	06/15/2023 to 13/07/2023
5	STELCO	Approval for grid connectivity (Temporary Power Connection)	4/3/2022	4/5/2022	17.05.2022	5/15/2022	Completed		• Reg. Copy of Land (Site Handover Document) • Agreement • Stamp of Ministry • Registration copy of company • Panel board approval (if necessary)	Hussain Ageel Naseer Assistant Service Engineer 744 74 17 Hussain.AgeelNaseer@stelco.com.mv	
6	STELCO	Approval for grid connectivity (Permanent Power Connection)	12/31/2024		1/14/2025		Not Started	• Request for clarification submitted.	• Single Line Diagram • STELCO approval for equipments to be used • Load calculations • URA approval ◦Licensed URA Engineer signature will be required.		

7	URA	Approval for Power Supply	12/31/2024		1/14/2025		Not Started	-	-	URA - Power/Energy Ahmed Jazlaan Assistant Engineer 970 74 72 ahmed.jazlaan@ura.gov.mv	
8	MWSC	Water Supply and Sewerage (Temporary Connection)	4/3/2022	4/5/2022	5/26/2022	6/8/2022	Completed	<p>Water Connection</p> <p>Temporary water connection completed. (400 m far away from site boundary)</p> <p>Excavation permit obtained from HDC on 14.06.2022 to start piping work from water meter to the site boundaries. HDC(161)-MNS/H2/2022/00393</p> <p>Permit approved. Works will start by 07.08.2022</p> <p>Sewerage Connection</p> <p>Design works are going on for temporary discharge line. EIA Addendum and URA approval will be obtained before installation of the temporary sewerage connection.</p>	<ul style="list-style-type: none"> • Reg. Copy of Land (Site Handover Document) • Stamp of Ministry • Registration copy of company 	Ahmed Hamad Customer Relation Manager 995 63 43 ahmed.hamad@mwsc.com.mv	
9	MWSC	Water Supply and Sewerage (Permanent Connection)	12/31/2024		1/14/2025		Not Started	-	-		
10	HDC	Agreement to commit to the safety measure around the construction area	2/18/2023		3/4/2023		Not Started	-	-	HDC (Online Submission)	
11	MNDF	No Objection from FRS (Fire Rescue Services Department) (Temporary)	2/7/2023		2/21/2023		Not Started	-	-	MNDF Fire Rescue Services Department Colonel Abdulla Zuhury a.zuhury@mndf.gov.mv.	
12	MNDF	No Objection from FRS (Fire Rescue Services Department) (Permanent)	1/1/2025		1/15/2025		Not Started	-	-	MNDF Fire Rescue Services Department Colonel Abdulla Zuhury a.zuhury@mndf.gov.mv.	
13	Ministry of Defence	Fire protection system for Office and Accomodation		1/2/2023		15/02/2023	Completed	-	-	Ahmad Shan Mansoor Permanent Secretary	
14	Ministry of Defence	Fire protection system for Kitchen and Worker Accomodation		4/23/2023		5/7/2023	Completed	-	-	Hassan Zameel duputy Minister	
15	HDC	Excavation Permit (LAYING SEWAGE PIPE)				2/20/2023	Completed	-	-	ADAM AZMEE	
16	HDC	Excavation Permit (Laying water pipe from water meter to site boundary)				8/3/2023	Completed	-	-	ADAM AZMEE	
17	HDC	Laying water discharging pipe from site boundary to the sea				6/22/2023	Completed	-	-		
18	HDC	Road closing permit (LAYING SEWAGE WATER PIPE FROM UNDER THE ROAD)				19/02/2023	Completed	-	-	Ahmed	

19	URA	SEWAGE TREATMENT PLANT (THILAFUSHI WASTE TO ENERGY PROJECT)		6/3/2023	12/4/2023	12/4/2023	Completed	Please also note that you will be required to submit the monthly wastewater test results to URA	-	Aminath Mohamed Direcor Secretariat@ura.gov.mv +9603332488	
20	HDC	Partial Construction Permit for Spun Piles (ERQ – Table 5.17 – Item 1- Construction Permit)		15/3/2023	10/4/2023	5/11/2023	Completed		1) Site Organization Plan 2) WtE Building Facade 3) WtE Building Plan & Section 4) Geotechnical Evaluation Report 5) WtE Building Spun Piles Layout		
21	MNHPI	foundation systems of WtE Building		16/04/2023		5/4/2023	Completed				
22	URA	Cable Approval		25/01/2023		5/8/2023	Completed				
23	URA	Grid Code		2/4/2023			In Progress				
24	HDC	Exavation permit for WtE Bunker & Process building				7/31/2023	Completed				
25	URA	Dewatering Permit for Exavation of Banker		8/20/2023		8/20/2023	Completed				
26	HDC	Exavation permit for WtE Bunker & Process building				8/26/2023	Completed				
27	URA	Dewatering Permit for Exavation of Banker		9/18/2023		9/21/2023	Completed				
28	HDC	Exavation permit for WtE Bunker & Process building		9/18/2023		9/24/2023	Completed				
29	HDC	Dewatering Location Permit		10/2/2023		10/15/2023	Completed				
30	HDC	Exavation permit for WtE Bunker & Process building		10/11/2023		10/18/2023	Completed				
31	URA	Dewatering Permit for Exavation of Banker		10/22/2023		10/23/2023	Completed				
32	HDC	Exavation permit for WtE Bunker & Process building		11/3/2023		11/9/2023	Completed				
33	HDC	Dewatering Location Permit		11/8/2023		11/20/2023	Completed				
34	URA	Dewatering Permit for Exavation of Banker		11/19/2023		11/21/2023	Completed				
35	HDC	Exavation permit for WtE Bunker & Process building		11/26/2023		12/3/2023	Completed				
36	HDC	Exavation permit for WtE Bunker & Process building		12/17/2023		12/25/2023	Completed				
37	URA	Dewatering Permit for Exavation of Banker		12/18/2023		12/24/2023	Completed				
38	URA	Dewatering Permit for Exavation of Banker		1/23/2024		1/24/2024	Completed				
39	HDC	Dewatering Location Permit		2/5/2024		2/11/2024	Completed				
40	URA	Dewatering Permit for Exavation of Banker		2/20/2024		2/27/2024	Completed				
41	HDC	Dewatering Location Permit		2/5/2024		2/11/2024	Completed				
42	URA	Dewatering Permit for Exavation of Banker		2/20/2024		2/27/2024	Completed				
43	URA	Dewatering Permit for Exavation of Banker		3/22/2024		3/26/2024	Completed				
44	URA	Dewatering Permit for Exavation of Banker		4/22/2024		4/25/2024	Completed				
45	HDC	Dewatering Location Permit		5/23/2024		6/5/2024	Completed				
46	URA	Dewatering Permit for Exavation of Banker		5/23/2024		5/26/2024	Completed				
47	URA	Dewatering Permit for Exavation of Banker		6/27/2024		30/6/2024	Completed				
48	HDC	Dewatering Location Permit		6/25/2024		3/7/2024	Completed				
49	URA	Dewatering Permit for Exavation of Banker		7/25/2024		28/7/2024	Completed				
50	HDC	Dewatering Location Permit		8/7/2024		8/11/2024	Completed				
51	URA	Dewatering Permit for Waste to Enerygy Facility Turbine Area		8/21/2024		8/25/2024	Completed				
52	MNDF	Diesel Tanker operation Permit		18/06/2024		10/9/2024	Completed				
53	URA	Borehole for RO plant		5/29/2024		8/26/2024	Completed				

54	URA	Diesel Generator operation permit		10/16/2024		10/30/2024	Completed				
55	URA	Dewatering Permit for Waste to Eneergy Facility Turbine Area		11/14/2024		11/18/2024	Completed				
56	HDC	Exavation permit for WtE Fire Fighting building		11/21/2024		4/12/2024	Completed				
57	MOH	Clinic Permit		45631		45734	Completed				
58	URA	Dewatering Permit for Waste to Eneergy Facility Turbine Area		12/13/2024		12/16/2024	Completed				
59	URA	Dewatering Permit for Waste to Eneergy Facility Turbine Area		1/12/2025		1/14/2025	Completed				
60	HDC	Dewatering Location Permit		1/14/2025							
61	HDC	Construction Permit for Fire Fighting Building		3/17/2025			In Progress				
62	HDC	Construction Permit for Water Intake Building		3/17/2025			In Progress				
63	HDC	Construction Permit for Leachate Treatment Building		3/17/2025			In Progress				



ސިޓީ ވަނަ

މަތީ

ދިވެހިރާއްޖެ.

ސަރުކާރު: 23-LH/PRIV/2025/218

މި ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި،

ވަނަ ސަރުކާރުގެ ނަމުގައި.

ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި (2021/R-28) 49 ވަނަ ގަވާއިދު

މި ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.

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މި ސިޓީ ވަނަ ގަވާއިދު 42 ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.

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މި ސިޓީ ވަނަ ގަވާއިދު 2021/R-28 (ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި) ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.

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މި ސިޓީ ވަނަ ގަވާއިދު 29/2015 (ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި) 49 ވަނަ ގަވާއިދު

މި ސިޓީ ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.

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މި ސިޓީ ވަނަ ގަވާއިދު 40، 41 ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.

މި ސިޓީ ވަނަ ގަވާއިދު 42، 43، 44 ވަނަ ގަވާއިދު ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި ދިވެހިރާއްޖޭގެ ސަރުކާރުގެ ނަމުގައި.



MINISTRY OF HEALTH

Male' City
Republic of Maldives

In accordance with applicable provisions of the Health Services Act 29/2015
and its rules and regulations, the Ministry of Health hereby issues

this **OPERATING LICENSE** to

BIO BIZ MALDIVES PVT LTD (C-0019/2017)

to operate and maintain a **General Clinic**

Facility Details

WTE Medical Clinic
WTE Facility, K. Thilafushi
Republic of Maldives
Registration No: HF-25/ALP/PVT/840

This License is issued under the authority of the Health Services Act 29/2015. This License is not transferrable, must be conspicuously posted on the premises and must be renewed prior to expiry date.


This License becomes void if by any reason the facility is found not abiding in accordance with applicable provisions of the Health Services Act 29/2015, its rules and regulations and any guidelines of the Ministry of Health.

License no: PVT-GC-25-563-00

Effective date: 19th March 2025

Expiry date: 18th March 2030




Uza. Thasleema Usman
Commissioner of Quality Assurance

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Ministry of Health

ސިއްހަތު ވަޒާރާތު

Male', Rep. of Maldives | ދިވެހިރާއްޖޭގެ ޖުމްހޫރިއްޔާ

މަޢުލޫމާތު ނަންބަރު

Registration Number
HF-25/ALP/PVT/840

ސިއްހަތު ވަޒާރާތުގެ ސަރުކާރުގެ ދަށުން ބަލާފައިވާ ފަރާތްތަކުގެ ތެރެއިން

CERTIFICATE OF HEALTH FACILITY REGISTRATION

WTE MEDICAL CLINIC	މަޢުލޫމާތު/ފަރާތްތަކުގެ ނަންބަރު:
	Name of the Clinic/Medical Centre
WTE Facility, K. Thilafushi, Republic of Maldives	މަޢުލޫމާތު ފަރާތްތަކުގެ ނަންބަރު:
	Address
Bio Biz Maldives Pvt Ltd (C-0019/2017)	މަޢުލޫމާތު/ފަރާތްތަކުގެ ނަންބަރު ޔަ ފަންޓްވަރު:
	Owner of the Clinic/Medical Centre
M. Green Life, Handhuvaree Hingun Malé, Republic of Maldives	ފަންޓްވަރު ފަރާތްތަކުގެ ނަންބަރު:
	Address
19 th March 2025	މަޢުލޫމާތު ދިނުމުގެ ތާރީޚު:
	Registered Date
-	މަޢުލޫމާތު ދިނުމުގެ ތާރީޚު:
	Registration renewal Date
Consultation and Outpatient Services	މަޢުލޫމާތު ދިނުމުގެ ސަރުވިސް:
	Registered Service






Uza. Thasleema Usman
Commissioner of Quality Assurance

**Appendix 2: Site Inspection Reports by PMDCSC
including Site Inspection Photos**

Greater Male' Waste to Energy Project

GMWTE Site Monitoring Report

by the Employer's Representative

	Name	Signature	Position	Date
Prepared by:	Zaha Waheed		Environmental Specialist	27.02.2025
Checked by:	Maximilian Schrade		Project Manager	27.02.2025

Date and Time of the Visit	Conducted by [ER]	Participants from MCCEE
19.01.2025 10:30	Zaha Waheed	-
30. 01.2025 10:30	Zaha Waheed Ahmed Naahee Nazim	

General Audit

Particulars	Observations	Status of compliance of respective plan ¹
Manpower	<ul style="list-style-type: none"> Total manpower at site on 19th January 2025 was 223 	
PPE	<ul style="list-style-type: none"> Observed workers not wearing the masks while laying the bitumen layer with the torch. The one wearing the proper mask N95 but it was over his mouth and not the nose and the other two wore the masks when the HSE Officer prompted. All Workers are provided with suitable masks, gloves, safety helmet, safety shoes and vest by the management but the level level of compliance varied. 	Partially complied
Fire safety	<ul style="list-style-type: none"> All fire extinguishers are in place and have been tested by a third party; Beacon Solution. The HSE Officers check the equipment monthly and if any fault is detected it is sent to the third party for repair and maintenance, Different extinguishers have different dates for 	Being complied

	validity period. 15 Extinguishers were serviced. 30 were sent for repair, maintenance and inspection. The total of number extinguishers they have on site is 74.	
Gensets	<ul style="list-style-type: none"> Relocation of an electric cable was ongoing at the Villa Batching Plant to install the new genset The area dedicated for RO Plant and genset, the back panel has been closed and work is ongoing to make rooms. PWA is a Sri Lanka Company conducting equipments and gensets inspection, verification, testing and certification. 	Partially complied
Batching Plant	<ul style="list-style-type: none"> The concrete residue in the waste pit in the batching plant area has been left to dry and will be disposed to the allocated site. Desalination plant will not be installed. Water is being brought from villa site. Maintenance and repair work ongoing at the batching plant. 	Being complied
Signage and markings	<ul style="list-style-type: none"> The emergency exit sign at the steel workshop has been relocated to the other end of the workshop. 	Being complied
Health care	<ul style="list-style-type: none"> The medical team informed that the registration process is on going. A new medical doctor has commenced work at the site and the nurse were on site. The First-Aid boxes has not been put into the designated places after procuring the contents. 	Not complied Complied Not complied
Kitchen	<ul style="list-style-type: none"> Kitchen, pantry and the staff mess room all clean and tidy Cold room AC is undergoing repair so most of the goods moved to the storage room. 	Complied Being complied
Vehicles registration	<ul style="list-style-type: none"> Still awaiting for registration of the fuel tanker. Another Hi-Up crane was observed without registration and is being processed. 	Not complied
Dewatering	<ul style="list-style-type: none"> Dewatering still continuing 	Being complied.
Portable toilets	<ul style="list-style-type: none"> All the portable toilets have been cleaned and are functional. 	Being complied
Waste Segregation	<ul style="list-style-type: none"> Waste segregation is on-going. 	Being complied
Chemical storage	<ul style="list-style-type: none"> Gates has been fixed on both sides but there is a gap which needs to be closed off 	Partially complied
Potable water	<ul style="list-style-type: none"> The issues highlighted in the previous audit still remains the same. Corrective actions need to be implemented. 	Not complied

Workers accomodation	<ul style="list-style-type: none">• The accommodation was in order and still lacking the furniture and fixtures.• The toilets were being cleaned and the duty roster was ticked off	Partially complied Being complied																												
WAMCO Site	<ul style="list-style-type: none">• The road next to the site was cleared from all the debris that fell during the past week.																													
Number of employers on site by country	<ul style="list-style-type: none">• The number of employees on site by country.																													
	<table><tr><th>Country</th><th>No of Employees</th></tr><tr><td>Afghanistan</td><td>83</td></tr><tr><td>Bangaldesh</td><td>23</td></tr><tr><td>India</td><td>29</td></tr><tr><td>Egypt</td><td>3</td></tr><tr><td>Nepal</td><td>7</td></tr><tr><td>Pakistan</td><td>3</td></tr><tr><td>Palestine</td><td>1</td></tr><tr><td>Sri Lanka</td><td>5</td></tr><tr><td>Turkey</td><td>20</td></tr><tr><td>Total</td><td>174</td></tr><tr><td></td><td></td></tr><tr><td>Villa</td><td>43</td></tr><tr><td>Total on Site</td><td>217</td></tr></table>		Country	No of Employees	Afghanistan	83	Bangaldesh	23	India	29	Egypt	3	Nepal	7	Pakistan	3	Palestine	1	Sri Lanka	5	Turkey	20	Total	174			Villa	43	Total on Site	217
Country	No of Employees																													
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Pakistan	3																													
Palestine	1																													
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Turkey	20																													
Total	174																													
Villa	43																													
Total on Site	217																													

N. Summary of observations which need corrective actions/measures

Particulars	Observations	Status of compliance of respective plan ²
PPE	<ul style="list-style-type: none"> Encourage the proper use of masks 	Partially complied
Chemical storage	<ul style="list-style-type: none"> Gates has been fixed on both sides but there is a gap which needs to be closed off 	Partially complied
Gensets	<ul style="list-style-type: none"> Measures to reduce the noise level from the gensets has to executed 	Partially complied
Health care	<ul style="list-style-type: none"> Registration of the facility is still pending and the first aid boxes has to be placed in the designated places 	
Potable water	<ul style="list-style-type: none"> The potable water needs to be complied to the standards at the work stations 	Not complied
Workers accomodation	<ul style="list-style-type: none"> The furniture and mirrors need to be placed in the rooms 	Partially complied
Vehicle Registrations	<ul style="list-style-type: none"> Registration of the fuel tank is pending. Expedite the process and in the meantime use alternative services. Provide details of the registration process of the crane lorry used at site. 	Not complied



Figure 1: Workers laying the bitumen without wearing masks properly



Figure 2: Batching plant area – Housing for RO Plant and genset, back has been closed off and new cable laying for the new genset



Figure 3: Potable water and glass jars



Figure 4: Fire extinguishers tested in January 2025



Figure 5: Fire extinguishers tested in January 2025



Figure 6: Fire extinguisher still missing from this site



Figure 7: Waste concrete wash pits on two different visits



Figure 8: Stockpiles of materials for the batching plant and the yellow jumbos with waste concrete to be disposed



Figure 9: Plastic interception activities



Figure 10: Registration permits of the vehicles pending



Figure 11: Registration process of the vehicles needs to be updates



Figure 12: Workers rooms door covered to protect from rain



Figure 13. Gates fixed at the Chemical storage warehouse



Figure 14. An accesible gap between the gate and the warehouse fence needs to be sealed off.



Figure 15. Sludge still kept in bags



Fig. 16 Workers Mess room washed and cleaned



Fig. 17 Kitchen all in order





Fig 18. View of the waste mound after the fall off

Greater Male' Waste to Energy Project

GMWTE Site Monitoring Report

by the Employer's Representative

	Name	Signature	Position	Date
Prepared by:	Zaha Waheed		Environmental Specialist	14.05.2025
Checked by:	Maximilian Schrade		Project Manager	14.05.2025

Date and Time of the Visit	Conducted by [ER]	Participants from MCCEE
19.03.2025 20:30	Zaha Waheed	-

General Audit

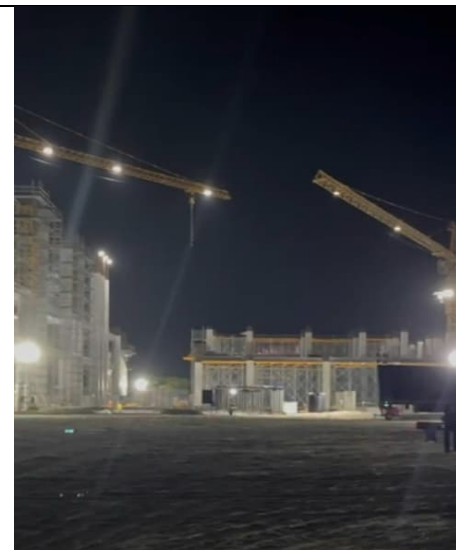
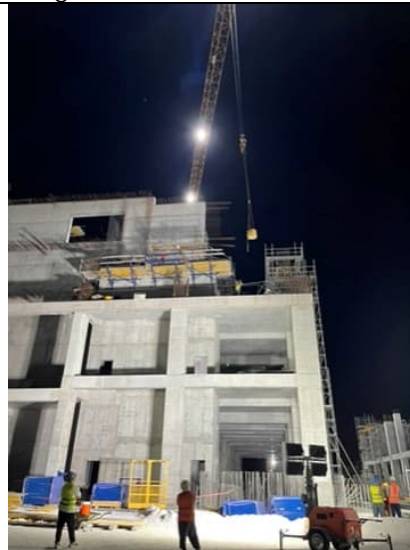
Particulars	Observations	Status of compliance of respective plan ¹
Manpower and working hours	As of 19th March 2025, the total manpower on site was 193. Due to the observance of Ramadan, operations are being conducted in two shifts. The morning shift runs from 8:00 to 16:00 hours, primarily for staff and some site team members. The night shift operates from 21:00 to 04:00 hours to accommodate those who are fasting. The number of workers are around 60 and 1 HSE Officer works on this shift.	
PPE	<ul style="list-style-type: none"> All Workers are provided with suitable masks, gloves, safety helmet, safety shoes, vest and harness by the management but the level of compliance varied. 	Partially complied
Signage and markings	<ul style="list-style-type: none"> Some signs were put up around the bunker area to indicate the direction of access to the bunker area. Requires further improvement. 	Partially complied







Working at night	<ul style="list-style-type: none"> At the time of the visit mostly rebar work and form work for the slabs and beams were on-going at the site. 	
Lighting	<ul style="list-style-type: none"> There is adequate lighting in the steel workshop. Rebar work was being executed. The construction site is lit by the following equipments: <ul style="list-style-type: none"> 1 Tower crane with 8 lights of 1000 Watts 1 Tower crane with 10 lights of 500 Watts Tower light with 2 lights of 1600 Watts Poles with 8 lights 1000 Watts Portable Mobile 15 lights of 500 Watts (Information provided by the engineer) <p>The Bunker site needs to be lit well to ensure workers safety.</p> <p>The International Finance Corporation (IFC) Environmental, Health, and Safety (EHS) Guidelines for construction work sites suggest a minimum of 20 lux and an average of 50 lux for tasks involving movement of people, machines, and vehicles outdoors, as well as for rough activities like site clearance and excavation. For work areas requiring detailed tasks, a minimum of 100 lux and an average of 200 lux are typically recommended. These guidelines highlight the importance of sufficient lighting to ensure workers' safety and health, and to facilitate safe equipment operation.</p>	Partially complied
Health care	<ul style="list-style-type: none"> The Clinic has been registered today (19.3.2025) as WTE Medical Clinic. License expires on 18th March 2030. The First-Aid boxes has not been put into the designated places after procuring the contents. 	<p>Complied.</p> <p>Not complied</p>
Batching Plant	<ul style="list-style-type: none"> The area was kept clean and not much material stored. 	Complied
Kitchen	<ul style="list-style-type: none"> Kitchen, pantry and the staff mess room all clean and tidy. 	Complied
Vehicles registration	<ul style="list-style-type: none"> Still awaiting for registration of the fuel tanker. Hi-Ab registration and is being processed. 	Not complied
Potable water	<ul style="list-style-type: none"> Corrective actions implemented and workers provided with individual water bottles. 	Complied
Workers accomodation	<ul style="list-style-type: none"> The accommodation was in order but still lacking the furniture The toilets were being cleaned and the duty roster was ticked off 	<p>Partially complied</p> <p>Being complied</p>

N. Summary of observations which need corrective actions/measures

Particulars	Observations	Status of compliance of respective plan ²
PPE	<ul style="list-style-type: none"> Encourage the proper use of masks 	Partially complied
Signage and markings	<ul style="list-style-type: none"> Some signs were put up around the bunker area to indicate the direction of access to the bunker area. Requires further improvement. 	Partially complied
Lighting	<ul style="list-style-type: none"> Ensure illumination levels as per given standards 	Partially complied
Health care	<ul style="list-style-type: none"> The facility has been registered but the first aid boxes has to be placed in the designated places 	Not complied
Workers accomodation	<ul style="list-style-type: none"> Small mirrors has been provided. The furniture needs to be placed in the rooms 	Partially complied
Vehicle Registrations	<ul style="list-style-type: none"> Registration of the fuel tank is pending. Expedite the process and in the meantime use alternative services. Provide details of the registration process of the crane lorry used at site. 	Not complied

On-going work at Bunker area illuminated with crane lights



		 <p>Steel workshop</p>
		

Signages for walk ways

Material stored for the batching plant



Environmental Monitoring Report

PUBLIC

Project Number: 51077-003
Quarterly Report (January-March 2025)
April 2025

Maldives: Greater Male Waste-to-Energy Project

PART C: Appendices

Prepared by the Ministry of Tourism and Environment for the Ministry of Finance and Planning and the Asian Development Bank (ADB).

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Appendix 3: Results of Monitoring (Marine Ecological Survey, Air Quality, Noise, Water Quality)

Marine Ecology Survey

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1. INTRODUCTION

This is the environmental monitoring report of marine ecology result conducted in January 2025 prepared as part of the construction stage monitoring of the waste to energy (WtE) facility at Thilafushi, Maldives. Environmental monitoring is a contractual requirement of the DBO in the Environmental Impact Assessment report prepared for the project. This report presents results of the marine ecology assessments and environmental monitoring conducted on 28th January 2025 as part the requirements of the EIA monitoring and the Project Environmental Management Plan developed to meet the anticipated environment impacts, health and safety, as well as to ensure the sustainability of the Project.

2. MARINE ECOLOGICAL SURVEY

For the construction site environmental monitoring reef benthic 8th survey was conducted 28th January 2025 in locations M10, M9 and M8 **Figure 1**. The purpose of the marine survey was to continue monitoring changes to the conditions established in the Environmental Impact Assessment (EIA) during August and September 2018. A re-evaluation of the baseline was established in June 2022, and the first monitoring survey was conducted on 24th December 2022 and the following report is based on the 8th survey conducted on 28th January 2025.

A standard approach, established by the Maldives EIA community and approved by the Environmental Protection Agency (EPA), was employed to study benthic cover and fish populations. The survey employed GPS locations, transects surveys conducted at two depths: 5m and 10m at each station (M8, M9 and M10 – as detailed in an earlier report). The methods followed were those outlined by Hodgson et.al (2006) in Reef Check Instruction Manual: A Guide to Reef Check Coral Reef Monitoring.

Three transects of 20 m length were laid, one after the other along the reef, ensuring the transect falls to the specific depth. A quadrat of size 0.5 x 0.5 m was laid sequentially on the transect, and photo images were taken with the quadrat in the center. This way, every transect would have at least 10 images, resulting in around 60 images from each depth.

Figure 1: Underwater Marine Survey Locations M8,M9 and M10 for construction stage Monitoring January 2025



2.1 Data analysis

The data collected in 28th January 2025 was analyzed using CoralNet (an online resource for benthic images analysis - <https://coralnet.ucsd.edu/>), which utilizes artificial intelligence for automatic classification. Analysis was conducted using CPCe (Coral Point Count of Excel Extension)¹. CPCe involves randomly placing points over the quadrat space on the image, but in this case, the points are identified by humans. Twenty-five points were randomly placed on the entire photo image. The points were then classified under the following categories, as listed in Table 1

Table 1: Substrate categories and the codes.

Category	Code
#\k° 00° #-° -° #\	CO
k\#Mk	R
#\k° Oky"" O° #k	CR
U° #k\° O 8-° U°	MA
uyk7° O 8-° uyk	TUR
ch\ V8-° ch	SP
o° V)° V)° o° u° o	S
uyV@° u° uy	TU
" O° #=-)° #\k° O° O°	BLC
yVM± V° yV	UN
-° V u=° k@V° -\	ZO
o\ 7u° #\k° O o°	SC
#\k° O° #	C
o° 8k° o° o8	SG
@†-ku-" k° u-o° @†	INV

2.2 Results

The following presents findings and observations from under marine ecological surveys conducted at the monitoring location at Thilafushi reef.

Status of Site M8: The site is the location that will be used for discharge of waste water from the brine outfall as described in the EIA. Waste water discharge pipe for the temporary plant is already installed and discharging treated waste water into the water (see photos of discharge pipe **Figure 2**). The survey conducted in October 2024 shows an increase in shallow water (at 5m depth) coral cover of 26-39% while the coral cover at 10m slightly decrease between 19% and 21.3%. A recent survey conducted in January 2025 shows that coral cover within 28-40% at 5m and 31-32% at 10m depth. Coral bleaching was not observed at this due to normalization of sea surface temperature and return to its normal conditions worldwide. The dominant benthic cover is rock and rubble 51-46% in the 5 and 10 m transect respectively. Rock and coral rubble cover is about 1.5% at 5m depth and 1.2 % at 10m depth. This significant decrease compared to October 2024.

Macro algae cover was around 0.8-2.3% at 5m and 10m depth respectively. Most of the live coral was massive and sub-massive corals.

Most abundant fish species at 5m depth is *Pterocaesio pisang* while *Thalassoma amblycephalum*, *Hemitaenichthys zoster* is only abundant at 5m depth. No common species are found in both transects. Abundant means More than 40 individuals on average at each 20 m transect. Photographs of the transect quadrats are shown in Figure 4. Benthic composition of M8 at both 5 and 10m depth is in Figure 5.

Figure 2. Waste water outfall pipe installed at M8 discharging from temporary waste water plant (April 2023).

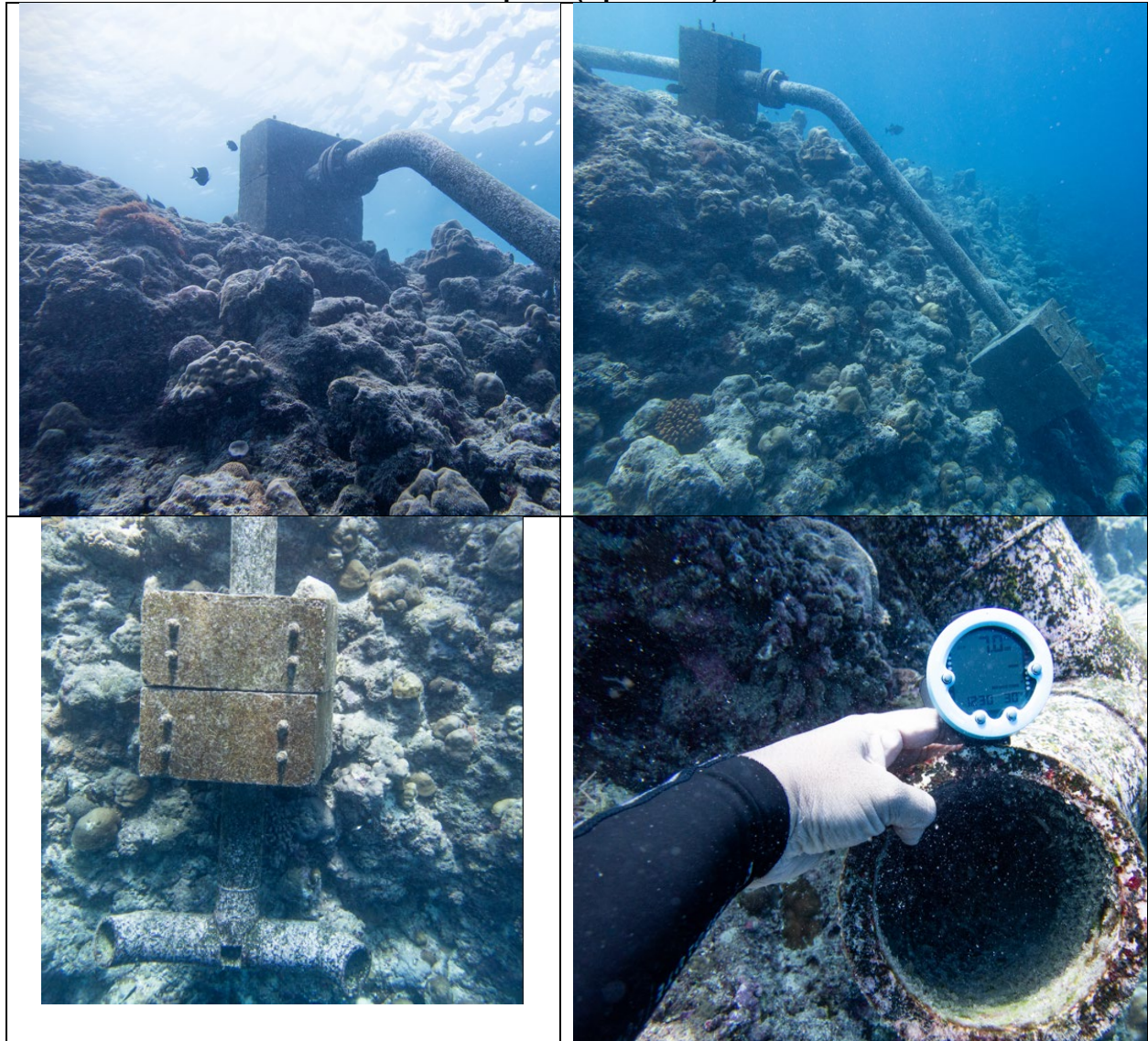


Figure 3: Photos Taken from Site 8 (M8) (28th January 2025) at 5m depth

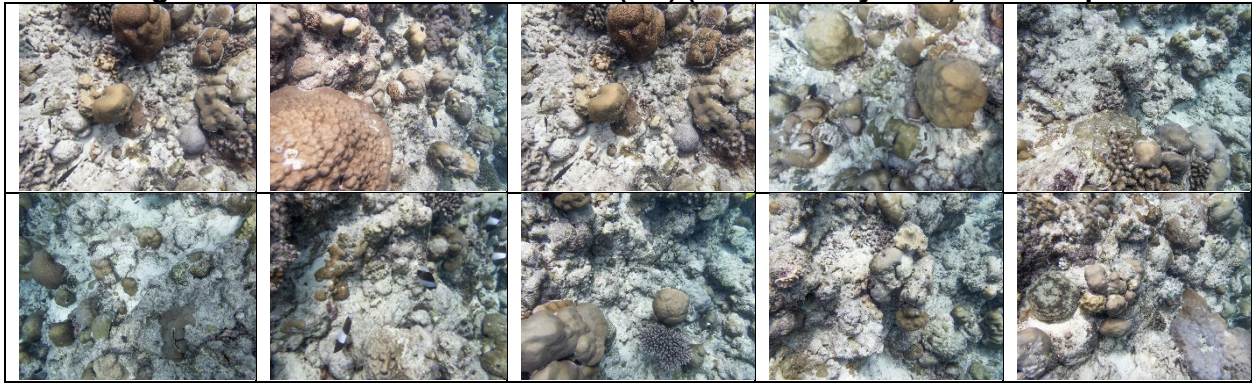


Figure 4: Photos Taken from Site 8 (M8) (28th January 2025) at 10m depth

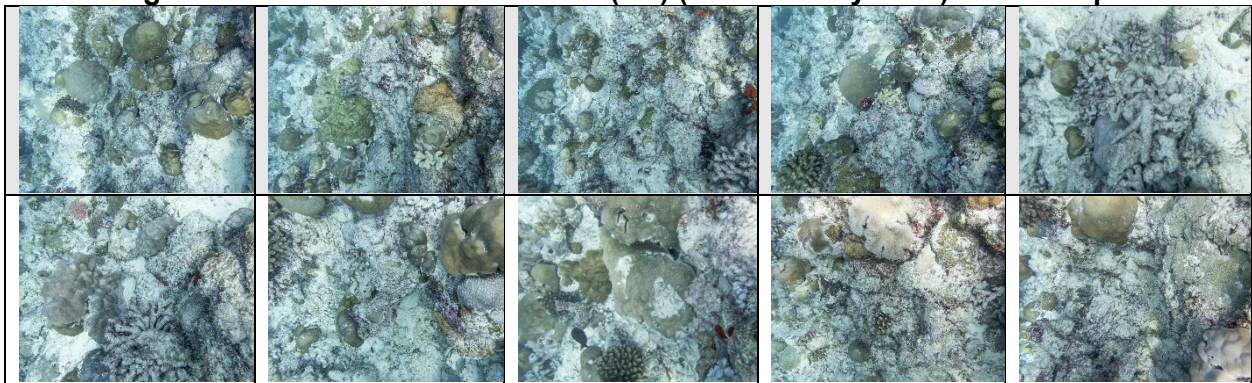
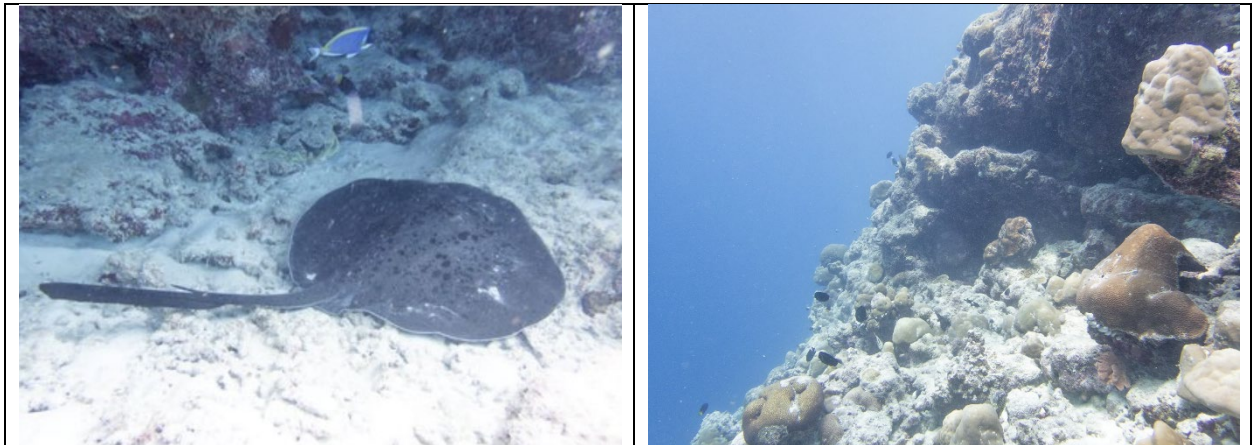
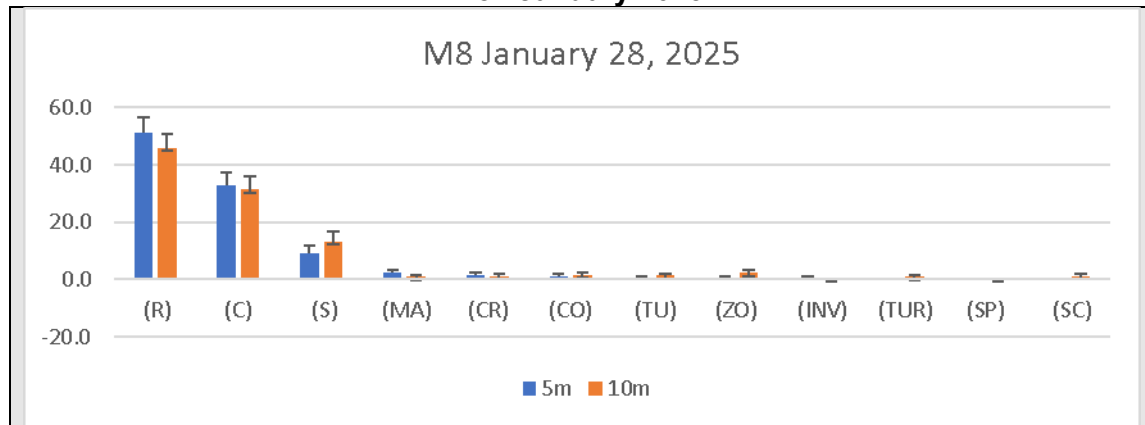


Figure 5: Overall view of the site at 5m depth 28th January 2025 (bottom)



**Figure 6: Average benthic cover and their standard error for M8 at both 5 and 10m depth
28th January 2025**



Status of Site M9: This location was identified as an alternative for brine discharge and wastewater outfall. This is close to the WtE site at the southern reef of Thilafushi Island. Substrate cover was qualitatively similar to the results obtained in the past surveys. Highest substrate cover was rock, some 44-56% at 5m depth and 10m respectively while sand and silt cover has decrease from 14 & 23 at 5m and 10m 9 and 22 % respectively. Live coral cover increased from 14 & 23 % 28 and 23% at 5m 10m respectively. Like M8, M9 coral bleaching was not observed at location M9.

With regards to fish *Odonus niger*, and *Thalassoma amblycephalum* are the most abundant fish at both 5m and 10m depth and *Chromis dimidiata* was abundant at 5m depth. *Chromis weberi* *Pomacentrus philippinus* are common at 10m depth. Photographs of the transect quadrats are shown in Figure 6 and Figure 7. Benthic composition of M9 at both 5 and 10m depth is in Figure 8.

Figure 7: Photos Taken from Site 9 (M9) (28th January 2025) at 5m depth

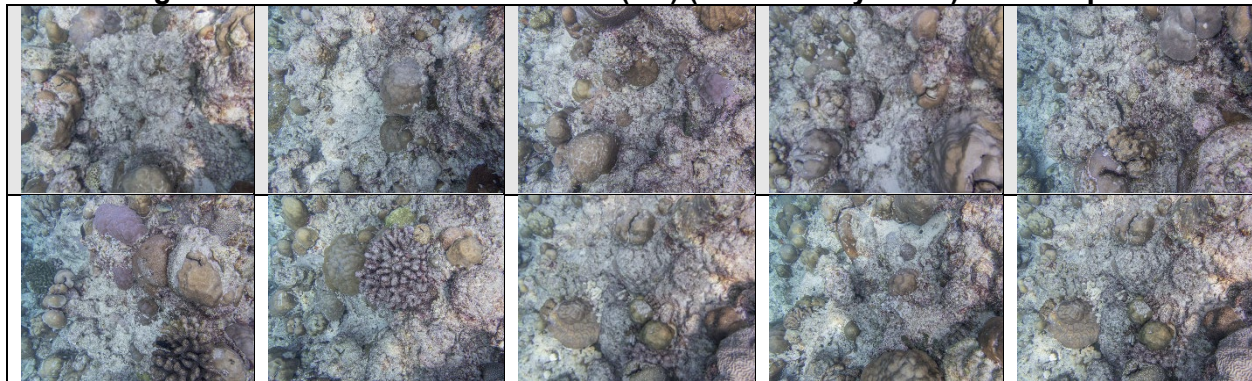


Figure 8: Overall view of the site at 5m depth 28th January 2025 (top) October 2024 (bottom)

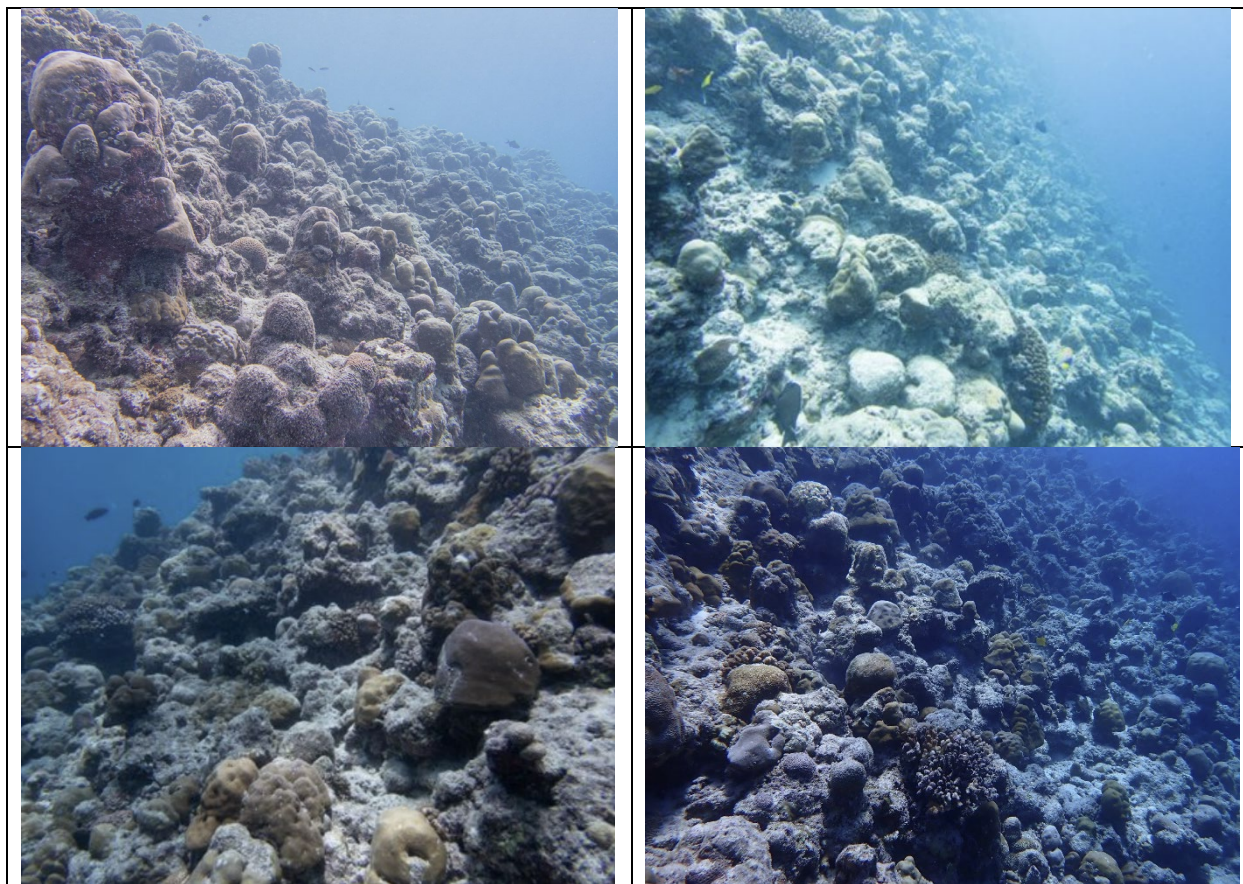
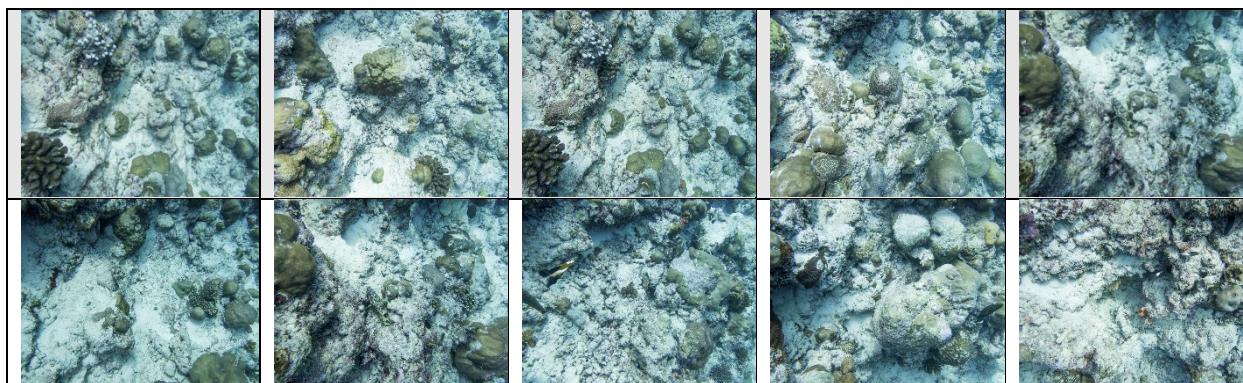
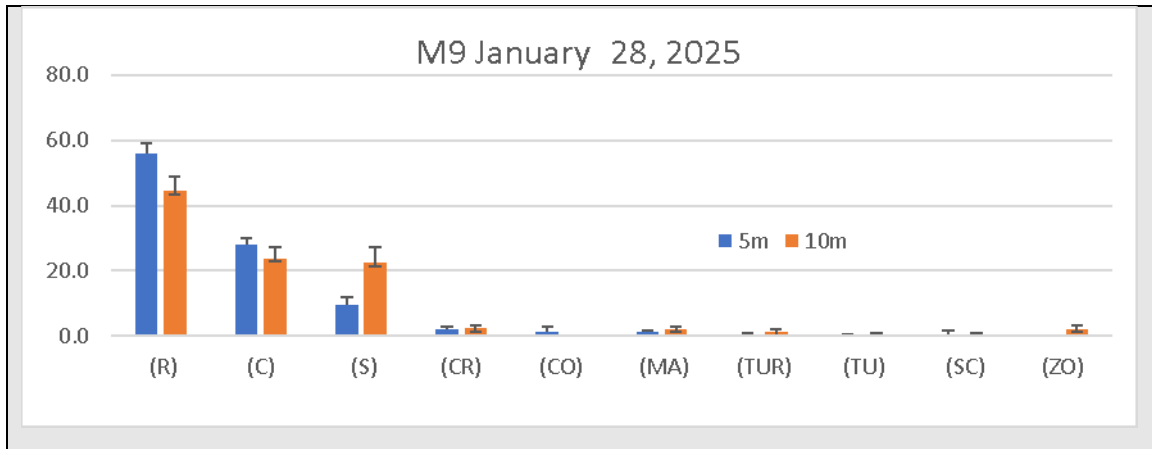


Figure 9: Photos Taken from Site 9 (M9) (28th January 2025) at 10m depth



**Figure 10: Average benthic cover and their standard error for M9 at both 5 and 10m depth
28th January 2025**



Status of Site M10: This location has been identified in the EIA report as a potential alternative for the discharge of brine water and wastewater. The location is very close to the WtE facility, and it is on the southern reef of Thilafushi Island. Live coral cover in Site M10 is 33 and 37% at 5m and 10m depth respectively and coral rock cover at 5m depth is higher than 10m depth between 54.2 and 45.7% respectively, while sand and silt cover at this site has decreased significantly from 7.3 to 3.3 % at 5m depth from October 2024 to January 2025. At 10 m depth sand and silt cover have also decreased from 32.8% in October to 12.5 % in January 2025 at 10m depth. This could be resulting from the Thilafushi phase II reclamation activities. This is the closest site to the ongoing Thilafushi phase II reclamation project. Turf Algae cover on the substrate has been found only 10m depth and the cover was 0.3%. Macro algal cover on the substrates also decreased from 2.2% to 0.2% at 5m depth and increased at 10 m depth from 0.5% to 1.2 % at 10m depth from October 2024 to January 2025 respectively.

With regard to fish *Odonus niger* is abundant at both 5m and 10m depth. *Chromis dimidiata* is the most abundant fish found at both 5m and 10m depth. While *Thalassoma amblycephalum*, and *Chromis dimidiata* are abundant at 5m and *Pomacentrus philippinus* from Labridae Family are common at 5m and 10m depth. Photographs of the transect quadrats are shown in Figure 11 and Figure 12. Benthic composition of M10 at both 5 and 10m depth is in the graph in Figure 14 .

Figure 11: Photos Taken from Site 10 (M10) (28th January 2025) at 5m depth

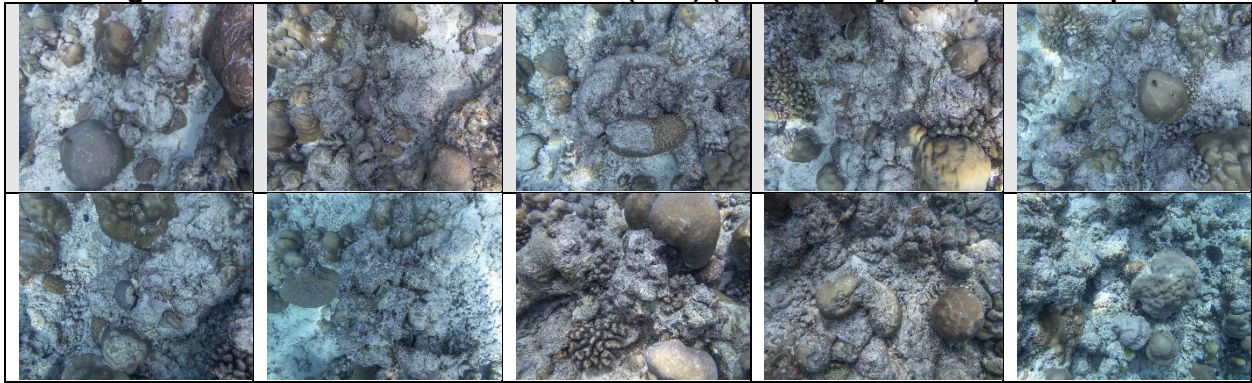


Figure 12: Photos Taken from Site 10 (M10) (28th January 2025) at 10m depth

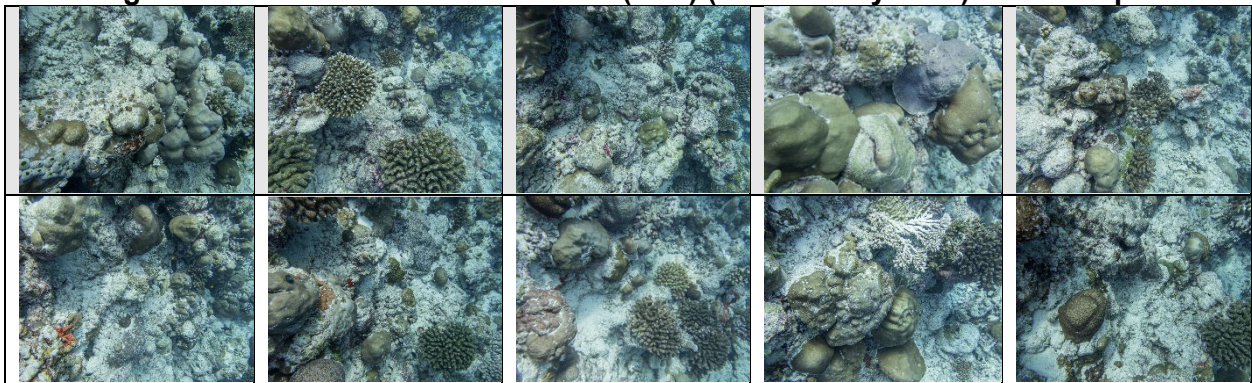
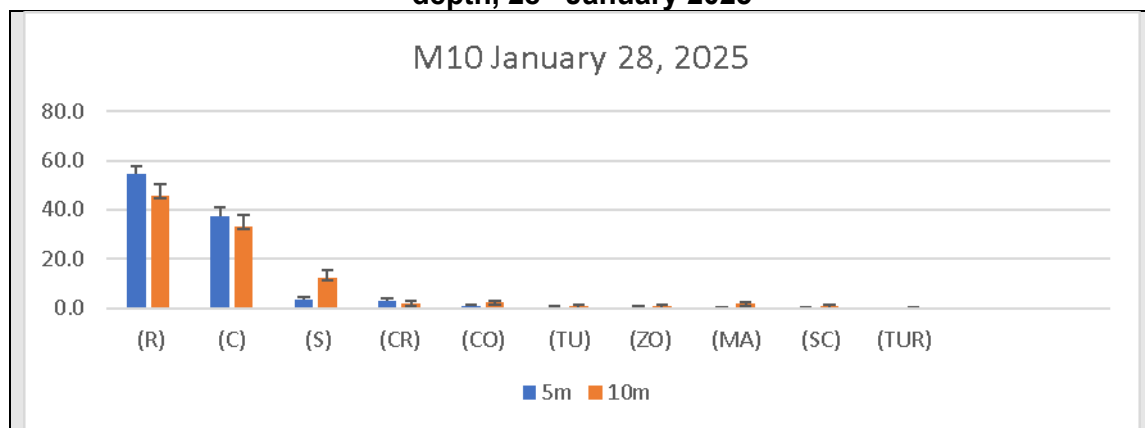


Figure 13: Overall view of the site at 5m (top) and 10m depth (bottom) 28th January 2025 at M10





Figure 14: Average benthic cover and their standard error for M9 at both 5 and 10m depth, 28th January 2025



2.3 Fish surveys

To ensure that the fish were not disturbed while data on substrate was being collected, a visual assessment of the fish was performed after the transect was laid. As previously mentioned, at each transect and at each depth (5m and 10m), three transects of 20m length were observed. The counts were estimated in the field and the average count of each depth was taken as the mean abundance. The mean abundance was then categorized into three arbitrary scales: "Rare" (no fish to 20 fish), "Common" (20-40 fish), and "Abundant" (counts over 40 fish).

Summaries of the data collected at each site (combining both depths) are provided in **Table 2**. The majority of the fish observed were considered rare. However, there were instances where Balistidae, and Pomacentridae are abundant. When examining the data at the species *Labroides dimidiatus* *Odonus niger* and *Chromis dimidiata* by depth are most abundant species at both 5m and 10m depth. In Figure 14 fish families total occurrence at each depth is provided and the list is provided in Table 2.

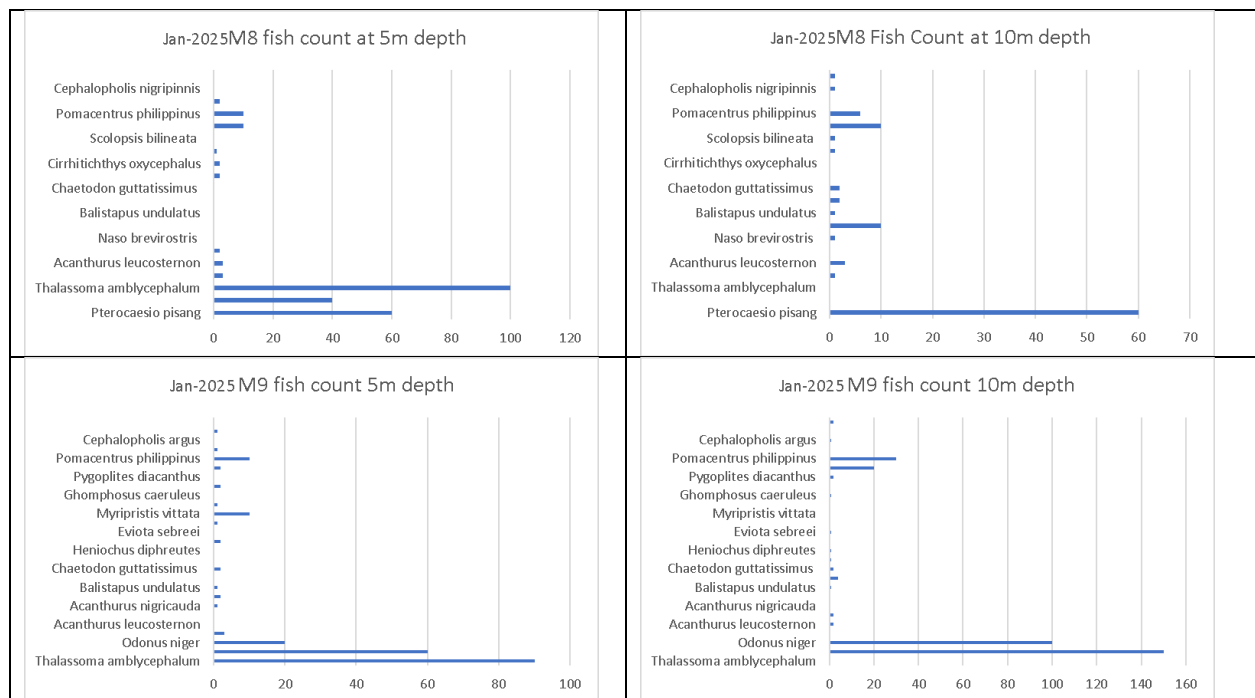
Table 2: Summary of fish census for three site ordered as Rare, Common and Abundant for three site.

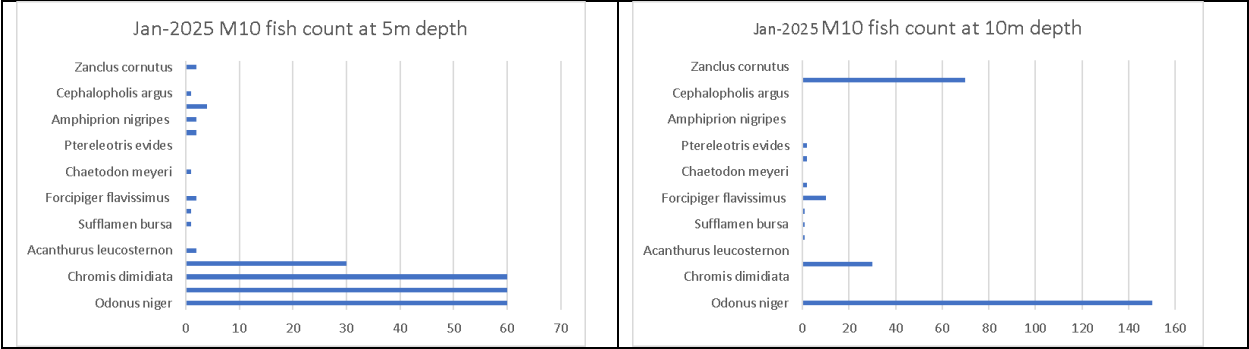
U				U			
7	o	V	#	7	o	V	#
#	h			#	h		
#	=			#	=		k
O	u			O	u		k
-	#		k	-	#		k
-	-		k	-	-		k
-	-		k	-	-		k
-	V		k	-	V		k
"	\		k	"	\		k
"	"		k	"	"		k
#	7		k	#	7		k
#	#		k	#	#		k
#	#		k	#	#		k
#	#		k	#	#		k
=	U		k	=	U		k
V	o		k	V	o		k
h	#		k	h	#		k
h	h		k	h	h		k
h	#		k	h	#		k
o	#		k	o	#		k
o	#		k	o	#		k

U				U			
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O	u			O	u		k
h	#			h	#		
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O	8		k	O	8		k
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o	#		k	o	#		"
-	-		k	-	-		k

Figure 15: Fish families total occurrence at each depth at 5m and 10m depth in October 2024





Ambient Air Quality

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Measurement Results for Location 2

Device Code: 224								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
AQ2	09/02/2025 17:00	35.72	30.98	0.00	0.00	60.28	76.56	30.00
	09/02/2025 18:00	34.82	29.99	0.00	0.00	62.09	79.62	38.29
	09/02/2025 19:00	31.34	28.32	0.00	0.00	59.58	80.25	39.08
	09/02/2025 20:00	34.27	30.96	0.00	0.00	65.72	81.58	40.21
	09/02/2025 21:00	30.66	27.52	0.00	0.00	60.80	75.47	42.26
	09/02/2025 22:00	33.87	26.1	0.00	0.00	63.80	77.45	58.07
	09/02/2025 23:00	35.73	28.98	0.00	0.00	78.59	80.36	45.90
	10/02/2025 0:00	30.05	25.22	0.00	0.00	69.92	65.03	51.74
	10/02/2025 1:00	31.49	26.03	0.00	0.00	66.74	73.48	49.80
	10/02/2025 2:00	33.04	29.04	0.00	0.00	70.54	72.75	52.86
	10/02/2025 3:00	35.52	30.71	0.00	0.00	73.47	70.00	45.00
	10/02/2025 4:00	35.9	27.35	0.00	0.00	75.31	67.95	47.07
	10/02/2025 5:00	31.2	29.99	0.00	0.00	73.59	74.84	54.96
	10/02/2025 6:00	33.84	30.83	0.00	0.00	79.37	73.47	60.98
	10/02/2025 7:00	31.22	26.48	0.00	0.00	80.75	75.02	58.56
	10/02/2025 8:00	30.78	25.23	0.00	0.00	72.36	70.57	65.80
	10/02/2025 9:00	34.29	30.61	0.00	0.00	76.58	68.34	74.12
	10/02/2025 10:00	31.17	28.06	0.00	0.00	73.14	65.54	65.54
	10/02/2025 11:00	32.65	27.14	0.00	0.00	75.89	63.17	74.58
	10/02/2025 12:00	33.92	29.34	0.00	0.00	78.32	60.34	65.96
	10/02/2025 13:00	34.81	26.97	0.00	0.00	70.97	62.42	78.48
	10/02/2025 14:00	35.56	28.12	0.00	0.00	69.60	60.25	70.61
	10/02/2025 15:00	33.44	30.91	0.00	0.00	72.06	69.18	69.52
	10/02/2025 16:00	31.98	28.69	0.00	0.00	69.64	75.85	65.44
Hourly Limit Values	TA Luft	-	-	200	350	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
Average		33.22	28.42	0.00	0.00	70.80	71.65	56.03
Daily Limit Values	TA Luft	50	-	-	125	-	-	-
	EU	50	-	-	125	-	-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40	-	-	-



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6) Results:

U k O

Device Code: 222								
Location	Sampling Date	Air Quality Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP	Humidity (%)	Temperature (°C)
AQ1	09/02/2025 17:00	32.36	25.98	0.00	0.00	58.52	80.45	34.2
	09/02/2025 18:00	34.1	27.52	0.00	0.00	60.47	78.58	35.12
	09/02/2025 19:00	35.01	30.01	0.00	0.00	59.54	76.58	34.41
	09/02/2025 20:00	31.25	21.25	0.00	0.00	60.45	80.45	32.52
	09/02/2025 21:00	32.85	25.36	0.00	0.00	62.58	80.45	33.5
	09/02/2025 22:00	34.15	26.25	0.00	0.00	63.87	77.68	32.45
	09/02/2025 23:00	30.25	23.47	0.00	0.00	57.45	73.05	33.69
	10/02/2025 0:00	32.58	25.65	0.00	0.00	65.89	67.89	31.12
	10/02/2025 1:00	34.69	26.03	0.00	0.00	64.15	63.15	30.25
	10/02/2025 2:00	31.58	29.04	0.00	0.00	68.58	59.27	34.52
	10/02/2025 3:00	30.48	26.71	0.00	0.00	70.78	56.03	33.32
	10/02/2025 4:00	35.04	27.35	0.00	0.00	63.58	60.89	31.02
	10/02/2025 5:00	34.78	29.01	0.00	0.00	72.45	65.37	32.12
	10/02/2025 6:00	33.58	26.89	0.00	0.00	63.58	73.56	32.41
	10/02/2025 7:00	31.05	28.88	0.00	0.00	68.45	72.45	33.23
	10/02/2025 8:00	30.78	27.21	0.00	0.00	70.45	80.45	29.12
	10/02/2025 9:00	32.47	27.6	0.00	0.00	65.48	82.48	34.1
	10/02/2025 10:00	34.98	29.45	0.00	0.00	62.58	78.58	35.1
	10/02/2025 11:00	31.45	27.52	0.00	0.00	70.15	80.48	37.22
	10/02/2025 12:00	30.48	26.34	0.00	0.00	61.45	81.96	39.52
	10/02/2025 13:00	33.58	27.97	0.00	0.00	65.45	82.64	41.01
	10/02/2025 14:00	31.45	22.58	0.00	0.00	68.59	83.59	37.52
	10/02/2025 15:00	35.58	30.91	0.00	0.00	70.45	80.48	33.25
	10/02/2025 16:00	32.58	26.69	0.00	0.00	67.58	76.56	30.12
= O †	TA Luft	-	-	200	350	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
	24 hour Average	32.80	26.90	0.00	0.00	65.11	74.71	33.79
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Measurement Results for Location 7

Device Code: 224								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
AQ4	12/02/2025 17:00	35.06	28.49	00.00	0.00	63.15	67.04	49.97
	12/02/2025 18:00	32.2	25.68	0.00	0.00	72.30	75.97	38.24
	12/02/2025 19:00	35.8	26.93	00.00	0.00	65.90	73.63	49.93
	12/02/2025 20:00	32.61	27.35	0.00	0.00	76.70	67.46	40.7
	12/02/2025 21:00	33.52	29.36	0.00	0.00	79.61	78.02	56.05
	12/02/2025 22:00	30.52	25.43	0.00	0.00	73.63	80.66	64.24
	12/02/2025 23:00	32.15	29.71	0.00	0.00	68.23	78.11	58.16
	13/02/2025 0:00	33.32	25.37	0.00	0.00	60.42	81.13	65.18
	13/02/2025 1:00	35.39	24.4	0.00	0.00	62.48	69.55	63.22
	13/02/2025 2:00	31.1	23.79	0.00	00.00	59.17	75.05	79.02
	13/02/2025 3:00	34.56	27.2	0.00	0.00	65.65	73.68	65.17
	13/02/2025 4:00	33.51	25.81	0.00	0.00	73.65	68.48	57.24
	13/02/2025 5:00	30.21	22.12	0.00	0.00	60.31	75.93	69.06
	13/02/2025 6:00	32.45	26.17	0.00	0.00	64.50	71.53	75.99
	13/02/2025 7:00	34.71	29.34	0.00	0.00	63.84	72.25	56.91
	13/02/2025 8:00	30.52	25.73	0.00	0.00	65.67	63.22	71.8
	13/02/2025 9:00	31.94	27.59	0.00	0.00	75.09	65.27	68.91
	13/02/2025 10:00	34.72	30.48	0.00	0.00	80.88	72.55	60.7
	13/02/2025 11:00	31.38	27.22	0.00	0.00	79.40	75.01	59.01
	13/02/2025 12:00	35	25.62	0.00	0.00	61.34	79.37	60.99
	13/02/2025 13:00	32.12	29.57	0.00	0.00	60.05	65.95	79.94
	13/02/2025 14:00	34.24	30.59	0.00	0.00	65.98	73.79	68.45
	13/02/2025 15:00	33.22	28.6	0.00	0.00	69.15	69.34	56.14
	13/02/2025 16:00	30.16	25.92	0.00	0.00	72.57	78.63	75.01
Hourly Limit Values	TA Luft	-	-	200	350		-	-
	EU	-	-	200	350		-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-		-	-
Average	24 hours Average							
Daily Limit Values	TA Luft	50	-	-	125		-	-
	EU	50	-	-	125		-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40		-	-



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Measurement Results for Location 6

Device Code: 223								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
ASR5	12/02/2025 17:00	34.06	25.07	0.00	0.00	52.52	60.56	72.99
	12/02/2025 18:00	35.15	26.99	0.00	0.00	63.21	59.56	66.18
	12/02/2025 19:00	31.73	28.61	0.00	0.00	65.52	68.72	57.84
	12/02/2025 20:00	30.17	24.01	0.00	0.00	58.58	59.59	68.29
	12/02/2025 21:00	35.52	30.41	0.00	0.00	62.45	48.35	71.04
	12/02/2025 22:00	34.91	29.77	0.00	0.00	70.75	59.06	64.42
	12/02/2025 23:00	32.11	24.04	0.00	0.00	57.45	47.57	65.09
	13/02/2025 0:00	30.27	25.1	0.00	0.00	63.89	54.76	63.13
	13/02/2025 1:00	31.32	22.23	0.00	0.00	58.52	56.97	62.65
	13/02/2025 2:00	33.16	29.08	0.00	0.00	70.45	58.68	65.51
	13/02/2025 3:00	30.2	23.41	0.00	0.00	69.69	56.86	59.03
	13/02/2025 4:00	31.68	25.86	0.00	0.00	76.85	60.85	66.20
	13/02/2025 5:00	33.41	26.58	0.00	0.00	65.25	58.34	58.44
	13/02/2025 6:00	35.97	28.12	0.00	0.00	53.69	65.52	74.71
	13/02/2025 7:00	32.71	26.75	0.00	0.00	80.58	72.25	65.12
	13/02/2025 8:00	31.19	24.15	0.00	0.00	70.25	75.36	75.60
	13/02/2025 9:00	34.91	30.81	0.00	0.00	64.25	73.94	65.33
	13/02/2025 10:00	30.33	26.25	0.00	0.00	62.48	59.73	68.08
	13/02/2025 11:00	35.42	30.29	0.00	0.00	70.69	63.00	69.53
	13/02/2025 12:00	33.48	29.89	0.00	0.00	79.85	65.22	63.69
	13/02/2025 13:00	31.48	24.25	0.00	0.00	64.58	56.30	69.68
	13/02/2025 14:00	34.06	25.07	0.00	0.00	58.54	59.54	73.26
	13/02/2025 15:00	35.15	26.99	0.00	0.00	69.52	65.09	67.67
	13/02/2025 16:00	31.73	28.61	0.00	0.00	80.28	72.98	75.29
Hourly Limit Values	TA Luft	-	-	200	350	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
Average	24 Hours Average	32.82	26.75	0.00	0.00	66.79	61.01	66.31
Daily Limit Values	TA Luft	50	-	-	125	-	-	-
	EU	50	-	-	125	-	-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40	-	-	-



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Measurement Results for Location 5

Device Code: AIRS-1								
Location	Sampling Date	Results (µg/m³)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
ASR3	10/02/2025 17:00	35.22	29.28	0	0	47.15	68.16	50.36
	10/02/2025 18:00	33.1	30.01	0	0	48.52	72.75	69.34
	10/02/2025 19:00	36.18	28.08	0	0	45.63	87.89	71.92
	10/02/2025 20:00	34.81	29.91	0	0	39.21	86.17	68.18
	10/02/2025 21:00	31.46	28.11	0	0	37.54	80.16	59.08
	10/02/2025 22:00	30.82	26.65	0	0	34.25	85.05	69.91
	10/02/2025 23:00	35.4	28.46	0	0	36.25	80.54	71.16
	11/02/2025 0:00	33.73	25.22	0	0	34.52	83.05	59.23
	11/02/2025 1:00	35.19	27.63	0	0	33.25	75.82	62.16
	11/02/2025 2:00	32.73	30.26	0	0	33.28	68.83	65.14
	11/02/2025 3:00	32.85	26.28	0	0	34.25	74.46	72.13
	11/02/2025 4:00	31.38	27.82	0	0	37.69	73.57	67.23
	11/02/2025 5:00	30.79	25.22	0	0	38.25	70.18	57.34
	11/02/2025 6:00	35.78	26.28	0	0	37.24	75.98	77.65
	11/02/2025 7:00	34.8	27.48	0	0	36.28	68.64	87.82
	11/02/2025 8:00	31.14	25.99	0	0	37.54	79.59	78.79
	11/02/2025 9:00	30.48	28.31	0	0	37.25	76.49	70.62
	11/02/2025 10:00	33.89	29.85	0	0	39.52	72.75	65.23
	11/02/2025 11:00	30.89	26.7	0	0	39.12	69.03	69.78
	11/02/2025 12:00	32.8	25.61	0	0	38.25	66.32	75.74
	11/02/2025 13:00	35.17	28.97	0	0	39.52	65.05	72.07
	11/02/2025 14:00	31.33	28.03	0	0	40.98	68.28	70.72
	11/02/2025 15:00	30.02	26.33	0	0	42.54	72.64	68.97
	11/02/2025 16:00	34.81	28.28	0	0	48.25	75.94	78.21
Hourly Limit Values	TA Luft	-	-	200	200	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
Average	24 hours Average	33.12	27.70	0	0	39.01	74.89	69.11
Daily Limit Values	TA Luft	50	-	-	125	-	-	-
	EU	50	-	-	125	-	-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40	-	-	-



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Measurement Results for Location 4

Measurement Results for Location 4 Device Code: 223								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
ASR2	10/02/2025 17:00	35.78	30.63	0	0	85.56	60.89	39.89
	10/02/2025 18:00	32.01	28.89	0	0	80.04	71.32	45.96
	10/02/2025 19:00	30.05	27.91	0	0	83.29	80.28	36.98
	10/02/2025 20:00	31.66	26.56	0	0	82.69	78.06	48.74
	10/02/2025 21:00	33.25	30.54	0	0	75.99	74.36	52.67
	10/02/2025 22:00	30.07	26.93	0	0	73.75	76.87	45.63
	10/02/2025 23:00	31.88	28.77	0	0	70.42	73.18	38.36
	11/02/2025 0:00	32.13	28.25	0	0	66.97	69.07	35.22
	11/02/2025 1:00	33.51	28.41	0	0	72.81	70.42	34.11
	11/02/2025 2:00	31.78	27.67	0	0	75.22	80.29	40.03
	11/02/2025 3:00	30.01	25.99	0	0	69.03	78.29	41.93
	11/02/2025 4:00	35.66	29.58	0	0	65.64	75.64	58.88
	11/02/2025 5:00	33.88	28.08	0	0	63.16	66.32	54.82
	11/02/2025 6:00	30.45	25.33	0	0	72.32	70.86	48.82
	11/02/2025 7:00	35.67	29.61	0	0	65.19	75.64	39.84
	11/02/2025 8:00	32.82	28.82	0	0	69.41	80.53	37.29
	11/02/2025 9:00	31.97	27.93	0	0	62.68	70.54	35.63
	11/02/2025 10:00	33.14	26.12	0	0	59.12	65.19	36.95
	11/02/2025 11:00	30.83	27.83	0	0	57.75	61.51	42.49
	11/02/2025 12:00	35.43	29.43	0	0	55.01	69.91	52.97
	11/02/2025 13:00	34.02	27.98	0	0	59.19	65.17	49.93
Hourly Limit Values	TA Luft	-	-	200	350	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
	24 Hours Average	32.67	28.15	0	0	69.77	72.11	43.67
Daily Limit Values	TA Luft	50	-	-	125			
	EU	50	-	-	125			
	WHO Ambient Air Quality Guideline Value	45	15	25	40			



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Measurement Results for Location 3

Device Code: 222								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
AQ3	10/02/2025 17:00	32.25	25.95	0	0	60.15	67.94	54.81
	10/02/2025 18:00	35.76	26.84	0	0	65.89	72.83	45.81
	10/02/2025 19:00	30.28	20.12	0	0	63.29	75.89	36.96
	10/02/2025 20:00	32.89	22.69	0	0	65.31	77.97	56.37
	10/02/2025 21:00	35.87	25.27	0	0	60.42	79.65	65.04
	10/02/2025 22:00	31.95	27.75	0	0	63.23	80.74	68.02
	10/02/2025 23:00	30.44	26.29	0	0	70.45	82.65	59.01
	11/02/2025 0:00	34.11	28.83	0	0	68.27	80.79	64.33
	11/02/2025 1:00	35.99	30.72	0	0	69.25	85.48	57.27
	11/02/2025 2:00	35.87	28.62	0	0	75.83	83.56	49.41
	11/02/2025 3:00	31.43	30.11	0	0	79.41	80.27	54.41
	11/02/2025 4:00	30.88	28.61	0	0	80.99	78.21	65.35
	11/02/2025 5:00	34.05	30.26	0	0	74.03	75.56	62.33
	11/02/2025 6:00	31.37	26.14	0	0	78.16	76.37	60.29
	11/02/2025 7:00	30.02	25.85	0	0	79.64	72.72	56.34
	11/02/2025 8:00	34.82	23.64	0	0	73.35	76.98	62.08
	11/02/2025 9:00	32.41	29.27	0	0	71.01	80.32	60.28
	11/02/2025 10:00	34.64	23.56	0	0	76.29	65.64	56.25
	11/02/2025 11:00	35.54	25.52	0	0	74.82	67.73	48.21
	11/02/2025 12:00	33.98	25.99	0	0	77.23	70.39	60.72
	11/02/2025 13:00	30.87	26.51	0	0	70.04	84.44	58.06
	11/02/2025 14:00	31.99	24.77	0	0	68.04	86.22	60.85
	11/02/2025 15:00	30.88	23.53	0	0	67.44	75.36	62.64
	11/02/2025 16:00	35.32	30.32	0	0	69.04	72.99	65.59
Hourly Limit Values	TA Luft	-	-	200	350	-	-	-
	EU	-	-	200	350	-	-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-	-	-	-
	24 Hours Average	33.07	26.54	0.00	0.00	70.90	77.11	57.93
Daily Limit Values	TA Luft	50	-	-	-	-	-	-
	EU	50	-	-	-	-	-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40	-	-	-



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Measurement Results for Location 8

Device Code: 224								
Location	Sampling Date	Results (µg/m³)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
Nr.area 12	12/02/2025 10:00:00	35.96	26.65	00.00	0.00	73.54	60.65	42.69
	12/02/2025 11:00:00	32.19	27.54	0.00	00.0	71.99	65.69	55.98
	12/02/2025 12:00:00	30.12	26.99	00.00	0.00	80.01	63.58	60.69
	12/02/2025 13:00:00	31.52	23.89	0.00	0.00	65.65	66.96	55.98
	12/02/2025 14:00:00	34.15	25.99	0.00	0.00	63.36	70.69	48.58
	12/02/2025 15:00:00	32.98	27.59	0.00	0.00	60.12	72.51	56.69
	12/02/2025 16:00:00	30.25	25.41	0.00	0.00	59.25	70.56	60.06
	12/02/2025 17:00:00	33.22	28.21	0.00	0.00	70.65	69.69	59.65
	12/02/2025 18:00:00	35.15	30.54	0.00	0.00	75.89	65.89	68.98
	12/02/2025 19:00:00	32.54	29.65	0.00	0.00	79.19	75.00	57.85
	12/02/2025 20:00:00	31.28	25.89	0.00	0.00	65.15	73.46	66.96
	12/02/2025 21:00:00	30.85	25.12	0.00	0.00	73.16	65.58	70.89
	12/02/2025 22:00:00	32.41	29.54	0.00	0.00	80.32	67.41	68.36
	12/02/2025 23:00:00	33.15	30.11	0.00	0.00	78.49	76.15	55.05
	13/02/2025 00:00:00	34.52	28.21	0.00	0.00	74.10	69.65	68.65
	13/02/2025 01:00:00	35.69	29.01	0.00	0.00	73.15	75.87	59.15
	13/02/2025 02:00:00	33.36	26.47	0.00	0.00	67.36	73.05	66.30
	13/02/2025 03:00:00	30.96	23.21	0.00	0.00	63.15	68.96	75.15
	13/02/2025 04:00:00	33.85	25.65	0.00	0.00	75.65	61.26	65.30
	13/02/2025 05:00:00	31.58	26.02	0.00	0.00	72.54	65.66	58.06
	13/02/2025 06:00:00	34.65	27.52	0.00	0.00	70.25	73.89	69.35
	13/02/2025 07:00:00	35.25	29.15	0.00	0.00	69.60	79.65	58.09
	13/02/2025 08:00:00	31.54	26.21	0.00	0.00	73.69	76.89	60.87
	13/02/2025 09:00:00	30.45	27.25	0.00	0.00	75.89	71.09	52.89
Hourly Limit Values	TA Luft	-	-	200	350		-	-
	EU	-	-	200	350		-	-
	WHO Ambient Air Quality Guideline Value							
Average	24 hours Average	32.82	27.16			71.34	69.99	60.93
Daily Limit Values	TA Luft							
	EU							
	WHO Ambient Air Quality Guideline Value							



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Measurement Results for Location 9

Device Code: 224								
Location	Sampling Date	Results ($\mu\text{g}/\text{m}^3$)					Ambient Conditions	
		PM ₁₀	PM _{2.5}	NO ₂	SO ₂	TSP (24 Hours Average)	Humidity (%)	Temperature (°C)
Batching Plant	13/02/2025 10:00:00	35.41	30.35	0.00	0.00	69.89	67.15	52.69
	13/02/2025 11:00:00	33.56	28.08	0.00	0.00	72.85	76.89	64.58
	13/02/2025 12:00:00	30.41	25.25	0.00	0.00	70.58	69.59	58.50
	13/02/2025 13:00:00	32.45	27.65	0.00	0.00	67.69	68.59	66.59
	13/02/2025 14:00:00	30.41	26.45	0.00	0.00	65.25	70.89	75.60
	13/02/2025 15:00:00	31.52	26.87	0.00	0.00	70.78	65.58	60.10
	13/02/2025 16:00:00	30.41	27.85	0.00	0.00	69.25	69.85	69.63
	13/02/2025 17:00:00	31.15	25.05	0.00	0.00	72.29	72.89	70.56
	13/02/2025 18:00:00	34.15	29.57	0.00	0.00	78.65	75.58	66.56
	13/02/2025 19:00:00	33.52	25.25	0.00	0.00	75.25	73.96	58.88
	13/02/2025 20:00:00	35.14	27.98	0.00	0.00	73.89	75.58	69.45
	13/02/2025 21:00:00	31.44	26.45	0.00	0.00	71.57	73.58	56.20
	13/02/2025 22:00:00	33.15	28.59	0.00	0.00	70.56	72.65	75.45
	13/02/2025 23:00:00	35.19	29.68	0.00	0.00	73.85	75.69	59.45
	14/02/2025 00:00:00	32.41	28.85	0.00	0.00	65.45	68.48	66.65
	14/02/2025 01:00:00	30.25	25.41	0.00	0.00	68.52	65.25	67.62
	14/02/2025 02:00:00	31.98	25.25	0.00	0.00	70.29	74.02	79.20
	14/02/2025 03:00:00	33.12	23.56	0.00	0.00	69.89	70.36	65.32
	14/02/2025 04:00:00	35.52	27.85	0.00	0.00	79.45	75.21	76.56
	14/02/2025 05:00:00	31.89	25.77	0.00	0.00	75.56	76.23	60.99
	14/02/2025 06:00:00	34.58	29.25	0.00	0.00	73.45	75.20	68.77
	14/02/2025 07:00:00	32.45	30.45	0.00	0.00	69.06	72.12	55.58
	14/02/2025 08:00:00	30.15	25.69	0.00	0.00	71.58	73.52	70.89
	14/02/2025 09:00:00	34.25	30.25	0.00	0.00	75.15	74.78	64.55
Hourly Limit Values	TA Luft	-	-	200	350		-	-
	EU	-	-	200	350		-	-
	WHO Ambient Air Quality Guideline Value	-	-	-	-		-	-
Average	24 hours Average	32.69	27.39	0	0	71.70	72.24	65.85
Daily Limit Values	TA Luft	50	-	-	125	-	-	-
	EU	50	-	-	125	-	-	-
	WHO Ambient Air Quality Guideline Value	45	15	25	40	-	-	-



Ambient Noise Level

Table 2: Noise measurement records in (dBA), 18-19 January 2025 Thilafushi

NQ1		NQ2		NQ3		NQ4		NQ5	
Date and time)	dB(A	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)
1/18/2025 13:56	62.6	1/18/2025 13:58	63.3	1/18/2025 13:55	63.2	1/18/2025 13:56	58.7	1/18/2025 13:57	53.4
1/18/2025 14:56	62.0	1/18/2025 14:58	59.6	1/18/2025 14:55	59.2	1/18/2025 14:56	60.9	1/18/2025 14:57	53.5
1/18/2025 15:56	60.2	1/18/2025 15:57	60.2	1/18/2025 15:55	57.5	1/18/2025 15:56	56.1	1/18/2025 15:57	52.8
1/18/2025 16:56	62.1	1/18/2025 16:57	57.8	1/18/2025 16:54	55.7	1/18/2025 16:55	57.4	1/18/2025 16:57	48.9
1/18/2025 17:55	60.3	1/18/2025 17:57	58.0	1/18/2025 17:54	59.6	1/18/2025 17:55	56.9	1/18/2025 17:56	52.0
1/18/2025 18:55	58.9	1/18/2025 18:57	55.1	1/18/2025 18:54	57.8	1/18/2025 18:55	56.6	1/18/2025 18:56	49.0
1/18/2025 19:55	56.5	1/18/2025 19:56	55.2	1/18/2025 19:54	59.5	1/18/2025 19:55	50.4	1/18/2025 19:56	48.5
1/18/2025 20:55	55.6	1/18/2025 20:56	54.8	1/18/2025 20:59	59.2	1/18/2025 20:54	48.1	1/18/2025 20:56	49.7
1/18/2025 21:55	57.4	1/18/2025 21:56	51.8	1/18/2025 21:59	58.8	1/18/2025 21:54	45.8	1/18/2025 21:55	47.7
1/18/2025 22:54	54.4	1/18/2025 22:56	51.3	1/18/2025 22:59	58.8	1/18/2025 22:54	46.6	1/18/2025 22:55	44.9
1/18/2025 23:54	52.2	1/18/2025 23:55	50.4	1/18/2025 23:59	59.2	1/18/2025 23:54	44.9	1/18/2025 23:55	47.4
1/19/2025 0:54	53.1	1/19/2025 0:55	50.5	1/19/2025 0:58	58.8	1/19/2025 0:59	45.9	1/19/2025 0:55	45.6
1/19/2025 1:54	52.3	1/19/2025 1:55	49.3	1/19/2025 1:58	58.7	1/19/2025 1:59	46.1	1/19/2025 1:54	45.5
1/19/2025 2:59	53.1	1/19/2025 2:55	40.3	1/19/2025 2:58	58.7	1/19/2025 2:59	46.8	1/19/2025 2:54	42.9
1/19/2025 3:59	53.3	1/19/2025 3:54	40.8	1/19/2025 3:58	58.7	1/19/2025 3:59	46.7	1/19/2025 3:54	44.3
1/19/2025 4:59	52.2	1/19/2025 4:54	51.7	1/19/2025 4:57	58.9	1/19/2025 4:58	47.4	1/19/2025 4:54	47.1
1/19/2025 5:59	54.0	1/19/2025 5:54	48.1	1/19/2025 5:57	58.9	1/19/2025 5:58	49.5	1/19/2025 5:59	44.2
1/19/2025 6:59	51.4	1/19/2025 6:54	48.1	1/19/2025 6:57	59.2	1/19/2025 6:58	49.2	1/19/2025 6:59	43.3
1/19/2025 7:58	58.1	1/19/2025 7:59	53.2	1/19/2025 7:57	57.6	1/19/2025 7:58	51.0	1/19/2025 7:59	49.5
1/19/2025 8:58	60.7	1/19/2025 8:59	58.3	1/19/2025 8:56	60.7	1/19/2025 8:57	56.0	1/19/2025 8:59	51.4
1/19/2025 9:58	61.0	1/19/2025 9:59	59.2	1/19/2025 9:56	58.9	1/19/2025 9:57	59.7	1/19/2025 9:58	51.5
1/19/2025 10:58	60.3	1/19/2025 10:59	59.5	1/19/2025 10:56	60.7	1/19/2025 10:57	59.8	1/19/2025 10:58	52.1
1/19/2025 11:57	59.5	1/19/2025 11:58	58.0	1/19/2025 11:56	59.6	1/19/2025 11:57	54.0	1/19/2025 11:58	52.3
1/19/2025 12:57	57.1	1/19/2025 12:58	54.3	1/19/2025 12:49	56.2	1/19/2025 12:56	50.3	1/19/2025 12:40	51.2
Average dB(A)	59.6		53.7		58.9		51.9		48.7
Daytime	53.8		57.1		59.0		55.5		50.7
Night time	57.1		48.9		58.9		46.8		45.9
WHO guideline for ambient noise level		70							

Table 2: Noise measurement records in (dBA), 24-25 February 2025 Thilafushi

NQ1		NQ2		NQ3		NQ4		NQ5	
Date and time)	dB(A)	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)
2/24/2025 13:54	62.6	2/24/2025 13:56	63.0	2/24/2025 13:57	64.8	2/24/2025 13:54	63.1	2/24/2025 13:55	57.0
2/24/2025 14:54	64.2	2/24/2025 14:56	58.9	2/24/2025 14:57	72.3	2/24/2025 14:59	56.4	2/24/2025 14:55	47.9
2/24/2025 15:54	62.2	2/24/2025 15:55	56.5	2/24/2025 15:57	72.0	2/24/2025 15:59	57.8	2/24/2025 15:55	45.1
2/24/2025 16:59	61.8	2/24/2025 16:55	53.8	2/24/2025 16:57	72.7	2/24/2025 16:59	58.5	2/24/2025 16:54	49.9
2/24/2025 17:59	61.6	2/24/2025 17:55	54.6	2/24/2025 17:56	73.1	2/24/2025 17:59	62.8	2/24/2025 17:54	48.6
2/24/2025 18:59	61.2	2/24/2025 18:55	53.7	2/24/2025 18:56	72.8	2/24/2025 18:58	54.0	2/24/2025 18:54	47.2
2/24/2025 19:58	59.4	2/24/2025 19:54	52.5	2/24/2025 19:56	71.7	2/24/2025 19:58	48.4	2/24/2025 19:59	46.3
2/24/2025 20:58	59.0	2/24/2025 20:54	51.4	2/24/2025 20:56	72.4	2/24/2025 20:58	45.6	2/24/2025 20:59	45.0
2/24/2025 21:58	57.2	2/24/2025 21:54	52.1	2/24/2025 21:55	71.2	2/24/2025 21:58	48.6	2/24/2025 21:59	45.7
2/24/2025 22:58	55.1	2/24/2025 22:54	51.0	2/24/2025 22:55	58.1	2/24/2025 22:57	48.5	2/24/2025 22:59	45.9
2/24/2025 23:57	55.1	2/24/2025 23:59	53.2	2/24/2025 23:55	57.7	2/24/2025 23:57	48.0	2/24/2025 23:58	43.3
2/25/2025 0:57	53.0	2/25/2025 0:59	47.3	2/25/2025 0:55	57.1	2/25/2025 0:57	44.3	2/25/2025 0:58	41.3
2/25/2025 1:57	52.3	2/25/2025 1:59	40.7	2/25/2025 1:54	57.1	2/25/2025 1:57	43.1	2/25/2025 1:58	39.8
2/25/2025 2:57	51.3	2/25/2025 2:59	42.2	2/25/2025 2:54	57.2	2/25/2025 2:56	42.9	2/25/2025 2:58	39.2
2/25/2025 3:56	51.3	2/25/2025 3:58	44.6	2/25/2025 3:54	57.2	2/25/2025 3:56	43.5	2/25/2025 3:57	38.5
2/25/2025 4:56	51.4	2/25/2025 4:58	51.8	2/25/2025 4:54	57.3	2/25/2025 4:56	42.2	2/25/2025 4:57	39.9
2/25/2025 5:56	51.9	2/25/2025 5:58	51.8	2/25/2025 5:59	57.9	2/25/2025 5:56	46.6	2/25/2025 5:57	41.1
2/25/2025 6:56	50.9	2/25/2025 6:57	50.9	2/25/2025 6:59	61.6	2/25/2025 6:55	44.1	2/25/2025 6:57	48.1
2/25/2025 7:55	56.6	2/25/2025 7:57	53.8	2/25/2025 7:59	76.4	2/25/2025 7:55	46.5	2/25/2025 7:56	50.1
2/25/2025 8:55	60.7	2/25/2025 8:57	53.8	2/25/2025 8:59	75.8	2/25/2025 8:55	56.2	2/25/2025 8:56	46.2
2/25/2025 9:55	58.6	2/25/2025 9:57	61.6	2/25/2025 9:58	75.9	2/25/2025 9:55	58.9	2/25/2025 9:56	47.7
2/25/2025 10:55	60.8	2/25/2025 10:56	54.5	2/25/2025 10:58	75.8	2/25/2025 10:54	49.9	2/25/2025 10:56	48.1
2/25/2025 11:54	62.2	2/25/2025 11:56	55.2	2/25/2025 11:58	75.7	2/25/2025 11:54	56.5	2/25/2025 11:55	47.7
2/25/2025 12:36	59.0	2/25/2025 12:38	52.6	2/25/2025 12:58	75.5	2/25/2025 12:48	52.3	2/25/2025 12:55	47.6
Average dB(A)	57.5		52.6		67.5		50.8		45.7
Daytime	60.1		55.4		72.6		54.7		48.4
Night time	53.8		48.6		60.3		45.3		42.0
WHO guideline for ambient noise level		70							

Table 2: Noise measurement records in (dBA), 23-24 March 2025 Thilafushi

NQ1		NQ2		NQ3		NQ4		NQ5	
Date and time)	dB(A)	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)	Date/time	dB(A)
3/23/2025 22:58	66.6	3/23/2025 22:59	60.1	3/23/2025 22:54	81.0	3/23/2025 22:57	48.3	3/23/2025 22:56	47.2
3/23/2025 23:58	59.5	3/23/2025 23:59	51.3	3/23/2025 23:54	83.4	3/23/2025 23:57	44.9	3/23/2025 23:56	45.2
3/24/2025 0:57	57.2	3/24/2025 0:58	51.4	3/24/2025 0:59	83.4	3/24/2025 0:57	44.3	3/24/2025 0:56	48.7
3/24/2025 1:57	57.1	3/24/2025 1:58	49.7	3/24/2025 1:59	83.3	3/24/2025 1:57	44.6	3/24/2025 1:56	47.8
3/24/2025 2:57	57.1	3/24/2025 2:58	48.7	3/24/2025 2:59	83.5	3/24/2025 2:56	45.0	3/24/2025 2:55	52.0
3/24/2025 3:57	57.0	3/24/2025 3:58	57.4	3/24/2025 3:59	61.1	3/24/2025 3:56	44.8	3/24/2025 3:55	46.1
3/24/2025 4:56	56.9	3/24/2025 4:57	55.8	3/24/2025 4:58	54.4	3/24/2025 4:56	43.3	3/24/2025 4:55	44.7
3/24/2025 5:56	55.7	3/24/2025 5:57	52.9	3/24/2025 5:58	54.5	3/24/2025 5:56	43.5	3/24/2025 5:54	42.0
3/24/2025 6:56	51.6	3/24/2025 6:57	45.3	3/24/2025 6:58	54.4	3/24/2025 6:55	52.6	3/24/2025 6:54	42.3
3/24/2025 7:56	58.8	3/24/2025 7:57	51.4	3/24/2025 7:58	53.8	3/24/2025 7:55	45.9	3/24/2025 7:54	44.4
3/24/2025 8:55	57.7	3/24/2025 8:56	55.0	3/24/2025 8:57	59.7	3/24/2025 8:55	59.2	3/24/2025 8:54	42.9
3/24/2025 9:55	61.2	3/24/2025 9:56	59.7	3/24/2025 9:57	64.2	3/24/2025 9:55	59.7	3/24/2025 9:59	43.6
3/24/2025 10:55	62.9	3/24/2025 10:56	54.1	3/24/2025 10:57	64.0	3/24/2025 10:54	66.2	3/24/2025 10:59	45.1
3/24/2025 11:55	63.0	3/24/2025 11:56	61.2	3/24/2025 11:57	66.2	3/24/2025 11:54	62.9	3/24/2025 11:59	51.4
3/24/2025 12:54	60.6	3/24/2025 12:55	54.1	3/24/2025 12:56	65.5	3/24/2025 12:54	53.2	3/24/2025 12:59	47.4
3/24/2025 13:54	60.5	3/24/2025 13:55	59.2	3/24/2025 13:56	64.6	3/24/2025 13:59	64.5	3/24/2025 13:58	48.4
3/24/2025 14:54	62.4	3/24/2025 14:55	55.4	3/24/2025 14:56	66.6	3/24/2025 14:59	58.2	3/24/2025 14:58	47.7
3/24/2025 15:59	64.9	3/24/2025 15:55	56.4	3/24/2025 15:56	67.2	3/24/2025 15:59	60.1	3/24/2025 15:58	46.3
3/24/2025 16:59	60.9	3/24/2025 16:54	57.5	3/24/2025 16:55	65.5	3/24/2025 16:59	61.4	3/24/2025 16:58	42.5
3/24/2025 17:59	37.3	3/24/2025 17:54	41.9	3/24/2025 17:55	64.6	3/24/2025 17:58	45.4	3/24/2025 17:57	44.4
3/24/2025 18:59	37.5	3/24/2025 18:54	38.8	3/24/2025 18:55	64.7	3/24/2025 18:58	41.9	3/24/2025 18:57	42.3
3/24/2025 19:58	41.5	3/24/2025 19:54	45.4	3/24/2025 19:55	64.5	3/24/2025 19:58	47.6	3/24/2025 19:57	43.7
3/24/2025 20:58	32.6	3/24/2025 20:59	35.3	3/24/2025 20:54	82.8	3/24/2025 20:58	35.9	3/24/2025 20:57	48.5
3/24/2025 21:22	33.7	3/24/2025 21:23	34.3	3/24/2025 21:24	86.2	3/24/2025 21:22	49.2	3/24/2025 21:26	51.8
Average dB(A)	54.8		51.3		68.3		50.9		46.1
Daytime	54.4		51.8		65.3		54.4		45.6
Night time	55.2		50.7		72.5		46.1		46.8
WHO guideline for ambient noise level		70							

Water Quality De watering & Drinking Water



TEST REPORT



Report No: (7425)008-0196

Code Name: AAJV-WS

Jan 11, 2025

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Customer: Alke Alkatas Joint Venture (Pvt) Ltd
Address : H.H. Moomiyaage, 5A, Asaree Hingun. 20265 Male Republic of Maldives
Date of Sample Received: Jan 07, 2025
Date of Testing Started: Jan 07, 2025
Date of Testing Completed: Jan 10, 2025
Sample Description: **Sample Received as:**
A water sample contained in sealed plastic bottle
Sample Identified by the Client as:
Sample 01: Dewatering Water

Date of Sample Collection: 05.01.2025

Sample Drawn By BVCPS NO

**Bureau Veritas Consumer
Products Services Lanka (Pvt)
Ltd.**

No. 570, Galle Road, Katubedda, Moratuwa, Sri Lanka
Tel: (9411) 2350111-115 (dedicated lines), Fax: (9411)
112622198 & 199
Email: bvcps.lanka@lk.bureauveritas.com

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TEST REPORT



Report No: (7425)008-0196

Code Name: AAJV-WS

Jan 11, 2025

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TEST RESULTS

Sample 01

No.	Parameters	Results	Reference range **	LOQ	Unit	Test Method
1	Turbidity	0.48	Max 5	0.1 NTU	NTU	APHA 24 th ed: 2023:2130 B
2	Nitrate (as NO ₃) [*]	2.31	Max 15	0.1 mg/l	mg/L	APHA 24 th ed: 2023: 4500 -NO ₃ -B
3	Hydrogen Sulphide [*]	0.2	Max 0.5	0.01 mg/l	mg/L	APHA 24 th ed: 2023- 4500 S2- F
4	Total Dissolved Solids	15842	-	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540C
5	Ammonical Nitrogen (as N) [*]	ND	Max 10	0.1 mg/l	mg/L	APHA 24 th ed: 2023- 4500-NH3 B&D
6	Total Suspended Solids (TSS)	5	Max 50	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540D
7	Dissolved oxygen	6.8	6.5-8.0	0.2 mg/l	mg/L	APHA 24 th ed: 2023: 4500 – O C
8	Fecal Coliform	ND	Max 100	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
9	pH at 25°C	7.54	6.5-8.5	-	-	APHA 24 th ed: 2023: 4500H+B
10	Electrical Conductivity at 25°C	38765	35,000-60,000	1µS/cm	mS/cm	APHA 24 th ed: 2023: 2510 B
11	Phosphate	0.16	Max 2	0.01 mg/l	mg/L	APHA 24 th ed: 2023: 4500-P C
12	Oil & Grease	ND	Max 5	1.0 mg/l	mg/L	APHA 24 th ed: 2023:5520B
13	Salinity [*]	3.9	3.2-4.2%	0.001 %	‰	Salinity-Refractometer
14	^s Temperature [*]	22.4	18-32	-	°C	APHA 24 th ed: 2023:2550B

*Test not covered ISO 17025: 2017 by Sri Lanka Accreditation Board for conformity assessment.

^s- This parameter is not measured at the sampling site, So the deviation from the reference range is not applicable for overall comment of sample

****Requirements according to the customer specification.**

NOTE:

APHA: American Public Health Association,

SLS: Sri Lanka Standard,

ND: Not Detected,

NTU: Nephelometric Turbidity Units,

µS/cm: micro Siemens per centimeter

LOQ: Limit of Quantification,

mg/L: milligrams per liter, °C :Celsius,

MPN / 100mL- Most Probable Number per hundred milliliter

COMMENT: The Testing Results revealed that Food hygiene of Tested Water Sample is satisfactory as per the Reference range **According to client Specifications

TEST REPORT



Report No: (7425)066-0545

Mar 12, 2025

Code Name: AAJV-WS

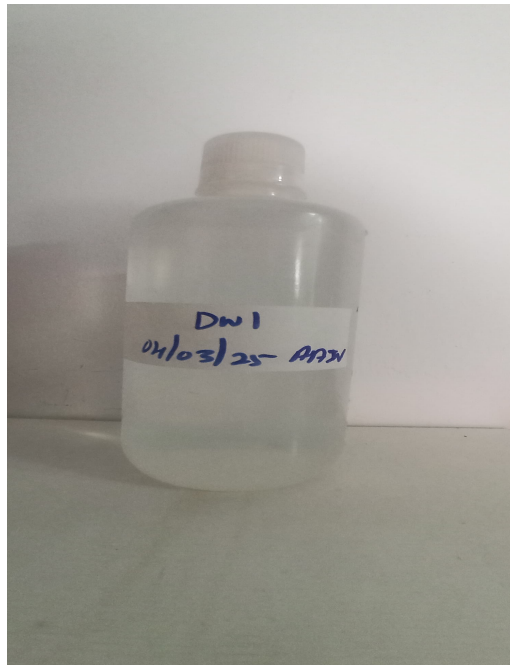
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Customer: Alke Alkatas Joint Venture (Pvt) Ltd
Address : H.H. Moomiyaage, 5A, Asaree Hingun. 20265 Male Republic of Maldives
Date of Sample Received: Mar 07, 2025
Date of Testing Started: Mar 07, 2025
Date of Testing Completed: Mar 12, 2025
Sample Description: **Sample Received as:**
A water sample contained in sealed plastic bottle
Sample Identified by the Client as:
Sample 02: DW 01

Date of Sample Collection: 03/04/2025

Sample Drawn By BVCPS NO

Photo of the Submitted Sample



TEST REPORT



Report No: (7425)066-0545

Code Name: AAJV-WS

Mar 12, 2025

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TEST RESULTS

Sample 02

No.	Parameters	Results	Reference range **	LOQ	Unit	Test Method
1	Turbidity	0.25	Max. 1	0.1 NTU	NTU	APHA 23rd ed: 2017 :2130 B
2	Total Dissolved Solids	48	Max. 500	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540C
3	Nitrate (as NO ₃ ⁻)*	2.1	Max. 50	0.1 mg/l	mg/L	APHA 24 th ed: 2023: 4500 -NO ₃ - B
4	Ammonical Nitrogen (as N)*	ND	Max 0.5	0.1 mg/l	mg/L	APHA 24 th ed: 2023- 4500-NH ₃ B&D
5	Iron (as Fe)	ND	Max. 0.3	0.005 mg/l	mg/L	APHA 24 th ed: 2023: 3125 B
6	^s Free Chlorine *	ND	0.04-0.2	0.01 mg/l	mg/L	APHA 24 th ed: 2023 4500-Cl G
7	Fecal Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
8	Total Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
9	Appearance*	Clear	Clear	-	-	Visual Observation
10	pH at 25°C	6.51	6.5 – 8.5	-	-	APHA 24 th ed: 2023: 4500H+B
11	Electrical Conductivity at 25°C	53	Max. 1000	1µS/cm	µS/cm	APHA 24 th ed: 2023: 2510 B
12	Chloride (as Cl ⁻)	51.4	Max. 200	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 4500-Cl- B
13	<i>Escherichia coli</i>	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013

*Test not covered ISO 17025: 2017 by Sri Lanka Accreditation Board for conformity assessment.

^s- This parameter is not measured at the sampling site, So the deviation from the reference range is not applicable for overall comment of sample

Reference range **as per Supply Water Quality Standard, Environment Protection Agency, Maldives

NOTE:

APHA: American Public Health Association,

SLS: Sri Lanka Standard,

ND: Not Detected,

µS/cm: micro Siemens per centimeter

LOQ: Limit of Quantification,

mg/L: milligrams per liter,

NTU: Nephelometric Turbidity Units, °C :Celsius,

MPN / 100mL- Most Probable Number per hundred milliliter,

COMMENT: The Testing Results revealed that Food hygiene of Tested Water Sample is satisfactory as per the Reference range **specified as per Supply Water Quality Standard, Environment Protection Agency EPA, Maldives.

TEST REPORT



Report No: (7425)066-0545
Code Name: AAJV-WS

Mar 12, 2025

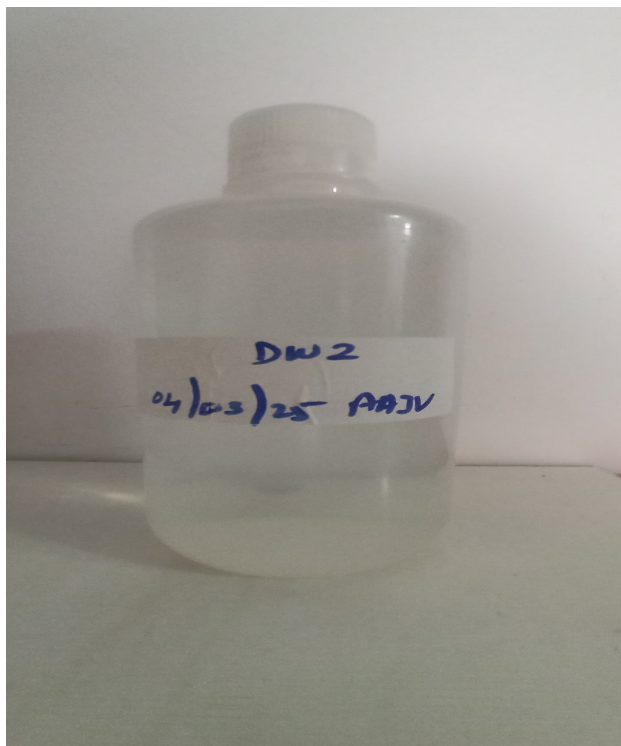
Page 5 of 16

Customer: Alke Alkatas Joint Venture (Pvt) Ltd
Address : H.H. Moomiyaage, 5A, Asaree Hingun. 20265 Male Republic of Maldives
Date of Sample Received: Mar 07, 2025
Date of Testing Started: Mar 07, 2025
Date of Testing Completed: Mar 12, 2025
Sample Description: **Sample Received as:**
A water sample contained in sealed plastic bottle
Sample Identified by the Client as:
Sample 03: DW 02

Date of Sample Collection: 03/04/2025

Sample Drawn By BVCPS NO

Photo of the Submitted Sample



TEST REPORT



Report No: (7425)066-0545

Code Name: AAJV-WS

Mar 12, 2025

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TEST RESULTS

Sample 03

No.	Parameters	Results	Reference range **	LOQ	Unit	Test Method
1	Turbidity	0.50	Max. 1	0.1 NTU	NTU	APHA 23rd ed: 2017 :2130 B
2	Total Dissolved Solids	115	Max. 500	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540C
3	Nitrate (as NO ₃ ⁻)*	0.91	Max. 50	0.1 mg/l	mg/L	APHA 24th ed: 2023: 4500 -NO ₃ - B
4	Ammonical Nitrogen (as N)*	ND	Max 0.5	0.1 mg/l	mg/L	APHA 24 th ed: 2023- 4500-NH ₃ B&D
5	Iron (as Fe)	ND	Max. 0.3	0.005 mg/l	mg/L	APHA 24th ed: 2023: 3125 B
6	^s Free Chlorine *	ND	0.04-0.2	0.01 mg/l	mg/L	APHA 24th ed: 2023 4500-Cl G
7	Fecal Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
8	Total Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
9	Appearance*	Clear	Clear	-	-	Visual Observation
10	pH at 25°C	6.78	6.5 – 8.5	-	-	APHA 24th ed: 2023: 4500H+B
11	Electrical Conductivity at 25°C	26.41	Max. 1000	1µS/cm	µS/cm	APHA 24th ed: 2023: 2510 B
12	Chloride (as Cl ⁻)	2.1	Max. 200	1.0 mg/l	mg/L	APHA 24th ed: 2023: 4500-Cl- B
13	<i>Escherichia coli</i>	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013

*Test not covered ISO 17025: 2017 by Sri Lanka Accreditation Board for conformity assessment.

^s- This parameter is not measured at the sampling site, So the deviation from the reference range is not applicable for overall comment of sample

Reference range **as per Supply Water Quality Standard, Environment Protection Agency, Maldives

NOTE:

APHA: American Public Health Association,

SLS: Sri Lanka Standard,

ND: Not Detected,

µS/cm: micro Siemens per centimeter

LOQ: Limit of Quantification,

mg/L: milligrams per liter,

NTU: Nephelometric Turbidity Units, °C :Celsius,

MPN / 100mL- Most Probable Number per hundred milliliter,

COMMENT: The Testing Results revealed that Food hygiene of Tested Water Sample is satisfactory as per the Reference range **specified as per Supply Water Quality Standard, Environment Protection Agency EPA, Maldives.

TEST REPORT



Report No: (7425)066-0545

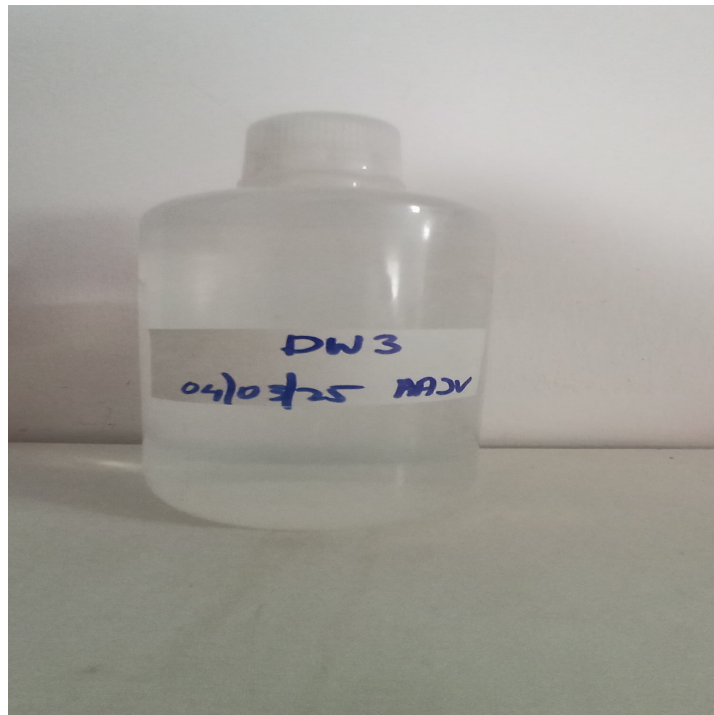
Code Name: AAJV-WS

Mar 12, 2025

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Customer: Alke Alkatas Joint Venture (Pvt) Ltd
Address : H.H. Moomiyaage, 5A, Asaree Hingun. 20265 Male Republic of Maldives
Date of Sample Received: Mar 07, 2025
Date of Testing Started: Mar 07, 2025
Date of Testing Completed: Mar 12, 2025
Sample Description: **Sample Received as:**
A water sample contained in sealed plastic bottle
Sample Identified by the Client as:
Sample 04: DW 03
Date of Sample Collection: 03/04/2025
Sample Drawn By BVCPS NO

Photo of the Submitted Sample



TEST REPORT



Report No: (7425)066-0545

Code Name: AAJV-WS

Mar 12, 2025

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TEST RESULTS

Sample 04

No.	Parameters	Results	Reference range **	LOQ	Unit	Test Method
1	Turbidity	0.10	Max. 1	0.1 NTU	NTU	APHA 23rd ed: 2017 :2130 B
2	Total Dissolved Solids	260	Max. 500	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540C
3	Nitrate (as NO ₃ ⁻)*	1.15	Max. 50	0.1 mg/l	mg/L	APHA 24 th ed: 2023: 4500 -NO ₃ - B
4	Ammonical Nitrogen (as N)*	ND	Max 0.5	0.1 mg/l	mg/L	APHA 24 th ed: 2023- 4500-NH ₃ B&D
5	Iron (as Fe)	ND	Max. 0.3	0.005 mg/l	mg/L	APHA 24 th ed: 2023: 3125 B
6	^s Free Chlorine *	ND	0.04-0.2	0.01 mg/l	mg/L	APHA 24 th ed: 2023 4500-Cl G
7	Fecal Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
8	Total Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
9	Appearance*	Clear	Clear	-	-	Visual Observation
10	pH at 25°C	6.91	6.5 – 8.5	-	-	APHA 24 th ed: 2023: 4500H+B
11	Electrical Conductivity at 25°C	32.9	Max. 1000	1µS/cm	µS/cm	APHA 24 th ed: 2023: 2510 B
12	Chloride (as Cl ⁻)	0.91	Max. 200	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 4500-Cl- B
13	<i>Escherichia coli</i>	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013

*Test not covered ISO 17025: 2017 by Sri Lanka Accreditation Board for conformity assessment.

^s- This parameter is not measured at the sampling site, So the deviation from the reference range is not applicable for overall comment of sample

Reference range **as per Supply Water Quality Standard, Environment Protection Agency, Maldives

NOTE:

APHA: American Public Health Association,

SLS: Sri Lanka Standard,

ND: Not Detected,

µS/cm: micro Siemens per centimeter

LOQ: Limit of Quantification,

mg/L: milligrams per liter,

NTU: Nephelometric Turbidity Units, °C :Celsius,

MPN / 100mL- Most Probable Number per hundred milliliter,

COMMENT: The Testing Results revealed that Food hygiene of Tested Water Sample is satisfactory as per the Reference range **specified as per Supply Water Quality Standard, Environment Protection Agency EPA, Maldives.

TEST REPORT



Report No: (7425)066-0545
Code Name: AAJV-WS

Mar 12, 2025

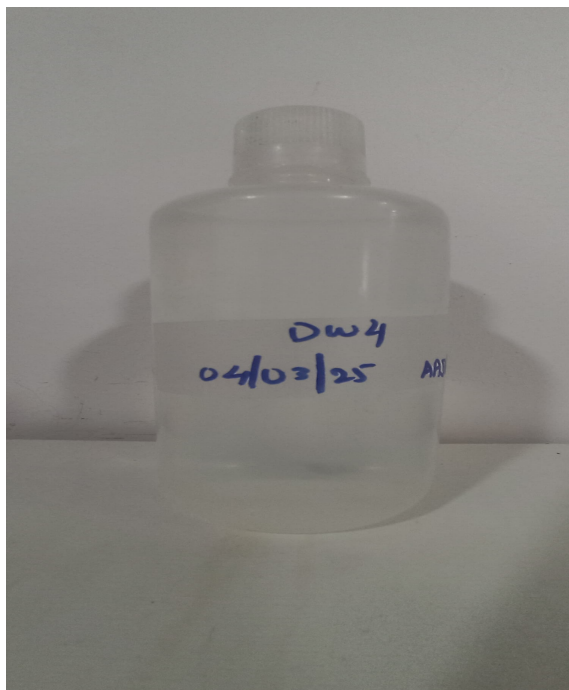
Page 9 of 16

Customer: Alke Alkatas Joint Venture (Pvt) Ltd
Address : H.H. Moomiyaage, 5A, Asaree Hingun. 20265 Male Republic of Maldives
Date of Sample Received: Mar 07, 2025
Date of Testing Started: Mar 07, 2025
Date of Testing Completed: Mar 12, 2025
Sample Description: **Sample Received as:**
A water sample contained in sealed plastic bottle
Sample Identified by the Client as:
Sample 05: DW 04

Date of Sample Collection: 03/04/2025

Sample Drawn By BVCPS NO

Photo of the Submitted Sample



TEST REPORT



Report No: (7425)066-0545

Code Name: AAJV-WS

Mar 12, 2025

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TEST RESULTS

Sample 05

No.	Parameters	Results	Reference range **	LOQ	Unit	Test Method
1	Turbidity	0.10	Max. 1	0.1 NTU	NTU	APHA 23rd ed: 2017 :2130 B
2	Total Dissolved Solids	95	Max. 500	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 2540C
3	Nitrate (as NO ₃ ⁻)*	1.12	Max. 50	0.1 mg/l	mg/L	APHA 24 th ed: 2023: 4500 -NO ₃ - B
4	Ammonical Nitrogen (as N)*	ND	Max 0.5	0.1 mg/l	mg/L	APHA 24 th ed: 2023- 4500-NH ₃ B&D
5	Iron (as Fe)	ND	Max. 0.3	0.005 mg/l	mg/L	APHA 24 th ed: 2023: 3125 B
6	^s Free Chlorine *	ND	0.04-0.2	0.01 mg/l	mg/L	APHA 24 th ed: 2023 4500-Cl G
7	Fecal Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
8	Total Coliform	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013
9	Appearance*	Clear	Clear	-	-	Visual Observation
10	pH at 25°C	6.91	6.5 – 8.5	-	-	APHA 24 th ed: 2023: 4500H+B
11	Electrical Conductivity at 25°C	31.9	Max. 1000	1µS/cm	µS/cm	APHA 24 th ed: 2023: 2510 B
12	Chloride (as Cl ⁻)	0.95	Max. 200	1.0 mg/l	mg/L	APHA 24 th ed: 2023: 4500-Cl- B
13	<i>Escherichia coli</i>	ND	0	-	MPN/100mL	SLS 1461:Part 1/Section 3:2013

*Test not covered ISO 17025: 2017 by Sri Lanka Accreditation Board for conformity assessment.

^s- This parameter is not measured at the sampling site, So the deviation from the reference range is not applicable for overall comment of sample

Reference range **as per Supply Water Quality Standard, Environment Protection Agency, Maldives

NOTE:

APHA: American Public Health Association,

SLS: Sri Lanka Standard,

ND: Not Detected,

µS/cm: micro Siemens per centimeter

LOQ: Limit of Quantification,

mg/L: milligrams per liter,

NTU: Nephelometric Turbidity Units, °C :Celsius,

MPN / 100mL- Most Probable Number per hundred milliliter,

COMMENT: The Testing Results revealed that Food hygiene of Tested Water Sample is satisfactory as per the Reference range **specified as per Supply Water Quality Standard, Environment Protection Agency EPA, Maldives.

Environmental Monitoring Report

PUBLIC

Project Number: 51077-003
Quarterly Report (January-March 2025)
April 2025

Maldives: Greater Male Waste-to-Energy Project

PART D: Appendices

Prepared by the Ministry of Tourism and Environment for the Ministry of Finance and Planning and the Asian Development Bank (ADB).

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Appendix 4: Other Site Photos (from Contractor)

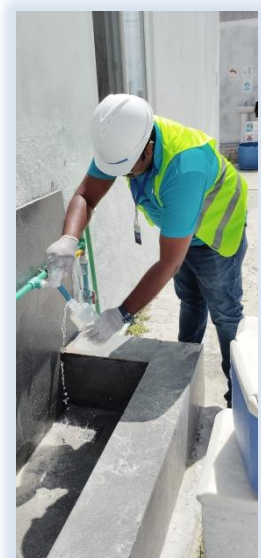
 ALKE ALKATAS <small>İNSAAT VE TAHHÜT A.Ş.</small>	ENVIRONMENTAL MONTHLY REPORT MARCH 2025	Document No	MDV-AAK-CEMPX-XX-RP-XXX-0007
		Rev. No / Date	31.03.2025
		Page No:	21/30

6 PICTURES OF SAMPLING FOR ENVIRONMENTAL MONITORING

6.1 NOISE MONITORING IN MAR 2025



6.2 WATER SAMPLING PHOTOS



STP Effluent Sampling

Drinking Water Sampling

**Camp and
Construction Water**

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		Rev. No / Date	31.03.2025
		Page No:	22/30

7 INTERNAL WEEKLY INSPECTIONS

7.1 CHEMICAL STORE INSPECTION



NEW BULK CHEMICAL STORE



 ALKE ALKATAS <small>İNSAAT VE TAHHÜT A.Ş.</small>	ENVIRONMENTAL MONTHLY REPORT MARCH 2025	Document No	MDV-AAK-CEMPX- XX-RP-XXX-0007
		Rev. No / Date	31.03.2025
		Page No:	23/30

7.2 SPILL KIT INSPECTION



7.3 EYE WASH & SHOWER



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		Rev. No / Date	31.03.2025
		Page No:	24/30

8. WASTE DISPOSAL AREA

