Greater Malé Environmental Improvement and Waste Management Project

Semi-Annual Environmental Monitoring Report November 2019 – April 2020

I. INTRODUCTION

A. OVERALL PROJECT DESCRIPTION AND OBJECTIVES

- 1. The objective of the project is to establish a sustainable solid waste management (SWM) system in the Greater Malé capital region and its inhabited outer islands by;
 - (i) Establishing a modern waste collection, transfer, and disposal system,
 - (ii) Improving community-based outer island waste management systems,
 - (iii) Building institutional capacity for sustainable services delivery, and
 - (iv) Raising public awareness in reduce, reuse, recycle (3R) behaviors.
- 2. Physical and non-physical investments are designed to curb climate change and disaster impacts while creating a cleaner environment in one of the world's lowest-lying nations.
- 3. The Greater Malé capital region and its outer islands (classified as Zone 3 in the National Solid Waste Management Policy and the most populated in the country), suffer from severe environmental pollution and deteriorating livability due to inadequate collection and haphazard disposal of solid waste. Open dumping and burning of garbage at the 30-year old 10-hectare dumpsite on Thilafushi Island (6 kilometers from Malé) creates a significant environmental and public health hazard. Plumes of smoke visible from the capital city Malé, the international airport, and surrounding resorts compromise air quality and pose a daily nuisance to residents and tourists, while toxic leachate contaminates soil and groundwater. Greater Malé and its inhabited outer islands lack an organized and sustainable waste management system for the 774 tons of mixed solid waste generated per day (tpd). With rapid urbanization and tourism development in the region, waste generation is expected to grow to 924 tpd by 2022 (footnote 4). The increasing pressure on an already-stressed waste management system poses a significant threat to tourism and fisheries, both of which rely heavily on the country's pristine environment and are cornerstones to the Maldives economy.5 Poor communities in outer islands suffer from accumulated garbage with limited awareness and capacity to effectively manage solid waste.
- 4. **Environmental category as per ADB Safeguard Policy Statement, 2009**. The project falls under category B
- 5. **Environmental category of each subproject as per national laws and regulations.** The project falls under category B. All approval has been granted.

B. PROJECT SAFEGUARDS TEAM

Name	Designation/Office	Email Address	Contact Number	Roles
PMU				
Mohamed Asif	Social and Environmental Safeguard Specialist	Mohamed.asif@environment.gov.mv	3019233	
Consultants				
Abdul Aleem	Environmental Safeguard Expert (PMDSC team)	amooo@water-solutions.biz	3301643	

C. OVERALL PROJECT AND SUB-PROJECT PROGRESS AND STATUS

- 6. Consultant recruitment is in progress.
- 7. Bid documents for various components being prepared
- 8. Table below provides description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

Package Number	Components/List of Works	Contract Status of Implementation Status (Preliminary Design/Detailed		If On Const	-going ruction
		(specify if under bidding or contract awarded)	Design/On-going Construction/Completed/O&M) ¹	%Physical Progress	Expected Completion Date
CW/01	Harbor rehab, waste processing, admin building, workshopand civil works (platform) for C&D plant, recycling yard, and ELV dismantling workshop.	Site handoIn survey o consultant.	rigned on 21st November 2019 over on 15th February 2020. If site completed by contract with ME chold due to COVID19 lockdown.	NA	April 2021
DBI/01	Two Transfer stations in Male, and Villimale,		d on 1 st June 2020. Waiting on n of proposals.	NA	NA
DBI/02	C&D waste processing plant (includes equipment)	C&D waste pro	ocessing plant bid announced on		
CW /0 3	Outer island waste management centers (32) Multiple lots.		. Waiting on submission of	NA	Na
G/01	Dumpsite equipment for immediate management measures on	Evaluation co signed.	ompleted and Contract to be	NA	Na

¹ If on-going construction, include %physical progress and expected date of completion

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	Thilafushi Island			
C/02	Public Awareness and Community Capacity Building consultant	Contract negotiation stage. To be signed.	NA	Na
DBO	Waste to Energy Facility in Thilafushi	Bidding documents issued to shortlisted firms. Waiting on proposals.	NA	Na

II. COMPLIANCE STATUS WITH NATIONAL/STATE/LOCAL STATUTORY **ENVIRONMENTAL REQUIREMENTS²**

Package No.	Subproject Name	Statutory Environmental Requirements ³	Status of Compliance ⁴	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish ⁵
CW/01	Harbor rehab, waste processing, admin building, workshopand civil works (platform) for C&D plant, recycling yard, and ELV dismantling workshop.					
DBI/01	Two Transfer stations in Male, Villamale, and (Civil Works Contract (SBD Plant-Design, build and install) Male and Vilimale (incl. 6 story admin in Male)	EIA required	Approved Decision Statements (DS) received for both Transfer Station EIAs.		All Statuary requirements will be obtained	
DBI/02	C&D waste processing plant (includes equipment)					
CW /0 3	Outer island waste management centers (32) Multiple lots.	EMP required for individual islands	EMP to be prepared before start of physical works.			
G/01	Dumpsite equipment for immediate					

² All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the "remarks" column.

³ Specify (environmental clearance? Permit/co nsent to establish? Forest clearance? Etc.)

Specify if obtained, submitted and awaiting approval, application not yet submitted
 Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 2 trees for every tree, etc.

	1			
	management			
	measures on			
	Thilafushi Island			
	Lot 1: Industrial			
	and mobile			
	waste shredder			
	Lot 2: Industrial			
	and mobile			
	rotating sieving machine			
	Lot 3: Bulldozer			
	Lot 4:			
	Excavators,			
	wheel I loader			
	and waste handler			
	Lot 5: Arm roll			
	trucks, tank truck,			
	containers			
G/02				
0.50	Collection and			
	transport equipment			
	(trucks, bins,			
	containers)			
	Lot 1:			
	Containers and			
	bins			
	Lot 2: RCVs (5 m ³ multi car, 16 m ³)			
	car, 16 m ³)			
	Lot 3: Hook lift			
	trucks and skip			
	loaders, trucks			
	with crane			
	Lot 4: Tipping			
	trucks (small			
0/04	for outer islands)			
G/04	Outer Island			
	transfer vessels			
G/05				
0,00	Procurement of			
	equipment for transfer and			
	transfer and transport of			
	waste (vehicles,			
	containers,			
	cranes , roll			
	packers,			
	conveyors) Lot			
	1: Mobile			
	crane/reach			
	stacker (Male) Lot 2: Mobile			
	conveyor			
	(Thilafushi) Lot			
<u></u>	(Timalusiii) Lut			

	3: Roll packers Lot 4: Wheel loaders Lot 5: Fork lift Lot 6: Arm roll /tipping trucks, containers Lot 7: Street sweepers Lot 8: Workshop equipment			
G/06	Outer island waste management centers equipment			
C/01	Project Management, Design and Construction Supervision Consultants			

III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required
Schedule 4 - 2 Environment	The Recipient, through MOFT and MEE, 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 Recipient relating to environment, health and safety; (b) the Environmental Safeguards; (c) the EARF, and (d) all measures and requirements set forth in the IEEs, the EMPs, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied	
Schedule 4 – 4 Human and Financial Resources to Implement Safeguards Requirements	The Recipient shall make available or cause MOFT to make available necessary budgetary and human resources to fully implement the EMPs	Being complied	
Schedule 4 – 5 Safeguards-Related Provisions in Bidding Documents and Works Contracts	A- comply with the measures relevant to the contractor set forth in the IEE and the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report; B- make available a budget for all such environmental measures; and C- provide the Recipient 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 the IEE and the EMP.	Will be complied	

Schedule 4 – 6 Safeguards Monitoring and Reporting	A- submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission:	This is the first report of 2020
	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 IEEs and the EMPs, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and	Will be complied as and when arises
	C- Report any actual or potential breach of compliance with the measures and requirements set forth in the EMPs promptly after becoming aware of the breach.	Will be complied
Schedule 4 – 7 Prohibited List of Investments	The Recipient, through MOFT and MEE, shall ensure that no proceeds of the Grant are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	Being complied
Schedule 4 – 8 Labor Standards, Health and Safety	F- disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.	Will be provided in all bid documents / contracts
Schedule 4 – 9	The Recipient, through MOFT and MEE, shall strictly monitor compliance with the requirements set forth in paragraph 8 above and provide-ADB with regular reports.	Will be complied
Schedule 4 – 10 Gender and Development	B- the bidding documents and contracts include relevant provisions for contractors to comply with the measures set forth in the GAP;	Will be provided in all bid documents / contracts
Schedule 4 – 10 Governance and Anticorruption	(a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project;	Will be complied

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN (REFER TO EMP TABLES IN APPROVED IEE/S)

 Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

Package-wise IEE Documentation Status

Package	F	inal IEE based or	n Detailed Desi	ign	Site-specific	Remarks
Number	Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)	EMP (or Construction EMP) approved by Project Director? (Yes/No)	
CW/01		March 2018	https://ww w.adb.org/ projects/do	YES	NO	CEMP being prepared

		cuments/m Id-51077- 002-iee-0		by contractor
DBI/01	March 2018	https://ww w.adb.org/ projects/do cuments/m Id-51077- 002-iee	NO	
DBI/02				
CW /0 3				
G/01				
G/02				
G/04				
G/05				
G/06	March 2018	https://ww w.adb.org/ projects/do cuments/m Id-51077- 002	NO	

• For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

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

Package Name	Contractor	Nodal Person	Email Address	Contact Number
CW/01	MTCC			
DBI/01	Contractors still to be appointed for all other packages			
DBI/02				
CW /0 3				
G/01				
G/02				
G/04				
G/05			_	
G/06				

• With reference to approved EMP/site-specific EMP/construction EMP, complete the table below

Summary of Environmental Monitoring Activities (for the Reporting Period)⁶

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring			
Design / Pre-Co			T = 1.	T	I . = 4h = -	1			
Air Quality	NA	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5} , O ₃ , CO ₂	On site	Harbor Rehab Site, Thilafushi	19 th Feb 2020	Mohamed Asif			
Water Quality	NA	BOD, TSS,TPH, Faecal Coliform, Metals (Pb, Cu, Cd, Hg, Cr)	Sample taken on site and tested from MWSC lab	Harbor Rehab Site, Thilafushi	19 th Feb 2020	Mohamed Asif			
Noise	NA	Noise L _{Aeq 1hr}	On site	Harbor Rehab Site, Thilafushi	19 th Feb 2020	Mohamed Asif			
Construction Pl	nase								
Not yet commend	ced								
Operational Pha	ise								
Not yet due		Not yet due							

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⁶ Attach Laboratory Results and Sampling Map/Locations

Overall Compliance with CEMP/ EMP

No.	Sub-Project Name	eMP/ CEM of Contr Docume (Y/N)	ract ents	CEMP/ EMP Being Implemented (Y/N)		Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required
	Harbor Rehab	CEMP prepared	being with	CEMP prepared	being with	NA	NA

V. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

- 9. For the CW/01 package: Harbor rehab, waste processing, admin building, workshop and civil works (platform) for C&D plant, recycling yard, and ELV dismantling workshop.
- 10. Compliance monitoring completed for this component. EPA and PMDCS Consultants (Water Solutions) assisted the PMU by providing monitoring equipment needed for this component.
- 11. Air quality, Water quality and Noise measurements were taken at the site on 19th February 2020. Air quality measurements were taken using handheld air quality monitoring devices (Aeroqual Series 500) and Water samples were taken from the site and tested at the MWSC laboratory. Noise measurements were taken for 3 sampling periods, each sampling period has a duration of about 30 minutes.
- 12. For Air quality monitoring, SO2, NO2, PM10, PM2.5, O3, and CO2 levels were measured. And for the Water quality testing, BOD, TSS, Faecal Coliform, Metals (Cu, Cr)

 TPH and Metals could not be tested at the time in Maldives.

VI. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)

- 13. The project site is just next to the existing waste dumpsite to the west and a scrap metal yard to the east.
- 14. The contractor of this sub project (Harbor Rehabilitation) is Maldives Transport and Contracting Company (MTCC). The project site was handed over on 15th February 2020 and the In survey of the site has now been completed. By the time this monitoring report was prepared, no construction works were commenced.
- 15. Maldives declared its first ever state of public health emergency, under Section 33 of the 7/2012 Public Health Act on over the COVID-19 pandemic from March 12 onwards for a period of 30 days. It was then extended twice, first on April 10 for 30 days, and then again till the end of

May. And on 28th May it was extended until June 29. And on April 15th authorities placed greater Male' region under lockdown. All works were kept on hold at the site since then.

- 16. The project site was cordoned off to prevent people from getting in. The areas for construction materials storage and stockpiles are not yet designated. The locations will be confirmed as soon as permission is obtained to resume works at site.
- 17. Compliance monitoring completed for this component. EPA and PMDCS Consultants (Water Solutions) assisted the PMU by providing monitoring equipment needed for this component.
- 18. Air quality, Water quality and Noise measurements were taken at the site on 19th February 2020. Air quality measurements were taken using handheld air quality monitoring devices (Aeroqual Series 500) and Water samples were taken from the site and tested at the MWSC laboratory. Noise measurements were taken for 3 sampling periods, each sampling period has a duration of about 60 minutes.
- 19. For Air quality monitoring, SO2, NO2, PM10, PM2.5, O3, and CO2 levels were measured. And for the Water quality testing, BOD, TSS, Faecal Coliform, Metals (Pb, Cu, Cd, Hg, Cr) TPH and some metals (Hg, Pd, Cd) could not be tested at the time in Maldives.

Air Quality Results

Site	Date of Testing	Site	Parameters						
No.		Location	PM10 mg/m3	SO2 mg/m3	NO2 mg/m3	PM2.5 mg/m3	O3 mg/m3	CO2 mg/m3	
1	19 th Feb 2020	project site	0.030	0.05	0.125	0.031	0.1	683	
2	19 th Feb 2020	thilafushi	0.042	0.04	0.112	0.044	0.1	738	

Water Quality Results

			Parameters							
Site No.	Date of Sampling	Site Location	Physical Appearance	Faecal Coliform	BOD mg/L	TSS mg/L	Cr mg/L	Cu mg/L		
1	23rd Feb 2020	project	Opaque and Black	>2420	34	1480	0.018	0.40		
2	23rd Feb 2020	site thilafushi	Opaque and Black	>2420	46	850	0.044	0.64		

Noise Quality Results

Site	Date of Testing	Site Location	LA _{eq} (dBA)			
No.	Date of Tooling	Ono Location	Day Time	Night Time		
1	19th Feb 2020	project site thilafushi	84.8	62		

VII. GRIEVANCE REDRESS MECHANISM

20. As Thilafushi is not a residential island, there are no schools, Island council offices or Island development committees. Hence, the second tier, as per the IEE, which is the PMU of ME is active and ready for reception of any grievances from the project.

VIII. COMPLAINTS RECEIVED DURING THE REPORTING PERIOD

21. Nil

IX. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

22. No environment safeguard issues during the reporting period

X. APPENDIXES

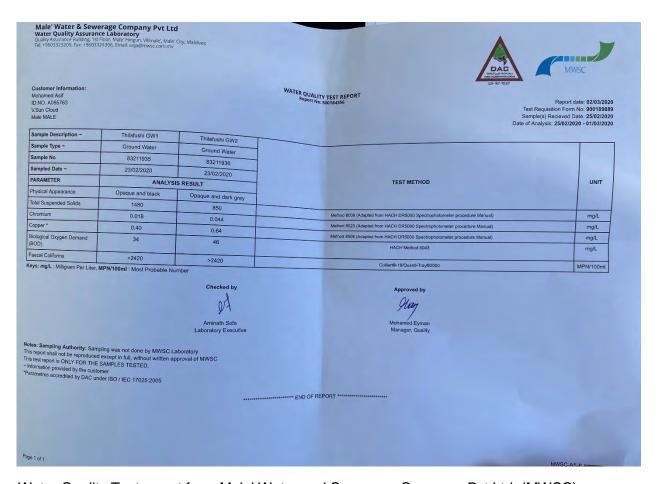
- 23. Photos attached
- 24. Air Quality Monitoring Data
- 25. Noise Measurements Data

SAMPLE ENVIRONMENTAL SITE INSPECTION REPORT Works not commenced will start providing once the work begins

Project Name Contract Number							
TITLE:			DATE: DMA: GROUP:				
WEATHER CONDIT	ΓΙΟΝ:						
INITIAL SITE COND	DITION:						
CONCLUDING SITE	E CONDITION:						
Satisfactory	Unsatisfactory	Incident	Resolved	Unresolved			
INCIDENT: Nature of incident:							
Intervention Steps:							
Incident Issues							
			Survey				
		Project	Design				
Resolution		Activity Stage	Implementation				
			Pre-Commission	ning			
			Guarantee Peri	od			
		Inspection					
Emissions		Waste Min	imization				
Air Quality			Reuse and Recycling				
Noise pollution		Dust and L	Dust and Litter Control				
Hazardous Substa			Trees and Vegetation				
Site Restored to Ori	ginal Condition	Yes		No			
Signature							
Sign off							
Name Position			Name Position				



The project site being cordoned off to avoid public access.



Water Quality Test report from Male' Water and Sewerage Company Pvt Ltd. (MWSC)

Air Quality Monitoring Data

(Lifted from excel sheet prepared by the monitoring team)

(Litted from 6	excel Sile	et prepare	tu by the h	ionitoring t	caiii)	ı	1	1
Date Time	Monitor ID	Location ID	CO2(mg/ m3)	NO2(mg/ m3)	PM10(mg/ m3)	PM2.5(mg/ m3)	O3(mg/ m3)	SO2(mg/ m3)
2/19/2020 17:24	1	70			0.049	0.034		0.048
2/19/2020 17:25	1	70			0.041	0.031		0.051
2/19/2020 17:26	1	70			0.042	0.031		0.053
2/19/2020 17:27	1	70			0.044	0.028		0.049
2/19/2020 17:28	1	70			0.041	0.034		0.053
2/19/2020 17:29	1	70			0.039	0.033		0.048
2/19/2020 17:30	1	70			0.048	0.026		0.052
2/19/2020 17:31	1	70			0.035	0.031		0.048
2/19/2020 17:32	1	70			0.044	0.032		0.051
2/19/2020 17:32	2	70		0.101			0.097	
2/19/2020 17:33	1	70			0.041	0.033		
2/19/2020 17:33	2	70		0.114			0.092	
2/19/2020 17:34	2	70		0.129			0.12	
2/19/2020 17:35	2	70		0.107			0.094	
2/19/2020 17:36	2	70		0.107			0.091	
2/19/2020 17:37	2	70		0.139			0.11	
2/19/2020 17:38	1	70	680					
2/19/2020 17:38	2	70		0.124				
2/19/2020 17:39	1	70	685					
2/19/2020 17:39	2	70		0.148				
2/19/2020 17:40	1	70	692					
2/19/2020 17:40	2	70		0.132				

17.41	2/19/2020					1		
1741 2		1	70	680				
1/31		2	70		0.146			
17-42 1			70		0.140			
1742 1743 1		1	70	686				
17-43								
2/19/2020		1	70	690				
17.44 1					1			
2/19/2020		1	70	670				
17.45 1								
2/19/2020		1	70	688				
17:46								
2/19/2020		1	70	680				
18:02 2/19/2020 18:03 2 71		2	71					0.043
18:03 2	18:02	2	/1					0.042
2/19/2020 18:04 2 71 2/19/2020 18:05 2 71 2/19/2020 18:06 2 71 2/19/2020 18:06 2 71 2/19/2020 18:07 2 71 2/19/2020 18:08 2 71 2/19/2020 18:08 2 71 2/19/2020 18:11 2/19/2020 18:11 2/19/2020 18:12 2/19/2020 18:13 2/19/2020 18:13 2/19/2020 18:13 2/19/2020 18:14 2 71 2/19/2020 18:14 2 71 2/19/2020 18:14 2 71 2/19/2020 18:14 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:15 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16	2/19/2020	2	71					0.020
18:04 2 71 0.041 2/19/2020 2 71 0.042 2/19/2020 2 71 0.041 2/19/2020 2 71 0.038 2/19/2020 2 71 0.037 2/19/2020 1 71 0.123 0.11 2/19/2020 1 71 0.122 0.13 2/19/2020 1 71 0.129 0.092 18:13 1 71 0.129 0.092 2/19/2020 1 71 0.123 0.093 2/19/2020 1 71 0.123 0.093 2/19/2020 1 71 0.126 0.092 2/19/2020 1 71 0.126 0.092 2/19/2020 1 71 0.125 0.12 2/19/2020 1 71 0.125 0.12 2/19/2020 1 71 0.125 0.12 2/19/2020 1 71 0.129 0.11	18:03	2	/1					0.033
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18:05 2 71 0.042 2/19/2020 18:06 2 71 0.041 2/19/2020 2 71 0.038 2/19/2020 18:08 2 71 0.123 0.11 2/19/2020 18:11 1 71 0.123 0.11 2/19/2020 18:12 1 71 0.122 0.13 2/19/2020 18:13 1 71 0.129 0.092 2/19/2020 18:13 2 71 0.123 0.093 2/19/2020 18:14 1 71 0.123 0.093 2/19/2020 18:14 71 0.126 0.092 2/19/2020 18:15 2 71 0.126 0.092 18:16 1 71 0.125 0.12 0.12 2/19/2020 1 71 0.125 0.12 0.11 2/19/2020 1 71 0.125 0.12 0.11 2/19/2020 1 71 0.126 0.12 0.11 2/19/2020 1		-	,,					0.041
18:05		2	71					0.042
18:06 2 71 0.041 2/19/2020 2 71 0.038 2/19/2020 2 71 0.038 2/19/2020 1 71 0.123 0.11 2/19/2020 1 71 0.122 0.13 2/19/2020 18:13 1 71 0.129 0.092 2/19/2020 18:13 2 71 0.123 0.092 2/19/2020 18:14 1 71 0.123 0.093 2/19/2020 18:14 2 71 0.126 0.092 18:15 2 71 0.126 0.092 2/19/2020 18:15 2 71 0.125 0.12 2/19/2020 18:16 1 71 0.125 0.12 2/19/2020 18:16 2 71 0.126 0.12 2/19/2020 18:16 2 71 0.128 0.11 2/19/2020 1 71 0.129 0.11 0.11		_						
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18:13 1 71 0.129 0.092 2/19/2020 2 71 0.123 0.093 2/19/2020 18:14 1 71 0.123 0.093 2/19/2020 2 71 0.126 0.092 2/19/2020 1 71 0.126 0.092 18:15 2 71 0.125 0.12 2/19/2020 1 71 0.129 0.12 2/19/2020 1 71 0.129 0.11	2/19/2020	4	74		0.130		0.002	
18:13 2 71 2/19/2020 18:14 1 71 0.123 0.093 2/19/2020 18:14 2 71 0.126 0.092 2/19/2020 18:15 1 71 0.126 0.092 2/19/2020 18:16 2 71 0.125 0.12 2/19/2020 18:16 2 71 0.125 0.12 2/19/2020 18:16 2 71 0.129 0.11	18:13	1	/1		0.129		0.092	
2/19/2020 1 71 0.123 0.093 2/19/2020 2 71 0.126 0.092 2/19/2020 1 71 0.126 0.092 2/19/2020 2 71 0.126 0.092 2/19/2020 2 71 0.125 0.12 2/19/2020 1 71 0.129 0.11	2/19/2020	2	71					
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18:14 2 71 2/19/2020 18:15 1 71 0.126 2/19/2020 18:15 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 1 71 0.125 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71		1	71		0.123		0.093	
18:14 2 71 0.126 0.092 2/19/2020 18:15 2 71 0.126 0.092 2/19/2020 18:16 1 71 0.125 0.12 2/19/2020 18:16 2 71 0.125 0.12 2/19/2020 18:16 2 71 0.129 0.11		-	,,		0.123		0.033	
18:14 0.126 2/19/2020 18:15 1 71 2/19/2020 18:15 2 71 2/19/2020 18:16 1 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 2 71 2/19/2020 18:16 0.12		2	71					
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18:16		_						
2/19/2020 1 71 0.129 0.11		2	71					
		4	74		0.420		0.11	
		1	/1		0.129		0.11	

2/19/2020 18:17	2	71					
2/19/2020	1	71					
18:22 2/19/2020	1	71					
18:23 2/19/2020							
18:24 2/19/2020	1	71					
18:25	1	71					
2/19/2020 18:26	1	71					
2/19/2020 18:31	2	72			0.031	0.043	
2/19/2020 18:32	2	72			0.031	0.045	
2/19/2020 18:33	2	72			0.03	0.041	
2/19/2020 18:34	2	72			0.03	0.046	
2/19/2020	2	72			0.031	0.044	
18:35 2/19/2020	2	72			0.029	0.046	
18:36		/2			0.023	0.040	
2/19/2020 18:40	1	72	739				
2/19/2020 18:41	1	72	745				
2/19/2020 18:42	1	72	734				
2/19/2020 18:43	1	72	735				
2/19/2020 18:44	1	72	737				
2/19/2020	1	72	740				
18:45 2/19/2020	1	72		0.118			
18:50 2/19/2020	1	72		0.115			
18:51 2/19/2020	1	72		0.112			
18:52 2/19/2020							
18:53 2/19/2020	1	72		0.119			
18:54	1	72		0.097			

Noise Measurements in dBA

Date	Time	LAeq60
19/02/2020	14:40:06	85.8
19/02/2020	15:40:06	88.9
19/02/2020	16:40:06	79.7
19/02/2020	19:28:37	64.1
19/02/2020	20:28:37	62.2
19/02/2020	21:28:37	59.7