Greater Dublin Drainage Project Addendum

Environmental Impact Assessment Report Addendum: Volume 3A Part A of 6

Chapter 15A Noise and Vibration

Uisce Éireann

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Contents

15. Noise and Vibration

15.1 Introduction

As detailed in Chapter 1A (Introduction) in Volume 2A Part A of this Environmental Impact Assessment Report (EIAR) Addendum, we have reviewed Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application, in the light of:

- Changes to the baseline environment;
- The requirement for updated surveys; and
- Changes to the law, policy, and industry standards and guidance in the intervening period.

Table 15.1 includes a summary of the project elements which were incorporated into the planning design for the Greater Dublin Drainage Project (hereafter referred to as the Proposed Project) following direction at the Oral Hearing in 2019 and the subsequent planning conditions applied to the 2018 planning application submission. A full description is included in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum. The remaining elements of the Proposed Project included in the 2018 planning application remain unchanged.

Table 15.1: Updated Proposed Project Elements

Updated Element	Outline Description of Updated Element
Ultraviolet (UV) Treatment	• UV Treatment is to be included in the treatment process at the proposed wastewater treatment plant (WwTP) in the northern section of the WwTP site. • The UV treatment system will be designed for the expected flows at the plant and will be installed on the final effluent line. UV treatment will be in operation 24 hours a day, 365 days a year. • The UV system will consist of a minimum of three and a maximum of four treatment units located below or partially below ground level with an above-ground Motor Control Centre (MCC) (in a kiosk) along with minor maintenance and control equipment (e.g. shut-off button, frame for supporting, retracting and cleaning of UV lamps etc.).
River Mayne Culvert Extension	• Extension of the River Mayne Culvert on the proposed access road to the WwTP by 4m (from 21m to 25m) to cater for the full width of the future north south link road.

The glossary of terms presented in Appendix A15.1 in Volume 3 Part B of the EIAR submitted with the 2018 planning application defines all of the noise terms used in this Addendum Chapter.

This Addendum Chapter should be read in conjunction with Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application.

It should be noted that the updated noise and vibration assessment for the proposed Regional Biosolids Storage Facility (RBSF) is included in Section 9A (Noise and Vibration) in Volume 4A Part A of this EIAR Addendum.

There are no other changes to this Section of the EIAR in the 2018 planning application.

15.2 Methodology

15.2.1 Study Area

The characteristics of the Proposed Project, including the footprint and design, are unchanged from the assessment completed for the EIAR submitted with the 2018 planning application. The introduction of the ultraviolet (UV) system and the River Mayne Culvert extension do not result in impacts beyond the study area which was considered in the 2018 planning application. Consequently, there are no changes to the study area or the information presented in this Section of the EIAR in the 2018 planning application.

15.2.2 Desktop Survey

An updated desk-based review was undertaken for this Addendum Chapter. The review considered changes in legislation, policy, standards and industry guidance, and in particular, considered whether any such changes warranted an updated or amended approach to the assessments. Updated published sources of information in relation to the existing environment in the study area were also identified and reviewed.

15.2.3 Field Surveys

Baseline environmental noise and vibration monitoring studies were carried out in 2017 to determine the existing noise and vibration levels at Noise Sensitive Receptor (NSR) locations surrounding the Proposed Project. Given the passage of time since the surveys reported in the EIAR in the 2018 planning application were carried out, update surveys were carried out and are reported in this Chapter of the EIAR Addendum. Full details of the additional noise and vibration monitoring completed are presented in Appendix A15.1 and Appendix A15.2 in Volume 3A Part B of this EIAR Addendum, and in Section 15.3 below.

15.2.4 Impact Assessment Methodology

In 2022, the EPA published an updated set of Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the updated EPA Guidelines) (EPA 2022). The updated EPA Guidelines were considered in this Addendum Chapter and it was determined that there was no materially significant difference in either the methodology or approach adopted for the assessment for the 2018 planning application, which was based on the previous Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the Draft EPA Guidelines) (EPA 2017).

The baseline noise survey for this Addendum Chapter was executed in accordance with the requirements of the International Organization for Standardization (ISO) ISO 1996-2:2017 – Acoustics – Description, measurement and assessment of environmental noise - Part 2: Determination of Sound Pressure Levels (ISO 2017) and in addition, with reference to the EPA publication Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (hereafter referred to as the EPA Noise Guidance) (EPA 2016). These are the same Standards which were considered in the EIAR in the 2018 planning application.

15.2.5 Noise Assessment Criteria

Construction Phase Noise Criteria

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as there is no change to the criteria or guidance used for the assessment of Construction Phase noise impacts.

Operational Phase Noise Criteria

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as the principal criteria or guidance set out in this Section of the EIAR in the 2018 planning application for the assessment of Operational Phase noise impacts are unchanged.

15.2.6 Vibration Assessment Criteria

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as the principal criteria or guidance set out in this Section of the EIAR in the 2018 planning application for the assessment of vibration impacts are unchanged.

15.2.7 Sources of Noise and Vibration

Construction Phase Noise and Vibration

There are no new sources of construction noise and vibration and no materially significant change in the magnitude of noise and vibration impacts compared to the assessments undertaken in the EIAR in the 2018 planning application. The proposed extension of the River Mayne Culvert (outlined in Table 15.1) will not introduce new sources of noise and vibration, as the same construction methodologies will be used for the extension, as proposed for the construction of the rest of the culvert. Similarly, the introduction of UV treatment will not introduce any new sources of noise and vibration, as the works proposed will be similar to other construction works at the proposed WwTP.

Operational Phase Noise and Vibration

The proposed UV system will be located below-ground, or partially below-ground level, with an above-ground motor control centre (MCC) (in a kiosk). In either case, there are no materially significant noise sources associated with the UV system, and the kiosk housing the control equipment will ensure that noise is not audible outside of the enclosure.

15.3 Baseline Environment

15.3.1 Introduction

The baseline noise monitoring locations were chosen in order to best represent the current noise climate at the nearest NSR locations and other key NSR locations near to the proposed WwTP and proposed Abbotstown pumping station sites. Measurements were also taken at a number of NSR locations near the proposed tunnelling construction compounds along the proposed orbital sewer route and outfall pipeline route. Noise monitoring locations were selected in accordance with Section 6.1 of the EPA Noise Guidance (EPA 2016) by taking account of the proposed site location and the nearest NSRs to the works boundary perimeter. The locations chosen are the same locations included in the previous surveys as these are determined to be representative for the purpose of the assessment and the updated measurements allow for direct comparison of the data (as presented in Figure 15.1 (Noise Monitoring Locations) in Volume 5 Part A of the EIAR in the 2018 planning application).

Baseline noise monitoring was carried out to determine the existing noise levels at NSR locations surrounding the proposed site locations. The detailed noise monitoring survey report is presented in Appendix A15.1 in Volume 3A Part B of this EIAR Addendum.

15.3.2 Existing Noise Climate

Noise measurements were originally carried out at each monitoring location during the daytime period (07:00hrs to 19:00hrs), evening time period (19:00hrs to 23:00hrs) and night-time period (23:00hrs to 07:00hrs) between 20 June 2017 and 18 October 2017 for the 2018 planning application. Monitoring periods for the noise survey were 15-minute intervals for all noise measurements. Precise noise measurement details are presented in Appendix A15.1 in Volume 3 Part B of the EIAR in the 2018 planning application.

In view of the passage of time since the survey was initially carried out, a survey was carried out between 7 and 30 November 2022 which replicated the measurement locations and measurements that were carried out previously in 2017. The detailed results of that survey are presented in Appendix A15.1 in Volume 3A Part B of this EIAR Addendum.

On-site observations were made during the monitoring survey to support the baseline noise measurement results. It was generally observed that the main source of noise at all noise monitoring locations was anthropogenic (human related) in nature, and included passing traffic on the adjacent roads and on the nearby motorways and passing aircraft overhead that were on approach to or departing from Dublin Airport. Non-anthropogenic noise sources, including dogs barking and the breeze blowing through trees, had a minor impact

on the noise environment at the noise monitoring locations. These observations were generally consistent throughout the daytime, evening time and night-time periods.

Table 15.9 of Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application presented a summary of the baseline noise survey data for each measurement location. This table has been updated to include the data from the 2022 measurement survey and is presented in Table 15.2 below. For comparison purposes, the data obtained from the 2022 survey was compared with the data for the same locations from 2017 and graphical presentations of the two datasets are presented in Appendix A15.1 in Volume 3A Part B of this EIAR Addendum. The data show the same trends observed for the two datasets, and the observations confirm that the same dominant influences on the noise climate in the different areas were observed for the two surveys.

In general, the measurements for 2022 for most locations were the same or higher than those recorded in 2017. This is not surprising since developments have progressed and activities in various spheres have increased in the period since 2017.

Table 15.2: Baseline Noise Monitoring Results (Averaged) at Noise Monitoring Locations

Monitoring Location	Location Description	Measurement Interval	$L_{Aeq, 15min}$ dB (1)		$L_{A90, 15min}$ dB (2)		$L_{A10, 15min}$ dB (3)	
			2017	2022	2017	2022	2017	2022
N1	Path outside of St. Francis' Hospice	Daytime	58	61	54	59	60	63
		Evening time	57	58	54	55	58	58
		Night-time	54	54	51	50	56	57
N2	Rear entrance to Elmgreen Nursing Home	Daytime	65	59	62	55	65	59
		Evening time	62	59	59	57	63	61
		Night-time	61	58	59	55	63	60
N3	Green outside Irish Sport Head Quarters	Daytime	52	56	48	52	54	57
		Evening time	48	63	43	52	48	57
		Night-time	43	48	41	46	44	49
N4	Outside No 28 Dubber Cottages Road	Daytime	57	55	48	53	58	56
		Evening time	52	56	46	51	51	58
		Night-time	48	48	45	44	49	48
N5	St. Michael's House	Daytime	63	60	59	54	66	59
		Evening time	62	57	57	51	65	59
		Night-time	58	55	49	49	61	58
N6	First house on right-hand side (RHS) past Clayton Hotel roundabout	Daytime	67	69	52	59	71	73
		Evening time	65	66	54	58	69	69
		Night-time	53	61	42	55	49	64
N7	Fourth house on RHS past Clayton Hotel roundabout	Daytime	69	71	52	59	70	76
		Evening time	64	68	52	55	63	72
		Night-time	62	64	52	55	64	64

Monitoring Location	Location Description	Measurement Interval	$L_{Aeq, 15min}$ dB (1)		$L_{A90, 15min}$ dB (2)		$L_{A10, 15min}$ dB (3)	
			2017	2022	2017	2022	2017	2022
N8	Unoccupied farm house 300m north of proposed WwTP site	Daytime	69	68	52	57	70	69
		Evening time	67	67	55	57	66	65
		Night-time	51	60	48	54	53	63
N9	House at end of cul-de-sac north of Balgriffin Cemetery	Daytime	63	59	48	48	64	59
		Evening time	61	64	43	44	57	63
		Night-time	41	61	37	39	42	61
N10	West Wing of Connolly Hospital	Daytime	61	63	59	61	62	65
		Evening time	58	56	55	54	59	57
		Night-time	55	56	53	54	57	58
N11	Connolly Hospital Out-Patient Day Centre Building	Daytime	60	59	58	57	61	61
		Evening time	56	56	54	55	57	57
		Night-time	56	54	54	50	57	55
N12	Private residence off the R106 Coast Road	Daytime	62	67	46	50	66	68
		Evening time	59	62	34	50	64	66
		Night-time	57	59	35	45	59	64
N13	House on junction of the R106 Coast Road	Daytime	67	67	55	58	71	71
		Evening time	67	66	51	53	72	70
		Night-time	50	54	37	47	49	52
N14	House at entrance to Portmarnock Golf Club	Daytime	60	53	42	43	62	54
		Evening time	58	57	39	43	62	54
		Night-time	36	40	34	35	36	40
N15	Grounds of St. Myra National School	Daytime	62	71	54	55	64	75
		Evening time	61	70	40	54	64	75
		Night-time	53	62	37	37	57	66
N16	House at junction of Old Airport Road and R132 Swords Road	Daytime	68	66	58	62	71	69
		Evening time	68	64	53	53	73	60
		Night-time	67	64	50	54	72	65
N17	Adjacent to National Car Test Centre	Daytime	61	66	59	64	63	67
		Evening time	50	54	48	52	51	55
		Night-time	54	57	51	55	56	59
N18	Outside house on R135	Daytime	60	59	54	57	63	60

Monitoring Location	Location Description	Measurement Interval	$L_{Aeq, 15min}$ dB (1)		$L_{A90, 15min}$ dB (2)		$L_{A10, 15min}$ dB (3)	
			2017	2022	2017	2022	2017	2022
	Finglas Road	Evening time	57	59	54	56	58	61
		Night-time	48	55	45	44	50	56
N19	Outside of Cappagh Road Cottage	Daytime	55	62	51	59	58	62
		Evening time	56	59	54	55	58	60
		Night-time	52	51	49	45	54	55
N20	Portmarnock Beach	Daytime	63	60	55	44	57	56
		Evening time	65	59	58	42	68	58
		Night-time	56	45	52	34	56	43

(1) L_{Aeq} is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T) (in this case T = 15 minutes).

(2) L_{A90} refers to the A-weighted noise levels in the lower 90 percentile of the sampling interval; it is the level which is exceeded for 90% of the measurement period. It is commonly used to describe the background noise level. Noise levels are measured in decibels (dB).

(3) LA_{10} refers to the A-weighted noise levels in the top 10 percentile of the sampling interval; it is the level which is exceeded for 10% of the measurement period. Noise levels are measured in decibels (dB).

15.3.3 Existing Vibration Climate

A review of the current setting in the vicinity of the elements of the Proposed Project was carried out to evaluate changes that may have occurred since the assessment carried out for the EIAR in the 2018 planning application. There are no significant sources of vibration near the subject sites as determined from a desk-based review and site inspection. The main vibration experienced at the NSR locations relate to the passing traffic along the surrounding road network. There is therefore no difference in the data presented in this Section of the EIAR in the 2018 planning application.

Due to the presence of sensitive equipment at Connolly Hospital, and the works which have been undertaken in the area since the last survey, a vibration monitoring survey was again carried out at Connolly Hospital for comparison with the information presented in the EIAR in the 2018 planning application. The results of this survey are presented in Appendix A15.2 in Volume 3A Part B of this EIAR Addendum and show that there has been no significant change in the baseline since the previous survey was completed. This is not surprising, but in view of the sensitivity of the equipment in Connolly Hospital and the specific nature of the proposed works, it was considered prudent to carry out an update survey in this location.

15.4 Impact of the Proposed Project – Construction Phase

15.4.1 Introduction

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as the same methodology outlined in this Section of the EIAR in the 2018 planning application has been used in the updated assessment for the Addendum.

15.4.2 Construction Phase Noise

Proposed Wastewater Treatment Plant and Abbotstown Pumping Station Works

Table 15.15 and Table 5.16 in Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application presented the findings of the previous assessment and concluded that the Construction Phase noise impacts would comply with the assessment criteria for all receptors in the vicinity of the proposed Abbotstown pumping station and WwTP construction works.

The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that the Construction Phase noise impacts would comply with the assessment criteria for all receptors. There is therefore no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

Proposed Orbital Sewer Route Works and Outfall Pipeline Route (Land Based Section) Works

Open Trench Works

Table 15.23 in Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application presented the findings of the assessment of Construction Phase impacts for open trench works and concluded that the Construction Phase noise impacts would comply with the assessment criteria for all receptors, with site hoarding required at some locations identified in Table 15.23.

The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that the Construction Phase noise impacts would comply with the assessment criteria for all receptors. There is therefore no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

Trenchless Works (Microtunnelling)

Table 15.26 in Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application presented the findings of the assessment of Construction Phase impacts for trenchless works (microtunnelling) and concluded that the Construction Phase noise impacts would comply with the assessment criteria for all receptors.

The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that the Construction Phase noise impacts would comply with the assessment criteria for all receptors. There is therefore no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

Table 15.28 and Table 15.29 in Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application presented the findings of the assessment of Construction Phase impacts for specified Tunnel Boring Machine (TBM) works. The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that there is no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

Groundborne Noise

There is no change to the information presented in this Section of the EIAR in the 2018 planning application because the same standards and methodologies were used for this Addendum Chapter as were described in this Section of the EIAR in the 2018 planning application. There have been no changes to those standards or the reference methodologies since the previous studies were undertaken.

Proposed Outfall Pipeline Route (Marine Section) Works

The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that there is no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

15.4.3 Construction Phase Traffic Impacts

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as there is no materially significant change to the traffic generated by the development during the Construction Phase.

15.4.4 Vibration Impacts

The main potential sources of vibration during the various stages of the Construction Phase remain as previously presented in this Section of the EIAR in the 2018 planning application (i.e. likely to be heavy goods vehicle (HGV) traffic movements on uneven road surfaces, any rock-breaking and piling activities that may be required for construction works and the microtunnelling works involving the TBM). There is therefore no change to the information presented in this Section of the EIAR in the 2018 planning application.

Groundborne Vibration

The potential impacts as a result of the proposed microtunnelling required for the Proposed Project are assessed as negligible, in terms of building damage, in the EIAR in the 2018 planning application, and no significant adverse impacts are predicted for all buildings, as per the criteria in Table 15.7 in Chapter 15 (Noise and Vibration) in Volume 3 Part A of the EIAR in the 2018 planning application. There is no change to the information presented, or the conclusions drawn, in this Section of the EIAR in the 2018 planning application.

The assessment was re-evaluated in the context of the new baseline data acquired for Connolly Hospital in Blanchardstown. The 2023 survey found that there has been no significant change in the baseline since the previous survey was completed. There is therefore no change to the information presented, or the conclusions drawn, in this Section of the EIAR in the 2018 planning application.

15.5 Impact of the Proposed Project – Operational Phase

15.5.1 Introduction

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as the same methodology has been applied in this Addendum Chapter as was described in this Section of the EIAR in the 2018 planning application.

15.5.2 Proposed Wastewater Treatment Plant

This Section of the EIAR in the 2018 planning application presented the findings of the assessment of Operational Phase impacts of the proposed WwTP. The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that there is no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

The proposed UV system will be located below-ground, or partially below-ground level, with an above-ground MCC (in a kiosk). In either case, there are no materially significant noise sources associated with the UV system, and the kiosk housing the control equipment will ensure that noise is not audible outside of the enclosure.

15.5.3 Proposed Abbotstown Pumping Station

This Section of the EIAR in the 2018 planning application presented the findings of the assessment of Operational Phase impacts of the proposed Abbotstown pumping station. The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that there is no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

15.5.4 Proposed Odour Control Unit at Dubber

This Section of the EIAR in the 2018 planning application presented the findings of the assessment of Operational Phase impacts of the proposed Odour Control Unit at Dubber. The assessment was re-evaluated as part of this Addendum Chapter to consider the new baseline noise survey data and it was determined that there is no change to the information presented, or conclusions drawn, in this Section of the EIAR in the 2018 planning application.

15.5.5 Traffic Impacts

There is no change to the information presented in this Section of the EIAR in the 2018 planning application, as there is no change to the traffic generated during the Operational Phase of the Proposed Project.

15.6 Do Nothing Impact

There is no change to the information presented in this Section of the EIAR in the 2018 planning application. The second runway (North Runway) at Dublin Airport is now operational and this may partially account for increased ambient noise levels in the area as recorded in the updated ambient noise survey reported in Appendix A15.1 in Volume 3A Part B of this EIAR Addendum.

15.7 Mitigation Measures

15.7.1 Construction Phase Mitigation Measures

The updates to the Proposed Project elements, as outlined in Section 15.1, and the results of the latest noise and vibration surveys were assessed and deemed not to result in any changes to the previous assessment conclusions. As the potential Construction Phase impacts outlined in Chapter 15 (Noise and Vibration) included in Volume 3 Part A of the EIAR in the 2018 planning application have not changed, there are no further requirements to update the mitigation measures presented in this Section of the 2018 planning application and these measures will be implemented in full. Therefore, there are no further changes to the information presented in this Section of the EIAR in the 2018 planning application.

15.7.2 Operational Phase Mitigation Measures

The updates to the Proposed Project elements, as outlined in Section 15.1, and the results of the latest noise and vibration surveys were assessed and deemed not to result in any changes to the conclusions of the previous assessment. As the potential Operational Phase impacts outlined in Chapter 15 (Noise and Vibration) included in Volume 3 Part A of the EIAR in the 2018 planning application have not changed, there are no further requirements to update the mitigation measures presented in this Section of the 2018 planning application and these measures will be implemented in full. Therefore, there are no further changes to the information presented in this Section of the EIAR in the 2018 planning application.

15.8 Residual Impacts

15.8.1 Construction Phase

The updates to the Proposed Project elements, as outlined in Section 15.1, and the results of the latest noise and vibration surveys were assessed and deemed not to result in any additional impacts or mitigation measures for the Construction Phase, above those identified in the original respective sections of Chapter 15 (Noise and Vibration) included in Volume 3 Part A of the EIAR in the 2018 planning application. The residual impacts for the Construction Phase therefore remain as presented in this Section of the EIAR in the 2018 planning application.

15.8.2 Operational Phase

The updates to the Proposed Project elements, as outlined in Section 15.1, and the results of the latest noise and vibration surveys were assessed and deemed not to result in any additional impacts or mitigation measures for the Operational Phase, above those identified in the original respective sections of Chapter 15 (Noise and Vibration) included in Volume 3 Part A of the EIAR in the 2018 planning application. The residual impacts for the Operational Phase therefore remain as presented in this Section of the EIAR in the 2018 planning application.

15.9 Difficulties Encountered in Compiling Information

There were no specific difficulties encountered when carrying out this updated assessment.

15.10 Oral Hearing

During the 2019 Oral Hearing, a number of queries were raised in relation to noise and vibration impacts, and further clarification was provided in the 'Response to Noise and Vibration Questions (28th March 2019)' brief of evidence delivered to the Inspector and the public. This brief of evidence is included in Appendix A15.3 in Volume 3A Part B of this EIAR Addendum. The clarifications provided were checked against the updates provided in this Addendum Chapter and remain valid.

15.11 Conclusion

This Addendum Chapter has considered all updates to elements of the Proposed Project, updates to the baseline environment, and updates to legislation, policy, standards, guidance and reference material since the 2018 planning application submission. Following consideration, there are no changes to the assessment of noise and vibration as a result of any of the updates discussed in this Addendum Chapter.

15.12 References

EPA (2016). Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)

EPA (2017). Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports

EPA (2022). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports

ISO (2017). ISO 1996-2:2017 – Acoustics – Description, measurement and assessment of environmental noise - Part 2: Determination of Sound Pressure Levels.