

Appendix H

Table H.1: DMRB Screening Air Quality Assessment. Predicted Annual Mean NO₂ Concentrations – UK DEFRA Method

Receptor Sensitivity	Number of Receptors	Annual Mean NO ₂ Concentrations (µg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	17.6	19.7	17.7	19.5
ASR02	Shannon Quay	20.3	16.1	20.1	16.1
ASR03	Bridge Point (Abbey Quay)	19.1	18.6	18.0	18.5
ASR04	10 Mill Park Road	13.6	15.2	13.4	15.0
ASR05	National 1798 Centre	12.5	13.9	12.1	13.5
ASR06	Society of Friends Meeting House	18.4	14.8	18.3	14.7
ASR07	Along N30 South of Prop. Bridge	13.0	13.0	12.7	12.7
ASR08	Along N11 South of Prop. Bridge	11.5	11.9	11.0	11.4
Ambient Limit Value ^{Note 1}		40	40	40	40

Note 1: Annual Average NO₂ Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.2: DMRB Screening Air Quality Assessment. Predicted Annual Mean NO₂ Concentrations – Interim Advice Note (IAN 170/12) Method

Receptor Sensitivity	Number of Receptors	Annual Mean NO ₂ Concentrations (µg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	19.0	21.3	18.7	20.6
ASR02	Shannon Quay	21.8	17.3	21.1	16.8
ASR03	Bridge Point (Abbey Quay)	20.7	20.1	19.0	19.6
ASR04	10 Mill Park Road	14.9	16.7	14.2	15.9
ASR05	National 1798 Centre	13.8	15.3	12.9	14.4
ASR06	Society of Friends Meeting House	19.9	15.9	19.2	15.5
ASR07	Along N30 South of Prop. Bridge	14.3	14.4	13.5	13.5
ASR08	Along N11 South of Prop. Bridge	12.8	13.3	11.8	12.2
Ambient Limit Value ^{Note 1}		40	40	40	40

Note 1: Annual Average NO₂ Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.3: DMRB Screening Air Quality Assessment. Predicted Annual Mean PM₁₀ Concentrations

Receptor Sensitivity	Number of Receptors	Annual Mean PM ₁₀ Concentrations (µg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	20.7	21.1	20.8	21.3
ASR02	Shannon Quay	21.3	20.5	21.4	20.6
ASR03	Bridge Point (Abbey Quay)	21.0	20.9	21.0	21.0
ASR04	10 Mill Park Road	20.1	20.3	20.1	20.3
ASR05	National 1798 Centre	19.9	20.1	19.8	20.0
ASR06	Society of Friends Meeting House	20.9	20.3	21.0	20.4
ASR07	Along N30 South of Prop. Bridge	20.0	20.0	19.9	19.9
ASR08	Along N11 South of Prop. Bridge	19.7	19.7	19.6	19.6
Ambient Limit Value ^{Note 1}		40	40	40	40

Note 1 - Annual Average PM₁₀ Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.4: DMRB Screening Air Quality Assessment. Predicted Annual Mean PM_{2.5} Concentrations

Receptor Sensitivity	Number of Receptors	Annual Mean PM _{2.5} Concentrations (µg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	13.5	13.7	13.6	13.8
ASR02	Shannon Quay	13.8	13.4	13.9	13.4
ASR03	Bridge Point (Abbey Quay)	13.6	13.6	13.6	13.6
ASR04	10 Mill Park Road	13.1	13.2	13.0	13.2
ASR05	National 1798 Centre	12.9	13.0	12.9	13.0
ASR06	Society of Friends Meeting House	13.6	13.2	13.7	13.2
ASR07	Along N30 South of Prop. Bridge	13.0	13.0	12.9	13.0
ASR08	Along N11 South of Prop. Bridge	12.8	12.8	12.7	12.8
Ambient Limit Value ^{Note 1}		25	25	25	25

Note 1 - Annual Average PM_{2.5} Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.5

: DMRB Screening Air Quality Assessment. Predicted Maximum 8-hour CO Concentrations

Receptor Sensitivity	Number of Receptors	Maximum 8-hour CO Concentrations (mg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	3.31	3.42	3.39	3.51
ASR02	Shannon Quay	3.48	3.28	3.56	3.33
ASR03	Bridge Point (Abbey Quay)	3.37	3.34	3.44	3.41
ASR04	10 Mill Park Road	3.14	3.17	3.16	3.21
ASR05	National 1798 Centre	3.06	3.11	3.08	3.14
ASR06	Society of Friends Meeting House	3.37	3.22	3.44	3.26
ASR07	Along N30 South of Prop. Bridge	3.10	3.10	3.12	3.12
ASR08	Along N11 South of Prop. Bridge	3.01	3.02	3.01	3.03
Ambient Limit Value ^{Note 1}		10	10	10	10

Note 1 - Maximum 8-hour CO Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.6: DMRB Screening Air Quality Assessment. Predicted Annual Mean Benzene Concentrations

Receptor Sensitivity	Number of Receptors	Annual Mean Benzene Concentrations (µg/m ³)			
		Opening Year (2019)		Design Year (2034)	
		Do Minimum	Do Something	Do Minimum	Do Something
ASR01	Island Street (opp. Enniscorthy Bridge)	0.57	0.59	0.59	0.62
ASR02	Shannon Quay	0.61	0.56	0.63	0.58
ASR03	Bridge Point (Abbey Quay)	0.58	0.58	0.60	0.59
ASR04	10 Mill Park Road	0.53	0.54	0.54	0.55
ASR05	National 1798 Centre	0.51	0.52	0.52	0.53
ASR06	Society of Friends Meeting House	0.58	0.55	0.60	0.56
ASR07	Along N30 South of Prop. Bridge	0.52	0.52	0.53	0.53
ASR08	Along N11 South of Prop. Bridge	0.50	0.50	0.50	0.51
Ambient Limit Value ^{Note 1}		5	5	5	5

Note 1 - Annual Average Benzene Limit Value: S.I. No. 180 of 2011 & EU Directive 2008/50/EC

Table H.7: Air Quality Assessment of Impact on Ecosystems, Proposed Enniscorthy Flood Defence Scheme. Assessment of NO_x Concentrations and NO₂ Dry Deposition Impact in River Slaney Valley SAC and pNHA

Distance to Road (Do Minimum) Note 1	Distance to Road (Do Something) Note 2	NO _x Conc. (µg/m ³) - 2019			NO _x Conc. (µg/m ³) - 2034			NO ₂ Dry Deposition Rate Impact (Kg(N)/ha/yr)	
		Do Minimum	Do Something	Impact	Do Minimum	Do Something	Impact	2019	2034
9, 9	85, 100, 6	29.6	20.5	-9.1	29.6	20.1	-9.6	-0.17	-0.14
9, 19	75, 100, 16	28.5	20.3	-8.2	28.4	19.5	-8.9	-0.16	-0.14
9, 29	65, 100, 26	27.8	20.1	-7.7	27.5	19.1	-8.4	-0.16	-0.14
9, 39	60, 100, 36	27.2	19.9	-7.3	26.9	18.8	-8.1	-0.16	-0.14
9, 49	50, 100, 46	26.8	19.8	-7.0	26.4	18.9	-7.5	-0.15	-0.13
9, 59	45, 110, 56	26.4	19.7	-6.7	26.0	18.7	-7.4	-0.15	-0.13
9, 69	40, 110, 66	26.2	19.6	-6.5	25.7	18.7	-7.0	-0.14	-0.12
9, 79	40, 110, 76	26.0	19.6	-6.4	25.5	18.6	-6.9	-0.14	-0.12
9, 89	35, 110, 86	25.8	19.5	-6.3	25.3	18.8	-6.6	-0.14	-0.12
9, 99	35, 110, 96	25.7	19.5	-6.2	25.2	18.7	-6.5	-0.14	-0.12
9, 109	30, 130, 106	25.6	19.5	-6.1	25.1	18.7	-6.3	-0.13	-0.12
9, 119	30, 130, 116	25.5	19.4	-6.1	25.0	18.6	-6.3	-0.13	-0.12
9, 129	25, 130, 126	25.4	19.4	-6.0	24.9	19.0	-5.9	-0.13	-0.11
9, 139	20, 130, 136	25.4	19.4	-6.0	24.8	19.5	-5.4	-0.12	-0.10
9, 149	20, 130, 146	25.4	19.4	-6.0	24.8	19.5	-5.4	-0.12	-0.10
9, 159	20, 150, 156	25.3	19.4	-6.0	24.8	19.3	-5.5	-0.12	-0.10
9, 169	20, 150, 166	25.3	19.4	-6.0	24.8	19.3	-5.5	-0.12	-0.10
9, 179	15, 150, 176	25.3	19.4	-5.9	24.8	19.9	-4.9	-0.11	-0.09
9, 189	15, 150, 186	25.3	19.4	-5.9	24.7	19.9	-4.9	-0.11	-0.09
9, 199	15, 150, 196	25.3	19.4	-5.9	24.7	19.9	-4.8	-0.11	-0.09
9, 200	15, 150, 200	25.3	19.4	-5.9	24.7	19.9	-4.8	-0.11	-0.09
Standards		30 µg/m ³	30 µg/m ³	2 µg/m ³	30 µg/m ³	30 µg/m ³	2 µg/m ³	5 - 10 Kg(N)/ha/yr	

Note 1 Distances for the Do Minimum Scenario are from the N11 south of the Seamus Rafter Bridge and the Seamus Rafter Bridge, respectively.

Note 2 Distances for the Do Something Scenario are from the N11 and the N30 (both north of the proposed bridge) and the Proposed Bridge