Appendix 7-3: Modelled Results

Appendix 7-3 Modelled Results

This Appendix provides modelled results at all receptors considered in the assessment. The below tables support the discussions provided in sections 7.4, 7.5, and 7.6 of Chapter 7: Air Quality. A discussion of predicted concentrations at nature conservation receptors has been provided in this assessment to support the assessment of significance which can be found in Chapter 12: Biodiversity.

Human Health

Predicted concentrations for human health receptors are provided for NO_2, PM_{10}, $PM_{2.5}$, and odour for the 2025 Current Operation (36.4 million passengers per annum (mppa); forms the current receiving environment), 2029 Permitted Operation (32 million mppa; forms the future receiving environment), and the 2029 Proposed Operation (40 mppa). The impact of the Proposed Order is demonstrated by the difference in predicted concentrations between the 2029 Permitted Operation and 2029 Proposed Operation (Principal Assessment).

Table 1: Annual Mean NO_2 Concentrations and Impacts

Receptor	x	y	Annual Mean NO_2 Concentration and Impact – Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R001	717639	743066	27.7	23.1	24.6	1.5
R002	717623	742998	27.3	22.4	23.9	1.4
R003	717063	742144	25.6	21.0	21.8	0.8
R004	717444	742605	25.3	20.4	21.5	1.2
R005	717087	741841	24.1	19.3	19.9	0.6
R006	717823	743950	21.4	18.9	20.3	1.4
R007	717953	743865	20.9	18.4	19.7	1.3
R008	715586	742359	26.4	22.3	24.1	1.8
R009	715482	742312	25.5	21.1	22.6	1.6
R010	716260	744520	24.5	23.2	25.5	2.3
R011	716197	744659	21.6	20.3	22.2	1.9
R012	716132	744704	20.7	19.4	21.2	1.8
R013	713323	741037	26.5	19.2	19.5	0.4
R014	715685	744775	18.3	16.9	18.3	1.4
R015	713129	741100	26.5	19.1	19.5	0.4
R016	713678	741072	24.1	17.8	18.2	0.3
R017	715272	741537	19.2	15.4	15.9	0.5
R018	715018	744828	15.9	14.5	15.5	1.0
R019	713294	742493	15.9	14.3	14.8	0.6
R020	715625	741172	16.5	13.6	14.0	0.4
R021	712599	743016	14.0	12.6	13.1	0.6
R022	712603	742330	14.1	12.6	12.9	0.3
R023	715325	743346	20.6	19.1	20.6	1.5
R024	714341	743119	18.7	17.2	18.5	1.3

Receptor	x	y	Annual Mean NO_2 Concentration and Impact – Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R025	714471	743157	18.9	17.3	18.7	1.3
R026	715335	743880	18.6	17.1	18.4	1.3
R027	714305	743658	16.5	15.0	16.0	1.0
R028	714128	743860	15.9	14.5	15.4	0.9
R029	713787	743724	15.5	14.2	15.0	0.8
R030	713567	743754	15.2	14.0	14.8	0.8
R031	713652	743945	15.1	13.8	14.6	0.8
R032	712950	743589	14.4	13.2	13.7	0.5
R033	712860	743479	14.1	12.9	13.3	0.5
R034	712975	743736	14.4	13.2	13.8	0.5
R035	712767	743397	13.9	12.6	13.1	0.4
R036	713040	743889	14.4	13.2	13.8	0.6
R037	712803	744260	13.8	12.6	13.0	0.4
R038	712834	744978	13.3	12.2	12.6	0.4
R039	712195	744288	13.1	11.9	12.3	0.3
R040	711897	743406	12.9	11.6	12.0	0.3
R041	712622	745299	12.9	11.8	12.1	0.3
R042	711957	742972	13.2	11.7	12.1	0.4
R043	711747	743592	12.7	11.4	11.7	0.3
R044	712076	745138	12.8	11.6	11.9	0.4
R045	711140	744060	12.4	11.1	11.3	0.2
R046	711073	744617	12.3	11.1	11.3	0.2
R047	717702	745239	25.9	20.7	21.9	1.2
R048	717782	744757	23.7	20.2	21.7	1.5
R049	718779	743196	18.0	15.2	15.8	0.5
R050	718601	744054	24.9	20.0	20.8	0.8
R051	718134	744482	18.8	16.8	18.0	1.2
R052	718880	743477	18.1	15.5	16.1	0.6
R053	718702	742877	17.9	15.1	15.6	0.5
R054	718953	744795	23.0	18.2	19.1	0.9
R055	718720	743335	20.8	17.1	17.8	0.7
R056	718834	742953	17.0	14.5	14.9	0.4
R057	717652	741176	23.2	17.8	18.1	0.4
R058	718554	742277	16.8	14.0	14.5	0.4
R059	718804	744573	21.1	17.4	18.2	0.9
R060	717512	741404	19.5	15.7	16.0	0.4
R061	719130	743159	15.6	13.6	13.9	0.4
R062	718723	742048	15.0	12.7	13.1	0.3

Receptor	x	y	Annual Mean NO_2 Concentration and Impact – Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R063	718586	741581	14.5	12.4	12.7	0.3
R064	719645	743092	14.3	12.5	12.8	0.3
R065	719943	743363	13.8	12.2	12.5	0.3
R066	719971	743009	13.7	12.1	12.3	0.3
R067	716636	745211	16.9	15.6	16.6	1.0
R068	717032	745120	17.7	16.4	17.5	1.1
R069	717372	745110	18.1	16.8	17.9	1.2
R070	717396	740360	27.6	20.1	20.4	0.3
R071	717010	739467	19.1	14.9	15.1	0.2
R072	716949	739000	18.4	14.4	14.6	0.2
R073	717242	740375	26.5	19.4	19.7	0.3
R074	716939	740531	17.1	13.9	14.2	0.3
R075	716861	738961	16.7	13.4	13.6	0.2
R076	716837	738710	12.6	11.0	11.1	0.1
R077	716705	738161	11.8	10.5	10.6	0.1
R078	707826	736513	32.5	22.6	22.9	0.3
R079	707473	734079	26.4	18.7	19.0	0.2
R080	707557	734784	25.8	18.3	18.5	0.2
R081	710089	739341	24.7	17.7	18.0	0.3
R082	710899	739715	22.5	16.4	16.7	0.2
R083	719138	745300	25.6	19.7	20.6	0.8
R084	719343	745602	23.8	18.4	19.2	0.8
R085	719417	745917	23.0	17.8	18.6	0.7
R086	719427	746271	23.2	17.9	18.6	0.7
R087	719210	747512	17.5	14.0	14.4	0.4
R088	718696	755083	11.1	9.9	10.0	0.1
R089	718330	757635	11.0	9.7	9.8	0.1

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Table 2: Annual Mean PM_{10} Concentrations and Impacts

Receptor	x	y	Annual Mean PM_{10} Concentration and Impact - Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R001	717639	743066	15.1	14.6	14.9	0.3
R002	717623	742998	15.2	14.7	15.0	0.3
R003	717063	742144	15.1	14.7	14.9	0.1
R004	717444	742605	15.0	14.5	14.9	0.3
R005	717087	741841	15.0	14.6	14.7	0.1
R006	717823	743950	12.5	12.1	12.2	0.1
R007	717953	743865	12.5	12.1	12.2	0.1
R008	715586	742359	14.1	13.6	13.9	0.3
R009	715482	742312	14.4	13.8	14.2	0.3
R010	716260	744520	11.7	11.3	11.4	0.1
R011	716197	744659	11.6	11.3	11.3	0.0
R012	716132	744704	11.6	11.2	11.3	0.0
R013	713323	741037	15.8	15.4	15.6	0.1
R014	715685	744775	11.6	11.2	11.2	0.0
R015	713129	741100	15.8	15.4	15.5	0.1
R016	713678	741072	14.9	14.6	14.7	0.1
R017	715272	741537	13.4	13.1	13.2	0.1
R018	715018	744828	11.5	11.1	11.2	0.0
R019	713294	742493	11.8	11.5	11.5	0.0
R020	715625	741172	12.5	12.1	12.2	0.0
R021	712599	743016	11.5	11.2	11.2	0.0
R022	712603	742330	11.6	11.2	11.3	0.0
R023	715325	743346	11.8	11.5	11.5	0.1
R024	714341	743119	11.9	11.5	11.6	0.1
R025	714471	743157	11.8	11.5	11.5	0.1
R026	715335	743880	11.7	11.3	11.4	0.0
R027	714305	743658	11.6	11.2	11.3	0.0
R028	714128	743860	11.5	11.2	11.2	0.0
R029	713787	743724	11.5	11.2	11.2	0.0
R030	713567	743754	11.5	11.2	11.2	0.0
R031	713652	743945	11.5	11.1	11.2	0.0
R032	712950	743589	11.5	11.1	11.1	0.0
R033	712860	743479	11.5	11.1	11.1	0.0
R034	712975	743736	11.5	11.1	11.1	0.0
R035	712767	743397	11.5	11.1	11.1	0.0
R036	713040	743889	11.5	11.1	11.1	0.0

Receptor	x	y	Annual Mean PM_{10} Concentration and Impact - Principal Assessment ($\mu g/m^3$)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R037	712803	744260	11.4	11.1	11.1	0.0
R038	712834	744978	11.4	11.0	11.0	0.0
R039	712195	744288	11.4	11.0	11.0	0.0
R040	711897	743406	11.4	11.1	11.1	0.0
R041	712622	745299	11.4	11.0	11.0	0.0
R042	711957	742972	11.4	11.1	11.1	0.0
R043	711747	743592	11.4	11.0	11.0	0.0
R044	712076	745138	11.4	11.0	11.0	0.0
R045	711140	744060	11.3	11.0	11.0	0.0
R046	711073	744617	11.3	11.0	11.0	0.0
R047	717702	745239	15.3	14.9	15.1	0.1
R048	717782	744757	13.5	13.1	13.2	0.1
R049	718779	743196	12.5	12.1	12.2	0.0
R050	718601	744054	13.6	13.3	13.4	0.1
R051	718134	744482	12.0	11.6	11.7	0.0
R052	718880	743477	12.4	12.0	12.1	0.0
R053	718702	742877	12.4	12.1	12.1	0.0
R054	718953	744795	13.2	12.9	12.9	0.1
R055	718720	743335	13.1	12.8	12.8	0.1
R056	718834	742953	12.2	11.9	11.9	0.0
R057	717652	741176	15.0	14.7	14.7	0.1
R058	718554	742277	12.4	12.0	12.1	0.0
R059	718804	744573	12.8	12.4	12.5	0.0
R060	717512	741404	13.4	13.1	13.2	0.0
R061	719130	743159	11.9	11.6	11.6	0.0
R062	718723	742048	12.0	11.7	11.7	0.0
R063	718586	741581	11.9	11.6	11.6	0.0
R064	719645	743092	11.7	11.3	11.3	0.0
R065	719943	743363	11.6	11.3	11.3	0.0
R066	719971	743009	11.6	11.2	11.2	0.0
R067	716636	745211	11.5	11.2	11.2	0.0
R068	717032	745120	11.6	11.2	11.3	0.0
R069	717372	745110	11.7	11.3	11.3	0.0
R070	717396	740360	17.0	16.7	16.8	0.1
R071	717010	739467	14.0	13.7	13.7	0.1
R072	716949	739000	13.8	13.4	13.5	0.0
R073	717242	740375	16.5	16.2	16.3	0.1
R074	716939	740531	13.1	12.8	12.8	0.1

Receptor	x	y	Annual Mean PM_{10} Concentration and Impact - Principal Assessment ($\mu g/m^3$)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R075	716861	738961	13.1	12.7	12.8	0.0
R076	716837	738710	11.6	11.2	11.2	0.0
R077	716705	738161	11.3	11.0	11.0	0.0
R078	707826	736513	18.5	18.2	18.3	0.2
R079	707473	734079	16.6	16.3	16.4	0.1
R080	707557	734784	16.4	16.0	16.2	0.1
R081	710089	739341	15.5	15.1	15.2	0.1
R082	710899	739715	14.7	14.4	14.4	0.1
R083	719138	745300	13.8	13.4	13.5	0.1
R084	719343	745602	13.4	13.1	13.1	0.1
R085	719417	745917	13.2	12.9	13.0	0.0
R086	719427	746271	13.4	13.0	13.1	0.0
R087	719210	747512	12.4	12.0	12.0	0.0
R088	718696	755083	11.2	10.9	10.9	0.0
R089	718330	757635	11.2	10.9	10.9	0.0

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Table 3: Annual Mean $PM_{2.5}$ Concentrations and Impacts

Receptor	x	y	Annual Mean $PM_{2.5}$ Concentration and Impact - Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R001	717639	743066	9.8	8.6	8.8	0.2
R002	717623	742998	9.9	8.7	8.9	0.2
R003	717063	742144	9.8	8.6	8.7	0.1
R004	717444	742605	9.7	8.6	8.8	0.2
R005	717087	741841	9.7	8.6	8.6	0.1
R006	717823	743950	7.9	7.3	7.3	0.1
R007	717953	743865	7.8	7.3	7.3	0.0
R008	715586	742359	8.9	8.0	8.2	0.2
R009	715482	742312	9.1	8.1	8.3	0.2
R010	716260	744520	7.2	6.8	6.9	0.0
R011	716197	744659	7.2	6.8	6.8	0.0
R012	716132	744704	7.2	6.8	6.8	0.0
R013	713323	741037	10.0	9.1	9.2	0.1
R014	715685	744775	7.1	6.8	6.8	0.0
R015	713129	741100	10.0	9.1	9.1	0.1
R016	713678	741072	9.4	8.6	8.6	0.1
R017	715272	741537	8.3	7.7	7.8	0.1
R018	715018	744828	7.1	6.7	6.7	0.0
R019	713294	742493	7.3	6.9	6.9	0.0
R020	715625	741172	7.7	7.2	7.3	0.0
R021	712599	743016	7.1	6.7	6.7	0.0
R022	712603	742330	7.2	6.7	6.7	0.0
R023	715325	743346	7.3	6.9	7.0	0.0
R024	714341	743119	7.2	6.9	6.9	0.0
R025	714471	743157	7.2	6.9	6.9	0.0
R026	715335	743880	7.2	6.8	6.9	0.0
R027	714305	743658	7.1	6.8	6.8	0.0
R028	714128	743860	7.1	6.7	6.7	0.0
R029	713787	743724	7.1	6.7	6.7	0.0
R030	713567	743754	7.1	6.7	6.7	0.0
R031	713652	743945	7.1	6.7	6.7	0.0
R032	712950	743589	7.1	6.7	6.7	0.0
R033	712860	743479	7.1	6.7	6.7	0.0
R034	712975	743736	7.0	6.7	6.7	0.0
R035	712767	743397	7.1	6.7	6.7	0.0
R036	713040	743889	7.0	6.7	6.7	0.0

Receptor	x	y	Annual Mean $PM_{2.5}$ Concentration and Impact - Principal Assessment ($\mu g/m^3$)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R037	712803	744260	7.0	6.6	6.6	0.0
R038	712834	744978	7.0	6.6	6.6	0.0
R039	712195	744288	7.0	6.6	6.6	0.0
R040	711897	743406	7.0	6.6	6.6	0.0
R041	712622	745299	7.0	6.6	6.6	0.0
R042	711957	742972	7.0	6.6	6.7	0.0
R043	711747	743592	7.1	6.6	6.6	0.0
R044	712076	745138	7.0	6.6	6.6	0.0
R045	711140	744060	7.0	6.6	6.6	0.0
R046	711073	744617	6.9	6.6	6.6	0.0
R047	717702	745239	9.9	8.7	8.8	0.1
R048	717782	744757	8.5	7.8	7.8	0.1
R049	718779	743196	7.8	7.2	7.3	0.0
R050	718601	744054	8.2	8.0	8.0	0.0
R051	718134	744482	7.5	7.0	7.0	0.0
R052	718880	743477	7.8	7.2	7.2	0.0
R053	718702	742877	7.8	7.2	7.2	0.0
R054	718953	744795	8.0	7.7	7.8	0.0
R055	718720	743335	7.9	7.6	7.7	0.0
R056	718834	742953	7.6	7.1	7.1	0.0
R057	717652	741176	7.5	8.6	8.7	0.0
R058	718554	742277	7.8	7.2	7.2	0.0
R059	718804	744573	7.8	7.5	7.5	0.0
R060	717512	741404	8.4	7.8	7.8	0.0
R061	719130	743159	7.4	6.9	7.0	0.0
R062	718723	742048	7.5	7.0	7.0	0.0
R063	718586	741581	7.5	6.9	6.9	0.0
R064	719645	743092	7.2	6.8	6.8	0.0
R065	719943	743363	7.2	6.7	6.8	0.0
R066	719971	743009	7.1	6.7	6.7	0.0
R067	716636	745211	7.1	6.7	6.7	0.0
R068	717032	745120	7.2	6.8	6.8	0.0
R069	717372	745110	7.2	6.8	6.8	0.0
R070	717396	740360	8.0	9.7	9.8	0.0
R071	717010	739467	8.9	8.0	8.0	0.0
R072	716949	739000	8.7	7.9	7.9	0.0
R073	717242	740375	7.9	9.5	9.5	0.0
R074	716939	740531	8.3	7.5	7.6	0.0

Receptor	x	y	Annual Mean $PM_{2.5}$ Concentration and Impact - Principal Assessment (µg/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R075	716861	738961	8.2	7.5	7.5	0.0
R076	716837	738710	7.1	6.7	6.7	0.0
R077	716705	738161	6.9	6.6	6.6	0.0
R078	707826	736513	11.9	10.6	10.7	0.1
R079	707473	734079	10.5	9.5	9.6	0.1
R080	707557	734784	10.4	9.4	9.4	0.1
R081	710089	739341	9.8	8.9	9.0	0.1
R082	710899	739715	9.3	8.5	8.5	0.0
R083	719138	745300	8.3	8.0	8.1	0.0
R084	719343	745602	8.1	7.8	7.8	0.0
R085	719417	745917	8.0	7.7	7.8	0.0
R086	719427	746271	8.1	7.8	7.8	0.0
R087	719210	747512	7.5	7.2	7.2	0.0
R088	718696	755083	6.9	6.5	6.5	0.0
R089	718330	757635	6.9	6.5	6.5	0.0

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Table 4: 98th Percentile of Hourly Odour Concentrations and Impacts – Principal Assessment

Receptor	x	y	98th Percentile of Hourly Odour Concentration and Impact - Principal Assessment (OU_E/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R001	717639	743066	2.7	3.0	3.2	0.3
R002	717623	742998	2.6	2.9	3.0	0.2
R003	717063	742144	1.2	1.2	1.3	0.1
R004	717444	742605	2.0	2.0	2.5	0.5
R005	717087	741841	0.7	0.7	0.8	0.1
R006	717823	743950	3.1	3.2	3.6	0.4
R007	717953	743865	2.8	2.8	3.0	0.2
R008	715586	742359	1.1	1.0	1.1	0.2
R009	715482	742312	1.0	0.9	1.0	0.2
R010	716260	744520	2.7	3.0	3.4	0.4
R011	716197	744659	2.2	2.2	2.6	0.4
R012	716132	744704	1.9	1.9	2.2	0.3
R013	713323	741037	0.2	0.1	0.2	0.0
R014	715685	744775	1.8	1.9	2.1	0.1
R015	713129	741100	0.1	0.1	0.2	0.0
R016	713678	741072	0.2	0.2	0.2	0.0
R017	715272	741537	0.4	0.4	0.4	0.1
R018	715018	744828	1.4	1.4	1.6	0.2
R019	713294	742493	0.5	0.5	0.5	0.0
R020	715625	741172	0.3	0.3	0.3	0.0
R021	712599	743016	0.4	0.4	0.4	0.0
R022	712603	742330	0.3	0.3	0.3	0.0
R023	715325	743346	2.1	2.2	2.3	0.1
R024	714341	743119	1.5	1.3	1.5	0.2
R025	714471	743157	1.5	1.3	1.5	0.2
R026	715335	743880	2.7	2.9	3.1	0.3
R027	714305	743658	1.2	1.1	1.2	0.1
R028	714128	743860	1.0	1.0	1.1	0.1
R029	713787	743724	0.9	0.9	0.9	0.0
R030	713567	743754	0.9	0.8	0.9	0.0
R031	713652	743945	0.8	0.8	0.8	0.0
R032	712950	743589	0.7	0.7	0.7	0.0
R033	712860	743479	0.7	0.7	0.7	0.0
R034	712975	743736	0.7	0.7	0.7	0.0
R035	712767	743397	0.6	0.6	0.6	0.0
R036	713040	743889	0.7	0.7	0.7	0.0
R037	712803	744260	0.6	0.5	0.5	0.0

Receptor	x	y	98th Percentile of Hourly Odour Concentration and Impact - Principal Assessment (OU_E/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R038	712834	744978	0.4	0.4	0.4	0.1
R039	712195	744288	0.4	0.4	0.4	0.0
R040	711897	743406	0.3	0.3	0.3	0.0
R041	712622	745299	0.4	0.3	0.4	0.1
R042	711957	742972	0.3	0.3	0.3	0.0
R043	711747	743592	0.3	0.3	0.3	0.0
R044	712076	745138	0.3	0.3	0.3	0.0
R045	711140	744060	0.2	0.2	0.2	0.0
R046	711073	744617	0.2	0.2	0.2	0.0
R047	717702	745239	1.5	1.5	1.7	0.2
R048	717782	744757	2.3	2.4	2.6	0.3
R049	718779	743196	0.8	0.8	0.9	0.1
R050	718601	744054	1.7	1.6	1.9	0.3
R051	718134	744482	2.2	2.1	2.4	0.3
R052	718880	743477	1.0	1.0	1.1	0.1
R053	718702	742877	0.7	0.7	0.8	0.1
R054	718953	744795	1.4	1.4	1.5	0.1
R055	718720	743335	1.0	1.0	1.1	0.2
R056	718834	742953	0.7	0.7	0.8	0.1
R057	717652	741176	0.3	0.3	0.3	0.0
R058	718554	742277	0.5	0.6	0.6	0.1
R059	718804	744573	1.5	1.4	1.8	0.3
R060	717512	741404	0.4	0.4	0.4	0.0
R061	719130	743159	0.6	0.6	0.7	0.1
R062	718723	742048	0.4	0.4	0.5	0.1
R063	718586	741581	0.4	0.4	0.4	0.1
R064	719645	743092	0.4	0.5	0.5	0.1
R065	719943	743363	0.4	0.4	0.5	0.1
R066	719971	743009	0.4	0.4	0.4	0.1
R067	716636	745211	1.4	1.4	1.6	0.2
R068	717032	745120	1.6	1.6	1.8	0.2
R069	717372	745110	1.7	1.7	1.9	0.2
R070	717396	740360	0.2	0.2	0.2	0.0
R071	717010	739467	0.1	0.1	0.1	0.0
R072	716949	739000	0.1	0.1	0.1	0.0
R073	717242	740375	0.2	0.2	0.2	0.0
R074	716939	740531	0.2	0.2	0.2	0.0
R075	716861	738961	0.1	0.1	0.1	0.0

Receptor	x	y	98th Percentile of Hourly Odour Concentration and Impact - Principal Assessment (OU_E/m^3)			
			2025 Current Operation	2029 Permitted Operation	2029 Proposed Operation	Impact
R076	716837	738710	0.1	0.1	0.1	0.0
R077	716705	738161	0.1	0.1	0.1	0.0
R078	707826	736513	0.0	0.0	0.0	0.0
R079	707473	734079	0.0	0.0	0.0	0.0
R080	707557	734784	0.0	0.0	0.0	0.0
R081	710089	739341	0.0	0.0	0.0	0.0
R082	710899	739715	0.0	0.0	0.0	0.0
R083	719138	745300	1.1	1.1	1.2	0.1
R084	719343	745602	0.9	0.9	0.9	0.1
R085	719417	745917	0.8	0.7	0.8	0.1
R086	719427	746271	0.7	0.6	0.7	0.1
R087	719210	747512	0.3	0.3	0.4	0.1
R088	718696	755083	0.0	0.0	0.1	0.0
R089	718330	757635	0.0	0.0	0.0	0.0

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Nature Conservation

Future Receiving Environment

The predicted concentrations for annual mean NO_X, NH_3, and nitrogen deposition in the future receiving environment are presented below. Predictions have been made at sensitive nature conservation habitat receptors located adjacent to the local road network and receptors located beneath the flightpath to and from the Airport (see Appendix 7-1).

Concentrations have been predicted for the 2025 Current Operation (36.4 mppa; current receiving environment), 2029 Permitted Operation (32 mppa; forms the future receiving environment), and the 2029 Proposed Operation (40 mppa). The impact of the Proposed Order is demonstrated by the difference in predicted concentrations of the 2029 Permitted Operation and the 2029 Proposed Operation scenarios as a percentage of the critical load or critical level for that pollutant.

Additional results have been provided for a scenario that is used to inform the Appropriate Assessment, which is referred to as the Future Baseline for Ecology. This scenario is based on the airside activities and landside surface access traffic movements from the 2025 Current Operation data sets but utilises emissions data and background pollutant concentration data for the assessment year of 2029. This provides the ecologists with data that represents 2029 with no cumulative development accounted for since 2025, which enables them to discuss in-combination effects at the nature conservation sensitive receptors.

Annual Mean NO_X

The predicted annual mean NO_X concentrations in the future receiving environment (2029) are below the National Air Quality Standard and EU Limit Value for this pollutant (30 µg/m^3) at the sensitive habitats with a European designation. Concentrations are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where concentrations peak at 22.2 µg/m^3.

Annual mean concentrations of NO_X are elevated above the current National Air Quality Standard and EU Air Quality Directive (2024/2881) Limit Value (30 µg/m^3) at all of the non-statutory proposed Natural Heritage Area habitats considered in this assessment, in the future receiving environment, as described below:

- The Royal Canal proposed Natural Heritage Area, up to 50m back from the roadside. At 50 m back, NO_X concentrations fall to 29.9 µg/m^3 from a concentration of 102.2 µg/m^3 directly at the roadside.
- The Grand Canal proposed Natural Heritage Area, up to 50 m back from the road. At 50 m back, NO_X concentrations are 28.0 µg/m^3 from a concentration of 50.4 µg/m^3 directly at the roadside.
- The Liffey Valley proposed Natural Heritage Area, up to 40 m back from the road. At 40 m back, NO_X concentrations are 29.0 µg/m^3 from a concentration of 69.6 µg/m^3 directly at the roadside.
- The Santry Demesne proposed Natural Heritage Area at the roadside. At 10 m back from the road, NO_X concentrations fall to 28.5 µg/m^3 from a concentration of 37.0 µg/m^3 directly at the roadside.
- The Bog of Ring proposed Natural Heritage Area at the roadside. At 10 m back from the road, NO_X concentrations fall to 23.2 µg/m^3 from concentration of 41.9 µg/m^3 directly at the roadside.

Annual Mean NH_3

The predicted annual mean NH_3 concentrations in the future receiving environment are above the lower Critical Level for that pollutant (1 µg/m^3) but well below the upper Critical Level (3 µg/m^3) at the sensitive habitats with a European designation. At these locations, the lower Critical Level is already exceeded by the background contribution. Concentrations are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where concentrations peak at 2.0 µg/m^3. Whether or not lichens and bryophytes are present at a nature conservation receptor is confirmed in Chapter 12: Biodiversity.

Annual mean concentrations of NH_3 are elevated above the upper Critical Level for this pollutant (3 µg/m^3) at the following non-statutory proposed Natural Heritage Area locations, in the future receiving environment:

- The Royal Canal proposed Natural Heritage Area, up to 60 m back from the roadside. At 60 m back, NH_3 concentrations fall to 2.9 µg/m^3 from a concentration of 5.5 µg/m^3 directly at the roadside.

- The Liffey Valley proposed Natural Heritage Area, up to 50 m back from the road. At 50 m back, NH_3 concentrations are 2.9 µg/m^3 from a concentration of 6.1 µg/m^3 directly at the roadside.
- The Grand Canal proposed Natural Heritage Area, up to 40m back from the road. At 40m back, NH_3 concentrations are 2.9 µg/m^3 from a concentration of 4.7 µg/m^3 directly at the roadside.
- The Bog of Ring proposed Natural Heritage Area at the roadside. At 10 m back from the road, NH_3 concentrations fall to 2.9 µg/m^3 from a concentration of 3.8 µg/m^3 directly at the roadside.

Annual Nitrogen Deposition Rates

The predicted annual rates of nitrogen deposition in the future receiving environment are below the lower Critical Loads for that pollutant (10 kgN/ha/yr and 20 kgN/ha/yr) at the sensitive habitats with a European designation. Deposition rates are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where they peak at 7.8 kgN/ha/yr.

Annual rates of nitrogen deposition in the future receiving environment are elevated above the Critical Load for this pollutant (5 kgN/ha/yr and 10 kgN/ha/yr) at all the non-statutory proposed Natural Heritage Area habitats considered. At some locations this occurs over 200 m from the main road source of emissions. This is because the majority of the exceedances are due to the elevated background contribution.

Assessment to Inform Effects and Significance

The predicted concentrations for annual mean NO_X, NH_3, and nitrogen deposition with the Proposed Operation are presented below. Predictions have been made at sensitive nature conservation habitat receptors located adjacent to the local road network and receptors located beneath the flightpath to and from the Airport.

This section provides the modelled impact of the amended Proposed Order on the nature conservation sites. Whether or not that impact is significant is discussed in Chapter 12: Biodiversity.

Annual Mean NO_X

The predicted annual mean NO_X concentrations in the Proposed Operation scenario are below the National Air Quality Standard and EU Limit Value for this pollutant (30 µg/m^3) at the sensitive habitats with a European designation. Concentrations are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where concentrations peak at 23.1 µg/m^3.

Annual mean concentrations of NO_X remain above the current National Air Quality Standard and EU Air Quality Directive (2024/2881) Limit Value (30 µg/m^3) at all of the non-statutory proposed Natural Heritage Area habitats considered in this assessment , as described below:

- The Royal Canal proposed Natural Heritage Area, up to 60 m back from the roadside, where concentrations due to the Proposed Order are predicted to increase by up to 2.0 µg/m^3. At 60 m back, NO_X concentrations fall to 28.9 µg/m^3.
- The Grand Canal proposed Natural Heritage Area, up to 50 m back from the road, where concentrations due to the Proposed Order are predicted to increase by up to 1.4 µg/m^3. At 50 m back, NO_X concentrations are 29.2 µg/m^3.
- The Liffey Valley proposed Natural Heritage Area, up to 40 m back from the road, where concentrations due to the Proposed Order are predicted to increase by up to 1.4 µg/m^3. At 40 m back, NO_X concentrations are 27.1 µg/m^3.
- The Santry Demesne proposed Natural Heritage Area at the roadside, where concentrations due to the Proposed Order are predicted to increase by up to 0.9 µg/m^3. At 10 m back from the road, NO_X concentrations fall to 29.7 µg/m^3.
- The Bog of Ring proposed Natural Heritage Area at the roadside, where concentrations due to the Proposed Order are predicted to increase by up to 1.0 µg/m^3. At 10 m back from the road, NO_X concentrations fall to 23.7 µg/m^3.

Annual Mean NH_3

The predicted annual mean NH_3 concentrations in the Proposed Operation scenario are above the lower Critical Level for that pollutant (1 µg/m^3) but well below the upper Critical Level (3 µg/m3) at the sensitive habitats with a

European designation. At these locations, the lower Critical Level is already exceeded by the background contribution. Concentrations are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where concentrations peak at 2.1 µg/m^3.

Annual mean concentrations of NH_3 are elevated above the upper Critical Level for this pollutant (3 µg/m^3) at the following non-statutory proposed Natural Heritage Area locations:

- The Royal Canal proposed Natural Heritage Area, up to 70 m back from the roadside, where there is an impact due to the Proposed Order of up to 0.2 µg/m^3. At 70 m back, NH_3 concentrations fall to 2.9 µg/m^3.
- The Liffey Valley proposed Natural Heritage Area, up to 50 m back from the road, where there is an impact due to the Proposed Order of up to 0.2 µg/m^3. At 50 m back, NH_3 concentrations are 2.9 µg/m^3.
- The Grand Canal proposed Natural Heritage Area, up to 70 m back from the road, where there is an impact due to the Proposed Order of up to 0.2 µg/m^3. At 70m back, NH_3 concentrations are 2.9 µg/m^3.
- The Bog of Ring proposed Natural Heritage Area at the roadside, where there is an impact due to the Proposed Order of up to 0.1 µg/m^3. At 10 m back from the road, NH_3 concentrations fall to 2.9 µg/m^3.

Annual Nitrogen Deposition Rates

The predicted annual rates of nitrogen deposition in the Proposed Operation scenario are below the lower Critical Loads for that pollutant (10 kgN/ha/yr and 20 kgN/ha/yr) at the sensitive habitats with a European designation. Deposition rates are highest at the roadside area of the Malahide Estuary Special Area of Conservation, adjacent to the M1, where they peak at 7.9 kgN/ha/yr.

Annual rates of nitrogen deposition with the Proposed Order in operation are elevated above the Critical Load for this pollutant (5 kgN/ha/yr and 10 kgN/ha/yr) at all the non-statutory proposed Natural Heritage Area habitats considered. At some locations this occurs over 200 m from the main road source of emissions. This is because the majority of the exceedances are due to the elevated background contribution.

Table 5: Annual Mean NO_X Concentrations and Impacts

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E01	Bog of the Ring	Roadside	718476	759898	73.3	40.0	41.9	42.8	3.20%
E01	Bog of the Ring	10m back	718466	759899	39.0	22.3	23.2	23.7	1.79%
E01	Bog of the Ring	20m back	718456	759900	28.5	16.9	17.5	17.9	1.34%
E01	Bog of the Ring	30m back	718446	759901	23.4	14.2	14.7	15.0	1.12%
E01	Bog of the Ring	40m back	718436	759902	20.2	12.6	13.0	13.3	0.97%
E01	Bog of the Ring	50m back	718426	759903	18.0	11.4	11.8	12.0	0.88%
E01	Bog of the Ring	60m back	718416	759903	16.4	10.6	10.9	11.2	0.80%
E01	Bog of the Ring	70m back	718406	759904	15.2	10.0	10.2	10.5	0.74%
E01	Bog of the Ring	80m back	718396	759905	14.2	9.5	9.7	9.9	0.70%
E01	Bog of the Ring	90m back	718386	759906	13.4	9.1	9.3	9.5	0.66%
E01	Bog of the Ring	100m back	718376	759907	12.7	8.7	8.9	9.1	0.63%
E01	Bog of the Ring	110m back	718366	759908	12.2	8.4	8.6	8.8	0.60%
E01	Bog of the Ring	120m back	718356	759909	11.7	8.2	8.4	8.5	0.58%
E01	Bog of the Ring	130m back	718346	759910	11.3	8.0	8.1	8.3	0.56%
E01	Bog of the Ring	140m back	718336	759911	10.9	7.8	7.9	8.1	0.54%
E01	Bog of the Ring	150m back	718326	759912	10.6	7.6	7.8	7.9	0.52%
E01	Bog of the Ring	160m back	718316	759913	10.3	7.5	7.6	7.8	0.51%
E01	Bog of the Ring	170m back	718306	759914	10.1	7.4	7.5	7.6	0.50%
E01	Bog of the Ring	180m back	718297	759915	9.8	7.2	7.4	7.5	0.49%
E01	Bog of the Ring	190m back	718287	759915	9.6	7.1	7.2	7.4	0.48%
E01	Bog of the Ring	200m back	718277	759916	9.5	7.0	7.1	7.3	0.47%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02a	Malahide Estuary	Roadside	719290	747735	25.9	19.1	19.5	20.3	2.52%
E02a	Malahide Estuary	10m back	719281	747736	26.5	19.3	19.8	20.6	2.53%
E02a	Malahide Estuary	20m back	719271	747737	27.1	19.7	20.2	20.9	2.53%
E02a	Malahide Estuary	30m back	719261	747737	27.4	19.8	20.3	21.1	2.52%
E02a	Malahide Estuary	40m back	719251	747738	27.3	19.7	20.3	21.0	2.51%
E02a	Malahide Estuary	50m back	719241	747739	26.9	19.6	20.1	20.8	2.48%
E02a	Malahide Estuary	60m back	719231	747740	26.4	19.3	19.8	20.6	2.45%
E02a	Malahide Estuary	70m back	719221	747740	25.9	19.0	19.5	20.3	2.42%
E02a	Malahide Estuary	80m back	719211	747741	25.4	18.8	19.3	20.0	2.40%
E02a	Malahide Estuary	90m back	719201	747742	24.9	18.5	19.0	19.7	2.37%
E02a	Malahide Estuary	100m back	719191	747743	24.4	18.3	18.7	19.4	2.35%
E02a	Malahide Estuary	110m back	719181	747743	23.9	18.0	18.5	19.2	2.32%
E02a	Malahide Estuary	120m back	719171	747744	23.5	17.8	18.3	19.0	2.30%
E02a	Malahide Estuary	130m back	719161	747745	23.2	17.6	18.1	18.8	2.28%
E02a	Malahide Estuary	140m back	719151	747745	22.8	17.5	17.9	18.6	2.26%
E02a	Malahide Estuary	150m back	719141	747746	22.5	17.3	17.7	18.4	2.25%
E02a	Malahide Estuary	160m back	719131	747747	22.2	17.2	17.6	18.2	2.23%
E02a	Malahide Estuary	170m back	719121	747748	21.9	17.0	17.4	18.1	2.22%
E02a	Malahide Estuary	180m back	719111	747748	21.7	16.9	17.3	18.0	2.21%
E02a	Malahide Estuary	190m back	719101	747749	21.4	16.8	17.2	17.8	2.19%
E02a	Malahide Estuary	200m back	719091	747750	21.2	16.7	17.1	17.7	2.18%
E02b	Malahide Estuary	Roadside	719323	747730	27.5	19.9	20.4	21.2	2.62%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02b	Malahide Estuary	10m back	719333	747730	28.8	20.6	21.1	21.9	2.68%
E02b	Malahide Estuary	20m back	719343	747729	30.0	21.1	21.7	22.5	2.73%
E02b	Malahide Estuary	30m back	719353	747728	30.6	21.5	22.0	22.9	2.77%
E02b	Malahide Estuary	40m back	719363	747727	30.6	21.5	22.1	22.9	2.79%
E02b	Malahide Estuary	50m back	719373	747727	30.3	21.3	21.9	22.7	2.80%
E02b	Malahide Estuary	60m back	719383	747726	29.8	21.1	21.6	22.4	2.81%
E02b	Malahide Estuary	70m back	719393	747725	29.2	20.8	21.3	22.1	2.81%
E02b	Malahide Estuary	80m back	719403	747724	28.6	20.4	20.9	21.8	2.81%
E02b	Malahide Estuary	90m back	719413	747723	28.0	20.1	20.6	21.5	2.81%
E02b	Malahide Estuary	100m back	719423	747723	27.4	19.8	20.3	21.1	2.81%
E02b	Malahide Estuary	110m back	719433	747722	26.8	19.6	20.0	20.8	2.81%
E02b	Malahide Estuary	120m back	719443	747721	26.3	19.3	19.7	20.6	2.81%
E02b	Malahide Estuary	130m back	719453	747720	25.9	19.1	19.5	20.3	2.81%
E02b	Malahide Estuary	140m back	719463	747719	25.4	18.8	19.2	20.1	2.82%
E02b	Malahide Estuary	150m back	719473	747719	25.0	18.6	19.0	19.9	2.82%
E02b	Malahide Estuary	160m back	719483	747718	24.7	18.4	18.8	19.7	2.83%
E02b	Malahide Estuary	170m back	719493	747717	24.3	18.3	18.6	19.5	2.84%
E02b	Malahide Estuary	180m back	719503	747716	24.0	18.1	18.4	19.3	2.84%
E02b	Malahide Estuary	190m back	719513	747716	23.7	17.9	18.3	19.1	2.85%
E02b	Malahide Estuary	200m back	719522	747715	23.4	17.8	18.1	19.0	2.86%
E03a	Malahide Estuary	Roadside	719283	747642	26.2	19.3	19.7	20.5	2.68%
E03a	Malahide Estuary	10m back	719273	747642	26.8	19.5	20.0	20.8	2.68%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03a	Malahide Estuary	20m back	719263	747643	27.3	19.8	20.4	21.2	2.68%
E03a	Malahide Estuary	30m back	719253	747644	27.6	20.0	20.5	21.3	2.67%
E03a	Malahide Estuary	40m back	719243	747645	27.5	19.9	20.4	21.2	2.65%
E03a	Malahide Estuary	50m back	719233	747646	27.1	19.7	20.2	21.0	2.62%
E03a	Malahide Estuary	60m back	719223	747646	26.6	19.5	20.0	20.7	2.59%
E03a	Malahide Estuary	70m back	719213	747647	26.1	19.2	19.7	20.4	2.56%
E03a	Malahide Estuary	80m back	719203	747648	25.5	18.9	19.4	20.2	2.53%
E03a	Malahide Estuary	90m back	719193	747649	25.0	18.6	19.1	19.9	2.50%
E03a	Malahide Estuary	100m back	719183	747650	24.6	18.4	18.9	19.6	2.47%
E03a	Malahide Estuary	110m back	719173	747650	24.1	18.2	18.6	19.4	2.44%
E03a	Malahide Estuary	120m back	719163	747651	23.7	18.0	18.4	19.1	2.42%
E03a	Malahide Estuary	130m back	719153	747652	23.3	17.8	18.2	18.9	2.39%
E03a	Malahide Estuary	140m back	719143	747653	23.0	17.6	18.0	18.7	2.37%
E03a	Malahide Estuary	150m back	719133	747654	22.7	17.4	17.9	18.6	2.35%
E03a	Malahide Estuary	160m back	719123	747654	22.4	17.3	17.7	18.4	2.33%
E03a	Malahide Estuary	170m back	719113	747655	22.1	17.1	17.5	18.2	2.32%
E03a	Malahide Estuary	180m back	719103	747656	21.8	17.0	17.4	18.1	2.30%
E03a	Malahide Estuary	190m back	719094	747657	21.6	16.9	17.3	18.0	2.29%
E03a	Malahide Estuary	200m back	719084	747658	21.4	16.8	17.2	17.9	2.27%
E03b	Malahide Estuary	Roadside	719316	747638	27.8	20.1	20.6	21.4	2.78%
E03b	Malahide Estuary	10m back	719326	747637	29.1	20.8	21.3	22.1	2.84%
E03b	Malahide Estuary	20m back	719336	747636	30.2	21.3	21.9	22.7	2.90%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03b	Malahide Estuary	30m back	719346	747636	30.8	21.6	22.2	23.1	2.94%
E03b	Malahide Estuary	40m back	719356	747635	30.9	21.7	22.2	23.1	2.96%
E03b	Malahide Estuary	50m back	719366	747634	30.5	21.5	22.1	22.9	2.97%
E03b	Malahide Estuary	60m back	719376	747633	30.0	21.2	21.8	22.7	2.98%
E03b	Malahide Estuary	70m back	719386	747633	29.4	20.9	21.4	22.3	2.98%
E03b	Malahide Estuary	80m back	719396	747632	28.8	20.6	21.1	22.0	2.98%
E03b	Malahide Estuary	90m back	719406	747631	28.2	20.3	20.8	21.7	2.98%
E03b	Malahide Estuary	100m back	719416	747630	27.6	20.0	20.5	21.3	2.98%
E03b	Malahide Estuary	110m back	719426	747629	27.1	19.7	20.2	21.1	2.98%
E03b	Malahide Estuary	120m back	719435	747629	26.5	19.5	19.9	20.8	2.98%
E03b	Malahide Estuary	130m back	719445	747628	26.1	19.2	19.6	20.5	2.99%
E03b	Malahide Estuary	140m back	719455	747627	25.6	19.0	19.4	20.3	2.99%
E03b	Malahide Estuary	150m back	719465	747626	25.2	18.8	19.2	20.1	3.00%
E03b	Malahide Estuary	160m back	719475	747626	24.9	18.6	19.0	19.9	3.00%
E03b	Malahide Estuary	170m back	719485	747625	24.5	18.4	18.8	19.7	3.01%
E03b	Malahide Estuary	180m back	719495	747624	24.2	18.3	18.6	19.5	3.02%
E03b	Malahide Estuary	190m back	719505	747623	23.9	18.1	18.4	19.3	3.02%
E03b	Malahide Estuary	200m back	719515	747622	23.6	18.0	18.3	19.2	3.03%
E04a	Santry Demsne	Roadside	716612	740056	25.3	21.5	21.8	22.1	1.20%
E04a	Santry Demsne	10m back	716616	740065	25.4	21.6	21.8	22.2	1.21%
E04a	Santry Demsne	20m back	716620	740074	25.5	21.6	21.9	22.3	1.22%
E04a	Santry Demsne	30m back	716624	740083	25.6	21.7	22.0	22.3	1.23%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04a	Santry Demsne	40m back	716628	740092	25.7	21.8	22.0	22.4	1.24%
E04a	Santry Demsne	50m back	716632	740101	25.8	21.8	22.1	22.5	1.25%
E04a	Santry Demsne	60m back	716636	740110	25.9	21.9	22.2	22.5	1.26%
E04a	Santry Demsne	70m back	716640	740120	26.0	22.0	22.2	22.6	1.26%
E04a	Santry Demsne	80m back	716644	740129	26.1	22.0	22.3	22.7	1.27%
E04a	Santry Demsne	90m back	716648	740138	26.2	22.1	22.3	22.7	1.28%
E04a	Santry Demsne	100m back	716653	740147	26.3	22.1	22.4	22.8	1.29%
E04a	Santry Demsne	110m back	716657	740156	26.4	22.2	22.4	22.8	1.30%
E04a	Santry Demsne	120m back	716661	740165	26.5	22.2	22.5	22.9	1.31%
E04a	Santry Demsne	130m back	716665	740175	26.5	22.3	22.5	22.9	1.32%
E04a	Santry Demsne	140m back	716669	740184	26.6	22.3	22.6	23.0	1.33%
E04a	Santry Demsne	150m back	716673	740193	26.7	22.4	22.6	23.0	1.34%
E04a	Santry Demsne	160m back	716677	740202	26.8	22.4	22.7	23.1	1.35%
E04a	Santry Demsne	170m back	716681	740211	26.9	22.5	22.8	23.2	1.36%
E04a	Santry Demsne	180m back	716685	740220	27.0	22.5	22.8	23.2	1.37%
E04a	Santry Demsne	190m back	716689	740229	27.1	22.6	22.9	23.3	1.38%
E04a	Santry Demsne	200m back	716693	740239	27.2	22.6	22.9	23.4	1.39%
E04b	Santry Demsne	Roadside	716937	740599	53.0	36.3	37.0	37.9	3.15%
E04b	Santry Demsne	10m back	716928	740604	38.1	28.5	29.0	29.7	2.43%
E04b	Santry Demsne	20m back	716919	740609	34.0	26.4	26.8	27.5	2.22%
E04b	Santry Demsne	30m back	716910	740613	32.0	25.3	25.7	26.4	2.13%
E04b	Santry Demsne	40m back	716901	740618	30.8	24.7	25.1	25.7	2.07%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04b	Santry Demsne	50m back	716892	740622	30.1	24.3	24.7	25.3	2.03%
E04b	Santry Demsne	60m back	716884	740627	29.5	24.1	24.4	25.0	2.01%
E04b	Santry Demsne	70m back	716875	740632	29.1	23.8	24.2	24.8	1.98%
E04b	Santry Demsne	80m back	716866	740636	28.7	23.7	24.0	24.6	1.97%
E04b	Santry Demsne	90m back	716857	740641	28.5	23.6	23.9	24.5	1.95%
E04b	Santry Demsne	100m back	716848	740645	28.3	23.5	23.8	24.4	1.94%
E04b	Santry Demsne	110m back	716839	740650	28.1	23.4	23.7	24.3	1.93%
E04b	Santry Demsne	120m back	716830	740654	27.9	23.3	23.6	24.2	1.92%
E04b	Santry Demsne	130m back	716821	740659	27.8	23.2	23.6	24.1	1.91%
E04b	Santry Demsne	140m back	716813	740664	27.7	23.2	23.5	24.1	1.90%
E04b	Santry Demsne	150m back	716804	740668	27.6	23.2	23.5	24.0	1.89%
E04b	Santry Demsne	160m back	716795	740673	27.5	23.1	23.4	24.0	1.88%
E04b	Santry Demsne	170m back	716786	740677	27.5	23.1	23.4	24.0	1.87%
E04b	Santry Demsne	180m back	716777	740682	27.4	23.1	23.4	24.0	1.86%
E04b	Santry Demsne	190m back	716768	740687	27.3	23.0	23.4	23.9	1.85%
E04b	Santry Demsne	200m back	716759	740691	27.3	23.0	23.4	23.9	1.84%
E05a	Royal Canal	Roadside	708943	738203	108.0	62.1	64.4	65.6	3.98%
E05a	Royal Canal	10m back	708951	738197	75.0	45.0	46.5	47.3	2.76%
E05a	Royal Canal	20m back	708959	738192	60.3	37.4	38.5	39.2	2.21%
E05a	Royal Canal	30m back	708967	738186	51.9	33.0	33.9	34.5	1.90%
E05a	Royal Canal	40m back	708976	738181	46.4	30.2	30.9	31.5	1.69%
E05a	Royal Canal	50m back	708984	738175	42.5	28.1	28.8	29.3	1.54%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05a	Royal Canal	60m back	708992	738170	39.5	26.6	27.2	27.6	1.42%
E05a	Royal Canal	70m back	709001	738164	37.2	25.4	25.9	26.3	1.33%
E05a	Royal Canal	80m back	709009	738159	35.3	24.4	24.9	25.3	1.25%
E05a	Royal Canal	90m back	709017	738153	33.7	23.6	24.0	24.4	1.19%
E05a	Royal Canal	100m back	709026	738147	32.4	22.9	23.3	23.6	1.13%
E05a	Royal Canal	110m back	709034	738142	31.2	22.3	22.7	23.0	1.08%
E05a	Royal Canal	120m back	709042	738136	30.3	21.8	22.2	22.5	1.04%
E05a	Royal Canal	130m back	709051	738131	29.4	21.3	21.7	22.0	1.01%
E05a	Royal Canal	140m back	709059	738125	28.6	20.9	21.3	21.6	0.97%
E05a	Royal Canal	150m back	709067	738120	27.9	20.6	20.9	21.2	0.94%
E05a	Royal Canal	160m back	709076	738114	27.3	20.3	20.6	20.8	0.92%
E05a	Royal Canal	170m back	709084	738109	26.8	20.0	20.3	20.5	0.89%
E05a	Royal Canal	180m back	709092	738103	26.3	19.7	20.0	20.2	0.87%
E05a	Royal Canal	190m back	709101	738098	25.8	19.5	19.7	20.0	0.85%
E05a	Royal Canal	200m back	709109	738092	25.4	19.3	19.5	19.8	0.83%
E05b	Royal Canal	Roadside	708899	738190	178.4	98.6	102.3	104.3	6.60%
E05b	Royal Canal	10m back	708891	738196	100.2	58.1	60.1	61.2	3.76%
E05b	Royal Canal	20m back	708883	738202	72.2	43.5	44.9	45.7	2.70%
E05b	Royal Canal	30m back	708875	738207	59.0	36.7	37.8	38.4	2.20%
E05b	Royal Canal	40m back	708866	738213	51.0	32.6	33.4	34.0	1.89%
E05b	Royal Canal	50m back	708858	738219	45.6	29.8	30.5	31.0	1.67%
E05b	Royal Canal	60m back	708850	738224	41.8	27.7	28.4	28.9	1.52%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05b	Royal Canal	70m back	708842	738230	38.8	26.2	26.8	27.2	1.40%
E05b	Royal Canal	80m back	708833	738236	36.5	25.0	25.5	25.9	1.30%
E05b	Royal Canal	90m back	708825	738241	34.6	24.0	24.5	24.9	1.22%
E05b	Royal Canal	100m back	708817	738247	33.0	23.2	23.7	24.0	1.15%
E05b	Royal Canal	110m back	708809	738253	31.7	22.5	22.9	23.3	1.10%
E05b	Royal Canal	120m back	708800	738258	30.6	22.0	22.3	22.6	1.05%
E05b	Royal Canal	130m back	708792	738264	29.6	21.5	21.8	22.1	1.01%
E05b	Royal Canal	140m back	708784	738270	28.8	21.0	21.3	21.6	0.97%
E05b	Royal Canal	150m back	708776	738275	28.0	20.6	20.9	21.2	0.94%
E05b	Royal Canal	160m back	708767	738281	27.4	20.3	20.6	20.9	0.91%
E05b	Royal Canal	170m back	708759	738287	26.8	20.0	20.3	20.5	0.88%
E05b	Royal Canal	180m back	708751	738292	26.3	19.7	20.0	20.2	0.86%
E05b	Royal Canal	190m back	708743	738298	25.8	19.5	19.7	20.0	0.83%
E05b	Royal Canal	200m back	708735	738304	25.3	19.2	19.5	19.7	0.81%
E06a	Liffey Valley	Roadside	707689	736029	121.6	66.7	69.6	71.0	4.60%
E06a	Liffey Valley	10m back	707698	736027	78.2	44.2	46.0	46.9	2.98%
E06a	Liffey Valley	20m back	707708	736026	59.3	34.4	35.7	36.4	2.26%
E06a	Liffey Valley	30m back	707718	736024	49.2	29.2	30.2	30.8	1.87%
E06a	Liffey Valley	40m back	707728	736023	42.7	25.9	26.7	27.2	1.63%
E06a	Liffey Valley	50m back	707738	736021	38.2	23.5	24.2	24.7	1.45%
E06a	Liffey Valley	60m back	707748	736020	34.9	21.8	22.4	22.8	1.32%
E06a	Liffey Valley	70m back	707758	736018	32.3	20.4	21.0	21.4	1.22%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06a	Liffey Valley	80m back	707767	736017	30.2	19.4	19.9	20.2	1.14%
E06a	Liffey Valley	90m back	707777	736015	28.5	18.5	19.0	19.3	1.07%
E06a	Liffey Valley	100m back	707787	736014	27.1	17.7	18.2	18.5	1.01%
E06a	Liffey Valley	110m back	707797	736012	25.8	17.1	17.5	17.8	0.96%
E06a	Liffey Valley	120m back	707807	736011	24.8	16.6	17.0	17.2	0.92%
E06a	Liffey Valley	130m back	707817	736009	23.9	16.1	16.5	16.7	0.88%
E06a	Liffey Valley	140m back	707827	736008	23.1	15.7	16.0	16.3	0.85%
E06a	Liffey Valley	150m back	707837	736006	22.4	15.3	15.6	15.9	0.82%
E06a	Liffey Valley	160m back	707847	736005	21.7	15.0	15.3	15.5	0.79%
E06a	Liffey Valley	170m back	707856	736003	21.1	14.7	15.0	15.2	0.77%
E06a	Liffey Valley	180m back	707866	736002	20.6	14.4	14.7	14.9	0.74%
E06a	Liffey Valley	190m back	707876	736000	20.2	14.2	14.4	14.7	0.72%
E06a	Liffey Valley	200m back	707886	735999	19.7	13.9	14.2	14.4	0.70%
E06c	Liffey Valley	Roadside	707626	735854	108.3	59.8	62.2	63.5	4.25%
E06c	Liffey Valley	10m back	707616	735855	65.5	37.6	39.0	39.8	2.56%
E06c	Liffey Valley	20m back	707606	735857	49.6	29.4	30.4	31.0	1.92%
E06c	Liffey Valley	30m back	707596	735858	41.2	25.1	25.9	26.3	1.59%
E06c	Liffey Valley	40m back	707586	735859	35.9	22.3	23.0	23.4	1.37%
E06c	Liffey Valley	50m back	707576	735861	32.2	20.4	21.0	21.4	1.22%
E06c	Liffey Valley	60m back	707566	735862	29.5	19.0	19.5	19.8	1.11%
E06c	Liffey Valley	70m back	707557	735863	27.4	17.9	18.3	18.6	1.03%
E06c	Liffey Valley	80m back	707547	735865	25.7	17.0	17.4	17.7	0.96%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06c	Liffey Valley	90m back	707537	735866	24.3	16.3	16.7	16.9	0.90%
E06c	Liffey Valley	100m back	707527	735867	23.1	15.7	16.0	16.3	0.86%
E06c	Liffey Valley	110m back	707517	735869	22.1	15.2	15.5	15.7	0.82%
E06c	Liffey Valley	120m back	707507	735870	21.3	14.7	15.0	15.3	0.78%
E06c	Liffey Valley	130m back	707497	735871	20.5	14.4	14.6	14.9	0.75%
E06c	Liffey Valley	140m back	707487	735873	19.9	14.0	14.3	14.5	0.72%
E06c	Liffey Valley	150m back	707477	735874	19.3	13.7	14.0	14.2	0.70%
E06c	Liffey Valley	160m back	707467	735875	18.8	13.5	13.7	13.9	0.68%
E06c	Liffey Valley	170m back	707457	735877	18.3	13.2	13.4	13.6	0.66%
E06c	Liffey Valley	180m back	707448	735878	17.9	13.0	13.2	13.4	0.64%
E06c	Liffey Valley	190m back	707438	735880	17.6	12.8	13.0	13.2	0.63%
E06c	Liffey Valley	200m back	707428	735881	17.2	12.6	12.8	13.0	0.61%
E06d	Liffey Valley	Roadside	707673	735926	127.4	69.7	72.8	74.2	4.81%
E06d	Liffey Valley	10m back	707683	735924	77.7	44.0	45.7	46.6	2.95%
E06d	Liffey Valley	20m back	707692	735923	58.9	34.2	35.5	36.1	2.23%
E06d	Liffey Valley	30m back	707702	735921	48.9	29.0	30.0	30.6	1.85%
E06d	Liffey Valley	40m back	707712	735920	42.5	25.7	26.6	27.1	1.61%
E06d	Liffey Valley	50m back	707722	735918	38.1	23.4	24.2	24.6	1.44%
E06d	Liffey Valley	60m back	707732	735917	34.8	21.7	22.4	22.8	1.31%
E06d	Liffey Valley	70m back	707742	735915	32.2	20.4	21.0	21.3	1.21%
E06d	Liffey Valley	80m back	707752	735914	30.1	19.3	19.9	20.2	1.12%
E06d	Liffey Valley	90m back	707762	735912	28.4	18.4	18.9	19.3	1.06%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06d	Liffey Valley	100m back	707772	735911	27.0	17.7	18.2	18.5	1.00%
E06d	Liffey Valley	110m back	707781	735909	25.8	17.1	17.5	17.8	0.95%
E06d	Liffey Valley	120m back	707791	735908	24.7	16.5	16.9	17.2	0.91%
E06d	Liffey Valley	130m back	707801	735906	23.8	16.1	16.4	16.7	0.87%
E06d	Liffey Valley	140m back	707811	735905	23.0	15.7	16.0	16.3	0.83%
E06d	Liffey Valley	150m back	707821	735903	22.3	15.3	15.6	15.9	0.80%
E06d	Liffey Valley	160m back	707831	735902	21.7	15.0	15.3	15.5	0.78%
E06d	Liffey Valley	170m back	707841	735900	21.1	14.7	15.0	15.2	0.75%
E06d	Liffey Valley	180m back	707851	735899	20.6	14.4	14.7	14.9	0.73%
E06d	Liffey Valley	190m back	707861	735897	20.1	14.1	14.4	14.6	0.71%
E06d	Liffey Valley	200m back	707870	735896	19.7	13.9	14.2	14.4	0.69%
E07a	Grand Canal	Roadside	708029	732145	83.9	48.7	50.4	51.3	3.04%
E07a	Grand Canal	10m back	708022	732141	58.8	35.6	36.7	37.3	2.05%
E07a	Grand Canal	20m back	708014	732135	46.2	29.1	29.9	30.4	1.55%
E07a	Grand Canal	30m back	708005	732130	39.4	25.6	26.2	26.6	1.28%
E07a	Grand Canal	40m back	707997	732124	35.1	23.3	23.8	24.2	1.10%
E07a	Grand Canal	50m back	707989	732119	32.1	21.7	22.2	22.5	0.98%
E07a	Grand Canal	60m back	707980	732113	29.8	20.5	21.0	21.2	0.89%
E07a	Grand Canal	70m back	707972	732108	28.0	19.6	20.0	20.3	0.82%
E07a	Grand Canal	80m back	707964	732102	26.6	18.9	19.2	19.5	0.76%
E07a	Grand Canal	90m back	707955	732096	25.5	18.3	18.6	18.8	0.71%
E07a	Grand Canal	100m back	707947	732091	24.5	17.8	18.1	18.3	0.67%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment (µg/m³)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07a	Grand Canal	110m back	707939	732085	23.7	17.3	17.6	17.8	0.63%
E07a	Grand Canal	120m back	707930	732080	22.9	17.0	17.2	17.4	0.60%
E07a	Grand Canal	130m back	707922	732074	22.3	16.6	16.9	17.1	0.58%
E07a	Grand Canal	140m back	707914	732069	21.8	16.4	16.6	16.8	0.55%
E07a	Grand Canal	150m back	707905	732063	21.3	16.1	16.3	16.5	0.53%
E07a	Grand Canal	160m back	707897	732058	20.8	15.9	16.1	16.2	0.51%
E07a	Grand Canal	170m back	707889	732052	20.4	15.7	15.9	16.0	0.50%
E07a	Grand Canal	180m back	707880	732047	20.1	15.5	15.7	15.8	0.48%
E07a	Grand Canal	190m back	707872	732041	19.8	15.3	15.5	15.6	0.47%
E07a	Grand Canal	200m back	707864	732036	19.5	15.2	15.3	15.5	0.45%
E07b	Grand Canal	Roadside	708090	732125	122.1	68.6	71.5	72.8	4.52%
E07b	Grand Canal	10m back	708096	732129	89.3	51.5	53.5	54.5	3.25%
E07b	Grand Canal	20m back	708104	732134	67.9	40.4	41.8	42.5	2.42%
E07b	Grand Canal	30m back	708113	732140	56.4	34.4	35.5	36.1	1.96%
E07b	Grand Canal	40m back	708121	732145	49.1	30.6	31.5	32.0	1.67%
E07b	Grand Canal	50m back	708129	732151	44.0	28.0	28.8	29.2	1.47%
E07b	Grand Canal	60m back	708138	732156	40.3	26.0	26.7	27.1	1.32%
E07b	Grand Canal	70m back	708146	732162	37.3	24.5	25.1	25.5	1.20%
E07b	Grand Canal	80m back	708154	732168	35.0	23.3	23.8	24.2	1.11%
E07b	Grand Canal	90m back	708163	732173	33.1	22.3	22.8	23.1	1.03%
E07b	Grand Canal	100m back	708171	732179	31.5	21.4	21.9	22.2	0.96%
E07b	Grand Canal	110m back	708179	732184	30.2	20.7	21.2	21.5	0.91%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07b	Grand Canal	120m back	708188	732190	29.0	20.1	20.5	20.8	0.86%
E07b	Grand Canal	130m back	708196	732195	28.0	19.6	20.0	20.2	0.82%
E07b	Grand Canal	140m back	708204	732201	27.1	19.1	19.5	19.7	0.78%
E07b	Grand Canal	150m back	708213	732206	26.3	18.7	19.1	19.3	0.75%
E07b	Grand Canal	160m back	708221	732212	25.6	18.4	18.7	18.9	0.72%
E07b	Grand Canal	170m back	708229	732217	25.0	18.0	18.4	18.6	0.69%
E07b	Grand Canal	180m back	708238	732223	24.4	17.7	18.0	18.2	0.66%
E07b	Grand Canal	190m back	708246	732228	23.9	17.5	17.8	18.0	0.64%
E07b	Grand Canal	200m back	708254	732234	23.4	17.2	17.5	17.7	0.62%
E08a	Baldoyle Bay	Coastal	723457	742425	9.8	9.8	9.8	10.0	0.40%
E08b	Baldoyle Bay	Coastal	724402	742427	8.8	8.8	8.8	8.9	0.23%
E08c	Baldoyle Bay	Coastal	725186	742565	8.3	8.3	8.3	8.4	0.21%
E08d	Baldoyle Bay	Coastal	723462	741381	9.4	9.4	9.4	9.6	0.49%
E08e	Baldoyle Bay	Coastal	726037	741053	8.3	8.3	8.3	8.4	0.48%
E08f	Baldoyle Bay	Coastal	727679	740679	8.1	8.1	8.2	8.3	0.38%
E09a	Howth Head	Coastal	728837	739432	6.9	6.9	7.0	7.0	0.24%
E09b	Howth Head	Coastal	727485	738445	6.5	6.5	6.6	6.6	0.26%
E09c	Howth Head	Coastal	729881	736278	8.2	8.2	8.3	8.3	0.13%
E10a	Irelands Eye	Coastal	728500	741006	7.0	7.0	7.1	7.2	0.31%
E10b	Irelands Eye	Coastal	729087	741463	6.6	6.6	6.7	6.7	0.19%
E11a	North Dublin Bay	Coastal	720996	736052	13.2	13.2	13.3	13.3	0.29%
E11b	North Dublin Bay	Coastal	721973	737200	10.6	10.6	10.7	10.9	0.49%

Receptor	Site Name	Location	x	y	Annual Mean NO_x Concentration and Impact Principal Assessment ($\mu g/m^3$)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E11c	North Dublin Bay	Coastal	722674	738136	10.0	10.0	10.2	10.2	0.16%
E11d	North Dublin Bay	Coastal	723683	738845	9.6	9.6	9.6	9.8	0.53%
E12a	Malahide Estuary	Coastal	722845	746223	10.7	10.7	10.8	11.2	1.19%

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Table 6: Annual Mean NH_3 Concentrations and Impacts

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E01	Bog of the Ring	Roadside	718476	759898	3.8	3.7	3.8	3.9	2.08%
E01	Bog of the Ring	10m back	718466	759899	2.9	2.9	2.9	2.9	1.02%
E01	Bog of the Ring	20m back	718456	759900	2.6	2.6	2.6	2.6	0.70%
E01	Bog of the Ring	30m back	718446	759901	2.5	2.4	2.4	2.5	0.55%
E01	Bog of the Ring	40m back	718436	759902	2.4	2.4	2.4	2.4	0.45%
E01	Bog of the Ring	50m back	718426	759903	2.3	2.3	2.3	2.3	0.38%
E01	Bog of the Ring	60m back	718416	759903	2.3	2.3	2.3	2.3	0.34%
E01	Bog of the Ring	70m back	718406	759904	2.2	2.2	2.2	2.2	0.30%
E01	Bog of the Ring	80m back	718396	759905	2.2	2.2	2.2	2.2	0.27%
E01	Bog of the Ring	90m back	718386	759906	2.2	2.2	2.2	2.2	0.24%
E01	Bog of the Ring	100m back	718376	759907	2.2	2.2	2.2	2.2	0.22%
E01	Bog of the Ring	110m back	718366	759908	2.2	2.2	2.2	2.2	0.20%
E01	Bog of the Ring	120m back	718356	759909	2.2	2.1	2.1	2.2	0.19%
E01	Bog of the Ring	130m back	718346	759910	2.1	2.1	2.1	2.1	0.17%
E01	Bog of the Ring	140m back	718336	759911	2.1	2.1	2.1	2.1	0.16%
E01	Bog of the Ring	150m back	718326	759912	2.1	2.1	2.1	2.1	0.15%
E01	Bog of the Ring	160m back	718316	759913	2.1	2.1	2.1	2.1	0.14%
E01	Bog of the Ring	170m back	718306	759914	2.1	2.1	2.1	2.1	0.13%
E01	Bog of the Ring	180m back	718297	759915	2.1	2.1	2.1	2.1	0.13%
E01	Bog of the Ring	190m back	718287	759915	2.1	2.1	2.1	2.1	0.12%
E01	Bog of the Ring	200m back	718277	759916	2.1	2.1	2.1	2.1	0.11%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02a	Malahide Estuary	Roadside	719290	747735	2.0	2.0	2.0	2.0	0.20%
E02a	Malahide Estuary	10m back	719281	747736	2.0	2.0	2.0	2.0	0.21%
E02a	Malahide Estuary	20m back	719271	747737	2.0	2.0	2.0	2.0	0.22%
E02a	Malahide Estuary	30m back	719261	747737	2.0	2.0	2.0	2.0	0.23%
E02a	Malahide Estuary	40m back	719251	747738	2.0	2.0	2.0	2.0	0.23%
E02a	Malahide Estuary	50m back	719241	747739	2.0	2.0	2.0	2.0	0.22%
E02a	Malahide Estuary	60m back	719231	747740	2.0	2.0	2.0	2.0	0.21%
E02a	Malahide Estuary	70m back	719221	747740	2.0	2.0	2.0	2.0	0.21%
E02a	Malahide Estuary	80m back	719211	747741	2.0	2.0	2.0	2.0	0.20%
E02a	Malahide Estuary	90m back	719201	747742	2.0	1.9	1.9	2.0	0.19%
E02a	Malahide Estuary	100m back	719191	747743	1.9	1.9	1.9	1.9	0.18%
E02a	Malahide Estuary	110m back	719181	747743	1.9	1.9	1.9	1.9	0.17%
E02a	Malahide Estuary	120m back	719171	747744	1.9	1.9	1.9	1.9	0.17%
E02a	Malahide Estuary	130m back	719161	747745	1.9	1.9	1.9	1.9	0.16%
E02a	Malahide Estuary	140m back	719151	747745	1.9	1.9	1.9	1.9	0.15%
E02a	Malahide Estuary	150m back	719141	747746	1.9	1.9	1.9	1.9	0.15%
E02a	Malahide Estuary	160m back	719131	747747	1.9	1.9	1.9	1.9	0.14%
E02a	Malahide Estuary	170m back	719121	747748	1.9	1.9	1.9	1.9	0.14%
E02a	Malahide Estuary	180m back	719111	747748	1.9	1.9	1.9	1.9	0.14%
E02a	Malahide Estuary	190m back	719101	747749	1.9	1.9	1.9	1.9	0.13%
E02a	Malahide Estuary	200m back	719091	747750	1.9	1.9	1.9	1.9	0.13%
E02b	Malahide Estuary	Roadside	719323	747730	2.0	2.0	2.0	2.0	0.23%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02b	Malahide Estuary	10m back	719333	747730	2.0	2.0	2.0	2.0	0.25%
E02b	Malahide Estuary	20m back	719343	747729	2.0	2.0	2.0	2.0	0.26%
E02b	Malahide Estuary	30m back	719353	747728	2.1	2.0	2.0	2.1	0.27%
E02b	Malahide Estuary	40m back	719363	747727	2.1	2.0	2.0	2.1	0.27%
E02b	Malahide Estuary	50m back	719373	747727	2.1	2.0	2.0	2.1	0.27%
E02b	Malahide Estuary	60m back	719383	747726	2.0	2.0	2.0	2.0	0.26%
E02b	Malahide Estuary	70m back	719393	747725	2.0	2.0	2.0	2.0	0.25%
E02b	Malahide Estuary	80m back	719403	747724	2.0	2.0	2.0	2.0	0.24%
E02b	Malahide Estuary	90m back	719413	747723	2.0	2.0	2.0	2.0	0.23%
E02b	Malahide Estuary	100m back	719423	747723	2.0	2.0	2.0	2.0	0.23%
E02b	Malahide Estuary	110m back	719433	747722	2.0	2.0	2.0	2.0	0.22%
E02b	Malahide Estuary	120m back	719443	747721	2.0	2.0	2.0	2.0	0.21%
E02b	Malahide Estuary	130m back	719453	747720	2.0	2.0	2.0	2.0	0.20%
E02b	Malahide Estuary	140m back	719463	747719	2.0	2.0	2.0	2.0	0.20%
E02b	Malahide Estuary	150m back	719473	747719	2.0	1.9	1.9	2.0	0.19%
E02b	Malahide Estuary	160m back	719483	747718	1.9	1.9	1.9	1.9	0.18%
E02b	Malahide Estuary	170m back	719493	747717	1.9	1.9	1.9	1.9	0.18%
E02b	Malahide Estuary	180m back	719503	747716	1.9	1.9	1.9	1.9	0.17%
E02b	Malahide Estuary	190m back	719513	747716	1.9	1.9	1.9	1.9	0.17%
E02b	Malahide Estuary	200m back	719522	747715	1.9	1.9	1.9	1.9	0.16%
E03a	Malahide Estuary	Roadside	719283	747642	2.0	2.0	2.0	2.0	0.15%
E03a	Malahide Estuary	10m back	719273	747642	2.0	2.0	2.0	2.0	0.22%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03a	Malahide Estuary	20m back	719263	747643	2.0	2.0	2.0	2.0	0.22%
E03a	Malahide Estuary	30m back	719253	747644	2.0	2.0	2.0	2.0	0.23%
E03a	Malahide Estuary	40m back	719243	747645	2.0	2.0	2.0	2.0	0.23%
E03a	Malahide Estuary	50m back	719233	747646	2.0	2.0	2.0	2.0	0.22%
E03a	Malahide Estuary	60m back	719223	747646	2.0	2.0	2.0	2.0	0.22%
E03a	Malahide Estuary	70m back	719213	747647	2.0	2.0	2.0	2.0	0.21%
E03a	Malahide Estuary	80m back	719203	747648	2.0	2.0	2.0	2.0	0.20%
E03a	Malahide Estuary	90m back	719193	747649	2.0	1.9	1.9	2.0	0.19%
E03a	Malahide Estuary	100m back	719183	747650	1.9	1.9	1.9	1.9	0.18%
E03a	Malahide Estuary	110m back	719173	747650	1.9	1.9	1.9	1.9	0.18%
E03a	Malahide Estuary	120m back	719163	747651	1.9	1.9	1.9	1.9	0.17%
E03a	Malahide Estuary	130m back	719153	747652	1.9	1.9	1.9	1.9	0.16%
E03a	Malahide Estuary	140m back	719143	747653	1.9	1.9	1.9	1.9	0.16%
E03a	Malahide Estuary	150m back	719133	747654	1.9	1.9	1.9	1.9	0.15%
E03a	Malahide Estuary	160m back	719123	747654	1.9	1.9	1.9	1.9	0.15%
E03a	Malahide Estuary	170m back	719113	747655	1.9	1.9	1.9	1.9	0.14%
E03a	Malahide Estuary	180m back	719103	747656	1.9	1.9	1.9	1.9	0.14%
E03a	Malahide Estuary	190m back	719094	747657	1.9	1.9	1.9	1.9	0.13%
E03a	Malahide Estuary	200m back	719084	747658	1.9	1.9	1.9	1.9	0.13%
E03b	Malahide Estuary	Roadside	719316	747638	2.0	2.0	2.0	2.0	0.24%
E03b	Malahide Estuary	10m back	719326	747637	2.0	2.0	2.0	2.0	0.25%
E03b	Malahide Estuary	20m back	719336	747636	2.0	2.0	2.0	2.0	0.27%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03b	Malahide Estuary	30m back	719346	747636	2.1	2.0	2.0	2.1	0.28%
E03b	Malahide Estuary	40m back	719356	747635	2.1	2.0	2.0	2.1	0.28%
E03b	Malahide Estuary	50m back	719366	747634	2.1	2.0	2.0	2.1	0.27%
E03b	Malahide Estuary	60m back	719376	747633	2.0	2.0	2.0	2.0	0.26%
E03b	Malahide Estuary	70m back	719386	747633	2.0	2.0	2.0	2.0	0.25%
E03b	Malahide Estuary	80m back	719396	747632	2.0	2.0	2.0	2.0	0.25%
E03b	Malahide Estuary	90m back	719406	747631	2.0	2.0	2.0	2.0	0.24%
E03b	Malahide Estuary	100m back	719416	747630	2.0	2.0	2.0	2.0	0.23%
E03b	Malahide Estuary	110m back	719426	747629	2.0	2.0	2.0	2.0	0.22%
E03b	Malahide Estuary	120m back	719435	747629	2.0	2.0	2.0	2.0	0.21%
E03b	Malahide Estuary	130m back	719445	747628	2.0	2.0	2.0	2.0	0.20%
E03b	Malahide Estuary	140m back	719455	747627	2.0	2.0	2.0	2.0	0.20%
E03b	Malahide Estuary	150m back	719465	747626	2.0	1.9	1.9	2.0	0.19%
E03b	Malahide Estuary	160m back	719475	747626	1.9	1.9	1.9	1.9	0.19%
E03b	Malahide Estuary	170m back	719485	747625	1.9	1.9	1.9	1.9	0.18%
E03b	Malahide Estuary	180m back	719495	747624	1.9	1.9	1.9	1.9	0.17%
E03b	Malahide Estuary	190m back	719505	747623	1.9	1.9	1.9	1.9	0.17%
E03b	Malahide Estuary	200m back	719515	747622	1.9	1.9	1.9	1.9	0.16%
E04a	Santry Demsne	Roadside	716612	740056	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	10m back	716616	740065	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	20m back	716620	740074	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	30m back	716624	740083	1.8	1.8	1.8	1.8	0.05%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04a	Santry Demsne	40m back	716628	740092	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	50m back	716632	740101	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	60m back	716636	740110	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	70m back	716640	740120	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	80m back	716644	740129	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	90m back	716648	740138	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	100m back	716653	740147	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	110m back	716657	740156	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	120m back	716661	740165	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	130m back	716665	740175	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	140m back	716669	740184	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	150m back	716673	740193	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	160m back	716677	740202	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	170m back	716681	740211	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	180m back	716685	740220	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	190m back	716689	740229	1.8	1.8	1.8	1.8	0.05%
E04a	Santry Demsne	200m back	716693	740239	1.8	1.8	1.8	1.8	0.05%
E04b	Santry Demsne	Roadside	716937	740599	2.6	2.5	2.5	2.6	-0.08%
E04b	Santry Demsne	10m back	716928	740604	2.1	2.1	2.1	2.1	0.04%
E04b	Santry Demsne	20m back	716919	740609	2.0	2.0	2.0	2.0	0.06%
E04b	Santry Demsne	30m back	716910	740613	2.0	1.9	1.9	2.0	0.07%
E04b	Santry Demsne	40m back	716901	740618	1.9	1.9	1.9	1.9	0.08%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04b	Santry Demsne	50m back	716892	740622	1.9	1.9	1.9	1.9	0.08%
E04b	Santry Demsne	60m back	716884	740627	1.9	1.9	1.9	1.9	0.08%
E04b	Santry Demsne	70m back	716875	740632	1.9	1.9	1.9	1.9	0.08%
E04b	Santry Demsne	80m back	716866	740636	1.9	1.9	1.9	1.9	0.09%
E04b	Santry Demsne	90m back	716857	740641	1.9	1.8	1.8	1.9	0.09%
E04b	Santry Demsne	100m back	716848	740645	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	110m back	716839	740650	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	120m back	716830	740654	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	130m back	716821	740659	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	140m back	716813	740664	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	150m back	716804	740668	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	160m back	716795	740673	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	170m back	716786	740677	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	180m back	716777	740682	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	190m back	716768	740687	1.8	1.8	1.8	1.8	0.09%
E04b	Santry Demsne	200m back	716759	740691	1.8	1.8	1.8	1.8	0.09%
E05a	Royal Canal	Roadside	708943	738203	5.6	5.5	5.5	5.6	3.60%
E05a	Royal Canal	10m back	708951	738197	4.3	4.2	4.2	4.3	2.38%
E05a	Royal Canal	20m back	708959	738192	3.7	3.7	3.7	3.7	1.83%
E05a	Royal Canal	30m back	708967	738186	3.4	3.3	3.3	3.4	1.52%
E05a	Royal Canal	40m back	708976	738181	3.2	3.1	3.1	3.2	1.31%
E05a	Royal Canal	50m back	708984	738175	3.0	3.0	3.0	3.0	1.16%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05a	Royal Canal	60m back	708992	738170	2.9	2.9	2.9	2.9	1.04%
E05a	Royal Canal	70m back	709001	738164	2.8	2.8	2.8	2.8	0.95%
E05a	Royal Canal	80m back	709009	738159	2.7	2.7	2.7	2.7	0.87%
E05a	Royal Canal	90m back	709017	738153	2.7	2.7	2.7	2.7	0.80%
E05a	Royal Canal	100m back	709026	738147	2.6	2.6	2.6	2.6	0.74%
E05a	Royal Canal	110m back	709034	738142	2.6	2.6	2.6	2.6	0.69%
E05a	Royal Canal	120m back	709042	738136	2.5	2.5	2.5	2.5	0.65%
E05a	Royal Canal	130m back	709051	738131	2.5	2.5	2.5	2.5	0.61%
E05a	Royal Canal	140m back	709059	738125	2.5	2.5	2.5	2.5	0.57%
E05a	Royal Canal	150m back	709067	738120	2.5	2.4	2.4	2.5	0.54%
E05a	Royal Canal	160m back	709076	738114	2.4	2.4	2.4	2.4	0.51%
E05a	Royal Canal	170m back	709084	738109	2.4	2.4	2.4	2.4	0.49%
E05a	Royal Canal	180m back	709092	738103	2.4	2.4	2.4	2.4	0.46%
E05a	Royal Canal	190m back	709101	738098	2.4	2.4	2.4	2.4	0.44%
E05a	Royal Canal	200m back	709109	738092	2.4	2.3	2.3	2.4	0.42%
E05b	Royal Canal	Roadside	708899	738190	8.4	8.1	8.1	8.4	5.22%
E05b	Royal Canal	10m back	708891	738196	5.3	5.2	5.2	5.3	3.09%
E05b	Royal Canal	20m back	708883	738202	4.2	4.1	4.1	4.2	2.21%
E05b	Royal Canal	30m back	708875	738207	3.7	3.6	3.6	3.7	1.76%
E05b	Royal Canal	40m back	708866	738213	3.4	3.3	3.3	3.4	1.48%
E05b	Royal Canal	50m back	708858	738219	3.2	3.1	3.1	3.2	1.28%
E05b	Royal Canal	60m back	708850	738224	3.0	3.0	3.0	3.0	1.13%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05b	Royal Canal	70m back	708842	738230	2.9	2.8	2.8	2.9	1.01%
E05b	Royal Canal	80m back	708833	738236	2.8	2.8	2.8	2.8	0.91%
E05b	Royal Canal	90m back	708825	738241	2.7	2.7	2.7	2.7	0.83%
E05b	Royal Canal	100m back	708817	738247	2.7	2.6	2.6	2.7	0.76%
E05b	Royal Canal	110m back	708809	738253	2.6	2.6	2.6	2.6	0.71%
E05b	Royal Canal	120m back	708800	738258	2.6	2.5	2.5	2.6	0.65%
E05b	Royal Canal	130m back	708792	738264	2.5	2.5	2.5	2.5	0.61%
E05b	Royal Canal	140m back	708784	738270	2.5	2.5	2.5	2.5	0.57%
E05b	Royal Canal	150m back	708776	738275	2.5	2.4	2.4	2.5	0.54%
E05b	Royal Canal	160m back	708767	738281	2.4	2.4	2.4	2.4	0.51%
E05b	Royal Canal	170m back	708759	738287	2.4	2.4	2.4	2.4	0.48%
E05b	Royal Canal	180m back	708751	738292	2.4	2.4	2.4	2.4	0.45%
E05b	Royal Canal	190m back	708743	738298	2.4	2.4	2.4	2.4	0.43%
E05b	Royal Canal	200m back	708735	738304	2.3	2.3	2.3	2.3	0.41%
E06a	Liffey Valley	Roadside	707689	736029	6.3	6.1	6.1	6.3	4.56%
E06a	Liffey Valley	10m back	707698	736027	4.5	4.4	4.4	4.5	2.83%
E06a	Liffey Valley	20m back	707708	736026	3.8	3.7	3.7	3.8	2.07%
E06a	Liffey Valley	30m back	707718	736024	3.4	3.3	3.3	3.4	1.66%
E06a	Liffey Valley	40m back	707728	736023	3.1	3.1	3.1	3.1	1.41%
E06a	Liffey Valley	50m back	707738	736021	2.9	2.9	2.9	2.9	1.23%
E06a	Liffey Valley	60m back	707748	736020	2.8	2.8	2.8	2.8	1.09%
E06a	Liffey Valley	70m back	707758	736018	2.7	2.7	2.7	2.7	0.99%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06a	Liffey Valley	80m back	707767	736017	2.6	2.6	2.6	2.6	0.90%
E06a	Liffey Valley	90m back	707777	736015	2.6	2.5	2.5	2.6	0.83%
E06a	Liffey Valley	100m back	707787	736014	2.5	2.5	2.5	2.5	0.77%
E06a	Liffey Valley	110m back	707797	736012	2.5	2.4	2.4	2.5	0.72%
E06a	Liffey Valley	120m back	707807	736011	2.4	2.4	2.4	2.4	0.68%
E06a	Liffey Valley	130m back	707817	736009	2.4	2.4	2.4	2.4	0.64%
E06a	Liffey Valley	140m back	707827	736008	2.3	2.3	2.3	2.3	0.60%
E06a	Liffey Valley	150m back	707837	736006	2.3	2.3	2.3	2.3	0.57%
E06a	Liffey Valley	160m back	707847	736005	2.3	2.3	2.3	2.3	0.54%
E06a	Liffey Valley	170m back	707856	736003	2.3	2.3	2.3	2.3	0.52%
E06a	Liffey Valley	180m back	707866	736002	2.2	2.2	2.2	2.2	0.49%
E06a	Liffey Valley	190m back	707876	736000	2.2	2.2	2.2	2.2	0.47%
E06a	Liffey Valley	200m back	707886	735999	2.2	2.2	2.2	2.2	0.45%
E06c	Liffey Valley	Roadside	707626	735854	5.7	5.6	5.6	5.7	3.71%
E06c	Liffey Valley	10m back	707616	735855	4.0	3.9	3.9	4.0	2.23%
E06c	Liffey Valley	20m back	707606	735857	3.4	3.3	3.3	3.4	1.64%
E06c	Liffey Valley	30m back	707596	735858	3.1	3.0	3.0	3.1	1.32%
E06c	Liffey Valley	40m back	707586	735859	2.9	2.8	2.8	2.9	1.12%
E06c	Liffey Valley	50m back	707576	735861	2.7	2.7	2.7	2.7	0.97%
E06c	Liffey Valley	60m back	707566	735862	2.6	2.6	2.6	2.6	0.86%
E06c	Liffey Valley	70m back	707557	735863	2.5	2.5	2.5	2.5	0.77%
E06c	Liffey Valley	80m back	707547	735865	2.4	2.4	2.4	2.4	0.70%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06c	Liffey Valley	90m back	707537	735866	2.4	2.4	2.4	2.4	0.65%
E06c	Liffey Valley	100m back	707527	735867	2.3	2.3	2.3	2.3	0.60%
E06c	Liffey Valley	110m back	707517	735869	2.3	2.3	2.3	2.3	0.55%
E06c	Liffey Valley	120m back	707507	735870	2.3	2.3	2.3	2.3	0.52%
E06c	Liffey Valley	130m back	707497	735871	2.2	2.2	2.2	2.2	0.49%
E06c	Liffey Valley	140m back	707487	735873	2.2	2.2	2.2	2.2	0.46%
E06c	Liffey Valley	150m back	707477	735874	2.2	2.2	2.2	2.2	0.43%
E06c	Liffey Valley	160m back	707467	735875	2.2	2.2	2.2	2.2	0.41%
E06c	Liffey Valley	170m back	707457	735877	2.2	2.1	2.1	2.2	0.39%
E06c	Liffey Valley	180m back	707448	735878	2.1	2.1	2.1	2.1	0.37%
E06c	Liffey Valley	190m back	707438	735880	2.1	2.1	2.1	2.1	0.35%
E06c	Liffey Valley	200m back	707428	735881	2.1	2.1	2.1	2.1	0.33%
E06d	Liffey Valley	Roadside	707673	735926	6.5	6.3	6.3	6.5	4.82%
E06d	Liffey Valley	10m back	707683	735924	4.5	4.4	4.4	4.5	2.82%
E06d	Liffey Valley	20m back	707692	735923	3.8	3.7	3.7	3.8	2.05%
E06d	Liffey Valley	30m back	707702	735921	3.4	3.3	3.3	3.4	1.65%
E06d	Liffey Valley	40m back	707712	735920	3.1	3.1	3.1	3.1	1.40%
E06d	Liffey Valley	50m back	707722	735918	2.9	2.9	2.9	2.9	1.22%
E06d	Liffey Valley	60m back	707732	735917	2.8	2.8	2.8	2.8	1.09%
E06d	Liffey Valley	70m back	707742	735915	2.7	2.7	2.7	2.7	0.98%
E06d	Liffey Valley	80m back	707752	735914	2.6	2.6	2.6	2.6	0.90%
E06d	Liffey Valley	90m back	707762	735912	2.6	2.5	2.5	2.6	0.83%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06d	Liffey Valley	100m back	707772	735911	2.5	2.5	2.5	2.5	0.77%
E06d	Liffey Valley	110m back	707781	735909	2.5	2.4	2.4	2.5	0.72%
E06d	Liffey Valley	120m back	707791	735908	2.4	2.4	2.4	2.4	0.67%
E06d	Liffey Valley	130m back	707801	735906	2.4	2.4	2.4	2.4	0.64%
E06d	Liffey Valley	140m back	707811	735905	2.3	2.3	2.3	2.3	0.60%
E06d	Liffey Valley	150m back	707821	735903	2.3	2.3	2.3	2.3	0.57%
E06d	Liffey Valley	160m back	707831	735902	2.3	2.3	2.3	2.3	0.54%
E06d	Liffey Valley	170m back	707841	735900	2.3	2.2	2.2	2.3	0.51%
E06d	Liffey Valley	180m back	707851	735899	2.2	2.2	2.2	2.2	0.49%
E06d	Liffey Valley	190m back	707861	735897	2.2	2.2	2.2	2.2	0.47%
E06d	Liffey Valley	200m back	707870	735896	2.2	2.2	2.2	2.2	0.45%
E07a	Grand Canal	Roadside	708029	732145	4.8	4.7	4.7	4.8	2.46%
E07a	Grand Canal	10m back	708022	732141	3.8	3.7	3.7	3.8	1.68%
E07a	Grand Canal	20m back	708014	732135	3.3	3.2	3.2	3.3	1.26%
E07a	Grand Canal	30m back	708005	732130	3.0	3.0	3.0	3.0	1.03%
E07a	Grand Canal	40m back	707997	732124	2.8	2.8	2.8	2.8	0.88%
E07a	Grand Canal	50m back	707989	732119	2.7	2.7	2.7	2.7	0.77%
E07a	Grand Canal	60m back	707980	732113	2.6	2.6	2.6	2.6	0.69%
E07a	Grand Canal	70m back	707972	732108	2.5	2.5	2.5	2.5	0.62%
E07a	Grand Canal	80m back	707964	732102	2.5	2.5	2.5	2.5	0.57%
E07a	Grand Canal	90m back	707955	732096	2.4	2.4	2.4	2.4	0.52%
E07a	Grand Canal	100m back	707947	732091	2.4	2.4	2.4	2.4	0.48%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07a	Grand Canal	110m back	707939	732085	2.4	2.3	2.3	2.4	0.45%
E07a	Grand Canal	120m back	707930	732080	2.3	2.3	2.3	2.3	0.42%
E07a	Grand Canal	130m back	707922	732074	2.3	2.3	2.3	2.3	0.39%
E07a	Grand Canal	140m back	707914	732069	2.3	2.3	2.3	2.3	0.37%
E07a	Grand Canal	150m back	707905	732063	2.3	2.3	2.3	2.3	0.35%
E07a	Grand Canal	160m back	707897	732058	2.3	2.2	2.2	2.3	0.33%
E07a	Grand Canal	170m back	707889	732052	2.2	2.2	2.2	2.2	0.31%
E07a	Grand Canal	180m back	707880	732047	2.2	2.2	2.2	2.2	0.30%
E07a	Grand Canal	190m back	707872	732041	2.2	2.2	2.2	2.2	0.28%
E07a	Grand Canal	200m back	707864	732036	2.2	2.2	2.2	2.2	0.27%
E07b	Grand Canal	Roadside	708090	732125	6.3	6.1	6.1	6.3	4.43%
E07b	Grand Canal	10m back	708096	732129	5.0	4.9	4.9	5.0	3.12%
E07b	Grand Canal	20m back	708104	732134	4.1	4.0	4.0	4.1	2.26%
E07b	Grand Canal	30m back	708113	732140	3.7	3.6	3.6	3.7	1.80%
E07b	Grand Canal	40m back	708121	732145	3.4	3.3	3.3	3.4	1.51%
E07b	Grand Canal	50m back	708129	732151	3.2	3.1	3.1	3.2	1.30%
E07b	Grand Canal	60m back	708138	732156	3.0	3.0	3.0	3.0	1.15%
E07b	Grand Canal	70m back	708146	732162	2.9	2.9	2.9	2.9	1.04%
E07b	Grand Canal	80m back	708154	732168	2.8	2.8	2.8	2.8	0.94%
E07b	Grand Canal	90m back	708163	732173	2.7	2.7	2.7	2.7	0.86%
E07b	Grand Canal	100m back	708171	732179	2.7	2.6	2.6	2.7	0.79%
E07b	Grand Canal	110m back	708179	732184	2.6	2.6	2.6	2.6	0.74%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07b	Grand Canal	120m back	708188	732190	2.6	2.6	2.6	2.6	0.69%
E07b	Grand Canal	130m back	708196	732195	2.5	2.5	2.5	2.5	0.64%
E07b	Grand Canal	140m back	708204	732201	2.5	2.5	2.5	2.5	0.60%
E07b	Grand Canal	150m back	708213	732206	2.5	2.4	2.4	2.5	0.57%
E07b	Grand Canal	160m back	708221	732212	2.4	2.4	2.4	2.4	0.54%
E07b	Grand Canal	170m back	708229	732217	2.4	2.4	2.4	2.4	0.51%
E07b	Grand Canal	180m back	708238	732223	2.4	2.4	2.4	2.4	0.48%
E07b	Grand Canal	190m back	708246	732228	2.4	2.4	2.4	2.4	0.46%
E07b	Grand Canal	200m back	708254	732234	2.4	2.3	2.3	2.4	0.44%
E08a	Baldoyle Bay	Coastal	723457	742425	1.6	1.6	1.6	1.6	0.00%
E08b	Baldoyle Bay	Coastal	724402	742427	1.4	1.4	1.4	1.4	0.00%
E08c	Baldoyle Bay	Coastal	725186	742565	1.4	1.4	1.4	1.4	0.00%
E08d	Baldoyle Bay	Coastal	723462	741381	1.5	1.5	1.5	1.5	0.00%
E08e	Baldoyle Bay	Coastal	726037	741053	1.2	1.2	1.2	1.2	0.00%
E08f	Baldoyle Bay	Coastal	727679	740679	1.4	1.4	1.4	1.4	0.00%
E09a	Howth Head	Coastal	728837	739432	1.3	1.3	1.3	1.3	0.00%
E09b	Howth Head	Coastal	727485	738445	1.3	1.3	1.3	1.3	0.00%
E09c	Howth Head	Coastal	729881	736278	1.2	1.2	1.2	1.2	0.00%
E10a	Irelands Eye	Coastal	728500	741006	1.3	1.3	1.3	1.3	0.00%
E10b	Irelands Eye	Coastal	729087	741463	1.2	1.2	1.2	1.2	0.00%
E11a	North Dublin Bay	Coastal	720996	736052	1.4	1.4	1.4	1.4	0.00%
E11b	North Dublin Bay	Coastal	721973	737200	1.4	1.4	1.4	1.4	0.00%

Receptor	Site Name	Location	x	y	Annual Mean NH_3 Concentration and Impact – Principal Assessment (µg/m^3)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E11c	North Dublin Bay	Coastal	722674	738136	1.3	1.3	1.3	1.3	0.00%
E11d	North Dublin Bay	Coastal	723683	738845	1.4	1.4	1.4	1.4	0.00%
E12a	Malahide Estuary	Coastal	722845	746223	1.5	1.5	1.5	1.5	0.00%

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.

Table 7: Annual Nitrogen Deposition Rate and Impacts

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E01	Bog of the Ring	Roadside	718476	759898	19.2	17.2	17.8	18.1	5.58%
E01	Bog of the Ring	10m back	718466	759899	12.7	11.6	11.6	11.9	2.99%
E01	Bog of the Ring	20m back	718456	759900	10.6	9.9	9.9	10.0	2.16%
E01	Bog of the Ring	30m back	718446	759901	9.6	9.0	9.0	9.1	1.72%
E01	Bog of the Ring	40m back	718436	759902	9.0	8.4	8.4	8.6	1.44%
E01	Bog of the Ring	50m back	718426	759903	8.5	8.1	8.1	8.2	1.29%
E01	Bog of the Ring	60m back	718416	759903	8.2	7.8	7.8	7.9	1.14%
E01	Bog of the Ring	70m back	718406	759904	7.9	7.6	7.6	7.7	1.03%
E01	Bog of the Ring	80m back	718396	759905	7.7	7.4	7.4	7.5	0.93%
E01	Bog of the Ring	90m back	718386	759906	7.6	7.3	7.3	7.4	0.87%
E01	Bog of the Ring	100m back	718376	759907	7.4	7.2	7.2	7.2	0.79%
E01	Bog of the Ring	110m back	718366	759908	7.3	7.1	7.1	7.1	0.75%
E01	Bog of the Ring	120m back	718356	759909	7.2	7.0	7.0	7.1	0.68%
E01	Bog of the Ring	130m back	718346	759910	7.2	6.9	6.9	7.0	0.65%
E01	Bog of the Ring	140m back	718336	759911	7.1	6.9	6.9	6.9	0.62%
E01	Bog of the Ring	150m back	718326	759912	7.0	6.8	6.8	6.9	0.60%
E01	Bog of the Ring	160m back	718316	759913	7.0	6.8	6.8	6.8	0.55%
E01	Bog of the Ring	170m back	718306	759914	6.9	6.7	6.7	6.8	0.53%
E01	Bog of the Ring	180m back	718297	759915	6.9	6.7	6.7	6.7	0.51%
E01	Bog of the Ring	190m back	718287	759915	6.8	6.7	6.7	6.7	0.50%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E01	Bog of the Ring	200m back	718277	759916	6.8	6.6	6.6	6.7	0.48%
E02a	Malahide Estuary	Roadside	719290	747735	7.6	7.2	7.2	7.3	0.73%
E02a	Malahide Estuary	10m back	719281	747736	7.7	7.3	7.3	7.4	0.73%
E02a	Malahide Estuary	20m back	719271	747737	7.8	7.4	7.4	7.5	0.75%
E02a	Malahide Estuary	30m back	719261	747737	7.8	7.4	7.4	7.5	0.74%
E02a	Malahide Estuary	40m back	719251	747738	7.8	7.4	7.4	7.5	0.74%
E02a	Malahide Estuary	50m back	719241	747739	7.8	7.3	7.3	7.4	0.73%
E02a	Malahide Estuary	60m back	719231	747740	7.7	7.3	7.3	7.4	0.71%
E02a	Malahide Estuary	70m back	719221	747740	7.6	7.2	7.2	7.3	0.70%
E02a	Malahide Estuary	80m back	719211	747741	7.5	7.1	7.1	7.2	0.69%
E02a	Malahide Estuary	90m back	719201	747742	7.4	7.1	7.1	7.2	0.67%
E02a	Malahide Estuary	100m back	719191	747743	7.4	7.0	7.0	7.1	0.66%
E02a	Malahide Estuary	110m back	719181	747743	7.3	7.0	7.0	7.0	0.67%
E02a	Malahide Estuary	120m back	719171	747744	7.2	6.9	6.9	7.0	0.65%
E02a	Malahide Estuary	130m back	719161	747745	7.2	6.9	6.9	6.9	0.62%
E02a	Malahide Estuary	140m back	719151	747745	7.1	6.8	6.8	6.9	0.62%
E02a	Malahide Estuary	150m back	719141	747746	7.1	6.8	6.8	6.8	0.61%
E02a	Malahide Estuary	160m back	719131	747747	7.0	6.7	6.7	6.8	0.59%
E02a	Malahide Estuary	170m back	719121	747748	7.0	6.7	6.7	6.8	0.60%
E02a	Malahide Estuary	180m back	719111	747748	6.9	6.7	6.7	6.7	0.58%
E02a	Malahide Estuary	190m back	719101	747749	6.9	6.6	6.6	6.7	0.59%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02a	Malahide Estuary	200m back	719091	747750	6.8	6.6	6.6	6.7	0.58%
E02b	Malahide Estuary	Roadside	719323	747730	7.9	7.4	7.4	7.5	0.77%
E02b	Malahide Estuary	10m back	719333	747730	8.1	7.6	7.6	7.7	0.80%
E02b	Malahide Estuary	20m back	719343	747729	8.3	7.7	7.7	7.8	0.82%
E02b	Malahide Estuary	30m back	719353	747728	8.4	7.8	7.8	7.9	0.85%
E02b	Malahide Estuary	40m back	719363	747727	8.4	7.8	7.8	7.9	0.85%
E02b	Malahide Estuary	50m back	719373	747727	8.3	7.8	7.8	7.9	0.86%
E02b	Malahide Estuary	60m back	719383	747726	8.2	7.7	7.7	7.8	0.86%
E02b	Malahide Estuary	70m back	719393	747725	8.1	7.6	7.6	7.7	0.85%
E02b	Malahide Estuary	80m back	719403	747724	8.0	7.5	7.5	7.6	0.83%
E02b	Malahide Estuary	90m back	719413	747723	7.9	7.5	7.5	7.6	0.84%
E02b	Malahide Estuary	100m back	719423	747723	7.8	7.4	7.4	7.5	0.81%
E02b	Malahide Estuary	110m back	719433	747722	7.8	7.3	7.3	7.4	0.79%
E02b	Malahide Estuary	120m back	719443	747721	7.7	7.3	7.3	7.3	0.81%
E02b	Malahide Estuary	130m back	719453	747720	7.6	7.2	7.2	7.3	0.79%
E02b	Malahide Estuary	140m back	719463	747719	7.5	7.1	7.1	7.2	0.78%
E02b	Malahide Estuary	150m back	719473	747719	7.5	7.1	7.1	7.2	0.77%
E02b	Malahide Estuary	160m back	719483	747718	7.4	7.0	7.0	7.1	0.78%
E02b	Malahide Estuary	170m back	719493	747717	7.3	7.0	7.0	7.1	0.77%
E02b	Malahide Estuary	180m back	719503	747716	7.3	7.0	7.0	7.0	0.74%
E02b	Malahide Estuary	190m back	719513	747716	7.2	6.9	6.9	7.0	0.75%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E02b	Malahide Estuary	200m back	719522	747715	7.2	6.9	6.9	6.9	0.76%
E03a	Malahide Estuary	Roadside	719283	747642	7.7	7.2	7.2	7.3	0.77%
E03a	Malahide Estuary	10m back	719273	747642	7.7	7.3	7.3	7.4	0.77%
E03a	Malahide Estuary	20m back	719263	747643	7.8	7.4	7.4	7.5	0.78%
E03a	Malahide Estuary	30m back	719253	747644	7.9	7.4	7.4	7.5	0.77%
E03a	Malahide Estuary	40m back	719243	747645	7.9	7.4	7.4	7.5	0.76%
E03a	Malahide Estuary	50m back	719233	747646	7.8	7.4	7.4	7.5	0.76%
E03a	Malahide Estuary	60m back	719223	747646	7.7	7.3	7.3	7.4	0.75%
E03a	Malahide Estuary	70m back	719213	747647	7.6	7.2	7.2	7.3	0.73%
E03a	Malahide Estuary	80m back	719203	747648	7.5	7.2	7.2	7.2	0.72%
E03a	Malahide Estuary	90m back	719193	747649	7.5	7.1	7.1	7.2	0.70%
E03a	Malahide Estuary	100m back	719183	747650	7.4	7.0	7.0	7.1	0.69%
E03a	Malahide Estuary	110m back	719173	747650	7.3	7.0	7.0	7.0	0.67%
E03a	Malahide Estuary	120m back	719163	747651	7.2	6.9	6.9	7.0	0.66%
E03a	Malahide Estuary	130m back	719153	747652	7.2	6.9	6.9	6.9	0.65%
E03a	Malahide Estuary	140m back	719143	747653	7.1	6.8	6.8	6.9	0.65%
E03a	Malahide Estuary	150m back	719133	747654	7.1	6.8	6.8	6.9	0.63%
E03a	Malahide Estuary	160m back	719123	747654	7.0	6.7	6.7	6.8	0.61%
E03a	Malahide Estuary	170m back	719113	747655	7.0	6.7	6.7	6.8	0.62%
E03a	Malahide Estuary	180m back	719103	747656	6.9	6.7	6.7	6.7	0.61%
E03a	Malahide Estuary	190m back	719094	747657	6.9	6.6	6.6	6.7	0.61%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03a	Malahide Estuary	200m back	719084	747658	6.9	6.6	6.6	6.7	0.59%
E03b	Malahide Estuary	Roadside	719316	747638	7.9	7.4	7.4	7.5	0.80%
E03b	Malahide Estuary	10m back	719326	747637	8.1	7.6	7.6	7.7	0.83%
E03b	Malahide Estuary	20m back	719336	747636	8.3	7.7	7.7	7.9	0.87%
E03b	Malahide Estuary	30m back	719346	747636	8.4	7.8	7.8	7.9	0.88%
E03b	Malahide Estuary	40m back	719356	747635	8.4	7.8	7.8	7.9	0.88%
E03b	Malahide Estuary	50m back	719366	747634	8.3	7.8	7.8	7.9	0.88%
E03b	Malahide Estuary	60m back	719376	747633	8.3	7.7	7.7	7.8	0.89%
E03b	Malahide Estuary	70m back	719386	747633	8.2	7.6	7.6	7.8	0.88%
E03b	Malahide Estuary	80m back	719396	747632	8.1	7.6	7.6	7.7	0.85%
E03b	Malahide Estuary	90m back	719406	747631	8.0	7.5	7.5	7.6	0.87%
E03b	Malahide Estuary	100m back	719416	747630	7.9	7.4	7.4	7.5	0.84%
E03b	Malahide Estuary	110m back	719426	747629	7.8	7.3	7.3	7.4	0.83%
E03b	Malahide Estuary	120m back	719435	747629	7.7	7.3	7.3	7.4	0.84%
E03b	Malahide Estuary	130m back	719445	747628	7.6	7.2	7.2	7.3	0.82%
E03b	Malahide Estuary	140m back	719455	747627	7.6	7.2	7.2	7.2	0.82%
E03b	Malahide Estuary	150m back	719465	747626	7.5	7.1	7.1	7.2	0.82%
E03b	Malahide Estuary	160m back	719475	747626	7.4	7.1	7.1	7.1	0.81%
E03b	Malahide Estuary	170m back	719485	747625	7.4	7.0	7.0	7.1	0.79%
E03b	Malahide Estuary	180m back	719495	747624	7.3	7.0	7.0	7.0	0.80%
E03b	Malahide Estuary	190m back	719505	747623	7.3	6.9	6.9	7.0	0.79%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E03b	Malahide Estuary	200m back	719515	747622	7.2	6.9	6.9	7.0	0.77%
E04a	Santry Demsne	Roadside	716612	740056	12.1	11.8	11.8	11.9	0.66%
E04a	Santry Demsne	10m back	716616	740065	12.1	11.8	11.8	11.9	0.69%
E04a	Santry Demsne	20m back	716620	740074	12.1	11.8	11.8	11.9	0.67%
E04a	Santry Demsne	30m back	716624	740083	12.2	11.9	11.9	11.9	0.67%
E04a	Santry Demsne	40m back	716628	740092	12.2	11.9	11.9	12.0	0.71%
E04a	Santry Demsne	50m back	716632	740101	12.2	11.9	11.9	12.0	0.71%
E04a	Santry Demsne	60m back	716636	740110	12.3	12.0	12.0	12.0	0.72%
E04a	Santry Demsne	70m back	716640	740120	12.3	12.0	12.0	12.1	0.72%
E04a	Santry Demsne	80m back	716644	740129	12.3	12.0	12.0	12.1	0.73%
E04a	Santry Demsne	90m back	716648	740138	12.4	12.0	12.0	12.1	0.76%
E04a	Santry Demsne	100m back	716653	740147	12.4	12.1	12.1	12.2	0.74%
E04a	Santry Demsne	110m back	716657	740156	12.4	12.1	12.1	12.2	0.71%
E04a	Santry Demsne	120m back	716661	740165	12.5	12.1	12.1	12.2	0.75%
E04a	Santry Demsne	130m back	716665	740175	12.5	12.1	12.1	12.2	0.75%
E04a	Santry Demsne	140m back	716669	740184	12.5	12.2	12.2	12.2	0.78%
E04a	Santry Demsne	150m back	716673	740193	12.6	12.2	12.2	12.3	0.79%
E04a	Santry Demsne	160m back	716677	740202	12.6	12.2	12.2	12.3	0.79%
E04a	Santry Demsne	170m back	716681	740211	12.6	12.2	12.2	12.3	0.80%
E04a	Santry Demsne	180m back	716685	740220	12.6	12.3	12.3	12.3	0.80%
E04a	Santry Demsne	190m back	716689	740229	12.7	12.3	12.3	12.4	0.83%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04a	Santry Demsne	200m back	716693	740239	12.7	12.3	12.3	12.4	0.81%
E04b	Santry Demsne	Roadside	716937	740599	21.6	19.5	19.5	19.8	2.97%
E04b	Santry Demsne	10m back	716928	740604	16.5	15.3	15.3	15.5	1.85%
E04b	Santry Demsne	20m back	716919	740609	15.1	14.2	14.2	14.3	1.55%
E04b	Santry Demsne	30m back	716910	740613	14.4	13.6	13.6	13.8	1.37%
E04b	Santry Demsne	40m back	716901	740618	13.9	13.3	13.3	13.4	1.27%
E04b	Santry Demsne	50m back	716892	740622	13.7	13.1	13.1	13.2	1.19%
E04b	Santry Demsne	60m back	716884	740627	13.5	12.9	12.9	13.0	1.16%
E04b	Santry Demsne	70m back	716875	740632	13.3	12.8	12.8	12.9	1.14%
E04b	Santry Demsne	80m back	716866	740636	13.2	12.7	12.7	12.8	1.12%
E04b	Santry Demsne	90m back	716857	740641	13.1	12.6	12.6	12.7	1.07%
E04b	Santry Demsne	100m back	716848	740645	13.0	12.6	12.6	12.7	1.06%
E04b	Santry Demsne	110m back	716839	740650	12.9	12.5	12.5	12.6	1.08%
E04b	Santry Demsne	120m back	716830	740654	12.9	12.5	12.5	12.6	1.01%
E04b	Santry Demsne	130m back	716821	740659	12.8	12.4	12.4	12.5	1.00%
E04b	Santry Demsne	140m back	716813	740664	12.8	12.4	12.4	12.5	0.99%
E04b	Santry Demsne	150m back	716804	740668	12.7	12.4	12.4	12.5	0.99%
E04b	Santry Demsne	160m back	716795	740673	12.7	12.3	12.3	12.4	0.98%
E04b	Santry Demsne	170m back	716786	740677	12.7	12.3	12.3	12.4	1.01%
E04b	Santry Demsne	180m back	716777	740682	12.6	12.3	12.3	12.4	0.97%
E04b	Santry Demsne	190m back	716768	740687	12.6	12.3	12.3	12.4	0.97%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E04b	Santry Demsne	200m back	716759	740691	12.6	12.3	12.3	12.4	0.94%
E05a	Royal Canal	Roadside	708943	738203	39.4	36.5	36.5	37.9	6.66%
E05a	Royal Canal	10m back	708951	738197	27.9	25.8	25.8	26.7	4.44%
E05a	Royal Canal	20m back	708959	738192	22.7	21.0	21.0	21.7	3.43%
E05a	Royal Canal	30m back	708967	738186	19.6	18.3	18.3	18.9	2.83%
E05a	Royal Canal	40m back	708976	738181	17.7	16.5	16.5	17.0	2.45%
E05a	Royal Canal	50m back	708984	738175	16.2	15.2	15.2	15.6	2.16%
E05a	Royal Canal	60m back	708992	738170	15.1	14.2	14.2	14.6	1.93%
E05a	Royal Canal	70m back	709001	738164	14.3	13.4	13.4	13.8	1.76%
E05a	Royal Canal	80m back	709009	738159	13.6	12.8	12.8	13.1	1.63%
E05a	Royal Canal	90m back	709017	738153	13.0	12.3	12.3	12.6	1.51%
E05a	Royal Canal	100m back	709026	738147	12.5	11.8	11.8	12.1	1.38%
E05a	Royal Canal	110m back	709034	738142	12.1	11.5	11.5	11.7	1.32%
E05a	Royal Canal	120m back	709042	738136	11.7	11.1	11.1	11.4	1.23%
E05a	Royal Canal	130m back	709051	738131	11.4	10.8	10.8	11.1	1.16%
E05a	Royal Canal	140m back	709059	738125	11.1	10.6	10.6	10.8	1.10%
E05a	Royal Canal	150m back	709067	738120	10.9	10.4	10.4	10.6	1.05%
E05a	Royal Canal	160m back	709076	738114	10.6	10.2	10.2	10.4	0.99%
E05a	Royal Canal	170m back	709084	738109	10.4	10.0	10.0	10.2	0.95%
E05a	Royal Canal	180m back	709092	738103	10.3	9.8	9.8	10.0	0.90%
E05a	Royal Canal	190m back	709101	738098	10.1	9.7	9.7	9.8	0.87%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05a	Royal Canal	200m back	709109	738092	9.9	9.5	9.5	9.7	0.84%
E05b	Royal Canal	Roadside	708899	738190	63.5	59.0	59.0	61.2	11.36%
E05b	Royal Canal	10m back	708891	738196	36.8	34.0	34.0	35.3	6.28%
E05b	Royal Canal	20m back	708883	738202	26.9	24.9	24.9	25.8	4.34%
E05b	Royal Canal	30m back	708875	738207	22.2	20.6	20.6	21.3	3.40%
E05b	Royal Canal	40m back	708866	738213	19.3	18.0	18.0	18.5	2.83%
E05b	Royal Canal	50m back	708858	738219	17.4	16.2	16.2	16.7	2.43%
E05b	Royal Canal	60m back	708850	738224	16.0	14.9	14.9	15.4	2.14%
E05b	Royal Canal	70m back	708842	738230	14.9	14.0	14.0	14.3	1.90%
E05b	Royal Canal	80m back	708833	738236	14.0	13.2	13.2	13.5	1.73%
E05b	Royal Canal	90m back	708825	738241	13.3	12.6	12.6	12.9	1.58%
E05b	Royal Canal	100m back	708817	738247	12.7	12.0	12.0	12.3	1.45%
E05b	Royal Canal	110m back	708809	738253	12.3	11.6	11.6	11.9	1.36%
E05b	Royal Canal	120m back	708800	738258	11.8	11.2	11.2	11.5	1.26%
E05b	Royal Canal	130m back	708792	738264	11.5	10.9	10.9	11.1	1.18%
E05b	Royal Canal	140m back	708784	738270	11.2	10.6	10.6	10.9	1.11%
E05b	Royal Canal	150m back	708776	738275	10.9	10.4	10.4	10.6	1.06%
E05b	Royal Canal	160m back	708767	738281	10.6	10.2	10.2	10.4	1.00%
E05b	Royal Canal	170m back	708759	738287	10.4	10.0	10.0	10.2	0.94%
E05b	Royal Canal	180m back	708751	738292	10.2	9.8	9.8	10.0	0.90%
E05b	Royal Canal	190m back	708743	738298	10.1	9.6	9.6	9.8	0.86%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E05b	Royal Canal	200m back	708735	738304	9.9	9.5	9.5	9.7	0.83%
E06a	Liffey Valley	Roadside	707689	736029	56.2	50.6	50.6	52.5	8.78%
E06a	Liffey Valley	10m back	707698	736027	39.3	35.3	35.3	36.5	5.64%
E06a	Liffey Valley	20m back	707708	736026	31.6	28.5	28.5	29.4	4.23%
E06a	Liffey Valley	30m back	707718	736024	27.4	24.8	24.8	25.5	3.41%
E06a	Liffey Valley	40m back	707728	736023	24.7	22.5	22.5	23.1	2.90%
E06a	Liffey Valley	50m back	707738	736021	22.8	20.8	20.8	21.3	2.57%
E06a	Liffey Valley	60m back	707748	736020	21.3	19.6	19.6	20.0	2.29%
E06a	Liffey Valley	70m back	707758	736018	20.2	18.6	18.6	19.0	2.08%
E06a	Liffey Valley	80m back	707767	736017	19.3	17.9	17.9	18.2	1.91%
E06a	Liffey Valley	90m back	707777	736015	18.6	17.2	17.2	17.6	1.77%
E06a	Liffey Valley	100m back	707787	736014	18.0	16.7	16.7	17.0	1.64%
E06a	Liffey Valley	110m back	707797	736012	17.4	16.2	16.2	16.5	1.53%
E06a	Liffey Valley	120m back	707807	736011	17.0	15.9	15.9	16.1	1.46%
E06a	Liffey Valley	130m back	707817	736009	16.6	15.5	15.5	15.8	1.39%
E06a	Liffey Valley	140m back	707827	736008	16.2	15.2	15.2	15.5	1.34%
E06a	Liffey Valley	150m back	707837	736006	15.9	15.0	15.0	15.2	1.26%
E06a	Liffey Valley	160m back	707847	736005	15.6	14.7	14.7	14.9	1.21%
E06a	Liffey Valley	170m back	707856	736003	15.4	14.5	14.5	14.7	1.17%
E06a	Liffey Valley	180m back	707866	736002	15.1	14.3	14.3	14.5	1.07%
E06a	Liffey Valley	190m back	707876	736000	14.9	14.1	14.1	14.3	1.07%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06a	Liffey Valley	200m back	707886	735999	14.7	14.0	14.0	14.2	1.01%
E06c	Liffey Valley	Roadside	707626	735854	51.2	46.0	46.0	47.6	8.16%
E06c	Liffey Valley	10m back	707616	735855	34.2	30.7	30.7	31.7	4.85%
E06c	Liffey Valley	20m back	707606	735857	27.6	25.0	25.0	25.7	3.54%
E06c	Liffey Valley	30m back	707596	735858	24.1	21.9	21.9	22.5	2.85%
E06c	Liffey Valley	40m back	707586	735859	21.8	20.0	20.0	20.4	2.42%
E06c	Liffey Valley	50m back	707576	735861	20.2	18.6	18.6	19.0	2.10%
E06c	Liffey Valley	60m back	707566	735862	19.0	17.6	17.6	18.0	1.85%
E06c	Liffey Valley	70m back	707557	735863	18.1	16.8	16.8	17.1	1.73%
E06c	Liffey Valley	80m back	707547	735865	17.3	16.2	16.2	16.5	1.58%
E06c	Liffey Valley	90m back	707537	735866	16.7	15.7	15.7	15.9	1.43%
E06c	Liffey Valley	100m back	707527	735867	16.2	15.2	15.2	15.5	1.32%
E06c	Liffey Valley	110m back	707517	735869	15.8	14.9	14.9	15.1	1.24%
E06c	Liffey Valley	120m back	707507	735870	15.4	14.6	14.6	14.8	1.15%
E06c	Liffey Valley	130m back	707497	735871	15.1	14.3	14.3	14.5	1.10%
E06c	Liffey Valley	140m back	707487	735873	14.8	14.0	14.0	14.2	1.03%
E06c	Liffey Valley	150m back	707477	735874	14.6	13.8	13.8	14.0	0.98%
E06c	Liffey Valley	160m back	707467	735875	14.3	13.6	13.6	13.8	0.92%
E06c	Liffey Valley	170m back	707457	735877	14.1	13.5	13.5	13.6	0.88%
E06c	Liffey Valley	180m back	707448	735878	13.9	13.3	13.3	13.5	0.85%
E06c	Liffey Valley	190m back	707438	735880	13.8	13.2	13.2	13.3	0.82%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06c	Liffey Valley	200m back	707428	735881	13.6	13.1	13.1	13.2	0.80%
E06d	Liffey Valley	Roadside	707673	735926	58.4	52.6	52.6	54.6	9.19%
E06d	Liffey Valley	10m back	707683	735924	39.1	35.1	35.1	36.3	5.61%
E06d	Liffey Valley	20m back	707692	735923	31.4	28.3	28.3	29.2	4.20%
E06d	Liffey Valley	30m back	707702	735921	27.3	24.7	24.7	25.4	3.39%
E06d	Liffey Valley	40m back	707712	735920	24.6	22.4	22.4	23.0	2.91%
E06d	Liffey Valley	50m back	707722	735918	22.7	20.7	20.7	21.3	2.53%
E06d	Liffey Valley	60m back	707732	735917	21.3	19.5	19.5	20.0	2.28%
E06d	Liffey Valley	70m back	707742	735915	20.2	18.6	18.6	19.0	2.08%
E06d	Liffey Valley	80m back	707752	735914	19.3	17.8	17.8	18.2	1.91%
E06d	Liffey Valley	90m back	707762	735912	18.6	17.2	17.2	17.5	1.76%
E06d	Liffey Valley	100m back	707772	735911	17.9	16.7	16.7	17.0	1.64%
E06d	Liffey Valley	110m back	707781	735909	17.4	16.2	16.2	16.5	1.55%
E06d	Liffey Valley	120m back	707791	735908	16.9	15.8	15.8	16.1	1.45%
E06d	Liffey Valley	130m back	707801	735906	16.5	15.5	15.5	15.8	1.39%
E06d	Liffey Valley	140m back	707811	735905	16.2	15.2	15.2	15.5	1.30%
E06d	Liffey Valley	150m back	707821	735903	15.9	14.9	14.9	15.2	1.25%
E06d	Liffey Valley	160m back	707831	735902	15.6	14.7	14.7	14.9	1.21%
E06d	Liffey Valley	170m back	707841	735900	15.3	14.5	14.5	14.7	1.11%
E06d	Liffey Valley	180m back	707851	735899	15.1	14.3	14.3	14.5	1.07%
E06d	Liffey Valley	190m back	707861	735897	14.9	14.1	14.1	14.3	1.01%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E06d	Liffey Valley	200m back	707870	735896	14.7	14.0	14.0	14.2	0.98%
E07a	Grand Canal	Roadside	708029	732145	36.1	33.7	33.7	34.7	5.40%
E07a	Grand Canal	10m back	708022	732141	27.1	25.4	25.4	26.1	3.56%
E07a	Grand Canal	20m back	708014	732135	22.5	21.2	21.2	21.7	2.61%
E07a	Grand Canal	30m back	708005	732130	20.0	19.0	19.0	19.4	2.08%
E07a	Grand Canal	40m back	707997	732124	18.4	17.5	17.5	17.9	1.77%
E07a	Grand Canal	50m back	707989	732119	17.3	16.5	16.5	16.8	1.53%
E07a	Grand Canal	60m back	707980	732113	16.4	15.8	15.8	16.0	1.36%
E07a	Grand Canal	70m back	707972	732108	15.8	15.2	15.2	15.4	1.22%
E07a	Grand Canal	80m back	707964	732102	15.3	14.7	14.7	14.9	1.11%
E07a	Grand Canal	90m back	707955	732096	14.8	14.3	14.3	14.5	1.01%
E07a	Grand Canal	100m back	707947	732091	14.5	14.0	14.0	14.2	0.94%
E07a	Grand Canal	110m back	707939	732085	14.1	13.7	13.7	13.9	0.87%
E07a	Grand Canal	120m back	707930	732080	13.9	13.5	13.5	13.6	0.82%
E07a	Grand Canal	130m back	707922	732074	13.6	13.3	13.3	13.4	0.77%
E07a	Grand Canal	140m back	707914	732069	13.4	13.1	13.1	13.2	0.72%
E07a	Grand Canal	150m back	707905	732063	13.2	12.9	12.9	13.0	0.68%
E07a	Grand Canal	160m back	707897	732058	13.1	12.8	12.8	12.9	0.65%
E07a	Grand Canal	170m back	707889	732052	12.9	12.6	12.6	12.8	0.60%
E07a	Grand Canal	180m back	707880	732047	12.8	12.5	12.5	12.6	0.59%
E07a	Grand Canal	190m back	707872	732041	12.7	12.4	12.4	12.5	0.55%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07a	Grand Canal	200m back	707864	732036	12.6	12.3	12.3	12.4	0.54%
E07b	Grand Canal	Roadside	708090	732125	49.5	46.1	46.1	47.9	8.09%
E07b	Grand Canal	10m back	708096	732129	38.0	35.4	35.4	36.7	5.79%
E07b	Grand Canal	20m back	708104	732134	30.4	28.4	28.4	29.3	4.23%
E07b	Grand Canal	30m back	708113	732140	26.2	24.6	24.6	25.3	3.39%
E07b	Grand Canal	40m back	708121	732145	23.6	22.2	22.2	22.8	2.84%
E07b	Grand Canal	50m back	708129	732151	21.7	20.5	20.5	21.0	2.46%
E07b	Grand Canal	60m back	708138	732156	20.3	19.2	19.2	19.7	2.18%
E07b	Grand Canal	70m back	708146	732162	19.2	18.3	18.3	18.7	1.96%
E07b	Grand Canal	80m back	708154	732168	18.4	17.5	17.5	17.9	1.77%
E07b	Grand Canal	90m back	708163	732173	17.7	16.9	16.9	17.2	1.62%
E07b	Grand Canal	100m back	708171	732179	17.1	16.3	16.3	16.6	1.50%
E07b	Grand Canal	110m back	708179	732184	16.6	15.9	15.9	16.2	1.39%
E07b	Grand Canal	120m back	708188	732190	16.1	15.5	15.5	15.8	1.31%
E07b	Grand Canal	130m back	708196	732195	15.8	15.2	15.2	15.4	1.22%
E07b	Grand Canal	140m back	708204	732201	15.4	14.9	14.9	15.1	1.16%
E07b	Grand Canal	150m back	708213	732206	15.1	14.6	14.6	14.8	1.10%
E07b	Grand Canal	160m back	708221	732212	14.9	14.4	14.4	14.6	1.03%
E07b	Grand Canal	170m back	708229	732217	14.6	14.1	14.1	14.3	0.99%
E07b	Grand Canal	180m back	708238	732223	14.4	14.0	14.0	14.1	0.94%
E07b	Grand Canal	190m back	708246	732228	14.2	13.8	13.8	14.0	0.89%

Receptor	Site Name	Location	x	y	Annual Mean Ndep Concentration and Impact Principal Assessment (kgN/ha/yr)				
					2025 Current Operation	2029 Future Baseline for Ecology (based on 2025 operating conditions)	2029 Permitted Operation	2029 Proposed Operation	Impact
E07b	Grand Canal	200m back	708254	732234	14.1	13.6	13.6	13.8	0.87%
E08a	Baldoyle Bay	Coastal	723457	742425	5.3	5.3	5.3	5.3	0.04%
E08b	Baldoyle Bay	Coastal	724402	742427	4.9	4.9	4.9	4.9	0.03%
E08c	Baldoyle Bay	Coastal	725186	742565	5.0	5.0	5.0	5.0	0.02%
E08d	Baldoyle Bay	Coastal	723462	741381	5.3	5.3	5.3	5.3	0.05%
E08e	Baldoyle Bay	Coastal	726037	741053	4.8	4.8	4.8	4.8	0.05%
E08f	Baldoyle Bay	Coastal	727679	740679	5.5	5.5	5.5	5.5	0.03%
E09a	Howth Head	Coastal	728837	739432	4.8	4.8	4.8	4.8	0.06%
E09b	Howth Head	Coastal	727485	738445	5.3	5.3	5.3	5.3	0.06%
E09c	Howth Head	Coastal	729881	736278	5.2	5.2	5.2	5.2	0.03%
E10a	Irelands Eye	Coastal	728500	741006	4.9	4.9	4.9	4.9	0.07%
E10b	Irelands Eye	Coastal	729087	741463	4.9	4.9	4.9	4.9	0.03%
E11a	North Dublin Bay	Coastal	720996	736052	5.4	5.4	5.4	5.4	0.11%
E11b	North Dublin Bay	Coastal	721973	737200	5.2	5.2	5.2	5.2	0.20%
E11c	North Dublin Bay	Coastal	722674	738136	4.9	4.9	4.9	4.9	0.06%
E11d	North Dublin Bay	Coastal	723683	738845	4.9	4.9	4.9	4.9	0.22%
E12a	Malahide Estuary	Coastal	722845	746223	5.3	5.3	5.3	5.3	0.24%

Note: Concentrations have been rounded to 1 decimal place. The impact has been calculated using non-rounded concentrations.