



**ENVIRONMENTAL IMPACT
ASSESSMENT REPORT
VOLUME 2: MAIN TEXT**

JULY 2024

VOLUME 2: TABLE OF CONTENTS

Chapter / Section	Title	Page
N/A	Glossary of Terms	
	Glossary of Terms	1
1	Introduction	
	Introduction	1
1.1	Purpose of this report	2
1.2	DART+ Programme Objectives	3
1.3	DART+ Coastal North Project overview	4
1.4	The Applicant	6
1.5	Requirement for EIA	7
1.6	Other relevant requirements to inform application	10
1.7	EIA Process	12
1.8	Key Stages of EIA Process	14
1.9	Difficulties Encountered / Limitations	23
1.10	Structure of the EIAR	24
1.11	EIA Project team	25
1.12	Consultation	36
1.13	References	37
2	Policy Context & Need For the Project	
2.1	Introduction	1
2.2	Background and Project History	3
2.3	Policy Context	5
2.4	Need for Project	32
2.5	DART+ Programme Objectives	36
2.6	DART+ Coastal North Project Objectives	36
2.7	References	37
3	Alternatives	
3.1	Introduction	1
3.2	Approach to alternatives	2
3.3	Overview of alternatives considered	10
3.4	Consultation	18
3.5	Assessment of Alternatives – Do-Something	23
3.6	Design Modifications following PC2	80
3.7	References	83

Chapter / Section	Title	Page
4	Description of the Proposed Development	
4.1	Introduction	1
4.2	Project Location	1
4.3	Project Overview	3
4.4	DART+ Design Standards	11
4.5	DART+ Coastal North General Linear Works	12
4.6	Zone A: North of Connolly Station to south of Howth Junction & Donaghmede Station	44
4.7	Zone B: South of Howth Junction & Donaghmede Station to the north of Malahide Viaduct. (Including Howth Branch)	45
4.8	Zone C: North of Malahide viaduct to south of Gormanston Station (Fingal boundary)	68
4.9	Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border	84
4.10	Zone E: Drogheda Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda Station)	89
4.11	DART+ Coastal North Operational Railway Characteristics	107
4.12	Maintenance Works	110
4.13	References	113
5	Construction Strategy	
5.1	Introduction	1
5.2	Construction Programme	6
5.3	Project Wide Construction Works and Methodologies	11
5.4	Zone A: North of Connolly Station to south of Howth Junction & Donaghmede Station	40
5.5	Zone B: South of Howth Junction & Donaghmede Station to the north of Malahide Viaduct. (Including Howth Branch)	43
5.6	Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal boundary)	72
5.7	Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border	127
5.8	Zone E: Drogheda Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda Station)	151
5.9	Testing and Commissioning of the System	173
5.10	Construction Environmental Management Plan (CEMP)	173
5.11	References	176
6	Traffic and Transportation	
6.1	Introduction	1
6.2	Legislation, Policy and Guidance	2
6.3	Methodology	6
6.4	Receiving Environment	21
6.5	Description of Potential Impacts	57
6.6	Mitigation Measures	158

Chapter / Section	Title	Page
6.7	Residual Effects	164
6.8	Cumulative Effects	166
7	Population	
7.1	Introduction	1
7.2	Legislation, Policy and Guidance	2
7.3	Methodology	2
7.4	Receiving Environment	12
7.5	Description of Potential Effects	26
7.6	Mitigation Measures	59
7.7	Residual Effects	59
7.8	Cumulative Effects	61
7.9	References	61
8	Biodiversity	
8.1	Introduction	1
8.2	Legislation, Policy and Guidance	2
8.3	Methodology	5
8.4	Receiving Environment	25
8.5	Key Ecological Receptors	83
8.6	Characteristics of the Proposed Development	87
8.7	Do Nothing Scenario	100
8.8	Description of Potential Impacts (Unmitigated)	100
8.9	Mitigation Measures	140
8.10	Residual Impacts	158
8.11	Assessment of Cumulative Effects	158
8.12	References	159
9	Land & Soils	
9.1	Introduction	1
9.2	Legislation, Policy, and Guidance	1
9.3	Methodology	2
9.4	Receiving Environment	12
9.5	Conceptual Site Model	51
9.6	Characteristics of the Proposed Development	54
9.7	Description of Potential Impacts	56
9.8	Mitigation Measures	82
9.9	Residual Effects	85

Chapter / Section	Title	Page
9.10	References	92
10	Water (Including Hydrology & Flood Risk)	
10.1	Introduction	1
10.2	National Planning Framework	2
10.3	Water Framework Directive (WFD)	2
10.4	River Basin Management Plans	2
10.5	Legislation, Policy and Guidance	3
10.6	Methodology	5
10.7	Baseline Environment	14
10.8	Description of Potential Impacts	24
10.9	Mitigation Measures and Monitoring Requirements	50
10.10	Residual Effects	53
10.11	Cumulative Effects	53
10.12	References	54
11	Hydrogeology	
11.1	Introduction	1
11.2	Legislation, Policy and Guidance	1
11.3	Methodology	4
11.4	Receiving Environment	8
11.5	Conceptual Site Model	28
11.6	Characteristic of the Proposed Development	30
11.7	Description of Potential Impacts	31
11.8	Mitigation Measures	50
11.9	Residual Effects	51
11.10	Monitoring	58
11.11	Cumulative Effects	58
11.12	References	59
12	Air Quality	
12.1	Introduction	1
12.2	Legislation, Policy and Guidance	3
12.3	Methodology	7
12.4	Receiving Environment	17
12.5	Description of Potential Impacts	29
12.6	Mitigation Measures	62
12.7	Monitoring	64

Chapter / Section	Title	Page
12.8	Residual Effects	64
12.9	Cumulative Effects	65
12.10	References	66
13	Climate	
13.1	Introduction	1
13.2	Legislation, policy and guidance	1
13.3	Methodology	5
13.4	Receiving Environment	14
13.5	Description of Potential Impacts	17
13.6	Mitigation Measures	31
13.7	Monitoring	35
13.8	Residual Effects	35
13.9	Cumulative Effects	37
13.10	References	38
14	Noise and Vibration	
14.1	Introduction	1
14.2	Legislation, Policy and Guidance	1
14.3	Methodology	5
14.4	Receiving Environment	21
14.5	Description of Potential Impacts	24
14.6	Mitigation Measures	63
14.7	Residual Effects	73
14.8	Cumulative Effects	75
14.9	References	76
15	Landscape & Visual Amenity	
15.1	Introduction	1
15.2	Legislation, Policy and Guidance	1
15.3	Methodology	2
15.4	Receiving Environment	13
15.5	Description of Potential Impacts	28
15.6	Mitigation Measures	70
15.7	Residual Effects	90
15.8	Cumulative Effects	96
15.9	References	96
16	Material Assets: Agricultural Properties	

Chapter / Section	Title	Page
16.1	Introduction	1
16.2	Legislation, Policy and Guidance	1
16.3	Methodology	2
16.4	Receiving Environment	6
16.5	Description of Potential Impacts	10
16.6	Mitigation Measures	15
16.7	Monitoring	16
16.8	Residual Effects	16
16.9	References	19
17	Material Assets: Non-Agricultural Properties	
17.1	Introduction	1
17.2	Legislation, Policy and Guidance	1
17.3	Methodology	2
17.4	Receiving Environment	6
17.5	Evolution of the Environment in the Absence of the Proposed Development	8
17.6	Description of Potential Impacts	9
17.7	Mitigation Measures	92
17.8	Monitoring	94
17.9	Residual Effects	95
17.10	Cumulative Effects	95
17.11	References	96
18	Material Assets: Utilities	
18.1	Introduction	1
18.2	Legislation, Policy and Guidance	1
18.3	Methodology	3
18.4	Receiving Environment	9
18.5	Description of Potential Impacts	18
18.6	Mitigation Measures	21
18.7	Residual Effects	22
18.8	Cumulative Effects	22
18.9	References	22
19	Material Assets: Resource & Waste Management	
19.1	Introduction	1
19.2	Legislation, Policy and Guidance	1
19.3	Methodology	6

Chapter / Section	Title	Page
19.4	Receiving Environment	9
19.5	Description of Potential Impacts	14
19.6	Mitigation Measures	26
19.7	Residual Effects	28
19.8	Cumulative Effects	29
19.9	References	29
20	Archaeology & Cultural Heritage	
20.1	Introduction	1
20.2	Legislation, Policy and Guidance	1
20.3	Methodology	4
20.4	Receiving Environment	13
20.5	Description of Potential Impacts	104
20.6	Mitigation Measures	116
20.7	Monitoring	123
20.8	Residual Effects	123
20.9	Cumulative Effects	123
20.10	References	124
21	Architectural Heritage	
21.1	Introduction	1
21.2	Definitions	1
21.3	Legislation, Policy, and Guidance	4
21.4	Methodology	27
21.5	Receiving Environment	37
21.6	Description of Potential Impacts	58
21.7	Mitigation Measures	70
21.8	Residual Effects	74
21.9	Cumulative Effects	75
21.10	References	76
22	Electromagnetic compatibility and stray current	
22.1	Introduction	1
22.2	Legislation, Policy and Guidance	4
22.3	Methodology	7
22.4	Receiving Environment	16
22.5	Description of Potential Impacts	73
22.6	Mitigation Measures	74

Chapter / Section	Title	Page
22.7	Monitoring	75
22.8	Residual effects	76
22.9	Cumulative effects	76
22.10	References	76
23	Human Health	
23.1	Introduction	1
23.2	Legislation, Policy and Guidance	1
23.3	Methodology	4
23.4	Receiving Environment	13
23.5	Description of Potential Impacts	17
23.6	Mitigation	20
23.7	Monitoring	20
23.8	Residual Effects Assessment of Human Health Impacts	21
23.9	Summary of Effects	24
23.10	Cumulative Effects	24
23.11	References	25
24	Major Accidents & Disasters	
24.1	Introduction	1
24.2	Legislation, Policy and Guidance	1
24.3	Methodology	4
24.4	Study Area	12
24.5	Description of Potential Impacts	13
24.6	Residual Effects	67
24.7	Cumulative Effects	67
24.8	References	67
25	Interactions	
25.1	Introduction	1
25.2	Legislation, Policy and Guidance	1
25.3	Methodology	3
25.4	Description of Potential Impacts	4
25.5	Cumulative Effects	22
25.6	References	23
26	Cumulative Effects	
26.1	Introduction	1
26.2	Legislation, Policy and Guidance	1

Chapter / Section	Title	Page
26.3	Methodology	2
26.4	Description of Potential Impacts	11
26.5	Mitigation and Monitoring Measures	61
26.6	Residual Effects	61
26.7	References	66
27	Summary of Mitigation & Monitoring Measures	
27.1	Introduction	1
27.2	Mitigation and Monitoring Measures	2
27.2.1	Mitigation and Monitoring Measures for Traffic and Transportation	2
27.2.2	Mitigation and Monitoring Measures for Population	4
27.2.3	Mitigation and Monitoring Measures for Biodiversity	5
27.2.4	Mitigation and Monitoring Measures for Land and Soils	16
27.2.5	Mitigation and Monitoring Measures for Water (including Hydrology & Flood Risk)	19
27.2.6	Mitigation and Monitoring Measures for Hydrogeology	21
27.2.7	Mitigation and Monitoring Measures for Air Quality	23
27.2.8	Mitigation and Monitoring Measures for Climate	25
27.2.9	Mitigation and Monitoring Measures for Noise & Vibration	27
27.2.10	Mitigation and Monitoring Measures for Landscape & Visual Amenity	33
27.2.11	Mitigation and Monitoring Measures for Material Assets: Agricultural Properties	36
27.2.12	Mitigation and Monitoring Measures for Material Assets: Non-Agricultural Properties	37
27.2.13	Mitigation and Monitoring Measures for Material Assets: Utilities	39
27.2.14	Mitigation and Monitoring Measures for Material Assets: Resource & Waste Management	41
27.2.15	Mitigation and Monitoring Measures for Archaeology & Cultural Heritage	43
27.2.16	Mitigation and Monitoring Measures for Architectural Heritage	49
27.2.17	Mitigation and Monitoring Measures for Electromagnetic Effects & Stray Current	51
27.2.18	Mitigation and Monitoring Measures for Human Health	52
27.2.19	Mitigation and Monitoring Measures for Major Accidents and Disasters	53
27.2.20	Interactions	56
27.2.21	Natura Impact Statement	56
27.3	References	66