

Greater Dublin Drainage

Alternative Sites Assessment and Route Selection Report (Phase 4): Final Preferred Site and Routes

Appendix 1

Addendum to the Alternative Sites Assessment and Route Selection Report (Phase 2)

June 2013

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| | Originator | Checked by | Reviewed by | Approved by |
|-------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|
| ORIGINAL | NAME Ciaran O'Keeffe | NAME Jillian Bolton | NAME Michael Garrick | NAME Graham McNally |
| DATE December 2011 | SIGNATURE | SIGNATURE | SIGNATURE | SIGNATURE |
| Document Status- Draft | | | | |

| | Originated by | Checked by | Reviewed by |
|-------------------------------|---------------------------------|--|-------------------------------|
| REVISION 1 | NAME Various | NAME Jillian Bolton | NAME Jillian Bolton |
| Approved by | NAME Ciarán O' Keeffe | As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I approve them for issue | |
| DATE 07/06/13 | INITIALS <i>Lok.</i> | | |
| Document status: Final | | | |

| | NAME | NAME | NAME |
|------------------------|----------|--|------|
| REVISION | | | |
| Approved by | NAME | As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I approve them for issue | |
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List of Acronyms

| | |
|-------|--|
| ACA | Architectural Conservation Area |
| ASA | Alternative Site Assessment |
| CDP | County Development Plan |
| CH | Cultural Heritage |
| cSAC | Candidate Special Area of Conservation |
| DP | Development Plan |
| EPA | Environmental Protection Agency |
| FCC | Fingal County Council |
| GSI | Geological Survey of Ireland |
| HLS | High Landscape Sensitivity |
| IWeBS | Irish Wetland Bird Survey |
| NHA | Natural Heritage Area |
| NIAH | National Inventory of Architectural Heritage |
| PIR | Potential Impact Rating |
| pNHA | proposed Natural Heritage Area |
| RMP | Record of Monuments and Places |
| RPS | Record of Protected Structures |
| SAC | Special Area of Conservation |
| SPA | Special Protection Area |
| TPO | Tree Preservation Order |

1 Introduction

This appendix outlines the addendum to the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes.

This addendum resulted from:

- Review of the assessment findings from the ASA Phase 2 process by the Project Team post publication of the Phase 2 Report, and
- Comments / queries raised during the ASA Phase 3 Public Consultation;

A small number of amendments / corrections were identified as being required to the Socio-Economic, Noise & Vibration, Air & Odour, and Pipeline Corridor 'C' aspects of the report.

As none of the required corrections impact on the overall identification of the emerging preferred site options, it was not considered necessary to publish these corrections as a stand alone document. The corrections have been taken into account and incorporated into the *Alternative Sites Assessment and Route Selection Report (Phase 4): Final Preferred Sites and Routes* and full details provided in this Appendix 1.

This appendix is divided into the following 4 sections:

- 2.0 Socio Economic
- 3.0 Noise & Vibration
- 4.0 Air & Odour
- 5.0 Pipeline Corridor 'C'

Clarifications are provided on errors and / or perceived errors in the Phase 2 Alternative Sites Assessment (ASA) under each of the above sections. Where relevant, details of the resulting changes to the completed matrix are provided in the iteration format as detailed in Chapter 7 of the Phase 2 Report.

At the end of each section, a list of locations within the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes where corrections are required is provided.

As previously stated, none of the required corrections impact on the overall identification of the emerging preferred site options.

2 Socio - Economic

2.1 Sub – Criteria

The potential socio-economic impacts associated with each site were summarised in Chapter 6 under the sections listed in table 1.1 below:

| Site | Reference |
|------------------------|-----------|
| Annsbrook | 6.2.10 |
| Baldurgan | 6.3.10 |
| Cloghran | 6.4.10 |
| Clonshagh (Clonshaugh) | 6.5.10 |
| Cookstown | 6.6.10 |
| Newtowncorduff | 6.7.10 |
| Rathartan | 6.8.10 |
| Saucerstown | 6.9.10 |
| Tyrellstown Little | 6.9.11 |

Table 1.1 Chapter 6 references

Under each of the above sections a brief description of the baseline from a People and Communities perspective was provided. Details of the following were provided:

- a) number of residential and commercial buildings 300 – 500m from site boundary;
- b) number of residential and commercial buildings 500m – 1km from site boundary;
- c) known community amenities and facilities within 1km from site boundary; and
- d) potential to impact on areas of Significant Population Densities.

There were a number of errors in the figures reported under items (a) and (b) above. The figures included in the Phase 2 report and the corrected figures are provided in table 1.2 overleaf.

With the exception of a small number of typos, the corrections required are based on comments received during the public consultation and a subsequent requirement to reference the closest point of a particular town / village as opposed to the town / village centre. Required corrections are provided in table 1.3 overleaf.

In addition a number of amendments are required to the Significant Population Densities (item (d) above) reported. The population density value of towns / villages etc was removed as these were originally related to electoral divisions only.

Furthermore, the comments recorded in the matrix did not, in some instances, correlate exactly with the statements included in the report. The matrix comments have been reviewed for consistency and the original comments provided in the Phase 2 report (both matrix and main report) and the revised comments are also provided in table 1.3.

| Site | Residential and Commercial Buildings located 300 – 500m from the site boundary (Matrix Sub-criteria 10.1) | | Residential and Commercial Buildings within 0.5 – 1km of the site boundary (Matrix Sub-criteria 10.2) | |
|------------------------|---|-----------|---|-----------|
| | Reported | Corrected | Reported | Corrected |
| Annsbrook | 44 | 18 | 66 | 67 |
| Baldurgan | 21 | 4 | 82 | 75 |
| Cloghran | 116 | 19 | 629 | 725 |
| Clonshagh (Clonshaugh) | 83 | 22 | 1443 | 629 |
| Cookstown | 53 | 5 | 59 | 71 |
| Newtowncorduff | 33 | 26 | 205 | 112 |
| Rathartan | 131 | 21 | 728 | 219 |
| Saucerstown | 66 | 58 | 948 | 956 |
| Tyrellstown Little | 50 | 6 | 74 | 68 |

Table 1.2 Number of properties distant from the site boundary

| Site | Potential to impact on areas of Significant Population Densities (Matrix Sub-criteria 10.4) | | |
|-----------|---|--|---|
| | Included in Report | Included in Matrix | Corrected (To be included in Report and Matrix) |
| Annsbrook | Lusk located 2.7km to the north-east, with a population density of 2.08 per hectare. Ballyboughal located 2.2km to the south-west | Lusk is c. 3.1km to the east and Ballyboughal (school) is 2.2km to the south-west. | Lusk (Dun Emer View Estate) located 2.7km to the north-east. Ballyboughal located 2.2km to the south-west |
| Baldurgan | Major Town of Swords located 0.7km to the north-west, with a population density of 5.14 per hectare. | Ballyboughal (houses at Dooroge) is c. 0.7km to the north-west. | Ballyboughal (dwellings at Lynwood) is located 0.8km to the north-west. |

| Site | Potential to impact on areas of Significant Population Densities (Matrix Sub-criteria 10.4) | | |
|------------------------|---|--|--|
| | Included in Report | Included in Matrix | Corrected (To be included in Report and Matrix) |
| Cloghran | Significant residential areas are Swords 1.5km to the north, Ballymacartle housing estate 600m to the southeast. Cloghran ED density is 7.69 per hectare. | Swords is c. 1km to the north. A housing estate at Ballymacartle is c. 0.6km to the SE. Dublin Airport entrance is c. 1.1km to the south-west. | Significant residential area of Swords lies to the north with Holywell Meadows eastate 0.61km to the north, Ballymacartle housing estate 600m to the southeast. Dublin Airport entrance is c. 1.7km to the south-west. |
| Clonshagh (Clonshaugh) | Town of Balgriffin located approximately 0.8km to the south, population density of 1.61 per ha | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.4km to north-west respectively. | Significant residential areas of Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.6km to the north-west respectively. |
| Cookstown | Dwellings are located at Ballyboughal approximately 0.9km to the north-east. | Ballyboughal (houses at Dooroge) is c. 1.1km to the north-west. | Dwellings (Lynwood houses) are located at Ballyboughal approximately 1.1km to the north-west. |
| Newtowncorduff | Lusk is 1.3km to the east with a population density of 2.08 per hectare | Lusk is c. 1.3km to the east. | Lusk (Dun Emer View housing estate) is 0.8km to the east. |
| Rathartan | Major towns of Lusk and Rush located approximately 2.4km east and 2km west respectively. | Rush is c. 0.7km to the east and Lusk (settlement at Lough Common) is c. 1.8km to the west. | Lusk (Station Road roundabout) is approximately 1.7km to the west. Rush (dwellings at Haystown) is approximately 0.7km to the east. |
| Saucerstown | Major town of Swords located 1.2km to the south-east, with a population density of 5.14 per hectare | Swords (Mooretown) is c. 1.2km to the south-east. | Major town of Swords (Ashtown Court estate) is 0.4km to the south-east. |
| Tyrellstown Little | Lusk is approx 1.5km to southwest, with a population density of 2.08 per ha and Rush is approx 1.9km to the south-east. | Lusk (school) is c. 1.6km to SW and Rush is c. 1.9km to the southeast. | Lusk (School on Rathmore Road) is approx 1.0km to southwest and Rush (dwellings at Haystown) is approx 1.9km to the south-east. |

Table 1.3 Significant Population Densities

The above corrections were transferred to the appropriate sub-criteria in the matrix. The tables provided overleaf document the amendments required to the matrix as a result of the corrections to the socio-economic sub-criteria scheduled above.

The amendments to the iterations of the matrix provided overleaf should be reviewed in conjunction with the full *Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes* and the ASA Matrix Assessment presented with Appendix 4 of the report.

Sub-criteria 10.2 (Number of residential and commercial buildings 500m – 1km from site boundary) was removed from further consideration, as listed in Appendix 3 of the Phase 2 report, as the associated potential impact was considered to be addressed sufficiently in sub-criteria 10.1 and 10.4.

2.2 First Iteration of the Matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Saucerstown | Tyrrelstown Little |
|------|--|-----------|-----------|------------------------|-----------|----------|----------------|-----------|-------------|--------------------|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 44 | 21 | 83 | 53 | 116 | 33 | 131 | 66 | 50 |

Table 1.4 First Iteration reported in matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Saucerstown | Tyrrelstown Little |
|------|--|-----------|-----------|------------------------|-----------|----------|----------------|-----------|-------------|--------------------|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 18 | 4 | 22 | 5 | 19 | 26 | 21 | 58 | 6 |

Table 1.5 First Iteration corrected matrix

There was no impact to the identification of ‘Most Favourable’ cell for sub-criterion 10.1 in the first iteration of the matrix as a result of the corrected figures.

There is no impact to the overall matrix assessment output at the first iteration as a result of the listed corrections.

Sub-criteria 10.2 and 10.4 were not considered as part of the first matrix iteration.

2.3

Second Iteration of the Matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Saucerstown | Tyrrelstown Little |
|------|--|---|--|---|---|--|-------------------------------|---|---|---|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 44 | 21 | 83 | 53 | 116 | 33 | 131 | 66 | 50 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk is c. 3.1km to the east and Ballyboughal (school) is 2.2km to the southwest. | Ballyboughal (houses at Dooroge) is c. 0.7km to the northwest. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.4km to north-west respectively. | Ballyboughal (houses at Dooroge) is c. 1.1km to the NW. | Swords is c. 1km to the north. A housing estate at Ballymacartle is c. 0.6km to the south-east. Dublin Airport entrance is c. 1.1km to the south-west. | Lusk is c. 1.3km to the east. | Rush is c. 0.7km to the east and Lusk (settlement at Lough Common) is c. 1.8km to the west. | Swords (Mooretown) is c. 1.2km to the south-east. | Lusk (school) is c. 1.6km to SW and Rush is c. 1.9km to the south-east. |

Table 1.6 Second Iteration reported in matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Saucerstown | Tyrrel Little |
|------|--|--|--|---|---|--|---|---|---|---|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 18 | 4 | 22 | 5 | 19 | 26 | 21 | 58 | 6 |
| 10.4 | Potential impact areas to on of Significant Population Densities | Lusk located 2.7km to the north-east. Ballyboughal located 2.2km to the south-west | Ballyboughal is located 0.8km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.6km to north-west respectively. | Dwellings (Lynwood houses) are located at Ballyboughal approximately 1.1km to the north-west. | Significant residential areas are Swords 0.6km to the northwest, Ballymacartle housing estate 600m to the southeast. Dublin Airport entrance is c. 1.7km to the south-west | Lusk (Dun Emer View housing estate) is 0.8km to the east. | Lusk (Station Road roundabout) is approximately 1.9km to the west. Rush (dwellings at Haystown) is approximately 0.7km to the east. | Major town of Swords (Ashtown Court estate) is 0.4km to the south-east. | Lusk (on Rai Road) approx 1.0km southw and (dwelli Haystc approx 1.9km south- |

Table 1.7 Second Iteration corrected matrix

As a result of the corrected figures, Rathartan is no longer identified as the 'Least Favourable' cell for sub-criteria 10.1 in the second iteration of the matrix. Saucerstown is now identified as 'Least Favourable' for this sub-criterion.

In addition, neither Rathartan nor Baldurgan are now identified as the 'Least Favourable' cell for sub-criteria 10.4 in the second iteration of the matrix. Saucerstown is now also identified as 'Least Favourable' for this sub-criterion.

Following the second iteration of the matrix at Phase 2 stage, Saucerstown was removed from further consideration as an emerging preferred site option. The inclusion of Saucerstown as 'Least Favourable' under both of these sub-criteria only reinforces its removal at this stage in the process.

These sub-criteria are in addition to those included in Table 7.1 of the Phase 2 report which lists the 'Least Favourable 'Sub-Criteria' for Saucerstown.

There is no impact to the overall matrix assessment output at the second iteration as a result of the listed corrections.

Sub-criterion 10.2 was not considered as part of the second matrix iteration.

2.4 Third Iteration of the Matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Tyrrelstown Little |
|------|--|--|---|---|---|--|-------------------------------|---|--|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 44 | 21 | 83 | 53 | 116 | 33 | 131 | 50 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk is c. 3.1km to the east and Ballyboughal (school) is 2.2km to the south-west. | Ballyboughal (houses at Dooroge) is c. 0.7km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.4km to north-west respectively. | Ballyboughal (houses at Dooroge) is c. 1.1km to the north-west. | Swords is c. 1km to the north. A housing estate at Ballymacartle is c. 0.6km to the south-east. Dublin Airport entrance is c. 1.1km to the south-west. | Lusk is c. 1.3km to the east. | Rush is c. 0.7km to the east and Lusk (settlement at Lough Common) is c. 1.8km to the west. | Lusk (school) is c. 1.6km to the south-west. Rush is c. 1.1km to the south-east. |

Table 1.8 Third Iteration reported in matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan | Tyrrelstown Little |
|------|--|--|--|---|---|---|---|--|--|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 18 | 4 | 22 | 5 | 19 | 26 | 21 | 6 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk located 2.7km to the north-east. Ballyboughal located 2.2km to the south-west | Ballyboughal is located 0.8km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.6km to the north-west respectively. | Dwellings (Lynwood houses) are located at Ballyboughal approximately 1.1km to the north-west. | Significant residential areas are Swords 0.6km to the northwest, Ballymacartle housing estate 600m to the southeast. Dublin Airport entrance is c. 1.7km to the south-west. | Lusk (Dun Emer View housing estate) is 0.8km to the east. | Lusk (Station Road roundabout) is approximately 1.9km to the west. Rush (dwellings at Haystown) is approximately 0.7km to the east | Lusk (School Rathmore Road) is approx 1.0km to south-west and Rush (dwellings Haystown) approx 1.9km to the south-east |

Table 1.9 Third Iteration corrected matrix

As a result of the corrected figures, Cloghran is no longer identified as the 'Least Favourable' cell for sub-criteria 10.1 in the third iteration of the matrix. Newtowncorduff is now identified as 'Least Favourable' for this sub-criteria.

Neither Rathartan nor Baldurgan are now identified as the 'Least Favourable' cell for sub-criteria 10.4 in the third iteration of the matrix, nor is Clonshagh considered the next most 'Least Favourable' cell. Cloghran is now also identified as 'Least Favourable' for this sub-criteria.

Following the third iteration of the matrix at Phase 2 stage, Tyrellstown Little was removed from further consideration as an emerging preferred site option. The inclusion of Newtowncorduff as least preferred under sub-criterion 10.1 and Cloghran under sub-criterion 10.4 does not have any effect on the identification of Tyrellstown Little for removal at this stage in the process.

There is no impact to the overall matrix assessment output at the third iteration as a result of the listed corrections.

Sub-criterion 10.2 was not considered as part of the third matrix iteration.

2.5 Fourth Iteration of the Matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan |
|------|--|--|---|---|---|--|------------------------------|---|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 44 | 21 | 83 | 53 | 116 | 33 | 131 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk is c. 3.1km to the east and Ballyboughal (school) is 2.2km to the south-west. | Ballyboughal (houses at Dooroge) is c. 0.7km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.4km to the north-west respectively. | Ballyboughal (houses at Dooroge) is c. 1.1km to the north-west. | Swords is c. 1km to the north. A housing estate at Ballymacartle is c. 0.6km to the south-east. Dublin Airport entrance is c. 1.1km to the south-west. | Lusk is c. 1.3km to the east | Rush is c. 0.7km to the east and Lusk (settlement at Lough Common) is c. 1.8km to the west. |

Table 1.10 Fourth Iteration reported in matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonsagh (Clonsbaugh) | Cookstown | Cloghran | Newtowncorduff | Rathartan |
|------|--|--|--|---|---|---|---|--|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 18 | 4 | 22 | 5 | 19 | 26 | 21 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk located 2.7km to the north-east. Ballyboughal located 2.2km to the south west | Ballyboughal is located 0.8km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.6km to the north-west respectively. | Dwellings (Lynwood houses) are located at Ballyboughal approximately 1.1km to the north-west. | Significant residential areas are Swords 0.6km to the northwest, Ballymacartle housing estate 600m to the southeast. Dublin Airport entrance is c. 1.7km to the south-west. | Lusk (Dun Emer View housing estate) is 0.8km to the east. | Lusk (Station Road roundabout) is approximately 1.9km to the west. Rush (dwellings at Haystown) is approximately 0.7km to the east |

Table 1.11 Fourth Iteration corrected matrix

Even with the corrected figures, Clonshagh remains the next 'Least Favourable' cell for sub-criterion 10.1 in the fourth iteration of the matrix. While there were no cells identified as next most 'Least Favourable' for sub-criterion 10.4 in the original matrix, it is considered appropriate in this instance to identify Rathartan as the next most 'Least Favourable' for sub-criterion 10.4 due to its proximity to Rush (dwellings at Haystown). To be conservative, Baldurgan, Clonshagh and Newtowncorduff are also identified as next most 'Least Favourable' at this stage as the adjacent population densities are at a distance of only 100m greater than for Rathartan.

Following the fourth iteration of the matrix at Phase 2 stage, both Cloghran and Rathartan were removed from further consideration as emerging preferred site options. The inclusion of Newtowncorduff as least preferred under the previous matrix iteration for sub-criterion 10.1 and under this matrix iteration for sub-criterion 10.4 still does not have any effect on the identification of these sites for removal at this stage in the process. The inclusion of Cloghran as 'Least Favourable' under sub-criterion 10.4 only reinforces its removal at this stage in the process.

There is no impact to the overall matrix assessment output at the fourth iteration as a result of the listed corrections.

Sub-criterion 10.2 was not considered as part of the fourth matrix iteration.

2.6 Fifth Iteration of the Matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Newtowncorduff |
|------|--|--|---|---|---|------------------------------|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 44 | 21 | 83 | 53 | 33 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk is c. 3.1km to the east and Ballyboughal (school) is 2.2km to the south-west. | Ballyboughal (houses at Dooroge) is c. 0.7km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.4km to the north-west respectively. | Ballyboughal (houses at Dooroge) is c. 1.1km to the north-west. | Lusk is c. 1.3km to the east |

Table 1.12 Fifth Iteration reported in matrix

| 10.0 | People and Communities | Annsbrook | Baldurgan | Clonshagh (Clonshaugh) | Cookstown | Newtowncorduff |
|------|--|--|--|---|---|---|
| 10.1 | Number of residential & commercial buildings 300-500m from site boundary | 18 | 4 | 22 | 5 | 26 |
| 10.4 | Potential to impact on areas of Significant Population Densities | Lusk located 2.7km to the north-east. Ballyboughal located 2.2km to the south west | Ballyboughal is located 0.8km to the north-west. | Belcamp and Darndale are c. 0.8km to the south. Dublin Airport entrance and Terminal 1 are c. 2.1km and 2.6km to the north-west respectively. | Dwellings (Lynwood houses) are located at Ballyboughal approximately 1.1km to the north west. | Lusk (Dun Emer View housing estate) is 0.8km to the east. |

Table 1.13 Fifth Iteration corrected matrix

As a result of the corrected figures, Cookstown is no longer identified as the next 'Least Favourable' cell for sub-criteria 10.1 in the fifth iteration of the matrix. Annsbrook is now identified as 'Least Favourable' for this sub-criterion. As above to be conservative, it is considered appropriate to identify Cookstown as the next most 'least Favourable' cell for sub-criteria 10.4.

Following the fifth iteration of the matrix at Phase 2 stage, both Cookstown and Baldurgan were removed from further consideration as emerging preferred site options. The inclusion of Annsbrook as 'Least Favourable' under sub-criterion 10.1 does not have any effect on the identification of these sites for removal at this stage in the process. The inclusion of Cookstown as 'Least Favourable' under sub-criterion 10.4 at this stage only reinforces its removal from consideration.

There is no impact to the overall matrix assessment output at the fifth iteration as a result of the listed corrections.

Sub-criterion 10.2 was not considered as part of the fifth matrix iteration.

2.7 Correction Summary

As a result of the corrections to the socio-economic assessment, the following updates are required to the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes:

- i) Update to sections 6.2.10; 6.3.10; 6.4.10; 6.5.10; 6.6.10; 6.6.10; 6.7.10; 6.8.10 and 6.9.10 of the main report in line with the corrections / amendments provided in tables 1.2 and 1.3 above;
- ii) Update to the lists of 'Least Favourable' sub-criteria for site options which are no longer being considered' included in the tables in Chapter 7;
- iii) Update sub-criteria 10.1 and 10.4 in the full matrix;
- iv) Update the figures referenced under sub-criteria 10.2 in Appendix 3; and
- v) Update the figures and / or statements referenced under sub-criteria 10.1 and 10.4 in Appendix 4.

3 Noise & Vibration

3.1 Sub – Criteria

The Noise and Vibration assessments undertaken as part of Phase 2 were based on residential receptors only. Receptors defined as ‘other’ and ‘residential & commercial’ in the geodirectory were included in the counts as a conservative consideration. ‘Commercial’ only receptors were not included.

The figures reported are factored house counts based on the modelling parameters determined by the Noise and Vibration specialists. Following the public consultations the base house counts and the factored house counts were checked. A number of minor errors were identified as detailed in table 1.14 below:

| | Potential for Construction Phase Noise impact at Sensitive Receptors | |
|------------------------|--|--|
| | Reported | Corrected |
| Annsbrook | 26 dwellings (PIR) within 0.5km | 26 dwellings (PIR) within 0.5km |
| Baldurgan | 6 dwellings (PIR) within 0.5km | 6 dwellings (PIR) within 0.5km |
| Clonshagh (Clonshaugh) | 37 dwellings (PIR) within 0.5km | 33 dwellings (PIR) within 0.5km |
| Cookstown | 7 dwellings (PIR) within 0.5km | 7 dwellings (PIR) within 0.5km |
| Cloghran | 15 dwellings (PIR) within 0.5km | 13 dwellings (PIR) within 0.5km |
| Newtowncorduff | 40 dwellings (PIR) within 0.5km | 40 dwellings (PIR) within 0.5km |
| Rathartan | 22 dwellings (PIR) within 0.5km | 24 dwellings (PIR) within 0.5km |
| Saucerstown | 57 dwellings (PIR) within 0.5km | 57 dwellings (PIR) within 0.5km |
| Tyrellstown Little | 8 dwellings (PIR) within 0.5km | 8 dwellings (PIR) within 0.5km |

Table 1.14 Noise Impact factored House Counts

The above figures were reported in Table 13.1 of Appendix 13 under ref 13.1 of the Phase 2 report. The values / comments in refs 13.1; 13.2 and 13.3 of Table 13.1 of Appendix 13 were used to inform the ratings in refs 13.4 and 13.5. However the corrections noted above were not significant enough to have any impact on these ratings.

Therefore there is no subsequent impact to the Noise and Vibration sub-criteria (8.4 and 8.5) included in the matrix or the overall matrix assessment output as a result of the corrections to the Noise and Vibration assessment.

In addition, there is a reporting error in the data provided under section 6.2.9 of the main report.

3.2 Correction Summary

As a result of the corrections to the Noise and Vibration assessment, the following updates are required to the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes:

- i) Update sections 6.2.9; 6.4.9; 6.5.9 and 6.8.9 of the main report in line with the figures provided above;
- ii) Update table 13.1 of Appendix 13;
- iii) Update sub-criteria 8.1 in the full matrix; and
- iv) Update the figures referenced under sub-criteria 8.1 in Appendix 3.

4 Air & Odour

4.1 Sub - Criteria

The Air and Odour assessments undertaken as part of Phase 2 were based on residential receptors only. Receptors defined as 'other' and 'residential & commercial' in the geodirectory were included in the counts as a conservative consideration. 'Commercial' only receptors were not included.

The figures reported are factored house counts based on the modelling parameters determined by the Air and Odour specialists. Following the public consultations the base house counts and the factored house counts were checked. A number of minor errors were identified as detailed in table 1.15 below:

| Site | Potential for Construction Phase Air Quality impact at Sensitive Receptors | |
|--------------------|--|--|
| | Reported | Corrected |
| Annsbrook | 13 dwellings (H ₂ S dispersion factor) within 1km | 13 dwellings (H ₂ S dispersion factor) within 1km |
| Baldurgan | 10 dwellings (H ₂ S dispersion factor) within 1km | 10 dwellings (H ₂ S dispersion factor) within 1km |
| Clonshagh | 15 dwellings (H ₂ S dispersion factor) within 1km | 74 dwellings (H ₂ S dispersion factor) within 1km |
| Cookstown | 10 dwellings (H ₂ S dispersion factor) within 1km | 10 dwellings (H ₂ S dispersion factor) within 1km |
| Cloghran | 87 dwellings (H ₂ S dispersion factor) within 1km | 85 dwellings (H ₂ S dispersion factor) within 1km |
| Newtowncorduff | 19 dwellings (H ₂ S dispersion factor) within 1km | 19 dwellings (H ₂ S dispersion factor) within 1km |
| Rathartan | 29 dwellings (H ₂ S dispersion factor) within 1km | 30 dwellings (H ₂ S dispersion factor) within 1km |
| Saucerstown | 142 dwellings (H ₂ S dispersion factor) within 1km | 141 dwellings (H ₂ S dispersion factor) within 1km |
| Tyrellstown Little | 10 dwellings (H ₂ S dispersion factor) within 1km | 10 dwellings (H ₂ S dispersion factor) within 1km |

Table 1.15 Air and Odour Impact factored House Counts

Note the figures are the same for the item 'Potential for Odour impacts at Operational Phase' and any amendments will be followed through.

The above were reported in Table 12.1 of Appendix 12 under ref 12.1 and 12.3 of the Phase 2 report. The values / comments in refs 12.1 – 12.8 inclusive were used to inform the ratings in refs 12.9 and 12.10. As a result of the significant change in value at Clonshagh, the amendments detailed in table 1.16 below are considered appropriate:

| Ref | Sub-criterion | Clonshagh (Clonshaugh) | |
|-------|----------------------------------|------------------------|---------------|
| | | Reported | Corrected |
| 12.9 | Construction Phase Impact Rating | Imperceptible | Slight |
| 12.10 | Operational Phase Impact Rating | Imperceptible | Slight |

Table 1.16 Matrix Corrections

As a result, Clonshagh will not, as previously at Phase 2 stage, receive a ‘Most Favourable’ rating for sub-criterion 9.9 and 9.10 on the first iteration of the matrix. These sub-criteria were not considered further in the matrix iterations completed at Phase 2 stage.

Therefore there are no subsequent impacts to the overall matrix assessment output as a result of the corrections to the Air and Odour assessment.

4.2

Correction Summary

As a result of the corrections to the Air and Odour assessment, the following updates are required to the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes:

- i) Update sections 6.4.8; 6.5.8; 6.8.8 and 6.9.8 of the main report in line with the figures provided above;
- ii) Update table 12.1 of Appendix 12;
- iii) Update sub-criteria 9.1; 9.3; 9.9 and 9.10 in the full matrix;
- iv) Update the figures referenced under sub-criteria 9.1 and 9.3 in Appendix 3; and
- v) Update the ratings for sub-criteria 9.9 and 9.10 in Appendix 4.

5

Pipeline C

5.1

Sub – Criteria

Queries raised as part of the public consultation requested clarification on why it appeared that Pipeline C was not considered as part of the Cloghran site option for the following sub-criteria: 2.2.2; 2.2.3; 2.2.4; 2.2.5; 2.2.6; 2.2.7; 2.2.8; 2.2.9; 2.2.10; 2.2.12; 2.2.13; 3.2.1 and 5.2.5.

The response, as provided at public consultation, is that the relevant portion of Pipeline C is only included where it has a potential impact relevant to the particular sub-criteria. i.e. only a portion of Pipeline C is relevant to the Cloghran site option and only where potential impacts are located in this portion are they considered in the matrix.

However, it is further noted that in some cases the relevant text was not included in the published documents, therefore for clarity tables 1.17 and 1.18 outline the sub-criteria where portions of Pipeline C should be considered, detail the correct text and confirm the impacts, if any, on the overall matrix assessment.

Table 1.17 Corrections required

| Ref | Sub-criteria | Cloghran | | |
|------------|---|---|--|---|
| | | Reported | Corrected | Comment* |
| 1.2 | Cultural Heritage - Pipelines | | | |
| 1.2.1 | Potential to impact on RMPs | 20 RMP sites located within corridor | No correction | All RMPs are located west of Cloghran |
| 1.2.2 | Potential to impact on National Monuments | No national monuments located within corridor | No correction | No national monuments located within corridor |
| 1.2.3 | Potential to impact on RPS/NIAH | 16 RPS and 7 NIAH sites located within corridor | No correction | Pipeline Corridor C east of Cloghran passes through Abbeyville Demesne the structure of which are RPS and NIAH. Note that the structures are outside the corridor but are included for completeness |
| 1.2.4 | Potential to impact on CH sites | 11 CH sites located within corridor | No correction | 2 No. CH sites are located east of Cloghran |
| 1.2.5 | Potential to impact on historic designated landscapes | 15 demesne landscapes located within corridor | 16 demesne landscapes located within corridor | 2 demesne landscapes are locate east of Cloghran |
| 1.2.6 | Potential to impact on ACA | One ACA partially located within corridor | No correction | One ACA partially located east of Cloghran |

| Ref | Sub-criteria | Cloghran | | |
|------------|--|--|---|---|
| | | Reported | Corrected | Comment* |
| 2.2 | Landscape & Visual - Pipelines | | | |
| 2.2.1 | Potential to impact on views from scenic routes (designation in Fingal CDP) | A - Imperceptible - No scenic routes in the vicinity B -Imperceptible - No scenic routes in the vicinity C -Imperceptible - Nearest scenic route >1km away from NW end of this Pipeline corridor section on opposite side of a ridge. G - Significant - Scenic route along eastern edge of this section at edge of Baldoyle Estuary | A - Imperceptible - No scenic routes in the vicinity B -Imperceptible - No scenic routes in the vicinity G - Significant - Scenic route along eastern edge of this section at edge of Baldoyle Estuary | Pipeline C should not be considered as scenic route is at northwest end of Pipeline C corridor |
| 2.2.2 | Potential to impact on areas of high landscape sensitivity (designation in Fingal CDP) | A - Significant - at least half of this section of pipeline corridor runs through area of HLS B - Moderate - small pocket of HLS at eastern tip of this pipeline section G - Significant Eastern end of this pipeline section is contained within an HSL which also has a 'High Amenity' zoning objective area | A - Significant - at least half of this section of pipeline corridor runs through area of HLS B - Moderate - small pocket of HLS at eastern tip of this pipeline section C – Moderate – small pocket of HLS at eastern tip of this pipeline section G - Significant - Eastern end of this pipeline section is contained within an HSL which also has a 'High Amenity' zoning objective area | The reference to a "High Amenity' zoning objective area associated with the Ward River corridor' is no relevant as the Ward River is was of Coghran |

| Ref | Sub-criteria | Cloghran | | |
|-------|---|---|--|---|
| | | Reported | Corrected | Comment* |
| 2.2.3 | Potential to impact on views from settlements | A - Slight - Blanchardstown on opposite side of N3 road and Corduff >0.5km north-west B - Slight - Dublin outskirts contained on opposite side of M50 and no significant settlements in the vicinity of this pipeline corridor section G - Moderate - passes between estates associated with Portmarnock and Baldoyle | No correction | No significant settlements within the vicinity of Pipeline C |
| 2.2.4 | Potential to impact on views from dwellings / local roads | A - Moderate - a small number of dwellings lining local roads in the vicinity B -Moderate - a small number of dwellings lining local roads in the vicinity G - Slight - few single dwellings and local roads in the vicinity | A - Moderate - a small number of dwellings lining local roads in the vicinity B -Moderate - a small number of dwellings lining local roads in the vicinity C – Slight – A very small number of dwellings lining local roads in the vicinity G - Slight - few single dwellings and local roads in the vicinity | Considered slight as is only for a small portion of Pipeline C corridor |
| 2.2.5 | Potential to impact on views from motorways | A - Significant - runs adjacent to M50 B- Significant - runs adjacent to M50 and crosses M1 G - Imperceptible - M1/M50 interchange 3km west | No correction | The M1 is located west of Cloghran |

| Ref | Sub-criteria | Cloghran | | |
|-------|---|--|--|---|
| | | Reported | Corrected | Comment* |
| 2.2.6 | Potential to impact on views from other major roads (national or regional roads) | A - Significant - runs between the N3 and N2 national roads B - Significant - crosses the R122, R108 R132 and R107 regional roads G - Significant - links between R107 and R106 and crosses the R124, R123 | No correction | The R108 and R132 are located west of Cloghran |
| 2.2.7 | Potential to impact on views from Dublin - Belfast rail line | A - Imperceptible - >10km separation distance B - Imperceptible - 1.5km separation distance G - Significant - crosses rail line 1km west of Baldoyle Estuary | A - Imperceptible - >10km separation distance B - Imperceptible - 1.5km separation distance C – Imperceptible - 2km separation distance G - Significant - crosses rail line 1km west of Baldoyle Estuary | Rail line is located east of Cloghran |
| 2.2.8 | Potential to impact on views from Dublin Airport including aerial approach & vehicular egress | A - Slight - nearest aspect of Dublin Airport >1km away B - Moderate - passes adjacent to the southern boundary of the airfield G - Slight - Passes 0.5km north of Father Collins Park at Donaghmede | No correction | The relevant section of the Pipelir C corridor does not 'pass adjacent to the northern boundary of the airfield'. |
| 2.2.9 | Potential to impact on views from heritage/tourist features | A - Slight - does not appear to be any such sites in the vicinity B - Moderate - passes through Silloge Park Golf Course and adjacent to Bewleys Airport Hotel. Cemetery also located at Dardistown G - Slight - Passes 0.5km north of Father Collins Park at Donaghmede | No correction | Forest Little Golf Course is located west of Cloghran |

| Ref | Sub-criteria | Cloghran | | |
|--------|---|--|--|--|
| | | Reported | Corrected | Comment* |
| 2.2.10 | Potential to disrupt landscape structure (treelines / hedgerows / field pattern etc.) | <p>A - Moderate - landscape is relatively unstructured and irregular along this pipeline corridor section but with some hedgerow field patterns</p> <p>B- Moderate - landscape is relatively unstructured and irregular along this pipeline corridor section but with some hedgerow field patterns</p> <p>G - Slight - Moderate - landscape is relatively unstructured and open along this pipeline corridor section but with some hedgerow field patterns</p> | <p>A - Moderate - landscape is relatively unstructured and irregular along this pipeline corridor section but with some hedgerow field patterns</p> <p>B- Moderate - landscape is relatively unstructured and irregular along this pipeline corridor section but with some hedgerow field patterns</p> <p>C – Significant – Passes through numerous treelines and hedgerows</p> <p>G - Slight - Moderate - landscape is relatively unstructured and open along this pipeline corridor section but with some hedgerow field patterns</p> | The fact that only a small portion of the Pipeline C corridor is relevant needs to be considered in the overall assessment |

| Ref | Sub-criteria | Cloghran | | |
|--------|--|---|---------------|--|
| | | Reported | Corrected | Comment* |
| 2.2.11 | Potential to impact on woodlands and significant tree groups | <p>A - Significant - heavily wooded Tolka River corridor crossed at south-west end of pipeline section. DP objective to protect and preserve trees, woodlands and hedgerows in this area</p> <p>B- Imperceptible - There do not appear to be any patches of woodland along this pipeline corridor section</p> <p>C - Moderate - there appears to be a small patch of woodland at eastern end of this pipeline section (Abbeyville Estate)</p> <p>G - Imperceptible - There do not appear to be any patches of woodland along this pipeline corridor section</p> | No correction | |
| 2.2.12 | Potential to impact on rivers and streams | <p>A - Significant - Tolka River corridor crossed at south-west end of pipeline section</p> <p>B - Imperceptible - there do not appear to be any notable rivers or streams along this pipeline corridor section</p> <p>G -Significant - crosses the Mayne River</p> | No correction | The Ward River is located west of Cloghran |

| Ref | Sub-criteria | Cloghran | | |
|--------|---|--|--|---|
| | | Reported | Corrected | Comment* |
| 2.2.13 | Potential to impact on historic designed landscapes | A - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section B - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section G - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section | A - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section B - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section C – Significant - Passes across corner of Abbeyville estate at eastern end of corridor G - Imperceptible - There does not appear to be any demesne landscapes in the vicinity of this pipeline corridor section | Abbeyville Estate is located east of Cloghran |

| Ref | Sub-criteria | Cloghran | | |
|------------|--|---|--|---|
| | | Reported | Corrected | Comment* |
| 3.2 | Ecology Pipelines | | | |
| 3.2.1 | Potential to impact on Natura 2000 Sites and Natural Heritage Areas | Crosses river upstream of following (c)SAC/SPA/(p)NHA: A - 13km South Dublin Bay and River Tolka Estuary SPA/pNHA; North Dublin Bay SAC/SPA B - 8.0km North Dublin BAY SAC and North Bull Island SPA; 4.5km Baldoyle Bay SAC/SPA/pNHA G - 0.5km Baldoyle Bay SAC/SPA/pNHA G - Also interfaces with Baldoyle Bay SAC/SPA/pNHA and Ramsar site | Crosses river upstream of following (c)SAC/SPA/(p)NHA: A - 13km South Dublin Bay and River Tolka Estuary SPA/pNHA; North Dublin Bay SAC/SPA B - 8.0km North Dublin BAY SAC and North Bull Island SPA; 4.5km Baldoyle Bay SAC/SPA/pNHA C - Crosses the Sluice River which is 4.0km upstream of Baldoyle Bay SPA/SAC/pNHA. G - 0.5km Baldoyle Bay SAC/SPA/pNHA G - Also interfaces with Baldoyle Bay SAC/SPA/pNHA and Ramsar site | The Ward River is not considered as it is located west of Cloghran |
| 3.2.2 | Potential to impact upon ecological buffer zones or Nature Development Areas identified in the Fingal Development Plan 2011 - 2017 | Impinges upon 3 ecological buffer zones (Route G) Impinges upon five nature development areas Crosses 1 No. nature development area Potentially impinges on 1 No. Nature Development Areas | No correction | The relevant portion of the Pipelin C corridor impinges on the Abbeyville Demesne Nature Development Area. This has already been accounted for. |

| Ref | Sub-criteria | Cloghran | | |
|-------|--|---|---|--|
| | | Reported | Corrected | Comment* |
| 3.2.3 | Potential to impact upon ecological corridor, nature development area or high value habitats | Crosses 2 No. ecological corridors Potentially crosses 1 No. ecological corridor Impinges upon TPO sites Crosses 1 No. TPO site Potentially crosses 6 No rivers or streams Potentially crosses 1 No. area of deciduous woodland Loss of hedgerow habitat along 20km | Crosses 4 No. ecological corridors (Pipeline C crosses the Sluice River twice) Potentially crosses 1 No. ecological corridor Impinges upon TPO sites Crosses 1 No. TPO site Potentially crosses 6 No rivers or streams Potentially crosses 1 No. area of deciduous woodland Loss of hedgerow habitat along 20km | Ward River ecological corridor is located west of Cloghran 2 No. river crossings are located east of Cloghran One area of deciduous woodland located east of Cloghran 3km of overall 9km of hedgerow habitat included for consideration |
| 3.2.4 | Potential to impact on a salmonid system | Crosses 3 No. salmonid systems. | No correction | Sluice River has been accounted for. Ward River is located west of Cloghran |
| 3.2.5 | Potential for significant loss of breeding habitat for scarce or declining passerine species & Yellowhammer, Tree Sparrow, Spotted Flycatcher | Portions of the route with good mature hedgerows, trees, scrub and rough grassland likely to be suitable for breeding habitat for Yellowhammer, Tree Sparrow and Spotted Flycatcher | No correction | |
| 3.2.6 | Potential to impact on the breeding habitat for Annex 1 species Kingfisher | No suitable riparian habitat for breeding kingfisher | No correction | |
| 3.2.7 | Potential for the significant loss of winter habitat for Lapwing and Golden Plover, and other wader species outside of designated areas (I.e. relatively large, flat open fields of ploughed or fallow arable land or pasture) | Temporary loss of areas of wet grassland, arable or pasture fields that are possibly suitable wintering habitat for Lapwing and Golden Plover | No correction | |

| Ref | Sub-criteria | Cloghran | | |
|------------|---|--|---|----------|
| | | Reported | Corrected | Comment* |
| 3.2.8 | Potential to impact on IWeBS identified areas of importance to birds adjacent to Malahide Estuary | No IWeBS areas located on pipeline route | No correction | |
| 4.2 | Hydrology - Pipelines | | | |
| 4.2.1 | Proximity to water bodies in terms of flooding and as an indicator of sensitive surface water receptors | 9 river catchments and some coastal areas | 8 river catchments and some coastal areas | |
| 4.2.2 | Culverting requirement - used to indicate impact on flood-prone watercourses due to reduced conveyance. | 11 crossings | 10 crossings | |
| 4.2.3 | Area prone to flooding (based on historical data and predicted flood extents adjacent to the site as well as up and downstream locations) | A - Historic flooding in Tolka in the vicinity of the pipeline corridor; B - Historic flooding where route crosses the Mayne River C - Some overland flooding along Sluice River G - Historic flooding on the Mayne River (Fluvial and tidal near Mayne Bridge) | No correction | |
| 4.2.4 | Potential Impact on ecologically important and designated sites. | 3 routes pass close to Baldoye Estuary (SPA/SAC/pNHA); Broadmeadow Estuary (SAC/SPA/pNHA) | No correction | |
| 5.2 | Hydrogeology – Pipelines | | | |
| 5.2.1 | Aquifer Classification - importance of the groundwater resource to a given area | Poor Bedrock Aquifer and Locally Important Bedrock Aquifer underlies the route | No correction | |

| Ref | Sub-criteria | Cloghran | | |
|------------|--|---|--|--|
| | | Reported | Corrected | Comment* |
| 5.2.2 | Vulnerability Classification - potential for groundwater contamination | A - predominantly high B - Predominantly low G - predominantly low | A - predominantly high B - Predominantly low C – predominantly high G - predominantly low | |
| 5.2.3 | Groundwater Supplies - identification of water supply springs and bored wells based on GSI, EPA & FCC records | 1 No. well with a moderate yield 6 No. bored wells with moderate to good yields 1 No. spring with moderate to good yield. | No correction | |
| 5.2.4 | Groundwater Source Protection Area's and Zones of Contribution as per available GSI & EPA data | No source protection areas or zones of contribution in close proximity | No correction | |
| 5.2.5 | Identification of hydrogeological features from the GSI Karst database | No Karst Feature within the transfer pipeline corridor | No correction | |
| 6.2 | Soils & Geology - Pipelines | | | |
| 6.2.1 | Potential to impact on Geological Heritage Sites/County Geological Sites | No Geological Heritage Sites within corridor | No correction | |
| 6.2.2 | Potential to interact with contaminated land | 32 No. | 24 No. | All listed contaminated land areas are located west of Cloghran. |
| 6.2.3 | Potential to sterilize mineral resource | 2 No. | No correction | |
| 6.2.4 | Potential to encounter shallow bedrock during construction (interactions with other disciplines during construction - noise, dust etc) | A - 95% shallow bedrock (15% bedrock at surface) B - 5% Shallow bedrock (0% bedrock at surface) C - 65% shallow bedrock (5% at surface) G - 5% shallow bedrock (0% at surface) | No correction | |

| Ref | Sub-criteria | Cloghran | | |
|-------|------------------------------------|---|---------------|----------|
| | | Reported | Corrected | Comment* |
| 6.2.5 | Potential impact on karst features | No karst features within corridor | No correction | |
| 6.2.6 | Potential to encounter soft ground | A - 1% Alluvium deposits B - 1% Alluvium deposits C - 4% alluvium deposits G - 10% Alluvium Deposits | No correction | |

* East / west of Cloghran refers to potential impacts located east / west of Cloghran along the Pipeline C corridor.

Table 1.18 Impact on Matrix Assessment

| Ref | Sub-Criteria | Matrix Iteration* | | | | |
|------------|--|--|--------------------|--------------------|--------------------|--------------------|
| | | First | Second | Third | Fourth | Fifth |
| 1.2 | Cultural Heritage - Pipelines | | | | | |
| 1.2.1 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 1.2.2 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 1.2.3 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 1.2.4 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 1.2.5 | No impact to the overall matrix assessment outputs | No changes required | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 1.2.6 | No impact | Sub-criteria removed from consideration in matrix as all AFA's can be avoided along the pipeline corridor | | | | |
| 2.2 | Landscape & Visual - Pipelines | | | | | |
| 2.2.1 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.2 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.3 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.4 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.5 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.6 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |

| Ref | Sub-Criteria | Matrix Iteration* | | | | |
|------------|--|--|--------------------|--------------------|--------------------|--------------------|
| | | First | Second | Third | Fourth | Fifth |
| 2.2.7 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.8 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.9 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.10 | No impact to the overall matrix assessment outputs | Cloghran is not now considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 2.2.11 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.12 | No impact | Removed from consideration as impact is temporary and therefore would not be appropriate for use in identification of a preferred site | | | | |
| 2.2.13 | No impact to the overall matrix assessment outputs | Cloghran is not now considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 3.2 | Ecology - Pipelines | | | | | |
| 3.2.1 | No impact to the overall matrix assessment outputs | Cloghran is not now considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 3.2.2 | No corrections therefore no impact | | | | | |
| 3.2.3 | No impact to the overall matrix assessment outputs | Cloghran is not now considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 3.2.4 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 3.2.5 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |

| Ref | Sub-Criteria | Matrix Iteration* | | | | |
|------------|--|---|--------------------|--------------------|--------------------|--------------------|
| | | First | Second | Third | Fourth | Fifth |
| 3.2.6 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 3.2.7 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 3.2.8 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 4.2 | Hydrology - Pipelines | | | | | |
| 4.2.1 | No impact to the overall matrix assessment outputs | No changes required | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 4.2.2 | No impact | Removed from consideration as pipelines will be tunnelled under watercourses therefore no culverting requirement. | | | | |
| 4.2.3 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 4.2.4 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 5.2 | Hydrogeology - Pipelines | | | | | |
| 5.2.1 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 5.2.2 | No impact to the overall matrix assessment outputs | Cloghran is not now considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 5.2.3 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 5.2.4 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 5.2.5 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 6.2 | Soils & Geology – Pipelines | | | | | |

| Ref | Sub-Criteria | Matrix Iteration* | | | | |
|-------|--|---|--------------------|--------------------|--------------------|--------------------|
| | | First | Second | Third | Fourth | Fifth |
| 6.2.1 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 6.2.2 | No impact to the overall matrix assessment outputs | Cloghran is now also considered 'Most Favourable' | Not yet considered | Not yet considered | Not yet considered | Not yet considered |
| 6.2.3 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 6.2.4 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 6.2.5 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |
| 6.2.6 | No corrections therefore no impact | n/a | n/a | n/a | n/a | n/a |

* *'Not yet considered'* refers to the fact that the particular sub-criteria was not considered in the matrix iterations completed to date as part of the Phase 2 assessment

5.2 Correction Summary

As a result of the corrections to the Pipeline C assessment, the following updates are required to the Alternative Sites Assessment and Route Selection Report (Phase 2): Emerging Preferred Sites and Routes:

- i) Update Appendix 3; Appendix 4 and the full matrix in line with comments provided in table 1.17 above;
- ii) Update Appendix 3; Appendix 4 and the full matrix in line with comments provided in table 1.18 above;
- iii) Update references to relevant potential impacts throughout Chapter 6;
- iv) Update 'Description of Potential Impact' in relevant tables in Chapter 7; and
- v) Paragraph 6.4 to be clarified to state that only the potential impacts within the relevant portion of Pipeline C are considered.