

Denny to Wishaw Network Upgrade

Overhead line BNG Assessment

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1. Introduction

This Biodiversity Net Gain (BNG) Report has been prepared by AECOM on behalf of SP Transmission (also referred to as the Applicant). It accompanies applications under Section 37 of the Electricity Act 1989 for consent (also referred to as 'Section 37 consent') for the Denny Wishaw Network Upgrade (DWNO, also referred to as the Project) (the 'Project, Appendix A).

The following Works are being undertaken as part of the Project and are being considered within this BNG assessment:

- New-build Overhead Line Works:
 - The construction of approximately 19 km of a new 400kV overhead line (known as the 'WB Route') between Bonnybridge Substation and an existing overhead line (known as the 'XX Route') north of Glenmavis.
- Upgraded Overhead Line Works:
 - ZG Route – The upgrading of approximately 4 km of an existing overhead line between Denny North Substation and Bonnybridge Substation from 275 to 400kV, known as the 'ZG Route'.
 - XX Route – The upgrading of approximately 15km of an existing overhead line between Easterhouse and Newarthill Substations from 275 to 400kV, known as the 'XX Route'.
 - The upgrading of approximately 16km of an existing overhead line between Newarthill and Wishaw Substations from 275 to 400kV, known as the 'XR route'.
- Ancillary Works:
 - The undergrounding of two sections of the existing 132kV overhead line (known as 'AA route') between Bonnybridge and Bathgate, where it is crossed by the new overhead line, known as the 'AA Route'.
 - The removal of approximately 11km of an existing 132kV overhead line between Bonnybridge and Cumbernauld Substation, known as the 'CB Route'.

The New-build, Upgraded and Ancillary Works and the associated areas they are located in are hereafter referred to as the 'Works' and 'Site' respectively.

Full details of the Works are provided in the Volume 1 - Environmental Impact Assessment Report - Chapter 4.

The Project falls within the boundaries of two Local Planning Authorities (LPAs): Falkirk Council and North Lanarkshire Council. The assessments for each LPA area are presented separately, while the final results are reported collectively, to give the overall change in biodiversity value of the Project.

The assessment compares the Site's baseline habitat value with the predicted post-development habitat value. Biodiversity units have been quantified using the Scottish and

Southern Electricity Networks (SSEN) Transmission Biodiversity Toolkit¹ (hereafter, the 'Biodiversity Toolkit'), which adapts Natural England's Biodiversity Metric 3.1² for Scottish use. As Scottish-specific condition criteria are not yet available, Natural England habitat condition sheets are used as a proxy in line with NatureScot interim guidance³.

SPEN is committed to delivering measurable biodiversity enhancements across all projects, in line with its commitment to achieve a minimum 10% Biodiversity Net Gain (BNG) for developments requiring consent. This assessment quantifies the baseline habitat value and evaluates the anticipated biodiversity unit loss resulting from the proposed works, establishing the net change in biodiversity (the development impact). The 10% uplift is then applied specifically to this net change, and the combined total defines the number of biodiversity units required to deliver a 10% net gain for the development.

1.1 Inclusions and Exclusions

Following the SSEN Toolkit User Guide⁴, only habitats that will be permanently impacted (i.e. that will not return to target condition within two years of initial impact) are included within this BNG assessment. For the purpose of this report, this includes arable or pasture habitats only, these habitats have a time to target condition⁵ of 1 year and thus taking into account construction programme length, will be reinstated within 2 years of impact.

The following Works components are predicted to cause permanent impacts and therefore have been included within this BNG Assessment. For the purposes of this assessment, a BNG Assessment boundary has been created, which encompasses the following:

- Limits of Deviation (LoD) – All woodland, scrub and trees (including hedgerow trees) within the LoD;
- Proposed New Access Tracks – All area habitats excluding arable, pasture, hardstanding and trees;
- Management Felling – All woodland, scrub and trees (including hedgerow trees);
- Tower and Tower Compounds – All habitat excluding arable, pasture and standing water; and
- Scaffolding – All woodland, scrub, individual trees and high-growing habitats (excluding hedgerows).

The following Works components have been excluded from this assessment, as in line with the EIA assessment, it is assumed that habitat lost will be minimal as micro siting will be undertaken:

- Pre-existing access tracks – given these tracks are already in place, any habitat removal is likely to be minimal, and largely minor trimming / lopping rather than actual habitat removal;
- Trackway access tracks – matting will be placed down over habitats. Given the short duration this will be in place, it is considered that the habitats will all return to their baseline habitat type and condition following removal. The construction programme for

¹ Scottish and Southern Electricity Networks (SSEN), 2024. *SSEN Biodiversity Toolkit*.

² Natural England (2022). *Biodiversity Metric 3.1: Habitat Condition Assessment Sheets*.

³ NatureScot (2023/2024). *Interim advice on using Natural England Biodiversity Metric 3.1 habitat condition sheets in Scotland*.

⁴ Scottish and Southern Energy (SSE) Renewables, 2024. *Biodiversity Net Gain Toolkit User Guide v2.2*.

⁵ The Time to Target Condition is the timescale as set within Biodiversity Metric 3.1 to create a habitat to its allocated condition.

the Uprating works which will use trackway is 14 months, however matts will be removed on a rolling programme as the works are undertaken rather than being in place for the full duration;

- Visibility splays and bellmouths – exact details on the extent of vegetation clearance at these locations will be determined at construction stage, but as with the pre-existing access tracks, any habitat removal is likely to be minimal, and largely minor trimming / lopping rather than actual habitat removal.

The main works construction compound is also excluded from the assessment as will be reinstated and will return to target condition within two years of initial impact and therefore have been excluded from this assessment. The habitat in this location includes 'B6: Poor semi-improved grassland' and 'J4: Bare ground' in 'Poor' condition. An additional main works compound will be located in an existing works yard and this given the hardstanding nature of this location, this is also excluded from the assessment.

Baseline habitats are illustrated on Figure 1, Appendix A.

Post-development habitats are illustrated on Figure 2, Appendix B.

1.2 Policy and Legislation

Policy 3b of National Planning Framework 4⁶ (NPF4) requires biodiversity enhancements be provided in addition to any proposed mitigation stating that:

“Development proposals for national or major development that require an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks, so that they are in a demonstrably better state than without intervention. This will include future management. To inform this, best practice assessment methods should be used”.

By implementing measures to achieve net gain, the Project will achieve compliance with this aspect of NPF4, and this BNG assessment provides details of how this will be achieved. This is aligned to the Scottish Government's NPF4 Policy for project to contribute to biodiversity enhancement.

⁶ Scottish Government (2023). National Planning Framework 4

2. Methods

2.1 Biodiversity Toolkit

The biodiversity baseline and post-development habitat value has been quantified using the SSEN Biodiversity Toolkit¹ and SSEN Toolkit User Guide⁷. A BNG assessment involves making a comparison between the biodiversity value of habitats present within the Site prior to development (i.e., the ‘baseline’) and the predicted biodiversity value of habitats following the completion of the development (i.e., ‘post-development’). The comparison is made in terms of ‘biodiversity units’, with a ‘Biodiversity Toolkit’ providing the mechanism to allow biodiversity values to be calculated and compared.

The Biodiversity Toolkit assesses distinctiveness (habitat type/value), condition, extent, connectivity, and strategic significance (SS) for baseline and post-development habitats. A net gain is achieved where the post-development unit score exceeds the baseline.

For post-development calculations, the Biodiversity Toolkit applies standard risk multipliers to reflect delivery risk, time to target condition, and the location of mitigation relative to losses. These multipliers reduce the value of created/restored habitats, meaning larger areas and/or higher-value habitats are required to offset losses and deliver net gain.

This BNG Assessment and associated recommendations are based on findings of the Phase 1 habitat survey⁸ and Biodiversity Metric 3.1 Condition Assessment² surveys. The majority of habitat surveys took place from June 2025 to September 2025, with additional surveys conducted until January 2026 to accommodate for design changes. Full details of survey methods, along with any associated limitations are set out in Appendix 8.1 For this assessment, the Biodiversity Toolkit has been completed in Phase 1⁸ habitat classification system.

2.2 Strategic Significance

Strategic Significance (SS) is the local significance of a habitat based on its location. As per the Biodiversity Toolkit guidance all baseline and post-development habitats have been assigned a SS rating depending on “*if the habitat or area is included within any local plans, policies or strategies, or is ecologically valuable*”⁷.

2.3 Connectivity

A connectivity rating has been assigned to all baseline habitats as per the Biodiversity Toolkit User Guide⁷ with all ‘High’ and ‘Very high’ distinctiveness habitats assigned a ‘Moderate’ connectivity rating, and all other habitats assigned a ‘Low’ connectivity rating.

⁷ Scottish and Southern Energy (SSE) Renewables, 2024. *Biodiversity Net Gain Toolkit User Guide* v2.2.

⁸ Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 habitat survey. Available Online at: [Handbook for Phase 1 habitat survey](#)

3. Assumptions

In undertaking the calculation, the following assumptions have been made:

- Arable and pasture habitats will be reinstated to target condition within ≤ 2 years and as such are considered retained and are excluded from this assessment.
- Watercourses have been excluded from the assessment, as all watercourses will be spanned and as such no changes to watercourse lengths will occur.
- Where baseline habitats are permanently lost, post-development reinstatement is assumed to be 'B6: Poor semi-improved grassland' (target condition 'Poor', time to target = 2 years). Habitats will not be actively managed, and as such poor condition is assumed.
- Where overhead line components overlap, the extent of vegetation change has been included only once to prevent double counting.
- Existing areas of felled woodland are considered retained within the limits of deviation.
- Tower compounds have been included for all routes including the Uprating, AA and CB routes where tower foundation removal will be undertaken.
- At the time of assessment, access track details available constituted a single line, for the purposes of the BNG assessment, a 4m buffer either side of the central line has been used as the assumed track footprint.
- Where habitat condition data was not available (for example where survey access was not gained) condition has been extrapolated from adjacent habitat parcels where appropriate or assigned 'Good' condition, as per the precautionary principle.
- It is assumed impacts to trees (including line of trees) within the proposed access track components will be avoided through micro siting (in line with the assumptions followed within the EIA) and therefore trees within this component have been excluded from this BNG assessment.
- It is assumed that impacts to standing water will be avoided through micro siting and therefore standing water has been excluded from this BNG assessment.
- Ancient Woodland Inventory habitats (Category 1a and 2a) and 'Wetland – Blanket bog' in 'Good' and 'Moderate' Condition are considered irreplaceable habitats within this assessment. These irreplaceable habitats have been considered separately within this BNG assessment (see sections 4.2 and 5.2) and as such are excluded from the Biodiversity Toolkits.
- Table 4.2 of Volume 1, Chapter 4 - Project Description sets out specific timescales for the construction programme for individual elements of the project. The construction period will not exceed one year in any given location, and in many locations will be significantly shorter. As such it is assumed that the construction period will be less than one year (rounded to a year within the Biodiversity Toolkit).
- The Biodiversity Toolkit habitat 'J2.3.2: Boundaries: Hedges - With trees - species-poor (Low)' has been used as a proxy habitat for 'Lines of trees'.
- It is assumed that where hedgerows have been recorded as "hedgerows with trees" the trees within these hedgerows will be lost within the 'LoD' and 'Management Felling' area.

This has been presented as baseline habitat loss and recreated within the post development as this habitat type but without trees within the Biodiversity Toolkit.

- AA cable trenching will impact arable and pasture habitat only. Grassland turf affected by the cable trenching will be lifted, stored, and reinstated following completion of the Works. As it will return to its original habitat type and condition within two years, it has been excluded from this BNG assessment.

4. Results – Falkirk LPA

4.1 Baseline Habitats - Overview

A full detailed description of the habitats present is detailed in Volume 1, Chapter 8 Biodiversity, and accompanying Appendix 8.1 Habitat Baseline WB, CB and AA (Volume 3).

4.2 Baseline Habitats – Strategic Significance

An SS rating has been assigned to all baseline habitats as per the Biodiversity Toolkit User Guide⁷. Information was obtained from the Falkirk Biodiversity Action Plan (LBAP)⁹ to assess the SS rating. Table 4-1 summarises the SS rating assigned to each habitat type.

Table 4-1: Strategic Significance Justification

Strategic Significance	Justification Reasoning
High	The following habitats have been identified within the Falkirk LBAP⁹ as a local priority habitat: • A1.1.1: Woodland: Broadleaved - semi-natural • A1.1.2: Woodland: Broadleaved - plantation • A1.3.2: Woodland: Mixed – plantation • A3.1: Parkland/scattered trees: Broadleaved • J2.3.1: Boundaries: Hedges - With trees - native species-rich • J2.3.2: Boundaries: Hedges - With trees - species-poor • B1.1: Acid grassland: Unimproved • B1.2: Acid grassland: Semi-improved • B2.2: Neutral grassland: semi-improved • B5: Marsh/marshy grassland • D2: Wet dwarf shrub heath • D5: Dry heath/acid grassland mosaic • E1.7: Bog: Wet modified bog • E2.1: Flush and spring: Acid/neutral flush • E3.1: Fen: Valley mire • E3.2: Fen: Basin mire
Medium	The following habitat has not been formally identified as a local priority habitat but is considered ecologically desirable:

⁹ Falkirk Council (2018) [Second Nature - A Biodiversity Action Plan for the Falkirk Council Area](#).

- A2.1: Scrub: Dense/continuous

Low

The following habitats have not been formally identified as a local priority habitat and are not considered ecologically desirable:

- A1.2.2: Woodland: Coniferous - plantation
- A3.2: Parkland/scattered trees: Coniferous
- C1.1: Bracken: Continuous
- C3.1: Other Tall Herb and Fern: Ruderal
- J4: Bare ground
- J1.4: Cultivated/disturbed land: Introduced shrub

4.3 Irreplaceable Habitats

Habitats impacted by the Project cover a total area of 35.27 ha within the Falkirk Council boundary. A small area of this is irreplaceable habitat, classified as 'Wetland – Blanket Bog' in 'Good' Condition (0.91 ha / 2.58 %). The irreplaceable 'Wetland – Blanket bog' is located within 'Proposed New Track' and 'Tower and Tower Compound' areas within the WB and CB routes.

No category 1a or 2a Ancient Woodland is present within the Project within the Falkirk boundary. An area of irreplaceable category 2b Ancient Woodland is present within the Falkirk boundary covering 8.62 ha (24.44% of the total habitat area effected within Falkirk)¹⁰. Based on the habitat data, of the area listed on the inventory, currently 7.71 ha of this is actually supports woodland or scrub habitats.

4.4 Non-irreplaceable Baseline Habitats Units

An overview of the non-irreplaceable habitat baseline biodiversity within the BNG assessment within the Falkirk LPA boundary is summarised in Table 4-2 and Table 4-3, and the Baseline Habitat Plan is provided in Appendix A.

Table 4-2: Baseline area habitat units

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
A1.1.1: Woodland: Broadleaved - semi-natural (Medium)	4.64	Medium	Moderate	High	42.69
A1.1.1: Woodland: Broadleaved - semi-natural (Medium)	1.05	Medium	Poor	High	4.83
A1.1.2: Woodland: Broadleaved - plantation (Medium)	0.70	Medium	Moderate	High	6.44

¹⁰ This BNG assessment excludes 0.09 ha of running water / hardstanding habitat that are listed on the Ancient Woodland Inventory, however these habitat types cannot be classified as irreplaceable habitat.

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
A1.1.2: Woodland: Broadleaved - plantation (Medium)	1.83	Medium	Poor	High	8.42
A1.2.2: Woodland: Coniferous - plantation (Low)	1.72	Low	Poor	Low	3.44
A1.3.2: Woodland: Mixed - plantation	0.23	Medium	Moderate	High	2.12
A1.3.2: Woodland: Mixed - plantation	0.38	Medium	Poor	High	1.75
A2.1: Scrub: Dense/continuous	0.06	Medium	Good	Medium	0.79
A2.1: Scrub: Dense/continuous	1.63	Medium	Moderate	Medium	14.34
A2.1: Scrub: Dense/continuous	1.69	Medium	Poor	Medium	7.44
A2.1: Scrub: Dense/continuous	0.01	Medium	Condition N/A	Medium	0.00
B1.1: Acid grassland: Unimproved (Medium)	0.03	Medium	Good	High	0.41
B1.1: Acid grassland: Unimproved (Medium)	0.44	Medium	Moderate	High	4.05
B1.1: Acid grassland: Unimproved (Medium)	0.57	Medium	Poor	High	2.62
B1.2: Acid grassland: Semi-improved	0.07	Medium	Poor	High	0.32
B2.1: Neutral grassland: Unimproved	0.04	High	Good	High	0.95
B2.2: Neutral grassland: semi-improved	1.12	Medium	Good	High	15.46
B2.2: Neutral grassland: semi-improved	1.83	Medium	Moderate	High	16.84

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
B2.2: Neutral grassland: semi-improved	0.93	Medium	Poor	High	4.28
B5: Marsh/marshy grassland (Low)	0.73	Low	Good	High	5.04
B5: Marsh/marshy grassland (Low)	1.06	Low	Moderate	High	4.88
B5: Marsh/marshy grassland (Low)	1.02	Low	Poor	High	2.35
B6: Poor semi-improved grassland	0.02	Low	Moderate	Low	0.08
C1.1: Bracken: Continuous (Low)	0.15	Low	N/A - No biodiversity value	Low	0.00
C3.1: Other Tall Herb and Fern: Ruderal	0.22	Low	Poor	Low	0.44
D1.1: Dry dwarf shrub heath: Acid	0.06	High	Good	High	1.37
D1.1: Dry dwarf shrub heath: Acid	0.05	High	Moderate	High	0.76
D2: Wet dwarf shrub heath	0.01	High	Good	High	0.23
D2: Wet dwarf shrub heath	0.30	High	Moderate	High	4.55
D2: Wet dwarf shrub heath	0.07	High	Poor	High	0.53
D5: Dry heath/acid grassland mosaic	0.02	High	Poor	High	0.15
E1.7: Bog: Wet modified bog	0.44	High	Good	High	10.02
E1.7: Bog: Wet modified bog	1.16	High	Moderate	High	17.61
E1.7: Bog: Wet modified bog	0.50	High	Poor	High	3.80
E2.1: Flush and spring: Acid/neutral flush	0.03	High	Good	High	0.68
E3.1: Fen: Valley mire	0.05	High	Moderate	High	0.76

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
E3.2: Fen: Basin mire	0.17	High	Good	High	3.87
J1.4: Cultivated/disturbed land: Introduced shrub	0.02	Low	N/A - No biodiversity value		0.04
J4: Bare ground	0.68	Low	Poor	Low	1.36
A3.1: Parkland/scattered trees: Broadleaved (Medium)	1.14*	Medium	Good	High	15.73
A3.1: Parkland/scattered trees: Broadleaved (Medium)	0.43*	Medium	Moderate	High	3.96
A3.1: Parkland/scattered trees: Broadleaved (Medium)	0.04*	Medium	Poor	High	0.18
A3.2: Parkland/scattered trees: Coniferous (Medium)	0.08*	Medium	Good	Low	0.96
TOTAL	25.73 ha	-	-	-	195.68 BU

* Scattered trees areas are excluded from total area to prevent double counting of area; however, the unit contributions are included within the habitat unit total.

Table 4-3: Baseline linear habitat units

Habitat Type	Length (km)	Distinctiveness	Condition	SS	Habitat Units
J2.1.2: Boundaries: Hedges - Intact - species-poor	0.20	High	Good	High	4.55
J2.1.2: Boundaries: Hedges - Intact - species-poor	0.01	High	Moderate	High	0.15
J2.1.2: Boundaries: Hedges - Intact - species-poor	0.03	High	Poor	High	0.23
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.31	High	Good	High	7.06

Habitat Type	Length (km)	Distinctiveness	Condition	SS	Habitat Units
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.12	High	Poor	High	0.91
J2.3.1: Boundaries: Hedges - With trees - native species-rich	0.06	High	Good	High	1.37
J2.3.1: Boundaries: Hedges - With trees - native species-rich	0.12	High	Moderate	High	1.82
J2.3.2: Boundaries: Hedges - With trees - species-poor (Low)	0.11	Low	Poor	High	0.25
TOTAL	0.96 km	-	-	-	16.34 LU

4.5 Post-Development Habitats – Strategic Significance

A SS rating has been assigned to all post-development habitats as per the Biodiversity Toolkit User Guide⁷.

To take account of a worst-case scenario, all post-development area habitats are assumed to be 'B6 : Poor semi-improved grassland' in 'Poor' Condition which has been assigned a 'Low' SS because it is not a priority habitat and is unlikely to have a key connectivity function. Much of these areas are within the wayleave where woodland needs to be removed for operational purposes, in these locations SPEN to not have ownership of the land so have no control or influence on the habitats here, other than for operational purposes to ensure the corridor is clear of woodland.

4.6 Post-Development Habitats Units

All baseline habitats within the Biodiversity Toolkit are proposed to be lost and replaced with 'B6: Poor semi-improved grassland' creation as detailed in Table 4-4 and the Post-Development Habitat Plan is provided in Appendix B.

Any hedgerows lost within 'Proposed New Track' areas will be reinstated after construction is completed as detailed in Table 4-5. It is assumed that all hedgerow trees in 'LoD' or 'Management Felling' areas will be lost. This includes 0.11 km of J2.3.2: Boundaries : Hedges - With trees - species-poor (Low) that will become J2.1.2: Boundaries : Hedges - Intact - species-poor.

Table 4-4: Created Area Habitats

Habitat Type	Area (Ha)	Distinctiveness	Target Condition	Time to Target Condition (yrs)	SS	Habitat Units
B6: Poor semi-improved grassland	35.49	Low	Poor	2	Low	48.11
Total	25.73 ha	-	-	-	-	47.91 BU

Table 4-5: Created Hedgerow Habitats

Habitat Type	Length (km)	Distinctiveness	Target Condition	Time to Target Condition (yrs)	SS	Habitat Units
J2.1.2: Boundaries: Hedges - Intact - species-poor	0.24	High	Poor	2	High	1.70
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.43	High	Poor	2	High	3.04
J2.3.1: Boundaries: Hedges - With trees - native species-rich	0.01	High	Poor	2	High	0.07
Total	0.68 km	-	-	-	-	4.81 LU

5. Results – North Lanarkshire LPA

5.1 Baseline Habitats – Strategic Significance

A SS rating has been assigned to all baseline habitats as per the Biodiversity Toolkit User Guide⁷. Information was obtained from the North Lanarkshire Biodiversity Action Plan (LBAP) to assess the SS rating. Table 5-1 summarises the SS rating assigned to each habitat type.

Table 5-1: Strategic Significance Justification

Strategic Significance	Justification Reasoning
High	The following habitats have been identified within the North Lanarkshire LBAP as the local priority habitat ‘Woodland (with the exception of non-native plantations)’¹¹: • A1.1.1: Woodland: Broadleaved - semi-natural (Medium) • A1.1.2: Woodland: Broadleaved - plantation (Medium) • A1.3.2: Woodland: Mixed – plantation • A3.1: Parkland/scattered trees: Broadleaved (Medium) • E1.7: Bog: Wet modified bog • J2.1.2: Boundaries: Hedges – Intact – species-poor • J2.2.2: Boundaries: Hedges – Defunct – species-poor • J2.3.2: Boundaries: Hedges – With trees – species-poor (Low)
Medium	The following habitats have not been formally identified as a local priority habitat but are considered ecologically desirable: • A2.1: Scrub: Dense/continuous • B1.2: Acid grassland: Semi-improved • B2.2: Neutral grassland: Semi-improved • B3.2: Calcareous grassland: Semi-improved • B5: Marsh/marshy grassland (Low) • D2: Wet dwarf shrub heath • F1: Swamp
Low	The following habitats have not been formally identified as a local priority habitat and are not considered ecologically desirable: • A1.2.2: Woodland: Coniferous - plantation (Low)

¹¹ North Lanarkshire, 2023. North Lanarkshire Biodiversity Action Plan. Available Online at: [North Lanarkshire Biodiversity Action Plan](#).

- A3.2: Parkland/scattered trees: Coniferous (Medium)
- A4.2: Recently felled woodland: Coniferous
- B4: Improved grassland
- B6: Poor semi-improved grassland
- C1.1: Bracken: Continuous (Low)
- C3.1: Other Tall Herb and Fern: Ruderal
- J1.2: Cultivated/disturbed land: Amenity grassland
- J3.6: Built-up areas: Buildings
- J4: Bare ground

5.2 Irreplaceable Habitats

Habitats impacted by the Project cover a total area of 58.48 ha within the North Lanarkshire boundary. Both 2a and 2b AWI woodland types are present. A small area is listed as category 2a on the Ancient Woodland Inventory, 0.42 ha (0.72 % of the total habitat area effected within North Lanarkshire). Based on the habitat data, this entire area supports woodland and scrub habitats.

The area of 2b Ancient Woodland which will be affected within the North Lanarkshire boundary is 2.07 ha (3.54 % of the total habitat area effected within North Lanarkshire). Based on the habitat data, of the area listed as 2b, currently 1.3 ha of this is woodland and scrub habitat.

No irreplaceable 'Wetland – Blanket bog' has been recorded within the BNG assessment boundary within the North Lanarkshire Council area.

5.3 Non-irreplaceable Baseline Habitats Units

An overview of the non-irreplaceable baseline biodiversity within the BNG assessment boundary within the North Lanarkshire LPA area is summarised in Table 5-2 and Table 5-3, and the Baseline Habitat Plan is provided in Appendix A.

Table 5-2: Baseline area habitat units

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
A1.1.1: Woodland: Broadleaved - semi-natural (Medium)	0.07	Medium	Good	High	0.97
A1.1.1: Woodland: Broadleaved - semi-natural (Medium)	6.94	Medium	Moderate	High	63.85
A1.1.1: Woodland: Broadleaved - semi-natural (Medium)	1.38	Medium	Poor	High	6.35

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
A1.1.2: Woodland: Broadleaved - plantation (Medium)	5.77	Medium	Moderate	High	53.08
A1.1.2: Woodland: Broadleaved - plantation (Medium)	2.92	Medium	Poor	High	13.43
A1.2.2: Woodland: Coniferous - plantation (Low)	5.31	Low	Poor	Low	10.62
A1.3.2: Woodland: Mixed - plantation	2.97	Medium	Moderate	High	27.32
A1.3.2: Woodland: Mixed - plantation	1.89	Medium	Poor	High	8.69
A2.1: Scrub: Dense/continuous	0.12	Medium	Good	Medium	1.58
A2.1: Scrub: Dense/continuous	0.59	Medium	Moderate	Medium	5.12
A2.1: Scrub: Dense/continuous	0.88	Medium	Poor	Medium	3.70
A4.2: Recently felled woodland: Coniferous	0.09	Low	Poor	Low	0.18
B1.2: Acid grassland: Semi-improved	0.03	Medium	Moderate	Medium	0.26
B1.2: Acid grassland: Semi-improved	0.06	Medium	Poor	Medium	0.26
B2.2: Neutral grassland: semi-improved	1.74	Medium	Good	Medium	21.50
B2.2: Neutral grassland: semi-improved	7.30	Medium	Moderate	Medium	60.03
B2.2: Neutral grassland: semi-improved	5.39	Medium	Poor	Medium	22.09
B3.2: Calcareous grassland: Semi-improved	0.02	Medium	Poor	Medium	0.09

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
B4: Improved grassland	0.38	Low	Good	Low	2.28
B4: Improved grassland	0.44	Low	Moderate	Low	1.76
B5: Marsh/marshy grassland (Low)	0.62	Low	Good	Medium	4.09
B5: Marsh/marshy grassland (Low)	1.79	Low	Moderate	Medium	7.88
B5: Marsh/marshy grassland (Low)	1.46	Low	Poor	Medium	3.21
B6: Poor semi-improved grassland	1.18	Low	Moderate	Low	4.72
C1.1: Bracken: Continuous (Low)	0.04	Low	N/A - No biodiversity value	Low	0.00
C3.1: Other Tall Herb and Fern: Ruderal	0.50	Low	Poor	Low	1.00
D2: Wet dwarf shrub heath	0.02	High	Poor	Medium	0.15
E1.7: Bog: Wet modified bog	2.44	High	Good	High	55.56
E1.7: Bog: Wet modified bog	1.57	High	Moderate	High	28.83
E1.7: Bog: Wet modified bog	0.20	High	Poor	High	1.52
F1: Swamp	0.01	High	Good	Medium	0.22
F1: Swamp	0.08	High	Moderate	Medium	1.16
J1.2: Cultivated/disturbed land: Amenity grassland	0.06	Low	Moderate	Low	0.24
J4: Bare ground	0.95	Low	Poor	Low	1.90
A3.1: Parkland/scattered trees: Broadleaved (Medium)	0.26	Medium	Good	High	3.59

Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
A3.1: Parkland/scattered trees: Broadleaved (Medium)	0.07	Medium	Moderate	High	0.64
A3.1: Parkland/scattered trees: Broadleaved (Medium)	0.33	Medium	Poor	High	1.52
A3.2: Parkland/scattered trees: Coniferous (Medium)	0.01	Medium	Moderate	Low	0.08
A3.2: Parkland/scattered trees: Coniferous (Medium)	0.11	Medium	Poor	Low	0.44
TOTAL	55.21 ha	-	-	-	414.78 BU

* Scattered trees areas are excluded from total area to prevent double counting of area; however, the unit contributions are included within the habitat unit total.

Table 5-3: Baseline linear habitat units

Habitat Type	Length (km)	Distinctiveness	Condition	SS	Habitat Units
J2.1.2: Boundaries: Hedges - Intact - species-poor	0.09	High	Poor	High	0.68
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.27	High	Good	High	6.15
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.22	High	Poor	High	1.67
J2.3.2: Boundaries: Hedges - With trees - species-poor (Low)	0.06	Low	Poor	High	0.14
Broadleaved parkland/scattered trees (Line of trees)*	0.10	Low	Moderate	High	0.46
Broadleaved parkland/scattered trees (Line of trees)*	0.05	Low	Poor	High	0.11

Habitat Type	Length (km)	Distinctive-ness	Condition	SS	Habitat Units
Coniferous parkland/scattered trees (Line of trees)*	0.12	Low	Poor	Low	0.24
Mixed parkland/scattered trees (Line of trees)*	0.03	Low	Poor	High	0.07
TOTAL	0.94 km	-	-	-	9.53 HU

* Represented by proxy habitat 'J2.3.2 : Boundaries: Hedges - With trees - species-poor (Low)' within the Biodiversity Toolkit

5.4 Post-Development Habitats – Strategic Significance

A SS rating has been assigned to all post-development habitats as per the Biodiversity Toolkit User Guide⁷.

It is proposed that all post-development area habitats will consist of 'B6 : Poor semi-improved grassland' which has been assigned a 'Low' SS because it is not a priority habitat and is unlikely to have a key connectivity function.

5.5 Post-Development Habitats Units

As detailed above for the Falkirk Council area, to take account of a worst-case scenario, all post-development area habitats are assumed to be 'B6 : Poor semi-improved grassland' in 'Poor' Condition which has been assigned a 'Low' SS because it is not a priority habitat and is unlikely to have a key connectivity function.

Any hedgerows lost within 'Proposed New Track' areas will be reinstated after construction is completed as detailed in

Table 5-5. It is assumed that any trees within hedgerows in 'LoD' or 'Management Felling' areas will be lost. This includes 0.01 km of J2.3.2: Boundaries: Hedges - With trees - species-poor (Low) that will become J2.1.2: Boundaries: Hedges - Intact - species-poor.

Table 5-4: Created Area Habitats

Habitat Type	Area (Ha)	Distinctive-ness	Target Condition	Time to Target Condition (yrs)	SS	Habitat Units
B6 : Poor semi-improved grassland	55.21	Low	Poor	2	Low	102.80
Total	55.21	-	-	-	-	102.80

Table 5-5: Created Hedgerow Habitats

Habitat Type	Area (Ha)	Distinctive-ness	Target Condition	Time to Target Condition (yrs)	SS	Habitat Units
J2.2.2: Boundaries: Hedges - Defunct - species-poor	0.24	Low	Poor	2	Low	1.47
Total	0.24	-	-	-	-	1.47

6. Summary of Results

The Project is predicted to result in a net loss of 480.59 units for area habitats and a net loss of 15.72 units for linear habitats as detailed in Table 6-1. A copy of the associated Biodiversity Toolkit will be provided alongside this report, see Appendix C for the summary outputs.

Table 6-1: Summary of Results

Habitat Type	Baseline	Post-Development	Total Net Unit Change
Area Units	631.30	150.71	-480.59
Linear Units	25.87	10.14	-15.72

7. Conclusion

The Project is predicted to result in a net loss of 480.59 units for area habitats across the two LPA areas and a net loss of 15.72 units for linear habitats. To achieve the targeted 10% gain, an additional 543.72 area units and 18.32 hedgerow units would be required. This is in addition to compensation required for the loss of irreplaceable habitats, further details with respect to this are provided within Volume 1, Chapter 8: Biodiversity of the Denny Wishaw Network Upgrade Environmental Impact Assessment.

In order to provide significant biodiversity enhancements to meet with the requirements of NPF4, SPEN are committed to the Project providing a 10% net gain. This 10% gain will be achieved offsite, by providing the number of units identified within this assessment (subject to potential design revisions prior to construction and reassessment if necessary). This offsite gain will be achieved via an offsite partner and will be secured by way of a legal agreement with a 5-year establishment period applied.

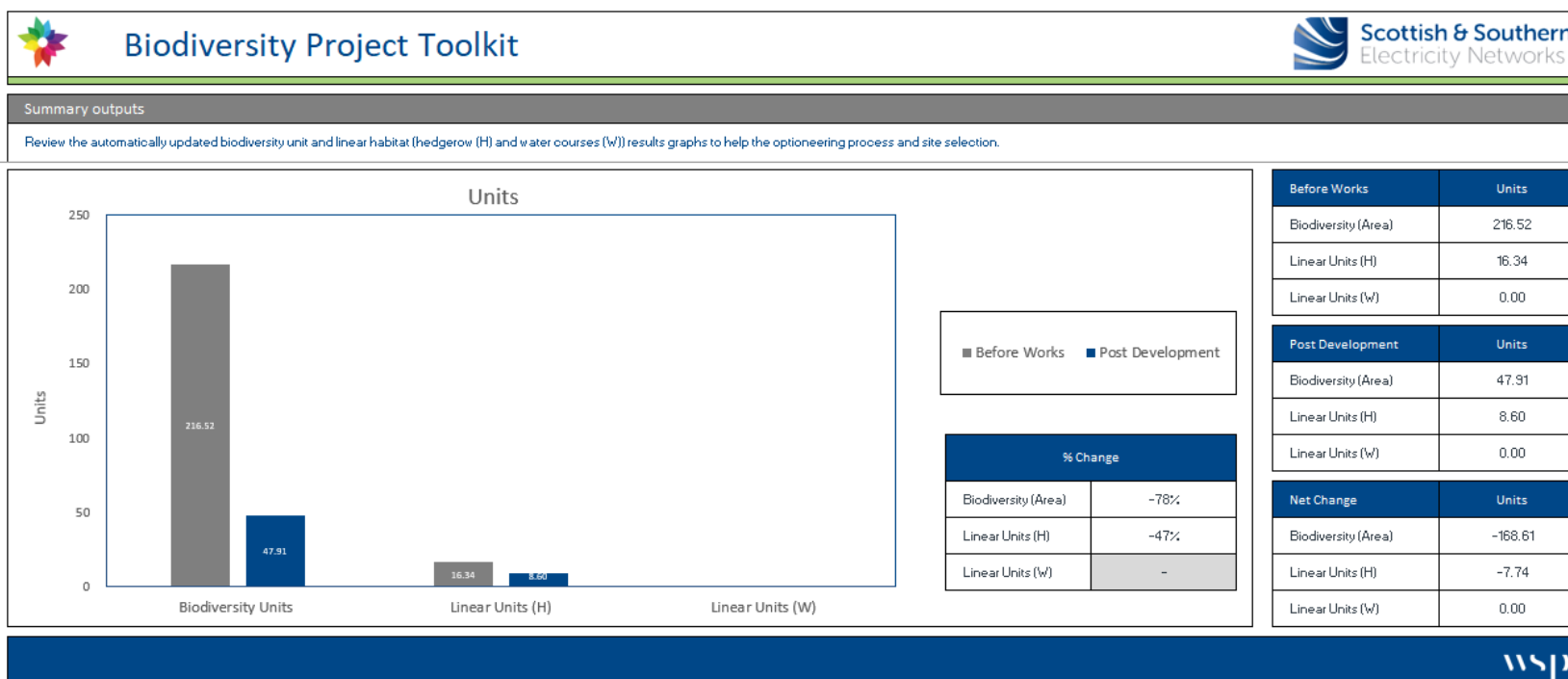
Appendix A Baseline Habitat Plan

Appendix B Post-Development Habitat Plan

Appendix C Biodiversity Toolkit

Biodiversity Toolkit to be included as an attachment.

C.1 Falkirk



C.2 North Lanarkshire

