

XX Route Overhead Line Diversion

EIA Screening Assessment

SP Energy Networks (SPEN)

October 2022

Quality information

<u>Prepared by</u>	<u>Checked by</u>	<u>Verified by</u>	<u>Approved by</u>
_____	_____	_____	_____

Revision History

<u>Revision</u>	<u>Revision date</u>	<u>Details</u>	<u>Authorized</u>	<u>Name</u>	<u>Position</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Distribution List

<u># Hard Copies</u>	<u>PDF Required</u>	<u>Association / Company Name</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Prepared for:

SP Energy Networks
55 Fullerton Drive
Cambuslang
G32 8FA

Prepared by:

AECOM Limited
1 Tanfield
Edinburgh
EH3 5DA

© 2022 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction.....	1
	Introduction	1
	The Proposed Diversion	1
	SP Transmission’s Statutory Duties	1
	This Screening Assessment.....	1
2.	The Proposed Diversion	4
	Description of the Proposed Diversion	4
	Construction of the Proposed Diversion	4
	Programme	6
3.	Description of the Site	9
	Overview of the Site	9
	Environmental Considerations	9
4.	Assessment of Potential Effects.....	18
	Introduction	18
	Landscape and Visual Amenity	18
	Ecology	18
	Cultural Heritage and Archaeology.....	20
	Surface and Ground Water Resources.....	20
	Soils and Geology	20
	Construction Noise	20
	Air Quality.....	21
	Land Use, Access and Recreation	21
	Traffic and Transport.....	21
	Waste and Natural Resources	21
	Cumulative Effects.....	22
5.	Summary and Conclusions	23
	Summary of Screening Assessment.....	23
	Conclusions.....	24

Figures

Figure 1.	Location of the Proposed Diversion.....	3
Figure 2.	The Proposed Diversion.....	8
Figure 3.	Environmental Considerations.....	17

Tables

Table 1.	Summary of information required by the EIA Regulations.....	2
Table 2.	Visual Receptors	10
Table 3	Statutory designated sites for nature conservation.....	12
Table 4.	Summary of Screening Assessment	23

1. Introduction

Introduction

- 1.1 This Environmental Impact Assessment (EIA) screening assessment has been prepared by AECOM on behalf of SP Energy Networks (SPEN)¹. It accompanies an application to the Scottish Ministers for consent under Section 37 of the Electricity Act 1989 and for deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997 to permanently divert an approximate 0.8 km section of existing 275 kilovolt (kV) overhead line in North Lanarkshire, known as the 'XX Route' and hereafter referred to as the Proposed Diversion.

The Proposed Diversion

- 1.2 The XX route, illustrated in Figure 1, is an approximate 15 km long 275kV overhead line between Easterhouse and Newarthill. An approximate 0.8 km section of the route to the east of Airdrie on open farmland at Wester Moffat as illustrated in Figure 1 requires to be diverted to accommodate the new University Hospital Monklands. A detailed description of the Proposed Diversion is contained in section 2 of this report, however, in summary it comprises the erection of three new steel towers, removal of three existing steel towers and stringing of conductors.

SP Transmission's Statutory Duties

- 1.3 As the Transmission Licence Holder under the Electricity Act 1989, SP Transmission plc (SPT) is responsible for the electricity transmission network in central and southern Scotland. Under its transmission licence, SPT is subject to a number of statutory duties and licence obligations which it is required to take account of when undertaking works such as the Proposed Diversion including a requirement "to develop and maintain an efficient, coordinated and economical system of electricity transmission" and under Schedule 9 of the Act: "(a) to have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and, (b) to do what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects."

This Screening Assessment

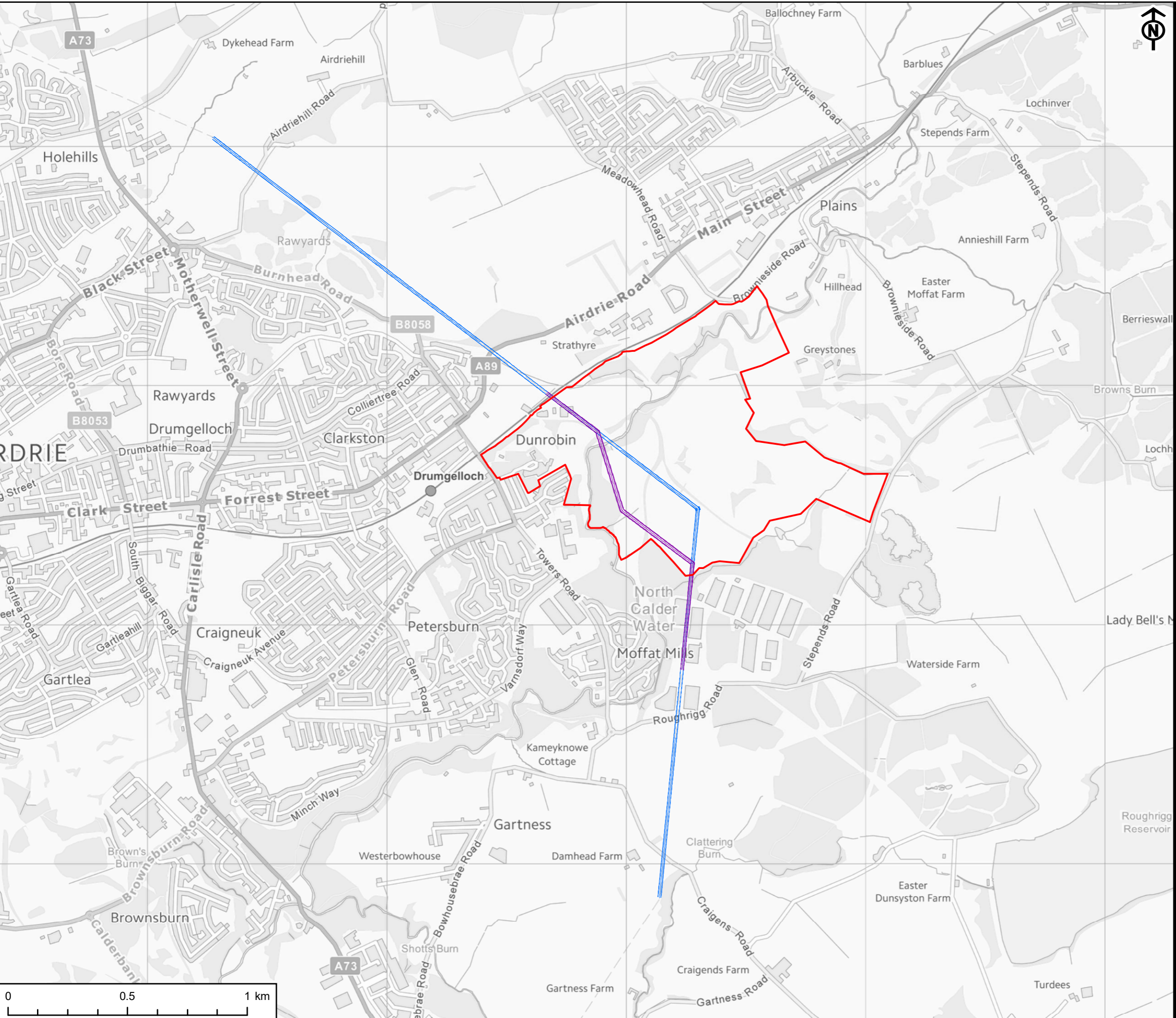
- 1.4 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) are the relevant Regulations for applications made under the Electricity Act. The EIA Regulations comprise two schedules of development, Schedule 1 lists developments for which EIA is mandatory and Schedule 2 lists developments for which EIA may be required if it is likely to have significant effects on the environment by virtue of factors such as its nature, size or location. The Proposed Diversion is not development of type identified in Schedule 1, however, it is classed as development of a type identified in Schedule 2 under "(2) an electric line installed above ground (a) with a voltage of 132 kilovolts or more". As a result, and taking into account SPT's statutory obligations described above, this Screening Assessment has been undertaken.
- 1.5 The Screening Assessment comprises an assessment of the potential for the Proposed Diversion to have likely significant effects having regard to Regulation 8(2) and Schedule 3 of

¹ SP Energy Networks (SPEN) is the trading name for Scottish Power Energy Network Holdings Limited. SPEN owns and operates the electricity transmission and distribution networks in central and southern Scotland through its wholly-owned subsidiaries SP Transmission plc and SP Distribution plc. These businesses are 'asset-owner companies' holding the regulated assets and Electricity Transmission and Distribution Licenses. SP Transmission plc is the transmission licensee.

the EIA Regulations. In accordance with Regulation 8(2), this Screening Assessment includes the information set out in Table 1 below and where it can be found in this assessment.

Table 1. Summary of information required by the EIA Regulations

Information Required	Content within this Screening Report
(2a) a description of the location of the development, including a plan sufficient to identify the land;	Section 2 includes a description of the location of the Proposed Diversion including a plan sufficient to identify the land to which it relates.
2b) A description of the proposed development, including in particular: <ul style="list-style-type: none"> (i) A description of the physical characteristics of the proposed development and, where relevant, of demolition works; (ii) A description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected; 	Section 2 includes a description of the Proposed Diversion and outlines its main physical characteristics including details of the removal of existing towers. Section 3 includes a description of the location of the Proposed Diversion with regard to the environmental sensitivities in its vicinity.
(2c) A description of the aspects of the environment likely to be significantly affected by the proposed development;	Section 4 includes a description of the aspects of the environment likely to be affected by the Proposed Diversion including an assessment of whether they are likely to be significant or not.
(2d) A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from: <ul style="list-style-type: none"> (i) The expected residues and emissions and the production of waste, where relevant; (ii) The use of natural resources, in particular soil, land, water and biodiversity. 	Section 4 includes a description of the effects of the Proposed Diversion including an assessment of whether they are likely to be significant or not.
(3) A request for a screening opinion may, in addition to the information required in accordance with paragraph (2) also be accompanied by a description of any features of the proposed development, or proposed measures, envisaged to avoid or prevent significant adverse effects on the environment.	Section 4 also provides information about the mitigation measures which are envisaged to avoid or prevent significant adverse effects on the environment.



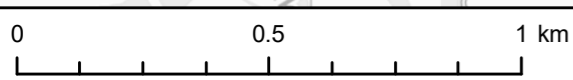
PROJECT	XX Route Diversion
CLIENT	SP Energy Networks
KEY	<ul style="list-style-type: none"> Site of New University Hospital Monklands Proposed Diversion Existing OHL Route

This drawing has been produced for the use of AECOM's client. It may not be used, modified or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies upon this drawing without AECOM's express written consent. All dimensions are indicative and in metres unless otherwise noted. Do not scale this document.

TITLE	Figure 1 Location of the Proposed Diversion
--------------	--

REFERENCE	20221004_P1_v2
------------------	----------------

SHEET NUMBER	1 of 1
DATE	04/10/22



2. The Proposed Diversion

Description of the Proposed Diversion

- 2.1 The Proposed Diversion is illustrated in Figure 2. It is located to the east of Airdrie, North Lanarkshire. The existing overhead line route follows a broadly south eastern alignment crossing the Airdrie-Bathgate railway line and North Calder Water as it traverses open countryside and woodland on the margins of Airdrie before turning south to the west of the bonded warehouses at Inver House Distillers and continuing broadly south towards Newarthill Substation.
- 2.2 The Proposed Diversion requires three new steel towers illustrated in Figure 2 with an approximate height of 51m to be erected. Each new tower location is subject to a micro-siting allowance which takes account of technical requirements and constraints, the development footprint of the new University Hospital Monklands and environmental constraints as far as possible. These are subject to ground investigation and comprise 3m at NT01, 15m at NT02 and 20m at NT03.
- 2.3 There is the potential to encounter historic mine workings. These will be avoided as far as possible taking into account the results of ground investigation and micro-siting the new towers, however, where this is not possible stabilisation works (grouting) would be undertaken.
- 2.4 The first new tower (referred to as NT01) to be erected is between Katherine Park Lane and the North Calder Water. From here the Proposed Diversion turns broadly south following the existing woodland on the banks of the North Calder Water to a second new steel tower (NT02). This tower is located on the fringes of the woodland. From here the Proposed Diversion is routed to a third new steel tower (NT03) located to the north west of the bonded warehouses from where it re-joins the existing overhead line route and continues south.
- 2.5 The diverted section of the overhead line route will be connected to the existing towers located to the north of the Airdrie-Bathgate railway line and south of the bonded warehouses approximately 200m north of Roughrigg Road.

Construction of the Proposed Diversion

Overview of Construction Works

- 2.6 The works required for the Proposed Diversion are illustrated in Figure 2 and described in subsequent sections below. Construction of the Proposed Diversion will comprise the following activities:
 - Tree felling or lopping (where required),
 - Preparation of accesses,
 - Excavation of foundations,
 - Tower delivery,
 - Erection of towers,
 - Delivery of conductors and stringing equipment,
 - Insulator and conductor erection and tensioning, and
 - Clearance and reinstatement.

Tower Foundations

- 2.7 Tower foundation installation would take place at the start of the diversion works and before any circuit outages on the existing overhead line. Temporary working areas around the proposed new tower locations would be prepared prior to foundation excavation. Each working area

- would be taped off to delineate the area for environmental protection reasons. Consideration would be given to varying the shape of the working area at each tower to avoid constraints identified prior to construction.
- 2.8 The foundation type and design for each tower would be confirmed following detailed ground investigations at each tower location. Most of the foundations of each tower leg are likely to be of a concrete pyramid 'pad and column' type. However, depending on particular geological conditions, there may be a requirement to use mini-piled, auger or rock foundations, which generally require less ground disturbance but greater volumes of concrete. These require the drilling or auguring of several holes for each leg of the tower.
- 2.9 For a typical 'pad and column' type foundation, excavations would be required for each leg of the tower with dimensions varying depending on the tower type (i.e. tension towers require larger excavations than suspension towers). Some breaking of rock using a hydraulic pecker may be required to achieve the required depths for the tower foundations. Once the excavations are formed, the tower legs would be fixed in accordance with the foundation design before assembling the 'pyramid' formwork around the stub. The foundation would then be concreted.
- 2.10 Steel lattice tower foundations have little tolerance for ground movement, so, depending on the ground conditions, different types of tower foundations may be required. The choice of foundation solution for construction would be determined following pre-construction ground investigations. In some situations, piled foundations or rock anchorages may be required.
- 2.11 The sequence for constructing piled foundations is generally as follows:
- Formation of a stable piling platform;
 - Driving of piles down to solid/stable ground level;
 - Formation of a shutter around piles of each tower leg;
 - Formation of steelwork to form tower leg stubs;
 - Pouring of concrete into shutters to form concrete pile cap (incorporating foundation stub); and
 - Removal of shuttering when concrete is cured.
- 2.12 The type, construction and quantity of the piles required at each tower leg would be determined by the ground conditions encountered at each tower location. The sequence for using rock anchorages is generally as follows:
- Formation of square or circular box/shutters made from sheet piles;
 - Excavation within the sheet piling until rock is reached, with the sheet piling able to withstand any pressure from the external ground;
 - Excavation of approximately 500mm of rock to provide a key for the rock anchor footings;
 - Placement of stubs and reinforcements and pouring of concrete against the sheet pile shuttering to just above ground level;
 - Installation of rock anchors after concrete is suitably cured; and
 - Retention of the sheet piling within the ground as 'sacrificial shuttering'.
- 2.13 Anchors are typically 100-150mm in diameter and would be connected to the tower legs via a small reinforced concrete block similar to the pile cap.

Tower Steelwork

- 2.14 Steelwork for each tower would be delivered to site in sections, likely via Heavy Goods Vehicle (HGV). Tower assembly would commence by either setting up a derrick crane and building up

the tower in steel sections or, alternatively, assembling the tower in part at ground level and lifting the tower in sections by crane to complete assembly.

Stringing of Conductors

- 2.15 Once the new towers have been erected, stringing of the conductors will be undertaken. This requires temporary 'pulling' (or 'stringing') areas at locations along a route. In some cases, the temporary pulling areas may overlap with the temporary working areas, and elsewhere, they are located out with the working areas. The typical pulling area is approximately 20m x 50m for steel towers.
- 2.16 At each tower pulling area, a winch would be positioned and set up at one end of the stringing section, with a 'tensioner' set up similarly at the other end of the section. Pilot wires would be placed in blocks hanging from the insulators on the towers and connected around the winch and tensioner at either end. Using the winch to pull the pilot wires, the conductor would then be drawn through the section, using the tensioner to maintain a constant tension. This allows the conductor to be controlled without touching the ground, avoiding damage to both the conductor and the underlying ground.
- 2.17 Where the conductor needs to be strung over existing roads and the Airdrie-Bathgate Railway Line, protection in the form of scaffolding will be erected prior to the commencement of stringing, in consultation with the appropriate authorities. Scaffolding would be erected at either side of the crossing, with the span in between the scaffolding netted.

Removal of Existing Towers

- 2.18 The existing towers that are to be decommissioned would be removed from site with materials being recycled where possible. Removal of towers generally involves felling the tower in a controlled manner and then cutting it into sections on the ground before removing it from site. In areas where there are constraints which prevent towers from being felled, the tower would be unbolted and lifted off in sections using a mobile crane. The sections would then be transported offsite to be broken down.
- 2.19 Foundations are generally removed to a minimum depth of 1m below ground level. This work is undertaken using a tracked excavator which would dig around the concrete 'muff' to a depth of approximately 1m. The excavator would then be used to break the concrete around the steel 'raker' bar within the concrete, before all concrete is then removed from the excavation and the remaining steel 'raker' bar cut to a depth of approximately 1m. This action would then be repeated for the remaining tower legs and land reinstated.

Access Arrangements

- 2.20 Proposed access arrangements are illustrated in Figure 2. Subject to confirmation of the suitability of bridges crossing railway line and North Calder Water, vehicular access for construction will be provided via Katherine Park Lane which is accessed from the A89. Should this not be feasible alternative access via the University Hospital Monklands site would be agreed with the NHS.
- 2.21 There are existing tracks which are located to the north of the Proposed Diversion which will be used to provide access, however, some additional temporary tracks will also be required to works areas. Access will be required to each new tower location as well as those which are to be removed.

Programme

- 2.22 It is currently anticipated that construction of the Proposed Diversion would occur over a six month period between May and December 2024. This broadly comprises:
 - Site setup (May to June)
 - Outage works including dismantling and removal of existing towers (July to December)

XX Route Overhead Line Diversion
EIA Screening Assessment

- Tower erection and stringing (August to December)

PROJECT
XX Route Diversion

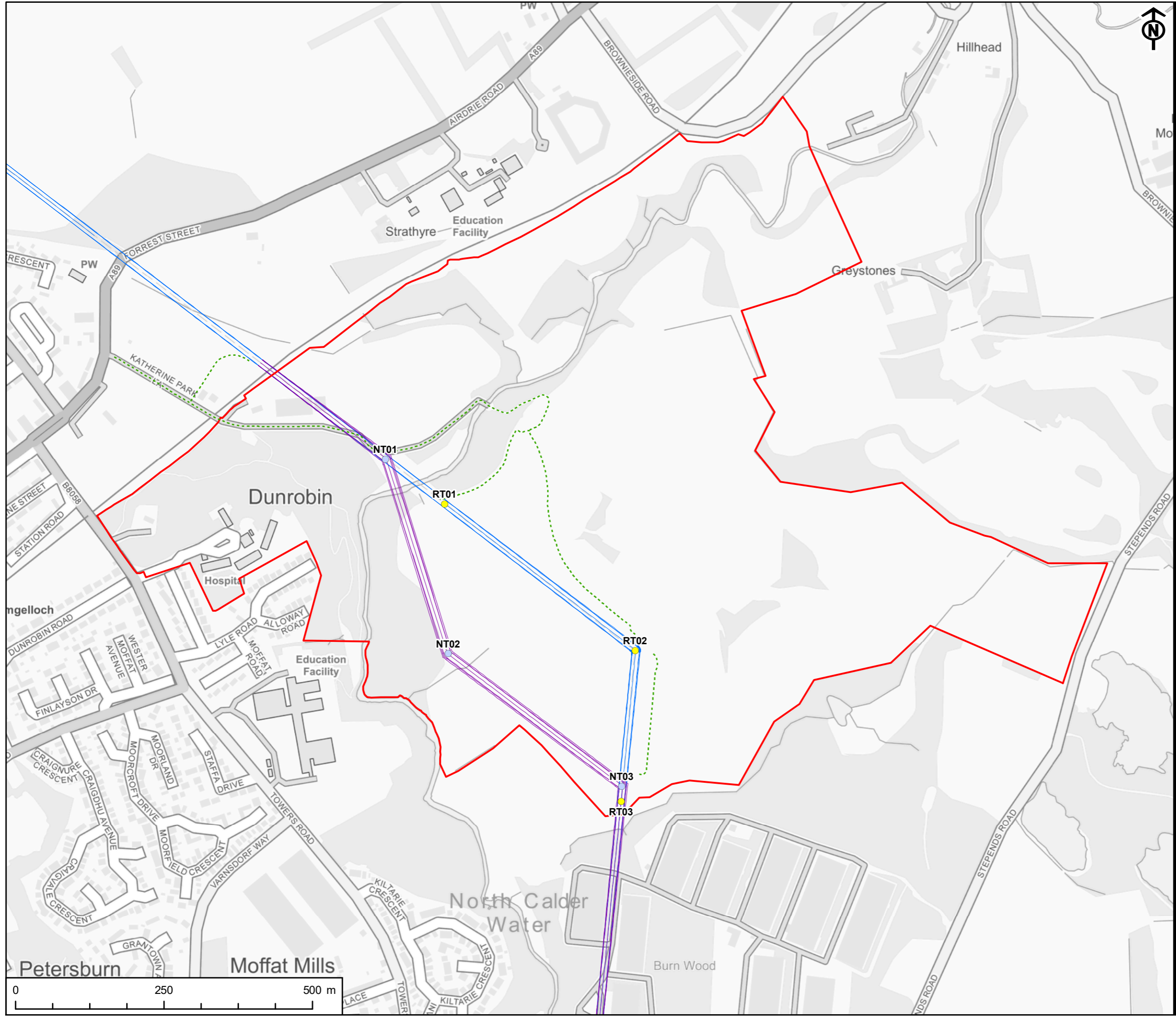
CLIENT
SP Energy Networks

KEY

- ▭ Site of New University Hospital Monklands
- New Tower to be Erected
- Existing Tower to be Removed
- Proposed Diversion
- Existing OHL Route
- - - Access Route

Project Management Initials: DR Designer: ER Checked: LC Approved: DR

Scale @ A3 1:6,000



TITLE
Figure 2
The Proposed Diversion

REFERENCE
20221006_P2_v3

SHEET NUMBER
1 of 1

DATE
06/10/22

This drawing has been produced for the use of AECOM's client. It may not be used, modified or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies upon this drawing without AECOM's express written consent. All dimensions are indicative and in metres unless otherwise noted. Do not scale this document.

3. Description of the Site

Overview of the Site

- 3.1 The Proposed Development is located within North Lanarkshire in an area of countryside or farmland interspersed with woodland. Land is predominantly flat with elevation around 150mAOD. The North Calder Water and adjacent woodland located to the north and south of the existing overhead line with the woodland to the south forming a natural barrier with the extents of Airdrie and the countryside which acts as a greenbelt.
- 3.2 To the west of the woodland is a mix of residential development as well as Caldervale High School and Wester Moffat Hospital. To the east of the Proposed Diversion, located within the countryside or farmland is the site of new University Hospital Monklands as well as the potential route for the East Airdrie Link Road.
- 3.3 There are no major or classified roads crossed by the Proposed Diversion, however, the A89 lies to the immediate north. The Airdrie-Bathgate Railway line runs east to west and is crossed by the existing overhead line and requires to be crossed by the Proposed Diversion. Access into the area is via Katherine Park Lane to the west of the Proposed Diversion or the industrial estate to the east where Inver House Distillery is located, however informal tracks are present in the fields crossed by the Proposed Diversion.

Environmental Considerations

- 3.4 The following subsections describe the environmental aspects or considerations within the vicinity of the Proposed Diversion. The following sections should be read with reference to Figure 3 which highlights key environmental constraints or sensitivities close to the Proposed Diversion.

Landscape and Visual

Landscape Character

- 3.5 There are no nationally or locally designated landscapes in the vicinity of the Proposed Diversion.
- 3.6 The Proposed Diversion lies within the Plateau Farmland and Plateau Moorland Landscape Character Types as defined by NatureScot in the national scale landscape characterisation. At a local scale the landscape is characterised by the 'Review of North Lanarkshire Local Landscape Character Assessment, URS for North Lanarkshire Council (2015)'. The document provides detailed classification of broad Landscape Character Types and more detailed Local Landscape Units (LLU). The LLUs that the Proposed Diversion lies within are:
 - Fragmented Farmland: Area East of Airdrie LLU; and
 - Southern Plateau Farmlands LLU.
- 3.7 The Fragmented Farmland LLU covers the majority of the Proposed Diversion, immediately east of Airdrie and provides separation between the settlements of Airdrie and Plains. The landscape is highly influenced by human elements including the A89 road corridor, railway line and numerous scattered small-scale developments, urban expansion and the existing overhead line. Land use is largely farming but also includes forestry plantation, woodland particularly associated with the North Calder Water and a golf course, as well as evidence of former light industry and mineral extraction uses.
- 3.8 The wide range of present day and legacy land uses contribute to the often incoherent pattern and lack of consistent structure within the landscape, somewhat reducing its value. However, it

does have some value locally as it provides a landscape setting to the urban fringes of Airdrie and Plains and is used for local recreation, with several Core Paths passing through.

- 3.9 The Southern Plateau Farmlands LLU covers the bonded warehouses and surrounding woodland. The LLU is similar in character to the Northern Plateau Farmlands and is essentially the continuation of this landscape character beyond the division created by Coatbridge and Airdrie. The LLU covers an extensive area beyond the Proposed Diversion and is a large-scale landscape with a well-defined pattern that is heavily influenced by the main land use of pastoral/arable farming. Other land uses include plantation woodland, transport infrastructure and a legacy of former industry. The quality varies locally, although it is overall well managed with a rural character. The LLU also forms an important landscape setting and buffer between Airdrie and Chapelhall.
- 3.10 Although this LLU is important for providing a rural setting to adjacent settlement, the strong human influence associated with the proximity of settlement and both existing and former infrastructure, locally reduces the quality and value of the landscape.

Visual Amenity

- 3.11 The Proposed Diversion is situated to the east of the urban edge of Airdrie within more open countryside which is interspersed by scattered properties and the local road network. Outward views from the urban edge are variable and often restricted by other built form, woodland vegetation and rolling landform, although with some glimpsed and more open views possible from the settlement edge and local high points. The existing overhead line and towers are often visible within these views and often appear set against the skyline or partially screened by intervening vegetation.
- 3.12 The existing overhead line and consequently the Proposed Diversion is visible in views from the following receptor groups.

Table 2. Visual Receptors

Visual Receptor Group	Receptor Type	Baseline Description
Wester Moffat	Residential, Mixed Use	This group consists of receptors on the east of Airdrie, including the residential area of Dunrobin between Wester Moffat Hospital and Caldervale School. Views from properties are typical of the suburban location and include mostly short to mid-range views of other residential properties, the road network and green open space. There are extensive areas of woodland along the North Calder Water Valley and this encloses settlement edges and in particular Wester Moffat Hospital which is well contained within woodland. Residential properties within this area are orientated along road corridors and visibility tends to be contained by properties opposite and woodland is often located to the backs of properties. On elevated north east facing streets, views are channelled between houses towards the existing overhead line. Where there are gaps in tree cover, such as around Caldervale School and from elevated areas, there are longer distance views looking east and south to the surrounding rolling countryside. These views are slightly elevated and amongst the surrounding farmland, it is possible to see other areas of settlement, the existing overhead line and the Moffatt Mills industrial site.

Visual Receptor Group	Receptor Type	Baseline Description
Moffat Mills East	Residential	This group consists of residential receptors in the southeast of Airdrie including the area of Moffat Mills east of Tower Road. Views from properties are typical of the suburban location and include mostly short to mid-range views of other residential properties, the road network and woodland. There are extensive areas of woodland along the North Calder Water Valley and this encloses settlement edges to the south and east. Residential properties within this area are generally orientated along radial road corridors and visibility tends to be contained by properties opposite and woodland is located to the backs of properties in the east and south. However, where there are gaps in tree cover or occasionally from elevated areas, there are longer distance views looking east and south to the surrounding rolling countryside. These views are slightly elevated and amongst the surrounding farmland and woodland plantations, it is possible to see other areas of settlement, the overhead line and the Moffat Mills industrial site. At the south end of this area, at lower elevations, the overhead line appears of large scale where it sits on higher ground and punctures the skyline.
Properties adjacent to Railway	Residential	This group consists of residential receptors and industrial units in the southeast of Airdrie alongside the North Clyde rail line. Bounded by woodland associated with the North Calder Water Valley, views from these properties are generally directed to the north and east and look out across scrub and rolling pastoral farmland with woodland blocks and hedgerow field boundaries. The overhead line passes directly overhead and at close proximity a pylon lies just north of the rail line. Radio communications masts are also visible on the skyline in the far distance.
South Plains	Mixed Use	This group consists of industrial, residential and education receptors in the southeast of Airdrie including St Philip's School in the area of Plains south of the A89. Elevated above the North Calder Water Valley and with extensive mature vegetation lining the A89, views are directed east. There are medium to long distance views to the south east over rolling pastoral farmland and woodland blocks. It is possible to see other areas of settlement, the overhead line and the Moffat Mills industrial site. The North Clyde Rail line runs east - west directly to the south.
National Cycle Network, route 75 (NCN 75)	Recreational	NCN 75 is a long-distance cycle route which crosses the central belt from Greenock in the west to Edinburgh in the east. Within proximity of the Proposed Diversion, this route follows minor roads and streets as it passes through the south of Airdrie before joining the A89 eastwards to Plains. Views from this section of the route tend to be fairly enclosed and focused in the direction of travel. However, there are occasional glimpsed and short-lived open views to the surrounding countryside and overhead line from the A89 east of Airdrie.
North Calder Heritage Trail and North Lanarkshire Core Route NL/193/1	Recreational	The North Calder Heritage Trail is a 16km route from Coatbridge to Hillend Reservoir, east of Caldercruix. Within the vicinity of the Proposed Diversion the route follows the path of the North Calder Water between Calderbank and Moffat Mills along North Lanarkshire Core Route NL/193/1 before joining local roads north toward Clarkston where it then follows the A89 to Plains. The wooded valley sides or surrounding settlement contain views out for much of the route. However, there are occasional glimpsed and short-lived open views to the surrounding countryside including the overhead line from the A89 east of Airdrie.

Ecology

- 3.13 A Preliminary Ecological Appraisal (PEA)² was completed for the Proposed Diversion in September 2022. The results of the PEA are summarised below.
- 3.14 There are six statutory sites for nature conservation within the likely Zone of Influence (ZoI) of the Proposed Diversion: one Site of Special Scientific Interest (SSSI), one Special Protection Area (SPA) and four Special Areas for Conservation (SAC). All sites are shown on Figure 3 and summary details are provided in Table 3 below. Sites are listed in order of increasing distance from the Proposed Diversion (i.e. those located closest are described first).

Table 3 Statutory designated sites for nature conservation

Name	Reason for designation	Relationship to the Proposed Diversion*
Lady Bell's Moss SSSI	Raised bog habitats.	1.2 km east, intervening land comprises farmlands, grasslands, ponds and a minor road.
Black Loch Moss SAC	Active raised bog habitat.	6.6 km north east, intervening land comprises woodlands, grasslands, roads, Hillend Reservoir and the towns of Plains and Hillend.
Slamannan Plateau SPA	Designated for Taiga bean goose <i>Anser fabalis fabalis</i> .	6.2 km north, intervening land comprises woodlands, grasslands, ponds, a road and the town of Plains.
West Fannyside Moss SAC	Blanket bog habitat.	6.8 km north, intervening land comprises woodlands, grasslands, ponds, a road and the town of Plains.
North Shotts Moss SAC	Active raised bog and degraded raised bog habitat.	8.4 km south-east, intervening land comprises woodlands, grasslands, roads, Roughrigg Reservoir and the town of Salsburgh.
Blawhorn Moss SAC	Active raised bog and degraded raised bog habitat.	9.8 km north east, intervening land comprises woodlands, grasslands, roads, Hillend Reservoir and the towns of Plains and Hillend.

* Distances have been measured from the nearest part of the Proposed Diversion including removed towers where these are closer than new towers.

- 3.15 The existing XX overhead line route and the Proposed Diversion cross Sites of Interest for Nature Conservation (SINCs) which are designated through the North Lanarkshire Local Development Plan (LDP). These comprise the North Calder Water Moffat-Mills Plains SINC which will be crossed by the Proposed Diversion between the first and second new steel towers (NT01 and NT02), North Calder Water Moffat-Mills Dunrobin SINC which is adjacent to the Proposed Diversion and Cameron Glen SINC, which will be crossed by the Proposed Diversion between the third new steel tower (NT03) and the point where the diversion meets the existing XX route. The SINC at Cameron Glen also coincides with a small area of woodland included on the Ancient Woodland Inventory (AWI) and which is identified as being plantation of long-established origin (see further below).
- 3.16 There is one Local Nature Reserve (LNR, a local, non-statutory designation) 2.1km west of the Proposed Diversion. This is Brownsburn LNR which is designated for grassland, woodland, and wetland habitats.
- 3.17 There are three AWI woodlands within the vicinity of the Proposed Diversion, located 22m south, 585m north east, and 757m south east. All are long-established woodlands of plantation origin. The nearest example (20m south from the southern extent of the Site)) is located within the Cameron Glen SINC.

² AECOM (2022). XX Route Proposed Diversion Preliminary Ecological Appraisal.

- 3.18 A search of commercially-available desk study records of protected and/or notable species within 1 km of the Proposed Diversion was conducted for the PEA using the NBN Atlas online database³. The only protected species records provided were of bats (two of common pipistrelle *Pipistrellus pipistrellus* and four of an unidentified bat species). The common pipistrelle records pertained to counts of 50 and ten bats (in 2014 and 2016, respectively) in a nearby residential area of west Airdrie. During a site visit carried out for the PEA, the survey area was noted to be highly suitable for bats, particularly the riparian woodland along the North Calder Water, in which several trees with roosting suitability were incidentally noted.
- 3.19 No ponds were recorded within the vicinity of the Proposed Diversion, and a review of Ordnance Survey (OS) and aerial mapping indicates that there are no ponds or other waterbodies which may be suitable for great crested newt *Triturus cristatus* within 250 m of the Proposed Diversion.
- 3.20 Records of grey squirrel *Sciurus carolinensis* were present. Whilst this species is not notable (except due to its status as an invasive non-native species), prevalence of grey squirrels in an area can reduce the likelihood of a viable red squirrel *S. vulgaris* (a protected species) population being present.
- 3.21 A small number of notable bird species records were available, including Birds of Conservation Concern⁴ Red List species, including tree sparrow *Passer montanus* and whinchat *Saxicola rubetra*. The habitats in the survey area were noted to be highly suitable for common nesting bird species also, particularly the woodland habitats.
- 3.22 A Phase 1 habitat survey of the Proposed Diversion (plus a 50 m buffer) and a detailed badger survey were carried out on 30 August and 05 September 2022, respectively. The results of these surveys are presented in full in the PEA Report⁵ for the Proposed Diversion, and are summarised below.

Phase 1 habitat and badger survey results

Woodland

- 3.23 In the centre of the survey area is a large area of steeply sloping plantation woodland overwhelmingly dominated by mature birch *Betula* sp. with occasional horse chestnut *Aesculus hippocastanum* and sycamore *Acer pseudoplatanus*, and rarely, birch. The ground is largely bare and covered in leaf litter, with occasional neutral grasses, elder *Sambucus nigra* saplings, herb-Robert *Geranium robertianum* and wood sorrel *Oxalis acetosella*. Rarely there is broad-leaved helleborine *Epipactis helleborine*.
- 3.24 Another area of broadleaved plantation in the north-west of the survey area comprises young hazel *Corylus avellana* and birch. The ground flora is again largely absent with abundant bare ground.
- 3.25 Riparian woodland along the North Calder Water in the north and west of the survey area has a more natural character and is therefore categorised as semi-natural broadleaved woodland.
- 3.26 Within a large area of semi-improved neutral grassland to the south of the survey area (see below) there are localised patches of immature alders *Alnus glutinosa*, which are a mix of self-seeded and planted specimens.

Scattered trees and scrub

- 3.27 Scattered trees are present with the vast majority being mature beech *Fagus sylvatica*, located along fence lines, with localised patches of immature alder.

³ <https://scotland.nbnatlas.org/> accessed 01 September 2022.

⁴ Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win, I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747. [online - available at: <https://britishbirds.co.uk/content/status-our-bird-populations>, accessed 01 September 2022].

⁵ AECOM (2022). XX Route Proposed Diversion Preliminary Ecological Appraisal.

- 3.28 Scattered scrub comprises hawthorn *Crataegus monogyna* and willow *Salix* sp.

Hedges

- 3.29 A species-poor intact beech hedge runs parallel to the North Calder Water.

Grassland

- 3.30 The majority of grassland within the survey area is improved grassland dominated by perennial rye-grass *Lolium perenne* with occasional white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*. This appears to be used for rotational grazing of livestock.
- 3.31 Large areas of semi-improved neutral grassland are also present. In the centre of the survey area, present as strips along fence-lines, the North Calder Water and a dry ditch, there are areas of semi-improved neutral grassland dominated by false oat-grass *Arrhenatherum elatius* with abundant Yorkshire-fog *Holcus lanatus* and tufted hair-grass *Deschampsia caespitosa*, frequent ribwort plantain *Plantago lanceolata*, occasional nettle *Urtica dioica*, greater bird's-foot trefoil *Lotus corniculatus* and localised patches of creeping thistle *Cirsium arvense* and male fern *Dryopteris filix-mas*, and rarely, devil's-bit scabious *Succisa pratensis*, stitchwort *Stellaria holostea*, red clover *Trifolium pratense* and sneezewort *Achillea ptarmica*.
- 3.32 Additional semi-improved neutral grassland in the south is rougher and appears to have originated on a brownfield land. This is dominated by tufted-hair grass and red fescue *Festuca rubra* with abundant common knapweed *Centaurea nigra* and red clover and occasional yarrow *Achillea millefolium*, oxeye daisy *Leucanthemum vulgare*, bird's-foot trefoil, red bartsia *Odontites vernus*, lesser trefoil *Trifolium dubium* and colt's-foot *Tussilago farfara* and, rarely, common centaury *Centaureum erythraea*. Locally there are patches of creeping thistle and soft rush *Juncus effusus*.
- 3.33 Marshy grassland is present as a small area towards the south of the survey area. This is overwhelmingly dominated by tufted hair-grass and soft rush with occasional common hogweed *Heracleum sphondylium*, nettle, colt's-foot, horsetail *Equisetum* spp. and rarely, woundwort *Stachys sylvatica*, and devil's-bit scabious. Locally there is a thin strip of bulrush *Typha latifolia* to the south.
- 3.34 A small area of semi-improved acid grassland is present to the north of the survey area. This is dominated by common bent *Agrostis capillaris* with frequent tormentil *Potentilla erecta*, heath bedstraw *Galium saxatile*, devil's-bit scabious, white clover, cat's-ear *Hypochaeris radicata* and sweet vernal grass *Anthoxanthum odoratum*.

Watercourses

- 3.35 The North Calder Water runs under the Proposed Diversion, between the first and second new steel towers.

Other habitats

- 3.36 Tall ruderal vegetation is represented by a large patch of dense nettles surrounding a dung pile in the middle of the survey area.

Badger survey

- 3.37 Extensive badger activity was recorded in the survey area which can be split into three general areas: in the north of the Proposed Diversion between Katherine Park Lane and the North Calder Water; in the central portion of the Proposed Diversion in the strip of steeply sloping plantation woodland; and, in a small patch of woodland / ruderal habitat in the south-east area of the Proposed Diversion route.
- 3.38 Between Katherine Park Lane and the North Calder Water there are three badger setts, each with multiple entrances, within the sloping ground in the semi-natural broadleaved woodland. These entrances are likely to be at least partially connected via underground tunnels and

chambers and are likely to form several annexe setts (to the main sett to the south, see below). Several sett entrances were well-used and showed recent evidence of badger activity; evidence recorded included fresh spoil, badger hairs, and well-worn trails between entrances. On the opposite (south) bank of the North Calder Water, were four well-used badger dung pits (latrines). South of this location, in the central portion of the Proposed Diversion route in the strip of steeply sloping plantation woodland, were a further four setts, some of which had two entrances and one with five entrances. Again, there was recent evidence of badger activity including fresh spoil at sett entrances, badger hairs, and well-worn trails between entrances. The larger, five entrance sett is considered likely to function as the 'main sett' for this badger population ('clan'), as this showed evidence of the most use. The other setts in this area are likely to function as 'subsidiary setts' to this main sett. Two latrines were present in this area, both along the east edge of the plantation woodland where it met the improved grassland habitat. One final sett, with a single entrance in current use, is located in a small patch of woodland / ruderal habitat in the south-east area of the Proposed Diversion.

- 3.39 The main sett is located in the plantation woodland. At its closest the main sett is approximately 40m from the Proposed Diversion (where the overhead line passes it), however, the nearest tower (NT02) is approximately 116m away. In addition:
- A well-used subsidiary sett is oversailed by the Proposed Diversion (i.e. 0m) and located within approximately 20m of the nearest tower on the fringes of the temporary working area (NT01 as illustrated in Figure 2),
 - A well-used annex sett is around 6m from the Proposed Diversion where it would be oversailed by the overhead line and located within approximately 21m of the nearest tower on the fringes of the temporary working area (NT02 as illustrated in Figure 2).

General suitability for other protected and/or notable species

- 3.40 As noted above, the survey area was found to be highly suitable for bats, particularly the riparian woodland along the North Calder Water, in which several trees with roosting suitability were noted. The North Calder Water is also highly suitable for otter *Lutra lutra*, but likely to be sub-optimal for water vole *Arvicola amphibius* due to the fast flow of the river and lack of suitable riparian habitat (water vole require open, unshaded, steep banks with appropriate vegetation, whereas the river here was fairly wide, shallow and fast flowing with sloping, densely wooded banks). The woodland is also suitable for red squirrel, although the likely presence of this species is reduced by the probable presence of grey squirrel.

Cultural Heritage and Archaeology

- 3.41 There are no scheduled monuments within the vicinity of the Proposed Diversion. The nearest listed building is Wester Moffat House, a B-listed building located approximately 250m south west of the Proposed Diversion where it crosses the North Calder Water.
- 3.42 A review of PastMap Historic Environment Record (HER) does not identify any non-designated sites or features of interest in the vicinity of the Proposed Diversion, however, there may be some potential for unrecorded archaeological remains to be present.

Surface and Ground Water Resources

- 3.43 The North Calder Water is the main surface water body in the vicinity of the Proposed Diversion. It is crossed by the existing overhead line route and will be crossed by the Proposed Diversion. A new steel tower (NT01) will be located within approximately 50m of the north bank of the North Calder Water. There are also small unnamed watercourses which drain into the North Calder Water which are crossed by or near to the Proposed Diversion. The North Calder water is rated as poor according to water classification data provided on SEPA's Water Environment Hub.
- 3.44 SEPA's Water Environment Hub indicates that the Proposed Diversion is underlain by the 'Glasgow and Motherwell' groundwater body which has been classified overall as poor quality.

Information on aquifer productivity available on Scotland's Environment Map shows that a Class 2B 'moderately productive' aquifer alongside a Class 2C 'low productivity' aquifer underlie the Proposed Diversion.

- 3.45 The SEPA Flood Map indicates that land adjacent to the North Calder Water is at medium to high risk of flooding, however, the extents of the affected areas are located away from both existing and proposed tower locations.

Soils and Geology

- 3.46 The Carbon and Peatland Map (2016) indicates that the Proposed Diversion is underlain by mineral soils and is not within an area of peat deposits. This is consistent with the British Geological Survey (BGS) online viewer which indicates the superficial geology underlying the Proposed Diversion is predominantly comprised of till with some alluvium deposits also present along the course of the North Calder Water. The underlying bedrock geology comprises a mix of the Midland Valley sill-complex and the Scottish Middle Coal Measures Formation, the latter largely corresponding with the North Calder Water.
- 3.47 The National Soil Map of Scotland indicates that the Proposed Diversion is underlain by mineral gleys of the Rowanhill Association. These are non-calcareous gleys which are typically poorly naturally draining meaning they could be waterlogged. Such soils generally support pasture used for grazing livestock but may also support arable uses. This is consistent with the Land Capability for Agriculture maps which indicate that the Proposed Diversion is located on land classified as Grade 4.2 and Grade 3.2 meaning the land is suitable for producing crops.
- 3.48 The Coal Authority Interactive Map indicates that the area forms part of the Development High Risk Area and historic shallow coal mine workings may be present.

Settlement and Land Use

- 3.49 Airdrie is the nearest settlement lying approximately 0.2-0.5km to the west of the existing overhead line. Woodland along the North Calder Water forms a natural barrier between settlement and the existing overhead line route and more open countryside to the east. This open countryside area is identified in the North Lanarkshire LDP as greenbelt. Outside of the greenbelt the only other major land use relates to the Inver House Distillers located to the east of the existing overhead line route.

3.50 Recreation

- 3.51 There are a small number of core paths within the vicinity of the Proposed Diversion, however, none of these require to be crossed. Route NL/193/1 is located to the west of the Proposed Diversion and follows the course of the North Calder Water through the woodland.

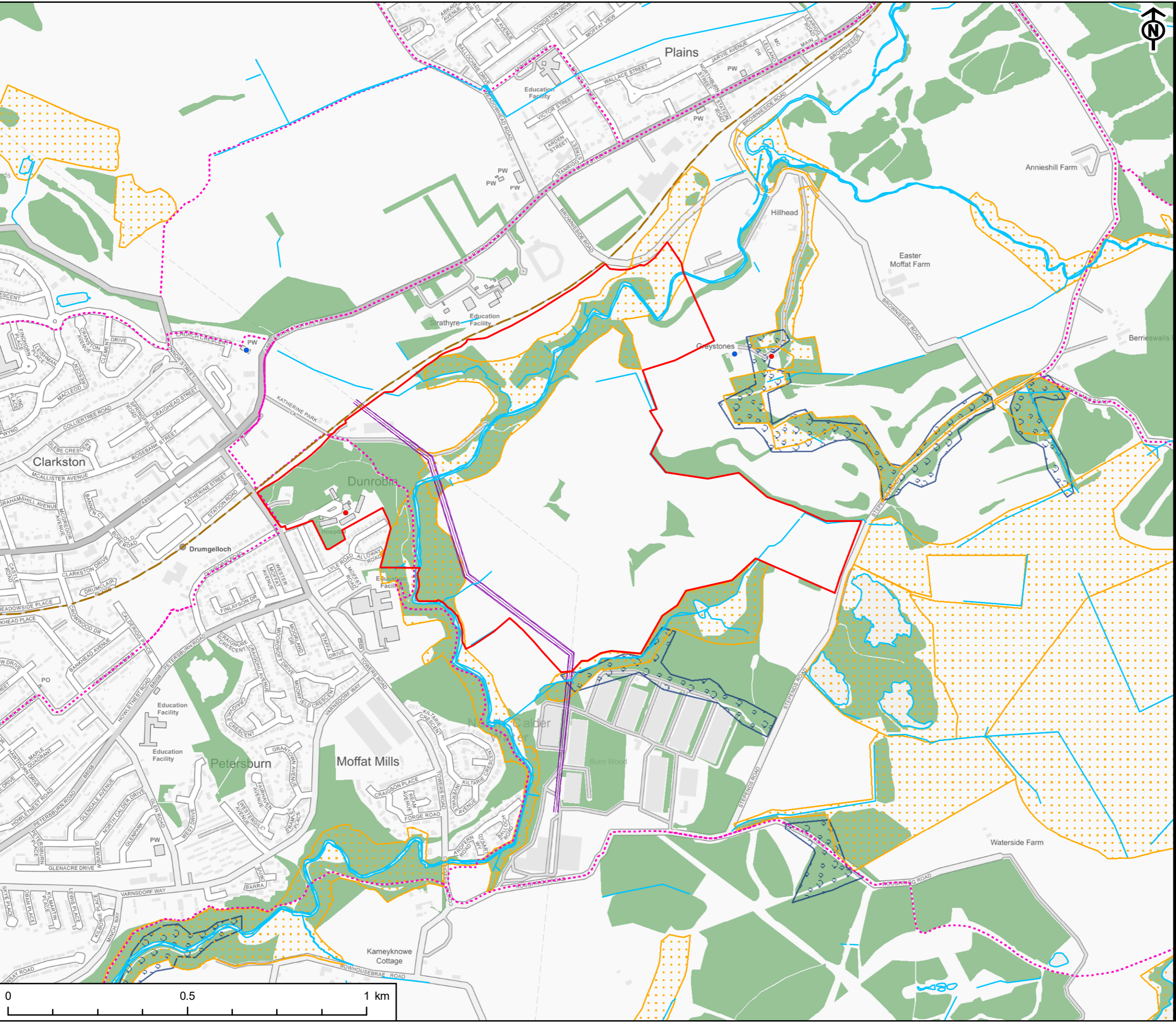
Air Quality

- 3.52 There are no Air Quality Management Areas (AQMAs) in the vicinity of the Proposed Diversion. The nearest is located in Chapelhall approximately 2km south of the Proposed Diversion.

PROJECT
XX Route Diversion
CLIENT
SP Energy Networks
KEY

- Site of New University Hospital Monklands
- Proposed Diversion
- Category B Listed Building
- Category C Listed Building
- Surface Watercourse
- Railway
- Core Path
- Ancient Woodland
- Woodland
- Site of Interest for Nature Conservation (SINC)

Project Management Initials: DR Designer: ER Checked: LC Approved: DR



This drawing has been produced for the use of AECOM's client. It may not be used, modified or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies upon this drawing without AECOM's express written consent. All dimensions are indicative and in metres unless otherwise noted. Do not scale this document.

TITLE
Figure 3
Environmental Considerations

REFERENCE
20221004_P3_v2

SHEET NUMBER
1 of 1

DATE
04/10/22

Scale @ A3 1:10,000

4. Assessment of Potential Effects

Introduction

- 4.1 The following section considers whether or not likely significant effects on the environment may occur taking into account the construction and operation of the Proposed Diversion, the presence or not of potential receptors and their sensitivity as well as opportunities for mitigation.

Landscape and Visual Amenity

- 4.2 The Proposed Diversion lies within an urban fringe landscape in which the existing overhead line is a prominent feature set within a context of agricultural land with intermittent hedgerow planting and belts of woodland, particularly associated with the North Calder Water, the settlement edge and the bonded warehouses. The eastern edge of Airdrie lies to the immediate west of the Proposed Diversion and properties to the east of Towers Road experience intermittent and partial views of the existing overhead line and some of the pylons. These views are often screened to some extent by intervening buildings within the settlement edge and vegetation, particularly the woodland along the North Calder Water. More open views can be experienced by people travelling along Towers Road adjacent to Caldervale High School and from within the grounds of the High School itself. There are also views of the existing overhead line from the local road network including Airdrie and Stepends Roads, properties adjacent to the railway and in South Plains and from users of the golf course. There are local informal recreational routes along the North Calder Water although outward views are limited by landform and vegetation. The North Calder Heritage Trail and NCN 75 share a section of the A89 east of Airdrie from which there are limited views of sections of the overhead line and pylons.
- 4.3 Whilst the Proposed Diversion will replace three of the existing towers with re-positioned taller towers, the overhead line and towers will remain a feature of the landscape and visible in views similar to those already experienced from the existing overhead line. Whilst the height and positioning of the overhead line and towers will change in some views, the change in visual effect would be minimal.
- 4.4 Whilst one of the towers will be re-positioned closer to the settlement edge (by approximately 300 m) the woodland vegetation which surrounds the North Calder Water and the settlement will continue to largely screen the majority of the tower from residential views. The two other re-positioned towers whilst taller will occupy a similar location to the current towers and consequently will continue to occupy a similar part of views.
- 4.5 Providing the new towers can be micro-sited so that there is limited removal of trees and woodland planting the change to landscape features and overall landscape character is considered to be negligible.
- 4.6 Overall it is considered that the construction and operation of the Proposed Diversion would not give rise to significant effects on the landscape character or visual amenity. The Proposed Diversion will occur within the same landscape and visual context as the existing overhead line and as such the new towers will still be seen in the context of the urban fringe landscape within which the existing overhead line is a prominent feature in the landscape and in many views. The opportunity to micro-site the towers to limit vegetation removal should be considered as part of the detailed design and pre-construction works.

Ecology

- 4.7 Of the six statutory designated sites for nature conservation located within the possible Zol of the Proposed Diversion, no significant effects upon any are considered likely. This is due to the

intervening distances involved, topography, the impacts likely from the construction and operation of the Proposed Diversion, the reasons for which the sites were designated (all bog habitats or wintering taiga bean goose) and the lack of habitats present in the survey area which are suitable for mobile qualifying species (only a small area of improved grassland is present which is not considered likely to support or encourage significant numbers of bean geese).

- 4.8 During construction works there is the potential for effects on locally designated sites for nature conservation (SINC and LNR) via habitat loss (there are two SINCs along the North Calder Water which are directly within the Proposed Diversion footprint) and pollution events (such as a result of sediment loaded runoff due to the exposure of soils, dewatering of tower foundations and/or from the accidental release or spillage of fuels or other chemicals). Pollution impacts can be effectively mitigated through good working practices including temporary measures to control site run-off as well as the proper storage and handling of potential pollutants. A Construction Environmental Management Plan (CEMP) should be prepared to ensure appropriate measures are in place to prevent and reduce any adverse effects on locally designated sites via pollution. With regards to direct habitat loss, it is expected that no woodland will require to be removed to facilitate construction of the Proposed Diversion, and loss of other habitats (which are not of significant ecological value) will be minimised as much as possible, as per local and national planning policies. The majority of construction works will take place in the low value improved grassland habitat adjacent to the SINCs. If, as anticipated, all woodland can be retained, and other habitat loss is minimal, no significant effects on locally designated sites for nature conservation are anticipated.
- 4.9 No other notable habitats, such as ancient woodland, are likely to be significantly affected by the Proposed Diversion.
- 4.10 The habitats crossed by and adjacent to the Proposed Diversion are considered to be suitable for numerous protected and/or notable mammal species, including bats, badger (a population of which are known to be present), otter and, potentially, red squirrel. Woodland removal will be minimised as far as possible. Works in the vicinity of NT01 and NT02 will occur immediately adjacent to the woodland and subject to micro-siting may require some tree cutting and/or tree removal on the periphery of the woodland. Construction effects on protected species are therefore likely to be limited to very minor disturbance effects from construction noise, vibration, general site activity and/or artificial lighting. Direct impacts on such species from general site activities could also occur, such as entrapment in excavations or exposure to pollutants or chemicals.
- 4.11 Construction may also impact upon other protected and/or notable species such as plants, birds, common amphibians (not great crested newt as no suitable ponds are present), reptiles and/or invertebrates, with very minor effects similar to those described above.
- 4.12 No operational effects on any protected and/or notable species are anticipated.
- 4.13 Given the above anticipated minor effects, no further survey for the presence (or likely absence) of protected and/or notable species is considered to be required. This is as most construction works will be a minimum of 15 m distant from the suitable habitat present for such species, with only overhead cable works within closer proximity. Any consequent disturbance to protected species or their refuges will be very minor (if any). No dedicated bird surveys are considered necessary as no woodland loss and only minor loss of other habitat will occur.
- 4.14 The habitats present, including those forming part of SINC, are not considered to require any further detailed survey. This is because all higher quality woodland habitat will be avoided, and only minor loss of other, less ecologically valuable habitat may occur. Populations of amphibians (except from great crested newt), reptiles and invertebrates present are likely to comprise common and widespread species and are therefore considered to be able to be reliably predicted based on the habitats present, with no further detailed survey necessary.

- 4.15 Possible disturbance effects from the Proposed Diversion on protected species will be largely avoided subject to micro-siting to achieve a 30m separation zone. Any disturbance to badger setts which may occur (likely to be limited to the setts in the vicinity of works areas at NT01 and NT02) will be mitigated for in full via the required protected species licensing protocols dictated by law. In the event that micro-siting does not provide a 30m separation zone then a licence application to temporarily close the subsidiary and annex setts will be made. Other construction effects (such as direct harm or injury to protected / notable species) will be mitigated in full by standard construction techniques, including avoidance of vegetation removal during the bird nesting season, covering of excavations and pollution controls, and described in a CEMP.
- 4.16 Given the above, any possible impacts on ecological features as a result of the Proposed Diversion can be mitigated in full by licensing and standard good practice working. No significant effects from the Proposed Diversion are therefore expected to occur.

Cultural Heritage and Archaeology

- 4.17 The Proposed Diversion is located sufficiently far enough away from cultural heritage and archaeological receptors that it will not result in any significant effects on them. Should it be required to prevent impacts on unrecorded archaeological remains a watching brief will be maintained during pre-construction ground investigations. This will ensure that should archaeological remains be encountered appropriate action can be taken to preserve them.

Surface and Ground Water Resources

- 4.18 The Proposed Diversion is located close to the North Calder Water as well as smaller unnamed tributaries. During construction works there is the potential for pollution of surface watercourses as a result of sediment loaded runoff due to the exposure of soils, dewatering of tower foundations as well as from the accidental release or spillage of fuels or other chemicals. These impacts can be effectively mitigated through good working practices including temporary measures to control site run-off as well as the storage and handling of potential pollutants. Taking account of the proximity of the Proposed Diversion to surface water and ground features, the highly localised nature of the construction works and opportunities for mitigation it is considered that no significant effects on the water environment will occur.
- 4.19 Should it be required a Construction Environmental Management Plan (CEMP) could be prepared in consultation with SEPA and other interested parties to ensure appropriate measures are in place to prevent and reduce any adverse effects on the water environment.

Soils and Geology

- 4.20 There will be permanent loss of soil resources at three new tower locations but this will be offset by the removal of three existing towers. Given the low sensitivity or value of the underlying soils and geology and the nature and scale of the works associated with the Proposed Diversion, no significant effects will occur.

Construction Noise

- 4.21 The nearest Noise Sensitive Receptors (NSRs) are located within approximately 200m of the Proposed Diversion. While a number of construction activities have the potential to cause disturbance, the intervening distance between works areas at tower locations (new and removed described from west to east) and the nearest NSRs (NT01 approximately 200m, NT02 approximately 220m and NT03 approximately 325m; removed: tower (RT01) approximately 250m, (RT02) approximately 550m and (RT03) approximately 300m) as well as adoption of appropriate good working practices such as those set out in British Standard (BS) 5228-1 'Code of practice for noise and vibration control on construction and open sites' significant effects will be prevented.

Air Quality

- 4.22 Construction traffic, plant and equipment will result in emissions to air, however, given the scale of works proposed this is unlikely to be significant. Institute of Air Quality Management (IAQM) guidance provides screening criteria for detailed air quality assessments with respect to road traffic emissions. It advises that away from AQMAs, changes of more than 500 vehicles in annual average daily traffic (AADT) for light duty vehicles (LDVs) and 100 for heavy duty vehicles (HDVs) would trigger the need for a detailed assessment. As construction traffic generated by the Proposed Diversion will be below these thresholds a detailed assessment is not required.
- 4.23 In addition to vehicle emissions there is the potential for dust to be generated during construction works. As noted above the works areas are located some distance from potential dust sensitive receptors, however, should dust present a risk it can be mitigated through good working practices for example damping down or the use of covers on stockpiles.

Land Use, Access and Recreation

- 4.24 The Proposed Diversion crosses an area identified as greenbelt in the North Lanarkshire LDCP and which currently has no discernible land use. Permanent land-take will occur at the three new tower locations only, however, this will be offset by removal of three existing towers and reinstatement of land. As a result, effects on land will not be significant.
- 4.25 As described in section 3 there are a small number of core paths in the vicinity of the Proposed Diversion, however, none of these require to be crossed by or will be directly affected the Proposed Diversion. Core path NL/193/1 is parallel to a section of the Proposed Diversion but typically lies more than 100m to the west of it within existing woodland which will provide screening to users of the core path. No significant effects will occur on access or recreational users of core paths in the vicinity of the Proposed Diversion.

Traffic and Transport

- 4.26 Vehicular access for construction will be provided via Katherine Park Lane which is accessed from the A89. There are existing tracks which are located to the north of the Proposed Diversion which will be used to provide access to works areas. As a result of the proposed access arrangements there will be limited traffic on the public highway other than the A89 in order to take access to Katherine Park Lane.
- 4.27 The small-scale nature of the works is such that they will not generate significant volumes of construction traffic. Peak vehicle movements would occur during concrete pours and are not expected to exceed more than 50 Heavy Goods Vehicle (HGV) movements. The Institute of Environmental Assessment (IEA, now known as IEMA) provides guidance on the changes in traffic flows which may trigger the need for an assessment including 30% increase in existing traffic flows or 10% in existing traffic flows in sensitive areas. The Proposed Diversion and access arrangements are not located in a sensitive area and the construction traffic flows generated by the Proposed Diversion are below these thresholds therefore a significant effect on the road network is considered unlikely.
- 4.28 Should it be required a Construction Traffic Management Plan (CTMP) could be prepared in consultation with North Lanarkshire Council to ensure appropriate measures are in place to reduce any adverse effects.

Waste and Natural Resources

- 4.29 As far as possible waste will be minimised during construction and waste will be managed by applying the waste management hierarchy (prevention, reuse, recycle, recover other value, disposal) and by taking reasonable steps to ensure that waste is managed in a manner that promotes high quality recycling. As described in section 2 for those towers which require to be

removed, steel will be removed and recycled. Tower foundations will be removed to a depth of 1m with the remainder left in-situ.

- 4.30 The Proposed Diversion will use natural resources; however, it is not expected to use significant amounts of primary natural resources. It is considered the Proposed Diversion will be built using relatively abundant and renewable natural resources therefore no significant effects are anticipated.

Cumulative Effects

- 4.31 In addition to considering the environmental effects of the Proposed Diversion in isolation, consideration has also been given to potential cumulative effects which may result from other reasonably foreseeable projects within its vicinity. Two potential projects have been identified:
- The new University Hospital Monklands for which a Proposal of Application Notice (PAN) has been submitted (reference 22/00198/PAN) but no planning application has yet been made. The new Hospital will be located to the north/east of the Proposed Diversion.
 - The East Airdrie Link Road (EALR) which is currently under development and for which an emerging preference has been identified but no planning application has yet been made. The emerging preferred route is located to the north/east of the Proposed Diversion.
- 4.1 As the need for the Proposed Diversion is driven by the new University Hospital Monklands it is assumed that it will require to be constructed in advance thereby limiting the potential for cumulative effects to occur during construction. Once operational the Proposed Diversion is not considered likely to result in significant cumulative effects with the proposed Hospital.
- 4.2 The proximity of the EALR is such that there is the potential for cumulative effects to occur, however, based on publicly available information it is assumed that the Proposed Diversion would occur ahead of EALR. As a result there is limited potential for cumulative effects to occur during construction. Once operational the Proposed Diversion is not considered likely to result in significant cumulative effects with the proposed road.

5. Summary and Conclusions

Summary of Screening Assessment

5.1 The following table provides a summary of the screening assessment and whether or not likely significant effects on the environment may occur.

Table 4. Summary of Screening Assessment

Topic	Summary of Assessment	Conclusion
Landscape and Visual	Proposed Diversion will occur within the same landscape and visual context as the existing overhead line and as such the new towers will still be seen in the context of the urban fringe landscape within which the existing overhead line is a prominent feature in the landscape and in many views.	No likely significant effects
Ecology	The Proposed Diversion will occur close to non-statutory designated sites comprising two SINCs identified in the North Lanarkshire LDP, however, with mitigation in place these sites are not expected to experience likely significant effects. By minimising the loss of woodland along the North Calder Water the majority of impacts can be reduced. Disturbance to badger setts may occur in the immediate vicinity of the new towers will be mitigated for in full via the required protected species licensing protocols required by law.	No likely significant effects
Cultural Heritage and Archaeology	The Proposed Diversion is located sufficiently far enough away from cultural heritage and archaeological receptors that it will not result in any likely significant effects.	No likely significant effects
Surface and Ground Water Resources	The Proposed Diversion is located close to the North Calder Water as well as smaller unnamed tributaries, however, with appropriate temporary construction drainage and working practices in place no likely significant effects will occur.	No likely significant effects
Soils and Geology	The Proposed Diversion is not located on or close to sensitive soil and geological resources. There will be localised effects on soils and geology but these are not considered to result in likely significant effects.	No likely significant effects
Construction Noise	The works areas for the Proposed Diversion are located between 200 and 500m from potential Noise Sensitive Receptors. Construction noise will be temporary and with good working practices is not considered to result in likely significant effects.	No likely significant effects
Air Quality	The Proposed Diversion will not generate significant volumes of traffic and will be below the thresholds at which effects on air quality could occur. As a result no likely significant effects are expected.	No likely significant effects
Land Use, Access and Recreation	There are no sensitive land uses affected by the Proposed Diversion. Core Path NL/193/1 is located to the west of the Proposed Diversion and follows the course of the North Calder Water through woodland but will not be affected by the	No likely significant effects

Topic	Summary of Assessment	Conclusion
	Proposed Diversion. Overall, there will be no likely significant effects on land use, access or recreation.	
Traffic and Transport	The small-scale nature of the works required for the Proposed Diversion is such that it will not generate significant increases in construction traffic. Any increase will be temporary and can be mitigated through traffic management measures.	No likely significant effects
Waste and Natural Resources	The Proposed Diversion will use natural resources; however, it is not expected to use significant amounts of primary natural resources. It is considered the Proposed Diversion will be built using relatively abundant and renewable natural resources therefore no significant effects are anticipated.	No likely significant effects
Cumulative Effects	Two potential projects which could combine with the Proposed Diversion to give rise to cumulative effects; the new University Hospital Monklands and the East Airdrie Link Road. Based on publicly available information it is considered that the Proposed Diversion will occur in advance of these schemes therefore there is no potential for cumulative effects.	No likely significant effects

Conclusions

5.2 Schedule 3 of the EIA Regulations sets out criteria which should be considered when screening potential 'EIA development'. The following provides a summary of the Proposed Diversion against the criteria set out in Schedule 3 taking into account the findings contained in sections 3 and 4 of this report:

- Characteristics of development:** The Proposed Diversion is of small scale relating to the diversion of an existing overhead line route. As a result it does not have a large footprint impacting on or requiring the use of significant natural resources. While there is the potential for waste, pollution and nuisance during construction this is temporary and can be effectively mitigated through environmental management and good construction practice. The risks of major accidents or to human health as a result of the Proposed Diversion are negligible. The Proposed Diversion is small scale. While construction works may result in some disturbance or impacts this will be temporary and highly localised. In the long term the Proposed Development does not occupy significant land nor does it result in emissions, nuisance.
- Location of development:** The Proposed Diversion is located in an area which is currently greenbelt to the east of Airdrie. There are no statutory designations protected for ecological, archaeological, landscape or heritage reasons. There are two Sites of Importance for Nature Conservation as well as a small Ancient Woodland Inventory site which are crossed by the existing overhead line and would be crossed by the Proposed Diversion. The Proposed Diversion is located away from settlement with existing woodland and the North Calder Water forming a natural screen or barrier between it and eastern part of Airdrie. The area in which the Proposed Diversion is located is considered to be of low sensitivity.
- Type and characteristics of potential impact:** The construction of the Proposed Diversion will result in some temporary adverse impacts, however, these will occur within a highly localised area in which highly sensitive environmental receptors are not present. Notwithstanding temporary impacts can be reduced through environmental management and good construction practice. In the long term there will be permanent impacts resulting from the Proposed Diversion, however, these are not considered to be materially different from the impacts occurring from the presence of the existing overhead line. Overall, there may be some temporary adverse impacts during

construction but longer-term impacts are considered to be negligible given the proximity of the Proposed Diversion to the existing overhead line.

5.3 The Proposed Diversion is not considered to be EIA development nor is it expected to result in significant effects on the environment therefore a statutory EIA Report is not required to accompany the application for consent under section 37 of the Electricity Act 1989 and for deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997. This is due to:

- The nature and small scale of the Proposed Diversion as described in section 2 which requires the erection of three new steel towers and the removal of three existing towers and restringing along the new route alignment,
- The low environmental sensitivity of the area in which it is located as described in section 3 which confirms that there are no highly sensitive statutory designated sites present and that settlement is located away from the Proposed Diversion,
- The localised and temporary nature of impacts during construction, the negligible nature of permanent impacts due to proximity to the existing overhead line, and opportunities for mitigation to reduce temporary and permanent effects.

aecom.com