

### 3 ENVIRONMENTAL CONSIDERATIONS

#### 3.1 Introduction

This section provides an overview of the key environmental impacts associated with the proposed re-routing and their significance. Appropriate mitigation measures have also been recommended where necessary.

#### 3.2 Landscape & Visual

##### 3.2.1 Landscape Character

No landscape designations have been identified within the Study Area and as such potential impacts on landscape character would be limited to the three identified landscape character types (LCTs); Urban, Alluvial Plain and Rugged Upland Farm. Potential for impacts on these character types is described further below.

##### *Urban*

As described in the baseline, this area is characterised by industrial and urban development and includes the existing overhead line. The proposed development would see the removal and relocation of four electricity towers and the introduction of one further tower. There are likely to be some localised direct impacts due to removal of vegetation required to construct the new towers. Due to the existing industrial context and character of this area, the proposed development is likely to result in negligible or neutral landscape impacts.

##### *Alluvial Plain and Rugged Upland Farmland*

The proposed development would be located outwith both of these LCTs and as such would not result in any direct impacts. Potential indirect change is likely to be minimal and largely imperceptible. It is therefore anticipated that the proposed development would result in neutral impacts on the character of both the Alluvial Plain and the Rugged Upland Farmland LCTs.

##### 3.2.2 Visual

##### *Residential*

As identified in the baseline, there are a large number of residential properties within the study area. Due to screening from other buildings and trees, the majority of residential properties are unlikely to be affected by the proposed development. The following provides an overview of potential impacts on the main settlement areas within the Study Area.

The majority of residential properties in Elderslie are unlikely to be affected by the proposed development. However, there is likely to be visibility from a small number of residential properties, particularly on the northern edge, along Main Road and Old Road and from Hillman Crescent. Views towards the proposed development from these locations would be slightly elevated and often partially filtered or restricted by adjacent trees and buildings. The proposed development would involve the removal of four existing towers and the introduction of five new towers. These new towers would be slightly further away but would follow a more complex route with additional angle towers, which may slightly increase their prominence. On balance, due to the small nature of change and the existing industrial context, impacts are anticipated to be minor or negligible.

Visibility of the proposed realignment from properties in Linwood and Johnstone would largely be screened by adjacent buildings and woodland. However, there are likely to be open views from the upper storeys of the high rise buildings of Asbury and Belmar Court in Linwood, and Provost Close in Johnstone. The proposed development is likely to represent a relatively small change from the existing OHL and would be viewed within the context of the surrounding industrial development. It is therefore anticipated that impacts on residential receptors at Asbury and Belmar Court and Provost Close would be minor or negligible.

#### *Transport and Recreational Routes*

In addition to the above potential residential receptors, a number of transport and recreational routes were also identified within the Study Area.

Views from these routes would largely be screened by adjacent tree planting, landform and buildings. Where views are possible they would be limited to short sections and would often be glimpsed or partially screened. In each case, the extent of apparent change would be limited and would be viewed in the context of surrounding industrial development and the existing OHL. It is therefore anticipated that impacts on users of the identified routes would be negligible.

### 3.2.3 Summary

Although there may be some localised minor impacts, the existing industrial context and limited extent of change is not anticipated to result in adverse impacts on the overall landscape character or visual amenity of the Study Area.

## 3.3 Ecology

The following section outlines potential impacts on ecological receptors and recommends relevant mitigation measures where applicable.

#### *Otter*

Otter is a European Protected Species (EPS) and as such is protected by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland). Under the provisions of the Act, it is an offence to:

- deliberately or recklessly kill, injure or take an EPS (or its eggs where applicable);
- deliberately or recklessly disturb an EPS at a place of shelter, or elsewhere if this could impair its ability to breed or affect its local distribution;
- damage, destroy or obstruct access to an EPS place of shelter (whether occupied or not).

Actions which would be offences can be licensed, but only under strict conditions. The reason must be one of the specified purposes in Regulation 44(2), there must be no satisfactory alternative and the 'favourable conservation status' of the species must be maintained.

Although no otter signs were recorded during the Extended Phase 1 Habitat Survey, this species is known to occur on the watercourses present on site and they are a highly mobile species. Possible disturbance impacts on otters are generally considered to be low as most of the works will occur some distance from suitable habitat. Potentially significant local impacts to otters are possible in the area south of the Black Cart Water if they are found to be present and the vegetation here needs to be cleared to facilitate development. Therefore it will be necessary to survey this area thoroughly when water levels allow, in order to investigate for otter refuges. If necessary, appropriate licenses from SNH may need to be obtained. As well as the legal implications of works affecting otter, this species is also a UK Biodiversity Action Plans (BAP) and Local BAP species, and is therefore a species which public authorities should consider as part of their biodiversity duty.

#### *Bats*

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) provide substantial protection to bats and their roosts. Under the provisions of this Act, it is an offence to:

- deliberately or recklessly kill, injure or take a bat;
- deliberately or recklessly disturb a bat or group of bats in a roost;
- damage, destroy or obstruct access to a bat roost (whether occupied or not);

- possess, advertise, sell or exchange a bat (dead or alive) or any part of a bat.

For the purposes of bat protection, a bat roost is defined as “*any structure or place, which is used [by bats] for shelter or protection*”, regardless of whether it is currently in use by bats or not.

The proposed route cuts through the woodland in which a tree with moderate bat roost potential was recorded. The proposed position of tower AU6R will very likely necessitate the removal of this tree and the surrounding woodland. A bat emergence survey did not confirm this tree as a definite roost, however the timing of bat activity in the immediate vicinity of this tree suggests there may be a roost in the near area, if not in the tree itself.

It is recommended that immediately before work commences, a dawn bat activity survey should be undertaken to ensure this tree is not in use by bats as a roost before being felled. If bats are found to be present, this tree must not be disturbed until the appropriate licenses are sought from SNH. This may require further survey work.

The bat emergence survey which was carried out found there to be a moderate level of bat activity in the area of the plantation woodland and in the marshy grassland which will sit under the proposed overhead line. It is recommended that these habitats be retained where possible to reduce impacts on bat foraging habitat and commuting routes. Where this isn't possible it is recommended this habitat loss is compensated for (see terrestrial habitat loss below). Linear features used as commuting routes should be maintained, possibly with shorter vegetation which is unlikely to interfere with the proposed new overhead line.

#### *Breeding birds*

As previously described there are several suitable habitats on site which are very likely to be used by birds during the breeding season. In particular these habitats include scrub, woodland, ruderal vegetation and ephemeral/short perennial habitats.

All wild birds are protected by the Wildlife & Countryside Act 1981 (as amended in Scotland). It is an offence to kill, injure or take any wild bird or its eggs; to take, damage, destroy or interfere with the nest of any wild bird whilst in use or being built, or to obstruct or prevent any wild bird from using its nest.

Ideally site clearance works should be undertaken in the period September to April to avoid likely illegal disturbance of breeding birds. If this is not possible, prior to works commencing the works area should be thoroughly checked by a suitably experienced ecologist for active nests to ensure that they are not destroyed or disturbed. Active nests will need to be left undisturbed until the nesting attempt is complete, however this method is not recommended for this site due to the large extent of the vegetation to be cleared and its extremely dense nature in parts. It is therefore strongly recommended that site clearance works take place in the period from September to April.

#### *Designated sites*

Pollution events are not likely considering the nature of the works and assuming the appropriate precautionary measures are applied. If a pollution event was to occur, impacts on the Black Cart and the Inner Clyde statutory protected areas are considered unlikely because of the large distance between these assets and the site (between 3.5 and 8km respectively) and the affects of dilution from the much larger River Clyde and numerous small tributaries to the Black Cart Water itself.

The Black Cart Water with associated riparian habitats and the Old Patrick Water and surrounding habitats are both designated as SINC's and valued as wildlife corridors as part of a wider habitat network as described in the Renfrewshire Local Plan. The proposed new route for the overhead line will cut through the woodland in the south of the Linwood SINC (between AU5R and AU7R) and continue through the scrub/woodland by the Black Cart (including some

which comprises a small edge of the SINC). This will require clear felling of these areas of wood/scrub, the loss of which would constitute a major disturbance to protected species in and around the area to be cleared. It is against biodiversity best practice to cause a net loss of valued habitat, particularly in a designated site. The loss cannot be compensated for fully in this area as full re-vegetation may interfere with the working of the overhead line. It may be possible to mitigate the impact of the loss of habitat by planting suitable replacement trees in adjacent land, however land ownership and the marshy nature of the remaining area of Linwood SINC limits these possibilities. Further extending the recently planted birch woodland north of the existing woodland will help to compensate somewhat for the loss of the mature wood.

#### *Invasive non-native plant species*

Three species of non-native invasive plants were recorded on site: Japanese knotweed, giant hogweed and Himalayan balsam. These are listed on Schedule 9 of the Wildlife & Countryside Act 1981, therefore furthering the spread of these species is an offence.

Attention must be paid to the scattered stands of Japanese knotweed which may need cleared/disturbed to facilitate the new route (such as the large stand on the south bank of the Black Cart). In the case of Japanese knotweed it can spread underground using 'tubers' and through dispersal of seed. There is risk of accidental spread if works are undertaken within 7m of the stands as is proposed (7m is the possible horizontal extent of the root system) as even small fragments of the root of this species can establish new stands.

Care must be taken in the area around the existing tower AU008 where giant hogweed was found to occur. It is very likely that these plants will be disturbed/removed to facilitate the removal of this tower. The seeds of giant hogweed are the primary method of dispersal for this species and the spread must be tightly controlled. Coming into contact with the sap of the plant can cause painful burns and phytophotodermatitis, a skin rash which flares up in sunlight. Great care must be taken in the vicinity of these plants and a suitably qualified contractor should be appointed for its removal.

The Himalayan balsam on the north bank of the Black Cart may need removed to facilitate the proposed works, the scattered plants in the plantation north of Burnbrae Road will likely be disturbed as the woodland will be disturbed/cleared. This species can be treated with appropriate herbicide, however seeds are capable of extensive spread due to their explosive method of dispersal.

It is recommended that specialist contractors are appointed to advise upon the removal/management of all invasive non-native species present on site, and to avoid the further spread of these species. Relevant SEPA guidelines should also be adhered to.

#### *Terrestrial habitat loss*

As mentioned above it may be possible to mitigate the impact of the loss of habitat by planting suitable replacement trees/shrubs for those which may be lost to the development footprint. Priority should be given to replace, expand or re-connect existing habitats, particularly the plantation woodland along Burnbrae Road known to be used by commuting/foraging bats.

In addition to the loss of trees and shrubs in the immediate footprint of the new overhead line route, habitats will also be disturbed in the process of removing the old towers. These existing towers occupy habitats of limited ecological interest. At the base of all towers some scrub/ruderal/grassland vegetation exists, with the scrub being particularly dense around the base of AU006. The removal of this vegetation should be conducted between September and April to avoid disturbance of breeding birds, however the habitat loss will be slight and there is not deemed to be any need to compensate for it.

### 3.3.1 Summary

In order to ensure that there is no significant impact on ecological features within the site, the following mitigation measures are recommended:

- Otter surveys are recommended particularly on the area of the south bank of the Black Cart which is vegetated with dense scrub. If otter refuges are located here and clearance of this vegetation is required for the proposed OHL, the appropriate guidance and/or licenses should be sought from SNH.
- Further bat re-entry (dawn) survey on the mature lime tree within the semi-mature plantation north of Burnbrae Road should be carried out immediately prior to felling.
- Clearance of all vegetation on site must be undertaken within the period September to February inclusive, to avoid the bird breeding season.
- As some of the work will be conducted near watercourses, the appropriate SEPA pollution prevention guidelines should be adhered to in order prevent pollution events affecting the local environment, the Black Cart and the Inner Clyde SPAs and SSSIs downstream.
- The area of woodland adjacent to proposed tower AU6R is the only area of older woodland in the surrounding landscape and likely provides cover and foraging for many species of birds and mammals (such as otter and bats). It is accepted that re-location is not possible and that land available for compensatory planting is minimal. However, further extending the recently planted birch woodland north of the existing woodland may help to compensate somewhat for the loss of the mature wood.
- Invasive species of non-native plants were frequent across the site, namely Japanese knotweed, Giant hogweed and Himalayan balsam. Further spread of these plants would be damaging to ecosystems and structures locally and elsewhere, and is illegal under the Wildlife & Countryside Act 1981 (as amended). It is recommended that specialists are appointed to advise upon their removal and avoid the spread of these species as per the guidelines issued by SEPA.

## 3.4 Cultural Heritage & Archaeology

The proposed re-routing will divert the existing OHL further away from the surrounding listed buildings and non-designated heritage assets located to the south and west of the Study Area and will therefore have no direct impact on these assets. In addition, these assets currently exist in a largely industrial/urban setting and as the proposed re-routing will not significantly alter the existing landscape, there is unlikely to be any resultant impact on their existing setting.

The proposed OHL route will divert the existing route closer to the archaeological evaluation area at Burnbrae Road. However previous investigations concluded from an archaeological evaluation state that *'the potential for archaeological remains in this area is therefore minimal and no further work is recommended'* (2009 Report by GUARD available on West of Scotland Archaeology Service website).

### 3.4.1 Summary

The proposed OHL will cross an archaeological evaluation area however this is an area of minimal archaeological potential. Therefore no adverse impact is expected on heritage assets.

## 3.5 Hydrology/Hydrogeology

The existing and proposed OHL route is in close proximity to the Old Patrick Water which flows south to north through the industrial estate. Works to remove existing tower AU005 and install proposed towers AU4A, AU5R and AU6R have the potential to impact the ecological status of the Old Patrick Water and affect flood flows. The Black Cart Water flows along the

western side of the industrial estate and works to remove tower AU008 and install tower AU8R have the potential to affect the ecological status of this watercourse.

The incorporation of standard good practice measures into the construction methods including Sustainable Drainage Systems (SuDS) principles will significantly reduce the risk of pollution events occurring and prevent significant volumes of silt and sediment reaching the watercourse. All relevant authorisations under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) should be obtained from SEPA prior to works commencing. Furthermore, relevant Pollution Prevention Guidelines (PPGs) as produced by SEPA should also be adhered to.

There is unlikely to be a significant impact on downstream flooding related to the construction of new towers as they will not reduce the area of floodplain or restrict flood flows.

Shallow groundwater may be encountered in some locations and therefore the construction of tower foundations has the potential to impact on groundwater movement and quality. The use of suitable SuDS will ensure that groundwater resources are not polluted during construction. Tower foundations are designed to be no more than 3.5m deep and 1m across at each leg and would therefore cause a negligible change in groundwater movement in the vicinity.

### 3.5.1 Summary

It is assessed that the magnitude of impact is likely to be minor, assuming good practice measures are adopted to protect water quality, minimise flooding impacts and protect groundwater resources. All relevant authorisations under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) should be obtained from SEPA prior to works commencing.

## 3.6 Land Use and Agriculture

At pre-application stage, Renfrewshire Council Planning Authority highlighted that land at this location supports a range, type and scale of uses. The Council therefore had concerns regarding potential impacts on consented and future development in the area. In particular, concerns were raised over the location of towers AU6R (referenced as AU7R in Planning Authority response which related to previous design iteration), AU8R and those towers located on the existing QPark site. The finalised route has therefore been designed as far as possible to ensure that existing and proposed development opportunities within the industrial estate will not be compromised.

In the finalised route design, no towers will be located on the proposed QPark site and the capacity for this area to function as a long-stay car park will not therefore be affected.

AU6R has been moved further to the south-east as part of the updated design and this will consequently ensure that it will not affect the approved long stay car park (07/0292/PP), hotel/office development (07/0291/PP) and associated engineering works which have been approved on William Tracey's land to the north of the Old Patrick Water. We note that there is scope for further development at the south end of this area, however the proposed OHL route has been designed in agreement with the landowner and to ensure that future development opportunities can be facilitated.

Similarly, the proposed tower on Scottish Water land (former Johnstone sewage treatment works) has been moved further east as part of the design iteration process and the proposed location is unlikely to affect the consented anaerobic digestion plant (08/0658/PP) and associated works which have been approved to the immediate south.

### 3.6.1 Summary

The importance of Linwood Industrial Estate as an established economic investment area has been considered from the outset with respect to the proposed re-routing strategy. The proposed route corridor has been established in agreement with all landowners and has been designed to ensure that affects on existing consented development and future opportunities have been minimised as far as possible.

## 3.7 **Air Quality & Noise**

Due to the nature and scale of the OHL re-routeing at Elderslie/Johnstone, air quality and noise issues would likely arise during the construction phase. It is likely that activities such as erecting steel towers, cabling and associated ground and clearance works would not cause significant effects for nearby residential or agricultural receptors. The close proximity of designated Core Paths 'LIN 12' and 'NCN 7' along a large stretch of the route should also be considered and appropriate mitigation measures should be employed where possible during the construction phase to ensure these routes are not adversely affected.

### 3.7.1 Summary

Best practice construction methods should be employed by the contractor to minimise air and noise impacts.

## 3.8 **Geology and Soils**

As discussed, in Section 2.8, it is considered that ground conditions along the current and proposed routes predominantly comprise made ground over natural superficial deposits of Glacial Till and Alluvium. The superficial deposits are generally reported to be underlain by bedrock of the Limestone Coal Formation, although Hosie Limestone and Lower Limestone bedrock is reported to be present at the southern extent of the route. Logs obtained from the British Geological Society (BGS) suggest that the superficial deposits are approximately 6.5m – 7.0m thick. The site is also reported to be located within the Coal Authority's 'Coal Mining Reporting Area'.

It is understood that typical foundations for the current and proposed towers will extend to depths of between 3.0 – 3.5m bgl. On this basis, it is considered that the decommissioning and construction works will not impact upon bedrock underlying the tower positions. As a result of this, it is considered that the effects of mine workings potentially located within the area of the site are unlikely to have an impact upon the proposed decommissioning and construction works.

Given the industrial nature of the site and its surrounding area, it is considered that made ground deposits will be present at the current and proposed tower locations. The nature of these made ground deposits are currently unknown and as a result, there is the potential for contamination to be present.

To mitigate against risks to workers from potential soil contamination during decommissioning and construction works, it is recommended that construction workers use appropriate protective equipment and that appropriate site hygiene practices are in place for the duration of the works.

Consideration should also be made with regard to the stockpiling of surplus materials that may be generated during the course of the construction works to prevent run-off and sediment entering nearby watercourses. To mitigate against this, appropriate planning of excavations and associated haulage will help to minimise stockpiling of surplus materials. It is recommended that current best practice is employed if stockpiles are required to be formed,

i.e. keep stockpiles away from watercourses (Old Patrick Water) and covering them where required.

### 3.8.1 Summary

In terms of geology and soils, it is considered that only the underlying made ground and natural superficial deposits will be affected by the proposed decommissioning and construction works. Given the nature of the site and surrounding area, it is considered that the impact upon these deposits will be low.

The potential for contamination to be present within the made ground and shallow natural deposits cannot be discounted. As such, the use of best practise construction methods (i.e. use of appropriate protective equipment and hygiene facilities to protect workers and appropriate procedures for stockpiling materials to protect nearby watercourses) should be employed to mitigate against any potential risks.

## 3.9 Planning Policy

The existing land-use designation at the site - Class 4 Business, Class 5 General Industry and Class 6 Storage and Distribution, as per Policy IB2 of the adopted Local Plan – will not be affected by the proposed re-routing works. Furthermore, the proposed route has been designed in order to have minimal impact on existing and future operations at the site and with respect to impacts on surrounding receptors. As the proposed works involve replacing and re-routing an existing line with just one additional tower required (5 new towers in total), it is considered that the impacts on surrounding receptors will be minimal and the proposal is therefore in line with the requirements of Panel IB1 of the Local Plan 'General Development Criteria'.

Existing tower AU009 is located within an area designated as informal open space and is also adjacent to an existing Core Path (connection of Lin11 and Lin12). Core Path Lin 13 also crosses the site on the same alignment as Burnbrae Road. Limited alterations will be made at existing AU009 tower (wire re-alignment only) so it is not considered that the re-routing will affect the amenity of this area of open space. Furthermore, the re-routing will have no impact on the existing Lin 13 Core Path, as the path follows the existing road network which will be unaffected.

Potential impacts on existing SINC's within the site area are discussed in detail under section 3.3 of this Report. Overall, it is considered that further survey work and detailed mitigation measures will be required to ensure there is no significant impact on these locally designated sights.

As detailed in section 3.5 of this Report, the magnitude of impact on water resources is likely to be minor, assuming good practice measures are adopted to protect water quality, minimise flooding impacts and protect groundwater resources. Provided good practice is adopted through construction, it is therefore considered that the proposed works are compliant with Policies F1: Flood risk and F3: Fulfilment of Flood Prevention and Sustainable Urban Drainage Requirements' of the adopted Local Plan.

Policy C1: 'Consideration of Development Proposals involving land which may be contaminated' states that "*The Council will, in assessing an application for development involving land which it considers may be contaminated, require the applicant to provide the necessary information to establish whether contamination is present*". As detailed in section 3.8.1 of this Report, the potential for contamination to be present within the made ground and shallow natural deposits cannot be discounted. As such, the use of best practice construction methods (i.e. hygiene facilities to protect workers and appropriate procedures for stockpiling materials to protect nearby watercourses) should be employed to mitigate against any potential risks.



In terms of Policy N1: Noise Protection, given that this is a re-routing proposal rather than a completely new line, it is not considered that noise will be an issue upon completion of works. Best practice working methods will minimise any temporary impact during the construction phase.

The response received from Renfrewshire Council Planning Authority focuses primarily on the potential impact on future development and investment at this site as a result of the re-routing works. Please note that this matter is addressed further in section 3.6 of this Report.

### 3.9.1 Summary

Overall it is considered that the proposed works are compliant with the policy framework which has been established in the Renfrewshire Local Plan. Given that the Proposed Local Development Plan (as amended) largely reflects the general policy framework laid out in the current Development Plan at this site, it is also considered that the proposal complies with the provisions of this Plan.