

5. Ecology

Introduction

- 5.1 This addendum Chapter provides a review and update of changes that have occurred to the site, the wider context (existing and future baseline) and the resultant EIA since the original ES (March 2014), the initial addendum ES (September 2014) and the FEI submitted as part of the Statement of Case to the hearing before the PAC (August 2016). The information has been updated only where changes material to the assessment have occurred. Otherwise the original information still stands and has not been repeated. This being the case, this ES Addendum should be read in conjunction with the original ES Chapter (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016).
- 5.2 This ES Addendum Chapter has been informed by ecological survey and assessment work undertaken specifically in relation to the production of this Chapter since the production of the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016).
- 5.3 Further consideration has also been given to the potential route of the electricity connection to the grid. Two routes have been previously assessed as detailed within previous submissions with the original (2014) connecting to a sub-station at Glengormley and an alternative (2016) connecting to a switch board at Mallusk. The ecological impact of these routes has been considered previously within the FEI submission and it was found that no impact would arise from either route. In addition to these two routes an additional third route (2019) has been considered. The Material Assets Chapter of the ES Addendum (Chapter 13) includes a plan, Figure 13.1 identifying this additional route from the proposed development site to the existing sub-station at Glengormley, similar to the 2014 route. However, the 2019 route does not propose to utilise the overbridge to cross the M2 but will cross from Mallusk Road to Derry Road/Burney's Lane (on the opposite side of the M2) with the use of underground cabling. Each of the above routes has been assessed as part of this ES Addendum.
- 5.4 The three grid connection routes were subject to walkover surveys on 6th February 2019 to identify any changes in the previously reported baseline of the 2014 and 2016 routes and to assess the section of 2019 route that had not been previously reviewed. From the walkover no ecologically significant features (habitats or species) are considered to be affected as the route corridors are contained within the existing road surfaces. The only identified exception would be where works are to take place within short grass roadside verges (of insignificant ecological value) as part of the 2019 route. Impacts in such areas would be temporary in nature and restored post construction or limited to small scale losses for infrastructure such as access panels to the cable at road crossing points. Given that this habitat loss would be insignificant no further consideration to any of the routes is given in this chapter.

Legislation, Policy, Guidance and Case Law

- 5.5 There has been no change in relevant legislation since the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016).
- 5.6 With regard to planning policy, the current policy relevant to this ES addendum includes the Regional Development Strategy 2035, Strategic Planning Policy Statement for Northern Ireland (SPPS), Planning Policy Statement 2 'Natural Heritage' and local planning policy contained within the adopted and draft development plans. All relevant policies are considered within the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016).
- 5.7 Regarding guidance, there has been no material change in that relevant to the evaluation and assessment of significant effects. The current guidance titled "Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial Freshwater and Coastal (Second Revision) was published in 2016 by the Chartered Institute of Ecology and Environmental Management (CIEEM).
- 5.8 A recent judgment handed down by the Court of Justice of the European Union (CJEU) (12th April 2018) has implications for those applying the legal tests of Regulation 43 of the Conservation (Natural Habitats &c.) Regulations (Northern Ireland) 1995.
- 5.9 As a result of the CJEU ruling it is necessary to give additional consideration to the application of the legal tests contained at Regulation 43 of the Habitats Regulations. Further detail in relation to this CJEU ruling and the tests under Regulation 43(1) of the Habitats Regulations are considered within a separate Habitat Regulations Assessment (see Appendix 5.1).

Methodology

- 5.10 The methodologies employed in relation to ecological survey and assessment work within the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016), have regard to relevant survey guidance. However, over the period surveys have been undertaken to inform these assessments, various aspects of guidance have been updated.
- 5.11 With respect to habitat and species surveys, NIEA have produced updated specific requirements with the latest versions dated February 2017. However, in review of the relevant specific requirements (for Badger, Otter, Newt and Bat surveys) that have been updated by NIEA, the surveys employed to inform the 2016 FEI remain consistent with these methodologies.
- 5.12 To ensure that the survey data remains accurate and robust to inform further assessment as part of this ES Addendum a site visit was undertaken in October 2018. The purpose of this visit was to reassess the entire site and determine whether there have been any material changes to the habitats and features contained onsite. During the site walkover undertaken in 2018 any obvious faunal activity, such as birds or mammals observed visually or by call during the course

of the surveys, was also recorded. Specific attention was paid to any potential use of the site by protected / notable species.

Baseline Conditions

- 5.13 A review of baseline conditions is described below with any changes since the FEI submission detailed where appropriate.

Designated Sites

- 5.14 There have been no material changes in the location and extent of relevant statutory designated sites.
- 5.15 No non-statutory designated sites are present within the site, although several are located within the wider area as referenced within original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016). There have been no material changes in the location and extent of these designated sites. The extent and location of these designated sites is shown on Figure 9.2 of the original ES.

Habitats

- 5.16 The main habitat / vegetation types were identified within the site during habitat surveys undertaken between April 2016 to July 2016 to inform the FEI are listed with detailed descriptions of these habitats presented within the FEI submission.
- 5.17 During the update survey undertaken in October 2018, no new habitat types present were identified when compared to previous habitat survey results. However, it was noted that the extent and quality of some habitats had changed during the interim period.
- 5.18 These changes in habitat are limited to:
- The encroachment of dense and scattered scrub habitat into adjacent grassland habitat. This is considered to result from a lack of scrub management allowing scrub vegetation to spread into wider areas;
 - Areas of species-poor semi-improved grassland having developed sections dominated by Soft Rush *Juncus effusus*. This is considered to result from a lapse in the management of fields utilised for cattle grazing that has allowed invasive *Juncus* to develop in wetter areas; and
 - Areas of recolonising ground at the margins of the quarry floor developing a more permanent ruderal compliment of species, with ephemeral species becoming less abundant. This is considered to have resulted from a lack of disturbance at some edges of the quarry floor.
- 5.19 The scrub encroachment is often dominated by a single species and replacing grassland type habitats that are generally of greater diversity. Similarly, the proliferation of stands of Soft Rush

in species-poor semi-improved has resulted in a decrease of more species rich habitat. Again, the lack of disturbance of recolonising ground has resulted in the loss of species diversity as more vigorous and pernicious species have become more persistent. Although the above habitat changes are minimal and not representative of a material change when viewed in context of the wider site, it is considered that the changes likely represent a decrease in ecological value of the site.

5.20 The habitats plan detailing these changes is included at Figure 5.1.

Wildlife Use of the Application Site

5.21 Specific detailed surveys were undertaken during 2012-2013 for a range of species. A full suite of updated surveys were undertaken in 2016 including specific surveys for; Bats, Badger, Otter, Breeding Birds and Smooth Newt. It is a generally accepted position that species surveys typically remain valid for 2 to 3 surveys seasons after which the reliability of the data reduces.

5.22 Furthermore, given the lack of material change in habitats present, their condition and diversity it is considered that there are no material changes to the baseline situation reported in the 2016 FEI in relation to any faunal species previously identified onsite. In addition, no potential for, or signs of, previously unrecorded species were observed during the most recent site visit in 2018 that would require further specific survey work.

5.23 On this basis, it is considered that the detailed species survey and assessment work presented within the FEI submission (2016) represents an accurate and up to date position with regard to protected species onsite. Therefore, using this data to inform related assessments as part of this ES Addendum is considered to remain valid.

Assessment of Effects

5.24 Overall, it is considered that there has been no material change to environmental effects since the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016) beyond the consideration of the recent CJEU decision in respect of Habitat Regulations issues.

5.25 Specific consideration of the CJEU ruling and the tests under Regulation 43(1) of the Habitats Regulations are considered within a separate Habitat Regulations Assessment (see Appendix 5.1).

5.26 As part of this ES addendum an updated Air Quality assessment (see Chapter 10) has been undertaken that includes further dispersion modelling. The model predictions find that in respect of Nitrogen Dioxide and Sulphur Dioxide the Predicted Environmental Contributions remain well below the relevant assessment criteria.

5.27 Furthermore, when applying updated critical load values for Nitrogen and Sulphur the predicted contributions fall below 1% of the critical load for the majority designated sites, with a single exception.

- 5.28 This exception relates to Belfast Hills – Squires Hill SLNCI where a change in the critical load for Sulphur on ‘dwarf scrub heath’ from the previous level assessed in 2014 (0.87 keq/ha/yr) has been identified with an updated critical load of 0.46 keq/ha/yr. As a result in the decrease of the critical load for dwarf scrub heath at the SLNCI, this now means that the development proposals will result in an increase of the critical load by 1.5%. Given this figure exceeds the 1% threshold, further consideration has been given to the effect this increase will have on dwarf scrub heath within Belfast Hills – Squires Hill SLNCI.
- 5.29 The critical load for Belfast Hills – Squires Hill SLNCI for the updated assessment is 0.46 keq/ha/yr and the existing Sulphur load is 0.32 keq/ha/yr (or 69.6% of the critical load). In combination with the contribution resulting from the proposals, the existing sulphur load would increase from 69% to 71% of the critical load. Therefore, although the contribution from the development exceeds 1%, in combination with the existing Sulphur load, the critical load for Belfast Hills – Squires Hill SLNCI will not be exceeded as a result of the development.
- 5.30 It should also be noted that the above figures relate to a central sampling location within the SLNCI. A second sampling location in the west of the central sampling location recorded a far lower increase in Sulphur due to the development (0.13%). The interest feature of dwarf scrub heath is limited to the eastern half of the designated site and dispersion modelling indicates that Sulphur concentrations would be highest at Squires Hill summit (in the east of the SLNCI) with modelled contributions falling off quite rapidly for the remaining areas of the designated site.
- 5.31 On the basis that the critical load is not exceeded, it is considered that the impacts from acid and nitrogen deposition on Belfast Hills – Squires Hill SLNCI during operation of the proposed development are considered to be at the county level and of minor adverse significance.
- 5.32 Considering the very minor changes to habitat extent and composition that has occurred, in terms of the impact assessment, it can be concluded that the sensitivity of the site has remained unchanged. In these terms, it is concluded that the magnitude of change is not significant and that the impact of the proposals remains consistent with that reported in the original ES (March 2014), the initial addendum ES (September 2014) and the FEI (August 2016).
- 5.33 This being the case, no additional mitigation is considered necessary.

Mitigation of Effects

- 5.34 In the light of the ecological baseline as reported within this ES Addendum and with reference to the scenario under which this Chapter has been produced (site clearance and preparation, development construction and operation), there has been no material change to the mitigation required and reported in the FEI (August 2016). All of the mitigation previously proposed is considered to be relevant and appropriate.

Residual Effects

- 5.35 There has been no change to the residual effects reported in the FEI (August 2016).

Cumulative Effects

- 5.36 There has been no material change to the overall conclusions in relation to cumulative effects reported in the FEI (August 2016).

Summary

- 5.37 Given that there has been no material change to the legislation, policy and guidance, baseline or development proposals, there is no change to the environmental effects reported in the FEI (August 2016).
- 5.38 As a result of the recent CJEU ruling it is necessary to give additional consideration to the application of the legal tests contained at Regulation 43 of the Habitats Regulations. Further detail in relation to this CJEU ruling and the tests under Regulation 43(1) of the Habitats Regulations are considered within a separate Habitat Regulations Assessment (see Appendix 5.1). The conclusion drawn from undertaking this assessment in light of the recent CJEU ruling is that the proposals would not give rise to an adverse effect on the integrity of the relevant designated sites, when the Development Proposals are considered either alone or in combination with other plans or projects.
- 5.39 Changes to NIEA relevant specific survey requirements in February 2017 are not considered material, as the surveys employed to inform the FEI remain consistent with these methodologies. Furthermore, the results of the updated site assessment undertaken in October 2018 confirm that there has been no material change in the habitats and features present. On this basis it is considered that the specific survey and assessment work undertaken to inform the FEI (August 2016) remains valid and robust.