

12. Population/Socio-Economic Impacts

Introduction

- 12.1 Chapter 16 'Population/Socio-Economic Impacts' of the original ES (March 2014) provided an assessment of the potential socio-economic impacts arising as a consequence of the development both during construction and when the development is operational. It addressed the relationship between the economic activity that will be generated by the new development and the social impact on the local community.
- 12.2 This Chapter appended an Economic Impact Study carried out by Oxford Economics (Appendix 16.1) in addition to a Health Impact Assessment prepared by RPS (Appendix 16.2).
- 12.3 This updated Chapter revisits the assessments previously carried out to consider any changes in baseline economic and health related conditions and whether the conclusions of the previous assessments remain valid.
- 12.4 In relation to health, this Chapter also responds to two third party representations received as follows:
- No-arc21 submission in relation to erionite (letter from Community Places to NIEA Waste Management Unit dated 06 December 2016 enclosing an academic paper entitled "Re-evaluation and re-classification of erionite series materials" (Dougan U., Dougan M., 2008); and
 - Profession Vyvan Howard submission in relation to toxicity of incineration enclosing a report entitled "Cytotoxicity comparison between fine particles emitted from the combustion of municipal solid waste and biomass" (Yu Shang et al, 2018).

Economic Impact Study

- 12.5 A review of the Economic Impact Study carried out in 2014 is provided at Appendix 12.1 of this Chapter.
- 12.6 The conclusions of the original 2014 study estimated that:
- The £300m of capital investment would create or sustain 6,045 jobs, with £122.1m of associated wages and £215.1, of GVA during the construction phase.
 - Once operational, it would create or sustain 337 jobs per annum with wages of £7.7m and make £24.6m of GVA contributions.
 - Total tax revenue from the construction phase would be £48.8m while the operation phase would yield tax receipts of £3.1m per annum. In addition, unemployment savings were estimated to range from £16.3m to £32.3m over the period of construction and £0.9m to £1.8m per annum when the project becomes fully operational.

- 12.7 It was also found that the investment supported existing environment and economic policy / targets and would provide a much-needed injection of economic demand in an economy facing a challenging outlook.
- 12.8 The original study has been reviewed in light of new data, recent developments and future economic trends.
- 12.9 It has considered that based on updated approaches to quantifying local impacts, economic multipliers are likely to be lower. That said, the proposed investment still provides a significant net economic benefit to the local and regional economies.
- 12.10 It is also recognised that the current economic environment is different from that assessed previously. While employment growth has out-performed expectations, it has not been accompanied by growth in real wages. In addition, the uncertainty of Brexit has resulted in falling private sector investment across the UK. In addition, although unemployment is lower than expected, there remains a significant and growing group of working age people inactive therefore there is still capacity to absorb the proposed investment.
- 12.11 The most up-to-date data does not significantly alter the basis of the assessment or the robustness of the conclusions of the previous study. The forecasts are not materially different from those in the original assessment. It is still expected that Northern Ireland will experience subdued employment growth over the forecast period, but this is now expected to be accompanied with lower real wages and slower wage growth. Consequently, multi-million-pound investments by the private sector are just as important now (if not more so) than when the original study was undertaken.
- 12.12 The proposed development continues to be consistent with environmental and economic policy and will bring a net positive economic benefit to Northern Ireland during a time of subdued growth as per the original conclusions.

Health Impact Assessment

- 12.13 A review of the Health Impact Assessment carried out in 2014 is provided at Appendix 12.2 of this Chapter.
- 12.14 The findings of the original HIA concluded that the proposed development did not constitute a significant risk to local community health subject to the regulatory environmental standards set in place to protect health. Furthermore, the HIA demonstrated that the proposed development represents an enhancement in terms of delivering a net beneficial effect on local health as a result of the direct, indirect and induced socio-economic benefits associated with the diversion of waste from landfill.
- 12.15 It is the purpose of the HIA review to consider:
- any change in the regulatory or policy requirement for the assessment of health;

- any material change in baseline conditions, that might influence community sensitivity or the assessment parameters and outputs;
- any material change to the supporting health evidence base;
- any material change to the supporting technical inputs (i.e. air quality noise, transport) undergoing a similar review and update where appropriate;
- consideration of any additional third party representations that have been received 1) in respect of erionite and health implications, and 2) toxicity of incineration;
- any new health concerns or opportunities to consider; and
- any change in the cumulative impact assessment.

12.16 Since the original submission, the core change to the regulatory planning process has been the transposition of the EU EIA Directive that called to reinforce the consideration of health within EIA. The best practice applied within the original application was therefore five years ahead of current practice and any EU, UK regulatory and NI policy requirement. The original HIA meets the current EIA regulatory requirement in that it remains a proportionate, appropriately scoped and robust health assessment that was fully integrated within the regulatory assessment and decision making process from the outset.

12.17 The HIA applied a series of nationally collected demographic health and health care statistics to provide a platform to the assessment and to further explore individual circumstance that might establish heightened sensitivity to any particular hazard; result in a disproportionate outcome; or form a barrier to any benefit uptake.

12.18 The 2011 census data formed the core to the assessment, and remains appropriate as the latest available census available. The supporting data used to drill down into specific health determinants and triangulate a judgement on community sensitivity, has however, been updated. A review of the more recent data indicates that the original community profile remains appropriate, where site setting has not materially changed and the health trend continues to improve.

12.19 This reinforces the original baseline, where local communities are still not considered particularly sensitive to environmental health pathways. Furthermore, at the time of the original assessment, there was some concern that new communities from residential development had not been fully captured by national statistics and might be omitted from the assessment.

12.20 The approach taken to address this issue at the time was to apply the highest burden of poor health and to grossly overestimate local population number. This precautionary approach remains appropriate, and remains more than sufficient to account for any population growth since the 2014 HIA.

- 12.21 Since the original HIA, the scientific health evidence base on air, noise, transport and socio-economic impacts has continued to develop. However, it remains the case that the underlying evidence base applied remains appropriate, and has if anything, been reinforced.
- 12.22 The main change to the supporting evidence base has been the completion of the PHE commissioned research on any potential risk to infant health in proximity to modern Energy from Waste facilities. As shown below, this research has since concluded, and again reinforces PHE's position, that modern EfW's constitute a negligible impact to air quality and no measurable impact to health:
- "There was no excess risk in relation to any of the outcomes investigated during pregnancy or early life of either mean modelled MWI PM10 or proximity to an MWI.*
- Conclusions: We found no evidence that exposure to PM₁₀ from, or living near to, an MWI operating to current EU standards was associated with harm for any of the outcomes investigated."*
- 12.23 This new evidence reinforces the findings of the HIA. On the above basis, the supporting evidence base and individual assessment protocols remain appropriate, and no supplementation is required.
- 12.24 As detailed in the original HIA, the assessment drew from and built upon a number of overlapping technical disciplines, most notably air quality, noise and transport. Any material change to these assessments would therefore warrant a review, and where appropriate a health addendum.
- 12.25 The updates to the air quality, noise and transport as part of this Addendum (see Chapters 8-10) have been reviewed and as the various inputs and conclusions have not materially changed, the findings of the original HIA stand.
- 12.26 Consideration has also been given to the third party representations received in relation to the alleged presence of erionite material on-site and the toxicity of incineration.
- 12.27 A geological site survey and laboratory analysis has been conducted (Appendix 4.3) to explore if erionite is present and investigate any potential risk to occupational or human health.
- 12.28 The study concludes that erionite was not found in the areas where it would be most plausible, and in its absence there is no credible risk to occupational or public health. Notwithstanding the absence of the mineral, a further precautionary approach has been taken to further safeguard the health and wellbeing of staff and neighbouring communities alike through an enhanced Construction Environmental Management Plan (Appendix 4.4).
- 12.29 When considering how the consented development will effectively sterilise the use of the site as an active quarry and in light of the enhanced mitigation and monitoring offered in the absence of any proven hazard it can be concluded that the construction and operation of the facility does not present any material risk to public health.

- 12.30 The third party representation received from Professor Vyvan Howard encloses a 2018 paper of comparative risk between energy from waste and biomass energy facilities in China. The paper does not present any new evidence or information pertinent to this application and has no bearing on UK planning or permitting.
- 12.31 The paper compares PM_{2.5} emissions and laboratory cellular toxicity for different facilities, with different fuel characteristics and abatement technology on a different continent; designed and operating to different planning and operating requirements to a different regulatory regime that would not be allowed in the UK, and is not what is proposed in this application. Furthermore, the study does not present any new or project specific information that would question or contest the original HIA or the Human Health Risk Assessment (HHRA).
- 12.32 Following a review of current regulatory and policy requirements, in combination with a review of the supporting evidence, technical inputs, baseline data and suitability of the assessment protocols applied, the HIA remains appropriate, complies with current requirements and the findings have been reinforced through ongoing research.
- 12.33 The conclusion and recommendations of the original HIA stand and no supplementation is required.

Summary

- 12.34 The previous conclusions of the original ES remain valid insofar as the development will result in a significant net benefit to the local and regional economies. The proposed development will not constitute a significant risk to local community health subject to the regulatory environmental standards set in place to protect health.