

North London Waste Authority
**North London Heat and Power
Project**

Preliminary Environmental
Information Report
Volume 2 Appendix 8.1 Socio-
Economics Assessment
Methodology

Issue for Consultation

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Arup

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Socio-Economics Assessment Methodology

1.1 Introduction

1.1.1 This appendix sets out the methodology for assessing the likely significant effects of the Project on socio-economics.

1.1.2 This appendix is divided into the following parts:

- a. engagement – describing a summary of comments included in the Scoping Opinion and through further stakeholder engagement and how these comments have been addressed;
- b. legislation and guidance – detailing requirements of the relevant National Policy Statements (NPS), how these have been addressed and additional guidance relevant to the assessment;
- c. methodology for establishing baseline conditions; and
- d. methodology for the assessment of construction, operation decommissioning and cumulative effects.

1.2 Engagement

1.2.1 The Scoping Report recommended that socio-economics be scoped out from the assessment. At the time the Scoping Report was submitted, there was an aspiration but uncertainty on re-provision of the Edmonton Sea Cadets unit on-site. Since then, agreement has been reached between the North London Waste Authority (the Applicant) and representatives for the Edmonton Sea Cadets for temporary provision for the Edmonton Sea Cadets on-site during construction and accommodation in a permanent facility during operation, also on-site. In terms of employment it was not anticipated at the scoping stage that there would be a significant change in employment. However based on the Scoping Opinion, a precautionary approach has been taken to scope in the socio-economic assessment.

1.2.2 The Scoping Opinion issued by the Secretary of State (SoS) provided comments on socio-economics. These are set out below in Vol 2 Appendix 8.1 Table 1 together with a response on how each comment has been addressed.

Vol 2 Appendix 8.1 Table 1: Socio-economics engagement responses

No.	Organisation and date	Comment	Response
1	Secretary of State (November 2014)	<i>“Paragraph 3.2.10 of the Scoping Report refers to the relocation of a London Waste Limited vehicle depot and servicing area, however the potential for significant socioeconomic impacts (e.g. job losses) is not addressed. One of the justifications that there are unlikely to be significant effects also relies on the retention of access to the sea cadet’s facility</i>	The LWL fleet depot would be retained and remain operational on-site throughout with a permanent relocation adjacent to the Energy Recovery Facility (ERF). The impacts on the depot and depot employees are therefore likely to be negligible and have been scoped out.

No.	Organisation and date	Comment	Response
		<i>and/or the provision of alternative facilities. Without certainty on whether or how these mitigation measures will be delivered the Secretary of State cannot agree to scope potential effects from the assessment.”(para 3.11 bullet ii)</i>	The socio-economics assessment has considered effects on Edmonton Sea Cadets in construction, operation and decommissioning. The Edmonton Sea Cadets would be relocated to alternative facilities on-site during construction and the permanently relocated to modern and enhanced quality facilities at EcoPark House, also on-site.
2		<i>“The ES should describe the function of the existing vehicle depot and servicing area (to be relocated as a result of the proposals) and assess whether/how this is likely to be affected by the proposals. (para 3.47)</i>	
3.		<i>“The Secretary of State recommends that the types of jobs generated and/or lost during construction or operation should be considered in the context of the available workforce in the area.” (para 3.45)</i>	The employment supported at the Application Site currently relates to a mix of skills sets and this is expected to continue in operation. For example ERF operatives and EcoPark Administration.
4.		<i>“The assessment criteria should be locationally specific and consider the potential significance of the impacts of the proposal within the local and regional context.” (para 3.46)</i>	The socio-economic assessment has considered employment effects at the relevant local and regional level.
5.	NHS (November 2014)	<i>“Is there going to be a Section 106 to improve the facilities for the local residents, this is not a particularly wealthy area and any improvement in the community should be considered.” (Appendix 2)</i>	As part of the Project, a new facility will be provided for the Edmonton Sea Cadets. The Project is for a replacement facility within an existing site. It includes the provision of a replacement building for the Edmonton Sea Cadets who occupy a building within the site at EcoPark House. On completion EcoPark House would be occupied by Edmonton Sea Cadets and also be available for other community activities, visitor and Project information. The nature of the proposal is not anticipated to require an improvement in community facilities and therefore it is not the intention for this to be included in a Section 106 agreement.
6.		<i>“When the Project starts, will there be a policy to employ local people for the construction and for local people to be given the opportunity to work at the facility?” (Appendix 2)</i>	An assessment of likely skills and training opportunities (local labour sourcing, apprenticeships and other means of enhancing local ability to compete for employment opportunities) has been undertaken as part of the socio-economic assessment.

1.3 Legislation and guidance

1.3.1 This section sets out general national policy guidance relevant to the assessment of socio-economics. Within the sections which follow, guidance applicable to identifying the socio-economic baseline as well as guidance for the assessment is explained.

Vol 2 Appendix 8.1 Table 2: NPS EN-1 requirements

No.	Requirements of NPS EN-1	How the requirement is addressed	Location of where to find further detail
1.	Para 5.12.2 – <i>‘Where the Project is likely to have socio-economic impacts at local or regional levels, the Applicant should undertake and include in their application an assessment of these impacts as part of the ES.’</i>	A socio-economic assessment is included in the ES which considers effects at the local and regional level.	Vol 2 Section 8
2.	Para 5.12.3 of this NPS notes that the assessment should consider all relevant socio-economic impacts including those detailed below.		
3.	<i>‘the creation of jobs and training opportunities;’</i>	A socio-economic assessment has been undertaken which includes assessment of employment effects and effects on the Edmonton Sea Cadets facilities from construction, operation and decommissioning of the Project. The Edmonton Sea Cadets is the only community facility at the Application Site. The socio-economic assessment considers provision of community facilities on-site at EcoPark House. EcoPark House would include space for visitor information and raising awareness relating to waste management and the Project. No comments were received on community facilities other than the Edmonton Sea Cadets as part of the Scoping Opinion.	Vol 2 Section 8
4.	<i>‘the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;’</i>		
5.	Cumulative effects – <i>‘if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to</i>	The socio-economic assessment considers cumulative effects in relation to employment including the implications for the construction industry and demand for labour. Given the relatively low magnitude of construction employment required (in the regional context, and the low	Vol 2 Section 8.12 (cumulative effects) Vol 2 Section 9 (Transport) Vol 2 Section 10 (Water) Interim Health Impact Assessment, Section 5.6.

No.	Requirements of NPS EN-1	How the requirement is addressed	Location of where to find further detail
	<i>meet the needs of other industries and major projects within the region.'</i>	proportion of construction activity that the Project represents), in the context of the regional construction workforce, the Project is not expected to result in adverse effects.	
6.	<i>'the impacts of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development;'</i>	Further, the Application Ssite is located in London where the existing magnitude of employment means that changes to employment associated with the Project would be unlikely to materially alter population dynamics. Effects associated with the changing influx of workers have therefore not been considered as part of the socio-economics assessment. The socio-economic assessment includes effects on community facilities on-site i.e. Edmonton Sea Cadets. No comments were received on impacts of a changing influx of workers as part of scoping comments. The ES includes an assessment of transport, water and waste effects from the construction, operation and decommissioning of the Project. The Health Impact Assessment (AD05.08) considers impacts associated with social cohesion.	
7.	<i>Para 5.12.4 – 'Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio economic impacts correlate with local planning polices.'</i>	The socio-economic assessment includes baseline assessment of socio-economic characteristics at the neighbourhood, local and regional levels which has informed the identification of receptors for the assessment. The assessment has also considered the connection of socio-economic impacts with relevant local planning policies.	Vol 2 Section 8.5
8.	<i>Para 5.12.8 – 'The IPC should consider any relevant positive provisions the developer has made or is proposing to make to mitigate</i>	The socio-economic assessment takes account of likely significant beneficial and adverse effects during the phases of the Project. No significant adverse effects	Vol 2 Section 8.7 Vol 2 Section 8.8

No.	Requirements of NPS EN-1	How the requirement is addressed	Location of where to find further detail
	<i>impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts.'</i>	have been identified as part of the socio-economics assessment.	
9.	Para 5.12.9 – <i>'The IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example high quality design can improve the visual and environmental experience for visitors and the local community alike.'</i>		
10.	<i>'effects on tourism;'</i>	Edmonton EcoPark does not have any existing tourism facilities. The Project would include space for community activities as part of EcoPark House, for example visitor and project information. Effects relating to Edmonton Sea Cadets facilities have been assessed as part of the socio-economics assessment. Since potential for effects on tourism is limited, tourism has not been considered as part of the socio-economics assessment. No comments were received on effects on tourism as part of scoping comments.	N/A
11.	Para 5.12.14 – <i>'Socio-economic impacts may be linked to other impacts, for example the visual impact of a development which may also have an impact on tourism and local businesses.'</i>	Vol 1 Section 11 of the ES addresses interactive effects on receptors across different aspects of the environment.	Vol 2 Section 9 (Transport) Vol 3 Visual

1.4 Baseline conditions

Current baseline

- 1.4.1 An assessment of baseline conditions has identified the key socio-economic characteristics of the area. These characteristics have informed the assumptions for the quantitative assessment of socio-economic effects (see paragraphs 1.5.18 to 1.5.21 and paragraphs 1.6.8 to 1.6.11) as well as the identification and sensitivity of receptors (see paragraph 1.4.4). Baseline data gathering comprised a desk-based study based on publicly available data using the most recent sources available. The key data sources for the assessment were:
- e. Census (2011) data;
 - f. Department of Communities and Local Government Index of Multiple Deprivation (2010);
 - g. Business Register and Employment Survey data; and
 - h. publically available documents¹.
- 1.4.2 The baseline assessment has included the following socio-economic information to understand the relevance of employment and Edmonton Sea Cadets in the context of the local workforce and local users:
- a. population – indicates the proportion of people living and working in the area, the working age population and potential ‘people’ receptors;
 - b. employment – highlights the likely levels of people seeking employment opportunities, their skills and industry of work;
 - c. deprivation – provides an indication of people’s ability to access employment opportunities; and
 - d. community facilities – provides information on the presence and use of Edmonton Sea Cadets.
- 1.4.3 In order to understand the socio-economic characteristics of the area, the baseline comprised comparative analysis of this data for three spatial scales:
- a. neighbourhood - LSOAs within and adjacent to the Application Site boundary as shown in Vol 2 Appendix 8.1. The neighbourhood area boundary is consistent with that assessed for the Health Impact Assessment (HIA) (AD05.08).
 - b. local – London Borough of (‘LB’) Enfield, LB Waltham Forest and LB Haringey; and
 - c. regional – London.

¹ National Policy Institute (2011) Edmonton’s socio economic profile: meeting the challenge: A Report for the London Borough of Enfield, October 2011.

Receptor identification and sensitivity

- 1.4.4 The assessment of baseline conditions has identified the key socio-economic characteristics of the area. These have informed the identification of the receptors to be taken into account in the socio-economic assessment. Receptors for the socio-economic assessment are 'people' (the catchment population and employees) 'employment opportunities' (the level of employment and access to that employment) and on-site community facilities (i.e. the Edmonton Sea Cadets facilities). The sensitivity of receptors has been determined according to their importance, size and potential for substitution. The assessment has considered the socio-economic characteristics and the ability of a receptor to continue to function effectively. For example, the sensitivity of employment opportunities would be determined based on the type of opportunity in the context of the workforce, the demand and supply of employment in the area and the potential for other similar opportunities elsewhere.

Future baseline

- 1.4.5 Assumptions on future baseline conditions have been undertaken based on relevant identified developments in relation to employment and community facilities as set out in Vol 1 Appendix 5.2 (cumulative development schedule).

1.5 Construction

Assessment of Project phases

Employment

- 1.5.1 Since the capital expenditure which forms the basis of the quantitative assessment accounts for the total cost of constructing the Project, the assessment of employment effects from construction has considered Phases 1, 2, and 3 of the Project as a whole.

Edmonton Sea Cadets

- 1.5.2 The assessment of effects on the Edmonton Sea Cadets has considered any potential disruption to Edmonton Sea Cadets functions and facilities for Phases 1, 2, and 3 of the Project as a whole.

Assessment area

Employment

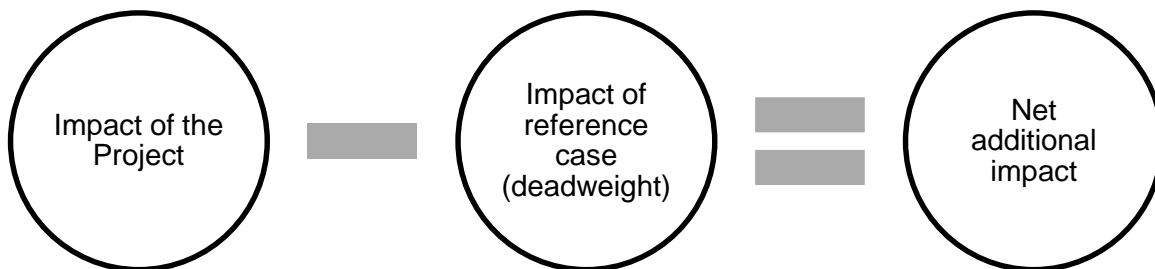
- 1.5.3 To reflect likely labour sourcing from within the UK and accounting for the need for some specialist construction, an assessment of employment effects has been undertaken for the Greater South East area, that is the London, South East and East of England regions, and for the UK.

Edmonton Sea Cadets

- 1.5.4 Since the Edmonton Sea Cadets would be temporarily relocated on-site (and then permanently relocated on-site), the assessment area is contained within the Application Site boundary.

Assessment method

- 1.5.5 The assessment has been desk-based and combines quantitative and qualitative assessment techniques. The approach is based on a widely accepted methodology used in socio-economic assessments including the estimation of effects on a 'with development' and 'without development' basis to identify the 'net additional' impact. The net additional impact is the impact of the Project less the outputs that would have occurred without the Project (the 'reference case' or 'deadweight')² (see Vol 2 Appendix 8.1 Plate 1).



Vol 2 Appendix 8.1 Plate 1: Approach to socio-economics assessment methodology

- 1.5.6 Since the assessment is concerned with net additional impact, the Project has been assessed on a 'before' and 'after' basis.
- 1.5.7 Guidance for assessing additionality has been taken from three sources:
- The Green Book³ – guidance on appraisal and evaluation;
 - Single Programme Appraisal Guidance⁴ – sets a framework for the development, appraisal, delivery and evaluation of programmes; and
 - Additionality Guide² – outlines the process of calculating additionality and offers guidance on estimating several additionality parameters.

Employment

- 1.5.8 The quantitative assessment comprised a calculation of Full Time Equivalent (FTE) employment based on the capital expenditure of the Project. Construction employment calculations are set out in Vol 2 Appendix 8.2.
- 1.5.9 The calculations for estimating the number of FTE construction jobs is based on the capital expenditure of the Project and a measure of the contribution to the economy, known as gross value added (GVA), per construction job.

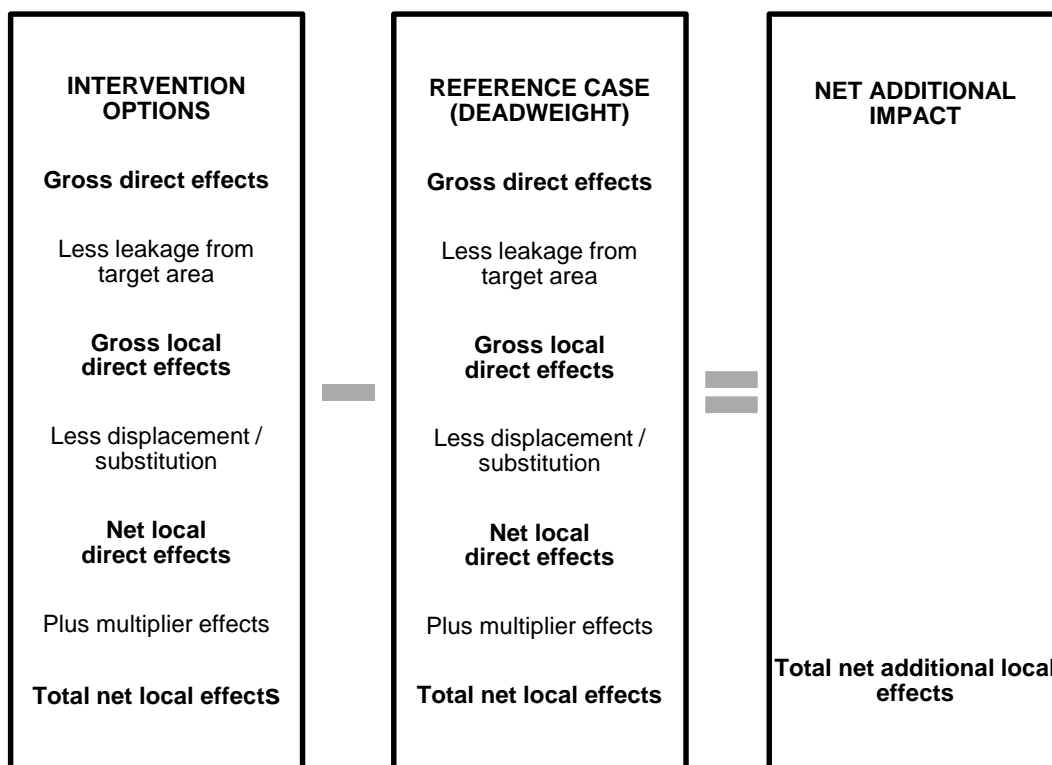
² Homes and Communities Agency (2014) Additionality Guide Fourth Edition, January 2014.

³ HM Treasury (2011) The Green Book: Appraisal and Evaluation in Central Government, July 2011.

⁴ Department for Trade and Industry (2003) Single Programme Appraisal Guidance, 2003.

- 1.5.10 At this stage, the estimated capital expenditure for the construction of the proposed ERF alone is £450-500 million. For the purposes of this assessment, a mid-point value of £475 million has been used to estimate construction employment. Because this figure does not include the capital expenditure for other elements of the Project, this is considered to be a conservative assessment.
- 1.5.11 GVA per construction job has been calculated by dividing the GVA for the construction sector in the Greater South East area (for 2011, as this was the most recently available data) by the total employment in the construction sector in the area (2011). This information has been gathered from ONS.
- 1.5.12 For this assessment the direct employment impacts have been estimated on the basis of a GVA per employee in the construction sector of £48,904. In order to account for a construction workforce that is likely to be sourced from the Greater South East area, a weighted average of these three regions has been taken. GVA per employee is therefore a weighted average based on the Greater South East area construction GVA of £36,984,000,000 (workplace based, at current basic prices) and corresponding 2011 Greater South East area construction employment of 756,250 (based on an annual average of the four quarterly totals for each of the regions).
- 1.5.13 Converting to FTE jobs enables consistent assessment of construction employment and accounts for the likely impacts across construction phases. The estimation of FTE jobs therefore applies to construction as a whole and does not account for differences in peak numbers on-site at a particular time in the construction. An estimation of average direct employment on-site during construction has also been undertaken. This is based on the construction job years and the expected construction period set out in Vol 1 Section 3.5.
- 1.5.14 To determine the genuinely additional outputs offered by the Project in line with the approach set out in this section, the following factors have been considered in the assessment:
- a. leakage – the proportion of outputs which benefit those outside the Project’s assessment areas;
 - b. deadweight – the outputs which would have occurred without the Project; and
 - c. displacement/substitution – the proportion of the Project’s outputs accounted for by reduced outputs elsewhere in the assessment areas.
- 1.5.15 This approach closely follows the framework for evaluation recommended by the Additionality Guide⁵ set out in Vol 2 Appendix 8.1 Plate 2.

⁵ Homes and Communities Agency (2014) Additionality Guide Fourth Edition, January 2014

Vol 2 Appendix 8.1 Plate 2: Recommended framework for socio-economic assessment⁵

- 1.5.16 Construction employment effects take into account:
- a. direct impacts – the jobs directly created or supported;
 - b. indirect impacts – the employment effects that arise from a business's expenditure with its suppliers; and
 - c. induced impacts – those effects arising from expenditure associated with the direct and indirect impacts (namely, expenditure from direct and indirect employees, principally from salary receipts).
- 1.5.17 Employment multipliers for indirect and induced elements have been used to capture 'knock on' impacts in the local economy such as additional local income, local supplier purchases and longer term development effects. These are based on knowledge of construction activities and 'ready reckoners' taken from guidance⁶ which provide an evidence-based assumption for each adjustment.
- 1.5.18 Since construction of the facility would be specialised and some materials and labour for construction are likely to be sourced outside of the Greater South East area, 50 per cent of construction employment effects have been assumed to leak to parts of the UK outside the Greater South East area. Materials and labour are expected to be sourced within the UK so leakage is assumed to be 0 per cent at the national level.

⁶ Barton, H., Grant, M. and Guise, R. (2010) Shaping neighbourhoods for local health and global sustainability (2nd ed.). Routledge.

- 1.5.19 It is assumed that without the Project there would not be any other construction activity on the site. As such deadweight is not applicable (assumed to be 0 per cent) for both the Greater South East level and the UK level.
- 1.5.20 In terms of construction industry and demands for labour, when a project does not proceed in a given time period because construction staff are engaged elsewhere, the Project would not typically source labour from a different area. Construction employment effects are therefore not expected to be displaced from outside the target areas and displacement is assumed to be 0 per cent for both the Greater South East level and the UK level.
- 1.5.21 A composite multiplier for construction of 2.7 has been used to assess multiplier effects at the Greater South East level as well as the UK level as per the Additionality Guide⁵. This means that for every new job created directly within the construction industry, the net effect would be a total of 2.7 jobs comprising 1 direct construction job and 1.7 indirect and induced jobs in other economic sectors.
- 1.5.22 A qualitative assessment of opportunities for providing skills and training opportunities (local labour sourcing, apprenticeships and other means of enhancing local ability to compete for employment opportunities) has been undertaken based on the measures in the Interim Code of Construction Practice (CoCP).
- Edmonton Sea Cadets***
- 1.5.23 A qualitative assessment of the effects on the Edmonton Sea Cadets has been undertaken based on changes associated with those facilities such as any potential disruption to Edmonton Sea Cadets functions and proposed alternative facilities, measures in the Interim CoCP and baseline socio-economic conditions.

Significance criteria

- 1.5.24 The approach to the assessment of significance of effects of the Project on socio-economics has been consistent across construction, operation and decommissioning. There are no established guidelines for assessing the significance of socio-economic effects. The assessment has therefore been based on professional judgement and experience and has considered the value and sensitivity of receptors from the baseline socio-economic characteristics, based on their importance, size and potential for substitution, as well as the magnitude of the net additional impact based on qualitative and quantitative (where applicable) evidence. Effects are expressed as significant (beneficial or adverse) or not significant. The assessment of significance accounts for the ability of receptors to continue to function effectively. Receptors for the socio-economic assessment are 'people' (the catchment population and employees) 'employment opportunities' (the level of employment and access to that employment) and on-site community facilities (i.e. the Edmonton Sea Cadets facilities).

1.6 Operation

Assessment of Project phases

Employment

- 1.6.1 The assessment of employment effects from operation has been based on the total estimated operational employment at the Application Site. The assessment of employment effects from operation has therefore considered Phases 1, 2, 3 and 4 of the Project as a whole.

Edmonton Sea Cadets

- 1.6.2 The assessment of effects on the Edmonton Sea Cadets from operation has considered changes associated with function and facilities for Phases 1, 2, 3 and 4 of the Project as a whole.

Assessment area

Employment

- 1.6.3 To reflect likely labour sourcing, the assessment of employment effects from operation has been undertaken for the local area, that is LB Enfield, LB Waltham Forest and LB Haringey, and for the UK.

Edmonton Sea Cadets

- 1.6.4 The assessment of effects on the Edmonton Sea Cadets from operation has considered effects within the Application Site boundary.

Assessment method

Employment

- 1.6.5 A quantitative assessment of employment from operation of the Project has been undertaken based on professional judgement and estimated FTE employment at the Application Site.
- 1.6.6 The existing employment supported at the Application Site is a total of 193 FTEs, of which the estimated FTE employment directly supported by the EfW is approximately 96. The estimated FTE employment supported at the Application Site would be a total of approximately 153 of which around 49 would be directly supported by the ERF. This assessment assumes a transition where one facility comes online in proportion to the other declining i.e. there would be no net direct employment demand associated with both facilities in the transition period. This is considered to be a conservative estimate of employment in operation.
- 1.6.7 The LWL fleet depot would be retained and remain operational on-site throughout with a permanent relocation adjacent to the Energy Recovery Facility (ERF). Incinerator Bottom Ash operations would be relocated off-site and it has been assumed that there would be limited associated displacement of employment related to Incinerator Bottom Ash operations at the local level. The in-vessel composting (IVC) facility would also be relocated off-site, however the associated FTEs are expected to be reallocated to other on-site activities under LWL operations. These

assumptions have been accounted for in the assessment of employment effects from construction.

- 1.6.8 The employment supported at the Application Site currently relates to a mix of skills sets and this is expected to continue in operation. For example ERF operatives and EcoPark administrative staff. Leakage has been assumed to match the existing employment pattern and therefore no additional adjustment has been made.
- 1.6.9 The existing and proposed facilities to be located on-site and off-site are set out in Vol 2 Section 8 Table 8.1. Deadweight has therefore been considered in aggregate on a before and after basis.
- 1.6.10 Displacement has been assessed as part of the calculation of net additional direct employment, where the calculation takes into account local and UK employment changes (see Vol 2 Section 8 Table 8.1).
- 1.6.11 A composite multiplier for operation of B2/B8 uses of 1.29 has been used to assess multiplier effects at the local level and 1.44 has been used at the UK level as per the Additionality Guide⁵.
- 1.6.12 A qualitative assessment of opportunities for providing skills and training opportunities (local labour sourcing, apprenticeships and other means of enhancing local ability to compete for employment opportunities) has been undertaken based on available project information and baseline socio-economic conditions.

Edmonton Sea Cadets

- 1.6.13 A qualitative assessment of effects on Edmonton Sea Cadets from operation has been undertaken based on the provision and quality of facilities and baseline socio-economic conditions. The Edmonton Sea Cadets facilities are mainly run by volunteers and there is no direct employment associated with the Edmonton Sea Cadets facilities at the Application Site.

Significance criteria

- 1.6.14 The approach to significance criteria is set out in paragraph 1.5.24.

Employment

- 1.6.15 The assessment of significance has considered the level and type of employment, the ability of the local workforce to access opportunities and baseline socio-economic conditions.

Edmonton Sea Cadets

- 1.6.16 The assessment of significance has been informed by baseline conditions relating to the function and quality of facilities for Edmonton Sea Cadets and has considered any likely disruption to operations.

1.7 Decommissioning effects

- 1.7.1 A qualitative assessment based on professional judgement has been undertaken for decommissioning for the ERF and EcoPark House (which would contain Edmonton Sea Cadets facilities), professional judgement and baseline socio-economic conditions.

1.8 Cumulative effects

- 1.8.1 A qualitative assessment of cumulative effects has been undertaken based on the nature and scale of identified developments and known construction timescales.