



Waste Need Assessment

Review of Waste Plan Documents

Peel NRE Ltd

Prepared by:

SLR Consulting Limited

SLR Project No.: 402.065702.00001

15 August 2025

Basis of Report

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1.0 Introduction

Peel NRE Ltd has commissioned SLR to review projections for waste infrastructure needs within Cheshire West and Chester, and explore implications for future use opportunities for the Protos development.

SLR's assessment focusses on review of documents relevant to the Cheshire West and Chester (CWaC) waste Local Plan, provided by Peel – please refer to Table 1 for details.

In high level terms future requirements for waste management infrastructure are ultimately function of the following factors:

- Quantities and types of waste generated (being influenced by the structure of the UK economy and consumer behaviour)
- The methods by which these wastes are managed (a function of societal priorities including but not limited to optimising resource use, energy recovery, and minimisation of fossil CO₂ emissions).

SLR's review of specified documents considers implications in these areas, assessing possible changes in demand for waste processing capacity in coming years. For each of the two documents, SLR findings are elaborated via a tabular commentary:

- The Cheshire West & Chester Need Assessment 2023 (the 'WNA') is considered in Table 2
- The Local Plan Issues and Options report is considered in Table 3

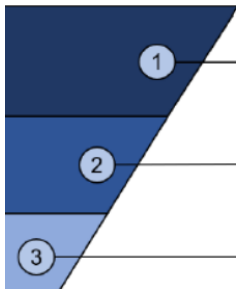
Table 1: Reviewed Documents

Title	Author	Date	Filename
Cheshire West & Chester Waste Need Assessment 2023	BPP Consulting	28 th December 2023	Cheshire West & Chester Waste Needs Assessment 2023.pdf
Local Plan Issues and Options	Cheshire West & Chester Council	June 2025	LP Issues and Options June 2025 (1).pdf



2.0 Review of the Cheshire West & Chester Waste Need Assessment

Table 2: Commentary on the Cheshire West & Chester Waste Need Assessment 2023

Document reference	Excerpt	SLR Comments
Executive summary, page vii, first bullet point	<i>'There appears to be sufficient existing consented capacity to meet the projected management requirements for; recycling/ composting; 'Other Recovery' of residual non-hazardous Local Authority Collected Waste (LACW) & Commercial and Industrial (C&I) waste, and for inert waste via recovery throughout the Plan period'</i>	Prepared by BPP Consultants, WNA is the principal evidence base for waste management considerations within the CWaC Local Plan, and as such its findings on capacity need are pivotal to assessment of future waste infrastructure needs. Critically, the WNA concludes that existing consented capacity is already 'sufficient' to meet future waste management needs for recycling, composting and recovery within CWaC throughout the plan period. In light of this finding, a possible risk is overprovision of waste infrastructure which may be developed to the detriment of other economically beneficial activities such as energy transition and/or decarbonisation.
Executive summary, page vii, final para.	<i>'It should, be noted that given there is a policy expectation for waste to be driven up the waste hierarchy and a need to intensify recycling to reach the Government's expectations regarding residual waste reduction by 2042, proposals for capacity to move waste to tier three and above of the hierarchy (i.e. recycling), should not be constrained by the findings of this WNA'</i>	In this context, it is important to note that infrastructure requirements for waste management vary by tier: <ul style="list-style-type: none"> • Tier 1: Prevention — The aim of waste prevention (or minimisation) is to reduce quantities of waste materials generated. Successful activities under Tier 1 will therefore ultimately diminish required capacity need for waste management, and associated land take.
Section 3.1, page 5, figure 2	Defined within the WNA, in of the waste hierarchy are as follows:  <div style="display: flex; flex-direction: column; gap: 10px;"> <div data-bbox="707 1098 1184 1166"> <p>Prevention – Using less material in design and manufacture. Keeping products for longer; reuse. Using less hazardous materials.</p> </div> <div data-bbox="707 1209 1184 1262"> <p>Preparing for Reuse – Checking, cleaning, repairing, refurbishing, whole items or spare parts.</p> </div> <div data-bbox="707 1294 1184 1359"> <p>Recycling – Turning waste into a new substance or product. Includes anaerobic digestion and composting.</p> </div> </div>	<ul style="list-style-type: none"> • Tier 2: Preparing for Reuse — While recycling and recovery are typically high throughput industrial activities, where typically reuse simply involves storage and redistribution, with repair / reconditioning required in some instances. This being the case, reuse activities can often be situated in commercial areas or retail frontages, and indeed this can be advantageous in allowing convenient drop-off and resale. As such, and as per waste prevention, in many cases reuse may reduce



Document reference	Excerpt	SLR Comments
		<p>requirements for traditional waste management infrastructure.</p> <ul style="list-style-type: none"> Tier 3: Recycling — By definition, recycling involves separate processing of material which would otherwise have been disposed in the residual waste stream. As such, any achieved increase in recycling involves a concomitant reduction in residual waste volumes reducing infrastructure requirements for residual waste. As such, when considered in net terms at a macro level, recycling increases can potentially be achieved without a net increase in land take. <p>In practice therefore, tiers 1 and 2 may entail a reduction in waste management land take need, while tier 3 may be enhanced without a net land take increase. While BPP states that capacity for tiers 1, 2, and 3 <i>'should not be constrained by the findings of this WNA'</i>, it is possible that in practice no further capacity may be required, avoiding the need for additional land take.</p>
<p>Section 4.2, page 16, para. 3</p>	<p><i>'It should however be noted that to recycle a tonne of waste does not necessarily require provision of waste management capacity capable of processing a tonne of waste. Much depends on how the waste is presented for collection, plus the proximity to reprocessing sites. So, for example if waste is segregated effectively at source, the resulting materials may be delivered directly to a reprocessing site and not require provision of additional sorting capacity.'</i></p>	<p>This BPP further reinforces the understanding that increases in recycling may be achieved without a corresponding net increase in waste management capacity requiring additional land take.</p>
<p>Section 4.2, page 16, Table 13</p>	<p>Comparison of recycling / composting tonnage processing requirement against capacity:</p>	<p>BPP has concluded that recycling / composting capacity within CWaC is substantially in excess of future requirements. For example, in 2035 a requirement of 485 thousand tonnes per annum (ktpa) is forecasted, compared to 1,221 ktpa of existing capacity. Current CWaC capacity is therefore understood to be more than double the future requirement, with an overcapacity of circa 736 ktpa.</p>



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	<table border="1"> <thead> <tr> <th></th> <th colspan="5">Tonnes at Plan Milestone</th> </tr> <tr> <th></th> <th>2025</th> <th>2030</th> <th>2035</th> <th>2040</th> <th>2045</th> </tr> </thead> <tbody> <tr> <td>Recycling /Composting Requirement</td> <td>448,996</td> <td>476,050</td> <td>485,014</td> <td>485,152</td> <td>485,293</td> </tr> <tr> <td>Plan Area Capacity</td> <td>1,221,269</td> <td>1,221,269</td> <td>1,221,269</td> <td>1,221,269</td> <td>1,221,269</td> </tr> <tr> <td>Shortfall</td> <td>+772,273</td> <td>+745,219</td> <td>+736,255</td> <td>+736,117</td> <td>+735,976</td> </tr> </tbody> </table>		Tonnes at Plan Milestone						2025	2030	2035	2040	2045	Recycling /Composting Requirement	448,996	476,050	485,014	485,152	485,293	Plan Area Capacity	1,221,269	1,221,269	1,221,269	1,221,269	1,221,269	Shortfall	+772,273	+745,219	+736,255	+736,117	+735,976	
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Section 4.3, page 17, Table 14	<i>'Table 14 shows that there is predicted c938,500 tonne surplus of 'other recovery' capacity in 2025 rising to c973,500 tonnes in 2035 to the end of the Plan period.'</i>	Similarly, BPP modelling suggests an excess of existing 'Other Recovery' (a term used by BPP to refer to energy from waste) relative to future requirements.																														
Section 4.3, page 18, para. 1 and Table 15	<i>'Table 15 shows that from 2037 there is a predicted shortfall in non-inert waste landfill capacity.'</i>	<p>Here it important to emphasise that the following:</p> <ul style="list-style-type: none"> • Forecasted annual non-inert landfill need is relatively small, at circa 14.5 ktpa • Projections assume that Kinderton Lodge Landfill closes in 2036 with circa one million tonnes of capacity still remaining – in practice this site may seek to secure an extension to this closure data • In the event that Kinderton Lodge Landfill closes, non-inert wastes disposed at the site would likely be diverted to energy from waste facilities (this point is subsequently highlighted by BPP in section 5, page 21). 																														
Section 4.4, page 19, final paragraph and Table 16	<i>'Table 16 shows that there is predicted c43,000 tonnes of surplus inert waste capacity at the start of the Plan period reducing to c8,500 tonnes in 2045.'</i>	BPP therefore concludes that capacity for management of inert waste is in excess of the requirement for management of waste generated within CWaC.																														
Section 4.5, page 20, para. 1	BPP states that <i>'combined capacity offered by facilities within CWaC dedicated to managing hazardous waste equates to at least c152,000 tpa, which is a more than the c43,000 tonnes hazardous waste that arose in CWaC in 2021'</i>	Mirroring results for other waste streams, BPP analysis therefore indicates that capacity for management of hazardous waste in CWaC is in excess of projected quantities generated.																														
Section 5, page 21 para. 2 and 3	<i>'Table 17 shows that there is sufficient capacity throughout the Plan period to meet the projected management requirements for:</i>	Summarising the findings of its assessment, BPP confirms that waste management capacity within CWaC is substantially in																														



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	<ul style="list-style-type: none"> • <i>recycling and composting; and</i> • <i>'Other Recovery'; and</i> • <i>the recovery of inert waste</i> <p><i>While there is a predicted shortfall in non-inert landfill from 2037, this forecast shortfall will be more than offset by the substantial surplus in 'Other Recovery' capacity offered by the two EfW plants currently under construction.'</i></p>	<p>excess of forecasted future waste quantities requiring management. The impact of this potential overprovision of explicitly waste infrastructure in the plan may be detrimental to the development and provision of other economically beneficial activities such as energy transition and/or decarbonisation.</p>																																		
Section 7, page 25, para. 2	<p><i>'The combined consideration of the reports above has found that the existing consented capacity within CWaC is sufficient to meet the predicted management requirements for waste requiring recycling and composting, other recovery and inert recovery predicted to arise in CWaC for the whole Plan period'</i></p>	<p>Here it is important to emphasise that BPP analysis indicates that further to being '<i>sufficient</i>', consented waste management capacity in CWaC is substantially in excess of the local requirement.</p>																																		
Appendix 2 (LACW forecasts), section 5.4, page 51	<p>From a baseline of 179 ktpa in 2021/22, generation of local authority collected waste (LACW) in CWaC is projected to reduce to 173 ktpa by 2045/46.</p>	<p>Reflecting the projected balance between the effects of underlying population growth, and waste prevention efforts, BPP projections indicate a reduction in total LACW generation over time. On this basis it is understood that capacity requirements for management of LACW are likely to reduce marginally over time.</p>																																		
Appendix 2 (LACW forecasts), section 7, page 23	<p>Table 25: Proposed Targets for LACW Management in CWaC <i>Italicised entries are actual values</i></p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="6">Milestone Year</th> </tr> <tr> <th>2021</th> <th>2025</th> <th>2030</th> <th>2035</th> <th>2040</th> <th>2045</th> </tr> </thead> <tbody> <tr> <td>Recycling/composting (floor)</td> <td>59%</td> <td>≥65%</td> <td>≥70%</td> <td>≥75%</td> <td>≥75%</td> <td>≥75%</td> </tr> <tr> <td>Other Recovery inc EfW</td> <td>41%</td> <td>34%</td> <td>29%</td> <td>24%</td> <td>24%</td> <td>24%</td> </tr> <tr> <td>Landfill (ceiling)</td> <td>0%</td> <td>≤1%</td> <td>≤1%</td> <td>≤1%</td> <td>≤1%</td> <td>≤1%</td> </tr> </tbody> </table>		Milestone Year						2021	2025	2030	2035	2040	2045	Recycling/composting (floor)	59%	≥65%	≥70%	≥75%	≥75%	≥75%	Other Recovery inc EfW	41%	34%	29%	24%	24%	24%	Landfill (ceiling)	0%	≤1%	≤1%	≤1%	≤1%	≤1%	<p>In of 2023/24, CWaC reported 61% recycling of LACW, ranking as one of the highest recycling councils nationally¹. This performance has been achieved by concerted efforts by the Council to optimise recycling services and promote their use by the public. Notably CWaC achieved 61% recycling nine years previously in 2014/15, suggesting that a ceiling may have been reached. Given this context (and noting that no known examples exist of councils achieving recycling rates in excess of 75%), the projected recycling '<i>floor</i>' in excess of 75% may be overambitious. This being the case, projections carry the risk of overstating the future capacity requirement for recycling of LACW.</p>
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Recycling/composting (floor)	59%	≥65%	≥70%	≥75%	≥75%	≥75%																														
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Landfill (ceiling)	0%	≤1%	≤1%	≤1%	≤1%	≤1%																														

¹ <https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results>



Document reference	Excerpt	SLR Comments
Appendix 3 (C&I waste forecasts), section 6.1, page 89, Table 46	From 359 ktpa in 2021 at the beginning of the forecasting period, C&I waste generation is projected to remain largely static, increasing by 1% to 363 ktpa in 2045.	Noting that the minimal projected increase in commercial and industrial (C&I) waste generation over the forecast period, it appears likely that no further capacity will be required.
Appendix 4 (C&D waste forecasts), section 4.1, page 114, final paragraph	<i>'Table 15 shows that applying the growth factor of 0.1% per annum to the 2021 baseline value, C, D & E waste arisings are expected to rise by c13,000 tonnes to c557,000 tonnes by the end of the Plan period'</i>	While projections for LACW and C&I waste assume that increases in waste generation can be mitigated by waste prevention efforts, no such assumption is applied for the case of construction, demolition and excavation (CD&E) waste. Modest waste prevention measures may be adequate to offset increases in waste generation attributed to rising construction employment – in this event no increase in capacity will be required to process CD&E waste in future.
Appendix 4 (C&D waste forecasts), section 4.2, page 115, final para.	<i>'Two planned major infrastructure projects anticipated to generate significant quantities of C, D & E waste during the Plan period, some of which may arise from CWaC are the HyNet project anticipated to start 2024 and HS2 project anticipated to start 2025/26. However, it has recently been announced by the Government that the construction of the section of HS2 that is most likely to impact CWaC, Phase 2b (Birmingham to Crewe and Crew to Manchester) will be delayed for at least two years.'</i>	Wastes generated by identified major construction projects will be transitory, and do not therefore require long-term capacity provision.
Appendix 4 (C&D waste forecasts), section 4.2, page 115, final para.	<i>'The CWaC C, D & E waste management profile arrived at for 2021 in Table 18 indicates that a overall recovery rate of 91% is already being achieved for CWaC's C, D & E waste. This suggests that an overall recovery target of at least 85% should be achievable through the Plan period.'</i>	Notably, targets allow for a possible reduction in CD&E waste recovery over time (implying a reduction in the future capacity requirement), albeit in practice existing performance may be maintained.
Appendix 5: (hazardous waste forecasts), page 146, para. 4.8	<i>'Table 9 shows that the quantity of hazardous waste is expected to fall over time, to end up at a tonnage of c21,500 tonnes in 2045 i.e. nearly halved'</i>	Given the projected decline in hazardous waste, and the consequent expected reduction in infrastructure requirements, it may be inferred that some hazardous waste management sites may be repurposed for management of other waste streams.
Appendix 5: (hazardous waste	<i>'The reconciliation process has indicated that c43,000 tonnes of hazardous waste was produced in Cheshire West and Chester in</i>	Findings of the need assessment for hazardous waste therefore indicate substantial overprovisioning of capacity relative to requirements for waste generated in CWaC.



Document reference	Excerpt	SLR Comments
forecasts), page 146, para. 4.8	<p>2021. <i>This is predicted to fall to c28,000 tonnes by the end of the Plan period.</i></p> <p><i>'The capacity assessment indicates that the combined site capacity is at least 150,000 tpa'</i></p>	
Appendix 6: Scoping of 'Other' Waste Stream, section 5, page 176	<p>With respect to other waste streams, key conclusions are as follows:</p> <ul style="list-style-type: none"> • Wastewater — <i>'Wastewater and the associated sludge appear to be catered for adequately through arrangements made by United Utilities and Welsh Water'</i> • Agricultural waste — <i>'CWaC is not considered to generate sufficient quantities of waste that would warrant specific separate provision'</i> • Radioactive waste — <i>'This strongly suggests that any specialist capacity need has already been met and therefore the current policy in the Local Plan on the matter remains sound'</i> 	<p>Across other waste streams considered including wastewater, agricultural wastes, and radioactive waste, BPP concludes that capacity is adequate.</p>
Appendix 7: Cross Boundary Waste Movements & Duty to Cooperate, section 3, page 186, para. 2	<p><i>'So, taking this snapshot as a simple balance, CWaC achieved net-self-sufficiency in 2021.'</i></p>	<p>The finding that CWaC is net self-sufficient in managing generated waste (allowing for the balance between imports and exports) further reinforces the understanding that adequate waste management capacity is already in place in CWaC.</p> <p>Moreover, this conclusion is drawn from analysis of waste management site throughputs in 2021. Allowing for additional capacity which is consented but not currently used, it may be inferred that waste capacity within CWaC is in excess of requirements.</p>



3.0 Review of the Local Plan Issues and Options Consultation

Table 3: Commentary on the Local Plan Issues and Options, June 2025

Document reference	Excerpt	SLR Comments
Section 29 (managing waste), page 238, key issues, para. 29.4, 2 nd bullet	In outlining key issues in the context of waste management, this consultation document makes the following statement: <i>'It is likely that there will be increased movement towards zero avoidable waste and a circular economy, with more emphasis on minimising resource use and waste, and, increased re-use and recycling.'</i>	The expected emphasis on waste minimisation may be expected to lead to a reduction in waste capacity requirements. The reference to circular economy also recognises a fundamental shift in this sector as businesses and communities strive for more efficient resource use and the nation decarbonises.
Section 29 (managing waste), page 238, para. 29.4, 3 rd bullet	<i>'CWaC has sufficient capacity throughout the Plan period to meet the projected management requirements for: recycling and composting; other recovery; and the recovery of inert waste'</i>	Reflecting the conclusion of the WNA undertaken by BPP, this observation reinforces the understanding that further expansion of conventional waste management capacity within CWaC may be unnecessary.
Section 29 (managing waste), page 239	Reference is made to policy DM 54 – Waste management facilities ² , which includes the requirement that <i>'proposals for new large scale waste management facilities must be located on the safeguarded sites of Ince Park (Protos), Lostock Works or Kinderton Lodge'</i>	Review of the latest available Local Plan evidence base strongly suggests that in practice, no further major waste management capacity will be necessary within CWaC (and indeed a surplus of waste management capacity exists for key waste streams).
Section 29 (managing waste), page 238, para. 29.7	<i>'The Waste Needs Assessment (2023) identifies that there is sufficient waste management capacity in existing sites and sites with planning permission to meet the projected management requirements up to 2045. As such, we are not proposing any further waste allocations, but existing sites and sites with planning permission will need to be safeguarded'</i>	Here it is important to note that for a number of waste streams, the WNA has in fact concluded that capacity is substantially in excess of projected requirements. For example, as highlighted above the WNA estimates recycling capacity at 1,221 ktpa, compared to a projected long-term need of 485 ktpa. Above and beyond being <i>'sufficient'</i> , consented recycling capacity with the region is more than double the local need. Continuance of the existing safeguarding policy across CWaC therefore risks three possible outcomes:

² <https://consult.cheshirewestandchester.gov.uk/kse/event/34617/section/s1561545628430#s1561545628430>



Document reference	Excerpt	SLR Comments
		<ul style="list-style-type: none"> • Long-term overprovision of waste management capacity within CWaC • Failure to utilise available industrial land, in the event waste infrastructure remains undeveloped due to lack of demand • Failure to capture the changing land take and provisioning needs for circular resource management in support of energy transition, decarbonisation and net zero (e.g., to decarbonise energy from waste into the future new infrastructure is required such as Carbon Capture and storage). <p>In these instances, continuance of the existing traditional safeguarding position may preclude development of beneficial non-waste related infrastructure. This could for example include developments in the areas of decarbonisation and renewable energy, or commercial activities with regional economic benefits.</p>
<p>Section 29 (managing waste), page 241, MW1</p>	<p><i>'Redevelopment of all or part of a safeguarded site to a non-waste use will only be supported if:</i></p> <ul style="list-style-type: none"> • <i>the waste management facility is no longer needed; or</i> • <i>the waste management capacity can be relocated or provided and delivered elsewhere in an appropriate and sustainable location.'</i> 	<p>Noting above observations on forecasted waste infrastructure overcapacity in CWaC, it appears that the condition that <i>'the waste management facility is no longer needed'</i> may be satisfied in some instances.</p>



4.0 Conclusions

The waste evidence base developed by CWaC and its advisors for the Local Plan provides a clear comparison between expected future waste generation, and capacity of waste infrastructure to management this material. Unequivocally, Local Plan waste forecasts demonstrate that existing consented capacity in CWaC is substantially in excess of future requirements. For example, current recycling capacity is estimated at 1,221 ktpa, more than double the projected requirement of 485 ktpa.

Similarly, current consented infrastructure capacity exceeds forecasted need for recovery of residual waste, management of inert waste, and treatment of hazardous waste. Moreover, capacity has been assessed as adequate for other waste streams including wastewater, agricultural wastes, and radioactive waste.

The findings that recycling capacity is substantially in excess of future local need suggests that local waste planning policy environment has been effective in promoting waste up the hierarchy, maximising recovery whilst avoiding landfill.

Noting this success, and the apparent likelihood of future waste capacity oversupply, it may be helpful to take a broader perspective on existing waste infrastructure development consents, recognising the shift towards circular business models and resource optimisation. Excess provisioning for conventional waste management capacity within CWaC risks unintended consequences, including constraining opportunities for decarbonisation, the energy transition and economic growth.

Permissions for development of infrastructure at the Protos site (largely established prior to 20##) are currently primarily focussed on waste management activities. Noting projected waste management overcapacity within CWaC, a holistic review these historical consents — including consideration of the merits of alternative non-waste uses — may be justified to ensure potential benefits of the development are maximised.



