

APPENDIX 3: CUMULATIVE, SYNERGISTIC & SECONDARY EFFECTS

Policy	Policy area	1.1 Land	1.2 Energy	1.3 Water	2.1 Designated sites	2.2 Habitats / species	2.3 Access to sites	3.1 Heritage assets	3.2 Character	3.3 Good spaces	4.1 Emissions	4.2 Waste & recycling	4.3 Climate change	5.1 Human health	5.2 Crime	5.3 Open space	6.1 Services / facilities	6.2 Inequalities	6.3 Affordable housing	6.4 Involvement	7.1 Access to work	7.2 Infrastructure	7.3 Economy
Key: +/++ positive (synergistic) impact -/-- negative (cumulative) impact +/- mixed impacts ? - impact uncertain blank – no impact																							
CE/1	Vision	--							+											?			
CE/2	Development principles		+			+	?		+	+	+				?	?	+	+	+		++	+	++
CE/3	The site	+	--	--					+				?										?
CE/4	Setting of Cambridge E	?				+	+		+	+	++			+		?							
CE/5	Landscaping / setting					++	++		+														
CE/6	Green separation	+				+	+		+	+						++							
CE/7	Structure of Cambs East					+	++	+	+	+			+			+					+		
CE/8	The District Centre								+	++				?	+	+	++	+	+	+	++	+	++
CE/9	Local centres								+	++	+			?	+	++	++		?		+	?	++
CE/10	Housing		--	--					+	++	?	-		+		?	?		+				+
CE/11	Employment		--	--					+	++	++	-		+			++				+		++
CE/12	Community facilities, etc.		?	?					+	+	?	-		+			++	+		+	+		+
CE/13	Road infrastructure									?	?			+								+	
CE/14	Alternative modes		++				+		+	+	++			++	?	+	++	+			+	++	+
CE/15	Transp't N of Newmkt Rd		+						+	+	+			+		?	+	+			+	++	?
CE/16	Landscape principles					+	+		?	+	?			+		++	+	?					
CE/17	Landscaping in Cambs E					+	+		++	+	?		++	+		++							
CE/18	Countryside recreation	+				+	++				+												

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Key: +/++ positive (synergistic) impact -/- negative (cumulative) impact +/- mixed impacts ? - impact uncertain blank – no impact																							
CE/19	Biodiversity				++	++	++			?						+							
CE/20	Existing biodiversity					+																	
CE/21	New biodiversity					++	++		+	+						++	+						
CE/22	Archaeology							++															
CE/23	Built heritage							++	+														
CE/24	Public open space						+	+	+			-		++	+	+	++	+		+			
CE/25	Countryside recreation				+	+	+			+	+			+		++	+						
CE/26	Land drainage, etc.			++			+		?	?			++	?								++	
CE/27	Telecommunications		?								?			?			++	++		+	+	++	
CE/28	Energy		++					?		+	++		?									+	
CE/29	Sustainable construction					?		?			+	+											
CE/30	Noise									?	++			+									
CE/31	Air quality						?		?		++			+		?							
CE/32	Sustainability exemplars		+	+							+		?										
CE/33	Construction strategy		+			+					++	+	?	+									
CE/34	Strategic landscaping					+			+							+							
CE/35	Mgmt of services, etc.																			+			
CE/36	Timing of provision									++	++			+		++	++		+		+	++	+
CE/37	Airport safety zone																						

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Key: +/++ positive (synergistic) impact -/-- negative (cumulative) impact +/- mixed impacts ? - impact uncertain blank – no impact																							
CE/38	North of Cherry Hinton	?	-	-		?						-							++	?	?	?	

Summary comments on synergistic and cumulative impacts

As with other assessments, several policies may benefit a particular objective without necessarily producing, for example, synergistic (positive cumulative) effects. Where possible the assessment takes account of the potential cumulative impact of the District's policies alongside the development occurring within the City boundary, though in some cases the lack of detail in the AAP means this is speculative. Any uncertainty as a result is indicated as appropriate. However cumulative and other impacts can be the result of overlooking mitigation measures; such an outcome seems less likely given the extensive mitigating impacts of the policies in the AAP.

Objective	Overall rating	Commentary
1.1 Land	+	Not strictly any of these impacts, but the AAP makes good use of existing brownfield land with negligible land take at the edges. Given the choice of site is based on an early sustainability assessment for the Structure Plan, any necessary loss of greenfield land is therefore more sustainable than at other locations.
1.2 Energy and natural resources	--	As with the other AAPs the absolute impact contributes to cumulative growth in energy and resource consumption, though this is an incremental increase on the consumption across the District from existing housing and employment.

Objective	Overall rating	Commentary
1.3 Water resources	--	As for 1.3.
2.1 Wildlife designations	(none)	No impacts identified, however this is dependent on effective construction management processes and SUDS design which prevents contamination of surface drainage, and fluctuations in its level, which might adversely affect nearby SSSIs without such controls.
2.2 Habitats & species	+	Landscaping measures across the sites will help to retain wildlife or encourage recolonisation later, with the country park and green corridor providing compensation for habitat loss on the open airfield. However this is not strictly a cumulative impact, and more a collective benefit of well-integrated policies. The current 'green corridor' from Coldham's Lane to the area south of Teversham comprises various habitats including water meadows, the open grassland of the airfield, and the agricultural land around Teversham. The Cambridge East green corridor can help to create a more continuous habitat to encourage movement and this represents a small, synergistic benefit.
2.3 Access to wildlife sites	?	As above: impact is largely the collective benefit of several policies creating more opportunity to visit local biodiversity assets. However if easy access is popular it may have an incremental secondary benefit on human health, provided most people visit on foot, cycle or even horse.
3.1 Heritage assets	(none)	Principal requirement is retaining appropriate features; this is primarily an issue of maintaining the skyline.
3.2 Maintain character	?	Initial impress
3.3 Spaces that work well	+(+)	As with other AAPs a range of policies on urban design, open space, service range, provision, etc. should have a collective and possibly cumulative effect in enabling Cambridge East to evolve and fulfil the role envisaged by the Council in its vision for the development (policy CE/1).
4.1 Emissions	(++)	The AAP offers a very clear opportunity to long-term reduction in vehicle trips of a wide range of types, both by encouraging modal shift among residents as soon as they occupy the development, and also by integrating infrastructure development at the site with transport improvements across Cambridge to encourage more sustainable forms of commuting. Clearly such benefits necessitate the coordination of policy with the City council and other agencies, including the Highways Agency, and are not solely the result of the AAP. However the measures in the Plan will be fundamental in supporting sustainable transport policy.

Objective	Overall rating	Commentary
		As with other developments in the LDF, there is a potentially significant medium-term problem with disturbance from construction activities which will affect new residents in the quarter and those in the adjacent urban areas. Such impacts are inevitable if development occurs and will require careful coordination through the construction strategy to ensure appropriate local mitigation measures which migrate around the site as development occurs, and to avoid cumulative impacts from multiple construction activities affecting those living around the site.
4.2 Waste & recycling	–	Same qualified comment as for 1.2.
4.3 Climate change	?	Contributes incrementally to the introduction of new technology and improving the thermal efficiency of housing stock, however there will be no clear long-term cumulative benefit without the wider adoption of the same solutions for the existing housing and industrial sites.
5.1 Human health	?	Again there is the prospect of an incremental contribution by improving the extent and accessibility of facilities and by integrating open space with the urban quarter with comparable facilities at its edge and beyond, linking them together with sustainable access ways. Ultimately any benefit depends on usage by local residents, and possibly residents of neighbouring communities who may not have access to these types of recreational space at present.
5.2 Crime	(none)	No cumulative of other type of impact identified.
5.3 Public open space	+	Substantial improvement in the provision of open space in terms of its accessibility and quality, though any cumulative beneficial effect will be delivered in other ways, eg. through recreational use and its impact on human health.
6.1 Access to services, etc.	+(+)	The AAP aims to deliver synergistic benefits by establishing Cambridge East as a district centre, improving the range of amenities in this area of the city, benefiting the new residents and those in the adjacent, established settlements. This in turn can deliver secondary benefits by changing journey patterns (particularly for non-commuting trips), affecting emission levels and other objectives.
6.2 Reduce inequalities	(none)	No cumulative of other type of impact identified.
6.3 Access to housing	+	Cambridge East contributes substantially to the District's efforts to redress the imbalances in housing supply and demand, while also locating new development close to amenities and employment to provide secondary support to other plan / SA objectives.
6.4 Active involvement	+	A potential cumulative benefit is the creation of a District centre serving the new quarter and also parts of the adjoining settlements of Fen Ditton, Cherry Hinton and Teversham. The new centre may contribute facilities missing in these other suburbs, which will contribute to their coherence and help the integration of the new quarter into the urban fabric.

Objective	Overall rating	Commentary
7.1 Work, skills, potential	+?	Depends on the nature of employment attracted to the site, but the level of growth envisaged by the Plan suggests the site will provide capacity for jobs in key sectors which will complement the existing strengths. Realisation of this growth depends on whether employers can be attracted in the range and numbers envisaged, but other plan policies to create an attractive local environment will contribute.
7.2 Investing in people, etc.	(none)	No cumulative of other type of impact identified.
7.3 Economic vitality	(none)	No cumulative of other type of impact identified.

APPENDIX 4: SIGNIFICANT IMPACTS MATRIX

The symbols below are used to indicate the nature of relative significance of impacts:

√	Policy has a significant medium / long-term benefit on the objective
√	Policy may have a potentially significant benefit in the longer term
	Policy has minor impacts which are not significant, or has a neutral effect
X	Policy may have a potentially significant adverse impact in the longer term
X	Policy has a significant medium / long-term adverse impact on the objective

Your attention is drawn to the discussion in section 3.1 of this report which defines the nature of 'significant impacts' in the context of this assessment.

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CE/1	Vision		x	x								x											
CE/2	Development principles		√						√								√				√		√
CE/3	The site	√	x	x								1.1											
CE/4	The setting								√		√												
CE/5	Landscaping / setting					√	√		√														
CE/6	Green separation					√	√		√							√							
CE/7	Structure of Cambs East		1.2	1.3			√		√			1.4	√			√	√		√			√	
CE/8	The district centre								√	√					√	√	√				√	√	√
CE/9	Local centres		1.5	1.6					√	√		1.7			√	√	√						√
CE/10	Cambs East housing		x	x	1.8				√	√		1.9				√	√	√	√				
CE/11	Cambs East employment		x	x						√	√	x					√				√		√
CE/12	Community services								√	√		x		√			√	√		√			
CE/13	Road infrastructure																					√	
CE/14	Alternatives modes		√				√		√	√				√		√	√				√	√	
CE/15	Transport Newmkt Rd N		√								√			√							√	√	
CE/16	Landscape principles						√			√				√		√							
CE/17	Landscape in Cambs E						√		√	√			√	√		√							
CE/18	Links to surroundings	√				√	√		√	√				√									
CE/19	Biodiversity				√	√	√									√							
CE/20	Existing biod'ty features					√	√																

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CE/21	New biodiversity features					✓	✓		✓	✓						✓	✓						
CE/22	Archaeology							✓															
CE/23	Built heritage							✓															
CE/24	Public open space											x		✓	✓	✓	✓	✓		✓			
CE/25	Countryside recreation				✓	✓	✓									✓							
CE/26	Land drainage, etc.			✓			✓						✓									✓	
CE/27	Telecommunications																✓	✓			✓	✓	✓
CE/28	Energy		✓								✓												
CE/29	Sustainable construction		✓																				
CE/30	Noise										✓												
CE/31	Air quality										✓												
CE/32	Sustainability exemplars		✓	✓							✓												
CE/33	Construction strategy										✓												
CE/34	Strategic landscaping																						
CE/35	Mgmt of services, etc.																			✓			
CE/36	Timing / service provision								✓	✓						✓	✓			✓	✓		
CE/37	Airport safety zones																						
CE/38	Phasing N of C. Hinton		x	x								x							✓				
CE/39	Infrastructure provision																						

APPENDIX 5: MITIGATION PROPOSALS

Policy / policies	Proposed mitigation	Delivery mechanism (proposed or known)
CE/1	None	
CE/2	Policy clauses repeat some areas of policy but not others. Water conservation should be mentioned as a specific principle for the reason cited in the Scoping Report.	Policy text adjustment
CE/3	None	
CE/4	None	
CE/5	None	
CE/6	None	
CE/7	Possibly mention employment other than B1 uses?	Minor policy text change
CE/8	Consider explicit mention of energy / water conservation technology because of the significance of this part of the quarter on its overall resource demands.	Policy text adjustment
CE/9	As for CE/8.	Policy text adjustment
CE/10	None	
CE/11	None	
CE/12	As for CE/8.	Policy text adjustment
CE/13	None	
CE/14	None	
CE/15	Plan requires a statement linking development / occupancy of the site to milestones in completion of transport infrastructure, however this is given in policy CE/13 and duplication is unnecessary. Possibly cross-refer?	Minor policy text change
CE/16	Issue concerning distribution of spoil – see CE/33.	See CE/33.
CE/17	None	
CE/18	None	
CE/19	Policy does not explicitly state need for ecological survey. This is provided in CE/20 – possibly cross-refer?	Minor policy text change

Policy / policies	Proposed mitigation	Delivery mechanism (proposed or known)
CE/20	Specify need for edge treatment along junction of housing to north and south of western end of green corridor. Requirement to be specified by outcome of ecological survey.	Policy text adjustment
CE/21	None	
CE/22	Possibly clarify whether assessment of archaeological assets should occur as part of an EIA of the development, or precede it.	Policy text adjustment
CE/23	Possibly clarify whether heritage value of buildings on the site should occur as part of an EIA of the development, or precede it.	Policy text adjustment
CE/24	None	
CE/25	None	
CE/26	Need to incorporate design of SUDS and other drainage infrastructure into the construction strategy to ensure there are no water quality, level of contamination effects off-site once development begins.	Policy text adjustment
CE/27	The council will need to consider the extent to which the broadband infrastructure should be made available to support community services, and the implications this has for financing the costs of providing this facility. This is a comment for future reference and does not necessarily require policy wording changes at this stage.	See comments at left
CE/28	Assessment of other DPDs has commented on the possibility of more stringent thresholds for energy conservation technology, however the Council considers that its proposals represent an adequate requirement that is consistent with current government guidance on this issue. Policy CE/32 provides for exemplar projects which could aim for more ambitious targets and therefore changes to policy at this stage may not be appropriate.	See comments at left
CE/29	None	
CE/30	Possibly state the requirement to provide noise protection for recreational open space and wildlife sites, consistent with the concept of Countryside Enhancement Areas as defined in South Cambridgeshire Core Strategy policy NE/5.	Minor policy text change
CE/31	None	

Policy / policies	Proposed mitigation	Delivery mechanism (proposed or known)
CE/32	None	
CE/33	<p>Access avoiding surrounding residential areas suggests construction plan movements will be via Newmarket Road in the northeast corner of the site, and this implies an impact on road traffic. Clarification of this issue is required.</p> <p>Proposals that construction spoil should not be stored in heaps is contradicted by the proposal to use it as a traffic noise barrier. If this use is acceptable, spoil could also be used as an alternative to panel barriers to mask construction noise.</p>	Policy text adjustment
CE/34	None	
CE/35	It could be made clearer how the Council proposes to canvass opinion on options for managing local services in the near future at a time before development of the main site begins (i.e. when there is no one resident on site).	Policy text adjustment
CE/36	None	
CE/37	None	
CE/38	The Plan proposes local centres but does not make it clear where these will be located. One is definitely planned for the area north of Newmarket Road because this will be redeveloped very early. The Plan could make it clearer that one will be planned for the southern section which is cut-off (in a sense) from the rest of Cambridge East by the green corridor.	Policy text adjustment
CE/39	None	

