Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
ENV1 To reduce the effect of traffic on the environment	Will it reduce traffic volumes, ease the flow of traffic and reduce congestion?	% of residents who travel to work:	+/-	+/-	+	Locating growth adjacent to the existing campus boundaries will allow the existing public transport and cycle routes to be used to access the university. Creating an enterprise centre at Earlham Hall will lead to more journeys within the campus, but these would be possible on foot or by cycling. **Recommendation: Ensure sustainable modes of transport are promoted within the campus, and limit car parking spaces at Earlham Hall to essential spaces only.**
	Will it increase the proportion of journeys using modes other than car?	a. by private motor vehicle; b. by public transport; c. by foot or cycle; d. to work at or mainly from home.	+/-	+/-	+	
	Will it reduce the effect of HGV traffic on people and the environment?	Source: Census 2001	n/a	n/a	n/a	
	Will more benign modes of travel be encouraged?	Target: (a) to decrease, (b), (c) and (d) to increase	+	+	+	
	Will new developments be in best locations to reduce the need for people to travel?		+	+	+	
ENV2 To improve the quality of the water environment	Will it improve the quality of the water environment (streams, rivers, lakes etc.)?	% of river length assessed as: a) good biological quality, and b) good chemical quality.	?	?	?	The quality of the water environment and whether any development will help to support wetland habitats will be identified in the detail provided in masterplans to be produced for each development option. **Recommendation: Details required on how water quality of the broad and River Wensum and wider Broads habitats will be maintained in masterplan details.**
	Will it help support wetland habitats and species?	Source: Environment Agency. Target: National standards of 95% Development permissions granted contrary to Environment Agency advice on water quality grounds. Source: Norwich city AMR. Target: none.	?	?	?	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
ENV3 To improve environmental amenity, including air quality	Will it improve air quality?	Number of designated air quality management areas. Source: Defra.www.airquality.co.uk Target: decrease.	+/-	+	+	There would be a mixed result for air quality. Any growth could in theory lead to increased emissions from transport and operation of buildings. The location of Earlham Hall in relation to the existing buildings on campus may increase the number of journeys across campus compared to other proposed growth locations. **Recommendation: Ensure sustainable modes of transport are promoted within the campus, and limit car parking spaces at Earlham Hall to essential spaces only.**
	Will it reduce the emission of atmospheric pollutants?	Concentrations of selected air pollutants (µg/m3): • annual average concentration of Nitrogen Dioxide (NO2) • annual average particulate matter levels (PM10). Source: Defra. www.airquality.co.uk Target: Decrease.	+/-	+	+	
ENV4 To maintain and enhance biodiversity and geodiversity	Will it conserve/enhance natural or semi-natural habitats, and promote habitat connections?	Net change in condition of SSSIs - % of SSSIs in favourable or unfavourable condition. Source: Natural England. Target: 95%	?	?	?	If appropriate mitigation measures are not taken any growth adjacent to the existing campus could adversely affect the environmentally sensitive areas to the south of the campus and break up open spaces around sites which could be important wildlife corridors. However, through appropriate design standards the biodiversity and geodiversity of the existing campus could be maintained and enhanced. **Recommendation: Details on how adverse impacts on biodiversity (including valuable habitats and protected species) and geodiversity would be avoided in masterplan design details.**
	Is it likely to have a significant effect on sites designated for international, national or local importance?	Norfolk biodiversity action plan progress: a. Habitat actions in progress/completed. B. Species actions in progress/completed. Source: Norfolk Biodiversity Action Plan 3 - yearly progress reports. Target: to increase	?	?	?	
	Will it conserve/enhance species diversity, and in particular avoid harm to protected species?		?	?	?	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
ENV5 To maintain and enhance the quality of landscapes, townscapes and the historic environment	Will it protect and enhance the quality of landscapes, townscapes and countryside character, including the character of the Broads and its setting where relevant?	Heritage at risk - number and % of: a. listed buildings; b. scheduled ancient monuments on the buildings at risk register. Source: local authority reports. Target: decrease.	?	?	?	The impact of any development on the quality of landscapes, townscapes and the historic environment would be dependent on the final details of any development. There is an opportunity to more effectively use an existing building but impacts on the adjacent open space require careful consideration. There is an opportunity to ensure the built environment is maintained and enhanced. **Recommendation: Ensure through details of masterplan the design of any development maintains and enhances landscapes, townscapes and the historic environment, including the listed buildings on the campus.**
	Will it maintain and enhance the distinctiveness of the landscapes/townscapes and heritage?	Net change in number of tree preservation orders. Source: local authority reports. Target: none to be lost as a result of development.	?	?	?	
	Will it reduce the amount of derelict, underused land?		+/-	+/-	+/-	
	Will it protect and enhance features of historical, archaeological and cultural value?		?	?	?	
ENV6 To adapt to and mitigate against the impacts of climate change	Reducing energy consumption?	Total CO2 emissions per capita (million tonnes carbon equivalent). Source: local authority/DTI. Target: decrease.	?	?	?	Not withstanding the comments made above under ENV1 and ENV3, any development or growth would in theory increase energy consumption, but the design of how this development would impact upon energy demand and minimising the risk to lives and property through climate change. There could be potential to utilise energy produced from the CHP plant on the existing campus. **Recommendation: The design of any development to ensure measures are taken to reduce energy consumption, use renewable energy and reduce the impacts of climate change on people, land and property.**
	Will it lead to an increased proportion of energy needs being met from renewable sources?	Renewable energy generating capacity installed by type. Source: Norwich City AMR. Target: increase overall.	?	?	?	
	Will it increase the capacity of the area to withstand the effects of climate change?	CO2 carbon footprint of area. Source: local authority REAP tool. Target: decrease.	?	?	?	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects	
"-"	Negative effects	
"N"	Neutral effects	
"+/-"	Mixed effects	
"?"	Uncertain effects	
"n/a"	No effects	

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
	Will it ensure that risks to lives, land and property are minimised?		?	?	?	
ENV7 To avoid, reduce and manage flood risk	Will it minimise the risk of flooding to people and property?	Development permissions granted contrary to Environment Agency advice on flood risk. Source: Norwich City AMR. Target: None. Number of dwellings permitted within the high risk flood zones (Env Agency Flood Zones 2 & 3). Source: local authority reports. Target: none.	+	+	+	The proposed growth location is within flood zone 1, the lowest risk flood zone. The risk of flooding to people and property is therefore minimal.
ENV8 To provide for sustainable use and sources of water supply	Will it conserve groundwater resources?	Daily domestic water use (per capita consultation). Source: regional water authority. Target: decrease.	?	?	?	Any growth would increase pressure on water supplies but final design details could reduce water consumption. **Recommendation: Details of water efficiency to be provided in detailed masterplan.**
	Will it minimise water consumption?		?	?	?	
ENV9 To make the best use of resources, including land and energy, and to minimise waste production	Will it minimise consumption of materials and resources?	% dwellings built on previously developed land. Source: Norwich City AMR. Target: 60% of all development.	?	?	?	The re-use of Earlham Hall would bring previously developed land back into use. The CHP plant on site could be used to reduce use of resources. Details of construction methods, building operation requirements, waste generation and recycling would be dependent on how any buildings were operated. **Recommendation: Ensure through details provided within any masterplan development efficiently uses resources,**
	Will it promote the use of land in sustainable locations that has been previously developed?	% new dwellings completed at: a. less that 30 per hectare; b. 30-50 per hectare; and c. more than 50 per hectare. Source: Norwich City AMR. Indicative target: 100% above 30/ha.	+	+	+	
	Will it use land efficiently?		+	+	+	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
	Will it minimise the loss of "greenfield" land?		+	+	+	**including land and energy, and minimises waste production.**
	Will it avoid the loss of good quality agricultural land and preserve soil resources?		n/a	n/a	n/a	
	Will it minimise energy consumption and promote energy efficiency?		?	?	?	
	Will it promote the use of renewable energy sources?		?	?	?	
	Will it lead to less waste being produced?	Waste arising: a. Kilograms of waste produced per head of population, and b. % change on previous year. Source: local authority BVPI 84a & b. Target: decrease.	?	?	?	
	Will it lead to less waste being disposed, by promoting more recycling and composting?	Recycling - % of household waste: a. recycled, and b. composted. Source: local authority BVPI 82a&b. Target: increase.	?	?	?	
	Will it increase waste recovery for other means e.g. energy generation?		?	?	?	
SOC1 To reduce poverty and social exclusion	Will it reduce poverty and social exclusion in those areas most affected?	Child poverty - % of children living in low-income households. Source: Audit Commission. Target: decrease.	?	?	?	The growth of the campus may not necessarily bring benefits to deprived areas of Norwich, specifically Bowthorpe and Wensum near the university. Development construction or end-use could potentially provide educational benefits or work opportunities for deprived areas. **Recommendation: Any development on campus should aim to address issues of**
	Will it help to reduce deprivation levels?	Index of Income Deprivation - Average ward scores in the IMD. Source: Audit Commission (2004). Target: to decrease deprivation.	?	?	?	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
	Will the needs of residents' be best met?	Index of Multiple Deprivations - Average ward scores in the IMD. Source: Audit Commission (2004). Target: to decrease deprivation. Key benefit claimants - % of working age population claiming benefits. Source: local authority. Target: decrease.	?	?	?	**deprivation in nearby wards.**
SOC2 To maintain and improve the health of the whole population and promote healthy lifestyles	Will it improve access to high quality health facilities?	% of population receiving incapacity benefits. Source: Audit Commission. Target: decrease.	?	?	?	The additional growth on campus may lead to more pressure on existing healthcare facilities. There could be an opportunity to ensure access to the publically accessible recreation space is further promoted. **Recommendation: Identification of how additional population/people resulting from university expansion will access healthcare and how healthy lifestyles will be encouraged, including promoting the use of the open spaces at the university.**
	Will adequate health infrastructure be provided for existing and new communities?		?	?	?	
	Will it encourage healthy lifestyles? How?	Life expectancy of residents. Source: Audit Commission. Target: Increase.	?	?	?	
	Will the links between poorer health and deprivation be addressed?		?	?	?	
SOC3 To improve education and skills	Will it improve qualifications and skills for both young people and amongst the workforce?	Workforce qualifications - % of working age population with qualifications at NVQ level 4 or above. Source: National Statistics online. Target: Increase.	+	+	+	The proposed growth of the campus would help to improve education and skills, but only for a specific level of education. The increase in the number of graduates may also lead to 'silting-up' of local jobs with over-qualified people being employed to do some

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
	Will it help to retain key workers and provide more skilled workers from school leavers?	School leaver qualifications - % of school leavers with five or more GCSEs at A*-C grades. Source: National Statistics. Target: Increase.	N	N	N	jobs. **Recommendation: Identification of how lifelong learning and training can be increased, and measures to increase education opportunities in wards with higher levels of deprivation. Measures to avoid graduates occupying jobs they are over-qualified to do.**
	Will adequate education infrastructure be provided for existing and new communities?		+	+	+	
	Will lifelong learning and skills training be promoted?		?	?	?	
	Will links between lower levels of education and deprivation be addressed?		?	?	?	
SOC4 To provide the opportunity to live in a decent, suitable and affordable home	Will it increase the range of types, sizes and affordability of housing for all social groups?	Affordable housing stock provision: a. % of housing stock that is affordable housing; b. total affordable housing unit completions in past year; c. % of past year's dwellings that are affordable. Source: Norwich City AMR. Target: increase.	?	?	?	There are no housing plans associated with the growth option. The growth however could lead to an increase in demand for housing around the university. **Recommendation: Identification of the likely increase in student population around the university and the impact on housing need.**
	Will it reduce the housing need and ensure that housing provision addresses the needs of all?		n/a	n/a	n/a	
	Will housing requirements be accommodated to provide for sustainable communities?		?	?	?	
	Will best use be made of existing housing stock?	Total unfit dwellings in housing stock. Source: Audit Commission. Target: decrease.	+	+	+	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"   Positive effects
"-"   Negative effects
"N"   Neutral effects
"+/-"   Mixed effects
"?"   Uncertain effects
"n/a" No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
SOC5 To build community identity, improve social welfare, and reduce crime and anti-social activity.	Will it encourage engagement in community activities?	Incidences of crime committed per 1,000 households: a. Domestic burglaries; b. Violent offences; c. theft of a vehicle. Source: Audit Commission (2004). Target:	?	?	?	There could be an opportunity to work with the local community to build identity and improve social welfare. **Recommendation: Identify opportunities through development framework to build on existing community identities to reduce social issues such as crime and anti-social behaviour, building a balanced community in doing so.**
	Will it contribute to the achievement of a mixed and balanced community?		?	?	?	
	Will it reduce actual levels of crime?		?	?	?	
	Will it reduce the fear of crime?		?	?	?	
SOC6 To offer more opportunities for rewarding and satisfying employment for all.	Will it reduce unemployment overall?	% of the economically available population who are unemployed. Source: National Statistics. Target: decrease.	+/-	+/-	+/-	There could be the potential to reduce unemployment and improve earnings but only through specific jobs related to the university. **Recommendation: Consider how development adjacent to the campus could address wider areas of unemployment and improve earnings.**
	Will it help to improve earnings?	% of unemployed people who are long-term unemployed. Source: National Statistics. Target: decrease.	+/-	+/-	+/-	
SOC7 To improve the quality of where people live	Will it improve the quality of dwellings?	Unfit housing - % of overall housing stock not meeting the Decent Homes Standard. Source: local authority report. Target: decrease.	N	N	N	The way in which development went ahead would affect access to open space. **Recommendation: Promote the use of open space on campus.**
	Will it improve the quality of local open space?	% of public housing stock built to the standard for Code for Sustainable Homes. Source: local authority report. Target: increase.	?	?	?	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
SOC8 To improve accessibility to essential services, facilities and jobs	Will it improve accessibility to key local services and facilities (including health, education, leisure, open space, the countryside and community facilities)?	% of residents who travel to work: a. by private motor vehicle; b. by public transport; c. by foot or cycle; or d. who work at or mainly from home.	+/-	+/-	+/-	The growth of the campus could improve access to open space and access to more jobs on campus, but not other essential services and facilities. The further development on the one location could justify improvement to public transport links.
	Will it improve accessibility for all whilst reducing dependency on the private car?	Source: census 2001. Target: (a) to decrease; (b), (c) and (d) to increase.	+/-	+/-	+/-	**Recommendation: Any on-campus development should consider how accessibility to the campus could be further improved and access from campus to local services and facilities, reducing private car use.**
	Will access to jobs and services be improved for all?		+/-	+/-	+/-	
	What transport infrastructure is required for the existing situation and for proposed future development?					
EC1 To encourage sustained economic growth	Will it assist in strengthening the local economy?	% change in the total number of VAT registered businesses. Source: NOMIS. Target: increase number of businesses.	+	+	+	The further development of the university would bring economic prosperity to the local economy through the provision of some jobs. The type of economic activity would be immediately associated with the university's functions however and may not improve business development on a wider scale in Norwich
	Will it improve business development and enhance competitiveness?	Average weekly pay for full-time employees. Source: NOMIS. Target: increase average wage.	N	N	N	
	Will it reduce vulnerability to economic shocks?		+	+	+	
	Will it promote growth in key sectors?		+	+	+	
	Will it increase vitality and viability of town centres and improve economic diversity?		+	+	+	
EC2 To encourage and accommodate both	Will it encourage indigenous businesses?	Number of small businesses (not including farm-based agriculture).	+	+	+	The growth of the knowledge economy in Norwich would encourage more inward

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

"+"	Positive effects
"-"	Negative effects
"N"	Neutral effects
"+/-"	Mixed effects
"?"	Uncertain effects
"n/a"	No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
indigenous and inward investment	Will it encourage inward investment?	Source: Census 2001. Target: increase.	+	+	+	investment into Norwich. Part of UEA's Business Plan is to support incubator and spin-out companies based on the universities activities. **Recommendation: Ensure continued support to indigenous and small business growth.**
	Will it make land and property available for business?		+	+	+	
	Will it improve economic performance across the greater Norwich area?		+	+	+	
	Will it support/encourage rural diversification?		n/a	n/a	n/a	
	Will it support/encourage small city businesses?		+	+	+	
EC3 To encourage efficient patterns of movement in support of economic growth	Will it improve provision of local jobs?	% of residents who travel to work:	+	+	+	The growth at the university would strengthen the existing jobs at the already established university, but these would be specifically related to the knowledge economy.
	Will it improve accessibility to work, particularly by public transport, walking and cycling	a. by private motor vehicle; b. by public transport; c. by foot or cycle; d. to work at or mainly from home.	+	+	+	
	Will it reduce journey times between key employment areas and key transport interchanges?	Source: Census 2001. Target: (a) to decrease, (b), (c) and (d) to increase	+	+	+	
	Will it improve efficiency and sustainability of freight distribution?	Average distance travelled to the workplace by residents. Source: National Statistics online. Target: decrease.	n/a	n/a	n/a	
	Will it support provision of key communications infrastructure?		n/a	n/a	n/a	
EC4 To improve the social and environmental performance of the economy	Will it reduce the impact on the environment from businesses?	Amount of various employment development on previously developed land or conversions. Source: Norwich City AMR. Target: 60% of all development.	+	+	+	The location of growth would allow for existing transport networks to be used and attract new investment and skilled workers to the area. But the concentration of more growth in the existing location would have an impact on the existing local residents. **Recommendation: Identify how an**
	Will it reduce the impact on residents from businesses?		-	-	-	

Sustainability Appraisal for Development Framework Strategy for UEA

1) Earlham Hall

		Description
"+"		Positive effects
"-"		Negative effects
"N"		Neutral effects
"+/-"		Mixed effects
"?"		Uncertain effects
"n/a"		No effects

SA Objective	Decision making criteria	Indicators and targets	Short-term 0-5 years	Medium term 5-20 years	Long-term 20+ years	Comments/justifications inc. cumulative effects
	Will it attract new investment and skilled workers into the area?	Ecological footprint - hectares required per capita to support current production and consumption. Source: local authority REAP assessment report. Target: decrease.	+	+	+	**expansion of the existing campus would not have an adverse impact on local communities, in particular through potential increase in traffic.**
	Will existing businesses and employment provision be maintained?		+	+	+	
	Where would employment provision be best located to serve urban and rural residents?	Unemployment benefit receipt: a. % of population in receipt of Job Seekers Allowance (JSA); b. Claimants of JSA by age range: a. 16-24 yrs; b. 25-49 yrs; or c. 50+ yrs. Source: National Statistics online. Target: decrease unemployment.	n/a	n/a	n/a	