

3. METHODOLOGY

INTRODUCTION TO SCENARIOS

- 3.01 The best way to develop a strategy for the Felixstowe Peninsula in the context of a complex and interrelated range of issues is to examine a range of scenarios about the future of the town and to describe the likely impact of decisions about its future on the basis of these.
- 3.02 By developing a range of scenarios the client team, stakeholders and the general public can see what impact varying levels of change can achieve. The scenarios focus on the main issues explored in chapter 2.

SITE IDENTIFICATION

- 3.03 If it is agreed that the negative issues and trends presented in this report should be countered then new development is inevitable and the key questions will be how much and where. Tough decisions will have to be made in identifying the locations for development. The scenarios set out different levels of development and each scenario has different physical implications for the town and peninsula. The consultant team have undertaken a full and independent analysis of the physical implications of each scenario and identified preferred locations for development.
- 3.04 The Site Analysis Report in Appendix B details the analysis of potential development sites in the Felixstowe Peninsula, and provides rationale for the selection of sites for the scenarios.
- 3.05 Housing and employment presents the primary land uses which will lead the action required to counter the negative trends and issues explained in this report. Our analysis therefore identifies locations for these land uses. Other land uses including retail, recreation, AONB and countryside uses, institutions or education are then considered in relation to these primary uses. They are essential elements required to ensure the creation of a sustainable development, but they will not lead any of the development scenarios.
- 3.06 There are a wide range of factors that must be taken into account in identifying locations for development. A study of limited scope such as this cannot resolve all of

the consequent issues. Suffolk Coastal District Council is likely to undertake its own assessment of locations which will also be subject of its own public consultation exercise.

- 3.07 The starting point in our analysis is reference to national planning policy and the social, economic and environmental aims included therein. *Planning Policy Statement (PPS) 1: Delivering Sustainable Development* seeks to develop sustainable communities and identifies a number of development objectives including:
- considering the impact on the social fabric of existing communities;
 - seeking to reduce inequalities;
 - addressing accessibility to jobs, health, housing, education, shops, leisure and community facilities;
 - ensuring that everyone has the opportunity of a decent home, in locations that reduce the need to travel;
 - ensuring the provision of sufficient, good quality new homes in suitable locations;
 - protecting and enhancing the quality, character and amenity value of the countryside and urban areas; and
 - ensuring that suitable locations are available for industrial, commercial, retail, public sector, tourism and leisure developments, so that the economy can prosper.
- 3.08 These broad objectives are developed further by other Planning Policy Statements and Guidance notes. *Planning Policy Guidance 3: Housing* outlines a sequential approach for identifying sites for housing, with similar approaches adopted for the location of employment land (PPG 4 and PPS 6) and other large scale development. These sequential approaches suggest that the search should start with the reuse of previously developed land and buildings within urban areas then urban extensions with a presumption that previously developed sites should be developed before Greenfield sites.
- 3.09 PPG3 goes on to suggest that the potential and suitability for development of land should be assessed against the following criteria:

- The availability of previously developed sites.
- The location and accessibility of development sites to jobs, shops and services by modes other than the car and the potential to improve such accessibility.
- The capacity of existing and potential infrastructure.
- The ability to build communities.
- The physical and environmental constraints on development of land.

3.10 By applying the sequential approach to the Felixstowe Peninsula through the criteria identified above, locations were identified for further analysis. The process of site identification is outlined below.

SITE LOCATIONS

Selection Criteria

- 3.11 The identification of the sites studied for their suitability and potential to accommodate development in the Felixstowe Peninsula was based upon the planning policy criteria outlined previously – i.e. Brownfield sites were sought first, followed by other urban infill sites, and then undeveloped Greenfield land.
- 3.12 In parallel to the sequential site identification process outlined above, sites were also selected based upon the practicality and likelihood of potential to accommodate new development. Vacant sites were sought in the first instance, followed by sites which are currently occupied but which may soon become available for development and sites which are considered to be underused or under-utilised. Finally sites which are in agricultural or recreational use were identified.
- 3.13 The size of sites was an important consideration for selection – size criteria have not been imposed which has allowed the study of a variety of large and small sized sites that can, potentially, accommodate larger and smaller quantities of development accordingly.

Brownfield Sites

- 3.14 Brownfield sites identified include vacant sites – locations where previous uses have moved on, vacating important land which is already embedded in the urban fabric of Felixstowe, Walton and also the Trimley villages. These sites are priority locations for potential development which can integrate into the existing physical environment and social networks.
- 3.15 There is a scarcity of available brownfield sites in Felixstowe and the Peninsula as a whole. Some of the brownfield sites included within this assessment are therefore currently occupied but may become available for development at a future date. Examples include the Bartlett Hospital site which is currently subject to a proposed closure and school sites which may need to be consolidated if current trends (of falling school roles) continue and are not fully addressed by the scale of future development.

- 3.16 The hospital and school sites are particularly controversial sites whose future will be sensitive in the local community. They have been studied in the site analysis report (appendix B) which vigorously analyses all possible brownfield sites, but it is important to note that these sites have not been identified as potential development sites in any of the scenarios because their future has not been finalised and so their current land uses prevail. Furthermore, no direct discussion has been pursued with the landowners of this land.
- 3.17 Urban capacity sites have been taken into account in the formulation of the Scenarios, but the urban capacity sites have not been subject to detailed site analysis as this task has already been undertaken in the Baker Report on Urban Capacity Sites (2004).
- 3.18 The scarcity of brownfield sites in Felixstowe and the Peninsula have lead us to consider the suitability of greenfield sites to accommodate the level of development associated to the higher growth scenarios.

Greenfield sites

- 3.19 These sites were selected on the basis of proximity to existing settlements, services and the transport network. The identification of the Greenfield sites included sites promoted by landowners through previous Local Plan review processes.
- 3.20 These sites broadly fall into two locations:
- Land around the Trimley villages – owned predominantly by Trinity College, Cambridge, locations which have already been subject to detailed design proposals through the College’s agents, Bidwells and LDA.
 - Land immediately north of Felixstowe – owned by a consortium of three local landowners.

Green Separation sites

- 3.21 The other type of sites studied are those designated in the Local Plan as ‘Protection of Open Character’ – areas that have been selected to act as green separation buffers between settlements on the Felixstowe Peninsula.
- 3.22 Despite the current designation, the sites were analysed due to their large size and sustainable proximity to existing settlements, services and transport networks. They

have potential to accommodate new development which can integrate into existing environments and thus promote sustainable development.

Sites with Existing Land Use Designations and Allocations

- 3.23 There are some existing proposals - land use designations and allocations - included within the adopted Suffolk Coastal Local Plan (February 2001). It is important that the analysis should include these designations but it has not been constrained by them.
- 3.24 This study has offered the opportunity to consider the wider processes at work within the Peninsula. Some of the existing negative aspects are exacerbated by existing land use designations. Other designations can be viewed to be essential to the health of the town and peninsula.
- 3.25 The consultant team have used their professional judgement in determining the importance and sensitivity of existing designated land weighed against the larger issues and processes at work in the town. For example, in identifying and sifting locations, we considered the employment allocation at Blofield Park to be essential for retention but identified the Haven Exchange site for more detailed analysis and possible alternative future use.

Additional sites

- 3.26 It is feasible that unforeseen sites will become available for development, in addition to the sites identified in this report. It is impossible to predict with any real accuracy all development opportunities because conditions are constantly evolving, thus it must be recognised, and anticipated, that additional sites could come forward.
- 3.27 An example of such an 'additional' site is the potential availability of extra development land which could be created as part of the proposed Port reconfiguration plans. In this scenario the Gas store could be dismantled, and its constraint on adjoining land removed, freeing up additional land for development. Nevertheless, the geography of Felixstowe suggests that only small "windfall" sites are likely to be forthcoming.

The List of Sites

- 3.28 Below is the list of sites in the Felixstowe Peninsula identified as warranting more detailed analysis. The list includes a definition of the site typology, site areas and dates of subsequent site visits.
- 3.29 Numbering of the sites is geographically based - from west to east on the 'greenfield sites' (Trimley's-Walton-North of Felixstowe) and then through the brownfield sites in the town, the same sequence in which the site visits were undertaken.

LIST OF SITES - Felixstowe Peninsula				
Site no.	Site name	Site type	Area (ha)	Visit date
01	Farmland between Trimley St Martin High Street & rail line	Greenfield	27.45	8 th Aug'05
02	Farmland between Trimley St Martin High Street & rail line (additional land)	Greenfield	11.48	8 th Aug'05
03	Mushroom Farm Trimley St Martin, High Street	Brownfield	1.60	8 th Aug'05
04	Farmland between Trimley St Martin High Street & A14	Greenfield	12.00	8 th Aug'05
05	Farmland between Trimley St Martin High Street & A14 (additional land)	Greenfield	11.29	8 th Aug'05
06	Farmland on edge of Trimley St Mary	Greenfield	2.10	8 th Aug'05
07a	Land between Trimley St Mary & A14 link – paddock	Green separation	2.28	8 th Aug'05
07b	Land between Trimley St Mary & A14 link – allotments & scrub	Green separation	4.72	8 th Aug'05
08	North of Walton High Street, adjacent to A14 link	Green separation	12.83	8 th Aug'05
09	South of Walton High Street, adjacent to A14 link	Green separation	5.89	8 th Aug'05
10	North Felixstowe: North of Candlet Road (A154)	Greenfield	31.57	8 th Aug'05
11	North Felixstowe: North of Candlet Road (A154) & Grove Road	Greenfield	39.34	8 th Aug'05

12	North Felixstowe: North of Links Avenue	Greenfield	14.99	8 th Aug'05
13	North Felixstowe: North of Upper Field Drive	Greenfield	18.36	8 th Aug'05
14	North Felixstowe: South of Gulpher Road	Greenfield	37.61	8 th Aug'05
15	Land between Ferry Road and Estuary Drive	Greenfield	5.00	8 th Aug'05
16	Orwell High School	Urban - brownfield	13.43	9 th Aug'05
17	Deben High School	Urban – brownfield	4.70	9 th Aug'05
18	The Ordnance Roundabout	Urban – brownfield	2.05	9 th Aug'05
19	Haven Exchange	Urban – brownfield	4.15	9 th Aug'05
20	Caravan Parks – Peewit & Felixstowe Beach	Urban – brownfield	12.53	9 th Aug'05
21	South Seafront	Urban – brownfield	7.08	9 th Aug'05
22	Suffolk Sands Holiday Park	Urban – brownfield	8.15	9 th Aug'05
23	Convalescent Hill	Urban – brownfield	0.51	9 th Aug'05
24	Bartlett Hospital	Urban - brownfield	1.25	9 th Aug'05

3.30 The sites identified and analysed are listed and mapped in drawing number EED001/005: '**Sites on Aerial Photo**'.

Site analysis

- 3.31 Site analysis was undertaken both on site and remotely. All sites were visited and assessed in person in a series of visits. This *primary research* on site has been supported by desk-based study of sites from existing *secondary research information* including the Local Plan, Ordnance Survey mapping data, historic maps and aerial photography.
- 3.32 This study has not, and could not, undertake detailed assessments of all the issues that could effect development if the land or its environs. Further more detailed assessments will be required. Such assessments may result in sites yielding less development, or more, than was previously considered possible.
- 3.33 Each site has been analysed against criteria derived from policy and best practice (as described in the Introduction to Scenarios & Site Identification sections). The assessment criteria are set out in two tables against which each possible site was compared;
- TABLE 1: Site Analysis
 - TABLE 2: Sustainability Assessment
- 3.34 The compilation of completed *site analysis* and *sustainability assessment* tables is presented in the Site Analysis Report in Appendix B.

Fair testing

- 3.35 The completion of the tables formed a fundamental part of the analysis of the possible scenario development sites. The sites were assessed equally by using the same tables and criteria to analyse each site - both *Site Analysis* tables and a *Sustainability Assessment* tables were completed for each site.

Site analysis table

- 3.36 The first table titled “**Site Analysis**” sets out a commentary on the following objective elements:
- Site Description - including site area, location and any existing designations

- Site Content - including current use, landscape & vegetation, topography, hydrology and site boundaries
- Surrounding Character - including detail of surrounding landscape character, uses and buildings and their quality
- Access and Movement - detailing transport infrastructure
- Views - both into and out of the site
- Public Realm – the parts of the area accessible to the general public
- Any other factors

Sustainability Assessment table

3.37 A further and more subjective appraisal of the sites was made by undertaking a **sustainability assessment** adopting criteria from planning policy and best practice. This sets out a range of criteria against which each site was assessed and a grade given. The criteria included:

- Land status - previously developed, greenfield, etc.
- The risk of coalescence
- Proximity to key facilities
- Links to a range of public transport modes
- Access
- Topography
- Hydrology and flood risk
- Proximity to existing sources of air pollution
- Proximity to sources of noise pollution
- Visual amenity & landscape value
- Wildlife on site
- Recreation value
- Value of existing built elements
- Potential for energy efficient design

Landscape Assessment

- 3.38 A key component of the site analysis was the **landscape assessment**. The landscape assessment was undertaken in tandem with the general site analysis and recorded in relevant sections of the site analysis and sustainability assessment tables, and illustrated in the photographic record of the sites, particularly the panoramic photos. The landscape assessment was initiated by a qualified Landscape Architect who visited the sites with a fellow Urban Designer from the consultant team to undertake the site visits and site assessments.
- 3.39 The full record of the site analysis undertaken is located in **Appendix B: Site Analysis Evidence**. This evidence base includes the following assessment for each site;
- **Location plan** in context of Felixstowe Peninsula
 - **Photographic record** of the site
 - Completed **Site Analysis table**
 - Completed **Sustainability Assessment table**
 - Summary list of '**Strengths and Weaknesses**' for each site
 - A **conclusion** which outlines the suitability of the each site to accommodate scenario development.

Financial Viability and Land Ownership

- 3.40 This study has not examined in detail the patterns of land ownership and financial viability of the sites. Suffolk Coastal District Council should investigate these matters further as they could influence delivery and therefore decisions on allocations. Not all land owners have been approached directly to discuss development prospects.

LOCATIONAL PRINCIPLES FOR FUTURE DEVELOPMENT

- 3.41 The completion of the site appraisal and sustainability appraisals resulted in a number of sites being discounted from the process (listed in table below). It also led to several important vocational principles being identified.
- 3.42 The key drivers behind the location of potential scenario development sites from the site analysis were:
- 1. To focus development towards land in the South of Felixstowe to underpin regeneration of the area.** South Felixstowe is the focus of social and physical deprivation within the Felixstowe Peninsula. Although other wards in Felixstowe experience some degree of deprivation, the wards in South Felixstowe have the worst deprivation in health, employment and skills (see Issues Report: Working Paper 2, pages 14-30, SQW, May 2005). The area requires intervention on a variety of fronts. There are a number of sites within the area which provide the opportunity for development which can be a driver for the regeneration of the area. CBRE's Retail Study (2003) suggested the possibility of a new district or local centre as part of a comprehensive development. South Felixstowe could be the location for such a new centre.
 - 2. To support and reinforce existing town functions.** Where possible, development should be directed towards sites within the current built-up area of the Felixstowe Peninsula. Homes in such a location are more likely to reinforce and support existing and future town and town centre development including retail, schools, health facilities and public transport.
 - 3. The possibility of expansion of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty.** On the basis of assessment against national planning policy guidance, land to the north of Felixstowe (including land north of Candlet Road, Grove Road and Links Avenue) may be considered to be a suitable location for development. However, after undertaking landscape analysis (as part of the site analysis process) the consultant team has concluded that the landscape character is of such quality and merit that consideration should be given to safeguard the area against development in perpetuity. To achieve this protection, appropriate policies are required in the Local Development Framework for the Peninsula, in addition to which the existing

Suffolk Coast and Heaths AONB designation could be expanded to incorporate the land to the north of the A14 / A154, or, failing this, the land should be given protection through another landscape designation such as 'Country Park' status. This should be balanced by a need to encourage greater public access to this land, the existing AONB and any other adjoining open space for the benefit of the local communities and as an additional attraction for visitors and tourists. A statement of justification is included as Appendix D of this document.

4. To maintain the clear boundary between town and country.

The A14 / A154 provides a clear boundary between town and country. If development crosses this boundary the lack of other robust physical boundaries means that the northern town edge will be difficult to define long term.

Whilst it is acknowledged that the area immediately north of the Dock Spur Roundabout provides a potential development site, this would be isolated from the rest of the built-up area, and it is still professional view that development should not cross the A14 / A154 ,a clear northern town boundary.

As a minimum, sites north of the A14 / A154 town boundary should only be considered for development following the utilisation of other sites in a sequential process: firstly urban capacity and urban infill sites within Felixstowe's town boundary; and secondly on infill sites south of the northern town boundary, contained around Walton & the Trimleys.

The long term boundary to limit development is clearly illustrated on plan EED001 /06.

SITES DISCOUNTED FROM GROWTH SCENARIO PROPOSALS

3.43 A number of sites were discounted from the growth scenario proposals. Detailed reasoning for the discarding of the sites is recorded in the site analysis evidence paper which can be found in Appendix B. The sites disregarded are listed in the following table, which also provides summary rationale for *why* the sites were discounted;

3.44 List of discarded sites

LIST OF DISCARDED SITES			
Site no.	Site name	Area (ha)	Reason for discarding site from growth scenarios
03	Mushroom Farm Trimley St Martin, High Street	1.60	- Small site, currently in use. - Surrounded by larger, more viable development sites, which demotes this site as a priority.
07a	Land between Trimley St Mary & A14 link - paddock	2.28	- High quality landscape character. - Valuable to maintain some protected green separation on the edge of Trimley St Mary
10	North Felixstowe: North of Candlet Road (A154)	31.57	- High quality landscape character - potential to create new country park or extension to AONB. - Proximity to AONB. - Potential set a precedent for unlimited development north of A14 / A154 roads, which currently define the northern boundary of the town.
11	North Felixstowe: North of Candlet Road (A154) & Grove Road	39.34	Same rationale as site 10.
12	North Felixstowe: North of Links Avenue	14.99	Same rationale as site 10.
13	North Felixstowe:	18.36	Same rationale as site 10.

	North of Upper Field Drive		
14	North Felixstowe: South of Gulpher Road	37.61	Same rationale as site 10.
15	Land between Ferry Road and Estuary Drive	5	<ul style="list-style-type: none"> - Small site. - Poorly located within the Peninsula. Poor access to facilities and amenities. - May act as precedent to further development north of the town. - Would not support regeneration of most needy wards in predominately in south Felixstowe
16	Orwell High School	13.43	<ul style="list-style-type: none"> - Whilst the issues report identified that numbers of students on the school roles in the Felixstowe Peninsula are decreasing (which poses questions about the longer term viability of the two high schools), the current school roles are still healthy enough to support two high schools at present. - This is currently a valuable school site and it is important that it is maintained in its existing use, particularly while the school role provides sufficient numbers to maintain the schools existence. - Large playing fields are a valuable recreation resource. - Less controversial sites are available for development.
17	Deben High School	4.70	<ul style="list-style-type: none"> - Whilst the issues report identified that numbers of students on the school roles in the Felixstowe Peninsula are decreasing which questions the longer term viability of the two high schools, the current school roles are still healthy enough to support the two high schools at present. - This is currently a valuable school site and it is important that it is maintained in its existing use, particularly while

			<p>the school role provides sufficient numbers to maintain the schools existence.</p> <ul style="list-style-type: none"> - Large playing fields are a valuable recreation resource. - Less controversial sites are available for development.
22	Suffolk Sands Holiday Park	8.15	<ul style="list-style-type: none"> - Exposed location, towards the extent of the Peninsula – potential flood risk. - Importance of maintaining some element of caravan holiday accommodation for the resort. - Of the caravan sites in Felixstowe this is the most unsuitable for future development – due to the above rationale.
24	Bartlett Hospital	1.25	<ul style="list-style-type: none"> - Whilst the future of the Bartlett Hospital is uncertain in the long term, in the short term the Bartlett site should be retained for its current health services land usage. - Less controversial sites are available for development. - Even if the site does become available for a new land use in the future it must be considered that the majority of the site is constrained by its steep topography, and the large and important areas of vegetation coverage. - The most viable development potential may be to renovate the existing hospital building for a limited number of residential apartments.

THE SCENARIOS

Common Factors

- 3.45 There are four factors that are common to all the scenarios, and which are important background factors.
- **The first three scenarios are detached from the future of the Port and its possible expansion.** Decisions between future development scenarios need not be swayed by the impending decision on the Felixstowe South Reconfiguration. All levels of growth and development envisaged are justified by the current issues in the town – shortage of affordable housing, large net inflow of working commuters, viability of health, education and other local services. These will all be exacerbated by future Port expansion. Our consultation and understanding to date suggests that there is no political or community will to see the current imbalance between the number of jobs in the town and the number of available dwellings rectified. Having said that, and as part of the baseline reference, a further calculation has been made of the levels of growth and development required to accommodate all current and likely future port workers in addition to development viewed as justifiable by the current issues affecting the town.. This creates a fourth “scenario”. The proposed port expansion would generate an additional 620 jobs in Felixstowe and an additional 860 indirect and direct jobs across the Haven Gateway. This could equate to between 600 – 1500 homes in its own right.
 - **It is no longer prudent to plan for the future of the resort, specifically the seafront, to be as extensive as it has been in the past.** No scenario envisages that the whole seafront from beyond the Spa to the South Seafront can be effectively revitalised taking the resort back to its heyday, Rather, there is genuine concern that investments is too dispersed and dissipated, lacking coherence and compromising positive economic and environmental impacts. Serious consideration should be given to the planned concentration of seafront activities around nodes between which control is relaxed to allow the potential for the development of other non-leisure uses.

- **While tourism initiatives are not dependent on growth scenarios, they may be conditioned by the perceived success and absorption of change in the town.** As with the Port, major and minor “resort” developments are capable of implementation irrespective of the growth and development strategy adopted.
- **There appears to be justification for enhanced retailing in the town, including a new or expanded supermarket and qualitative improvements to the local shopping experience.** This will reinforce the role of the town centre, which is currently poorly anchored, and reduce leakage of expenditure to other centres. The provision of additional food retail floorspace must be handled carefully, to avoid harming the viability of existing businesses across the town centre which do much to generate the town’s unique character. This is true irrespective of which scenario is involved. A larger catchment population (envisaged in scenarios 2 and 3) offers marginal potential for extra convenience retailing and some additional capacity for comparison retailing, but the bulk of latent demand is already present in the Felixstowe Peninsula.

Site Identification

- 3.46 The following sections describe in greater detail what each scenario could comprise and its consequent implications. They refer to a wide range of issues and land uses which have been identified as the key elements which require consideration by the client team, stakeholders and general public.
- 3.47 The consultant team consider it important that the above consider the implications of varying levels of growth and identify the preferred scenario, as it will be the client team that will have to adopt and deliver the preferred scenario.
- 3.48 Plan EED001 / 06 illustrates the location of the sites identified in the growth scenarios.
- 3.49 Plan EED001 / 07 illustrates the concept of growth scenarios, identifying the location of development sites and their integration with the Felixstowe Peninsula.

ADDITIONAL SITE CONSTRAINTS FOR POTENTIAL DEVELOPMENTS & SUBSEQUENT REDUCTION IN THE DEVELOPMENT YIELD

- 3.50 Whilst the Local Strategy and the site analysis report (appendix B) consider a wide array of issues related to the potential development sites on the Felixstowe Peninsula (as identified in the following scenarios), these sites are also subject to some additional influences which require more vigorous assessment if the sites are taken forward to a more detailed stage of analysis.
- 3.51 These additional site constraints are important primarily because of the potentially detrimental impact they could have, but also because the constraints could reduce the development capacity of sites affected. Whilst it is difficult to estimate the level of impact the conditions could have on reducing dwelling yields, of the potential potential reduction of capacity should be recognised.
- 3.52 Major additional site constraint factors which require a greater degree of assessment than is possible in this Local Strategy document include;
- Flood risk
 - Noise pollution adjacent to the Port and to primary roads
 - Night-time illumination impacts from the Port and from Seafront activities
 - Contaminated land
- 3.53 This is not an exhaustive list. These site constraints are elaborated on as follow;

Flood Risk

- 3.54 It is recognised that the caravan park sites and part of the Ordnance Roundabout fall within the area of flood risk as defined on the Environment Agency's indicative flood risk maps. Land at Beach Station Road (identified in the Council's Urban Capacity Study) and South Seafront also fall within the area of flood risk.
- 3.55 The Government places great emphasis on the need for urban regeneration and the redevelopment of previously developed land to minimise the need for development of greenfield land. Because much past development took place alongside rivers or on coasts on suitable flat land, some previously developed land is vulnerable to flooding.

The Environment Agency and District Council must take into account the risks of flooding, the standards of existing flood defences and the ability to improve them.

- 3.56 The District Council has demonstrated that development in the area of flood risk is possible with development at the Haven Exchange site, where the ground level of the site has been raised and protected by additional bunding.
- 3.57 Similar earth moving, compacting and bunding techniques could be employed on the neighbouring Caravan Park and Ordnance Roundabout sites to mitigate against potential flood risk. Whilst these measures may help to reduce the flood risk they could also reduce the net developable area of the site, thus reducing the development yield.
- 3.58 Further discussions with the Environment Agency are advised.

Noise pollution adjacent to the Port and major roads

- 3.59 Noise pollution is a key consideration for any potential development locations close to the Port or the major roads of the A14, the Port of Felixstowe Road. The Port of Felixstowe and its road infrastructure is potentially a major source of noise pollution and detailed assessments of these threats need to be made by relevant professionals to inform potential developments in their vicinity.
- 3.60 One of the potential development sites which could be at greatest risk from noise pollution is the 'Caravan Parks' site in South Felixstowe, which is close to the Port of Felixstowe Road. To reduce the level of noise pollution from this road measures such as bunding and landscape planting may need to be considered for the perimeter of the site. Such mitigation initiatives could also reduce the net developable area.

Night-time illumination impacts from the Port and seafront activities

- 3.61 Light pollution should be a consideration for any development sites in close proximity to major sources of light emission, notably the Port. Important locations which would require more detailed analysis include sites which are located close to the Port or the major roads of the A14 or The Port of Felixstowe Road. The seafront and its leisure uses should also be considered. Detailed assessments of these threats need to be made by relevant professionals to inform potential developments in their vicinity.

- 3.62 To protect the sites which are most affected by light pollution mitigation measures such as perimeter planting of tall trees and landscaping could be considered, but as with other mitigation measures this could result in a reduction of the net developable area.

Contaminated Land

- 3.63 The scenarios consider redevelopment of Brownfield sites within Felixstowe Peninsula. These urban infill sites should be subject to more vigorous assessments to identify whether the sites are affected by contamination of their land.
- 3.64 If sites are identified as being located in positions of land contamination then mitigation solutions such as land remediation should be developed by relevant professionals. Such actions could have a significant economic impact on the land value which further emphasises the need for more detailed assessments to be undertaken.
- 3.65 Contaminated land can have an impact on the net development output of a site; for instance if the area is severely contaminated some areas may have to be capped and simply left as open space, as opposed to used for built form development for homes or business. This reduces the net developable area of land.
- 3.66 In instances of particularly bad contamination the cost of site remediation can often only be met by developing the site as intensively as possible, in order to generate the necessary financial returns to cover the cost of the clean up. Intensity of development must be carefully considered with recognition of the surrounding character and form.