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Sustainability Appraisal

Final Report

Residential Design Guidance

November 2012

Contents

1.0 Introduction

This Council carried out a Sustainability Appraisal (SA) of the Residential Design Guidance (RDG) in May 2012. The draft document is attached at Appendix 1.

The draft document was subject to consultation from the 22nd June 2012 until the 31st August 2012. No responses were received in respect of the draft SA.

This final report sets out the changes made to the RDG as a result of consultation and mitigating measures identified in the draft SA, in order to ensure that the proposed policies result in positive sustainability outcomes.

2.0 Process

The draft SA identified 18 sustainability objectives against which the policies contained within the RDG were assessed. The SA matrix is set out in Table 2 of Appendix 1. No policies produced a negative outcome to sustainability. A number of the policies were identified as potentially producing either a negative or positive outcome in relation to these sustainability objectives.

In respect of sustainability objective 2, which is concerned with reducing the risk of flooding from all sources and climate change for current and future residents and businesses, it was considered that the design of residential development (new build or extensions/alterations), can include flood resilient measures which can reduce the flood risk, however it was also considered that such development could also result in additional persons being present in properties and at risk of flooding.

Sustainability objective 8 is concerned with protecting the Green Belt from inappropriate development that undermines its stated purposes, and encouraging appropriate activities in the Green Belt. The RDG caters for all residential development, and whilst such development may achieve the standards set out in the RDG, their size and/or location may be considered inappropriate in the Green Belt.

In respect of sustainability objective 9, which requires the needs of older people and younger people to be provided for, the RDG provides guidance on many aspects, which ensure that all needs are catered for by providing varied amenity space and plot widths, and a variety of dwelling types and sizes. However in areas where plot sizes should adhere to a strong pattern of development, this could restrict the variety of dwelling types and sizes.

A number of mitigation measures were identified as a result of the SA process in order to ensure that the RDG makes a positive contribution to sustainability. These measures are set out in Table 2 of Appendix 1.

It should also be noted that many of these mitigation measures were also highlighted by a number of consultees who responded to the RDG itself.

The RDG has been amended to take account of the mitigation measures set out in the draft SA, and the consultation responses received in respect of the draft RDG.

3.0 Monitoring

There is a requirement for a monitoring framework to be put in place to monitor the environmental effects of the implementation of plans and programmes. This is in order to ensure that any unforeseen adverse effects can be identified at an early stage, and the necessary remedial action taken.

The Council will monitor the outcomes of the RDG in accordance with the monitoring framework set out in Table 4 of Appendix 1.

The outcomes of the monitoring activities will be reported as part of the Council's Annual Monitoring Report (AMR).

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Sustainability Appraisal

Residential Design Guidance

May 2012

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Non Technical Summary

The Council has commenced work on preparing a Local Plan for Castle Point to replace the previous Local Plan adopted in 1998. The Local Plan will set out the strategy and policies for delivering sustainable development in Castle Point that meets the needs of the current and future generations.

Part of this process is to prepare new Residential Design Guidance, which will replace the Design and Layout Guidance for residential areas contained in the existing Local Plan at Appendix 12, and ultimately will form part of the new Local Plan. The guidance will set out how to deliver a higher standard of residential development throughout the Borough, both in respect of new build development and extensions or alterations to existing residential properties, and will take the form of a Supplementary Planning Document.

Under the Planning and Compulsory Purchase Act 2004, Local Authorities must undertake Sustainability Appraisal (SA) for each of their Development Plan Documents. The SA is a process of identifying and evaluating the economic; social and environmental impacts of a plan or programme. SA is therefore a statutory requirement and the approach incorporated within this SA complies with these requirements.

The Council, in preparing its new Local Plan, undertook a SA and a Strategic Environmental Assessment (SEA) Scoping Report[1]. This report was subject to consultation during the period January to March 2012. The outcomes of this consultation were used to finalise the scope of the sustainability appraisal.

The key issues emerging from the Sustainability Scoping Report were used to develop a suite of sustainability objectives, against which the policies contained in the Residential design Guidance were measured and assessed against. A number of mitigation measures were identified as a result of this process. It is considered that if these requirements are applied when considering planning applications for residential development, then the Residential Design Guidance should make a positive contribution to sustainability.

A monitoring framework has been prepared in order to ensure that unexpected negative consequences, either individually or cumulatively do not arise as a consequence of the Residential Design Guidance. This sets out the actions that need to be taken if any of the indicators should show negative performance.

[1] Castle Point Sustainability Appraisal and Strategic Environmental Assessment Scoping Report *New* Local Plan April 2012

1.0 Introduction

This Report

This report is the Sustainability Appraisal report for the proposed Residential Design Guidance Supplementary Planning Document. The Sustainability Appraisal (SA) process is an integral part of preparing LDF documents including supplementary planning documents. The aim of the SA process is to assess the overall environmental, social and economic impact of the plan to ensure that it contributes towards achieving sustainable development.

When preparing a sustainability appraisal of a supplementary planning document, the following priorities are considered:

1. To provide a robust SA adds value to the plan-making process
2. To form an integral part of the plan preparation process
3. The plan and the SA should, where possible, share a common evidence base
4. Other assessment processes should feed into the SA process where appropriate
5. The SA report should document the 'story' behind the plan's preparation
6. The significant effects identified through the SA should be monitored through the annual monitoring report

The Council, in preparing its new Local Plan, undertook a SA and a Strategic Environmental Assessment (SEA) Scoping Report[2]. This report was subject to consultation during the period January to March 2012. The outcomes of this consultation were used to finalise the scope of the sustainability appraisal. As the Residential Design Guidance will support the delivery of wider planning policy objectives, it is appropriate to use that scoping report it underpin the SA of this Guidance.

The Key Sustainability Issues identified for Castle Point were as follows:

Environmental

- Habitats of international, European and national significance are located within the Borough, although outside the built development boundary. These must be protected from development that would threaten their integrity. Additionally, ancient woodlands, other local wildlife sites and gardens all contribute towards a rich mosaic of biodiversity in Castle Point that should be conserved, enhanced and increased where possible to create an integrated network of habitats.

- Whilst coastal areas of the borough are currently protected by sea defences, there is currently a residual risk of flooding as a result of a breach of those defences. Such a breach would have significant consequences. In the future, as a result of climate change, there will be a risk of the sea defences overtopping at high tide. Additionally, other areas of the borough are at risk of surface water flooding, sewer

[2] Castle Point Sustainability Appraisal and Strategic Environmental Assessment Scoping Report *New* Local Plan April 2012

flooding caused by surface water, and fluvial flooding, all of which are expected to increase as a result of climate change.

- The Thames Estuary currently fails to meet quality standards in respect of chemical loading. Development needs to be designed to improve the quality of water entering the drainage network, and aligned with the environmental capacity of Waste Water Treatment Works in south Essex to prevent additional degradation of water quality in the Estuary. Other opportunities to improve water quality also need to be promoted.

- Water resources in the East of England are limited and therefore efforts need to be made to use water efficiently both through the design of development and also through landscaping choices.

- Air Quality monitoring has revealed air quality issues around key transport corridors in the borough. This is most likely associated with the high levels of car use and commuting by car for work.

- Future development needs to be designed to be more energy and thermally efficient, reducing the associated emission of greenhouse gases, and also resilient to flood risk in order to withstand the effects of climate change.

- Waste arising from construction, demolition and commercial/industrial activities is expected to double by 2027 impacting on landfill requirements, the capacity of recycling facilities and the demand for primary aggregates. There is a need to reduce the levels of waste arising from such activities by promoting the re-use of materials on site during development, and also promoting the use of recycled aggregates.

- The Thames Estuary Landscape and its historic assets are diverse and sensitive to development. Opportunities to enhance landscape character in Castle Point should be maximised.

- There is a deficit of open space provision is some areas, most notably in terms of children's playspaces and amenity green areas. Open spaces need to be better connected to create a network accessible to local residents.

- The purposes of the Green Belt, in particular those associated with the separation of settlements and the protection of the Countryside from development should be protected in order to create a sense of openness in the borough.

Social

- The population of Castle Point is ageing, presenting the borough with challenges related to social care provision and healthcare provision. This also has consequences for youth services, the economy and for the turnover and value of housing stock in the borough.

- There is a lack of affordable homes in the borough, both in terms of affordable rented homes and also in terms of low cost market housing. This has caused some people to choose to live in poor quality accommodation at Thorney Bay Caravan Site

resulting in health and social issues arising. Housing land supply should be sufficient to enable a stable and regular supply of new homes that respond to local demand.

- There is a significant pocket of deprivation at West Canvey, caused by issues associated with employment, income, health and education.

- Lung cancer, breast cancer and respiratory diseases are significant causes of mortality in Castle Point. These illnesses may be attributed to poor air quality and the low level of physical activity undertaken by residents of the borough.

Economic

- There are high levels of out-commuting for work. Low local wages and a low value economy fail to attract local people to work in the borough.

- Employment areas and town centres are of a poor environmental quality, detracting investment by higher economy employers.

- Additional employment floorspace and retail floorspace is required to accommodate growth sectors and retail growth in order to address deprivation and employment issues, out-commuting and economic growth requirements.

- Traffic congestion is significant on key routes within the borough, having implications for air quality. This is as a result of over 26,000 people commuting to work by car.

- A high proportion of people commute by rail to work in London, Basildon and Southend for work. However, the railway network restricts access to opportunities for work and leisure in north Essex towns such as Chelmsford.

- The bus network in South Essex is designed to service Basildon and Southend Town Centres, and fails to provide reasonable and cost effective services to the residents of Castle Point to jobs and leisure opportunities on the edge of Basildon and Southend.

The key issues emerging from the Sustainability Scoping Report have been used to develop a suite of sustainability objectives, against which Plans and Documents can be measured and assessed, as set out below in Table 1:

Table 1: Sustainability Objectives

Objective	
1	Conserve, enhance and increase biodiversity and natural habitats in Castle Point.
2	Reduce the risk of flooding from all sources and climate change for current and future residents and businesses.
3	Development proposals should seek to improve the water quality of water bodies in and around Castle Point.
4	Development proposals include a high level of sustainable design and construction, promoting water, energy and thermal efficiency, and ensuring waste minimisation during construction.

5	Improved air quality across Castle Point.
6	Protect the Thames Estuary Landscape and its historic assets from inappropriate development.
7	Make provision for additional high quality public open space, connected to the wider network of accessible green spaces.
8	Protect the Green Belt from inappropriate development that undermines its stated purposes, and encourage appropriate activities in the Green Belt.
9	Make provision for the needs of older people and young people.
10	Make provision for additional homes, including affordable housing.
11	Reduce the levels of deprivation on Canvey Island.
12	Reduce the number of people commuting out of Castle Point for work.
13	Improve the value of local jobs in Castle Point.
14	Improve educational attainment at all ages on Canvey Island.
15	Improve the quality of the public realm.
16	Provide additional retail floorspace within town centre locations.
17	Reduce traffic congestion.
18	Improve the adequacy of bus services and promote active travel modes in Castle Point.

2.0 Sustainability Appraisal

The detailed guidance contained in the new Residential Design Guidance is required to be tested against the 18 Sustainability Objectives, identified in the Castle Point Sustainability Appraisal and Strategic Environmental Assessment Scoping Report *New* Local Plan April 2012.

The Design Guidance relates to detailed elements of residential development as listed below:

- Plot Size (RDG 1)
- Space Around Dwellings (RDG 2)
- Building Lines (RDG 3)
- Corner Plots (RDG 4)
- Privacy & Living Conditions (RDG 5)
- Amenity Space (RDG 6)
- Roof Development (RDG 7)
- Detailing (RDG 8)
- Energy & Water Efficiency & Renewable Energy (RDG 9)
- Enclosure & Boundary Treatment (RDG 10)
- Landscaping (RDG 11)
- Parking & Access (RDG 12)
- Refuse & Recycling (RDG 13)
- Design Review (RDG 14)
- Design Codes (RDG 15)
- Liveable Homes (RDG 16)

Table 2 sets out the matrix used to analyse the detailed guidance against the Sustainability Objectives previously identified. It clearly identifies that the policies contained within the Residential Design Guidance have no relationship with 7 of the 18 objectives.

The detailed and specifically targeted nature of the Guidance, towards the design and built form of residential development, means that it is not able to contribute towards objectives 11, 12, 13, 14, 16, 17 and 18. These relate to reducing the levels of deprivation on Canvey Island, the number of people out commuting to work, and traffic congestion, improving the value of local jobs, education attainment at all ages, adequacy of bus services and promoting active travel modes, and providing additional retail floorspace within town centre locations.

The matrix identifies that many of the policies contained in the Guidance could produce either a negative or positive outcome in relation to sustainability objective 2, which refers to reducing the risk of flooding from all sources and climate change for current and future residents. It is considered that the design of residential development, be it new build or extensions or alterations, can include flood resilient measures which can reduce the flood risk, however such development could also result in additional persons being present in properties and at risk of flooding.

Table 2: Sustainability Appraisal Matrix of Residential Design Guidance

Sustainability objectives	Residential Design Guidance															
	RDG 1 Plot Size	RDG 2 Space Around Dwellings	RDG 3 Building Lines	RDG 4 Corner Plots	RDG 5 Privacy & Living Conditions	RDG 6 Amenity Space	RDG 7 Roof Development	RDG 8 Detailing	RDG 9 Energy & Water Efficiency & Renewable Energy	RDG 10 Enclosure & Boundary Treatment	RDG 11 Landscaping	RDG 12 Parking & Access	RDG 13 Refuse & Recycling	RDG 14 Design Review	RDG 15 Design Codes	RDG 16 Liveable Homes
1	-	-	-	-	-	•	-	-	•	-	•	-	-	-	•	-
2	•/X	•/X	•/X	•/X	•/X	•/X	•/X	-	•/X	•/X	•/X	•/X	-	-	•	•/X
3	-	-	-	-	-	-	-	-	•	-	•	•/X	-	-	-	-
4	-	-	-	-	•	-	-	•	•	-	•	-	•	•	•	•
5	-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
7						•				•	•			•	•	
8	•/X	•/X	•/X	•/X	•/X	•	•/X	•/X	•/X	•/X	•	•/X	•/X	•	•	•/X
9	•/X	-	-	-	-	•	-	-	-	-	•	•	-	•	•	•
10	•	•	•	•	•	•	•	-	•	-	-	-	-	•	•	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Comments	Enables provision of varied dwelling sizes	Enables integration into all surroundings	Enables variation but retains character	Addresses historically difficult sites to develop	Reflects changes in Permitted Development & enables flexibility	Variation in amenity space caters for all needs	Captures all roof development for all dwellings	Addresses elements historically overlooked	Addresses visual & practical implications	Addresses privacy & public realm	Enables both soft & hard landscaping to be incorporated	Covers all parking aspects, rather than historically only limited forms	Integrates planning with Building Regs & Heath & Safety	Introduces independent experts into design process	Enables consistency across sites, esp. with multiple developers	Addresses needs of all occupiers – existing & future
Mitigation	Consider needs of future uses / users of dwellings - extensions	Consider circumstances where no space provided	Consider no building line in certain circumstances	Further examples of best practice / exemplars	Refer to increased property heights for flood risk purposes	Incorporate SUDs	Incorporate green roofs	Enable flexibility to capture new elements in future	Incorporate SUDs & flood resilient measures	Give consideration to visibility splays	Incorporate SUDS	Incorporate SUDS & oil inceptors	Incorporate construction waste	Consider setting thresholds to trigger Design Reviews	Potential to adopt Design Codes as SPD's for large sites	Incorporate light, ventilation & DDA requirements

Key

•	Positive relationship
X	Negative relationship
?	Impact of relationship unclear
•/X	Impact of relationship could produce either negative or positive outcomes
-	No relationship

One policy which can have a positive outcome on this objective is the requirement for design codes. The provision of flood resilient measures to residential development can be included in a code.

The matrix identifies that many of the policies contained in the Guidance could produce either a negative or positive outcome in relation to sustainability objective 8, which refers to protecting the Green Belt from inappropriate development that undermines its stated purpose, and encourage appropriate activities in the Green Belt. The Guidance caters for all residential development, however whilst such development may achieve the standards set out in the Residential Design Guidance, due to their size and / or location, they may be considered inappropriate in the Green Belt.

Four policies contribute to objective 1, which relates to biodiversity. The provision of amenity space can provide essential local habitat for a number of species of flora and fauna, and can also seek to retain and enhance existing habitats. The provision and maintenance of appropriate landscaping can also achieve a similar outcome, and incorporating such elements into design codes can enable such issues to be considered from the very beginning of the design process. Furthermore the introduction of the requirement for the inclusion of native species, suitable for the climate and location, can also achieve longevity of landscaping. The Guidance actively encourages the use of renewable energy and ensuring energy and water efficiency, including the introduction of green roofs, which can create new habitats.

With regard to objective 3, the policies relating to renewable energy, energy and water efficiency, and landscaping can provide positive outcomes. Development which seeks the use of renewable energy and which can achieve energy and water saving, can include measures to reduce the impact on water quality. Furthermore successful landscaping schemes, particularly for larger scale development, can include measures to improve the quality of existing water bodies, by including such bodies within schemes, or contributing to those within their vicinity.

In respect of sustainability objective 4 it is clear that introducing a policy related to renewable energy, and energy and water efficiency would have a positive outcome. The achievability of adequate and suitable living conditions, and successful landscaping can also result in benefits for energy and water efficiency. The provision of larger and better orientated windows can reduce lighting and heating consumption, and the provision of screening and vegetation in the right positions can reduce the need for additional cooling measures for properties. The provision of suitable and convenient refuse and recycling facilities can encourage less waste to landfill, and boost recycling rates.

Ensuring that residential development is designed to incorporate measures to achieve high levels of energy and water efficiency, and the use of renewable energy sources can clearly have a positive outcome to objective 5, which relates to improving air quality.

With regard to objective 6, protecting the Thames Estuary Landscape, the policy relating to Landscaping is best placed to provide a positive outcome, with requirements for landscaping to be suitable to its location and climatic conditions.

Sustainability objective 7 is concerned with making provision for additional high quality public open space, connected to the wider network of accessible green space. Those policies in the Design Guidance concerned with amenity space and landscaping contribute positively to this objective. Such provision is particularly relevant when considering larger scale residential development, which can incorporate public as well as private open space. The provision of clearly defined boundaries around open space can also ensure such spaces are of high quality.

Objective 9 requires the needs of older people and younger people to be provided for. The inclusion of policies in the Design Guidance which ensure that all needs are catered for, such as in respect of amenity space, landscaping, parking and access, and liveable homes all contribute positively to this objective. Furthermore including such requirements as part of a design review and in design codes ensures that the objective is considered throughout the design process. With reference to plot sizes a positive and negative outcome could occur. The provision of a variety of the plot sizes allows for a range of dwelling sizes, which can accommodate varies sections of the population, however in areas where plot widths should adhere to a strong pattern, this could restrict the variety of dwelling sizes.

Objective 10 is to make provision for additional homes, including affordable housing. The policies contained within the Residential Design Guidance enable residential development to be delivered to a high quality, and the flexibility in the policies allows for varying types of dwellings to be accommodated within the borough.

All 16 policies contained in the Residential Design Guidance can contribute to positive outcomes to objective 15, which requires the quality of the public realm to be improved. All aspects of residential development have an impact on the public realm, and as such the introduction of a new set of Guidance which seeks to achieve high quality design for all forms of residential development has a positive relationship with this objective.

Cumulative and Synergistic Effects

It is a requirement to consider the cumulative and synergistic effects of Residential Design Guidance alongside other plans affecting the area. Table 3 sets out the potential cumulative and synergistic effects of the Residential Design Guidance and other plans in respect of each of the sustainability objectives previously identified.

It is clear that given residential development comprises a large proportion of development in the Borough, that the cumulative effects can be considerable, both positively and negatively.

Objective 1 relates to biodiversity and natural habitats. Policies contained in the adopted Local Plan seek the retention and enhancement of such features. The provision and/or retention of additional/suitable amenity space throughout the residential area is likely to result in positive cumulative effects for the local habitat for a number of species of flora and fauna, particularly if the species are native and suitable for the climate and location. Furthermore larger schemes have the ability to introduce new habitats and species. The Guidance can support the policies in the Green Grid Strategy.

Table 3: Assessment of Cumulative and Synergistic Effects

	Cumulative and Synergistic Impacts
Objective 1	The provision of additional / suitable amenity space throughout the residential area is likely to result in positive cumulative effects for the local habitat for a number of species of flora and fauna, particularly if the species are native and suitable for the climate and location. This can support the Green Grid Strategy.
Objective 2	Residential development, be it new build or extensions or alterations, can include flood mitigation, reducing flood risk, however such development could also result in additional persons being present in properties and at risk of flooding. Minimal negative sustainability effects are therefore likely to occur. This can support the TG2100 Plan.
Objective 3	Appropriate landscaping and water efficiency measures across Castle Point are likely to have a positive cumulative impact on water quality. This supports the Water Framework Directive and the Shellfish Waters Directive and Bathing Waters Directive.
Objective 4	If higher levels of energy efficiency are achieved across Castle Point, the cumulative effect will be a greater reduction in energy use. This supports the Code for Sustainable Homes and UK Government Sustainable Development Strategy.
Objective 5	If higher levels of energy efficiency and renewable energy sources are achieved across Castle Point, the cumulative effect will be an improvement in air quality. However more residential development could lead to an increase in car usage, which can impact on air quality.
Objective 6	Special landscape is protected by policy against inappropriate development. Ensuring that landscaping is suitable to its location and climatic conditions is likely to result in positive cumulative outcomes. This supports the Living Landscapes, particularly the visions for Central South Essex Marshes and Daws Heath Complex.
Objective 7	The policies support the provision of suitable amenity space and additional public open space and green areas, there is therefore a cumulative positive effect on public open space. This supports the Green Grid Strategy and the Open Space Strategy.
Objective 8	Residential development may achieve the standards set out in the Residential Design Guidance, however due to their size and/or location, they may be considered inappropriate in the Green Belt. The cumulative effects could subsequently be negative as well as positive. This supports the adopted Local Plan.
Objective 9	When combined with planning proposals for the borough, including via planning applications, there is a cumulative positive impact on the variety of new homes in Castle Point. This supports guidance contained in the National Planning Policy Framework.
Objective 10	When combined with planning proposals for the borough, including via planning applications, there is a cumulative positive impact on the number of new homes in Castle Point. This supports guidance contained in the National Planning Policy Framework.
Objective 11	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 12	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 13	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 14	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 15	Public realm improvements are taking place at Tarpots town centre, a Public Realm Strategy has been produced for Canvey Island, and a Public Realm Strategy is being produced for Hadleigh town centre so cumulative effects are likely to be positive. This can support the design policy in the adopted Local Plan.

	Cumulative and Synergistic Impacts
Objective 16	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 17	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.
Objective 18	The Residential Design Guidance does not contribute to this objective. Therefore there are no cumulative sustainability effects.

Key

- Potentially positive sustainability effects
- Potentially significant negative sustainability effects
- Potentially minimal negative sustainability effects
- No cumulative sustainability effects

In respect of objective 2, residential development within Flood Zone 3a is likely to result in the total number of people at risk of flooding increasing, it is therefore important that flood mitigation is used to minimise this cumulative effect. These polices can also support the Thames Gateway 2100 Plan.

The cumulative effects relating to objective 3 are linked to those policies contained in the Residential Design Guidance relating to improving energy and water efficiency, together with appropriate amenity and landscaping schemes, which are likely to have a positive cumulative impact on water quality. Larger scale developments in particular can include and improve existing water bodies within schemes. These policies can also support the Water Framework Directive, the Shellfish Waters Directive and Bathing Waters Directive.

National policy such as that contained in the Code for Sustainable Homes and the UK Government Sustainable Development Strategy provide guidance in respect of sustainable design and construction, which sustainability objective 4 is concerned with. It is clear that the policies contained in the Residential Design Guidance in seeking to achieve the use of renewable energy sources and to increase energy efficiency, support this objective. If this occurs in all residential development this will have a positive cumulative affect.

National policies, as well as those contained in the adopted Local Plan seek to control pollution, including air quality. The encouragement of the achievement of higher levels of energy efficiency and renewable energy sources are likely to result in an improvement in air quality, a positive cumulative effect in relation to sustainability objective 5. However the increase in residential forms of development could lead to an increase in car usage, which can impact negatively on air quality.

The proposed policies in the Residential Design Guidance seek to ensure that landscaping is suitable to its location and climatic conditions. These support policies contained within the adopted Local Plan, which seek to protect special landscape areas from inappropriate development, and the Living Landscapes, particularly the visions for Central South Essex Marshes and Daws Heath Complex. The cumulative outcomes relating to objective 6 are therefore likely to be positive.

With regard to objective 7, the policies in the adopted Local Plan seek to protect public open space from development. The Residential Design Guidance encourages the provision of amenity space suitable to the type of development, together with the provision of additional public open space and other green spaces, where necessary, particularly in larger schemes. This is likely to have a positive cumulative affect on open space provision in Castle Point. Such policies will also support the provisions of the Green Grid Strategy and the Open Space Strategy.

The policies contained within the adopted Local Plan seek to protect the Green Belt from inappropriate development. The Residential Design Guidance caters for all residential development, however whilst such development may achieve the standards set out in the Residential Design Guidance, due to their size and/or location, they may be considered inappropriate in the Green Belt. The cumulative effects could subsequently be negative as well as positive. It is therefore important that any negative effects on sustainability objective 8 are minimised.

Planning for new dwellings, including affordable housing in the borough, and catering for the needs of both the young and old, forms part of the development plan. In line with the guidance contained within the NPPF, the policies contained within the Residential Design Guidance provide flexibility, allowing varying types of residential development to be achieved. This has a cumulative positive impact.

Throughout the borough there are a number of public realm improvements being undertaken and a number of Public Realm Strategies that have been or are in the process of being produced. These are mainly related to town centres and employment areas. Many aspects of residential development have an impact on the public realm, and as a result the policies contained in the Residential Design Guidance seek to ensure high quality design. This will have a positive cumulative effect in respect of sustainability objective 15.

Secondary Effects

The application of the proposed Residential Design Guidance can result in limiting the amount of development that can be achieved. As a consequence more land may be required to accommodate the development needed, which could result in secondary effects such as the potential loss of Green Belt, wildlife and/or greenfield sites to accommodate the residential development, or the loss of population and community cohesion through people leaving the area to find residential accommodation.

Mitigation

Table 2 sets out the need for mitigation to ensure maximum achievement of some of the sustainability objectives. As these mitigation measures have not been incorporated into the Residential Design Guidance, it is necessary that they are instead set out in the adoption statement for the Residential Design Guidance in order to guide development appropriately.

Conclusion

It is considered that if these requirements are applied when considering planning applications for residential development, then the Residential Design Guidance should make a positive contribution to sustainability.

All 16 policies contained in the Residential Design Guidance can contribute one or more positive outcomes to those identified sustainability objectives of direct relevance to residential development. The introduction of a new set of Guidance which seeks to achieve high quality design for all forms of residential development has a positive relationship with the identified sustainability objectives.

3.0 Monitoring Framework

There is a requirement for a monitoring framework to be put in place to monitor the environmental effects of the implementation of plans and programmes in order that any unforeseen adverse effects can be identified at an early stage, and the necessary remedial action taken.

A number of indicators have been identified, using the Sustainability Objectives set out in the SA and a Strategic Environmental Assessment (SEA) Scoping Report[3]. These will be used to form the monitoring framework.

The outcomes of monitoring activities will be reported as part of the Council's Annual Monitoring Report. This is produced each year to identify how the Local Development Framework is performing against both planning and sustainability objectives.

Table 4 below sets out the proposed monitoring framework for the Residential Design Guidance.

[3] Castle Point Sustainability Appraisal and Strategic Environmental Assessment Scoping Report *New* Local Plan April 2012

Table 4: Monitoring Framework

Objective		Indicator	Target	Source of information	Frequency	Expected Trend	When should remedial action be taken?	What remedial action should be taken?
1	Conserve, enhance and increase biodiversity and natural habitats in Castle Point.	1) Proportion of new residential development incorporating / retaining amenity space provision (private and/or public) 2) Proportion of new residential development incorporating native species, suitable to climate and location	0% (annual monitoring)	Planning application records	Annual	Increase	If achievement against this requirement is less than 75%	Review Residential Design Guidance to check any indirect impacts on natural environment have been appropriately identified and managed
2	Reduce the risk of flooding from all sources and climate change for current and future residents and businesses.	Proportion of residential development within Flood Zone 3a, incorporating flood resilient measures	100%	Planning application and building control records	Annual	Increase	First application approved for development that fails to provide flood resilient measures	Review Residential Design Guidance to secure flood resilient measures to all residential development in Flood Zone 3a

Objective		Indicator	Target	Source of information	Frequency	Expected Trend	When should remedial action be taken?	What remedial action should be taken?
3	Development proposals should seek to improve the water quality of water bodies in and around Castle Point.	1) Proportion of new residential development, which incorporates water efficiency measures 2) Proportion of new residential development which incorporate existing water bodies	0% (annual monitoring)	Planning application and building control records	Annual	Increase	If achievement against this requirement is less than 75%	Review Residential Design Guidance to provide increased emphasis on need for improving water quality
4	Development proposals include a high level of sustainable design and construction, promoting water, energy and thermal efficiency, and ensuring waste minimisation during construction.	Development proposals measured against the Code for Sustainable Homes, or any subsequent revision(s).	Code Level 4 or above.	Planning application and building control records	Annual	Increase	If achievement against this requirement is less than 75%	Review Residential Design Guidance to provide increased emphasis on the need for high level of sustainable design and construction

Objective		Indicator	Target	Source of information	Frequency	Expected Trend	When should remedial action be taken?	What remedial action should be taken?
5	Improved air quality across Castle Point.	Proportion of residential development which incorporates renewable energy sources, reducing air pollution	0% (annual monitoring)	Planning application and building control records	Annual	Increase	If achievement against this requirement is less than 75%	Review Residential Design Guidance to provide increased emphasis on need for improving air quality
6	Protect the Thames Estuary Landscape and its historic assets from inappropriate development.	Development within or in close proximity to Thames Estuary Landscape and historic assets	No instances of inappropriate development within or in close proximity to Thames Estuary Landscape and historic assets	Comparison of planning application records	Annual	No change	If inappropriate development occurs within or in close proximity to Thames Estuary Landscape and historic assets	Review Residential Design Guidance to ensure development is sensitive to unique landscape and historic assets
7	Make provision for additional high quality public open space, connected to the wider network of accessible green spaces.	1) Area of additional public open space provided 2) Number of LAP's and LEAP's provided 3) Proportion of new residential development incorporating / retaining amenity space provision (private and/or public)	Increase in area of public open space provision Increase in number of LAP's and LEAP's provided	Area of land designated as public open space as measured on GGP Planning application records	Annual	Increase	First application for residential development that should provide public open space, LAP's and / or LEAP's but fails to do so	Review Residential Design Guidance to ensure public open space and accessible green spaces is delivered

Objective		Indicator	Target	Source of information	Frequency	Expected Trend	When should remedial action be taken?	What remedial action should be taken?
8	Protect the Green Belt from inappropriate development that undermines its stated purposes, and encourage appropriate activities in the Green Belt.	Residential development in the Green Belt	No instances of inappropriate development within the Green Belt	Area of land designated as Green Belt, as measured on GGP Planning application records	Annual	No change	If inappropriate development occurs within the Green Belt	Review Residential Design Guidance to ensure development is sensitive to the Green Belt
9	Make provision for the needs of older people and young people.	1) Number of starter sized homes provided (1-2 beds) 2) Number of additional bedspaces provided in sheltered / residential / nursing homes	Appropriate mix of dwellings to meet the demographics and housing market. Target to be established	Planning and building control records	Annual	Increase	Target to be established	Review Residential Design Guidance to ensure a mix dwellings can be delivered
10	Make provision for additional homes, including affordable housing.	1) Net number of new homes provided; 2) Number of affordable homes provided.	Target to be established Target to be established	Planning and building control records	Annual	Increase	Target to be established	Review Residential Design Guidance to ensure affordable housing can be delivered

Objective		Indicator	Target	Source of information	Frequency	Expected Trend	When should remedial action be taken?	What remedial action should be taken?
15	Improve the quality of the public realm.	Amount of investment in public realm improvements / public art	Increase in the level of satisfaction with the quality of the public realm.	Section 106 Agreement records	Annual	Increase	No investment secured in year	Review Residential Design Guidance to ensure development contributes to improving the public realm