Thames Gateway South Essex

Waterfront Strategy

Final Strategy

March 2006

Office of the Deputy Prime Minister
Creating sustainable communities

THAMES gateway

EEDA East of England Development Agency

GHK

Thames Gateway South Essex
Waterfront Strategy

FINAL STRATEGY

A report submitted by GHK Consulting

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1 INTRODUCTION: THE STRATEGIC CONTEXT

1.1 Introduction to the Strategy

"The South Essex waterfront of the Thames Estuary is a key part of the UK's No.1 priority area for regeneration – the Thames Gateway. The development framework for the waterfront emerging from this study will have a vital role in bringing together national and regional strategies with local projects, plans and, crucially, leveraging the region's potential. Much of that potential stems from the opportunities offered by ***the area's defining asset – the Thames****. The challenge is to create a vision that engenders the belief and support of the community, the private sector and the public bodies in the area – aligning stakeholders. The process of turning vision into reality will be made tangible through the definition of projects which will create the employment, the environment and the lifestyle to which those involved aspire – in short, to contribute towards the region's vision of the future."*

This strategy report presents the vision, strategy and framework to meet the objectives for the future of the Thames waterfront area of Thames Gateway South Essex (TGSE) The above summary of these objectives were agreed at the outset of the Marine and Estuarial Development Framework Study (now known as the "Waterfront Study") prepared by GHK in association with Royal Haskoning and Amion for EEDA and the Thames Gateway South Essex Partnership (TGSEP).

Figure 1.1 Approach: Making the Gateway work for TGSE

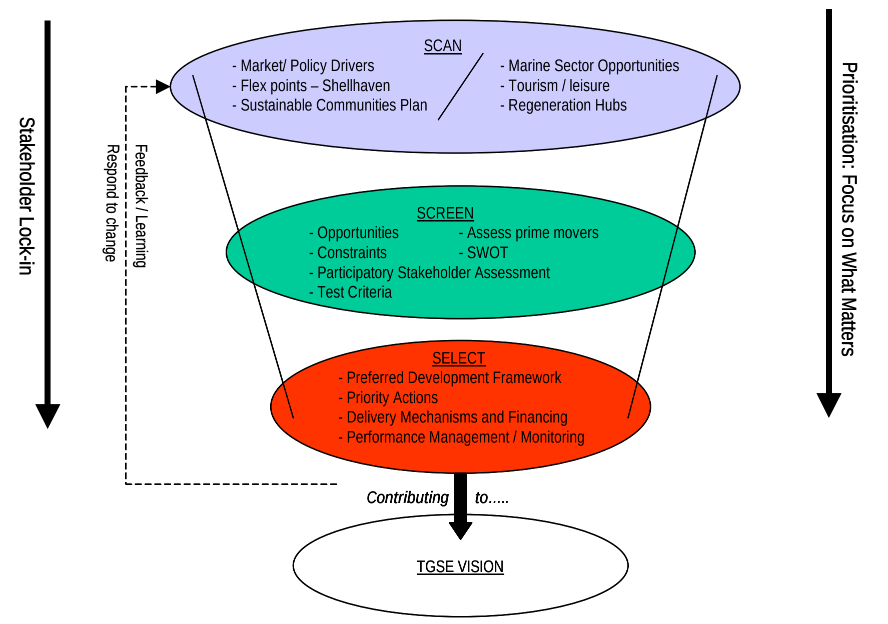


Figure 1.2 Summary of Study Objectives and Tasks: Three Phases

<table>
<tr><th>Objectives</th><th>Tasks</th><th>Deliverables</th></tr>
<tr><td>Phase 1: SCAN</td><td></td><td></td></tr>
<tr><td>This phase carried out an appraisal of existing documents, and high level stakeholder engagement around key issues and challenges – the prime movers.</td><td>Inception and Project Initiation
Data Review and Collation
Prepare GIS Framework for TGSE Zone
Physical Review of the Marine / Estuarial Zone
Environmental Review of Areas of Environmental Value, Risk and Potential
Flood Management Evaluation
Development Demand Assessment of Port and Marine / Marine based Leisure / Marine Transport / other Tourism & Leisure / Commercial / Housing
Review of Land Supply and Take-up
Stakeholder Consultations</td><td>Inception Report – programme of research, analysis and consultation
First Interim Report on Phase 1 - Framework Reviews in four parts:
▪ Overview of the Economy and Policy
▪ Marine Sector Papers
▪ Estuarial Infrastructure and Environment Papers
▪ Flood Alleviation Paper</td></tr>
<tr><td colspan="3">Phase 2: SCREEN</td></tr>
<tr><td>The basic objective here was to identify the principal development scenarios, options, success factors and/or flex points and impacts of options – signposting the way forward</td><td>Development of Framework Scenarios and Options
Develop Marine Sector Development Options - Port and Marine / Marine based Leisure / Marine Transport / Fisheries
Develop Tourism, Leisure and Cultural Development Options
Develop Commercial and Housing Development Options
Options for Transport and other Infrastructure Provision to Support Development
Flood Management Planning Options
Environmental Planning Options – Habitat Creation / Local Biodiversity / Greengrid etc.</td><td>Second Interim Report on Phase 2 - Framework Scenarios and Options
Quarterly Reports</td></tr>
<tr><td colspan="3">Phase 3: SELECT</td></tr>
<tr><td>This phase focused on developing and packaging a preferred framework for development of the study and keystone projects which provides a “robust foundation for decisions for future investment” in the public and private sectors and inform delivery arrangements.</td><td>Participative Stakeholder Assessment on Selection of Preferred Option
Evaluation of Preferred Option
Develop Overall Evaluation of Preferred Option
GIS Collation and Mapped Presentation of Evaluation and Preferred Option
Preparation of Waterfront Strategy
Funding Assessment and Recommendations
Institutional Assessment and Recommendations
Performance and Monitoring Framework</td><td>Workshop Papers
Briefing Paper on Strategy Framework
Final Report – Waterfront Strategy
Presentations to Steering Group Partners and others
Seminar for Private Sector Stakeholders</td></tr>
</table>

This report presents the Strategy itself. The study results were presented in a series of interim reports, workshops and presentations to the Steering Group and stakeholders and are summarised in the strategy as part of the evidence base for the recommendations. The work of the study was divided into three stages which worked towards the strategy and vision for the TGSE Waterfront as shown in Figure 1.1. The objectives tasks and deliverables of each stage of the study are summarised in Figure 1.2.

The Thames Gateway South Essex was added to the Thames Gateway regeneration area in the Regional Planning Guidance published in March 2001 extending the Gateway to include more of Thurrock, part of Basildon, the Boroughs of Castle Point and Southend-on-Sea and part of Rochford. The Thames Gateway regeneration strategy for this area is coordinated by the Thames Gateway South Essex Partnership (TGSEP) which includes the three delivery vehicles in the area as members, alongside the local authorities, the private sector and other agencies such as the LSC and the Strategic Health Authority.

The three delivery vehicles for the area are:

- Thurrock Thames Gateway Development Corporation
- Renaissance Southend
- Basildon Renaissance Partnership.

The Waterfront Strategy area falls within the TGSEP area and extends approximately from the A13 south to the Thames riverfront and seafront. To the north-east the boundary extends beyond the A13 to the Southend Borough boundary. The strategy has also had regard to the opportunities and impact of developments in TGSE beyond the A13 but the strategy focus is on the waterfront itself. These areas are shown on Figure1.3

1.2 The Policy Context

In February 2003 the national Sustainable Communities Plan (SCP) was launched to be accompanied by nine regional spatial plans prepared by the regional assemblies. One of the main concerns of the SCP has been to set out the Government's approach to tackling housing shortages in the South East and the Deputy Prime Minister is now committed to supporting four growth areas:

- The Thames Gateway
- M11 Corridor: London - Stansted - Cambridge - Peterborough
- Ashford, and
- Milton Keynes – South Midlands

The SCP calls for communities that are prosperous; have decent, affordable homes for sale or rent; safeguard green and open space; enjoy a well designed, accessible, pleasant living space and working environment; and are effectively and fairly governed with a strong sense of community. The Plan places a particular emphasis on meeting these aspirations through the development of the Thames Gateway. The Plan states that it "presents a huge opportunity for London and the South East. It offers the opportunity to regenerate existing deprived communities through access to 300,000 new jobs, has one of the largest concentrations of brownfield sites in the country, and is in a strategic location on major transport links to the continent".

Since the announcement of the SCP, the policy context for the development of the Thames Waterfront at regional, Gateway and local level has been set in a new and challenging direction.

1.2.1 Regional Policy Context

The existing regional development policy context for the TGSE Waterfront area is currently evolving through the Regional Spatial Strategy (RSS) in preparation by the East of England Regional Assembly (EERA) and the Regional Economic Strategy (RES) prepared by EEDA. Neither of these provides the basis for an explicit economic vision or strategy for the TGSE area – much less for the Waterfront area or the marine related sectors. However they do provide broad policy directions and – in the case of the RSS, which is the main mechanism for the delivery of the Sustainable Communities Plan (SCP) – some broad economic and development targets.

East of England Plan

In December 2004 the East of England Regional Assembly published the consultation Draft of the RSS for the East of England. The "East of England Plan" sets out the regional strategy for planning and development in the East of England to the year 2021. It covers a range of themes, including economic development, housing, the environment, transport, waste management, culture, sport and recreation, mineral extraction. The RSS has a key role in contributing to the sustainable development of the region. It sets out policies which address the needs of the region and key sub-regions within it. These policies provide a development framework for the next 15 to 20 years that will influence the quality of life, the character of places and how they function, and will inform and provide a framework for other strategies and plans, as well as providing the physical expression for the Regional Economic Strategy. The RSS also identifies the significant investment that will be needed in social, environmental, economic and transport facilities ('infrastructure') if it is to achieve its desired results. It provides also guidance at the regional level in areas such as economic development, retail and tourism, culture, housing, transport and environmental resources.

Specifically the RSS provides sub-regional and sub-area guidance and targets – including targets for the TGSE area on housing and employment which have been agreed with government – subject to public consultation as part of the delivery of the SCP. These targets help to provide a baseline for economic development options in the TGSE.

"A Shared Vision" – The Regional Economic Strategy for the East of England

The current **Regional Economic Strategy (RES)** was published in November 2004 and is structured around a series of goals and priorities and delivery plans which are more sub-regionally based than its predecessor. As such the RES will provide more of a specific strategic economic framework for the TGSE. The eight goals have more resonance for the Thameside area and economy:

- A skills base that can support a world-class economy
- Growing competitiveness productivity and entrepreneurship

- Global leadership in developing and realising innovation in science, technology and research
- High quality places to live, work and visit
- Social inclusion and broad participation in the regional economy
- Making the most from the development of international gateways and national and regional transport corridors
- A leading information society
- An exemplar for the efficient use of resources

All of these are specifically relevant to the challenges and opportunities of the area and, in the case of Goals 4, 6 and 8, the Thames Gateway in South Essex can be expected to make a leading contribution for the region.

The RES delivery plan for the TGSE Growth Area reflects the targets of the RSS – specifically the "challenging target" of an additional 55,000 jobs and the need to improve the design and quality of homes and neighbourhoods. It notes the weak skills base and the inadequate infrastructure. It also clearly notes:

"…the negative perceptions of the natural and built environment ".... and that….. "there is a lack of awareness of the special and distinctive character of the River Thames and other environmental assets which could be a strength of the area".

The specific areas for development in the TGSE area under the RES are:

- Improve aspirations and the skills base through better outcomes in schools and increased participation in further and higher education
- Focus on the existing and future skills needs (through initiatives such as the Transport and Logistics Academy in Thurrock)
- Support employment, entrepreneurship business growth and inward investment in key sectors
- Tackle deprivation and build community cohesion
- Maximise investment in strategic transport infrastructure (including London Gateway and Southend Airport)
- Develop the Greengrid South Essex to protect, enhance and increase access to environmental assets
- Support local delivery vehicles to enable step change in the quality and speed of delivery

1.2.2 Thames Gateway South Essex Area and Surrounding Area Strategies

Thames Strategy East (2005)

The Thames Strategy East was prepared for the Thames Estuary Partnership – made up of the major stakeholders with an interest in the eastern reaches of the Thames from Tower Bridge to Tilbury. As such it covers only part of the north bank waterfront of the TGSE waterfront strategy area – excluding the main estuarial area – and it's focus "responds to the challenges facing the River Thames itself", including transport and economic as well as environmental and recreational issues, but is not intended to provide guidance on landward development. Within this area, it seeks to provide the background data, analysis, policies, guidelines and spatial frameworks for the Thames East area.

The Strategy provides a policy context for development, with an overview of development pressures on the river. The strategic guidance provides a broad understanding of the river as a landscape, townscape and riverscape resource, and brings together an overarching vision for this part of the river area. The framework addresses the principles of planning, character, biodiversity, archaeology, built heritage, etc. It also provides design objectives.

For the context of the Thames Gateway Waterfront Study, we have taken into account the policy framework for the Thurrock Riverside area, in particular proposals for Purfleet, West Thurrock Marshes, South Stifford, Grays and Tilbury Docks. This framework will inform the preparation of Regional Spatial Strategies, policies, Local Development Frameworks, masterplans, design guidance and investment programmes and priorities.

Thames Gateway South Essex Baseline Study

In parallel with the waterfront strategy preparation the TGSEP have had a baseline economic study prepared which is intended to provide a context for TGSE's economic future. It sets out the existing economic baseline situation for the area as a whole, makes a series of alternative scenarios for future economic development and examines the path for future economic interventions at a broad level. The baseline assessment shows how employment in the TGSE area has grown by over 38,000 between 1991 and 2001 – stronger growth than has occurred nationally and similar to that for London over the period. It identifies the "challenging" targets for future growth set out in the RSS, however and examines five growth scenarios for employment from 2001 to 2021:

- A "Trend" scenario generating a net growth of just 8,000 jobs;
- A "Plan-based" scenario (based on the RSS target and planned developments) generating a net growth of 55,000 jobs;
- A "Productivity-based" scenario with increased productivity and exports in enhanced growth sectors generating a net growth of 15,500 jobs;
- A "Knowledge-based" scenario reflecting growth in knowledge intensive sectors generating a net growth of 31,000 jobs.

The scenarios suggest that intervention will be needed to lift employment growth above trend levels – certainly to achieve the RSS plan-based targets. However it should be noted that a high proportion of the additional growth in this scenario is largely attributable to a growth in the transport and storage sectors of nearly 22,000 jobs. Most of this growth in turn is a result of the proposed London Gateway port and Shell Haven developments. This is an important consideration for the waterfront strategy if RSS targets are to be met.

Essex and Southend-on-Sea Replacement Structure Plan 1996-2011

The replacement Structure Plan was adopted in March 2001 and sets out the strategic policies for the county (not including Thurrock) for the period 1996-2011. The plan is now being replaced. Specific policies relating to the economy and employment and industrial land provision are:

- Core Strategy Policies CS1, CS2, CS3, CS4 and CS5 that promote sustainable urban regeneration, encourage economic success, promote sustainable development and sustainable transport.
- Policy BE1, which encourages the recycling of vacant and underused land in urban areas.
- Policy BIW3, which requires a sequential test approach to new business development. It requires the consideration firstly towards town centre sites, then the reuse of previously developed land, reuse of other land in inner urban and suburban area and finally planned peripheral development.
- Policy BIW6 that promotes the development of sites and buildings specifically to meet the needs of small businesses.

At that time, the plan proposed an indicative provision of a net increase of 173 hectares of land for business, industry and warehousing in the TGSE area between 1996 and 2011 in accordance with the distribution as shown in Table 1.1 below. These allocations are now being updated as part of the RSS process. However it should be noted that just over 50% of the total land provision increase in Essex and Southend (excluding Thurrock) is planned for Basildon and this emphasis is likely to continue.

Table 1.1 Employment Land Provision in Essex and Southend 1996-2001

District Borough	Hectares (net increase)
Basildon	87
Castle Point	21
Southend	30
Rochford	35
Total – South Essex (excluding Thurrock)	173

Thurrock Thames Gateway Development Corporation

In November 2003 ministers appointed the board and chairman of the Thurrock Thames Gateway DC for an initial period of seven years, “to bring about the structural and sustainable transformation of Thurrock”. This objective is specifically part of the delivery plans of the Thames Gateway and the Sustainable Communities Plan. This includes delivery of the housing targets for the area but the DC has emphasised that, in order to be sustainable, growth must be “jobs led”. Although the statutory plan making responsibilities will remain with the Thurrock Unitary Authority, the DC is preparing a non-statutory “Regeneration Framework” plan coincident with the Thurrock UDP and will take on the development control powers for strategic developments.

Since the Development Corporation was established a number of area and sector development strategies have been prepared or are in preparation to meet these objectives. In particular the Draft Regeneration Framework, which focuses on the economic, social and physical attributes of Thurrock and the key priorities for the area in the future to meet the proposed employment and housing targets imposed by the Sustainable Communities Plan. It has recently completed public consultation and, after final consultation in spring 2006, is expected to provide a basis for Area Action Plans, master planning and other initiatives.

1.3 Development Targets for the Waterfront

1.3.1 Regional Planning Targets

As noted above, over the last two years the new East of England Regional Assembly (EERA) has been preparing the Regional Spatial Strategy (RSS) – the East of England Plan. It is this Plan which articulates the growth principles and targets of the Sustainable Communities Plan for the Growth Areas within the East of England Region.

In practice the growth area targets for TGSE are set within the overall targets for the Thames Gateway as a whole – the remainder of which is within the South East and London Regions. The overall Thames Gateway Growth Area Strategy has committed the government to supporting the development of at least 120,000 houses in the area by 2016. These targets are expected to be met by the growth of 120,000 – 180,000 additional jobs in the area by 2016 – though these targets have been challenged by the Regional Assemblies and others. TGSE is expected to make a significant contribution to the provision of employment opportunities and infrastructure to support this level of new sustainable community development.

The East of England Plan has set and "banked" specific housing and jobs targets for TGSE consistent with the overall Thames Gateway Growth Area Strategy. It is these "banked" targets which are used as the TGSE guiding targets for the present study and which are not expected to change.

Housing Targets

The targets should be carefully specified. As Table 1.2 shows the additional dwelling provision target of the five TGSE local authorities is 43,800 between 2001 and 2021. In fact only 37,000 of these are expected to be within the TGSE area of these authorities.

Table 1.2 RSS Policy TG/SE 6: Dwelling Provision by District

Period	Basildon	Castle Point	Rochford	Southend	Thurrock	Total
2001 - 2011	5,000	1,500	1,600	2,750	8,500	19,350
2011 - 2021	5,700	2,500	3,000	3,250	10,000	24,450
2001 - 2021	10,700	4,000	4,600	6,000	18,500	43,800
2001 – 2021 within TGSE	8,500	4,000	0	6,000	18,500	37,000

Source: East of England Plan: Consultation Draft, December 2004

Employment Targets

The additional jobs provision target of the five TGSE local authorities is 55,000 *between 2001 and 2021* - see Table 1.3. Nearly half of these – 26,000 jobs – are in Thurrock, and most of the rest – 13,000 jobs are in Southend. Approximately 55% of these jobs are required between 2001 and 2011.

Table 1.3 RSS Policy TG/SE 2: Additional Job Generation by District

Period	Basildon	Castle Point	Rochford	Southend	Thurrock	Total
2001 -2011	7,000	1,000	1,000	5,000	16,000	30,000
2011 -2021	4,000	1,000	2,000	8,000	10,000	25,000
2001 -2021	11,000	2,000	3,000	13,000	26,000	55,000

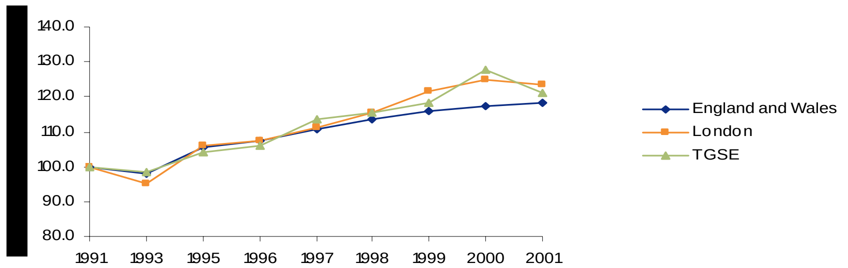
Source: East of England Plan: Consultation Draft, December 2004

The Plan does not make clear from which sectors this additional job generation is expected to come from. The growth is expected to be additional to that which can be expected in the area's economy under a "business as usual" scenario and is clearly associated with the growth in the number of dwellings under the SCP – providing a level of "balance" between jobs and the growing resident workforce. The distribution of dwellings and jobs growth between districts is not balanced by these targets – nor do they reflect the existing distribution of employment between the districts in the Waterfront Strategy area.

1.3.2 *Employment Trends Since 1991*

Although these employment targets to 2011 require significant growth, the TGSE districts have shown strong employment growth in the last 10 years. The 2001 Census identified 241,800 jobs in the sub-region, an increase of over 38,000 jobs (19%) since 1991. As already noted in the TGSE Baseline Study, this is stronger growth than has occurred nationally and compares with that for London over the period – see Figure 1.4. The Annual Business Inquiry (ABI) data on which this information is based suggests that there was further strong growth in employment by more than 8,500 jobs in 2002 and that this has continued into 2003. The three waterfront districts of Castle Point, Southend and Thurrock have contributed significantly to this growth having grown by more than 12,500 jobs in the period from 1998 to 2002.

Figure 1.4: Employment change 1991 to 2001 for the TGSE sub-region, London and England and Wales



Source: Annual Business Inquiry, 1991 to 2001

Figure 1.5 shows that the growth from 1991 to 2002 has occurred in the construction (over 125% growth) retail distribution/hotels and restaurants and the transport and communication sectors. This pattern is reflected in the waterfront districts where retail growth has been strong in Thurrock and Southend, and construction has grown by nearly 3,000 jobs in Thurrock alone. However transport (including in particular port transport) has actually declined by nearly 1,500 jobs in Thurrock in the last five years.

This analysis suggests that trends in the past 10 – 15 years have out-performed the national performance in the relevant sectors and that national trend based forecasts may be underrating the potential economic performance of the area – and of the waterfront economy in particular – if key sectors can be supported and strengthened.

Figure 1.5: Sectoral employment change 1991 to 2002

Source: Annual Business Inquiry 1991-2002

2 THE WATERFRONT STRATEGY: VISION AND PRINCIPLES

2.1 The Role of the Waterfront in the Thames Gateway

The strategy set out in this document identifies a series of policies, actions and projects which will create the employment, the environment and the lifestyle to which those involved aspire, primarily by securing the opportunities offered by the area's defining asset – the Thames. However, as the objectives of the strategy make clear, "the reality will be made tangible by contributing to and delivering a clear vision of the region's future, and in particular the role of the waterfront in that vision."

The fundamental point of departure of the Waterfront Strategy is to harness the development benefits that potentially emanate from the River Thames. In very simple terms, the Thames, its riparian environs and related sensitive habitats provide or contribute to the three crucial components – or "pillars" - of a sustainable growth strategy:

- *A Lifestyle:* The river contributes to the region's social and cultural development and indeed, identity. The river potentially offers outstanding opportunities to enhance and add value leisure and tourism development options. The pure aesthetic of the river, its tidal rhythms and visual clues to the workings of the global economy make it an asset attractive to businesses and as a place to live. A key is to keep the river accessible to as many people as possible so it genuinely contributes to a TGSE lifestyle shared by many.
- *An Environment:* The river is a vital ecological asset that supports bio-diversity and contributes to an outstanding landscape that quintessentially defines the sub-region. The region hosts a number of internationally recognised ecological assets that are shared widely and contribute to the quality of life of residents and visitors. The protection of the environment is an important element of the sub-region's distinctiveness and value proposition. However, it is also necessary to integrate the environmental assets into the wider cultural and leisure experience of the sub-regions.
- *A Gateway:* The river is a means of transport which, when combined with cargo handling facilities, supports the wider economic development of the TGSEP area, East of England and the wider national economy. This role is essential as critical inputs to the national economy such as fuels, foodstuffs and intermediate and consumers goods are dependent upon access to water based transport and landside infrastructure. With globalisation and growth this role will likely increase in the future. The TGSE sub-region is well positioned to be at the centre of this growth.

2.2 A Vision for Waterfront Development

The **Vision** for the Waterfront of the Thames Gateway South Essex recognises the unique role of the waterfront and aims, in combination with parallel strategies and plans, to:

- Contribute to the delivery of an outstanding *quality of life* experience for the sub-regions citizens and to become a destination of choice for visitors, by ……….

- Capturing the tremendous opportunities that the River Thames offers to the TGSE sub-region in terms of contributing to sustainable growth, the gateway function and employment, whilst ………
- Balancing the growth and development pressures that emerge from and impinge upon these very same assets.

The TGSE Waterfront Strategy therefore puts at the forefront the realisation of the of The Thames Gateway's greatest asset – the River Thames itself – as **the driver of the area's economy** and as **the setting for a high quality of life** for residents and visitors, without either compromising the other.

2.3 Strategy Principles

The Waterfront Strategy is intended to guide development and shape *choices* towards the vision and overall policy development goals of the TGSEP and its partners. To strengthen the framework, guiding principles are proposed that will be used to test options, inform choices and ultimately help us navigate our journey to our destination.

- *Sharing the river:* We will ensure that our most valuable natural asset, the River Thames, will be safeguarded and developed in a way that maximises shared access to it on the part our citizens of today and tomorrow and our guests.
- *Safeguarding the gateway function of the river:* We will ensure that our major river dependent industries and other economic activities that benefit from marine access are supported through access to waterfront sites if they are commercially viable and contribute to local, regional and national prosperity. We recognise our gateway function and we will execute it with efficiency and environmental diligence.
- *A high quality natural and physical environment:* We will ensure that our major environmental assets are *enhanced and protected* through sound environmental management practices.
- *Quality of Life:* We will ensure that where we live offers an opportunity for our citizens to share in a healthy and productive life.
- *Stewardship of very special assets:* We will ensure that our collective development choices contribute to our vision and leave behind something even better for future generations – we are the stewards of a very special place that is getting better!
- *Enjoyment*: We will ensure that we create an exciting 21st Century "destination" for people to enjoy our superior environmental quality, participate in a diverse and active range of outdoor activities and rediscover some of the magic of the sea and river front.

It is these principles which have guided the development of the strategy framework and the choices about development and infrastructure provision in the strategy itself.

2.4 Strategy Framework

2.4.1 Drivers for Change in the TGSE Waterfront Area

Figure 2.1 sets out the logic process for the formulation of the Waterfront Strategy from the development of the vision to delivery of the strategy.

The analysis of the strategic policy and economic context for development in the TGSE in the preceding section of this strategy has highlighted a number of key strategic drivers – or decision “flex-points” - which can be expected to drive the future direction of economic and spatial development of the TGSE area as a whole and of the Waterfront area in particular. These have been identified as follows:

- The RSS “banked” housing targets for TGSE totalling 37,000 dwellings by 2021 as distributed across the three “waterfront” districts. This strategic driver assumes that these targets are **met in full under all options.**
- The RSS “banked” jobs targets for TGSE totalling 55,000 jobs by 2021. This driver assumes that these should be met as far as possible but notes that there are no specific sectoral targets from which these jobs will be sourced.
- The RSS employment targets as distributed across the three main “waterfront” districts within the TGSE area. This driver assumes that the distribution of jobs across districts may vary under different scenario conditions.
- The significant policy and vision driver behind an environmental and sustainable-led development strategy for TGSE.

The other key driver is the decision by the Secretary of State on the Harbour Empowerment Order for the London Gateway Port and planning application for the associated Shell Haven development – positive, negative or conditioned – which was expected throughout the period of strategy development and preparation. This was seen as a major driver of alternative development scenarios for the whole TGSE area. At the time of preparation of this strategy, the Secretary of State has issued a “Minded View” letter indicating that he was minded to approve the Harbour Empowerment Order subject to assurances from the applicant that adequate and enforceable arrangements are in place to secure additional highways capacity which would be required to serve the port and the commercial and logistics centre. There is therefore at present no final decision on which to base strategy assumptions. *Whilst alternative scenarios envisaged different decision outcomes, a positive decision is an important driver of the recommended strategy and will be subject to review when the Secretary of State’s decision is made.*

The framework development originally recommended five alternative scenarios for consideration and assessment by stakeholders which intended to capture the various dimensions of the drivers listed above. The driver assumptions are set out below for each alternative Scenario:

Scenario	Housing targets	Jobs targets	Jobs distribution	London gateway decision	Sustainable-led
London Gateway Led	37,000 dwellings – met in full	55,000 jobs – met in full	55,000 jobs – met by focusing on TG development.	Positive	Not priority lead
Dumbbell Economy	37,000 Dwellings – met in full	55,000 jobs – met in full	55,000 jobs – met based on RSS district targets	Positive	Not priority lead

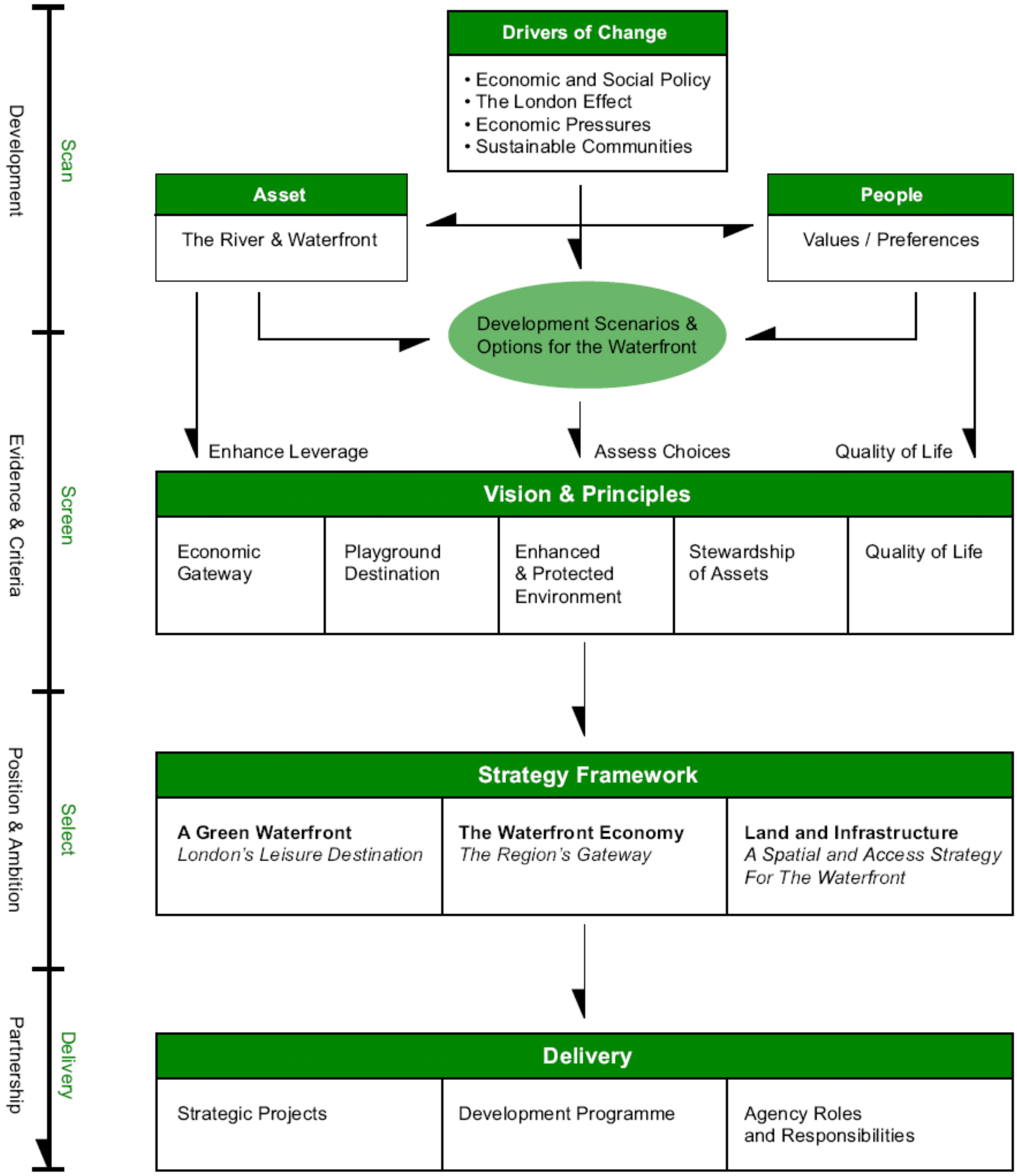
Dispersed Development	37,000 dwellings – met in full	55,000 jobs targeted – potential shortfall	55,000 jobs targeted – dispersed development principle	Positive	High priority
Housing led / Out-commuting	37,000 Dwellings – met in full	Shortfall – jobs provided outside area	Shortfall – jobs provided outside area	Negative or conditioned	Not priority lead
Green Strategy	37,000 Dwellings – met in full	Probable shortfall	Distribution based on environmental constraints	Conditioned	Priority lead

The preferred scenario to meet the vision and principles was a combination of the London Gateway Led and Dispersed scenarios which set out a framework for the Strategy as summarised in Figure 2.1. The strategy is therefore presented in three parts in the following sections of the report:

- A Green Waterfront: London's Leisure Destination
- The Waterfront Economy: The Region's Gateway
- Land and Infrastructure: A Spatial and Access Strategy for the Waterfront

In each the economic, policy and development background is analysed and recommendations on the strategy approach for the waterfront area are made. Specific "Strategy Recommendations" are highlighted for the guidance of users.

Fig. 2.1 Waterfront Strategy Formulation



3 A GREEN WATERFRONT: LONDON'S LEISURE DESTINATION

3.1 Strategic Direction

The natural environment of the Thames Gateway is of significant importance to the Waterfront Strategy and to the development of the TGSE area as a whole, not only in terms of its protection and enhancement but also to enable the effective delivery of an appropriate 'green infrastructure' for future sustainable developments and as a unique, high quality setting for London's premier leisure destination.

The Thames estuary contains many varied natural habitats and is home to many thousands of species. The protection and enhancement of this biodiversity is crucial to the natural beauty of the Thames Estuary and its hinterland, and can be regarded as a key requirement for future sustainable development.

In addition, the historic nature of the Thames Estuary has left a commercial heritage along its banks that provide a recognisable character and which contributes the landscape characteristics of the area.

The promotion of existing and new initiatives will be key to the continued development of a green infrastructure within the TGSE area, including:

- Greengrid – connecting, conserving and using green spaces
- Blue Ribbon network – use and regeneration of waterways
- Thames Chase – creation and management of forests
- Wildlife, Heritage and Educational Centres – promote and enhance existing wildlife habitats along the estuary with visitors centres, educational centres and amenities
- Environmental Protection – continued management of designated areas.

In addition, there is a need to adopt a more integrated and joined-up thinking in terms of conservation and biodiversity across the area; whilst also providing a strategic platform from which to plan the need and requirement of future green infrastructure.

3.1.1 Policy Overview

The drivers and constraints relative to environmental issues stem from existing and proposed policy and legislation which seeks to protect and enhance the natural environment through responsible management. These recognise the many and varied habitats and species that exist within the Thames Gateway, their inter-relationships and sensitivities to change. In essence, a key feature of these may be expressed as maintaining and improving the biodiversity of the area.

In addition, many policies relate to the heritage and character of the area, the use of the river and the dominance of flood protection. The environmental aspects of these elements also provide drivers and constraints for future development of the waterfront.

The following provides a summary of some of the key strategic policies, drivers and constraints relative to environmental issues.

- **Regional Spatial Strategy (RSS) for the East of England** – sets out a development strategy up to 2021, incorporating green space planning relative to the protection and enhancement of biodiversity, landscape and environmental infrastructure.

- **Thames Strategy East** (consultation draft) – presents the 100-year vision for the Thames – but from Tower Bridge to Tilbury only. It will provide landscape and design guidance for developments, sympathetic to the current, important landscape features. This means it will encourage new developments to take into account local heritage, important areas of habitat, recreation, access, flood defence, and all the other features that make up the distinctive landscape of the Thames today. Many of these principles can be extended to the remaining TGSE waterfront to the east of Tilbury.

- **Creating Sustainable Communities: Delivering the Thames Gateway (ODPM, March 2005)** – identifies that a strategic long term vision is required (see below) to protect, enhance and deliver green spaces within the Thames Gateway.

- **Creating Sustainable Communities: Greening the Gateway (ODPM, January 2004)** – determines the key principals for a green infrastructure within the Thames Gateway, identifying the need for a continuous green open space network linking urban and rural areas.

- **Regional Planning Guidance 9A** – recognises the environment as a significant asset that not only requires protection but should also be enhanced. It identifies that better use of existing environment and historic features should be used to create new landscape features

- **London Plan** – defines the 'Blue Ribbon' network within London Gateway and states that this should be further developed, providing opportunity for sport, leisure and education, whilst at the same time recognising the role of the network for the transport of goods and people. Again these principles can be extended into the TGSE area of the Gateway.

- **Environmental Protection** – there are numerous local, national and internationally environmentally protected and sensitive sites within the Thames Gateway. These are designated and/or incorporated in to environmental plans including:
    - Sites of Special Scientific Interest (SSSI)
    - Special Protection Area (SPA)
    - RAMSAR
    - Environmentally Sensitive Area (ESA) & Landscape Character Assessments
    - UK Biodiversity Action Plan & Tidal Thames Habitat Action Plan
    - Essex Estuaries SAC

- Scheduled Ancient Monument (SAM)
- CHaMPS & Shoreline Management Plans

Figure 3.1 identifies the main environmental sensitivities and assets within the waterfront strategy and wider TGSE area.Adopting the Greengrid Strategy for the Waterfront

3.2 Adopting the Greengrid Stretgy for the Waterfront

3.2.1 The Greengrid Strategy (GGS)

Significant work has already been undertaken in the development of an open space and leisure strategy for the Greengrid Strategy commissioned by the Greengrid Partnership with funding from the ODPM, and produced by Landscape Design Associates (April 2005).

The vision of the Greengrid Strategy is to achieve:

"A living system threading through the urban and rural landscape connecting places that are attractive to people, wildlife and business, and providing clean air, food, water, energy, minerals and materials"

In essence, the Greengrid Strategy seeks to enable a green infrastructure to be created that will protect, enhance and create new:

- areas of outstanding landscape, riverscape and townscape character,
- biodiversity value
- archaeology, cultural and built heritage; and
- settings for development; views and landscapes.

3.2.2 The Greengrid within the TGSE

The Greengrid Strategy seeks to utilise the existing (and new) resources of the region, combined and enhanced in a manner that allows a functioning green infrastructure to be created. Key resources and opportunities associated with them are envisioned to be:

Resource	**Opportunity**
Geology	Appropriate landscaping and planning of former mineral workings and landfill sites could provide significant additional space to the Greengrid system.
Hydrology	Whilst there are long term issues associated with flood risk, the River Thames and its tributaries provide one of the best natural resources that the area has to offer. The river and tributaries provide destination points for tourism, leisure and recreation and physical links for walking, cycling as well as being prominent areas of increased biodiversity.
Topography	The landscape within the region influences biodiversity, can provide far reaching views and defines land-use patterns.

Biodiversity	The varied habitat and wildlife present within the region are valuable national and international resources that require protection and enhancement, from ancient woodland to saltmarsh habitats. The integration and linking of these areas via a green network is a key element to the success of the strategy.
Archaeology & Historic Heritage	There are many historic and cultural destinations within the region, including Tilbury Fort, Coalhouse Fort and Prittlewell Priory. The promotion and enhancement of such features provides a unique resource.
Parks & Open Spaces	Much of the area not currently developed within the region is designated as green belt. This, in combination with the existing parks, provides a starting point from which the Greengrid can seek to enhance the connectivity of open spaces across the region.

The Greengrid Strategy recognises that a series of strategic connections linking key destinations and views/viewpoints will be crucial to the development of the Greengrid, providing a “doorstep to countryside/estuary” green infrastructure.

3.2.3 Implementation of the Greengrid Strategy

It is recognised that the GGS requires the political, community, business and developer, regulator and voluntary support to ensure that it can be realised. A key delivery tool for the GGS is expected to be through the planning system, and as such has been designed to influence the preparation of strategic, regional and local planning policy and development proposals. It is therefore important that the GGS is supported within the Waterfront Strategy.

3.2.4 Recommendations for a Valid Green Infrastructure on the TGSE Waterfront

Key policy and strategy all point to the creation of a valid green infrastructure that not only facilitates development but also drives development principles. The Waterfront Strategy will adopt and support the strategic GGS green infrastructure proposals for green space, leisure and recreational destinations (excluding major “commercial” leisure, cultural and visitor developments – see section 4.5) and heritage assets.

Strategy Recommendation 1

The Greengrid Strategy on the Waterfront

The Waterfront will build on the Greengrid Strategy’s proposals for the waterfront area on green space, leisure and recreational destinations, and heritage assets.

It is recognised that more detailed proposals within the waterfront area will be developed by the local authorities and delivery vehicles through their own open space and recreation audits and plans. However the key recommendations for the use, protection, enhancement and future growth of the green space, leisure and heritage sites within the TGSE region which will advance the Waterfront Strategy are set out in Figure 3.2 and include:

Green Space:

Strategic open spaces, parks and routes in the Waterfront area including

- Thames Chase, ancient woodlands and woodlands
- Rainham Marshes
- Greenways and Riverways – cycle routes, footpaths, bridleways and watercourses that connect places
- Development of former mineral working and landfill sites (and those coming to the end of their lives) as parks
- Future development – incorporating sustainable urban drainage systems (SUDS) such as swales and attenuation ponds into the Greengrid system.

Recreation and Leisure

Country parks, selected other parks and recreation and leisure destinations including:

- Tilbury Fort Country Park
- Coalhouse Fort Country Park
- Cory Country Park
- Bluehouse Country Park
- Langdon Hills Country Park
- Wat Tyler Country Park
- Cherry Orchard Country Park
- Garons Park
- Bourne Park
- Shoebury Park
- One Tree Hill
- Benfleet Creek
- Concorde Café & Canvey Island Seafront
- Wat Tyler Centre
- Leigh and Leigh Beach
- Southend Pier & Seafront
- Gunners Park, Shoeburyness

Heritage

Historic heritage destination sites and landmarks

- Tilbury Fort
- Coalhouse Fort
- Prittlewell Priory
- Hadleigh Castle

3.2.5 *Economic & Social Facilitator*

In many other countries, links between regional prosperity and a prominent, functioning green infrastructure can be identified, as a high quality environment promotes increased land values and attracts people and businesses.

In addition, a key objective of the Greengrid will be to "bring the natural environment closer to communities … linking urban and rural environments". This "doorstep to countryside and estuary" proposition is a central theme that seeks to improve the connectivity, via green spaces, throughout the region.

3.2.6 *Recreation and Environmental Management*

Finally it is also important to recognise that recreation and leisure are an important component of the delivery and sustainability of environmental management. Use of green space areas for passive and, in some cases active, commercial leisure facilities can help to deliver and pay for vital environmental improvements and conservation and can ensure that there is a source of income for maintenance and management into the future. To secure this there will need to be more integration of the delivery of recreation and environmental management both at the project and area wide level and the Waterfront Strategy will specifically identify and support an integrated approach to delivery. There are specific opportunities in some of the green infrastructure projects identified above and in areas such as Mucking Flats (after restoration returns landfill areas for green space use) that could make a significant contribution to waterfront leisure capacity. Similarly the sensitive but active management of the area west of Holehaven could be managed for marine and related leisure to the benefit of both the community and the environment.

> **Strategy Recommendation 2**
>
> **Recreation and Environmental Management**
>
> An integrated approach to delivery of recreation and openspace management will be taken, including consideration of the promotion of an management agency for the TGSE to enable more high quality stewardship of the environment.

Integrated recreation and environmental management in the waterfront area will depend on the delivery mechanisms for the Greengrid Strategy. The Waterfront Strategy recognises that the creation of an environmental and recreation management agency for the whole of the TGSE area may promote and enable more high quality stewardship (joined-up thinking) to ensure that the protection, enhancement and sustainability of the natural environment is planned and undertaken in a way which does not preclude, but rather supports, the process of regeneration, and that the Greengrid Strategy is delivered. The creation of such a single controlling body, may also enable more collective planning and delivery of future green infrastructure and recreation and leisure development at strategic, regional and local level.

3.3 Adopting a Blue Ribbon Strategy for the Waterfront

3.3.1 *The Blue Ribbon Network Principles*

The second important component of a Green Waterfront strategy - which will lead the transformation of the use of the water courses and water bodies of the TGSE area - should be the establishment of a "Blue Ribbon" network. The principles of the Blue

Ribbon network on and around the Thames were first encapsulated within the Mayor of London's London Plan – Spatial Development Strategy for Greater London. These principles included:

- To accommodate growth for activities requiring a water or waterside location.
- To contribute to London's open space network for sport, leisure and education.
- To exploit the potential for water-borne transport, leisure and tourism by appropriate waterside development and regeneration.
- To promote social inclusion and tackle deprivation and discrimination.
- To improve accessibility for water-borne transport of people and goods.
- To protect and enhance the biodiversity and landscape value of water courses and areas.
- To provide reliable and sustainable supplies of water and methods of sewage disposal.

These Blue Ribbon Network principles have been developed and refined in the London Plan from the five functions of the Thames that were identified in RPG3b/9b. Although the principles provide a set of overview policies covering economic as well as environmental issues, one fundamental policy change is that the water is not seen as merely a setting for development. Rather, the principles **promote the use** of the water-related spaces. Types of sustainable use are many and varied but include water transport, water recreation, waterside open space, natural habitats and flood storage or protection.

3.3.2 Principles and Policies for a Blue Ribbon Network in TGSEP

The intent of the Blue Ribbon Network is to provide, through water and wetland space, a diverse asset to the public realm of the community. In London, the spine remains the Thames, with bankside walkways, open space, amenities and residential facilities. For TGSE, the opportunities for such a network are constrained by the existing river profile. Clearly, and reflecting the principles of the vision and strategy for the waterfront, the principal asset and the focus of the network remains the Thames. Nevertheless, there are a number of associated environs, designated or otherwise, complementing the river itself, which could be incorporated in a wider, regional focused, "public realm strategy". The principle goals in the local TGSE context are set out in the following subsections:

> **Strategy Recommendation 3**
>
> **A Blue Ribbon Strategy**
>
> The Strategy will promote the development of a Blue Ribbon Strategy for the waterfront and the waterways of the area based on the seven point principles set out for London's Blue Ribbon in the Mayor of London's London Plan.

Enabling Role

"Protect and enhance the multi-functional nature of the "Blue Ribbon Network" so that it enables and supports those uses and activities that require a water or waterside location. The "Blue Ribbon Network" should be safe and healthy and offer a mixture of vibrant and calm places."

The diversity of activities within the region is already broad, from the traditional seaside attributes (beaches and entertainment) within Southend, and the bohemian artistic community of Leigh, to the wide open spaces of the marshes around Holehaven. The region supports major port infrastructure and, with the proposed London Gateway, would retain its status as a key national asset. There should be recognition of the value of these resources, consolidation of designations and protection, and active encouragement to expand potential complementary facilities. Many of the features within the Greengrid strategy document equally fall within the potential scope of the Blue Ribbon Network, including coastal heritage and leisure facilities, saltmarsh and mudflats, and coastal footpaths.

Economic Facilitator

"To make TGSE a more prosperous region with strong and diverse economic growth, policies should exploit the potential for water-borne transport, leisure, tourism and waterway support industries. To improve TGSE's accessibility, use of the "Blue Ribbon Network" for water-borne transport of people and goods (including waste and aggregates) should be increased."

The London Gateway proposals, coupled with on going expansion of the Tilbury Port complex and the existing marine based industrial activity provides an economic foundation to the TGSE waterfront. The value, as a regional resource, of water related recreation (sailing etc) is set out below. With the exception of the hovercraft service currently under evaluation, the potential use of the outer reaches of the river for ferry traffic into London has been largely discounted, on the basis of journey time and reliability, against environmental advantage. This is further considered in section 5.4.2 of this strategy.

Social Inclusion

"To promote social inclusion and tackle deprivation and discrimination, policies should ensure that the "Blue Ribbon Network" is accessible for everyone as part of TGSE's public realm and that its cultural and environmental assets are used to stimulate appropriate development in areas of regeneration and need."

The Greengrid Strategy highlights the need to improve north south connectivity throughout the region, through footpaths, cycleways and greenways. With the development of the city to coast link through south Essex, and the implementation of connections into this, existing access will be enhanced. In conjunction, development of amenities such as Coalhouse and Tilbury Forts, and the expansion of Wat Tyler Country Park, will provide additional stimulus to draw residents to the coastline.

The waterside provides a draw for development, since the value of waterside property has a premium. Nevertheless, such development must not take place to the exclusion of the local community. The Thames already suffers, upstream, from encroachment up to the crest of the flood defences, such that public access to much of the river edge has been lost.

Sustrans and City to Sea

"Alongside the "Blue Ribbon Network", there should be opportunities for pedestrian and cycling routes."

Generally at present, there are limited traffic free opportunities for cycle access to the Thames waterfront. However, Sustrans is creating a new route along the Essex coast through Tilbury, eastwards alongside Benfleet Creek to Southend. There is already a parallel bridleway on Canvey on the south side of Benfleet Creek and already there are dual use paths in the vicinity of Coalhouse Fort. Pedestrian access is much better, although access along the entire frontage is unlikely to be achieved. Castle Point has the most complete footpath network, both on Canvey and on the mainland. Likewise, Southend has almost full access to the Thames coast. Thurrock, with a higher industrial focus to the west, and breaks in provision in the vicinity of Shell Haven, perhaps has most to contribute to maximise access to the River.

Integration with Greengrid Strategy

"To make TGSE a more attractive, well-designed and green region, policies should protect and enhance the biodiversity and landscape value of the "Blue Ribbon Network". The network should also be respected as the location of a rich variety of heritage that contributes to the vitality and distinctiveness of many parts of TGSE."

The level of protection afforded to the component elements of the "network" is already high – from international designation of much of the saltmarsh and intertidal zones, to national and local designations. These are most clearly identified within the Greengrid Strategy. There is engagement by the four Local Authorities in managing resources – there needs to be integration between these, in that each site should have a "if you liked this, you may also enjoy …." that points visitors to parallel sites in the region. The Blue Ribbon Network should be used to drive planning policy to resist development incursion up to the river edge, so that public access and environmental corridors are maintained alongside the river.

Sustainable Water Supply and Sewerage

"TGSE must have reliable and sustainable supplies of water and methods of sewage disposal and a precautionary approach must be taken to the risks created by global warming and the potential for flooding."

The management of flood defence, and the consideration of sustainable solutions counter increasing flood risk, are addressed in Section 5.5. Relaxation of defences, the principle of managed retreat, may enhance the environmental value of resultant regenerated wetland areas. Where new works to improve defences are required, the design criteria should include accessibility and amenity considerations as part of the evaluation process.

3.4 Marine Leisure Development

The existing provision of marine leisure facilities offers a broad range of water-based recreation and sports opportunities. The development of the sports sector in the area is considered further in section 4.4 below but clearly, within the waterfront area it is the marine leisure sector which can make the most significant contribution – not only to the vitality of the leisure and recreation offer of the waterfront but also to direct and indirect employment creation and the leveraging of investment in other sectors. While it is not anticipated that any individual activity is seeking to expand or develop significantly in the foreseeable future, there is need, and benefit, in providing support and assistance to the existing participating organisations. To this end many of the development and recreation planning organisations have been considering the potential for marine leisure development in the lower Thames and studies such as the Thurrock Thames Gateway Development Corporation's proposed review of marina development in 2006. Whilst these studies will consider development options in more detail, this strategy provides recommendations for a framework for development of marine leisure across the South Essex waterfront as whole. The existing situation and the potential for expansion is set out in more detail in Appendix 2 covering two broad groups of activities:

- Marina provision – including moorings, enclosed docks, dry storage and other launch facilities, and
- Other Water Based Leisure – including small boat recreation, personal watercraft and waterskiing, windsurfing, canoeing and kayaking, and rowing

Options for Marina Provision

The present distribution of moorings and marina accommodation lies in the eastern part of the region at Holehaven, Benfleet and Southend. There is relatively little provision within Thurrock, apart from Thurrock Yacht Club. The European Habitats regulations impose considerable influence of the potential for marina development on the South Essex Coast. While these remain, and there is no likelihood that there will be a relaxation in the present legislative climate in the foreseeable future, the existing areas, such as Holehaven and Benfleet Creek and the inter-tidal areas fronting Southend, as well as the Crouch estuary, will be heavily regulated.

There is a clear shortfall generally throughout the region, when measured against potential demand in the catchment area. However, it is clear that the industry, and representatives of users, do not anticipate significant opportunity for the development of any new water based centres at present. Thus, to support any future expansion of marina activity in the region, it is necessary to look away from those areas that, naturally, would provide the most suitable, protected berthing and/or to look to alternative means of expanding provision. Potential locations within the river itself are, excluding these creeks, very limited. The shoreline from the western limit of TGSE to Tilbury is highly developed, and thereafter is exposed and/or protected. The recommended approach to future provision therefore focuses on:

- Increased provision of moorings
- Reuse of existing facilities
- Identification of potential longer term opportunities for new marina facilities
- Dry storage, and
- Improved launch facilities

Strategy Recommendation 4

Marine Leisure Development

The expansion of marina leisure facilities will be promoted, initially through development of existing provision. Coordinated management of small boat facilities, training and development will be encouraged to support this expansion.

This approach falls into two main areas of action. Firstly, the **existing facilities** clearly meet an active recreational demand, add setting and visual context to the panorama from the coast in Southend and Leigh and provides employment opportunities, and should therefore be supported and expanded as part of the active regeneration of the waterfront. There are ongoing issues relating to sedimentation and changing patterns of river flow that are impacting on users on Canvey and in Benfleet Creek, potentially necessitating dredging within the SPA area. Should that be the case, the cost of the works themselves, coupled with the requirements under the Habitats Regulations, may be too great for the yachting community to bear on its own. Investment, in time and capital, through TGSEP or the local authorities, may therefore be necessary to maintain the status quo. This investment is likely to be ongoing.

Secondly, and without precluding the development of wet marinas within the tideway, particularly along the developed Thurrock water frontage, it is recommended that the focus of **new marina development** should be through the development of new facilities inside the present line of the flood defence structures, either as locked basins or as dry stack facilities, particularly in view of the likely environmental impact of initiatives in the eastern Thames that encroach into SPA or environmentally sensitive areas, and on the Environment Agency's general policy of non-encroachment into the river. The Waterfront Strategy should encourage and support any private initiatives, if forthcoming, but should also facilitate the development of key vacant sites – subject to the "sequential test" on the use of waterfront sites (see section 4.2.3 below). Potential locations include either side of the Holehaven mouth, within and around the Canvey Regeneration Zone and at Tilbury Docks – though no research has been undertaken to test the availability of any sites in these locations.

Other Water Based Leisure

Appendix 2 reviews the facilities and potential for development of other water based sports including small boat recreation, personal watercraft and waterskiing, windsurfing, canoeing and kayaking, and rowing. Of these, small boat recreation and windsurfing are the most popular with increasing demand for facilities.

Windsurfing represents a popular, low cost activity that has already proved popular off the Southend seafront, and expansion of activities will enhance the reputation of the area as a sporting destination. The inshore Thames, from Canvey to Shoeburyness, is better suited to windsurfing, particularly since there are stronger winds and less commercial traffic, and the area supports wave sailing, speed sailing, kite surfing and marathon short boarding and long boarding. Whilst these are mainly individual rather than club based sports, the Strategy recognises the need for coordinated management of these sports with a rise in popularity. The provision and support of clubhouse facilities where they are needed, training facilities such as those available at Southend Marine Activities Centre, integration of disabled opportunities and expansion of safe points of access should be adopted as key objectives across the sector. The integration of facilities and management to provide a leisure and sports resource for the TGSE sub-region as a whole should be encouraged, as will linkage to a new Regional Sports Centre of Excellence in Basildon (see section 4.4.3).

While the commercial and visitor benefits associated with dinghy sailing and small boat recreation are limited, it is recognised that dinghy sailing is the ideal entry to sailing and the facilities in the area are popular, with increased activity at a number of sites over the past few years and strength in a wide range of classes, including junior fleets. There are a number of dinghy based clubs in the area, particularly in the outer part of the estuary between Canvey and Southend. Additionally, Southend Borough Council supports the Marine Activities Centre, an RYA and BCU recognised training centre catering for beginners and schools, providing tuition in most forms of watersports.

Nevertheless, additional sail training launch facilities and storage, and more access to sailing waters is required. In particular, there are no significant opportunities within the existing waterfront for safe all tide boat training. The existing areas that do provide a safe environment are tidal, and therefore cannot provide daytime access at all times

Consideration could be given to impoundment within the upper reaches of Benfleet Creek and/or East Haven Creek to provide a permanent water area for rowing, canoeing, and small craft training. There are environmental and flood risk issues to addressed within the evaluation of any such scheme.

Additionally, there may be potential for some small boat activity within other existing water areas (Tilbury Fort moats for example). For small boat training and development, it is not necessary to have very extensive water space. Active, and successful, sailing clubs exist on water areas measuring no more than 800m by 500m. There are water areas within the East Tilbury and Mucking aggregate quarries which could, as part of landscaping and regeneration activity for this area, be developed into a watersports area associated with an activity park complex. Such a facility could be used to provide unrestricted (no tide) sail training and for Sailability facilities. The development of such facilities may be supported by Sport England, the RYA and by other funding bodies, particularly if the focus is on development and training for all. Introducing young people to watersports in a safe and managed environment allows the development of skills that will support the objective of becoming London's premier leisure destination and will facilitate the development of deep water sea/river sailing.

4 THE WATERFRONT ECONOMY: THE REGION'S GATEWAY

4.1 Economic Development Approach - A Targeted Strategy

The Waterfront Strategy framework has recognised that the waterfront provides a unique environment and many existing assets which will shape the economic future of the TGSE and, indeed, the surrounding region as a whole. The preferred strategy agreed with stakeholders combined the strengths of a London Gateway-led approach with the wider dispersal of employment opportunities where infrastructure constraints allowed and, in particular, this did not compromise the protection and utilisation of the high quality waterfront environment to improve the quality of life of residents and visitors set out in the preceding section of the strategy.

> **Strategy Recommendation 5**
>
> **Targeted Development**
>
> A "Targeted Strategy" approach will be taken to economic and spatial development which focuses the location of employment and active leisure led development into relatively limited zones of change. This will enable large "green" zones of the waterfront area to be protected against large scale development whilst being actively managed.

The recommended economic development approach is therefore a "targeted strategy" which focuses employment creating development both sectorally and locationally within the waterfront area on developments which meet the strategy principles of:

- *Sharing the river:* Ensuring that the most valuable natural asset, the River Thames, will be safeguarded and developed in a way that maximises shared access to it.
- *Safeguarding the gateway function:* Ensuring that our major river dependent industries and other economic activities that benefit from marine access are supported through access to waterfront sites if they are commercially viable and contribute to local, regional and national prosperity.
- *Enjoyment!*: Creating an exciting 21st Century "destination" for people to enjoy the superior environmental quality, participate in a diverse and active range of outdoor activities and rediscover some of the magic of the sea and river front.

As with the leisure led strategy for a green waterfront the targeted strategy is primarily intended to provide a framework for the waterfront area within which the economic strategies of the TGSE Partnership and those in preparation in 2006 by agencies such as Thurrock Thames Gateway DC and Southend URC, can be detailed and delivered. The economic development framework for the waterfront is therefore presented in four sectorally targeted parts:

- Port and logistics development - the key driver of the Gateway
- Other waterfront business sector developments – including fisheries
- Tourism, sports, culture and leisure
- Environmental technology

4.2 Port and Logistics Development: The Key Driver of the Gateway

"The Government fully recognises the vital importance of the ports sector to the continued well being of the nation." (The Government's Response to the Transport Committee's Report on Ports, Cm 6076, 2004)

The port, waterfront industries using terminal facilities and directly related logistics uses are a fundamental part of the waterfront economy of the TGSE – indeed, they are quintessentially a part of what defines and drives the Thames Gateway and the TGSE Waterfront Strategy. The diverse range of cargo handling activities and landside infrastructure provides a vital function both to the immediate region as well as wider national economy. Growth of port services is potentially a key factor shaping the future of the TGSE development and achieving employment goals. Two factors underpin their importance to the strategy:

- first, the planned expansion in the sector is a major contributor to much needed employment growth in the TGSE region;
- second, the port activities are *necessary* to enable wider economic development and can only function with direct waterfront access.

4.2.1 A New Growth Opportunity

What is driving the port sector expansion?

Simply put, the port sector is an essential aspect of the UK transport system serving the growing volume of trade between the UK and its trading partners. The strategic drivers of UK port traffic growth are:

- International trade liberalisation (e.g. WTO) is driving trade volume growth. In general, international trade growth is about double GDP growth. This is expected to continue.
- Trade patterns are changing with the restructuring of light manufacturing / consumer goods production – China and the Far East are increasingly the exporters of these goods for the European (and North American) markets
- The majority of trade by value is transported by *containers* or RoRo shipping services – the ports servicing these modes are well placed to expand and contribute to regional growth.
- UK traffic growth is primarily a function of GDP growth – imports are the dominant component – in across the cargo types.
- The diversity of cargoes handled in the Port of London including its pre-eminence in aggregates and other bulks which have served, and will continue to serve, the growth in major construction programmes in London and in the wider South East, and regional economies

What factors are determining the critical container handling market?

The container port services market in the UK is determined by:

- *Demand*: There is growing demand for container handling services underpinned first by international trade growth and second by the relative shift towards this from of cargo handling. Trade volume expansion is expected in the future – a reasonable assumption is that underlying demand growth is in the order of five per cent over the planning period.

- *Supply:* The supply of port services is competitive as a number of deep sea port choices are available to serve the British market – see Table 4.1 below. In addition, there is European competition for other markets (e.g. transhipment).

Table 4.1: South / South East Container Traffic

	1995	1996	1997	1998	1999	2000	2001	2002	2003
(000) TEU									
Felixstowe	1923	2064	2251	2462	2697	2793	2732	2730	2482
Southampton	681	806	894	846	921	1062	1164	1275	1374
Thamesport	300	345	386	503	492	529	463	480	
Tilbury	388	397	398	465	522	504	513	566	566+
4 ports	3292	3612	3929	4276	4632	4888	4872	5051	
Growth		9.7%	8.8%	8.8%	8.3%	5.5%	- .3%	3.7%	

Source: Consultants estimates from various sources.

- *Demand – Supply Gap*: It is anticipated that there will be a demand and supply gap over the medium to longer term planning horizon. Port capacity is constrained and this creates a potential for expansion of port services and the need for significant new investment. The Drewry/P&O report implies deep sea container traffic excluding that moving via Liverpool at about 7.7 million Tonne Equivalent Units (TEUs) in 2011, and about 12 million TEUs in 2021. There is potential upside here - supply is to some extent "elastic" but estimates suggest existing container terminals have a capacity of about 5.7 million TEUs.
- *Port Choice Factors*: Port choice decision-making factors driven by minimising the total through costs (from the cargo owner point of view) and minimising total costs of the port call / service (from the shipping line point of view). Tariffs, handling speeds (turnaround time) and inland transport access are key determinants and customer relationships are important.

4.2.2 The London Gateway – A Key Flex Point

In the growing container services market, the TGSE area is well positioned to meet growing demand if the planned London Gateway container and ro-ro terminal investment is granted consent. The London Gateway proposal has been subject to a planning inquiry. The Inspectors report of the Inquiry was submitted to the Secretaries of State in February 2004 and, as noted in section 2.4, at the time of preparation of this strategy the Secretary of State has issued a "Minded View" letter indicating that he was minded to approve the application subject to assurances that adequate arrangements are in place to secure additional highways capacity which would be required to serve the port and the associated commercial and logistics centre.

The estimated £700 million container and ro-ro terminal investment on the former Shell Haven site, together with the back-up infrastructure capacity is a prime opportunity shaping the future of the waterfront. The key aspects of the port proposal are:

- Primarily focused on deep-sea container traffic (serving the fast growth far-east trade)
- Focused on UK import / export cargo serving the wider national markets; and
- Centred on an approximately 3.5 million TEU container handling facility.

The planning and business case for the London Gateway is fundamentally founded on capturing a share of the growing deep-sea container services market and filling the anticipated gap between demand and supply of UK container services. In view of wider expansion options, the SEAPORTS study noted,

> *"…the balance of the beneficial and adverse impacts suggests that the development proposed at [London Gateway] provides the greatest fit with the … current planning framework."* (SEAPORTS – South East England, London and East of England Regional Ports Study, FR p.iii)

Strategy Recommendation 6

London Gateway

The London Gateway proposal is critical to achieving growth and employment requirements in the sub-region. The development is supported as one of the key building blocks for achieving employment growth and capturing the value the Thames waterfront offers for economic development in the TGSE.

Employment Growth

The London Gateway proposal is critical to achieving growth and employment requirements in the sub-region and is one of the key building blocks of the strategy for achieving employment growth and capturing the value the Thames waterfront offers for economic development. The P&O *London Gateway Port Economic and Employment Impact Assessment* statement suggests the following potential employment at the port:[1]

	Construction Phase	Fully Operational Employment
Direct	2800 person years	1915
Indirect & Induced	840 person years	900 (60 minute radius) • 450 Indirect • 450 Induced

The key emphasis of the strategy is on the direct and indirect employment related to the port operations so as to deliver the maximum benefit for the TGSE economy. The primary area benefiting from the direct employment is assumed to be Thurrock. The planned build-up assumed is that there would be approximately 1000 people employed at the port five years into its construction out of the total of 1915 at full operational stage.

The factors shaping the *actual* future growth and employment impacts of the London Gateway and their potential contribution to the strategy job targets are:

- Timing and nature of the decision relating to whether the London Gateway will be finally and fully approved or not;
- If approved, the timing and phasing of port facilities development and operational mode and traffic build up; and indirectly,
- The linkages between the London Gateway port facilities and London Gateway Logistics and Commercial Centre planned for the area behind the quay and the terminal (see 4.2.4 below).

[1] P&O London Gateway, The (London Gateway Port) Harbour Empowerment Order 2002, Economic and Employment Impact Assessment, CD/HEO/Final July 2002. The analysis is gross employment rather than net for indirect and induced. Figures are rounded.

The market issues will relate to changes in market demand (pace of overall traffic growth) and supply (with potential expansions at Felixstowe South and Bathside Bay) and how market share evolves among competing ports. Thus, forecasting market share, the timing and phasing of expansion and traffic build up is subject to some uncertainties and with them employment totals. London Gateway will have the advantage of a leading international terminal operator (P&O Ports) but it will have the disadvantage of the time needed to build up a customer base. On this basis, a reasonable estimate for projecting forward for the strategy is that it can attract about 10-15% of the market in 2011 assuming a 2006 start – the mid point of this range being just under 1 million TEUs in 2011. In terms of employment this could translate into around 750 – 1000 direct jobs.

4.2.3 The Current Waterfront Dependent Industries: Enabling Growth and Stability

In addition to future growth potential at London Gateway, there are a number of existing port assets in the TGSE area that currently contribute to income and employment generation in the sub-region – for example, Tilbury and the various bulk handling facilities. These port activities are diverse and generally growing, have clearly defined market services related to bulks and specialist products and London's pre-eminence for aggregates, established inland linkages and are witnessing investment in facility upgrades. For example, aggregate handling facilities provide support to London and major construction programmes in the wider South East, London and regional economies and can expect major increases in demand during the construction of Olympic facilities.

These waterfront industries have traditionally made up an important part of the industrial economy of the west of the TGSE. This group is defined by their riparian location and their access to river terminal facilities. The predominant bulks and specialist products are petroleum, chemical and aggregate production, storage and distribution.

As Figure 4.1 shows these assets remain as major waterfront space users in Thurrock occupying a more or less continuous water frontage from Mar Dyke to Tilbury with outliers at Coryton and at South-west Canvey. There are 15 – 20 terminals or jetties of which two are in Castle Point and the remainder in Thurrock. They include some of the largest multi-national operators (including Esso, Van den Burgh, Lafarge, Proctor and Gamble, Shell and Calor) and, in the case of the BP terminal at Coryton, one of the largest installations in the UK. The assets summarised below are typical of their current situation:

Asset	Market Focus	Comment
Port of Tilbury	Port services covering containers (short sea), vehicles, leading player in handling forest products and bulk feedstuffs	Recent £30 million investment in new and upgraded facilities Future traffic growth expected in all cargo types
Vopak Terminal	Liquid bulks handling and storage	Recent investment in upgrading facilities
BP Coryton	Oil refinery with liquid bulk handling and storage – petrol, aviation fuel and bitumen	Serves national markets 600 employees

Employment growth is not expected to be significant overall but retention of existing levels of modest growth is achievable in a number of these facilities as they position themselves for the future. In some cases however users such as Shell Haven have relocated and have released waterfront assets for redevelopment.

Going forward, the Waterfront Strategy would seek to safeguard these key waterfront dependent assets to support their future business *expansion and stability*, and support them to improve their operational efficiency (to get the most from their existing assets) where commercial logic is sound. However in some cases, where the existing waterfront user is no longer making commercial use of the waterfront location and/or is seeking to release the site for alternative uses the strategy would support the introduction of a sequential test approach, comparable to that developed within the London Plan for safeguarded wharves. This approach notes that "*If a* [safeguarded] *site is found to be surplus to current or anticipated requirements* [for cargo handling capacity] *redevelopment proposals must incorporate other water-dependent uses first, including water-based passenger and freight transport and other water-based sport and leisure facilities, before non-river-related uses that do not require a riverside location*". This approach would still retain the protection for riparian uses that has been adopted by the strategy but provides an opportunity to support other waterfront uses such as water based leisure uses sought by the strategy whilst providing an appropriate degree of flexibility for other forms of development.

Strategy Recommendation 7

A Sequential Test for Waterfront Development

Key waterfront dependent industry assets need to be safeguarded to support their future business expansion and stability. Where the existing waterfront user is no longer making commercial use of the waterfront location and/or is seeking to release the site for alternative uses the strategy supports the introduction of a sequential test approach to development to incorporate other water-dependent uses first, including other water-based sport and leisure facilities, before non-river-related uses that do not require a riverside location.

4.2.4 London Gateway Logistics and Commercial Centre

The second new, and the single largest, employment growth driver of the Waterfront Strategy is the proposed London Gateway Logistics and Commercial Centre development located adjacent to the London Gateway Port. The project is promoted by P&O and Shell and will potentially accommodate a range of uses covering manufacturing, industrial and distribution sectors. The exact timing and phasing of the development and mix of activities will reflect prevailing market requirements and the final decision by the Secretary of State on the London Gateway port – as noted above.

The P&O / Shell Outline Planning Application claims that around 14,500 direct on site jobs could be created based on the assumed development mix patterns.[2] A further 2,850 to 6,000 off-site indirect jobs (gross) are possible within 30 to 60 minute driving distances.

[2] P&O / Shell, London Gateway – The London Gateway Logistics and Commercial Centre Outline Planning Application 2002, Economic Development Statement, CD/OPA/(). Figures are rounded.

The potential phasing of the employment generation and shift in development mix is outlined in the Table below:

Table 4.2: Indicative Employment Profile: London Gateway Logistics and Commercial Centre

	Direct on site employment (a)				
Development Period	**R&D**	**Manufacturing**	**Warehousing**	**Other**	**Total**
End 5 years	750	2785	2495		6030
End 10 years	750	5230	5270		11250
Fully operational	750	6820	6830	130	14530

(a) Based on Outline Planning Application. Figures are rounded. Figures are gross.

Source: P&O / Shell Outline Planning Application

4.3 Other Waterfront Employment Developments

The Waterfront employment strategy is led by the major port gateway opportunity at London Gateway and Tilbury but the preferred scenario also envisages the targeting of other key opportunities at or near the waterfront which exploit the unique environment which the area will provide or, in many cases utilises brownfield opportunities on sites now released from their former uses. These are expected to concentrate significant new employment opportunities in carefully targeted locations which will not compromise the strategy principles of:

- *Safeguarding the gateway function* by ensuring that major river dependent industries are supported maintaining access to waterfront sites if they are commercially viable and contribute to the economy.
- *Sharing the river* by ensuring that the most valuable natural asset, the River Thames, will be safeguarded and developed in a way that maximises shared access to it for leisure and recreation as well as employment.

4.3.1 Waterfront Business Zones

At present there are no significant business zones on or close to the waterfront providing a prestige commercial location for business, technology or other similar activities in the TGSE area. A major opportunity area has been identified in South West Canvey and further studies are ongoing into regeneration and development of business zones at the former Bata Shoeworks at East Tilbury and at Shoebury Ranges. which will be supported by the Waterfront Strategy.

South West Canvey Regeneration Area

A significant opportunity for the future development and employment sustainability and broadening of the skills base of employment opportunities of Canvey Island has been advanced for the South West Canvey Regeneration Zone. The development includes options for commercial and leisure development of over 100,000 sq.m with employment creation in the range of 750 jobs. This includes the development of part of the EEDA owned site in the area for enterprise units. There are also currently planning applications and proposals for the expansion or change of use of existing gas and chemical terminal sites in South West Canvey. This is a case in which the sequential test approach to alternative waterfront uses recommended in 4.2.3 above should be adopted.

4.3.2 *Fisheries*

The scale of the existing fishing industry is very small in economic terms compared with other sectors. Direct employment has been in long-term decline and is based almost exclusively on shell-fishing from Leigh and Southend. However conservation and further development of the fishing heritage of the Thames is an important factor for regeneration. While the direct economic value of the sector may be limited in the context of the overall number of jobs in the TGSE economy, the contribution of the industry to the character of parts of the TGSE area is significant. The fishing industry shapes the character of Old Leigh and underpins the leisure interests of Southend. In Leigh in particular there are plans for better exploiting the potential of the fishing industry to support tourism in the town.

> **Strategy Recommendation 8**
>
> **Fisheries**
>
> The contribution of the fishing industry to the character of parts of the TGSE area is significant. Conservation and further development of the fishing heritage of the Thames will be achieved through delivery of a small number of specified projects.

The main issue for the fisheries sector is the need to support the viability of the fishing industry and increase its contribution to the local economy through a series of investments, mainly at Leigh-on-Sea but also Southend: The Southend Fisheries Strategy of 2002 recognised the small scale and economic difficulties faced by the industry but emerged with positive messages for the development of a modest but successful sector built primarily around cockle production at Leigh. With regulation of the cockle beds well managed by the K&ESFC, the issues identified related to infrastructure, investment, access and added value include:

- Improved landing and processing facilities to add value and ensure the requirements of regulations are met;
- Improved training and business management;
- Product promotion and quality assurance.

A series of individual projects have been identified which are supported by the Waterfront Strategy, including:

- Opening of the Leigh Creek to facilitate better access for boats to moorings and the cockling sheds;
- Improvement of landside infrastructure including upgrading of the wharf and of vehicular access;
- Facilities for processing and direct sale of fish, and upgrading of the sheds where the shellfish are cooked.
- 'Soft' measures to support business development and skills issues.

4.4 Tourism, Sport, Culture and Leisure

The economic development strategy for the waterfront recognises the important contribution which tourism, sport, culture and the commercial leisure sector can make not only to the economy but also to the quality of life of residents and visitors alike within the TGSE waterfront area. The sector can make a significant contribution to the economic targets for the waterfront and to achieving the vision of the area as London's Leisure Destination. Significant changes in the sector are currently being driven by a number of factors, including a variety of trends, initiatives and policy developments in the leisure economy articulated at the global down to the local level, but also by the unique characteristics of the TGSE marine environment. Section 3.2 of the strategy has already shown the contribution which the unique waterfront environment can make to recreational, passive leisure and heritage assets – including the important marine sports and leisure sector. This section focuses on the more commercial and active opportunities in leisure, sports, culture and visitor facilities.

4.4.1 Current Trends and Policy Directions

The promotion of tourism, sport, culture and leisure is at the top of both regional and local agendas in the East of England generally and the TGSE area specifically. There are a number of policy and strategy documents providing a regional context for the future of this sector in the TGSE area including the following:

- Regional Economic Strategy for the East of England
- Sustainable Tourism Strategy for the East of England
- Regional Tourism Marketing Strategy for the East of England
- East of England Cultural Strategy
- London Mayor's Cultural Strategy 'Realising the Potential of a World Class City'
- The East of England Regional Assembly recently released the East of England Plan in draft form. The Plan contains a number of policies and statements that provide additional support and endorsement for the role of the tourism, culture and leisure sector in the TGSE area as a major contributor to employment growth and regeneration.
- The TGSE Sports Scoping Study and
- A number of local strategy documents including the Southend-on-Sea Community Plan, Sports and Leisure Development Strategy, Southend Seafront Strategy and the Rochford District Tourism Strategy – Phase 1 Report.

In addition, during the period of finalisation of this strategy, the success of the London Olympic Bid was announced. To date, none of the TGSE and relevant East of England agencies has assessed in detail the impact of the decision, or the benefits for the positioning of the area, particularly for the sports development and visitor profile of TGSE, but this can be expected to be significant.

4.4.2 Capturing the Tourism Potential

With its proximity to London and the major population centres of the East of England, the changing profile of the area as a result of the successful Olympic bid, TGSE is in a prime location to benefit from an increasing emphasis on short breaks through an improved tourism and accommodation offer.

Tourism is identified as a key economic sector in the East of England Plan, and (along with heritage and leisure) is expected to make one of the most significant contributions to the increase in the region's GDP. The Plan highlights a multitude of opportunities – the role of environmentally sensitive areas in providing a unique tourism offer; reuse of heritage structures and buildings; flagship tourism projects, and opportunities that are not necessarily linked to specific destinations or places, such as retail, events and recreation. The Plan emphasises the need to balance making the most of the region's tourism potential against addressing the challenges, and in some cases opportunities, of sustainable tourism development, the seasonal nature of tourism employment and need to provide a quality tourism offer.

The Tourism Marketing Strategy is more action-orientated setting a target of increasing the value of domestic and inbound overseas tourism to the East of England by an annual figure of 4%. This figure does not include day visits. The Marketing Strategy also puts forward the following brand essence for the region as a whole.

"A place with big skies and lots of space, where the "good life" is still enjoyed, where local distinctiveness and independent spirit haven't been suppressed by big brands. It's an English haven away from the bustle and hassles of the major conurbations – a place to come to, to slow down, to feel inspired and refreshed."

Within this brand the positioning of South Essex and the Thames waterfront specifically as London's Leisure Destination will inevitably focus more on active and, to some extent, more urban and marine pursuits. Nevertheless to the east and north of the Thames waterfront area but within the Gateway, in Rochford in particular, the environment rapidly transforms into one of "big skies and lots of space" and this is also a significant visitor asset for the area.

Within the broad waterfront area, in addition to the new directions set out in the Greengrid Strategy, there are a range of more commercial visitor policies and initiatives which the Waterfront Strategy supports and which fall into two main groups:

- The opportunity to establish Southend as the primary focus as a new hub of commercial tourism, with an emphasis on leisure, entertainment and business visitors. A strategic masterplan has recently been completed for the redevelopment of the commercial centre of Southend to integrate new uses, redevelop sites and create a new tourism and leisure offer together with a seafront reuse strategy. This will include new tourist accommodation and activity in Southend, such as a new casino, conference centre and hotels, and new uses for currently underused sites along the town seafront. Plans at London Southend Airport to expand into a regional airport with a new terminal and station could also significantly increase the amount of business and other inbound tourism in Southend and Rochford.
- Raising the profile of recreational activities and opportunities, wildlife, heritage and landscape in Rochford providing a green lung for the built-up areas of South Essex
- Wider tourism and visitor opportunities in the remainder of the TGSE waterfront area for niche market developments in culture, heritage and leisure. These include:
    - To encourage new niche higher value tourism, a particular focus has been placed on creating a tourist honey pot development at Leigh on Sea.
    - Within Thurrock, a new emphasis has been placed on recognising and championing cultural activity and development in Thurrock. The history and heritage of the area has been previously undervalued and there is an opportunity to celebrate local cultural assets.

Southend-on-Sea: A Quality Leisure Destination

In terms of existing visitor destinations and facilities and future potential to provide London's quality leisure destination, the Waterfront Strategy focuses on Southend. The resort is a very popular day visit destination and also has a sizeable, but declining staying market. Key facts include:

- In 2002 there were 282,400 overnight visitors and 6.1m day visitors to the resort. Most staying visitors were domestic with 14% from overseas. Spend from overnight visitors is put at £170m.
- Visiting Friends and Relatives (VFR) is important - only 30% of nights were spent in commercial accommodation. 17% of visitors are on business.
- The main attractions are the resorts seven miles of coastline and beaches (three beaches have blue flag awards), Southend Pier, (the longest in the world at 1.3 miles) and a number of family-orientated visitor attractions.
- The town also has over 300 restaurants, cafes and pubs and two casinos. Historic areas with appeal to tourists include the village at Leigh on Sea and the Georgian conservation area above Cliff Gardens.
- The most important event is the Air show which attracts over half a million visitors over the May bank holiday.
- Southend is designated in the East of England Plan as one of nine major regional retail centres located within the East of England.

Building on these assets, the emphasis of the Waterfront Strategy will be on experience and quality to provide the incentive for uplifting the quality of the TGSE area to redefine it as an attractive destination. Together with the new approach to the waterfront environmental assets of the area – already set out in chapter 3 of the Strategy - new quality destinations and hotel accommodation will help to provide the range of features increasingly sought by tourists.

Strategy Recommendation 9

Tourism Development

Southend will be supported to achieve the status of London's premier leisure destination. The Strategy will support the emphasis on high value tourism to strengthen the quality of the leisure and visitor offer.

Changes in the tourism market present important opportunities in the efforts to re-define the TGSE area as an attractive destination offering a variety of experiences throughout the year for a range of visitors. In order to capitalize on these opportunities, a number of strategic considerations need to be explored, such as the location of major tourism developments, the accessibility of the area and the "mix" of attractions and destinations. Southend will be the special focus in the TGSE waterfront area in achieving the status of "London's premier leisure destination.

An emphasis on high end tourism is also being introduced in the proposals emerging from the Southend Seafront Study and studies for Shoeburyness which will seek to strengthen the leisure and visitor offer incorporating more mixed residential and leisure development. The development of luxury accommodation and new hotel developments suggest a new influx of high income earners who will spend time on cultural and leisure facilities in the local area.

There are also proposals for Southend to apply for a new casino complex, under the new UK Gambling Reform. Regional casinos are expected to include additional related uses such as hotel and conference facilities. The Government has originally indicated that a total of eight regional casinos will be permitted across the country – though this has subsequently been reduced initially to one pilot initiative – plus sixteen small and medium size casinos. Approval for casinos of this size will be subject to impact assessments. A decision is still pending on the gambling reform and the locations to be promoted. The development focus is expected to be on regeneration sites on Southend Seafront. .

Other Niche Market Visitor Developments

Wider tourism and visitor opportunities in the remainder of the TGSE waterfront area in culture, heritage and leisure are also supported by the Strategy. These include:

- Leigh on Sea is seen as an important niche retail market in the regional economy, with a high end value produce and a luxury tourism offer. There are opportunities to further exploit Leigh on Sea as a tourism honey pot, attracting high income visitors from London and the surrounding economy.
- The Regeneration Framework for Thurrock Thames Gateway DC area has recognised the potential for mixed use development at Grays Waterfront led by commercial leisure provision and investment in the evening economy, and major expansion of Lakeside as the regional shopping and leisure centre for the northern Thames Gateway region.
- Retailing is an important element of the regional economy and an important part of visitor activity generally. The Waterfront Strategy will support the regional shopping and expanded entertainment roles of Lakeside and Southend centres.

- The Waterfront Strategy focuses on the Thames coastal strip, but also recognises the complementary role of the wider TGSE area beyond the boundaries of the waterfront strategy study area, specifically Rochford, where recreational opportunities, wildlife and landscape provide a green lung for the built-up areas of South Essex and extend the waterfront and marine leisure opportunities of the Thames to the River Crouch and beyond. The strategy will support a more “Open House” or “Destination Rochford” approach to developing these assets.

4.4.3 A Sports Economy

Studies such as the TGSE Sports Scoping Study (Continuum Sport and Leisure Ltd., April 2005), the Southend-on-Sea Community Plan, Sports and Leisure Development Strategy have all recognised sport as a major growth opportunity in South Essex. This will be further reinforced by the success of the London Olympic Bid and the location of TGSE, and the Thames Gateway as a whole, on the doorstep of the East London site. As part of building its economic capacity, it is important to put together a strategic framework for the sports sector in the area. The Waterfront Strategy will champion the creation of a “sports economy” for TGSE which will form an important part of “London’s Leisure Destination” and ensure that the Thames itself and other water access sites are a defining “marine” component of the sports offer.

Strategy Recommendation 10

The Sports Economy

The Waterfront Strategy will champion the creation of a "sports economy" for TGSE which will form an important part of TGSE's status as "London's Leisure Destination" managed through a co-ordinated sports development initiative and Centres of Excellence, and contributing to the London 2012 Olympics

An existing emphasis on sport and health, the tremendous natural assets of the TGSE area – the River Thames, the sea, special environmental areas – and the existing sporting activities already occurring here provide a strong base on which to build in order to capitalize on demand for activity-orientated holidays as well as those focused around lifestyle, "wellness" and passive activities. It is currently an area that has not been championed on the agenda of local authorities, but the analysis shows that there is an opportunity to build on the current economic market generated from sport related activities in the area.

Section 3.4 of this strategy sets out the main areas of support for marine sports in the waterfront area including:

- Recommendations on provision of improved and new marina facilities for sailing,
- Facilities for small boat recreation and sail and boat training,
- Opportunities for improvements, management and expansion of facilities for windsurfing, canoeing, rowing and waterskiing/PWC use, and
- Provision and support for clubhouse facilities, centres of excellence and opportunities for greater participation by national associations such as the RYA.

In addition to marine sports, the Sports Scoping Study highlighted some other key opportunities many of which can be realised in the waterfront area:-

- The production of a sub-regional sport/physical activity events strategy (local/county, regional, national and international) with special consideration being paid to the potential use of natural resources (green and water space) to secure associated economic benefits and civic pride.
- Key strategic development sites identified in the various planning documents, for example: Cherry Orchard Country Park; Regional Leisure Centre at Canvey Point; Fryerns and Craylands; Southend Leisure and Tennis Centre; Southend Marine Activities Centre; Warrior Square (re-location); and Gloucester Park.

Importantly, the TGSE Partnership is to lead on a sub-regional approach to developing the role of sport in regeneration, needs analysis and facility provision – to be endorsed by Sport England – and to heighten the needs case and scaling of facilities to optimise their regenerative potential. In addition to consideration of the traditional types of sports facilities and the enhancement of marine sports on the Thames it is recommended that facility opportunities for walking, running, cycling, water sports, extreme sports and family activities are examined. Improved working between planning, regeneration and sport and leisure professionals is required to ensure key opportunities are not missed.

To achieve this integrated approach, and in order to provide a regional focus for investment in and management of the sports economy, the Waterfront Strategy will support aspirations and proposals for regional sports facilities and management projects through co-ordinated **Centres of Excellence**.

4.4.4 Nurturing Cultural Assets

The East of England Plan dedicates a chapter to the development of culture[3], and seeks to support local authorities in using the region's cultural resources to bring about regeneration and economic development, particularly in areas like the Thames Gateway.

> **Strategy Recommendation 11**
>
> **Cultural Development**
>
> A clear vision will be developed for cultural development to "raise the temperature" of the role of arts and culture in repositioning the TGSE area and in providing new economic development opportunities. This vision will use the Thames and the waterfront heritage as a focus.

The cultural development strategy for the waterfront focuses on initiatives emphasising the role of arts and culture in repositioning the TGSE area and in providing new economic development opportunities. These have been limited but are growing in number and some of them use **the Thames and the waterfront heritage as a focus**. The most significant of these have already been identified in Section 3.2 as part of the Greengrid Strategy including measures to conserve, present and re-use, where appropriate, historic heritage destination sites and landmarks including:

- Tilbury Fort
- Coalhouse Fort
- Prittlewell Priory
- Hadleigh Castle, and
- Development of the Wat Tyler Centre, in the Country Park, as an educational and training resource

In addition, initiatives such as "Visionary Thurrock" have explored the potential of a more culture-led approach to regeneration in Thurrock – focusing in particular on recapturing the maritime and Thames heritage - and are supported by the Thurrock Thames Gateway DC. For example new uses are sought for existing heritage assets such as the Cruise Ferry Terminal for cultural and arts performances. Similarly Southend is attracting and nurturing a local arts cluster, whilst Leigh on Sea intends to attract creative designers and niche retail outlets.

The main focus in Southend waterfront will be on leisure and entertainment led development but through "Making Culture Count" - The Cultural Strategy for the Borough of Southend-on-Sea - Southend is seeking to promote itself as a cultural tourism destination through its involvement with the Thames Gateway. Initiatives include the establishing of "*designfront*", a new, annual, three-day contemporary design event selling the work of young British designers working in furniture, jewellery, lighting, ceramics, glassware, textiles and fashion accessories.

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[3] Defined there to include the arts; creative industries; the natural and built environments; events and festivals; holidays and trips; libraries; museums; archives and galleries; local cultural traditions and pursuits; sporting and recreational activities; and visitor attractions

4.4.5 The Waterfront Strategy Contribution

The Waterfront Strategy therefore provides a strong framework for supporting, promoting and expanding the tourism, sports, culture and commercial leisure sector through existing and new policies, projects and proposals focusing in particular on marine and waterfront assets but also recognising the contribution of, regional centres of excellence, interpretive centres, cultural destinations, casinos/hotels/conferencing facilities and other flagship attractions which are complemented by the green and marine infrastructure and heritage initiatives set out in Chapter 3. The major commercial leisure and visitor development opportunities for the Waterfront Strategy are shown in Figure 4.2.

4.5 Environmental Technology

The Waterfront Strategy has adopted principles that recognise the high quality natural and physical environment and the distinctive economic environment that the waterfront and the waterways provide – both regionally and nationally. The strategy ensures that these major environmental assets are protected and used through sound environmental management practices. This resource is recognised in the East of England RES which promotes the region as an “exemplar for the efficient use of resources” (Goal Eight) through:

Strategy Recommendation 12

Environmental Technology

There is real potential for the TGSE to maintain its unique industrial role on the waterfront by promoting investment in environmental technology. The Waterfront Strategy will encourage exploitation of the opportunities for the development of renewable energy and other environmental technologies sectors.

- Capturing the advantages of the renewable energy potential of the region
- Development of environmental goods and services businesses
- Establishing the region as an exemplar of environmentally sustainable development

The renewable energy resource of the region is particularly significant and the East of England Sustainable Development Round Table has set targets for renewable energy in the “Renewables East” study to which the TGSE Waterfront Strategy can make an important contribution. A regional target of 14% of electricity requirements from renewable resources has been recommended of which the main source would be from offshore (1,300 GWh/yr) and onshore (1,700 GWh/yr) wind generation. It is estimated that the region will require an additional 400-500 onshore and 150 offshore turbines to meet these targets. The highest proportion of the onshore wind target, 28% (478 GWh/yr) of the requirement, is expected to be met in Essex.

In these circumstances, there is a real potential for the TGSE to maintain its unique industrial role on the waterfront by promoting investment in environmental technology which exploits the waterside location – particularly in renewable energy. The Waterfront Strategy therefore recommends that opportunities for the development and exploitation of renewable energy and other environmental technology sectors which can exploit an estuarial waterfront location should be further tested in the area’s emerging economic development strategies.

The potential for four technologies should be tested:

Renewable Energy Generation:

- The development of offshore facilities (which offer on-shore economic servicing opportunities) in the open estuary to the east of Shoeburyness where there are limited visual land use and transport implications and where there is no conflict with existing or future expanding port operations or navigational aids.
- The strategic placement of onshore wind turbines including one-off turbines with local ownership serving individual developments at suitable waterfront locations.
- The Renewables East study targets less than 15% of renewable energy for the region coming from “other” sources which include wave or tide energy. However the Waterfront Strategy supports further research on tidal current or wave power facilities at the estuary waterfront.

Renewable Energy Industry:

- In support of the regional renewable energy strategy and to maximise the regional economic benefits, the strategy recommends examining the use of existing river frontage industrial sites for the fabrication of off-shore wind and wave/current turbines.
- The river locations would enable the load-out of the turbines following fabrication for final placement at off-shore locations.

Locations which should be examined include existing waterfront industry sites and port and power station sites such as those at Tilbury.

The use and Development of Sustainable and ‘Green’ Technology, such as:

- Sustainable construction technologies and companies (i.e. modular build, high efficiency insulation materials etc).
- Alternative fuels and engine technologies (i.e. alternatives to petrol/diesel powered engines etc).

Green technology goods and services businesses can be attracted to ‘environmental’ business parks in locations such as SW Canvey, Shoebury and Shell Haven.

Material Management Centres:

- To handle, treat and process contaminated soils from the redevelopment of brownfield land (helping to meet Government targets of 60% brownfield redevelopment).
- Use of the river for transporting such material to and from the site following treatment.

The sites to be tested here should include existing industrial river frontage and/or waste sites such as Mucking Flats and power station sites.

5 LAND AND INFRASTRUCTURE: A SPATIAL AND ACCESS STRATEGY FOR THE WATERFRONT

5.1 Planning and Locating Waterfront Development

The previous two parts of the Waterfront Strategy Framework have recommended approaches to leisure and employment led development of the TGSE waterfront area. Where appropriate, specific development proposals have been recommended as well as broad guidance principles for development in these sectors of activity. This approach to development will however make demands on the supply of land and infrastructure and has clear implications for the location and spatial pattern of development of the waterfront area.

This third part of the strategy framework therefore examines the land and infrastructure requirements for servicing the future development of the waterfront area of TGSE and the spatial and access patterns which emerge. Specifically this chapter considers:

- Employment land requirements
- Residential development principles
- Road, rail and river transport
- Flood alleviation measures

Zones of Change: A Targeted Development Strategy

Figure 4.2 in the preceding chapter already highlights the location of the principal areas of employment, leisure and mixed use development recommended as well as the main Greengrid areas of open space. The formulation of the strategy for the economy and the environment of the waterfront focused on the needs and opportunities of these sectors, but was also based on a clear view of the major waterfront stakeholders in favour of what was termed a **"Targeted Development Strategy"** which, in spatial terms, **focused the location of employment and active leisure led development** into relatively limited zones of change. This enabled large zones of the waterfront area of TGSE to be protected against large scale development whilst being actively managed, mainly through the Greengrid initiative, to provide **a lung for passive recreation and protection of the unique ecology and landscape** of the waterfront.

As a result of this approach, and taking the Targeted Development Strategy as a whole, distinctive and integrated approaches to spatial development can be recognised for **six zones** along the South Essex waterfront – the limits of which are shown in Figure 4.2 - as follows:

- **Zone 1: Rainham to Tilbury** - This is a zone with high levels of existing, mainly port related, industrial and commercial development and where significant further change and development can be expected including the Grays waterfront and the existing Port of Tilbury.

- **Zone 2: Tilbury to Mucking** - Zone 2 will be an area of key leisure and heritage sites including Tilbury and Coalhouse forts set in an outstanding green space between the ports of Tilbury and London Gateway. It also includes the waste filling operations at Mucking and these assets provide an important resource for passive and active recreation and conservation of the waterside heritage of the area.

- **Zone 3: Shell Haven** - This will become the major employment zone of the TGSE waterfront. Its development will be led by the London Gateway port proposals and the adjoining Shell Haven Logistics and Business Park. It also includes the existing major BP oil refinery and terminal.

- **Zone 4: Holehaven and Benfleet Creeks** - the Holehaven and Benfleet creek complex together with the Wat Tyler Country Park is an area of sensitive environment and ecology which will be safeguarded as an environmental lung within the adjacent areas of development. However it will also be a leading example of positive flood control and environmental management for recreation.

- **Zone 5: Canvey Island** – an area of urban development which stands out as the most economically and visually isolated from both the river and the rest of the TGSE area. The area will be the focus of local regeneration initiatives for a wide range of mixed developments. At the same time it will also be the focus for improved access to surrounding business areas.

- **Zone 6: Leigh to Southend** - This existing urban waterfront zone will be the main focus for commercial leisure and visitor investment for the TGSE waterfront. The main objective of this is to set a new standard for "quality of life" investment for both residents and visitors – making Southend a flagship for TGSE as London's premier leisure destination.

These distinctive zones provide a spatial framework for the Waterfront Strategy within which land allocation, access improvements and flood control and alleviation measures are recommended below.

5.2 Meeting Employment Land Requirements

5.2.1 Strategic Land Policies

The strategy studies have considered the key generic spatial policies set out in the Regional Spatial Strategy and in local plans which have been concerned to secure the adequate future supply of employment sites in the Thames Gateway area generally and on the waterfront specifically. These policies have put a particular focus on sustainability policy issues such as the reuse of brownfield sites as a priority – at target has been set for at least 60% of all new development on previously used land or buildings - and the competing claims of residential and employment development.

The broad extent of the Green Belts in the East of England is considered to be appropriate and will be maintained. However, (amongst others) a review of the Green Belt policy in the Thames Gateway South Essex will be undertaken to respond to the Government's Sustainable Communities Plan.

The strategy for the coast is to ensure a balanced policy that recognises the economic and social role of coastal ports and tourism areas, and the need for environmental protection and enhancement of the coast. Specifically, the RSS states that local planning authorities should ensure that they adopt an integrated approach to the regeneration of coastal towns and communities, reinforcing their social role in coastal areas and the wider region. There is also a priority to defend existing properties from flooding and where possible locate new developments in locations with little or no risk of flooding.

5.2.2 Spatial Implications

Realising this policy has the following spatial implications which have been considered when developing options for the development and implementation for the Waterfront Strategy:

- continued protection of areas designated for their intrinsic built or natural environmental importance;
- maintenance of the broad extent of development restraint offered by the green belts, but allowing reviews to support the growth of selected key urban areas;
- support for the economy across the region, but particularly focusing on areas with particular need for regeneration and protection of the waterside employment assets;
- taking into account the region's diversity and addressing its different needs by providing sub-regional guidance and policies for specific areas; and
- guided by these overall principles, enabling the implementation of the Government's Sustainable Communities Plan growth area proposals.

5.2.3 Employment Land Provision

Having established the new housing and employment requirements of the area, the Strategy has considered the current level of employment land available by local authority area.

Employment Land Allocations

The replacement Structure Plan for Essex and Southend-on-Sea was adopted in March 2001 and sets out the strategic policies for the county (excluding Thurrock) for the period 1996-2011.The plan proposes an indicative provision of a net increase of 173 hectares of land for business, industry and warehousing in the TGSE area between 1996 and 2011. Just over 50% of the total land provision increase is planned for Basildon.

The allocation of employment land in Thurrock was revised in the Thurrock Unitary Development Plan in March 2003 and increased availability from 186 hectares to 384 hectares. All of the additional land allocations are within the London Gateway and the former Shell Haven Oil refinery site.

Some 557 hectares of employment land identified for development between 1996 - 2011 has therefore been allocated in the TGSE area as a whole.

5.2.4 Employment Land Availability

Reviews of Industrial Monitoring Reports and consultations with Local Authorities within the TGSE have identified that 488 hectares of this land is still awaiting development. Of this, 356 hectares is identified for B1, B2, B8 usage, 3.8 hectares for B1 development, 38.9 hectares for B2 and B8 and 7.8 hectares for other nondetermined business uses (Sui Generis). Other sites are pending designation of usage or awaiting planning permission.

Although the supply and availability of sites is continuously under review, the key employment land sites in the TGSE area, by Borough / District, are identified in Table 5.1 below. The table illustrates that over 75% of available employment land is located in Thurrock and 55% of this land is accounted for by the London Gateway site.

Table 5.1: Employment land availability by District/Borough

District / Borough	Site name	Size (ha)
Thurrock		
	London Gateway / Shell Haven	200.0
	West Thurrock Power Station	39.1
	Tilbury South	22.3
	Former Tilbury A Generating Station	14.5
	Tilbury Power Station North	14.3
	Van den Bergh and Jurgens, Purfleet	13.6
	Bluelands West	7.0
	Lakeside Trading Estate	6.5
	Thurrock Park, Little Thurrock (remainder)	5.8
	Other sites less than 5 hectares	39.5
Southend (No sites over 5 hectares identified)		
	Other sites less than 5 hectares	17.9
Castlepoint		
	SW Canvey - Site south of Northwick Road	9.1
Basildon		
	Gardiners Lane South, Basildon	36.4
	Courtauld Road, Basildon	15.8
	Endeavor Drive, Basildon	7.3
	Other sites less than 5 hectares	14.4
Rochford		
	Land Adjacent B1013 & Aviation Way, Rochford	13.0
	Other sites less than 5 hectares	0.6
TGSE Total		**477**

Not all of this land is available for beneficial use however. The main constraints on the development of the identified sites relate to poor access due to an ageing transport infrastructure, and environmental and bio-diversity concerns. **All** of the identified land is brownfield or previously developed land.

With regard to the Waterfront Strategy area it is important to note that, including the London Gateway / Shellhaven site, the waterfront area provides some 63% of the employment land available. Table 5.1 indicates the sites, shaded, which can be described as waterfront sites. The analysis indicates that **if the development constraints can be overcome** there is sufficient land to meet the employment land development targets for the TGSE as a whole. However there will be a continuing need for support for land assembly, remediation and servicing of sites if this available supply is to be delivered.

Specifically, the major employment development opportunities for the waterfront identified in the Strategy can be secured within the sites identified – in particular focusing on the major Shell Haven site of 200 hectares – and entirely on formerly used brownfield sites. Moreover locationally, as Figure 4.2 shows, the major waterfront employment sites and development opportunities are concentrated into three of the six zones which, if delivered, will allow employment development to be focused and targeted within the overall Waterfront Strategy area.

Strategy Recommendation 13

Employment Land

The employment land analysis for the Waterfront Strategy supports the view that there is sufficient land to meet the employment land development opportunities for the waterfront identified in the Strategy – and expects this to be delivered entirely on formerly used brownfield sites.

5.2.5 *Land Allocation and Development Policies*

Although there is sufficient capacity for waterfront development on the scale envisaged by the strategy, the "potential barriers to intervention" identified in the TGSE Baseline Study highlight a number of market issues in securing the development of the sites allocated and available. These include:

- The need to guard against inappropriate development particularly where there are pressures for high value uses such as housing which will challenge the delivery employment land, particularly on waterfront sites. Local authorities, LDV's and the TGSEP will need to prepare and deliver detailed and robust planning frameworks.
- Competition from other areas is high. The TGSE will need to recognise and exploit its comparative advantage. To do this it will need to facilitate the early delivery of sites.
- Controlling land to manage delivery. This will include assembly of sites by the public agencies, the use of CPO powers if necessary, and the selective renewal and redevelopment of old and traditional industrial areas. This should avoid the "piecemeal evolution" of much of the existing employment areas which will be needed to attract modern investment.
- Procurement, where the TGSEP and LDV's will need to use a range of different models of partnership with the private sector. These might include a delivery panel of preferred developers and the packaging of developments – choosing first those which are most attractive to the private sector.
- Leisure and recreation has been considered as an important component within the Waterfront Strategy but existing land provision is of poor quality and needs to be improved. Most of the local plans in the TGSE are identify a new requirement

of land for formal sport and open space in the plan period, based on the standards. There are currently few spaces allocated for the provision of newly built sites.

- One of the main problems to address is allocating land and investment for outside sports facilities, particularly for new housing developments. Planning constraints in terms of scale and types of built provision in green belt land, coupled with very (understandably) protective policies on green belt land throughout the TGSEP has restricted opportunities in the past, and there is a need to strengthen developers contributions to manage any potential investment.

5.3 Implications for Housing Land Allocations

The present Waterfront Strategy does not seek to set a framework or policies for housing development in the area. Housing development strategies will be set within Policy TG/SE6 of the Draft Regional Spatial Strategy (RSS) for the East of England (2004) which makes provision for 43,800 new dwellings in South Essex in the period 2001 to 2021. However the Waterfront Strategy recognises that the sectoral and spatial recommendations for employment development and the conservation and management of the waterfront will have implications for the emerging housing development strategy and these implications are highlighted here.

> **Strategy Recommendation 14**
>
> **Housing Development**
>
> The Waterfront Strategy does not seek to set a framework or policies for housing development in the area. The Strategy is unlikely to have significant implications for housing land allocations. However, it is recognised that there will be continued demand for residential development in key waterside and strategic locations and there are specific recommendations for the emerging housing development strategy as it affects waterfront housing development in TGSE.

According to the Thames Gateway South Essex Strategic Framework 'Delivering the Future' (July 2003), for the period 1996 to 2011, 24,350 housing units were allocated for Thames Gateway South Essex, approximately 34% of which had been completed by 2000. By 2003, 25% (6,087) of the housing units did not have sites identified and this remains the case until the completion of the RSS process.

The Thurrock Urban Capacity Study (March 2003) identified 226 hectares of brownfield land with a potential use for housing. Government Planning Policy seeks net densities of 30 to 50 dwellings per hectare. Should all of this land be used for housing, this would therefore provide between 6,780 and 11,300 new dwellings. This suggests that enough land suitable for housing is available in Thurrock alone to cover the 6,087 dwellings needed by 2011.

Figures for the period 2001 to 2021 in the Draft Regional Spatial Strategy for the East of England state that 43,800 new dwellings will be needed - 37,000 in the Thames Gateway South Essex and 6,800 elsewhere in South Essex.

Overall, the Waterfront Strategy concludes that existing housing allocations, particularly in the high capacity areas of Thurrock, will have little impact on the demand for employment sites or, if existing green belt and environmental protection area policies are maintained, on the management of green space and waterways. Correspondingly the employment land analysis in section 5.2 above suggests that the economic development component of the strategy is unlikely to have significant implications for housing land allocations. However, it is recognised that there will be continued demand for residential development in key waterside and strategic locations which may result in pressure for mixed developments with a high housing component and to release some employment land for residential use.

In the light of these conclusions the following spatial and development implications of the Waterfront Strategy for the emerging housing development strategy should be noted:

- There should be a general presumption against housing development in the identified green space and environmentally protected areas of the waterfront and in particular in Zones 2 and 4;
- Additional housing development should be concentrated to reinforce the existing urban areas of the waterfront area;
- Mixed use development with a high housing content should be limited to the appropriate designated regeneration areas identified in the Strategy;
- In all other areas there should be a presumption against waterfront housing development subject to the sequential test of the viability of other uses making use of water access recommended in section 4.2.3; and
- Housing, and all other forms of development with public access, should normally be set back from the waterfront so as to maintain public access to and along the waterfront.

5.4 Transport Infrastructure

5.4.1 Highway and Rail Transport

It is clear that the scale of development being proposed in the Waterfront Strategy will significantly add to travel demand. Given that most existing transport infrastructure is close to capacity at present, this means there will be congestion on road and rail in peak periods. The extent of road congestion will depend on whether the modal split is similar to the present, or whether area-wide charging reduces car use. Moreover, the development being planned in the Thames Gateway west of the M25 will inevitably have an impact on the links between South Essex and Greater London, especially the C2C line. A significant increase in rail freight movements, such as is envisaged with the London Gateway (Shell Haven) development, would require investment in the rail network around London.

The London to Southend Movement Study (LOTS) analysed the impact of forecast travel demand in 2021 taking into account the planned growth in housing and employment in the TGSE area outlined in the Zonal Action Plans by ODPM in 2001. Since the preparation of LOTS there have been no significant changes in investment plans. However, The Secretary of State for Transport has recently announced that the government is considering the introduction of road charging on all roads, which has the potential to change modal choices.

The transport requirements for the Waterfront Strategy area of TGSE were identified in LOTS and these are taken as a sound basis for this strategy. The essentially linear form of development lends itself to rail and it is especially important that the C2C line has the capacity to cope with the anticipated levels of demand. Given the expansion planned west of the M25, investment is clearly required to meet the needs of TGSE. However, the existing approved schemes and those in the forward programmes do not represent a 'step change' in infrastructure, which the East of England Plan states is a precondition of achieving regeneration.

In order to better carry forward the case for transport infrastructure investment in the area, a "Business Plan for Transport" has been developed. This addresses the needs of the TGSE area which is currently divided between the Thurrock, Southend and Essex LTPs on a more integrated basis. To deliver this plan a new Transportation Board for TGSE has been established, bringing together the Partnership, the three local transport authorities, the SRA and others.

Strategic Transport Issues in the Waterfront Area

The key issue for step change in infrastructure provision in the Waterfront Strategy area is the development of the proposed London Gateway and the Shell Haven Logistics and Commercial Centre. The consensus of the views expressed in the relevant studies is that the scale of this development will mean significant increases in road and rail freight traffic, which will impact on other users. Junction improvements on the M25/A13/A127 will be required; rail freight bottlenecks on the network around London would have to be tackled; an improved road link to the A13 and rail freight link to the C2C line would be required. Chapter 2 notes that, at the time of preparation of this strategy, the Secretary of State has issued a "Minded View" letter indicating that he was minded to approve the plans subject to assurances that arrangements are in place specifically to secure *additional highways capacity which would be required to serve the port and the commercial and logistics centre*. The key improvements now under discussion with the Highways Agency and Essex County Council are:

- Capacity improvements to Junction 30 on the M25/A13
- Widening of two stretches of the A13 between M25 and A126 and between the A1012 and A1089
- Upgrading of the A1014 into the Shell Haven site
- The relative funding contributions of the developer, Highways Agency and the Council.

The second key strategic issue is the continuing need to support growing levels of out-commuting – not only to London but to growth areas to the north of the region such as the M11 Corridor and Cambridge. The 2001 Census shows that, of the 296,300 workers resident in the 5 districts of the TGSE area, there was a net commuting outflow of 56,674 (19% of residents, 24% of the workforce) – see Appendix 3

The travel to work analysis also shows the continuing importance of the 71% of TGSE residents who work within the TGSE area and the Sustainable Communities Plan seeks to maintain and increase this proportion. The third key strategic issue is therefore the need to provide a new and attractive passenger transport system to accommodate internal commuting, leisure and visitor movements within the TGSE area. It is to meet this need that the South Essex Rapid Transit (SERT) is being investigated and developed. SERT will complement existing rail and bus-based services by providing dedicated connections between new developments and major urban centres using a fast, efficient, high quality bus-based technology. SERT will be developed in corridors connecting Basildon Town Centre, Thurrock, Lakeside and

Southend Town Centre, together with connections to new employment and development areas at Shell Haven, Canvey, Southend Airport and Shoeburyness. SERT is therefore a potentially important transport instrument for the waterfront area linking key investment and regeneration zones to the major centres of the TGSE waterfront area and behind.

5.4.2 Regional Marine Transportation

The Strategy strongly supports the continued use of the River Thames for the movement of goods and materials. The present utilisation of the river for aggregates and waste should be maintained and developed in recognition of the comparatively small environmental footprint of marine transportation in contrast with rail and, particularly, road movements. The PLA, as harbour authority, has given an undertaking that it will actively lobby and promote the river as a viable, sustainable transport solution and will seek to reinforce the existing inter-port trade in the river with additional intra-port activity, including waste management and the transportation of construction materials. The development of the Olympic site at Stratford affords an opportunity to demonstrate the viability and sustainability of marine transportation over terrestrial operations.

The Strategy also recognises and supports the principle that river access routes should be improved as part of an integrated passenger transport system for London and the East Thames. This has been realised in the significant sums of money invested in improving London's piers. There is also some existing ferry activity across and up river from Tilbury. The Tilbury/Gravesend ferry provides a vital connection between Thurrock and Gravesham, and is supported by Thurrock Borough Council and Kent County Council. In Southend, two companies operate pleasure craft excursions, including The Lower Thames & Medway Passenger Boat Co. Ltd (Gravesend to Southend) and Waverley Excursions Ltd (Clacton, Ramsgate, Margate, Whitstable, Southend, Tilbury London).

However, there have been no plans for **commuter** routes within the TGSE section of the estuary, using **conventional craft**. This is largely due to the potential disruption to services arising from weather downtime, the duration of journeys from TGSE to central London, and the cost of providing new piers or access facilities to enable a comprehensive service.

Southend-on-Sea Borough Council (SBC) has commissioned a feasibility study for the operation of a Hovercraft service potentially running on three routes, namely: Southend to Central London; Medway Towns; and Harwich. SBC has discounted the use of conventional craft for commercial ferry operations – the low tide deep water channel is too remote.

> **Strategy Recommendation 15**
>
> **Marine Transportation**
>
> The Strategy recognises and supports the principle that river access routes should be improved as part of an integrated transport system for London and the East Thames. The Partnership will continue to support the investigation of commercial ferry operations.

The study has concluded that services must initially cater for tourists, but that the schedule will ultimately be expanded to meet commuter demand, once reliability has been demonstrated. The study has addressed potential issues arising from the operation of the service in this relatively exposed location – there could be downtime associated with wave and wind climates. Provision of shore facilities has been evaluated and this has highlighted potential difficulties in the provision of a full service. While a parallel landing site has been identified in Sheerness, providing a cross-Thames service, the study has concluded that there are also limited obvious locations for a hovercraft ramp on the run up to London, and the infrastructure provision has been shown to restrict potential long-term operational viability. There are also issues regarding speed restrictions in the Medway that may preclude operations into the heart of the Medway towns and there may be similar issues with speed management in the Thames itself. The Port of London Authority as regulators of ferry operations will be required to be consulted. Nevertheless, the use of hovercraft could be financially viable, since the infrastructure required eliminates issues of dredging and jetty construction. In London, the existing piers serving the local ferry operations will suffice. The Strategy will continue to support the investigation of commercial ferry operations. Any service to London should take into account the need to improve the public transport corridor between Canvey and employment growth areas in Thurrock and the service would, ideally, take in other sites on the Essex coast such as London Gateway, as well as locations on the Kent side.

5.4.3 London Southend Airport Expansion

The other main area in which an integrated development framework for the TGSE waterfront can contribute to visitor and leisure development is in the development of transport infrastructure. The transportation network in the TGSE region is critical not only to residents and workers, but to tourists who are seeking efficient and direct means of travel, particularly for short-breaks. In light of future cultural, tourism and commercial leisure opportunities there is a need to integrate appropriate transport infrastructure for different activities. The growth of the waterfront as a business, leisure and visitor destination for surrounding regions and beyond requires better quality public transport services and supports the case for improved air services such as SERTS and facilities at London Southend Airport.

Potentially the most significant infrastructure investment to the economic prospects of tourism is the expansion of London Southend Airport. The airport is located mainly within Rochford but potentially serves the whole of the south-east Essex area. The airport has plans to expand into a major regional airport with a new terminal. As part of the airport's plans, there are proposals to build a new rail terminal to connect to the London Liverpool Street line. Forecasts commissioned by the airport predict that the airport could be catering for 800,000 passengers by as early as 2006 and 2.5m by 2030[4].

Due to its restricted size, Southend Airport was not considered as a potential candidate for significant expansion in the Government's recent White Paper on the Future of Air Transport in the UK. It was, however, evaluated in a preliminary optioneering study, which concluded that it had the potential to serve as a regional airport with traffic levels rising up to 2 million passengers annually by 2030. Further studies have been undertaken by consultants which have assessed the airport's catchment area and have provided route-by-route traffic forecasts for hybrid low-cost services to key UK and European cities, holiday destinations and other niche markets. Expansion at the airport could significantly increase the amount of business visitors to Southend and London

[4] London Southend Airport, Draft Masterplan for Consultation, April 2005,

Gateway over time, and increase leisure visits to Southend and other waterfront destinations with knock-on effects for demand for accommodation, particularly in terms of hotels. There may also be some demand for accommodation for leisure passengers wishing to stay overnight prior to departure or after arrival.

It should be pointed out that whilst Southend would compete directly with both London Stansted and London City airports, its catchment area potential will be significantly enhanced by the growth of the Thames Gateway and together with London City Airport London Southend Airport should become a “London Gateway Airport” with a significant role in business, tourism and leisure development of the TGSE waterfront.

5.4.4 A Waterfront Transport Strategy and Programme

The Waterfront Strategy therefore supports a transport strategy for TGSE to:

- Achieve a step change in strategic road and rail infrastructure investment to meet the needs of major employment and housing growth in the waterfront area.
- Provide, through a combination of public and private investment, strategic highway and rail network improvements to secure the London Gateway and associated logistics and business development.
- Widen the choice of work locations for TGSE residents by continuing to support high levels of out-commuting to London and the increase in the number of commuters to growth areas in the rest of the East of England and the South East.
- Strengthen key transport corridors within the region – particularly through the development of a new and attractive passenger transport system such as SERTS.
- Support the expansion and development of Southend Airport as a “Thames Gateway Airport” with a significant role in business, tourism and leisure development of the TGSE waterfront.
- Support the further investigation of commercial ferry operations to key locations on the Essex coast as well as locations on the Kent side for both commuters and visitors.

Based on these priorities, specific key transport initiative proposals are included in the development programme and delivery plan in Chapter 6 of this strategy. A priority investment programme has been identified and is summarised below and in Figure 5.1. All of these are existing schemes identified in the local transport plans and the TGSE Business Plan for Transport as commitments or proposals.

Highway Improvements

- M25 / A13 junction improvements and A13 widening to London Gateway
- London Gateway / Shell Haven A1014 Link Improvements
- Sadlers Farm A13 / A120 junction improvements and interchange
- A127 / Airport / Shoebury Corridor Link
- M25 / A127 / A13 upgrading widening and junction improvements
- Roscommon Way Extension / new access corridor(s) to Canvey Island

Public Transport and Rail Freight Improvements

- C2C Service Improvements and Rail Station capacity enhancements to enable 12 car operation
- London Southend Airport Terminal and Station
- South Essex Rapid Transit (SERT) System
- New Rail Link between C2C and First Great Eastern via A130 corridor
- Improved Freight Link from London Gateway / Shell Haven
- West Thurrock Station and Freight Terminal

5.5 Flood Alleviation

The risk of flooding is an ever present factor in Thames Gateway South Essex and one which the Planning Authorities and Environment Agency have addressed through a range of policies and strategies. Regional Planning Guidance (RPG 14) stated that *"Coastal and river flood risk is a significant factor in the East of England. The priority is to defend existing properties from flooding, and where possible locate new development in locations with little or no risk of flooding"*.

5.5.1 Philosophy and Approach

The flood risk to the area comes from three key sources:

- the most significant source is that of the tidal River Thames. The tidal flood risk is significant because the potential impact of any such flooding would affect thousands of homes and businesses disrupt local and regional infrastructure and put at risk many hundreds of lives. However, the probability of tidal flooding is relatively low because the existing flood defence structures provide against a flood event of 0.1% probability of occurring in any one year (a 1:1,000 year event).
- the second source is that from natural watercourses (rivers and streams) in the area, both on the surface and underground. The potential impact of this type of flooding is more localised from each watercourse, however there could be a combination of watercourses flooding at the same time due to prolonged heavy rainfall. The probability of this type of flooding is greater than that from tidal flooding and is likely to be in the range of 10.0% to 3.3% probability in any one year (1:10 to 1:30 year event).
- the third source of flooding is caused by a limited capacity of the surface water drainage system during times of heavy rainfall. Again the impact is very localised and likely to be smaller in area than watercourse flooding. The probability is likely to be similar to that of watercourse flooding.

The approach of Planning Authorities with regard to consideration of planning applications in areas identified by the Environment Agency as being at risk of flooding is indicated within Planning Policy Guidance 25 "Development and Flood Risk". This approach is then translated through regional and local policies to influence the design of individual development schemes.

5.5.2 The Flood Control Strategy for the Thames

Strategy Recommendation 16

Flood Control

The Partnership will work within the emerging Environment Agency flood control framework for the "Thames Estuary 2100". In particular the strategy will support the alternative flood risk management techniques promoted by the TE 2100 project including managed retreat and greater use of tidal washlands and temporary storage areas where compatible with the local development strategy.

Flood control is delivered through strategies to provide flood risk management which recognises that a residual probability of flooding will exist despite defence structures and that mitigation measures to reduce the impact to people and property must be in place.

Following the devastating floods of the east coast and Canvey in 1953 a project was commissioned to design and construct tidal defences in the Thames Estuary from its mouth upstream to the tidal limit at Teddington, which were completed in 1982. The Environment Agency leads the strategy to provide defences against flooding and have commissioned a project, "Thames Estuary 2100" (TE 2100), which is looking at the options to take the Tidal Defences from 2030 through to 2100. The Environment Agency is consulting stakeholders about the options for the defences and will publish draft high level options in 2006. To aid those planning development options along the Thames corridor to consider flood risk management within their own areas of interest the Environment Agency intends to produce interim guidance and updates. It is important that the Waterfront Strategy works within this emerging control framework but, conversely, the development of the TGSE area must not be unreasonably constrained by the development of flood management policy for the wider Thames region.

In particular the strategy will support the alternative flood risk management techniques promoted by the TE 2100 project and that replacement of existing walls with higher and stronger structures will not be the preferred option in many locations. Greater use of tidal washlands and temporary storage areas are likely to be encouraged by the resulting strategy. It may be feasible to allow tidal flooding of some currently defended areas that are in future designated as public open space. The additional flood storage capacity created may then be offset against areas where a higher standard of defence is required to protect new, preferably local, developments, rather than offering remote "compensation" for development elsewhere. Where development within the floodplain is considered appropriate then mitigation measures such as the use of flood resilient materials and structures will be encouraged.

5.5.3 Implications for TGSE Waterfront Strategy

Virtually the whole of the TGSE Waterfront is within the floodplain, either from the River Thames or its tributaries, as shown on Figure 5.2. The floodplain extent takes no account of the standard of defence against flooding provided by the Thames Tidal Defence Walls and Structures. It is expected that any new developments will not adversely affect the integrity of the Thames Tidal Defences.

It is expected that planning policies will protect floodplains and land liable to tidal or coastal flooding from development. It is also expected that all developments and land uses should not add to the risk of flooding elsewhere and should reduce flooding pressures by using appropriate sustainable drainage systems.

Where riverside development is proposed it is expected that there should be substantial improvement of public access and amenity related to the riverside. This should be balanced with the need to ensure that developments in currently rural and undeveloped areas shall not adversely affect their open and rural character, or wildlife of the area. It is expected that developments will not propose the culverting of watercourses.

Developments which would be likely to adversely affect the floodwater storage capacity of natural floodplains, defined washlands or tidal storage basins, or would increase the number of people or properties at risk from flooding, or where the development itself would be at an unacceptable risk from flooding will not normally be permitted.

However, in order that regeneration should not be unreasonably constrained by the development of flood management policy, the TGSEP has commissioned a Strategic Flood Risk Assessment that will identify where there are flood risks to be weighed against other site attributes when planners are making development decisions in flood plains, together with site specific methods of reducing and mitigating the flood risk effects that development of the area may create.

6 DELIVERY OF THE WATERFRONT STRATEGY

6.1 Delivering the Waterfront Strategy

The Waterfront Strategy provides guidance on development and investment policies and programmes which is designed, in combination with parallel plans and strategies to deliver the objectives of the strategy to:

"bring together national and regional strategies with local projects, plans and, crucially, leveraging the …. potential offered by ***the area's defining asset – the Thames****"*

The Strategy aims to do this by:

- Contribute to the delivery of an outstanding *quality of life* experience for the sub-regions citizens and to become a destination of choice for visitors, by ……….
- Capturing the tremendous opportunities that the River Thames offers to the TGSE sub-region in terms of contributing to sustainable growth, the gateway function and employment, whilst ………
- Balancing the growth and development pressures that emerge from and impinge upon these very same assets.

However the strategy also recognises that:

"the process of turning vision into reality will be made tangible through the definition of projects which will create the employment, the environment and the lifestyle to which those involved aspire"

The preceding chapters of the strategy have therefore recommended a framework for capturing the potential of the Thames waterfront and identified key development and supporting infrastructure policies and initiatives which are expected to deliver the objectives of the Waterfront Strategy. In practice the delivery of development and infrastructure projects will be the responsibility of the local authorities and the delivery and other agencies responsible for implementation and funding and will be subject to their detailed programmes and feasibility studies set out in the relevant development and regeneration frameworks and master plans, business and delivery plans. This final chapter however brings together and prioritises a series of projects and initiatives which demonstrate the direction and priorities of the strategy and provide a framework for the delivery plans of other agencies to move the strategy forward.

6.2 A Development Programme for Transforming the Waterfront

The strategy has analysed and recommended potential development initiatives within a three part framework:

- A Green Waterfront: London's Leisure Destination
- The Waterfront Economy: The Region's Gateway
- Land and Infrastructure: A Spatial and Access Strategy for the Waterfront

and considered the assets and opportunities in a series of sectors across the TGSE waterfront area as a whole. However in developing the strategy, the inter-relationship of diverse initiatives is recognised as being crucial to the regeneration and development of the area. The strategy framework also focused on different approaches in different parts of the area. The whole package should exceed, in profile and value, the sum of the parts both across the waterfront as a whole and within each of the distinctively different areas. The spatial strategy set out in Chapter 5 recognised six zones along the South Essex waterfront – see Figure 6.1 - as follows:

- Zone 1: Rainham to Tilbury
- Zone 2: Tilbury to Mucking
- Zone 3: Shell Haven
- Zone 4: Holehaven and Benfleet Creeks
- Zone 5: Canvey Island
- Zone 6: Leigh to Southend

In order to deliver the approach and recommendations of the Waterfront Strategy Framework, the strategy has also sets out a range of project initiatives to realise the potential of the waterfront. It is also useful to highlight and prioritise these to set a clear direction for more detailed regeneration and delivery plans and define the distinctive approach to each of the six zones. We therefore set out **"20 Waterfront Transformer Projects"** across the zones which are selected from the strategy framework described in Chapters 3 and 4. The twenty transformer projects are also located in Figure 6.1.

The distinctive development approach and the key transformer projects for each zone are summarised below.

6.2.1 Zone 1: Rainham to Tilbury

This is a Zone of significant change including Rainham Marsh, the Grays waterfront and the existing Port of Tilbury. Rainham Marsh should be retained as an environmental sanctuary on the landfill site and links to the river frontage and Mar Dyke should be strengthened by Greengrid initiatives. The Thurrock Thames Gateway DC should focus regeneration in the Grays area applying the sequential test and reusing any redundant waterfront land for commercial, residential and leisure uses. There may be potential for dry stack marina development in the medium to long term arising from and consolidation of the waterfront industrial usage.

Care should be taken in planning the development of the waterfront to avoid development encroaching to the waters edge, restricting public access. Greengrid initiatives can be used for the expansion of footpath and cycle networks along the waters edge, particularly within areas being redeveloped or where use changes.

The Port of Tilbury will continue to be a major port gateway and industrial centre with increasing throughput and new investment. Some restructuring of uses in the port could have long term potential for redevelopment subject to the sequential test approach to changes of use recommended by the strategy.

Zone 1: Waterfront Transformers

- **1. Dry Stack / Marina Opportunities** - on redundant waterfront industrial sites from Purfleet to Grays
- 2. Grays Waterfront Mixed Use Redevelopment
- **3. Tilbury Port Expansion** – continued growth and restructuring of port and industrial uses
- **4. Tilbury Marina Redevelopment Opportunity** - on enclosed dock space within the restructuring port.

6.2.2 *Zone 2: Tilbury to Mucking*

Zone 2 should be an area of key leisure, heritage and regeneration sites set in an outstanding green space between the ports of Tilbury and London Gateway. There is an outstanding opportunity to consolidate Tilbury Fort and the former Cruise Terminal into a Regional Cultural and Arts Centre for with access to/from the south bank and Gravesend. Tilbury Fort water areas could be used as small boat training areas (canoe/rowing/windsurfing) as part of a network of sites for a marine sports centre of excellence in TGSE.

Coalhouse Fort should form the focus of a country park area on a coastal site with high amenity value. The Fort could provide a maritime heritage and educational centre focusing in particular on the maritime military history of the Thames. There should be greater protection to marsh and rural areas to the remaining area east of Tilbury.

With the completion of waste filling operations at Mucking, this site – including existing water areas within the aggregate extraction areas - could be developed into a small boat sailing and training and adventure sports zone (ASZ). The area is presently poorly accessed but, as the use moves back to green field designation, there needs to be a focus on the amenity value of the land. The area could be adopted as a recreational and educational landmark amenity, introducing a mix of activities including cycling (bmx, mountain bike etc) activities (climbing walls, abseiling), adventure activities (ropes and cableways), golf, sailing, canoeing, camping and environmental education.

Zone 2: Waterfront Transformers

- **5. Cruise Terminal Regional Cultural and Arts Centre**
- **6. Tilbury Fort** Cultural and Small Boat Training Centre
- **7. Coalhouse Fort Maritime Heritage Centre**
- **8. Mucking Flats Adventure Sports Zone**

6.2.3 *Zone 3: Shell Haven*

This should become the **major employment zone** of the TGSE waterfront. Its development should be led by the London Gateway port proposals with a further 14,500 jobs being provided on the adjoining Shell Haven Logistics and Business Park. This development is of significance nationally and regionally and on a local scale, the development of London Gateway provides nearly one-third of the employment opportunities targeted by regional guidance in the TGSE.

Development in the area should be managed to safeguard the adjacent green space “buffer” to the north and to provide significant additional road and rail freight and commuting capacity on the surrounding local and trunk links.

Zone 3: Waterfront Transformers

- **9. London Gateway Container Terminal Development**
- **10. Shell Haven Logistics and Business Park**

6.2.4 *Zone 4: Holehaven and Benfleet Creeks*

The Holehaven and Benfleet creek complex should be safeguarded as an environmental lung within the adjacent areas of development. However it could also be a leading example of positive flood control and environmental management for recreation. Emphasis must be on maintenance and consolidation of the public access network, allowing movement into the area without impact on the environmental value. Consideration could be given to management of the flood defence system to restore salt meadow and to expand sympathetic management techniques and practices.

Potentially, and subject to environmental constraints, consideration should be given to impoundment of water areas at the upper end of East Haven Creek, to provide a small boat training area. Benfleet Creek is already heavily utilised by yachts, albeit with mud and tidal constraints. Under the present legislative parameters it is unlikely that consent will be given to amend the channel profile, or to implement significant development in the water. However, the shore line on both banks provides valuable recreational resource and should be developed to expand the existing footpath and bridleway network, including links through Hadleigh Country Park. If formal marina provision were made elsewhere in the area, the upper reaches of Benfleet Creek could be restored to less intensive boating use, and for small boat sailing in more sheltered waters.

The facilities at Wat Tyler Country Park Centre should be developed and consolidated to provide an educational and leisure facility that has value for the entire region and which integrates with and supports the adjacent land areas.

> ***Zone 4: Waterfront Transformers***
>
> - **11. Wat Tyler Country Park Centre** – for environmental interpretation and education
> - **12. East Haven Creek Small Boat Centre** – based on impoundment as part of active environmental management for recreation.

6.2.5 Zone 5: Canvey Island

Canvey Island stands out as the most economically and visually isolated from both the river and the rest of the TGSE area. The area should be the focus of local, mainly mixed use, regeneration initiatives at South West Canvey and the regeneration of the Island Seafront and Concorde Café for a flagship development such as a Restaurant / Beach Café / Multi-purpose Function Space. At the same time it should also be the focus for improved access to surrounding business areas, including the London Gateway, by strengthening road and public transport corridors. Canvey should be an early priority for SERT links.

Potentially, Canvey also offers the best locations for a modern marina development, since it has deep water to the south, a large population, an existing sailing population that would kick start occupancy, and potential waterfront restructuring sites. The potential for incorporating a marina as part of flood protection structures could be considered.

> ***Zone 5: Waterfront Transformers***
>
> - 13. South West Canvey Waterfront Business Park
> - **14. Marina Development Opportunity** – for new marina and associated mixed use development. Market and physical feasibility to be further examined
> - **15. Canvey Island Seafront / Concorde Café** – for flagship mixed use development such as a restaurant / beach café / multi-purpose function space

6.2.6 Zone 6: Leigh to Southend

This existing urban waterfront zone should be the main focus for commercial leisure and visitor investment for the TGSE waterfront. The main objective of this is to set a new standard for "quality of life" investment for both residents and visitors – making Southend a flagship for TGSE as London's premier leisure destination – rather than to generate high volume employment. It should however complement other major development initiatives for the town, away from the waterfront, such as the airport related development, higher education and regional shopping. Major waterfront development could include casino and business / resort hotel and other destination development at sites such as Westcliff Gardens, the Pier Hill and the Seafront; other mixed use development on the Seafront, and expansion of the Southend Marine Centre as part of a marine sports centre of excellence in TGSE.

To the west of the area, the regeneration of Leigh-on-Sea and Leigh Beach should meet the niche market in the regional economy, for a high-end specialist retail, food and luxury tourism "honeypot" attracting high income visitors from London and the surrounding regions. This in turn should build on the small but important fishing and shellfish sector in Leigh with measures to support the viability of the industry and increase its direct and indirect "brand" contribution to the local economy.

Zone 6: Waterfront Transformers

- **16. Fisheries Development** - opening of Leigh Creek to facilitate better access for boats; improvement of landside infrastructure; facilities for processing and direct sale of fish; and measures to support business development and skills at Leigh.
- **17. Leigh and Leigh Beach "Honeypot"** – for high-end specialist retail, food and luxury tourism
- 18. Conference, Casino, Hotel and Destination Development
- **19. Southend Pier and Seafront Development** – for mixed use leisure, residential and commercial development
- **20. Southend Marine Adventure Centre** - expansion as part of a marine sports centre of excellence for TGSE.

6.3 Delivery Plans

The principal function of the Waterfront Strategy which is set out in this document is to provide guidance on development and investment policies and programmes to a wide range of plans and strategies – both statutory and non-statutory – of the various local planning, economic development and delivery agencies with responsibilities for the development of the TGSE waterfront. It is expected that the policies, principles and projects recommended here can be adopted in relevant Strategic and Area Regeneration and Development Frameworks, business and investment plans, sector strategies and masterplans and delivery plans throughout the area. The regeneration frameworks and the economic development strategies to be prepared by the Thurrock Thames Gateway DC and Renaissance Southend, and Castle Point's regeneration strategy for Canvey Island will be particularly important vehicles for testing, consulting on and detailing the principles set out here.

Whilst the main function of the strategy is therefore to provide guidance to others, the preceding sections of the Strategy have recommended key development and investment "transformer" projects and transport investment projects which are expected to deliver the objectives of the Waterfront Strategy and it is useful to set these out as development / investment programmes and delivery plans identifying:

- relevant investment sectors
- phasing in the short, medium and long term, and
- in the case of the development projects, the expected direct job creation potential of the projects.

The programmes incorporate the transformer projects, but also include individual or groups of other initiatives which are expected to have an important impact or set the context for other key elements of the strategy. The programmes and projects rest with a wide range of agencies and it is notable that the private sector would be expected to lead on many of the key investment projects – a major feature of the Waterfront Strategy. There will therefore be an important facilitating role for the TGSE Partnership, EEDA and the local planning authorities to ensure this occurs.

6.3.1 *The Waterfront Development Programme*

Schedule 6.1 overleaf sets out a summary of the main transformer and other development initiatives identified in the strategy. Projects and initiatives are grouped into the four main opportunity sectors identified for the waterfront – port / logistics; tourism / sports / culture / leisure; marine leisure; environmental technology; and selected other waterfront developments.

Phasing

Projects have been phased into three periods:

- Short Term – from 2006 to 2011 – when many projects can be initiated (though may carry on into the medium term or longer). In most cases projects which can be completed in the short term are smaller scale initiatives, many of which have already been the subject of masterplans and funding programmes, and do not require major infrastructure investment to unlock them.
- Medium Term – from 2011 to 2016 – which would see the development of larger scale projects and those which require infrastructure or land assembly to unlock development. Much of the port and logistics, and marine leisure development would fall into this category.
- Long Term – from 2016 to 2021 – which would see projects such as the port come to full capacity and the take up of longer term environmental technology developments by the private sector and the completion of long term programmes such as the Greengrid.

Direct Job Creation

The other major feature of the development programme for the TGSE waterfront is the high potential which projects have for significant direct job creation. Whilst the strategy leads on creating a high quality of life through sustainable development of the waterfront area, the targeted growth scenario adopted has the potential to deliver nearly 25,000 direct jobs on the developments identified and focused in key employment growth zones. These estimates are for the full development in each case on completion up to 2021. A high proportion of these jobs will be located around London Gateway, Tilbury and SW Canvey, with important leisure destination developments in Southend.

These estimates **exclude** other key employment developments in the TGSE area which are not waterfront related such as those at Basildon, Southend and the Airport and at Lakeside which are also expected to complement economic impact of the Waterfront Strategy. It also excludes any indirect and induced effects on the TGSE economy and employment of this investment. Nevertheless this direct job creation estimated for the waterfront represents some 45% of the total 55,000 job target set for the TGSE by the Regional Spatial Strategy (see section 1.3).

INVESTMENT SECTORS	KEY DEVELOPMENT / INVESTMENT	INDICATIVE JOB CREATION ESTIMATE	SHORT TERM 2006-2011	MEDIUM TERM 2012-2016	LONG TERM 2016-2020
PORT AND LOGISTICS	London Gateway	1900			
	London Gateway Logistics & Commercial Centre (Shell Haven)	14500			
	Tilbury Port Expansion	100			
TOURISM, CULTURE AND LEISURE	Green Grid Leisure and Recreation Initiatives	100			
	Sports Development: inc Southend MAC / Mucking Flats ASZ	100			
	Visitor Honeypot (Leigh)	100			
	Southend Visitor Destination Developments:				
	- 500 room Business and Destination Hotel / Budget Hotel	1000			
	- Casino				
	Major Cultural Centre (Cruise Terminal)	350			
	Tilbury Fort	25			
	Coalhouse Fort	25			
	Wat Tyler Country Park Centre	50			
	Canvey Island Seafront / Concorde Café	25			
	Southend Pier and Seafront	200			
MARINE LEISURE	Dry Stack Marina Site(s)	50			
	Marina Re/Development Opportunities	50			
	Small Boat Training Centre(s)	50			
ENVIRONMENTAL TECHNOLOGY	Renewable Energy Generation	200			
	Renewable Energy Industry				
	Sustainable and Green Technology				
	Materials Management Centre(s)				
OTHER WATERFRONT EMPLOYMENT DEVELOPMENTS	Expansion of Fisheries	25			
	SW Canvey Island	750			
	Former Bata Shoeworks - East Tilbury	5000			
ESTIMATED TOTAL DIRECT JOB CREATION		24600			

6.3.2 *The Waterfront Transport Investment Programme*

Schedule 6.2 overleaf sets out a summary of the waterfront transport investment projects identified in section 6.2 above. In this case projects and initiatives are grouped into three sectors – highway improvements; public transport investments; and rail freight developments. It is again notable that the private sector would be expected to lead or participate on half of the projects – in most cases linked to unlocking important regeneration and development opportunities for them.

Phasing

Projects have been phased into the same three periods as the development programme:

- Short Term – from 2006 to 2011 – when some of the relatively smaller scale and identified LTP projects can be initiated and in some cases completed. Some private sector implemented projects such as those directly facilitating the London Gateway development may commence in this period.
- Medium Term – from 2011 to 2016 – which would see the development of larger scale projects including works to unlock some major development which cannot take place until this occurs. Longer term complex projects such as SERT would be expected to commence at this time but go on into the longer term.
- Long Term – from 2016 to 2021 – which would see the main rail and SERT projects completed together with longer term strategic rail improvements such as the south – north rail link via the A130 corridor.

Schedule 6.2 Waterfront Transport Investment Programme	**KEY INFRASTRUCTURE INVESTMENT**	**PHASING**		
		SHORT TERM 2006-2011	**MEDIUM TERM 2012-2016**	**LONG TERM 2016-2020**
HIGHWAY IMPROVEMENTS	M25 / A127 / A13 upgrading widening and junction improvements			
	London Gateway / Shell Haven Link - by private sector			
	Sadlers Farm A13 / A120 junction improvements and interchange			
	A127 / Airport / Shoebury New Ranges Link			
	M25 / A13 junction improvements			
	Roscommon Way Extension / new access corridor(s) to Canvey Island			
PUBLIC TRANSPORT	C2C Service Improvements and station capacity enhancements for 12 car operation			
	London Southend Airport Terminal and Station			
	Introduction and development of SERT			
	New Rail Link between C2C and First Great Eastern via A130 corridor			
RAIL FREIGHT	Improved Freight Link from London Gateway / Shell Haven			
	West Thurrock station and freight terminal			

APPENDICES

APPENDIX 1

Potential Asset Features within a Blue Ribbon Network

The following table identifies potential elements that could, or already do, attract tourist, recreation or commercial interest/activities. The list should be read in conjunction with the features identified in the Greengrid Strategy, since there is considerable overlap. Furthermore, the listing is not definitive, since there are both yachting facilities, and commercial operations, that are absent:

1	Mar Dyke	Tributary of Thames running from Purfleet to Brentwood. Undeveloped valley running through ancient woodlands and fen plus flood meadows. The Mardyke Way runs from Ship Lane, Aveley to Orsett Fen with a number of signed footpaths and bridleways that meander through. Bordered by areas of ancient woodland and fenlands, this is an important wildlife corridor with pleasant views along various walks. Recognised in Greengrid
2	Davy Down	Conservation area including riverside meadows, ponds and wetland and retains rich heritage in the forms of the impressive viaduct, which dates from 1892, and the well preserved water-pumping station.
3	Alexandra Lake	20 acre recreation and sports lake associated with Lakeside Retail Park (Channels Watersports)
4	Orsett Fen	Bird watching, heritage (Neolithic remains)?
5	Grangewaters Country Park	Two lakes within the park offering watersports: water-skiing, windsurfing and sailing and canoeing.
6	Belhus Woods Country Park	two lakes and the remains of a pond designed by "Capability" Brown
7	Grays Beach Riverside Park	Extensive Thames-side park / play area with Britain's biggest play galleon
8	Thurrock Marshes	A unique area of marshland where a wide variety of wildlife can be seen. West Thurrock marshes have been designated a Special Site of Scientific Interest and are home to a number of important species including the Pipistrelle Bat and Great Crested Newt. ‘The very mist on the Essex marshes was like a gauzy and radiant fabric, hung from the wooded rises inland, and draping the low shores in diaphanous folds’ Joseph Conrad, the introduction of *Heart of Darkness*

9	Thurrock Yacht Club	
10a	Port of Tilbury	
10b	Tilbury Cruise Terminal	
11	Tilbury – Gravesend Ferry	
12	Sustrans	Sustrans Route 13 extends from the Purfleet along the Thames through Tilbury, before heading north. Currently under development, **National Route 13** of the National Cycle Network runs from Hackney down to the Thames and then East to Chelmsford in Essex. After a stretch on Route 1, Route 13 resumes at Hadleigh and continues north to Join Route 1 again just south of Fakenham in Norfolk
13	Tilbury Fort Defences	English Heritage Bastion-style fort (origins C16 & C17) with a double line of moats providing defences on the northern side.
14	Thames – Mucking Flats Frontage	Coastal footpath along flood dyke, with tidal mudflats to east (overwintering bird populations) and landfill sites to west (!) – potential long term environmental habitats?.
15	Coalhouse Fort Defences	Borough Council-owned Victorian Fort, with views over the Thames, Mucking Marshes and the southern shore of the Thames Estuary. Thames-side footpath, parking and parkland surrounds, with moat. Undergoing restoration.
16	Mucking Marshes	The Thames provides a beautiful variable landscape worth experiencing at different times of the day. The mudflats support many different types of invertebrates including shellfish and thus provide an excellent feeding ground for several types of coastal ducks such as shellduck and mallard as well as wading birds like dunlin and curlew. Earls Hope Salt Marsh is one of the only two remaining natural saltings (salt marsh flooded at high tide) in west TGSE. It provides habitat to uncommon salt tolerant species. One of the largest and longest running excavations ever carried out in Britain took place at Mucking. The excavation examined, a large area of archaeological crop marks comprising a variety of settlement enclosures, field systems, and the ploughed out remains of burial mounds. Excavation, which took place prior to quarrying, began in 1965 and ran until 1978, and extended across almost 1Km of gravel terrace above the river Thames. The work revealed a large Middle Bronze Age (c.1500 BC) field system associated with burial mounds, two Late Bronze Age circular defended enclosures (c. 800BC), Iron Age

		and Roman settlements and fields. Amongst the most important discoveries were extensive early Anglo-Saxon settlements and two associated cemeteries, evidence of the people who gave their name to Essex, the kingdom of the East Saxons. Some of the finds from the site can be seen in Thurrock museum Grays Thurrock is a major landfill destination using former quarries as landfill sites. Landfill and clay quarrying now exist in symbiosis, as landfill must be covered with clay to seal it. Quarries are backfilled with landfill which then supports the extraction of further clay. The most well-known site is Mucking which takes nearly 20% of London's waste, some 600,000 tonnes per year. It covers 205 hectares and is 20-30m deep in parts. Buried pipes pump out about 23MW of methane, enough to power a small town, which is used to generate electricity on site. Mucking is a very 'good' site for landfill as it has river access – London's waste comes by barge down the Thames saving large numbers of lorry movements. However, this site and most of the other landfill sites in Thurrock are due to close in the next few years so more sustainable waste management initiatives will be needed. Many landfill sites are adjacent to areas of considerable nature value and are to be developed for new natural habitats after their closure.
17	Mucking Creek	A restricted number of local boating clubs have permitted access to the Creek, where a number of boats can be found. Fishing off the sea wall is also a popular activity.
18	Stanford Marshes	Stanford Marshes is a historically important site as it was used to produce salt by evaporating seawater and is evidence of the earliest (100BC-100AD) salt production in Western Europe. As early as the Bronze Age, Mucking Creek was used as a harbour and for anchorage and is still used today to launch small boats. The western side of Mucking creek was historically used for sheep pasture and in Medieval times the sea wall was built to protect this pastureland from flooding. The nearby Mucking Village which has two listed buildings, dates from Saxon times although Saxon Mucking is now buried. An important wildlife site adjoining Stanford Nature Reserve. It is made up of a number of different habitats including reed beds, grassland, salt marsh & mudflats. These different habitats contain a wide variety of wildlife some of which is, nationally rare – managed by Thurrock BC
19	Fobbing Marshes	One of the few remaining Thameside grazing marshes, set on the north-west edge of Fobbing Creek, part of which was dammed in the aftermath of the 1953 floods. As well as the grazing meadows it has areas of rough grassland (the largest of which is the bed of the dammed creek), saltings, sea walls. The fields are cut for hay and

		then grazed, continuing the traditional method of managing Essex marshland. Managed by Essex Wildlife Trust
20	Vange Marshes	An Essex Wildlife reserve comprising a linear reserve consisting of over 800m of sea-wall and a narrow belt of saltmarsh. Noted as one of the largest areas of freshwater marsh in the area
21	Vange Creek	See Holehaven
22	Pitsea Marsh	Large expanse of open marshland that benefits from long views along the Thames waterfront and adjoining marshes. Extended walks can be taken across the bed of marshes to Benfleet. Also a thriving area for wildlife and one of the few remaining places in the country where the stag beetle, great crested newt, brown hare, pipistrelle bat, skylark and song thrush are still relatively widespread.
23	Pitseahall Creek	Wat Tyler Country Park (Pitsea Hall CP) and Pitsea Motor Boat and Yacht Club - the Park covers an area of 125 acres and contains a variety of habitats including hawthorn scrub, wildflower meadows, grassland, reedbeds, ponds, tidal creeks and saltmarsh. These are all rich in plant and animal life which includes a number of locally and nationally rare species. It is for that reason that the Park has been designated a Site of Special Scientific Interest. One of the best all-round birding sites in the area, the Country Park incorporates a mixture of habitats a freshwater fleet with extensive phragmites reed-bed (good for wildfowl, Little Grebe, Water Rail and Bearded Tit), salt water creek (waders and Teal)
24	Bowers Marshes	An extensive area of mixed arable farmland and wet grazing marsh – noted for bird populations – (Reed Warblers (along reedy dykes and ditches), occasional breeding Lapwing and a small flock of feral Greylag Geese. Various raptors have been recorded, especially in winter)
25	East Haven Creek	See Holehaven Public footpath along dyke on south side, linking between A130 and footpath on eastern side of Holehaven Creek
26	Holehaven Creek	Swinging moorings. Semi-sheltered temporary anchorage in lee of Chainrock Jetty in area above creek entrance. SSSI consisting of Holehaven Creek and part of the connecting Vange Creek and East Haven Creek. The tidal creek system acts as the principal drain for the surrounding grazing marshes and forms a confluence at Holehaven with the River Thames. The site is linked geographically and functionally with the wider Thames Estuary. The intertidal mudflats and saltmarsh habitats of Holehaven Creek support a nationally important number of black-tailed godwit The sheltered inner estuary conditions are rare within the Thames

		Estuary. Furthermore, Holehaven Creek supports two of the three basic saltmarsh communities characteristic of south-east and east England. These are formerly grazed saltmarshes with saltmarsh-grass and ungrazed or lightly grazed saltmarshes
27	Benfleet Creek	Sustrans Route 16, connects Basildon and Shoeburyness Benfleet Yacht Club Dauntless Yacht Co. Benfleet Motor Boat and Yacht Club
28	Canvey Island	Canvey Island has a long and complex history, the remains of many Red Hills, heaps of debris left from Late Iron Age and Roman salt extraction from seawater have been recorded on the Island. A remarkable range of Roman and Saxon finds including a number of imported items indicate that a small port or transhipment centre may have been located there. In the medieval period the island provided important marshland grazing for sheep, so valuable was this grazing resource that the island was divided up by between inland manors often some distance away. One of the older buildings on the island, The Lobster Smack, pub is the inn where Pip and Magwitch waited for to join a steamer at the end of Great Expectations. New Country Park being progressively developed. An environmental/local history visitor centre is proposed within the next 5 years. This site has excellent views across the River Thames Estuary. The surrounding mudflats provide a habitat for internationally significant numbers of wildfowl and wading birds and is a Site of Special Scientific Interest, Special Protection Area and RAMSAR site. Public footpath circumnavigates the island on the flood defence barrier (see Holehaven, East Haven and Benfleet creeks, with additional bridleway along south side of Benfleet Creek Island Yacht Club occupies land at Canvey Point.
29	Hadleigh Marsh and Castle	The ruins of two towers, one almost standing to its original height, and some of its curtain wall are all that remain of Hadleigh Castle, overlooking the Thames estuary and Essex marshes. The construction of the castle began in 1230. It was built for Hubert de Burgh, who had been Chief Justiciar to King John and had acted as regent for the young King Henry III. Hubert's relationship with the young Henry did not remain amicable and Henry confiscated Hadleigh Castle. Henry continued the building work and substantial

		additions were made in the mid 14th century by Edward III, it is these later additions that are most visible today. The Country Park gets its name from Hadleigh Castle, although the castle is not within the park's boundary. The mix of scrub, grassland and woodland provides many places for plants and animals to live in the park. In summer the park is one of the best places in Essex to see butterflies which like to bask on the sunny, south-facing slopes.
30	Hadleigh Ray	Windsurfing. Benfleet and Southend Marshes SPA
31	Two Tree Island	Two Tree Island typifies the history of many Essex coastal sites. It was reclaimed from the sea in the 18th century when a sea-wall was built around saltmarsh, and was used for rough grazing until 1910 when a sewage farm was built on its eastern tip. In 1936 Southend Borough Council acquired the whole island and used it as a rubbish tip until the 1970s. The western part belongs to Hadleigh Castle country park. At its western tip is a lagoon with a bird hide, from which you can see birds such as redshank and heron feeding. The eastern part, with the adjoining saltmarsh (170 acres) and a large area of inter-tidal mudflats (464 acres) is a nature reserve managed by Essex Wildlife Trust. It is part of Leigh National Nature Reserve. The island itself consists mainly of grassland and scrub, with the former rubbish tip supporting a number of interesting alien plants and 'escapes'. A wide variety of birds, particularly migrants. Kestrels, short-eared owls. Reptiles including grass snakes and lizards. Insects of note include the marbled white butterfly, Roesels bush-cricket, the house cricket and the lesser marsh grasshopper. The saltmarsh along the southern shore of the island is one of the best surviving in the Thames estuary. The mudflats support dense beds of eel grass and provide a valuable feeding ground for wildfowl and waders, including the dark-bellied brent goose. The concentration of thousands of these birds arriving on their autumn migration is of international importance. Waders such as curlew, dunlin, redshank, grey plover and knot occur in significant numbers outside the breeding season.
32	Leigh Creek	Yachting, fisheries, nature conservation. The waterfront is a vibrant community, with pubs, restaurants, galleries overlooking the Benfleet and Southend Marshes SPA London Thames Marine Leigh Motor Boat Club Leigh Sailing Club Commercial Shell Fisheries

33	Southend	Beaches, Marine Parade, Gardens. Recreation, including yachting, dinghies, wind surfers. ***Southend Pier****, the longest in England, 1.34 miles!, restored with a railway, interesting museum, boat trips and a RNLI centre with a viewing tower.* ***Adventure Island****, Western Esplanade, Southend-on-Sea, Rides and attractions, including roller coaster, Log Flume, and the quieter Jungle Safari, go-karts, dodgems, Adventure Golf and more, cafe.* ***Sea Life****, tropical fish, deep water fish, talks.* Thorpe Bay Yacht Club Alexandra Yacht Club Thames Estuary Yacht Club Essex Yacht Club Southend Marine Activities Centre
34	Shoeburyness	Beaches Shoebury Waterman's Association

APPENDIX 2

Marine Leisure Development on the TGSE Waterfront

This appendix sets out the results of the research undertaken during the first phase of the Waterfront Strategy study into the existing waterside recreational facilities available to the TGSE area and how they might be expanded and developed. The analysis focused on marina provision and on other water-based leisure activities.

Marina Provision

There are, at present, some 15 clubs active along the north shore of the Thames Estuary, with the Royal Yachting Association (RYA) data identifying approximately 1240 yachts and motor cruisers and 460 dinghies with a total membership of 4650 (RYA 2005). Elsewhere, it has been indicated that there are as many as 2500 swinging moorings in this area (Thames Estuary Recreation Study, The Thames Estuary Partnership, June 2001). In addition, there is also activity outside the boundaries of TGSE, but serving the local community, at Burnham-on-Crouch, through the Essex Marina (on the southern bank of the river) and, less directly, the facilities within the town itself on the northern side of the river.

While this represents a not-insignificant level of boating activity, the opportunity for recreational activity seems disproportionately small when viewed against the population within the region, and particularly when comparison is made with, say, the Solent which offers relatively sheltered water, all-tide access and a density of marinas and berths which provide the “string of pearls” encouraging transit and boat use. Can the Thames Estuary compete? Unfortunately, not all locations can be developed in the same manner, and the scope for significant contribution can be over-anticipated. There is sailing activity in all UK waters, including, obviously, the Thames. However, recognising the differences in the physical parameters governing marina-type development provides pointers towards sustainable future opportunities.

Potentially, demand may exist for considerably greater provision than presently available but it is also the case that marinas are not being developed. It is rightly perceived that conditions in the Estuary are generally more onerous than in the Solent. Tides, currents, access issues, exposure – all make this section of coastline, and the approaches into the Thames, more challenging and intimidating than the sheltered waters inshore of the Isle of Wight. The outer Thames Estuary is a substantial body of water, with a large tidal range, strong currents, long fetches and potentially large wave climates. The water therefore does not encourage significant expansion of marina-type mooring provision, since such moorings require substantial protection, at a cost in proportion to the severity of the environment. In addition, with extensive industrial hinterlands, shipping and commercial activity and, not least, areas of environmental protection, including the Mucking Flats and Essex Marshes Special Areas of Conservation, there are effectively no obvious suitable unconstrained sites within the present configuration of the coast.

We do not anticipate, nor do consultees including RYA, that the number of moorings and the level of activity are likely to increase substantially beyond the present levels, based on the present berth profile. A 10% growth in club membership, or mooring take-up, would be considered very significant, but would be through organic expansion rather than a sudden influx of new users.

Options for Marina Provision

The European Habitats regulations impose considerable influence of the potential for marina development on the South Essex Coast. While these remain, and there is no likelihood that there will be a relaxation in the present legislative climate in the foreseeable future, the more obvious development areas, such as Holehaven and Benfleet Creek and the inter-tidal areas fronting Southend, as well as the Crouch estuary, will be heavily regulated. Thus, for marina activity in the region, it is necessary to look away from those areas that, naturally, would provide the most suitable, protected berthing, albeit with a dredging requirement. Potential locations within the river itself are, excluding these creeks, very limited. The shoreline from the western limit of TGSE to Tilbury is highly developed, thereafter is exposed and/or protected. The recommended approach to provision therefore focuses on:

- Increased provision of moorings
- Reuse of existing facilities
- Provision of new marina facilities
- Dry storage, and
- Improved launch facilities

Boat Moorings

Currently, larger boats are either day sailed or, more usually, kept on swinging moorings with, for many, crew access restricted to periods of high water since the berths are located in areas where, at low water, the mud dries. It has been estimated that there are already 2500 of these swinging moorings within the region. Potentially, these could be increased but it is unlikely that there would be demand, in the foreseeable future, for a substantial increase on present levels. However, a 20% increase of berths would be a very significant increase but represents the provision of, say, one large marina with potentially 20 direct employment opportunities and possibly 40 indirect jobs.

Reuse of Existing Enclosed Dock Facilities

There has been considerable focus on waterfront development over the past few years, particularly as a catalyst to regeneration and urban renewal. Largely, such developments, where based around residential and housing, succeed where the location is able to provide employment (or routes to employment) together with a leisure and recreational dimension.

Portishead near Bristol, Hartlepool, Shoreham, are all marina developments (with considerable associated residential development) making use of former commercial ports, and lock structures. There are no similar redundant sites in TGSE. Tilbury is the only existing enclosed artificial water area on this stretch of coastline. While the current phase of port expansion and profitability continues, it is unlikely that any water space within the port area could be adopted for recreational purposes. Nevertheless, the costs associated with creating a mooring area within the port are small, given the existence of the lock structure and existing deep water entrance. The discussion of development options for waterfront zones is developed in section 6.1 and options for the future incorporation of a marina are included. Should opportunities arise at Tilbury, a second small craft lock would be required to ensure efficient use of the water area – the existing lock is too large for marina utilisation.

Provision of New Marina Facilities

At the boundaries of the waterfront strategy area there are examples of marina developments that have created water areas behind the existing flood defence structures, creating inland basins. To the north of the study area, in Burnham, a yacht marina was created in the late 1980s by excavating a basin behind the seawall, using the surplus material to recreate a flood defence barrier on the landward side of the excavation, thereby forming the Burnham Yacht Harbour.

While development on such greenfield sites is unlikely to be favourably received now, there is potential to undertake similar development within brownfield sites. However, whereas the Crouch carries notably light silt loads, the Thames has high silt concentrations and open pockets will rapidly accrete. Any development forming an enclosed basin would require a closure system (lock) to regulate water exchange. Consequently, the cost of such development (land plus remediation and infrastructure) is only likely to be justified if coupled with residential or commercial development. Nevertheless, there is potential for such development and current expansion of southern (Solent) capacity is largely being generated through incorporation of marina facilities within mixed use developments. Partially, this is in response to constraints on development arising from environmental protection, but also arises through the relationship between property value and waterside location. It is clear from our experience in UK and abroad, that the cost of marina facilities, particularly if requiring expensive infrastructure such as lock gates, can be better managed with the associated revenue and support of residential development.

Similar facilities could be developed in the TGSE sub-region, provided suitable sites could be identified. Such development should be concurrent with all tide access frontage. In reality, this limits the alternatives to the southern portion of Canvey Island, the proposed London Gateway site and to sites west of Tilbury within Thurrock. There are no such sites vacant at present. While no detailed analysis of potential land availability has been undertaken, it is clear that, should there be a change of utilisation of waterfront industrial sites, then the adoption of former brownfield areas for such development may be acceptable. Certainly, a mixed use development would support a number of regeneration functions, providing employment, housing, recreation and commercial potential, while meeting sustainable development targets and, potentially, addressing environmental issues.

The current user profile suggests that the development of a marina facility in the area is unlikely to generate significant increases. However, any such facility would reach capacity very quickly – through recruitment of new users, relocation of existing users into the region from elsewhere, and relocation of existing mud-berth users to more convenient, all tide facilities. Environmentally, the removal of mud-berths from sensitive areas in compensation for the creation of a new marina facility could also be a positive impact.

Dry Storage

Consideration should be given to “dry marinas” – dry stacking is popular in the US and is being developed for the UK market. Dry stacking of vessels is not new, but is not very common in UK waters. Some facilities do exist, but not on the scale of, say, USA, where dry-stacking is common, albeit in large warehouse facilities that do little for the aesthetic value of the location.

It may have particular relevance to TGSE, where stack systems could easily be incorporated within existing port and wharf facilities, although there are indications that this type of purpose built, high tech, architectural facilities are being considered by some of the main marina operators (Premier, MDL, Yacht Havens) for sites in the Solent and Plymouth. A similar system is being considered by the Dun Laoghaire Harbour Commissioners. Dry marinas can accommodate both yachts and non-masted vessels. However, masted craft are not space efficient and, in general, stacking systems are most often designed for motor cruisers and power boats. In fact, in the context of the Thames environment, it is anticipated that facilities focusing on powered craft address some of the issues of the use of the water space, since tidal currents are less of an issue for fast moving craft. Indeed, the provision of secure, non-mud, facilities for powerboats and cruisers can facilitate the most significant increases in recreational activity in the region.

We are not aware that these systems have yet been considered for the River Thames, but it is felt that there could be opportunity to develop dry storage facilities in the Canvey/ Holehaven area, and in Thurrock, launching from redeveloped quays and brown-field sites to deep water. Any such facility would need to be sited into deep water, with holding pontoons for embarkation and return within the river. As with the marina proposals, there are few available sites with deep water. Certainly, the incorporation of a dry stack facility within a new locked water-based marina (as described above) could potentially double the boat capacity, without significant land take, and with a lower environmental footprint.

Other Launch Facilities

The provision of dry stack facilities is, in reality, a high cost manifestation of the launch and recover system provided through the existing slipway network (Pitsea Creek/Canvey/Hole Haven, Benfleet, Two Tree Island). There may be scope and value in expanding the existing provision of such facilities, aiming to provide all-tide facilities coupled with safe/secure parking areas, thereby encouraging day use of the river by sailors who store their vessel at home and travel to sail (known in US as trailer-sailors). Generally catering for smaller craft and power boats, the slipway system, if coupled with shore-side facilities encouraging stops, could encourage use of the river as recreational resource. These facilities need be no more than robust, deep water, visitor pontoons, with security, provided at riverside pubs and attractions (say at Tilbury ferry and Coalhouse fort), on both sides of the river.

Other Water Based Leisure

Small Boat Recreation Facilities

While the commercial and tourism benefits associated with dinghy sailing are small in relation to yacht activity, it is recognised that dinghy sailing is the ideal entry to sailing. There are a number of dinghy based clubs in the area, particularly in the outer part of the estuary between Canvey and Southend. Additionally, Southend Borough Council supports the Marine Activities Centre, an RYA and BCU recognised training centre catering for beginners and schools, providing tuition in most forms of watersports (dinghies, windsurfers, canoeing, jetski and powered craft etc). The Activity Centre does not provide yacht tuition.

Facilities for dinghy clubs are less onerous than for larger craft, since the boats are stored ashore rather than afloat. Nevertheless, appropriate launch facilities and storage is required, and reasonable access to sailing waters is an advantage. The tidal range and corresponding extent of foreshore may act as a deterrent to casual users. However, dinghy sailing tends to be club-based, and the facilities in Southend appear popular, with increased activity at a number of sites over the past few years and strength in a wide range of classes, including junior fleets. It is felt however that the influx of young people is intrinsically linked with parent participation, and it is not clear whether the work undertaken by the Activity Centre is directly influencing participation numbers as yet.

The RYA has, through its Sailability programme, invested and encouraged participation from the disabled community with facilities for mobility impaired sailors including hoist units for lifting individuals into boats and special classes with keels. There are hoist facilities, but again the problems associated with the foreshore extend possibly preclude major investment in hoist facilities except at specific locations. The Southend Marine Activity Centre has two Access 303 dinghies, but remains hampered in launch and recovery. While the activity is strongly supported locally, there are perceived to be safety issues with this (and other small craft sports), and issues of training and management of risks is being co-ordinated through the local participants and PLA. Additionally, the tidal constraint associated with low water does impact on the unrestricted use of facilities.

The Waterfront Strategy supports the RYA view that ”sailing clubs should develop their business plans in collaboration with the Local Authorities, the Port of London Authority (PLA) and the Royal Yachting Association (RYA) to ensure growth, sustainability, safety and prevention of conflict.” Overall objectives supported are:

- To identify and encourage use only of approved launching and landing sites, and to provide associated signage
- To improve guidance and advice to dinghy sailors regarding safety on the Thames, sailing zones and commercial activity
- To encourage the sustainability and viability of the Yacht Clubs as appropriate through their production of sports development plans and business plans”.

There is, to the north of the region, inland waters that accommodate dinghy and other small boat activity. However, the water area is not large, certainly in the context of the regional population (South Essex generally rather than TGSE). Expansion of these facilities should be discounted as a means to significantly meet demand or support economic expansion.

Personal Watercraft (PWC) and Waterskiing

There are only a few places at which Personal Watercraft (Jet biking) and Waterskiing can legally be undertaken on the Thames, namely Fobbing Creek and Southend-on-Sea for jet biking and Holehaven, Hadleigh Ray and Marsh End Sand for waterskiing. Both activities are regulated under PLA byelaws. The Strategy does not anticipate that these will be adjusted in the near future, nor that there will be significant expansion of opportunities.

Windsurfing

As a sport, windsurfing is generally much less club-focused than dinghy sailing. The convenience and portability of the equipment allows participants flexibility. Consequently, while there are a number of favoured sites along the Thames frontage, these are not specifically associated with groups or clubs. Rather, sailors will use a particular area if the wind, wave and tide conditions are favourable. The outer Thames, from Canvey to Shoeburyness, is better suited to windsurfing, particularly since there are stronger winds and less commercial traffic, and the area supports wave sailing, speed sailing, kite surfing and marathon short boarding and long boarding. Kite surfing is becoming increasingly popular off Southend and demonstrates the need for coordinated management of these sports with a rise in popularity. Participation is relatively inexpensive and, in the extreme, is spectacular to watch. Organised activities and competitions could be used to enhance the local profile of the sport and, in so doing, develop the wider image of the area. One dedicated club exists, at Chalkwell, and there is activity at many of the sailing clubs, but this tends to be “free sailing” when conditions are too rough for dinghies.

Overall objectives suggested in the Thames Estuary Recreation Study will be supported by the Waterfront Strategy as follows:

- To improve information and guidance with regard to sailing zones, commercial activity and safety
- To encourage windsurfers to use safe and approved access points and beaches
- To encourage a safe environment for windsurfing events

Canoeing and Kayaking

Paddle sports include Sea Touring, Sprint Racing, Slalom, Marathon racing, Wild Water Racing, Canoe Polo, Canoe Sailing, Canoe Surfing, Canoe Rodeo, Freestyle, Rafting, Life guarding, and Dragon Boat Racing. Training is available at Southend Marine Activities Centre.

As with windsurfing, paddle sports are considered a cheap and easy form of access to the water. However, the PLA does not encourage use of the estuary for canoeing on an individual basis due to safety issues. Informed and safe access through approved access points is necessary, potentially utilising the same facilities as dinghy sailing and windsurfing.

In general however, while some facets of the sport use open water, there is potential to develop the activity further within the creek system to the west of Leigh, through to the Way Tyler Country Park and Holehaven, protected areas with little commercial activity.

The objective suggested in the Recreation Study is to encourage all access to the river through recognized training centres and clubs. Nevertheless, the perception is that the area is not sufficiently exciting for kayak and canoeing to develop much beyond present levels.

Rowing

In 2001, the estuary supported three clubs, but none were within the TGSE sector. In general, water conditions in the Thames itself were not considered suitable for rowing activity east of Gravesend/Tilbury. Since then, the Amateur Rowing Association (ARA) has, in tandem with Castle Point, established a new club in Benfleet Creek. The ARA sees further potential in the area, but need investment in facilities.

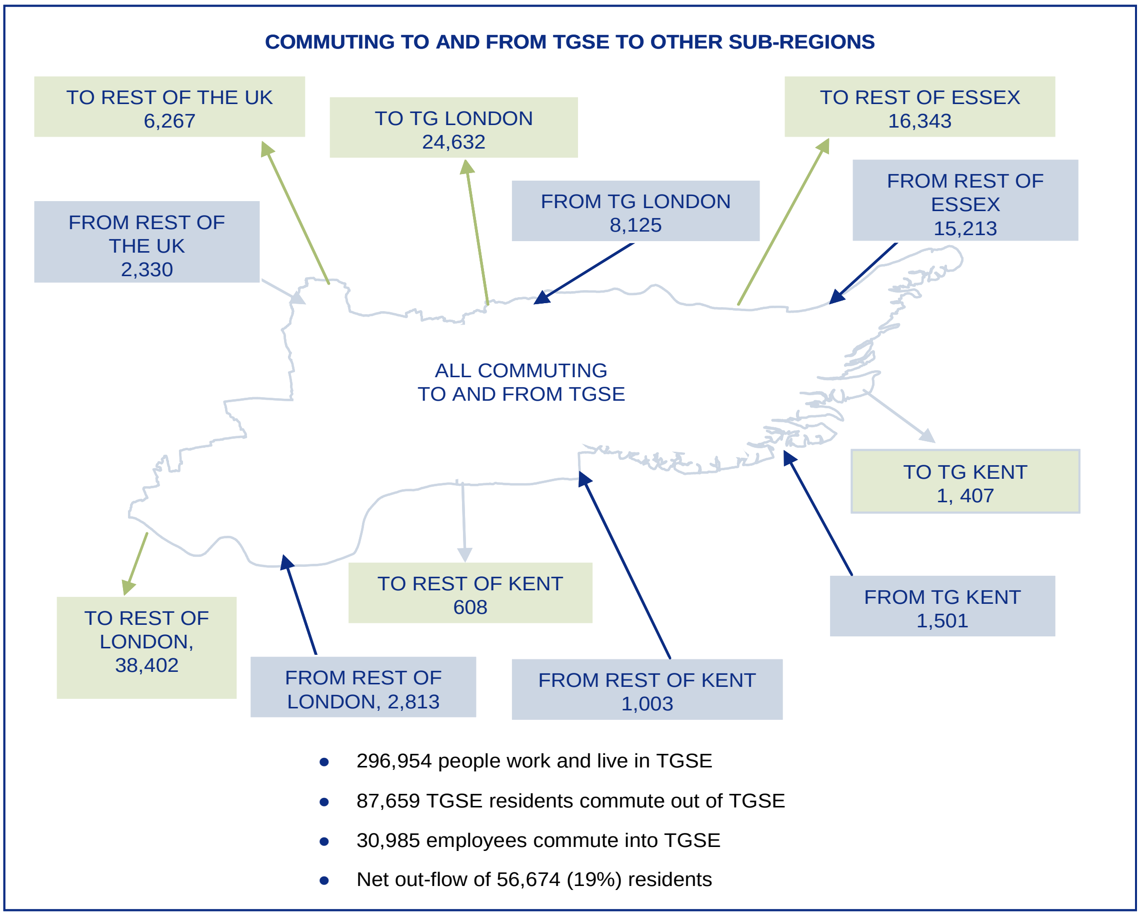
APPENDIX 3

Travel to Work Analysis for TGSE

The TGSE Baseline study and Essex County Council have analysed travel to work data from the 2001 Census providing a detailed picture of the place of residence and work of TGSE workers.

Of the 296,300 workers resident in the 5 districts of the TGSE area and reporting their working activity on census day in 2001, there was a net commuting outflow of 56,674 (19% of residents, 24% of the workforce) and a ratio of workplace jobs to residents of 81%. These flows and the overall totals are illustrated in Figure 5.1 below.

Figure 5.1: TGSE Commuting Patterns



Source: TGSE Baseline Study 2005 and Census Analysis 2001

Net out-commuting is the norm for all occupations in TGSE. The commuting patterns for TGSE illustrate the relatively strong pull factor exerted by Central London as a driver of the workplace choices of 21% of TGSE residents. Commuting to and from Kent is negligible but there has been an increase in the level of out-commuting to the rest of Essex and beyond – now some 8% of TGSE residents.