

**Kent Thameside Water Cycle Strategy Phase 1
Brief for consultants**

1.0 INTRODUCTION

The Kent Thameside Delivery Board wishes to appoint consultants to undertake Water Cycle Strategy Phase 1 (WCS) of the Kent Thameside area, including the whole of the Boroughs of Gravesham and Dartford.

The WCS will provide an important input into the Local Development Frameworks that Dartford and Gravesham Borough Councils are undertaking, as well as informing the strategic planning of Kent Thameside through providing evidence that the environmental capacity will not be breached, and that the necessary infrastructure can be provided in time.

2.0 BACKGROUND

2.1 Kent Thameside

Kent Thameside is located on the south bank of the Thames. It encompasses the towns of Dartford and Gravesend and the land lying between them. It is one of the two major growth poles in Thames Gateway. The urban area covers some 22 square miles. A quarter of the area, some 5.5 square miles, are brownfield sites suitable for redevelopment. Up to 25,000 new homes and 50,000 new jobs will be developed in the area, located around the international station at Ebbsfleet.

The Kent Thameside Delivery Board was established in 2003 to co-ordinate the regeneration of this key part of Thames Gateway. The Board brings together Kent County Council, Dartford Borough Council, Gravesham Borough Council, English Partnerships, the Housing Corporation, SEEDA, GOSE, CLG, Land Securities Group plc, London and Continental Railways, Countryside Properties and the West Kent Primary Care Trust.

2.2 Study Area

The WCS area covers the boroughs of Dartford and Gravesham.



2.3 Context for the WCS

The regeneration of Kent Thameside has moved from promotion to delivery. Bluewater, Crossways Business Park, Ingress Park, Waterstone Park, Springhead Park and The Bridge are already completed or substantially underway. High Speed 1 will connect the international and domestic passenger station at Ebbsfleet with Brussels, Lille and Paris in November. Planning Briefs for Ebbsfleet, Eastern Quarry, Gravesend Canal Basin, and North East Gravesend have been adopted as Supplementary Planning Guidance. Outline planning permission has been granted for mixed use development at Eastern Quarry and Ebbsfleet and the first phase of Ebbsfleet, Springhead Park, is now on site. National, regional and local government aspirations for the regeneration of Kent Thameside have been expressed in a number of recent policy documents that provide the context for the WCS:

- *Creating Sustainable Communities* (ODPM, 2003) proposes accelerating growth in 4 'Growth Areas' in the South East.
- *Growth and Regeneration in the Thames Gateway*, the Interregional Planning Statement by the Thames Gateway Regional Planning Bodies, suggests that there is capacity to accommodate 20,000 homes in Kent Thameside to 2016.
- The draft *South East Plan* submitted to the Government in 2006 proposes 25,000 new homes be built in Kent Thameside by 2026.
- The Report of the Panel that conducted the Examination in Public of the South East Plan was published on August 29th. The Panel has suggested no change be made to the housing and jobs targets contained in the South East Plan for Dartford and Gravesham.
- The Kent and Medway Structure Plan (2006), makes provision for 16,800 dwellings to 2016.
- The Borough of Dartford Local Plan (1995)
- *The Dartford Borough Local Plan Review Amended Second Deposit Draft (April 2004)*
- *Dartford Local Development Framework Core Strategy and Site Specific Allocations Preferred Approaches Documents (July 2006)*
- *Dartford Town Centre Area Action Plan Preferred Options (September 2007)*
- The Gravesham Local Plan First Review (1994)
- *The Gravesham Local Plan Second Review Deposit Version (May 2000)*

- Gravesham Local Development Framework Key Issues and Options Consultation Report (October 2007)
- The Kent Thameside Delivery Board's, *Regeneration Framework*, requires that there is a focus on high water efficiency.
- The Thames Gateway Interim Plan sets out the Government's intention to undertake a feasibility study on water demand management in the Gateway to consider the appropriate level of ambition, technical feasibility and cost.

In addition to existing policy documents, there are a number of new policy documents, such as the Draft Supplement to PPS 1 on Planning and Climate Change, in preparation that will need to inform the WCS.

Local Development Frameworks

The Planning and Compulsory Purchase Act 2004 introduced the requirement for Local Planning Authorities to produce Local Development Frameworks to replace the existing system of Local, Structure and Unitary Development Plans. Dartford's Core Strategy Preferred Options is scheduled for January 2008 and Site Specific Allocations for January 2009. Gravesham's Core Strategy Preferred Options is scheduled for November/December 2007 and Site Specific Allocations for March/April 2009. Interim findings of the WCS will therefore need to be available early in the New Year in order to be able to influence the development of both LDFs.

3.0 WORK PROGRAMME

3.1 Scope:

A 2007 scoping report explored the benefits and role of a Water Cycle Strategy in achieving sustainable development, identified relevant studies and data sources, and provided high level findings regarding the capacity of the environment to accommodate planned development.

We require a Water Cycle Strategy (WCS) Phase 1 report to:

1. Check that the initial findings of the Kent Thameside WCS scoping study relating to environmental capacity are robust, and confirm the population and development forecasts used by all partners.
2. Identify optimum solutions to deliver sustainable development across Kent Thameside, including a sustainability appraisal and timeline for any interventions required.
3. Show that, in principle, major infrastructure can be provided in time and at the right place to support ongoing development.

4. Provide an evidence base to inform Dartford and Gravesham Local Development Frameworks, including high level targets to inform LDF development control policy and guide developers as to requirements.
5. Consider the likely impacts of growth (to 2026), climate change and legislation (e.g. Habitats Directive and Water Framework Directive) on future water infrastructure need and environmental capacity.

3.2 Deliverables:

Interim technical report
Final Phase 1 technical report
Final Phase 1 summary report
Attendance at 2-3 steering group meetings
Presentation of final results

N.B. Outputs should be reported at both the Kent Thameside and individual Borough levels to provide the necessary evidence base to support the LDFs.

3.3 Particular issues that the water cycle study will need to address

Water resources and water efficiency: the study will need to identify high level targets for sustainable water use, and to encourage or require developers to provide a high level of water sustainability, in line with the ongoing regional strategic water resource planning initiatives, with the Thames Gateway Water Neutrality feasibility study and with the recent consultations on water scarcity, water efficiency and Building Regulation changes.

In particular the study should:

Review the WRSE findings in the light of latest population predictions for GBC and DBC, taking into account which WRZ the main development sites will place demand upon;

Assess the impact of demand from commercial and other non-residential development on water supply/treatment capacity/environmental capacity over the study period;

Identify any constraints on the amount of water that can be supplied and /or treated, the thresholds at which such constraints would impact and the time it would take to provide additional water supply / treatment infrastructure. (Whilst the SE Plan sets a target of 25,000 new homes the Secretary of State's modifications to the SE Plan are expected early in the new year and could increase the target number);

Provide evidence to support the adoption of standards in excess of specified Code for Sustainable Homes levels;

Examine future water requirements from commercial development and recommend, and provide evidence for, a BREEAM standard to be adopted with an indication of additional cost per sq.m floorspace.

Wastewater collection and treatment; the study will need to work with the water companies in partnership, notwithstanding the issues of competition, to ensure that the Environment Agency and the planning authority have confidence that wastewater collection and treatment infrastructure is funded and provided in pace with development. This should consider the life expectancy of existing water treatment plant and any plans or proposals for enlarging/upgrading or replacement of existing facilities. The potential for relocating some of the WWT plants to release the sites for additional higher grade sustainable development should also be considered.

Integrated drainage strategy; The SFRA has identified many inadequacies in the current understanding of other causes of flooding in the area. To ensure that new development is not increasing flood risk, or that planning policy is not putting new developments at risk of flooding, an integrated drainage strategy will be required. This is especially important given the limited capacity of the development areas to allow surface drainage to be infiltrated into subsurface.

There are opportunities from an integrated drainage strategy to other parts of the water cycle; for example SuDS structures forming part of a rainwater harvesting water recycling scheme; benefits of strategic SuDS solutions for ecological enhancement within the green grid, and benefits to water quality. These opportunities need to be explored as part of the study.

The study will need to address the interim findings of TE2100 and the effects of climate change on rainfall levels and increased periods of tide lock potentially reducing ability of outfalls to discharge.

Ecology and green infrastructure; The existence of a green infrastructure plan for Kent Thameside opens opportunities for enhancing the ecological potential of the development areas. These opportunities, along with opportunities for combined flood risk management solutions cannot be fully realised without an integrated water cycle strategy.

3.4 Suggested information sources

Kent Thameside WCS scoping report (Halcrow) 2007

Draft South East Plan (SEERA)

South East Plan August 2007 Panel report (GOSE)

Medway and Swale Catchment Abstraction Management Strategies (EA)

Thames Gateway Development Prospectus (CLG) 2006

Cost of the Code for Sustainable Homes (EA) 2006

Water Efficiency in South East England (EA) 2007

Kent Thameside Strategic Flood Risk Assessment (Entec) 2005

Planning for Water Quality and Growth in the South East v11 (EA) 2006

Kent and Medway Structure Plan December 2006

SEERA – *Climate Change Mitigation and Adaption Implementation Plan* (March 2007)

SEERA – *Adapting to Climate Change Impacts on Water Management: A Guide for Planners* (March 2007)

Water Resources in the South-East Group (WRSE) : *A Contribution Toward the Preparation of the South- East Plan* (Sept 2004)

WRSE : *Examination of Water Supply-Demand Balance Impacts of Housing Growth Scenarios of the Draft South-East Plan* (April 2005)

WRSE : *Response to the Latest South-East Plan Housing Provision and Distribution from Seera* (May 2006)

Kent County Council and Medway Council: *South-East Plan: Employment, Housing and Infrastructure in Kent: Annex on Water* (ND)

Environment Agency: *The Water Framework Directive and Planning – Initial advice to planning authorities in England and Wales* (Feb 2006)

Environment Agency: *Creating a Better Place – Planning for Water Quality and Growth in the South-East* (October 2006)

DCLG/DEFRA – *Water Efficiency in New Buildings: A Consultation Document* (December 2006)

DCLG/DEFRA – *Water Efficiency in New Building: A joint Defra and Communities & Local Government policy statement* (July 2007)

DCLG - *Code for Sustainable Homes* (December 2006)

DCLG - *The Future of the Code for Sustainable Homes: Making a rating mandatory* (July 2007)

Land Securities – *Ebbsfleet Utilities Strategy* (April 2004)

Land Securities – *Springhead Quarter Water Management Strategy Final Rev. A* (Feb 2005)

Land Securities/Thames Water/EDF – *Press release on Joint utilities venture agreement* (24th November 2005)

Land Securities – *Ebbsfleet: Station Quarter South Water Management Strategy* (26th May 2006)

Land Securities – *Eastern Quarry 2 Environment Statement* (August 2006) and responses to DBC consultation on application from Thames Water and Southern Water.

Buro Happold – *Northfleet West Sub-Station Site Drainage Strategy* (June 2007)

Thames Gateway Water Neutral feasibility study (EA/CLG/Defra) – not yet published, due Nov 2007

Thames Gateway Costed Delivery Plan (CLG) – not yet published, due Nov 2007

Waste Development Framework Preferred Options (KCC) - not yet published, due Dec 2007

3.5 Key partners

Thames Water

Southern Water

Kent Thameside Delivery Board

Gravesham Borough Council

Dartford Borough Council

Environment Agency

Communities and Local Government - Thames Gateway Delivery Unit

Kent County Council

Land Securities

3.6 Skills required

Understanding of Sustainable Development issues and initiatives.

Knowledge of the planning system, requirements of LDF's and the context set by the South East Plan.

Knowledge of Water Resource planning, resource development, demand management, water efficiency and CAMS.

Water Quality planning, discharge consenting, impact of EU regulation e.g. UWWTD, WFD, Habs. Directive.

Water Company planning, including PR09, Strategic Direction Statements and Ofwat interaction.

Implications of the draft Climate Change Bill and associated carbon reduction agenda. E.g, Carbon emissions vs water quality and quantity effects.