

## **SOUTH ESSEX CATCHMENT ABSTRACTION MANAGEMENT STRATEGY**

### **1 SUMMARY**

- 1.1 This report outlines the key elements of the Environment Agency's Catchment Abstraction Management Strategy (CAMS) for South Essex. The vision outlined in the strategy document is to ensure there is a fair share of water for people and the environment.

### **2 INTRODUCTION**

- 2.1 Catchment Abstraction Management Strategies are intended to explain the arrangements for management of water resources at a local level. The strategies are necessarily somewhat technical documents, but the importance of water abstraction arrangements in South Essex cannot be under-estimated. It is therefore essential that Members have an opportunity to raise issues and questions in response to the consultation document. A copy of the document has been placed in the Members' Library.

### **3 ISSUES**

- 3.1 The South Essex CAMS includes the Rivers Crouch, Roach and Mardyke, along with the drainage network within Canvey Island. The strategy document describes in detail the geology and hydrometry of the area and explains the current arrangements for major abstractions, transfers and discharges.
- 3.2 There are 132 licensed abstractions (69 surface water and 63 groundwater) within the CAMS. Whilst the majority of the licences are for agriculture, in fact the largest volumes by far relate to industrial use and public water supply.
- 3.3 In dry years, two groundwater sources for public water supply in the area contribute to only a small percentage of demand; most public water is imported from outside the CAMS area.
- 3.4 The strategy assesses the level of supply available from what are termed 'groundwater management units' (GWMUs) and integrates this with an assessment of supply from surface water.
- 3.5 As a result of this assessment, five 'water resource management units' (WRMUs) have been identified in South Essex. Units 2 and 3 relate to the Upper Roach and the Upper Crouch. In respect of the Roach, the key points are:
- Most abstraction in lower reaches of catchment

- Much of middle and upper catchment retains a semi-natural state
- Sewage treatment works at Rayleigh East discharges into headwaters of Rayleigh tributary
- Rayleigh tributary experiences a range of flows significantly elevated above the natural
- The importance of freshwater inputs into the Crouch and Roach SSSI Essex Estuaries SAC is not fully understood
- An assessment of abstraction impact on ecology is required.

3.6 For the Upper Crouch, the key points are:

- Levels of urban development are significant throughout the catchment
- Watercourses suffer as a result of past management of flood alleviation
- Water quality problems can be associated with urban areas
- There is a low level of resource development for spray irrigation in the lower reaches
- Abstraction is to some extent supported by discharge from Billericay STW, which makes a significant contribution to flows in the Crouch
- Importance of freshwater inputs (as above) is not known.

3.7 In terms of the proposed licensing strategy for the Roach and Crouch, the main points are:

- Sustainability appraisal status to be 'No Water Available'
- Some water is available at low flows for additional abstraction
- Consumptive surface water abstraction considered at all times of the year. NOTE: Consumptive use is where a significant proportion of water is not returned to the source of supply after use
- Consumptive abstraction from non-supported reaches at low flows will not be considered
- If there may be an impact on the Estuaries SAC, etc, shorter licence periods will apply.

## **4 DISCUSSION**

4.1 The consultation questions for Members' consideration are:

- a. Should the Agency depart from its existing policy of presumption against consumptive abstraction during summer?
- b. Should the existing policy be replaced with one that considers abstraction at all times of the year, whilst protecting low river flows and year round flow variability?
- c. Is it appropriate to consider new applications for consumptive abstraction licences on reaches in the Roach and Crouch supported by STW discharges?

- 4.2 Members will have noted the comment in Paragraph 3.3 that much of the public water supply needs for South Essex will continue to be met from outside the CAMS area. This means that housing and employment growth in South Essex will be dependent on decisions taken in other CAMS areas. (NOTE: Abberton and Hanningfield Reservoirs fed by abstractions from North Essex Rivers which are, in turn, supported by the Ely & Ouse to Essex Transfer Scheme.)
- 4.3 Nevertheless, it is clear that careful management of limited water resources is essential and, whilst this is a very technical issue, it is considered that on the information presented, the existing presumption against consumptive abstraction from the Roach and Crouch should be maintained.
- 4.4 However, there are clearly significant flows into the Roach and Crouch in the reaches near to STW discharges and it may be that additional licences might be considered in these areas.
- 4.5 The issue over which there remains some doubt is the relationship between river flows and the impact on important protected areas, including the Crouch and Roach SSSI and the Essex Estuaries SAC. It is absolutely essential that there is a better understanding of the impact of freshwater inputs on these environments and this work should be carried out in advance of any substantial changes to current licensing arrangements.

## **5 RISK IMPLICATIONS**

### **5.1 Strategic Risk**

The strategic risk associated with the maintenance of required levels of water supply cannot be underestimated. In addition, abstraction of water may have a significant impact on protected areas, though information is currently not available. The Environment Agency is responsible for managing abstraction and issuing licences.

## **6 ENVIRONMENTAL IMPLICATIONS**

- 6.1 The impact of freshwater on the protected areas of the Crouch and Roach is discussed in the report.

## **7 RECOMMENDATION**

- 7.1 It is proposed that the Committee **RESOLVES**

That the Environment Agency be advised that, whilst additional licences might be issues for abstraction in some circumstances in the South Essex CAMS

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area, it is essential that further work be undertaken to assess the impact on the protected areas of the Crouch and Roach Rivers.

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**Background Papers:**

The South Essex Catchment Abstraction Management Strategy -  
Environment Agency Consultation Document - February 2004

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