

# **WATER RESOURCE MANAGEMENT PLAN REGULATIONS 2007 (REG No 5)**

## **THAMES WATER UTILITIES; WATER RESOURCE MANAGEMENT PLAN: PREFERRED PROGRAMME FOR DEMAND MANAGEMENT AND DEVELOPMENT OF NEW SOURCES OF SUPPLY.**

### **STATEMENT OF CASE BY THE CAMPAIGN TO PROTECT RURAL ENGLAND (CPRE) SOUTH EAST**

#### **A. INTRODUCTION**

A.1 CPRE was established under Royal patronage some 80 years ago as a charity to promote the beauty, tranquillity and diversity of rural England by encouraging the sustainable use of land and other natural resources in town and country. We therefore have an interest in any proposals relating to the development and management of the community's water resources; with special regard, in this instance to landscape and the delicate balance of supply and demand obtaining throughout much of the South-East; a condition which Defra has now recognised in the designation of the more vulnerable supply areas as "water-scarce" (a pre-condition for universal compulsory metering of domestic supplies).

A.2 This statement of case covers the two aspects that are central to water resource management plans, and in particular to the Thames Water Draft Water Resource Management Plan, namely:

- the water issues addressed and assumed in the Draft Plan;
- the potential effects on the environment and in particular the landscape.

#### **B. WATER ISSUES**

##### **B.1 An Upper Thames Resource**

B.1.1 A response to the Thames Water Utilities' Draft Water Resource Management Plan was submitted to Defra by CPRE in August 2008 (Ref 1); taking the form of comments on the Company's preferred programme for the development of new resources for their London and SW Oxfordshire Zones. Of the options discussed in the Draft Plan, the proposed development of an Upper Thames Reservoir (UTR) was seen as having special significance, insofar as it could have sufficient capacity and a corresponding deployable drought output to address supply / demand deficits arising elsewhere in the SE Region (including, for example N and NW Kent) during the plan period (Ref 2 CPRE Water Resource Strategy for Kent 2006). However, as indicated in paragraph 4 of our response, there are concerns relating inter-alia to environmental sustainability, land-take, landscape impact and the likelihood of prohibitively high unit capital and operating costs; all of which will have a direct bearing on the viability of the reservoir as a strategic resource.

## **B.2 Supply and Demand in the South East**

B.2.1 The current aggregate balance of resources in terms of deployable drought output is, for all practical purposes, in deficit; with little scope for further development of indigenous surface or groundwater sources of supply on the scale required to meet the anticipated increase in demand arising from :-

- the ongoing impact of climate change (forecast to bring wetter winters, drier summers and higher average annual air temperatures);
- the levels of housing growth planned for the South East;
- the need for water companies to comply with more demanding environmental criteria introduced in compliance with the European Water Framework and Habitat Directives.

B.2.2 In recognition of this, much of the South East has been identified by the Environment Agency as having an unsustainable regime for year-round water abstraction. Unless action is taken to address the deficit as a matter of the highest priority, the water companies will be unable to keep pace with the resulting demand growth under design-drought conditions. Some of the more fundamental issues have already been raised in the report of the House of Lords Science and Technology Committee on Water Management, released in June 2006 (Ref 3). They question for example the wisdom of planning and promoting growth in the region with the greatest stress on water resources; and without prior consideration of the likely scale of the required infrastructure. They noted that responsibility for water management remained “dispersed and unclear” and that, at present, neither the water industry nor the regulators have an agreed methodology for including sustainability within the decision-making process.

## **B.3 Thames Water Preferred Programme**

B.3.1 The revised Thames Water Draft Plan published in October 2009 forecasts that the supply / demand balance for their London Zone will go into deficit in 2012/13 and reach a probable maximum of 15% by the end of the plan period. Most of this shortfall is attributed to demand growth and the influence of climate change, but allowance has also been made for a reduction in deployable output on the basis of the 2005 / 06 drought experience. Notably, on instruction from Defra, no account has been taken of the European Water Framework or Habitat Directives.

B.3.2 To address the deficit, the Company intends maintaining a twin-track strategy, with the demand management programme paralleled by development of new sources of supply. On the demand side; TWU, having now been designated as seriously water-stressed, will seek the Secretary of State’s approval for compulsory metering of existing properties, with a 15 year installation programme commencing in 2010 and aiming at 70% coverage for the London Zone by 2020. The Company envisages that, supported by the water efficiency campaign, it should be possible to reduce per capita consumption from the current average of 157 l/h/d to 135 by 2035. The current leakage reduction programme for the London Zone is now re-aligned on a 25% cut by 2020.

B.3.3 The proposed Upper Thames reservoir near Abingdon remains as the key element of the resource development programme, with a design storage of 100 Mm<sup>3</sup> and a deployable drought output estimated at 178 Ml/d (24 Ml/d of this pre-allocated to S.W. Oxfordshire Zone). This is scheduled for commissioning in 2026 / 27, to have sufficient capacity, at least initially, to provide bulk supplies to other companies in the SE Region.

B.3.4 The main components of the preferred programme for the London Zone can be summarised as follows:-

	Ml/d.
Leakage reduction 2010 – 25	159
Metering and Water efficiency 2010 – 25	70
New groundwater sources 2021 / 22	19
Upper Thames reservoir 2026 / 27	178
	-----
Total	426

## **B.4 Regional Perspective**

B.4.1 It is CPRE’s view that it would be of more general benefit to the South East if the proposed Upper Thames Resource, whatever form it might take, could be treated as a key element of a wider regional strategy. The balance of water resources for much of the South East has been assessed by the Environment Agency as unsustainable (Ref 4 and Appendix A), and the demand on public supplies has now reached levels such as to create a virtual region-wide deficit under “design drought” conditions. There is a low level of awareness of the severity of the future resource deficit and the consequent need for early and decisive corrective action by the water companies and regulators (Ref. 5).

B.4.2 The proposed level of housing development, when taken together with the forecast impact of climate change and the additional commitments under EU Directives for restoring sustainable abstraction, will impose an additional degree of stress that cannot be sustained by further development of the Region’s indigenous resources.

B.4.3 The revised water company strategies seem, for the most part, to reflect the priority accorded by Ofwat to development options on the basis of “least cost” and “customer willingness to pay”. As a result, the key principles of environmental sustainability and security of supply have been subordinated to what is essentially a short-term political objective of delivering a package of schemes which incurs the minimum charge increase.

B.4.4 This approach will leave insufficient provision for financing the programmes for achieving the environmental quality targets defined in accordance with the EWF and Habitats Directives. There are, for example, no schemes for restoring sustainable abstraction (RSA) for Kent rivers within the 2015 deadline; and no indication of any such initiatives at any stage in the plan period. As a consequence, we must expect to see a continuing deterioration in the environmental quality of some of our most sensitive and vulnerable water courses and wetland areas.

B.4.5 With respect to security of supply; it seems likely that the constraints on capital spending will also mean reduced or deferred investment in schemes for improving levels of service under drought conditions. There will, as a result, be correspondingly greater reliance by the companies on emergency measures, including hose-pipe bans and other restrictions on “non-essential” uses. Records for the last 20 years show that, for example, most companies operating in Kent have been obliged to impose hose pipe bans, on average, once every 3 years (compared with the generally accepted level of service frequency of once every 10 years). With the deteriorating balance of supply and demand, the prospect of perennial summer bans could therefore soon become a reality for many consumers.

B.4.6 Taken overall, the Thames Water Draft Plan, with its reliance on the successful outcome of an ambitious demand management programme and the construction of a controversial pumped storage reservoir, looks like an increasingly risky strategy for a future bringing climatic extremes and environmental commitments yet to be defined. Given those uncertainties, the strategy would look more robust with the incorporation of a mid-plan option of indirect waste-water re-use, which TW have already assessed; twin-tracked with the water efficiency phase. It has the virtue of high security and it would also allow time to fully assess the feasibility (and sustainability) of the option of the Upper Thames (Abingdon) reservoir. It is, for example, quite conceivable that with the further progress of climate change in the South East, bringing increasing stress on the balance of resources, the Abingdon reservoir option will become more problematic, and the alternative of strategic inter regional transfers (such as the Midland/Thames link) correspondingly more realistic and cost-effective.

B.4.7 The constituent companies of the South East Water Resources Forum have so far made little progress in co-ordinating their respective business plans; consequently there is as yet no realistic expectation of a coherent “no boundaries” strategy emerging with sufficient scope and resilience to address the environmental and development challenges facing the Region. There is an increasingly strong case for a Region-wide strategy transcending water company boundaries – one which is environmentally sustainable and delivers best value for money for consumers. Effective delivery may furthermore require the creation of a body with the required expertise and resources to formulate an optimum strategy, and the authority to direct the water companies in its implementation.

B.4.8 Elements of a water-supply development strategy have been identified in the South East Plan, but there is a disproportionate emphasis on the creation of additional reservoir capacity which is unlikely, in our view, to prove hydrologically or environmentally sustainable. None of the schemes have as yet been fully assessed with respect to engineering feasibility and environmental impact, and some are on a scale that could only be sustained by drawing heavily on river sources that are already severely depleted. They cannot therefore be regarded as secure elements of a regional strategy.

B.4.9 This adds weight to the case for urgent action on demand management – in particular, the promotion of domestic metering and water-efficiency measures for new builds and existing households. To be fully effective, it requires the appropriate legislation and economic incentives to be put into effect as matters of the highest priority. It will also require the designation of much of the South East as “Water Scarce”.

B.4.10 Demand management will, however, only address a relatively small proportion of the forecast deficit within the time frame, and will need to be supplemented by a more fundamental approach to the conservation of the Region's resources. We therefore urge an early review of the potential of wastewater re-use, starting in the more heavily stressed areas. More than half of the effluent processed in the Southern Region is discharged to sea; a unique resource which can be treated and put into supply at relatively low cost. It constitutes an inherently sustainable drought-proof solution which can be phased to match demand and implemented within a short (three-to-five-year) time frame.

B.4.11 This would also buy time for a comprehensive assessment of alternatives to an Upper Thames reservoir. There are for example opportunities for strategic raw water transfers; and we are aware of studies with this in mind to assess the feasibility of two schemes for Midland to Thames transfers, using the existing canal infrastructure. We would commend this approach (which may involve some support / balancing storage) as a potential key element of the medium to long term strategy.

B.4.12 Until we have put in place the essential components of a strategy that ensures security of supply under all but the most severe and genuinely exceptional drought conditions, there should be some measure of restraint. Housing development in those areas where resources have already been identified as unsustainable should only proceed where a fully integrated water supply strategy has been put in place and other planning criteria satisfied. Failing this, Government must be aware that many consumers in the Region will have to be reconciled to a regime of crisis management in which the hose pipe ban will be a more or less permanent feature, marking the failure of the companies to achieve minimum levels of service.

## **B.5 Conclusions on Water Issues**

B.5.1 In CPRE's view, the Water Companies have failed to formulate a fully integrated and sustainable water resource management strategy for the South East - as the Thames Water Plan exemplifies.

B.5.2 The Thames Water Plan is too focused on short term targets with an emphasis on "least cost" schemes, which makes for a high-risk strategy with reduced security of supply and poor drought resilience.

B.5.3 The Thames Water Plan does not give adequate priority to environmental quality targets, with no clear commitment to the European Directives relating to the programme for restoring sustainable abstraction in Kent.

B.5.4 There is an urgent requirement to address the implications of the increasing resource deficit for the rural economy, which the Thames Water Plan does not adequately deal with.

## **C. LANDSCAPE AND ENVIRONMENT ISSUES**

### **C.1 The Thames Valley**

C.1.1 John Buchan, a founder and first President of the Oxfordshire Branch of CPRE, was invited by CPRE in 1929 to write the Preface to *The Thames Valley from Crickdale to Staines: A survey of its Existing State and some suggestions for its Future Preservation*. He starts by pointing out that “though it has been a theatre of history, the Thames valley has changed its character less, perhaps, than any other river system in the populous parts of this island. We have in it, therefore, something which has preserved into our day many of the visible characteristics of an older England”. Human development over the past 80 years has left its mark, but it is as true now as when Buchan wrote that “there are still reaches of the Thames and its tributaries which are the same as when the monks of Eynsham caught the Friday’s trout in their waters, and where ‘he that wishes solitude is safe’ *Este Perpetua*.”

C 1.2 A key tenet of Thames Water’s Draft Plan involves a proposed reservoir to be built in the Upper Thames valley with a (revised) capacity of 100 million cubic metres of water. This is aimed at meeting future water supply (mainly for London), faced with increasing demand, the strictures of the European Water Framework Directive, and uncertainties associated with climate change. This preferred solution would plant a massive ‘carbuncle’ in the form of an artificial raised basin in the north east of the Vale of White Horse in the bend of the Thames which runs from Appleton through Oxford to Abingdon. The ‘footprint’ of the finished scheme would cover 695 hectares (1,738 acres), but the construction area will be over twice that size. Even more significant than the area is the height of the bunds encompassing this great lake, which will reach up to 21 metres (69 feet) high protruding through the scenery of ‘Lowland Village Farms’ and ‘Rolling Farmland’ as described in the landscape types of the Oxfordshire Wildlife and Landscape Study (OWLS) published by Oxfordshire County Council.

C.1.3 Should the proposed reservoir be built, CPRE is deeply concerned over the ensuing alterations to the fabric, character and quality of the existing landscape, and with the changes and quality of available views for the people living in that landscape which would inevitably occur.

### **C.2 Landscape issues**

C.2.1 The site of the proposed Upper Thames (Abingdon) reservoir is located in the flat open landscape within the valley of the River Ock. To the south-east the land rises towards the Ridgeway within the North Wessex Downs AONB, and to the north-west the land rises to the North Corallian Ridge (formerly designated as of High Landscape Value) reaching up to Boars Hill and Foxcombe Hill to the south of Oxford City. The whole landscape forms a single topographical unit forming one ‘spectacular whole’ (as described in the Landscape Partnership’s Response to Stage 2 of Thames Water’s consultation on Landscape and Visual Matters of February 2007). The site lies in an area known as the Central Clay Vale zone

which is noted as being characterised by “hedgerless arable fields in a flat open landscape with a feeling of wide spaces, expansiveness and rurality” (ibid).

C.2.2 In this respect, the Vale of White Horse (VOWH) District Council’s Landscape Strategy (Planning Advisory Note of July 2006) states that the landscape of the Clay Vale is valued by the Council. Further, protection of landscape character is an objective of the VOWH DC’s Local Plan 2011, and its Policy NE9 is aimed at protecting the character of the Lowland Clay Vale, stating that “development in the Lowland Vale will not be permitted if it would have an adverse effect on the landscape, particularly on the long open views within or across the area”. Equally, Policy NE6 relating to the North Wessex Downs is of relevance since the AONB is only 3 kms away from the edge of the site. The policy seeks to protect the character and quality of views from the AONB, and states that “development which would be visually prominent would detract from views from public vantage points or would spoil the appearance of the landscape quality of the North Wessex Downs AONB will not be permitted.” Given the scale and nature of Thames Water’s proposed reservoir as currently envisaged, there is little doubt that such adverse outcomes would occur.

C.2.3 The overwhelmingly detrimental residual environmental and social impacts of the Construction Phase of the project, which would last for a total of 7 years, are made clear by Thames Water’s own consultant, Cascade, in its analysis laid out in Table 4.1 (pps 30- 31) in Volume 5 of the DWRMP of September 2009 – ‘Significant Adverse’(9), ‘Perceptibly Adverse’(9), ‘Beneficial’(1), ‘Negligible’(1) – which needs little further comment. We have serious reservations, however, about the analysis of the Operational Phase (Table 4.2 pps 32-33) where an overly benign interpretation appears to hold sway. For example “severe loss of sense of place from change in visual amenity” under Community is only rated ‘Perceptibly Adverse’; here we would certainly consider ‘Significant Adverse’ more appropriate. Equally we would consider the same applies to “major new landscape feature and change to visual context” under Landscape and Visual Amenity.

C.2.4 Today, few inhabitants of the local settlements of East Hanney, Marcham, Steventon and Drayton are directly involved in agricultural operations, but the landscape setting provides an important link with the past. Its main role for most is in defining the tranquil, rural character of the villages, and providing accessible open space. There is good provision of public rights of way through the local area and these appear to be well-used for informal uses such as walking, dog-walking, horse-riding and bird-watching. In this context we should like to refer to Natural England’s Report NECR024 of October 2009 *Experiencing Landscapes: capturing the cultural services and experiential qualities of landscape*. This report recognises that England’s landscapes provide a range of “services” which contribute to people’s quality of life by nurturing and facilitating a sense of history, sense of place, inspiration, calm, leisure, spiritual enrichment and aesthetic enjoyment. In short, cherished landscapes have a life affirming quality. The Report concludes by reiterating that “all landscapes matter to people, even if they are unremarkable”. Damage or alteration to a landscape on the scale envisaged by Thames Water’s proposed reservoir would diminish the lives of all who live in or near that landscape. The Landscape Partnership (February 2007) Response paper concludes (p25) “We have concerns over the potential landscape and visual impacts of the scheme particularly in relation to the scale of the proposal and the height of the embankments, and the associated effect of these on the character of the Vale, its views and the setting of nearby settlements. The proposal will be considerably out of scale with the landscape, and the impact of the

extensive lengths of embankment across the landscape cannot be fully mitigated for". CPRE wholly endorses this assessment.

### **C.3 Other environmental issues**

C 3.1 Apart from the issue of landscape, three further environmental aspects need to be highlighted, namely:

- Farmland;
- Biodiversity;
- Flooding.

**C.3.2 Farmland:** As Cascade Consulting in their tables 4.1 and 4.2 (pps 30-33) in Volume 5 of the DWRMP recognise, both the Construction Phase and the Operational Phase will lead to loss of over 1,400 hectares (3,500 acres) of Grade 3 farm land; this at a time of rising national concern over long term food security. Local farmers confirm that the area of the site of the proposed reservoir is all high yielding crop land with the clay soil holding good supplies of water and nutrients unlike sand or chalk; a unique feature being the supply of groundwater to the crops via the lower greensand water outflow.

**C.3.3 Biodiversity:** Whereas the possible impacts of the construction of the intake and outfall pipelines on the Cothill Fen SAC & SSSI, Barrow Farm Fen SSSI, Wytham Woods SSSI, and Frilford Heath Ponds and Fens SSSI are duly highlighted in the Plan, equally any long term alteration to the overall hydrology of these sites must be of concern given the scale of construction of the reservoir itself. Clearly, as stated, a full Appropriate Assessment under the Conservation Regulations would be required to properly assess this potential danger. Overall the Plan assumes that the existing countryside contains few BAP species, and that the mitigation works associated with the reservoir will enhance both the aquatic and terrestrial biodiversity of the site. This may well be oversimplified. In our experience new for old habitats rarely lead to improvements, at least in the short to medium term.

**C.3.4 Flooding:** As Cascade acknowledge, the potential risks associated with flood control are high during the construction period. Following construction a significant holding area for water coming from the surrounding high land would be removed from use thus aggravating the risk of flash flooding to which the area surrounding the site of the proposed reservoir is already highly prone. We consider that the measures suggested by Thames Water to offset this threat are unlikely to be adequate.

### **C.4 Conclusions on Landscape and Environment Issues**

C.4.1 CPRE contends that Thames Water's proposal for a 100 million cubic metre Upper Thames reservoir near Abingdon would have significant detrimental effects on the local environment, including damage to important landscapes, loss of productive farmland, damage to biodiversity, and increased risk of flooding.

C.4.2 We do not believe that these detrimental effects are simply a case of identifying the least damaging site for the reservoir; in our view they question the fundamental case for the need for such an environmentally damaging solution and indicate that the need has to be compelling and unequivocal, and that all possible alternatives must be fully researched and thoroughly eliminated.

C.4.3 The 'Issues Under Discussion' (3.1-3.7) and 'Issues not Agreed' (4.1- 4.4) of the Statement of Common Ground between the Environment Agency and Thames Water of January 2010, the research findings of the GARD Group, and the points raised below under Water Issues, all point to the fact that the case for need is not proven and the search for alternatives has not yet been exhausted.

C.4.4 The Government should not indicate any commitment to major longer term capital projects such as the Upper Thames reservoir until the range of options has been fully assessed in a region-wide context, and with proper regard to environmental impact and sustainability.

## **D. Summary of CPRE case**

D.1 CPRE has identified above a number of significant concerns and deficiencies in Thames Water's Draft Water Resource Management Plan - principally relating to the water issues addressed in the Draft Plan and the potential effects on the environment and landscape - which we contend need to be reconsidered.

D.2 In CPRE's view, the inquiry process should be used as a key opportunity to review the Thames Water Plan as the core element of a wider, medium to long term strategy for the South East Region, and that all candidate schemes for resource development, by whatever company (and this would include the Midland / Thames canal transfers), should be assessed in this context.

## **E. REFERENCES AND LIST OF DOCUMENTS**

### **References and List of Documents which may be referred to in evidence:**

Ref 1. Thames Water Utilities: Draft Water Resource Management Plan. CPRE comments on the Preferred Programme (Response to Defra) 23<sup>rd</sup> August 2008.

Ref 2. A Water Resource Strategy for Kent: CPRE June 2006.

Ref 3. House of Lords Science and Technology Committee: 8<sup>th</sup> Report, Session 2005/6. Water Management Vol. I. June 2006.

Ref 4. Environment Agency: Water Resource Strategy, Action Plan for Thames Region December 2009.

Ref 5. A Water Resource Strategy for the South East of England: CPRE (South East Region) July 2007.

**Other Documents which may be referred to in evidence:**

Document 1 - Natural England Commissioned Report NECR024. Experiencing Landscapes: capturing the cultural services and experiential qualities of landscape. October 2009.

Document 2 - Vale of White Horse District Council Commissioned Report. Response on Landscape and Visual Matters to stage two consultation on proposed Upper Thames Major Resource Development by Thames Water. The Landscape Partnership. February 2007.

Document 3 - The Thames Valley. John Buchan . 1929 reprinted 2006.

BT/GDW.

**SUMMARY AND COMMENTARY ON THE ENVIRONMENT AGENCY WATER RESOURCE STRATEGY: THAMES REGION ACTION PLAN, DECEMBER 2009.**

**1. THE NEED FOR AN ACTION PLAN**

1.1. Most of the Thames Region is now formally designated as an area of serious water stress. With an average annual rainfall of 690mm (compared with 890mm for England and Wales) it is one of the driest regions in the country but it is also one of the most densely populated and targeted for substantial long-term growth. Per capita demand as of 2008 stands at 160 l/h/d compared with an average of 146 for England and Wales.

1.2 Findings from the water resource assessments carried out as part of the Catchment Abstraction Management Strategy (CAMS) reviews show 9 out of the 15 constituent catchments to be over-abstracted at low flows, with 19 European designated conservation sites sensitive to water abstraction. Three major PWS zones: London, Swindon and Oxfordshire, and East Surrey are now at risk of failure in 'dry years'. And the overall balance of resources can be regarded as either fully or over-committed.

1.3 The Agency has a statutory duty to ensure the environmental economic and social sustainability of the country's water resources; but it acknowledges that, failing appropriate action, the existing deficit in the Thames Region must be expected to increase as a result of the combined impact of climate change and the growth in public supply demand accompanying planned development. The Agency's own researches confirm the extent of the anticipated environmental impact (Ref A.3.1. page 34) where river flows are expected to decline by 50 to 80% by the 2050s (Fig A.3) with a loss of up to 15% in total annual runoff; equivalent to 1300 MI/d of available resource. They conclude "Climate Change is going to put the environment under stress. The predicted rise in temperature and changes in the pattern of rainfall will alter the aquatic environment. Changes in flow, water levels, water quality and temperature will all have an impact on the aquatic and riparian species". Under the Agency's worst case scenario it has been concluded that more than 1500 MI/d of additional resource may be needed in the Thames River Basin District by 2050 to meet the (dry year?) needs of public supply, industry and agriculture.

**2. THE ACTION PLAN**

2.1. The Thames Regional Action Plan was published in December 2009 as a component of the National Water Resources Strategy, released in May 2009 under the title "Water for People and the Environment". It addresses the management of water resources in England and Wales by reference to 4 principal long term aims:-

- adaptation to and mitigation of climate change;
- creation of a better water environment;
- sustainable planning and management of water resources;
- public recognition of the value of water and the water environment.

2.2 The Plan incorporates a programme of short (5 year), medium (5 – 25 year), and long term (25 years plus) actions; formulated to meet the challenges facing the Region in the development and management of water resources. It is implicit that the plan will ensure sufficient water for household, agriculture, commerce and industry. Delivery will involve coordination with:-

- EA corporate strategy
- River Basin Management Plans
- Water Company Water Resource Management Plans
- Programmes to Restore Sustainable Abstraction in accordance with EWFD and Habitats Directives.

2.3 It is envisaged that these measures will bring:-

- more efficient use of water resources including more extensive sharing of supplies between undertakings;
- a more resilient water environment; better adapted to climate-change;
- improved levels of service under drought conditions;
- improved water efficiency by incentive pricing of public supplies;
- more selective development of new resources by reference to environmental, economic and social sustainability criteria; twin-tracked with demand management;
- sustainable low carbon solutions;
- closer integration of water, land, energy, food and waste management.

### **3. KEY ACTIONS FOR THE THAMES REGION**

3.1 These have been identified in Sect 4 (Box 2) of the Environment Agency Strategy as follows:-

- assess the impact of climate change on water resources;
- investigate the effect of known and predicted sustainability reductions on water resources;
- ensure that abstraction on the catchment scale is sustainable;
- encourage the sharing of water resources between water companies;
- establish the link between water and energy use.

### **4. COMMENTS ON THE EA STRATEGY**

4.1 CPRE has particular concerns with respect to the Agency's commitment to the third key action which is discussed in Sect 4.3 under the title "A Better Water Environment". There are two relevant strategy objectives:-

- (i) "abstraction is sustainable, the environment is protected and improved, and supplies remain secure" (Ref B3 to B6, pages 21 & 22); and
- (ii) "Environmental problems caused by historic unsustainable abstractions are resolved" (Ref B7 to B9, Page 22).

4.2 Most CAMS strategies were formulated more than 5 years ago, but it would appear from the statements relating to objectives B3, B6 and B7 that the EA regard completion of the programme for restoring sustainable abstraction (RSA) as a matter of relatively low priority,

with a long-term (up to 25 years) time scale. We must conclude from this that there will be no material progress toward the restoration of sustainable abstraction during the plan period (i.e. by 2026/27); notwithstanding the Agency's acknowledgement of the continuing deterioration of the environmental quality of many of the region's rivers and wetlands, and the recognition of the need for a more resilient water environment. This is, in our view, not an issue where any significant advantage can be gained by further delay. In the Agency's own words (Para A 3.3 page 35):-

"Climate Change is going to put the environment under stress. The predicted temperature rise coupled with changes in the pattern of rainfall will alter the aquatic environment".

4.3 A resource management strategy which disregards or, at best, puts a relatively low priority on environmental sustainability must, almost inevitably, reduce the scope of any Regional Action Plan in terms of the options available for cost-effective development. By the same token, the continued impact of climate change and economic development in the South East will add to the pressures already accelerating environmental deterioration; with correspondingly fewer and more expensive options for restoring the balance of resources.

Unfortunately the Agency has already shown its hand with the statement in Sect A2 (page 32) "----- we have to make a decision based on the cost to society and the benefit to the environment"; as if these were mutually exclusive objectives. They seem unwilling to acknowledge the self-evident fact, re-enforced by their own observations, that a degraded environment represents a very real charge on the community, including the cost of supplies to industry and agriculture.

4.4 It is our view therefore that the programme set out under Para 4.3 of the Regional Action Plan should be revised to make space in the short to medium term for the higher priority RSA schemes identified under CAMS. These should include explicit environmental quality objectives and deadlines for delivery, with completion of the Regional programme by 2025; a derogation of 10 years relative to the EU Directives.

GDW.  
24/02/10