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Your ref: JD/JC/library/defra

Our ref: WRB86

Date 15 May 2006

Dear Mr Hegarty

WATER RESOURCES ACT 1991 – SECTIONS 73 & 74 THE SUTTON AND EAST SURREY WATER PLC (NON-ESSENTIAL USE) DROUGHT ORDER 2006

1. I am directed by the Secretary of State for Environment, Food and Rural Affairs to refer to your letter of 17 March applying under section 73(3)(b) for an ordinary drought order to be made under sections 73(1) and 74(2)(b) of the Water Resources Act 1991 (as amended).
2. The Order, if made, would, for a period of 6 months, authorise the Company in respect of water it supplies to prohibit or limit within its area of water supply, the use of water for particular purposes as included in the Drought Direction 1991.
3. The Company's application and the objections and representations received in respect of it were the subject of a hearing held on 29 March 2006 at the Reigate Manor Hotel, Reigate, by an Inspector, Mr J I McPherson JP BSc CEng CEnv MICE MCIWEM MCMI. In his report, a copy of which is enclosed, the Inspector came to the conclusions annexed to this letter.
4. The Secretary of State has carefully considered the Inspector's report and accepts the Inspector's conclusion, in paragraph 129, that there has been an exceptional shortage of rain in the Company's area and that as a result there is a substantial threat to public water supplies. The Secretary of State notes too the Inspector's conclusion, in paragraph 130, that a non-essential use ban would undoubtedly have considerable effects on a number of people, in some cases possibly leading to the loss of their jobs.
5. The Secretary of State further notes the Inspector's conclusion in paragraph 129 that the threat to public water supplies could be considerably mitigated by the proposed ban on non-essential water uses and his recommendation in paragraph 132, that the Order should be made in the form drafted by the Company (which sets out the terms of the Drought Direction 1991 unaltered). The Secretary of State accepts that the threat to public water

supplies in the Company's area could be considerably mitigated by the proposed ban on non-essential uses.

6. The Secretary of State also notes that the Environment Agency is content with the Company's Drought Plan. Although the Inspector expressed surprise to see no reference in the Drought Plan to attempts to find additional supplies of water, he pointed out that the Company had, quite rightly, sought to find such supplies. On leakage, the Inspector found that the Company has a long-term leakage control strategy which has achieved a total leakage rate below the economic level of leakage and lower than the current leakage target set by Ofwat. The Secretary of State believes that good performance on leakage is important if water companies are to rely on the goodwill of consumers to act to save water.

6. The Secretary of State therefore agrees with the Inspector's recommendation and has accordingly today made the Order in the form attached, to come into force tomorrow.

7. The Secretary of State expects the company to exercise the powers conferred upon it by the Order in a sensitive, responsible and proportionate manner and with demonstrable justification where there is a likelihood that the exercise of the powers will cause hardship. In that respect the Secretary of State agrees too with the Inspector's suggestion, in paragraph 131, that, in deciding which uses to ban, the Company might reasonably choose first those that would save the most water and impact on the least people.

8. The Drought Order confers a discretion on the Company to prohibit or limit the use of water for any purpose specified in the Order. Where the powers conferred by the Order are exercised by the Company to impose a prohibition or limitation on the use of water, section 76(1) of the Water Resources Act 1991 requires the Company to take such steps as it thinks appropriate to bring the prohibition or limitation to the attention of persons to whom it will apply. The extent to which the Company needs to exercise the powers conferred by the Order to prohibit or limit the uses of water, and thus the consumer groups affected, will depend on the developing drought situation.

9. Copies of this letter are being sent today to the Environment Agency's Thames and Southern regions' Regional Directors, the Chair of the Water Services Regulation Authority, the Chair of the Consumer Council for Water and to all those who submitted objections and representations in respect of the application for a Drought Order.

Yours sincerely

A handwritten signature in black ink that reads "Mike Walker". The signature is written in a cursive, slightly slanted style.

Mike Walker

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Inspector's Conclusions

(In my conclusions, the numbers in brackets [] indicate the above paragraphs where the information can be found)

Main Considerations

89. In determining this application for an Ordinary Drought Order that would authorise Sutton and East Surrey Water plc to prohibit or limit the use of water for the non-essential uses specified in the Drought Direction 1991 for a period of up to six months, it seems to me that the main considerations are:-

- Whether there has been an exceptional shortage of rainfall,
- If so, whether there is a serious threat to public water supplies in the Sutton & East Surrey supply area, and
- If that is so, whether the increased security of supply would justify the likely environmental, social and economic consequences of authorising SESW to ban these uses of water.

Rainfall

90. Mr Kelly quite correctly points out the requirement for an 'exceptional shortage of rain' before a drought order can be made (Section 73(2)(a) of the WRA 1991). He also points out that there is little guidance on what constitutes an exceptional shortage of rain which, it seems to me, remains a matter to be judged on the available evidence in each case [85].

91. The rainfall in the Company's area is recorded at Bough Beech Reservoir and at Redhill, together with the Environment Agency's site at North Downs. The rainfall for the last few years has been below average but, of particular relevance for groundwater resources, the last two winters have been well below the long term average (LTA). At Bough Beech and Redhill, rainfall was only 72% and 83% of the LTA for the winter of 2004/5 and 69%, and 79% for the winter of 2005/6 (to 26/02/06). For the North Downs the corresponding figures were 76% and 81%, and for Thames Region of the Environment Agency (EA) it was only 78% for this winter [9].

92. The EA consider the 14 month period to December 2005 to be the second driest since 1883 for the South East, and they say that the 16 months since November 2004 was the driest since 1934 [10]. They therefore strongly support the Company's argument that there is at least a 1 in 50 year drought situation, if not perhaps the 1 in 100 event suggested by the Company [53]. Such an event is well beyond the assumptions on which water resources would normally be planned, eg a 1 in 10 year drought [15].

93. I therefore conclude that there has been an exceptional shortage of rain in the relevant area.

Effect of Recorded Rainfall

94. Bough Beech Reservoir is operating at about its control curve, and a Drought Permit has just been granted to permit continued refilling into May, providing there is sufficient water in the river [14]. Accordingly, this 15% of the Company's supplies seems reasonably assured for the time being [14] but, bearing in mind the relative proportions, I see little scope for Bough Beech to support the Company's groundwater resources this coming summer.

95. The remaining 85% of the Company's water supply comes from a total of 80 boreholes in three separate aquifers, where the groundwater is replenished by the 'effective rainfall' (the proportion that recharges the aquifer) [8, 12].

96. The EA estimates the effective rainfall at its North Downs site to have been only about 30% of the LTA in 2004/5 and about 64% for this last winter - up to February 2006. The rain over the last few days will make little difference because it has come at more or less the end of the winter recharge period, after which the soil moisture deficit is likely to rise throughout the summer [12].

97. Although both of the groundwater monitoring boreholes at Well House Inn and the Rose and Crown are into the North Downs Chalk aquifer, that is the predominant source of the Company's groundwater and these records are accepted by the EA as being representative of the groundwater resources in the area [13]. I see no reason to disagree.

98. Both of these monitoring boreholes show the groundwater to be at historic record low levels. The one at the Rose and Crown ran dry for a period during the winter and only recovered to the extent that it did because of an abnormal pumping situation [13]. Bearing in mind that the Company has operated its sources within the licensed conditions [42], I accept that these historic low water levels are probably as a result of the low effective rainfall.

99. Mr Kelly has postulated a number of possible reasons why the effective rainfall may have been reduced [87] and both the Company and the EA will no doubt consider them when reviewing the Company's Water Resources Plan in the future. I am not however in a position to do so in connection with this drought order application, for which I have already found the essential prerequisite of an exceptional shortage of rain.

Threat to Public Water Supplies

100. Although the Company suggests the situation is approaching a 1 in 100 year drought event [11], the EA seem to consider it nearer to a 1 in 50 year drought [53]. The Company has anyhow used a 1 in 50 year scenario to estimate the deployable outputs from its sources [16] which, when compared against the water available for use (WAU) for a 'normal' dry year such as 2003/4 shows that during the critical peak period the demand is likely to considerably exceed supply, unless increased supplies are made available, or reductions in demand are achieved [19].

Drought Plan

101. The EA is content with the Company's Drought Plan which calls for certain actions as water levels fall in the monitoring boreholes. The water levels throughout the year are represented by curves which define the upper and lower limits of Zones 1, 2 and 3 [20]. Water levels are now well into Zone 3 and the actions corresponding to Zones 1 and 2 have been carried out, together with some of those for Zone 3 [20]. In particular, there has been considerable publicity about the developing drought situation [32, 33] and a sprinkler and unattended hose ban was introduced in April 2005, followed by a full hosepipe ban on 1 March 2006 [21].

102. I am rather surprised to see no reference in the Drought Plan to attempts to find additional supplies, but the Company has, quite rightly, sought to do so.

Increased Supplies

103. The Company has made arrangements for an additional 5Mld from Thames Water at Merton [28] and has put in hand the repositioning of six borehole pump sets which should achieve a little

more water [29]. However, they have had no success in locating additional unused licences [30] and I agree that any possible groundwater recharge scheme for the area is likely to be well outside the timescale of this drought order. In any case, it would require available water in the first place, and that is not likely under drought conditions [31].

Demand Management

104. The Company has been implementing long term measures to control the demand for water in its area for some time. These actions include the metering of all new domestic properties and those which change ownership, together with the free replacement of domestic supply pipes [25, 26].

105. The Company also has a long-term leakage control system which has achieved a total leakage rate below that called for by OFWAT, which itself is lower than the economic level of leakage [23]. This translates into an overall total leakage rate in the order of 15%, with leakage per property at about 90 l/property/day, compared with the industry average of more like 150 l/p/d [23]. Even so, the Company recognises the importance of continuing control over its leakage, and would further increase the manpower available for this purpose if the drought order is made [24].

106. The actions taken so far by the Company are rather difficult to quantify in terms of the water savings achieved, but it is quite possible that they currently amount to about the 12% claimed [21]. The Company computed its overall supply-demand balance to have a headroom of 15.3Mld in the critical week if the Order is made [35]. That calculation assumed a saving of 8.6Mld from the non-essential use ban [35], but did not allow for the 5Mld now available from Thames Water [28]. Without the Order, the headroom would therefore be more like 11.7Mld, which would give only some 5.8% over the assumed restricted demand of 201Mld, and some 4.5% over the previous highest 10 year peak of 260Mld [6]. The Company's Water Resources Plan assumes headrooms of 6.6 and 7.7% in the two Water Resources Zones [35] and, with the uncertainties of a drought situation (including the continuing availability of the Thames supply), I consider the headroom should be more, rather than less.

107. I conclude that without the proposed non essential use ban, there is a substantial threat to public water supplies in the Company's area.

Non Essential Use Ban

108. The Company put the further water savings likely to be achieved from a non essential use ban in the critical period at 8.6Mld, or about 4% [35], though in the Regulatory Impact Assessment the assessment of the individual elements amount to a total of 8.86 Mld – or the water supply for 18,660 properties. [37]. Using the former figure, the Company considered the anticipated 15.3Mld (7.6%) headroom to be acceptable [35], and providing the bulk supply from Thames Water remains this would be further increased to meet the uncertainties of the situation.

109. Bearing in mind the regulated nature of the Water Industry and the requirement for Water Companies to provide long term Water Resources Plans, together with Drought Plans for exceptional circumstances, I place little weight on the objections that seek to argue that the Company should have done more to provide additional resources [83, 84].

110. In the light of the likely water supply-demand situation later this summer, I consider the drought application to be a prudent water management measure by the Water Company, but one that must be considered against its likely environmental and socio-economic consequences.

Consequences of the Drought Order

Regulatory Impact Assessment

111. The Company prepared a Regulatory Impact Assessment for this Proposal [37]. It considers in some detail the benefits to be achieved in the form of the water savings likely to be available from banning each of the non essential uses [37]. It does not however cover the costs in terms of reductions in recreational amenities, loss of employment opportunities and effects on welfare resulting from a less pleasant environment in anywhere near the same detail [38-41].

Environmental Impact

112. With the drought order, abstractions from the Company's boreholes would continue within their licensed conditions and there should therefore be no increased impact on the aquatic environment [42].

Socio - Economic Impacts

- Window Cleaning

113. The window cleaning industry has largely changed its method of operation in the light of the Work at Height Regulations that came into force last year [54]. Many window cleaners now use water fed pole systems which allow them to clean windows safely from the ground but, as these are fed by a hose, they would be banned by the proposed Order [54-56]. Although the window cleaners' representatives accepted that ground floor windows could be cleaned without a water fed pole [56], many of the objectors still envisaged that they would lose their livelihoods [55].

114. The Company pointed out that, at present, supplies of potable water could be brought in from areas not particularly affected by the drought or, with the reverse osmosis process that is included as part of the equipment, some other, perhaps recycled, water might be used [50]. This would undoubtedly increase the cost and general difficulties of operating a window cleaning business, and the water savings may not be that great because the water fed pole system is said to use only one litre of water per minute [57].

115. In the Regulatory Impact Assessment, the Company identified little in the way of water savings from this use, but at the time they had very little on which to base their assumptions (Doc 1/14, Table 1 item (vii)). If only from the objections, they now have more information and could make a more informed assessment of the savings likely to arise from banning water fed poles for comparison with the hardship to the window cleaners.

- Golf Courses and Bowling Greens

116. The Company had information about the likely water usage for golf courses and bowling greens from their own records [46]. They estimated that the 58 golf courses in their area [62] are likely to use about 1.334 Mld in the critical period; the equivalent of 2,809 domestic properties (Doc 1/14, Table 1 item (i)). If the greens and tees were left unwatered, I consider their condition would very likely lead to reduced income for the golf clubs, but there is the possibility that they could be watered by other means, such as the use of waste water treatment works final effluent tankered in for the purpose [50]. Accordingly, I very much doubt if there would be the wholesale loss of employment and other dire consequences predicted by the golf clubs [62].

117. Whilst there are fewer bowling greens in the area, it seems to me that similar considerations apply to those for golf clubs [50, 63].

- Turf, Plants and Allotments

118. I accept the argument that water is very likely to be required to establish new turf, and in the growing of bedding and pot plants, and possibly also for certain specialist plants [64, 65, 67-70, 74]. However, despite the livelihoods dependent upon these activities, I consider them of considerably less importance than the supply of water for the basic needs of the community. The same must be the case for suppliers of equipment [66]. The use of hose pipes on allotments is already covered by the hosepipe ban, though watering by other means is not [73].

- Swimming Pools

119. The Company has records of the number and the water use of the private swimming pools in its area [46] and has estimated a total saving of 4.015 Mld in the critical period (Doc 1/14, Table 1 item (ii)). This is a considerable quantity of water to save and, even if the representatives of the swimming pool industry are right about their claimed smaller quantities, it is still likely to be a significant amount [75].

- Ornamental Fountains/Cascades

120. It is true that the use of ornamental fountains and cascades are not likely to 'use up' much water if they recycle it [79] but nevertheless to see dry fountains would considerably reinforce the need to conserve water and therefore, if only for publicity purposes, would be advantageous. It would be a matter for the Water Company to consider whether any fountain claimed to be necessary to aerate water for fish should be enforced against.

- Graffiti Removal

121. Similarly, it would be a matter for the Company to consider the need to remove graffiti, taking into account any statutory requirements to do so [78].

- Vehicle Washing

122. In general, the prohibition of car washing would also send a strong message to the public to save water [80], though washing vehicles' windows and lights is clearly necessary for safety purposes. Similarly, there may well be health and hygiene requirements to clean farm vehicles [71], some Local Authority vehicles and hearses [81]. These should be considered by the Company at the time.

- Emissions Controls

123. I would find it very surprising if there was any attempt to prevent the use of water for emission controls that are required for health and safety purposes [82].

Employment Opportunities

124. It is clear that the strict enforcement of the Order may result in some job losses [55, 62, 65, 67, 76]. In many cases the people concerned would be best qualified to take on another directly equivalent job, but these other jobs may also be affected by the restrictions in water use. Nevertheless, the unemployment rate is lower in the area than the national average [40] and therefore there is at least some prospect of alternative employment for some people.

Form and Implementation of the Order

125. Although in slightly different words, the draft Order seeks authority to ban all the specified uses in the Drought Direction 1991 [2]. This is a standard list that has been established nationally, and I see no local reason why any of these purposes should be excluded. If the Order is made, it would be a matter for the Company to implement any, or all, of these uses in the light of the developing drought situation, and also for them to carry out the necessary publicity and enforcement.

126. In deciding which uses to ban, I would expect the Company to consider very seriously the amount of water that was likely to be saved against the hardship likely to result.

127. The Order would enable the Company to ban these various non essential uses of water in order to maintain essential supplies to the community. When viewed in these terms, I do not consider the possible consequences to the appearance of the area, or to the effects on the recreational and employment opportunities to be too onerous.

128. No map has been provided to show the area over which the ban would apply, but I see no particular need for that because it would be the whole of the Company's area [45].

Summary

129. I am satisfied that there has been an exceptional shortage of rain in the Company's area and that as a result there is a substantial threat to public water supplies, which could be considerably mitigated by the proposed ban on non essential water uses.

130. Such a non essential use ban would undoubtedly have considerable effects on a number of people, in some cases possibly leading to the loss of their jobs. Even so, I consider it important that the Company has the authority to ban these non essential uses if made necessary by a worsening drought situation.

131. In deciding which uses to ban, I would expect the Company to choose first those that would save the most water and impact on the least people.

Recommendations

132. I recommend that the Order be made in the form drafted, but with the one correction noted in paragraph 2 of this report.