

Water Resources Management Plan

2010–2035



Appendices

October 2009



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***Appendix A: STATUTORY
REQUIREMENTS***

A.1.1 List of Statutory Provisions

Water companies have previously prepared Water Resources Management Plans on a voluntary basis. Companies now have to prepare and maintain Water Resources Management Plans on a statutory basis. Copies of the relevant statutory provisions are given in this Appendix, as follows:

- The Water Resources Management Plan Direction 2007;
- The Water Resources Management Plan (No.2) Direction 2007;
- The Water Resources Management Plan (No.2) (Amendment) Direction 2007;
- The Southern Water Services Limited Water Resources Management Plan Direction 2007;
- The Southern Water Services Limited – Draft Water Resources Management Plan: Agreement of later submission date;
- The Southern Water Services Limited – Draft Water Resources Management Plan: Statement Responding to Representations – Extension;
- The Water Resources Management Plan Direction (England) 2008;
- Southern Water Services Limited – Water Resources Management Plan: Secretary of State instruction to publish final Water Resources Management Plan
- Memorandum of Understanding for the River Itchen Sustainability Reduction Proposals

A.1.2 Copies of Relevant Regulatory Correspondence

The Water Resources Management Plan Direction 2007

The National Assembly for Wales, in relation to any water undertaker whose area is wholly or mainly in Wales, and the Secretary of State in relation to all other water undertakers, in exercise of the powers conferred upon them by sections 37A(3)(d) and (7), and 37B(11), of the Water Industry Act 1991(a), after consultation with each other(b), make the following Direction:

Citation, commencement, extent and interpretation

1.—(1) This Direction may be cited as the Water Resources Management Plan Direction 2007 and comes into force on 1st May 2007.

(2) This Direction extends to England and Wales.

(3) In this Direction, “a water resources management plan”, in relation to a water undertaker, means the first plan which it is under a duty to prepare and maintain in accordance with section 37A(1) of the Water Industry Act 1991.

(4) References in this Direction to a numbered section are to the section so numbered in the Water Industry Act 1991, unless otherwise stated.

(5) References in this Direction to “the Secretary of State or the National Assembly for Wales” mean, in relation to a water undertaker whose area is wholly or mainly in Wales, the National Assembly for Wales, and in all other cases, the Secretary of State.

Planning period of water resources management plans

2. The planning period for a water resources management plan is the period of 25 years commencing on 1st April 2010.

Additional matters to be addressed in water resources management plans

3. In accordance with section 37A(3)(d), a water resources management plan must include a description of the following matters—

- (a) how frequently the water undertaker expects it may need to impose prohibitions or restrictions on its customers in relation to the use of water under each of the following—
 - (i) section 76;
 - (ii) section 74(2)(b) of the Water Resources Act 1991(c); and
 - (iii) section 75 of the Water Resources Act 1991;
- (b) the appraisal methodologies which the water undertaker has used in choosing the measures it intends to take or continue for the purpose set out in section 37A(2), and its reasons for choosing those measures;
- (c) the emissions of greenhouse gases which are likely to arise as a result of each measure which the water undertaker has identified in accordance with section 37A(3)(b);

(a) 1991 c.56. Sections 37A and 37B were inserted into the Water Industry Act 1991 by section 62 of the Water Act 2003 (c.37). The functions of the Secretary of State under sections 37A and 37B were transferred to the National Assembly for Wales by the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672) (“the Order”), article 2; see the entry in Schedule 1, as amended by section 100(2) of the Water Act 2003, for the Water Industry Act 1991. The functions under those provisions, so far as relating to matters other than the construction or enlargement of reservoirs, have been transferred to the Assembly in relation to any water undertaker whose area is wholly or mainly in Wales.

(b) Article 2 of, and Schedule 1 to, the Order (as amended by section 100(2) of the Water Act 2003) provide that the functions referred to above, so far as they are exercisable in relation to England, shall be exercisable only after consultation with the Secretary of State. Article 5 of, and Schedule 2 to, the Order (as amended by section 100(3) of the Water Act 2003) provide that, in so far as they are exercisable in relation to Wales, the functions referred to above shall be exercisable only after consultation with the National Assembly for Wales.

(c) 1991 c.57.

- (d) how the supply and demand forecasts contained in the water resources management plan have taken into account the implications of climate change; and
- (e) except where the water undertaker does not supply, and will continue to not supply, water to premises in which, or in any part of which, a person has his home, how the water undertaker has estimated future household demand in its area over the planning period, including the assumptions it has made in relation to population and housing numbers.

Submitting draft water resources management plans to the Secretary of State

4. Except where the Secretary of State or the National Assembly for Wales otherwise permits, a water undertaker must send its draft water resources management plan to the Secretary of State or the National Assembly of Wales in accordance with section 37B(1) before 1st January 2008.

Publication of draft water resources management plans

5. Except where the Secretary of State or the National Assembly for Wales otherwise permits, a water undertaker must publish its draft water resources management plan in accordance with section 37B(3)(a) within 30 days of the later of the date on which the Secretary of State or the National Assembly for Wales—

- (a) makes a determination under section 37B(2) in respect of any information which the water undertaker has stated appears to it to be commercially confidential in accordance with section 37B(1)(b);
- (b) gives a direction to the water undertaker, as specified in section 37B(10), directing it to exclude certain information from its draft water resources management plan on the grounds that its publication would be contrary to the interests of national security; or
- (c) notifies the water undertaker that it is not proposing to give any direction to the water undertaker, as specified in section 37B(10), in relation to its draft water resources management plan.

Responding to representations

6. Except where the Secretary of State or the National Assembly for Wales otherwise permits, a water undertaker must publish the statement required by regulation 4(2)(a) of the Water Resources Management Plan Regulations 2007(a), and send a copy of the statement to the persons specified in regulation 4(2)(b), within 26 weeks of the date of publication of the draft water resources management plan.

Signed on behalf of the National Assembly of Wales under section 66(1) of the Government of Wales Act 1998(b),

[] 2007 Minister for Environment, Planning and Countryside

[] 2007 Minister of State,
Department for Environment, Food and Rural Affairs

(a) S.I. 2007/727.
(b) 1998 c.38.

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C O R P O R A T E

28 AUG 2007

S T R A T E G Y

Date: 21 August 2007

Regulatory Director
Southern Water
Southern House
Yeoman Road
Worthing
West Sussex, BN13 3NX

Dear Regulatory Director

The Water Resources Management Plan (No. 2) Direction 2007

Please find enclosed a signed copy of the Water Resources Management Plan (No. 2) Direction 2007 and a letter from Mike Walker updating you on a couple of other issues relevant to your first Water Resource Management Plans (WRMPs).

This Direction requires:

- i. all English water companies to consider metering when they draw up their WRMPs.
- ii. those companies which consider it likely that the whole or any part of their areas will be determined to be an area of serious water stress to consider compulsory metering in their WRMPs, as specified in paragraph 2(b) of the Direction.

The Government consulted on metering in areas of serious water stress between 31 January and 24 April this year. A copy of the Government response to the consultation can be found at:

http://www.defra.gov.uk/environment/water/industry/water_metering/pdf/govt-response.pdf

On 16 August the Environment Agency published their views on how to decide what areas are areas of serious water stress.


The next steps are as follows.

1. Later this year the Agency will advise the Secretary of State on what areas are areas of serious water stress. On the basis of that advice, in October, the Secretary of State intends to designate those companies' areas which he considers should be designated as areas of serious water stress under new regulation 4(1) of the Water Industry (Prescribed Conditions) Regulations 1999.

2. The Secretary of State will then issue a second direction to water companies, the effect of which will be direct water companies whose areas have been designated as areas of serious water stress to consider compulsory metering of households in those areas.
3. Those companies whose areas have been designated by the Secretary of State as areas of serious water stress will have to demonstrate the costs and benefits to them, and therefore to their customers, of compulsory metering in their draft WRMPs.
4. The Secretary of State, the Agency, Ofwat and CCWater will all be statutorily consulted in the process in preparing statutory WRMPs.
5. Each company will have to indicate in a consultation response how it will take into account consultees' views on all aspects of the draft plan, including its metering proposals.
6. Where the company's compulsory metering proposals are not considered to be an appropriate means of maintaining the supply-demand balance, the Secretary of State will be able to direct a company to remove the metering proposals from its draft plan. Conversely, where a company does not consider the case when directed to do so, enforcement action may be taken against that company. But subject to this, it will be for each company to decide whether or not to include, in its final WRMP, a programme for introducing compulsory metering in designated areas of serious water stress.
7. Where (a) a company's area had been designated as an area of serious water stress and (b) the company had included a programme for compulsory metering in its final WRMP, it would be able to compulsorily meter its customers from April 2010.
8. Those companies with compulsory metering in their final WRMPs must consider the impact on customer groups and their bills in drafting their charges schemes. These are subject to approval by Ofwat, and the Secretary of State may give guidance on the matters to be taken into account when Ofwat exercises its powers to approve those schemes.

If you have any queries about this Direction or the next steps I would be happy to discuss them with you.

Yours sincerely,



Helena Busby
Email helena.busby@defra.gsi.gov.uk

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c/o 3-8 Whitehall Place
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Website www.defra.gov.uk



Regulatory Directors of Statutory Water
Undertakers in England

Your ref
Our ref
Date 16 August 2007

Dear Regulatory Director

Water Resource Management Plans – Update

I would like to take the opportunity afforded by the change in metering policy to update you on a couple of other issues relevant to the preparation of your first Water Resources Management Plan under the new statutory regime.

Water Resource Zones

It is timely to remind you that your statutory water resources management plan should be based on discrete water resource zones. Your draft plan should confirm that resource zones have been defined properly. In a resource zone, all customers should face the same level of risk to supply. This implies that you should have some capacity to share supplies across each separate zone.

In resource zones that do not meet this condition, there may be hidden problems that suddenly appear when supplies are stressed through either drought or system failure. I shall ask the Environment Agency to pay particular attention to large resource zones to make sure that there is no enhanced risk to water supply in parts of such zones.

Strategic Environmental Assessment (SEA)

We would like to update you on our continuing consideration as to the applicability of the European Directive on Strategic Environmental Assessment (2001/42/EC) to Water Resources Management Plans and Drought Plans. The wide variations among plans within each type make it difficult to define the legal position in simple terms, but it is considered that at least some plans of both types are likely to be subject to the SEA Directive. Of course, where plans are found to require assessment under Article 6(3) of the Habitats Directive, they will also require assessment under Article 3.2(b) of the SEA Directive. Where assessment is required under both Directives, the SEA Directive provides for coordinated or joint procedures to avoid duplication.

Many Water Companies have undertaken SEA of plans for some years as a matter of good practice, and Defra encourages you to continue to do so. However, much of the methodology in this field was developed before the SEA Directive, and there are concerns that it may not fully meet the Directive's requirements. For plans which are legally subject to SEA, it is of course essential to observe the detailed requirements of the Directive on both processes (e.g. for consultation) and documents (the Environmental Report and information to be provided when the plan is adopted). The Government's "Practical Guide to the SEA Directive

http://www.communities.gov.uk/pub/290/APracticalGuidetotheStrategicEnvironmentalAssessmentDirective_jd1143290.pdf

provides useful advice on ensuring compliance. Defra recommends that all companies have regard to this guidance as appropriate when developing their plans, as it represents up-to-date good practice and sets out an SEA process with which many consultees and other stakeholders are familiar.

Change of Address

Please note that this Division is moving offices on 17 August. Please send any written correspondence relating to Water Resource Management Plans to the following address from that date:

Department for Environment, Food and Rural Affairs
Water Supply & Regulation Division
Area 2C
Ergon House,
Horseferry Road,
London
SW1P 2AL

The same address can also be used for correspondence relating to other matters requiring the Department's involvement under various aspects of the Water Industry Act 1991, including Drought Plans and compulsory purchase orders.

I am copying this letter to Ian Barker at the Environment Agency, Paul Hope at Ofwat and Pamela Taylor at WaterUK.

Yours sincerely



Mike Walker

Direct Line (from 20 August): 020 7238 5949
Email mike.walker@defra.gsi.gov.uk

The Water Resources Management Plan (No.2) Direction 2007

The Secretary of State, in relation to any water undertaker whose area is not wholly or mainly in Wales, in exercise of the powers conferred upon him by sections 37A(3)(d) and 37D of the Water Industry Act 1991(a), after consultation with the Welsh Ministers(b), makes the following Direction:

Citation, commencement, extent and interpretation

1.—(1) This Direction may be cited as the Water Resources Management Plan (No.2) Direction 2007 and comes into force on 22nd August 2007.

(2) This Direction extends to England and Wales, but does not apply to any water undertaker whose area is wholly or mainly in Wales.

(3) In this Direction—

“domestic premises” means premises in which, or in any part of which, a person has his home;

“the planning period” means, in relation to a water undertaker’s water resources management plan, the period of its water resources management plan; and

“the Regulations” means the Water Industry (Prescribed Conditions) Regulations 1999(c).

(4) References in this Direction to a numbered section are to the section so numbered in the Water Industry Act 1991(d).

Additional matters to be addressed in water resources management plans in relation to charging by reference to volume of water supplied

2. In accordance with section 37A(3)(d), a water undertaker shall include in its water resources management plan a description of the following matters—

- (a) its estimate of the increase in the number of domestic premises in its area, over the planning period, in respect of which it will be required to fix charges by reference to volume of water supplied to those premises under section 144A;
- (b) except where the water undertaker considers that it is unlikely that any of its area would be determined by the Secretary of State to be an area of serious water stress under regulation 4(1) of the Regulations if the Secretary of State were to exercise the powers conferred on him under that regulation in relation to all relevant areas on 1st October 2007, its estimate of the number of domestic premises in its area, over the planning period, in respect of which it would fix charges by reference to volume of water supplied to those premises if the whole or part of its area was determined by the Secretary of State to be an area of serious water stress under regulation 4(1) of the Regulations on that date;
- (c) its estimate of the increase in the number of domestic premises in its area (excluding any domestic premises which are included in the estimate referred to in sub-paragraph (b)), over the planning period, in respect of which section 144B(2) will not apply because the conditions

(a) 1991 c.56; sections 37A and 37D were inserted into the Water Industry Act 1991 by section 62 of the Water Act 2003 (c.37). The functions of the Secretary of State under sections 37A and 37D, so far as relating to matters other than the construction or enlargement of reservoirs, were transferred to the National Assembly for Wales in relation to any water undertaker whose area is wholly or mainly in Wales by the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672) (“The Order”), article 2; see the entry in Schedule 1, as amended by section 100(2) of the Water Act 2003, for the Water Industry Act 1991. By virtue of paragraph 30 of Schedule 11 to the Government of Wales Act 2006 (c.32), the functions under sections 37A and 37D so conferred on the Assembly are exercisable by the Welsh Ministers.

(b) By virtue of paragraph 30 of Schedule 11 to the Government of Wales Act 2006 and Article 5 of, and Schedule 2 to, the Order (as amended by section 100(3) of the Water Act 2003), the functions of the Secretary of State referred to above, in so far as they are exercisable in relation to Wales, shall be exercisable only after consultation with the Welsh Ministers.

(c) S.I. 1999/3442, as amended by S.I. 2005/2035 and S.I. 2007/2457.

(d) 1991 c.56.

referred to in section 144B(1)(c) are not satisfied and in respect of which it will fix charges by reference to volume of water supplied to those premises;

- (d) full details of the likely effect of what is forecasted pursuant to sub-paragraphs (a) to (c) on demand for water in its area;
- (e) the estimated cost to the water undertaker in relation to the installation and operation of water meters to meet what is forecasted pursuant to sub-paragraphs (a) to (c) and a comparison of that cost with the other measures which it might take to manage demand for water, or increase supplies of water, in its area to meet its obligations under Part III of the Water Industry Act 1991; and
- (f) a programme for the implementation of what is forecasted pursuant to sub-paragraphs (b) and (c).



21st August 2007

Head of Water Supply and Regulation Division, for and on
behalf of the Secretary of State for Environment, Food and Rural Affairs

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Regulatory Director
Southern Water
Southern House
Yeoman Road
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West Sussex, BN13 3NX

Date: 28 November 2007

Dear Regulatory Director

Determination as an area of serious water stress and the Water Resources Management Plan (No. 2) (Amendment) Direction 2007

The Government consulted on metering in areas of serious water stress between 31 January and 24 April this year. A copy of the Government response to the consultation can be found at:

http://www.defra.gov.uk/environment/water/industry/water_metering/pdf/govt-response.pdf

Following our decision to proceed upon the basis consulted upon, the Water Industry (Prescribed Conditions) (Amendment) Regulations 2007 (S.I. 2007/2457) came into force on 1 October 2007.

Under regulation 4(1) of the amended Water Industry (Prescribed Conditions) Regulations 1999 ("the Regulations"), the Secretary of State may, after consulting the Environment Agency, determine the whole or any part of a water undertaker's area to be an area of serious water stress for the purpose of the Regulations, where the Secretary of State considers that –

- (a) the current household demand for water in that area is a high proportion of the current effective rainfall which is available to meet that demand; or
- (b) the future household demand for water in that area is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand.

By virtue of regulation 2(d) of the Regulations, a water undertaker whose area (in whole or in part) has been determined to be an area of serious water stress under regulation 4 of the Regulations will be allowed to compulsory meter household premises in that area, provided that those premises are subject to a programme for the fixing of charges by reference to volume, as specified in the water undertaker's final water resources management plan.

I am directed by the Secretary of State to say that he has consulted the Environment Agency in accordance with regulation 4(1) of the Regulations and has considered whether to determine the whole or part of Southern Water's area ("your company's area") as an area of serious water stress in accordance under regulation 4(1) of the Regulations. The Agency's advice is attached here as annex A.

The Secretary of State has carefully considered the advice of the Agency and agrees that

1. the current household demand for water in your company's area is a high proportion of the current effective rainfall for that area; and
2. the future household demand for water in that area is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand.

In accordance with regulation 4(1), the Secretary of State hereby determines the whole of your company's supply area to be an area of serious water stress for the purposes of the Regulations.

Please also find enclosed a signed copy of the Water Resources Management Plan (No. 2) (Amendment) Direction 2007. This Direction amends paragraph 2(b) of the Water Resources Management Plan (No.2) Direction 2007. The effect of this amendment is to require those water companies whose areas have been determined to be areas of serious water stress under regulation 4(1) of the Regulations to consider the compulsory metering of households in their respective areas of serious water stress in preparing their water resources management plans covering the period 2010 to 2025.

If you have any queries about this Direction please contact Helena Busby (helena.busby@defra.gsi.gov.uk).

Signed by authority of the Secretary of State



Richard Wood
Email richard.wood@defra.gsi.gov.uk

The Water Resources Management Plan (No.2) (Amendment) Direction 2007

The Secretary of State, in relation to any water undertaker whose area is not wholly or mainly in Wales, in exercise of the powers conferred upon him by sections 37A(3)(d) and 37D of the Water Industry Act 1991(a), after consultation with the Welsh Ministers(b), makes the following Direction:

Citation and commencement

1. This Direction may be cited as the Water Resources Management Plan (No.2) (Amendment) Direction 2007 and comes into force on 29th November 2007.

Amendment of the Water Resources Management (No.2) Direction 2007

2. The Water Resources Management (No.2) Direction 2007(c) is amended as follows.

3. For paragraph 2(b), substitute—

“where the whole or part of its area has been determined by the Secretary of State to be an area of serious water stress under regulation 4(1) of the Regulations, its estimate of the number of domestic premises which are in that area and in respect of which it will fix charges by reference to volume of water supplied to those premises over the planning period;”



29th November 2007

Head of Water Supply and Regulation Division, for and on
behalf of the Secretary of State for Environment, Food and Rural Affairs

(a) 1991 c.56; sections 37A and 37D were inserted into the Water Industry Act 1991 by section 62 of the Water Act 2003 (c.37). The functions of the Secretary of State under sections 37A and 37D, so far as relating to matters other than the construction or enlargement of reservoirs, were transferred to the National Assembly for Wales in relation to any water undertaker whose area is wholly or mainly in Wales by the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672) (“the Order”), article 2; see the entry in Schedule 1, as amended by section 100(2) of the Water Act 2003, for the Water Industry Act 1991. By virtue of paragraph 30 of Schedule 11 to the Government of Wales Act 2006 (c.32), the functions under sections 37A and 37D so conferred on the Assembly are exercisable by the Welsh Ministers.

(b) By virtue of paragraph 30 of Schedule 11 to the Government of Wales Act 2006 and Article 5 of, and Schedule 2 to, the Order (as amended by section 100(3) of the Water Act 2003), the functions of the Secretary of State referred to above, in so far as they are exercisable in relation to Wales, shall be exercisable only after consultation with the Welsh Ministers.

(c) Dated 21st August 2007.

Environment Agency

Areas of water stress: final classification

1 Introduction

This report sets out the methodology developed by the Environment Agency for the classification of areas of water stress as requested by the Secretary of State.

On 1st October 2007 Defra requested that we advise the Secretary of State which areas of the country we consider to be seriously water stressed, to inform the exercise of his powers under the Water Industry (Prescribed Condition) Regulations 1999 (as amended).

This report is our formal advice on which areas in England are areas of serious water stress. Our methodology looks at where:

- (a) the current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or
- (b) the future household demand for water is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand

In this regard the Environment Agency consulted in January 2007¹ on proposals to classify areas of England according to their relative levels of water stress. Our consultation response was published in August².

In designating areas as water stressed, we have taken into account that water is a scarce resource across England. We believe that even in those areas designated as "low" water stress, there should be some activity to ensure that water is used more efficiently. Water companies and water users cannot disregard the environmental consequences of their abstractions and energy use.

¹ Identifying areas of water stress: consultation document. Environment Agency January 2007.

² Response to consultation on identifying areas of water stress. Environment Agency. August 2007.

Environment Agency

2 Approach

The water stress method takes a long-term view of the balance between water availability and the demand for public water supply, rather than a snapshot of shorter or peak periods. It supports but does not replace established water resources planning processes.

It provides an indication of relative water stress through use of a simple formula that scores each water company area. The classification is designed to support decisions about metering at the present time. Although the classification is at a company-wide level we would expect any justification for compulsory metering to be developed from an assessment at a zonal level.

We have used the following criteria to determine the relative level of water stress for individual water company areas:

- Current per capita demand for water
- Forecast growth in per capita demand for water
- Forecast population growth
- Current water resource availability
- Forecast resource availability

The method identifies the overall resource balance for areas based on geographical and human factors. These factors broadly represent available resource and demand. The method is not intended to replace the assessment of a water company's security of supply nor to reflect its current performance.

In areas where steps have already been taken to save water and reduce consumption the results of the method reflects this. For example, Tendring Hundred Water Services Ltd has a different classification to its neighbours.

The method we have developed is based around water consumption and water availability per person. Details of the revised method are shown in Annex 1.

Environment Agency

3 Final classification

The Environment Agency advises the Secretary of State that the areas classified as serious in Table 1, and shown on Map 1, should be designated as 'Areas of serious water stress' for the purposes of Regulation 4 of the Water Industry (Prescribed Condition) Regulations 1999 (as amended).

Table 1: Water company scores and classification

Water company area	Score	Classification
Essex & Suffolk Water	41	Serious
Folkestone & Dover Water	41	Serious
Southern Water	40	Serious
Thames Water ³	40	Serious
Three Valleys Water	40	Serious
Portsmouth Water	39	Serious
Sutton & East Surrey Water	39	Serious
Cambridge Water	36	Serious
South East Water	36	Serious
Mid Kent Water	36	Serious
Bournemouth and West Hampshire Water	34	Serious
Anglian Water	34	Serious
South Staffordshire Water	32	Moderate
South West Water	31	Moderate
Tendring Hundred Water	31	Moderate
Severn Trent Water	29	Moderate
United Utilities	27	Low
Bristol Water	25	Low
Northumbrian Water	25	Low
Yorkshire Water	25	Low
Cholderton and District Water ⁴	24	Low
Wessex Water	22	Low
Anglian Water (formerly Hartlepool Water) ⁵	n/a	Low

Low stress is less than 28
 Moderate stress is between 28 and 33
 Serious stress is 34 or over

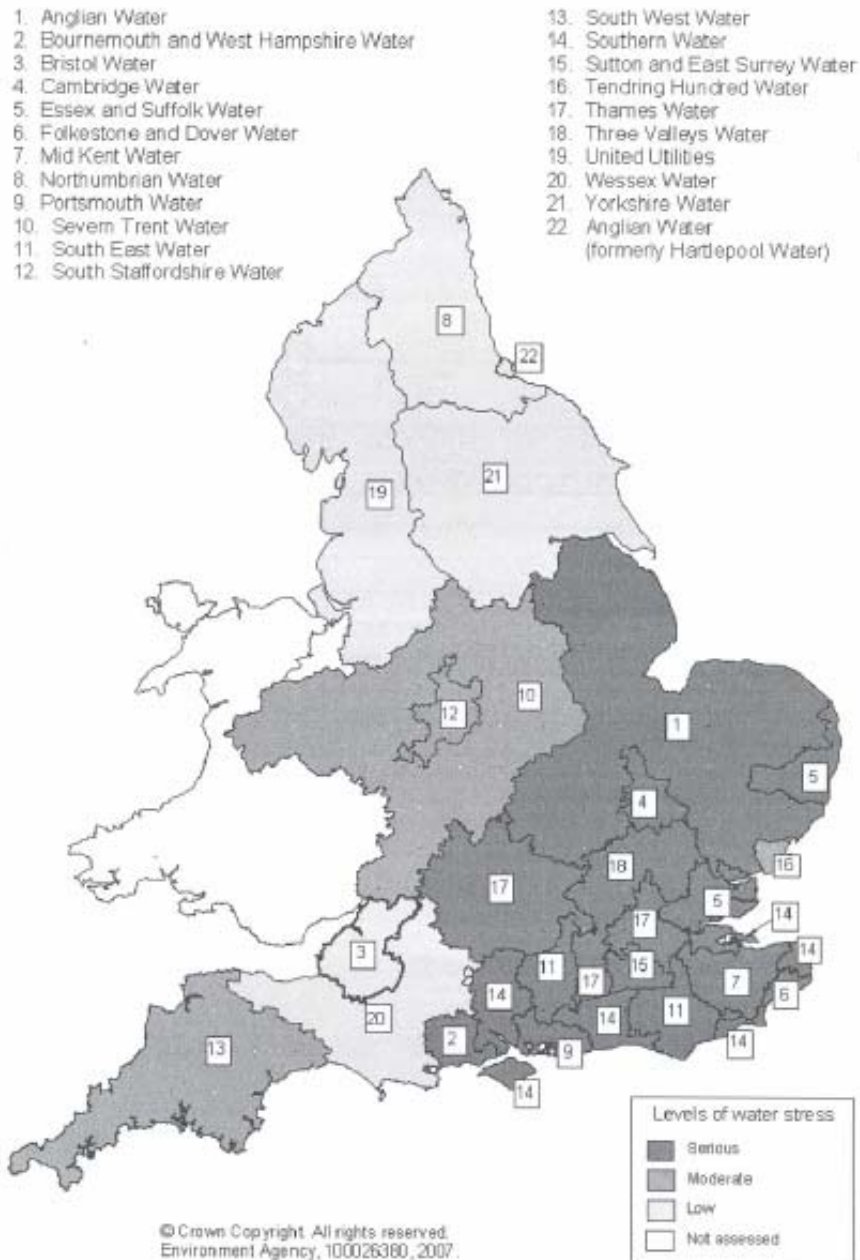
³ Excluding Tidworth resource zone

⁴ Estimated score due to incomplete data

⁵ Included in the low stress category due to geographical split of company zones

Environment Agency

Figure 1: Map of areas of relative water stress



Environment Agency

We have not carried out assessments and classifications for Dŵr Cymru / Welsh Water or Dee Valley Water areas because the request from Defra specifically relates only to England. Therefore, these areas appear white on the map.

4 Annex 1

Method

The following section provides technical details of the method we have used.

We obtained the data for each of these measures from audited data sets, generally produced by water companies and checked by regulators (Environment Agency and Ofwat). They are shown in the following table:

Environment Agency

Table 2: Criteria and measures used for identifying areas of water stress

Criteria	Supporting measures	Comments
Current household demand for water	Current measured household per capita consumption (pcc) Current unmeasured household pcc	Based on three year average pcc figures from water company annual return data 2002-2005. Data source: water company annual reviews.
Forecast growth for household demand for water	Forecast measured household pcc for years 2015 and 2030 Forecast unmeasured household pcc for years 2015 and 2030	Using current household demand as baseline. Data source: water company plans
Forecast population growth	Forecast population figures for years 2015 and 2030.	Using 2004/5 annual data as baseline. Data source: water company plans
Resource availability - current	Effective rainfall (1971-2000) Current population figures Water company area measurements	Data source: MORECS rainfall data best matched to water company areas. Data source: water company plans Data source: Environment Agency Geographical Information System
Resource availability - forecast	As above - using 2015 and 2030 population figures	As above

Scoring

A scoring system was applied to each criterion, resulting in a ranking of 1, 2 or 3 for each company. These rankings for each criterion were then combined to form the final score. To reflect the importance of the criterion that indicate current stress, these scores were doubled before being included in the final score. The tables below set out the thresholds for the scores.

Environment Agency

Table 3: Current household per capita consumption

Measure	Scoring criteria and thresholds			
	Score 2	Score 4	Score 6	Max. score
Doubled				
Current unmeasured household pcc	< 150 l/h/d	150-160 l/h/d	>=160 l/h/d	6
Current measured household pcc	< 140 l/h/d	140-150 l/h/d	>=150 l/h/d	6
We have set these thresholds based on our view of levels of acceptable water use and levels of demand that can reasonably be achieved.				

Table 4: Forecast per capita consumption and population

Measure	Scoring criteria and thresholds			
	Score 1	Score 2	Score 3	Max. score
Forecast growth in unmeasured household pcc 2015	Zero growth	0.1-5% growth	>=5% growth	3
Forecast growth in measured household pcc 2015	Zero growth	0.1-5% growth	>=5% growth	3
Forecast growth in unmeasured household pcc 2030	Zero growth	0.1-5% growth	>=5% growth	3
Forecast growth in measured household pcc 2030	Zero growth	0.1-5% growth	>=5% growth	3
Population growth to 2015	Zero growth	0.1-10% growth	>=10% growth	3
Population growth to 2030	Zero growth	0.1-10% growth	>=10% growth	3
We have set these thresholds based on our view of levels of acceptable water use and levels of demand that can reasonably be achieved.				

Environment Agency

Table 5: Water availability, current and forecast

Measure	Scoring criteria and thresholds			
	Score 1	Score 2	Score 3	Max. score
Current water availability: 2005 (Doubled)	>2000m ³ /head	1000 - 2000m ³ /head	<1000 m ³ /head	6
Forecast water availability: 2015	>2001 m ³ /head	1000 –2000 m ³ /head	< 1000 m ³ /head	3
Forecast water availability: 2030	>2001 m ³ /head	1000 – 2000 m ³ /head	< 1000 m ³ /head	3

We calculated water availability using effective precipitation data (1971- 2000)⁶, population figures and water company area. This gives us an indication of the amount of resource available per person per year. The thresholds have been set based on the analysis of results for water availability across England and to reflect the regional variations. To reflect the importance of current conditions, the scores for present resource availability are multiplied by two.

We added the scores for each measure together to achieve an overall score for setting the final classification.

Scores: the division of company areas into categories is derived from the ranked scores. Company areas with scores less than 28 are classified as "low" stress, areas with scores between 28 and 33 are "moderate", areas which have scores equal to or higher than 34 are classed as "serious".

⁶ This is based on MORECS effective precipitation data for 1971 - 1990

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Mr Meyrick Gough
Water Planning and Strategy Manager
Southern Water Services Ltd
Southern House
Yeoman Road
Worthing
Sussex
BN13 3NX

Dear Mr Gough

The Southern Water Services Limited (“Southern Water”) - draft Water Resources Management Plan

Agreement of later submission date – paragraph 4 of the Water Resources Management Plan Direction 2007

Thank you for your email of the 14 November, requesting a later date for submission of Southern Water’s draft Water Resources Management Plan.

The Secretary of State is content to allow Southern Water an extension of time for submission of its draft Water Resource Management Plan. Please find enclosed a copy of the signed direction on behalf of the Secretary of State directing Southern Water to submit its draft water resources management plan before 15 March 2008.

As explained in my letter of 1 October, when Southern Water’s draft plan is submitted, Southern Water must provide a statement of compliance from the Company’s Certifier for Emergency Planning, confirming that the draft plan has been prepared in accordance with the relevant advice notes issued by Defra.

In addition, if, you subsequently notify the Secretary of State of issues of commercial confidentiality in accordance with s37B(1) of the Water Industry Act 1991, then the full commercial confidentiality process set out in s37B(2) of that Act will need to be gone through. This may delay the publication of your draft plan; this will also be the case if our scrutiny of the draft plan identifies issues of national security.



STRATEGY

Date: 05 December 2007

When it is submitted, the draft Water Resource Management Plan should be sent to:

The Secretary of State for Environment Food and Rural Affairs
c/o Dawn Instone
Water Supply & Regulation Division
Department for Environment, Food and Rural Affairs
Area 2C, Ergon House
Horseferry Road
London
SW1P 2AL

Yours sincerely



Mike Walker
Direct Line 0207 238 5949
Email mike.walker@defra.gsi.gov.uk

The Southern Water Services Limited Water Resources Management Plan Direction 2007

The Secretary of State, in exercise of the powers conferred upon him by sections 37B(11) and 37D of the Water Industry Act 1991(a), makes the following Direction:

Citation, commencement and application

1.—(1) This Direction may be cited as the Southern Water Services Limited Water Resources Management Plan Direction 2007 and comes into force on 10th December 2007.

(2) This Direction applies to Southern Water Services Limited.

Submitting of draft water resources management plan to the Secretary of State

2. Southern Water Services Limited must send its draft water resources management plan to the Secretary of State in accordance with section 37B(1) of the Water Industry Act 1991(b) before 15th March 2008.



7th December 2007

Head of Water Supply and Regulation Division, for and on
behalf of the Secretary of State for Environment, Food and Rural Affairs

(a) 1991 c.56. Sections 37B and 37D were inserted into the Water Industry Act 1991 by section 62 of the Water Act 2003 (c.37).

(b) 1991 c.56.

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Mr Meyrick Gough
Water Planning and Strategy Manager
Southern Water Services Ltd
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BN13 3NX

Date: 24 October 2008

Dear Mr Gough

The Southern Water Services Limited ("Southern Water") - draft Water Resources Management Plan

Statement Responding to Representations on Draft Water Companies Water Resources Management Plans 2008 - Extension

You may have had feedback from Bruce Horton at Water UK, following a meeting we had with him at the end of last month, on the next steps in the Water Resources Management Plans process. At that meeting, it became clear that water companies may not have fully understood regulation 4 of the Water Resources Management Plan Regulations 2007 (SI 2007 No. 727), which specifies the requirements for preparing the water company's Statement of Response to the representations received.

To meet the requirements of this regulation a water company must provide:

- 4(1) (a) the consideration that the water company has given to those representations;
- 4(1)(b) any changes the water company has made to the draft water resources management plan as a result of its consideration of those representations and its reasons for doing so; and
- 4 (1)(c) where no change has been made to the draft water resources management plan as a result of its consideration of any representation, the reason for this.

Therefore to comply with the Regulations, in constructing their statement of response, water companies will need to be comprehensive in reporting the changes to the draft water resources management plan (rather than simply stating that changes will be made to the final plan), as a result of the consideration of the responses.

Feedback from Bruce Horton indicated that water companies may have difficulty in complying with the regulations within the timeframe for preparing the statements of



response. In view of this, we are allowing an extension of 13 weeks (i.e. up to 39 weeks from publication of your draft plan) for submission of your statement.

Southern Water will need to send the statement to those that made representations and to publish statement on the water company's website, in accordance with Regulation 4 (2) by the **29 January 2009**.

Please find enclosed a Direction granting the extension, which applies to all water companies in England.

I am writing in similar terms to all other water companies whose areas are wholly or mainly in England and copying this letter to Paul Wilman at the Environment Agency, Paul Hope at Ofwat and Bruce Horton at Water UK.

Yours sincerely

Carol Skilling
Direct Line 0207 238 5125
Email carol.skilling@defra.gsi.gov.uk

The Water Resources Management Plan Direction (England) 2008

The Secretary of State, in exercise of the powers conferred by sections 37B(11) and 37D of the Water Industry Act 1991(a), makes the following Direction:

Citation, commencement and application

1. (1) This Direction may be cited as the Water Resources Management Plan (England) Direction 2008 and comes into force on 27th October 2008.
- (2) This Direction applies to all water undertakers in England, other than Severn Trent Water Limited ("the water undertakers").

Responding to representations on draft water resources management plan

2. Paragraph 6 of the Water Resources Management Plan Direction 2007 has effect in relation to the water undertakers as if for "26 weeks of the date of publication of the draft water resources management plan." there were substituted "whichever of the following periods ends the later -
 - (a) 39 weeks of the date of publication of the draft water resources management plan; or
 - (b) 13 weeks from the date of this Direction.

Richard Wood

24th October 2008

Head of Water Supply and Regulation Division, for and on
behalf of the Secretary of State for Environment, Food and Rural Affairs

(a) 1991 c. 56. Sections 37B and 37D were inserted into the Water Industry Act 1991 by section 62 of the Water Act 2003 (c. 37).

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Mr Les Dawson
Chief Executive Officer
Southern Water Services Ltd
Southern House
Yeoman Road
Worthing
Sussex
BN13 3NX

Date: 03 August 2009

Dear Mr Dawson

Southern Water Services Limited - Water Resources Management Plan

The Secretary of State has now considered your draft Water Resources Management Plan, the representations made in respect of that draft and your statement of response to those representations.

Following the consideration of these documents, and subject to any changes you make to your draft Plan after consideration of representations made in accordance with regulation 4 of the Water Resources Management Plan Regulations 2007 (SI 2007/727) ('the 2007 Regulations'), the Secretary of State is now satisfied that you should publish your final Water Resource Management Plan in accordance with regulation 6 of the 2007 Regulations.

The final Water Resources Management Plan should be published with a statement as to whether any information has been excluded from the published Plan on the grounds that it would be contrary to the interests of national security and should describe the general nature of the information excluded. Section 37B(10)(b) of the Water Industry Act 1991, as amended by the Water Act 2003, ('the Act'), specifies that the Secretary of State shall direct the water company to exclude any information from the published Plan on the grounds that it appears to him that its publication would be contrary to the interests of national security.

When the draft Plan was sent to the Secretary of State, under section 37B(1) of the Act, you included a statement of compliance from the company's Certifier for Emergency Planning, confirming that the draft Plan had been prepared in accordance with the requirements of *The Control of Sensitive Water Company Information – Advice Note 11 Edition 1 Defra Nov 06* and *EKP Document Designation Handling and Storage Advice Note 2 Defra Nov 06*. If, following revisions to the Plan, it now contains information that had not been identified previously in the statement of compliance as being excluded on national security grounds, you should write to the Secretary of State indicating the nature

of any such information and the Secretary of State may then direct you to exclude information from the published version of the final Plan.

I would be grateful if you could confirm the date on which you publish the final Water Resources Management Plan and if you could send to Defra a hard copy of the final Plan for our records.

Steps following publication of final Plan

Section 37A (5) of the Act requires a water company to review their Plan and to send a statement to the Secretary of State of its conclusions, before each anniversary of the publication date of the Plan. If your review indicates a material change of circumstances, if you are so directed by the Secretary of State, or in any event within 5 years, section 37A(6) of the Act requires you to prepare a revised Plan.

The Environment Agency will be writing to you separately on areas where they believe there is room for further improvement to your Plan, which you should consider as part of your annual review.

Strategic Environmental Assessment

I would like to take this opportunity to remind you that the Strategic Environmental Assessment, which was prepared by your company to consider the environmental effects of the Water Resources Management Plan, should continue to meet the requirements of the SEA Directive (2001/42/EC). In order to meet continuing obligations under the SEA Directive, we recommend that water companies publish an appropriate revision of the Environmental Report, or an addendum, particularly where the final Plan changes substantially from the draft Plan.

I am copying this letter to Ian Barker at the Environment Agency and Paul Hope at Ofwat.

Signed by the authority of the Secretary of State for Environment, Food and Rural Affairs

Richard Wood
Head of Water Supply and Regulation Division
Direct Line 0207 238 5834
Fax 0207 238 5105
Email Richard.wood@defra.gsi.gov.uk

Cc Meyrick Gough, Water Planning & Strategy Manager

Memorandum of Understanding for the River Itchen sustainability reduction proposals

1. Introduction

1.1 This memorandum of understanding between the Environment Agency, Portsmouth Water and Southern Water sets out a framework of activities that will be undertaken to allow the Environment Agency's Habitats Regulations review of consents conclusions for the river Itchen to be implemented, where they relate to water company and Environment Agency abstractions.

1.2 For Southern Water this requires three abstraction licences to be amended, these are:

- Otterbourne Groundwater abstraction (22.7/94);
- Otterbourne surface water abstraction (22.6/93);
- Twyford groundwater abstraction (22.6/92).

1.3 For Portsmouth water the site action plan requires one abstraction licence to be amended, this is the river Itchen abstraction at Gaters Mill (22.10/94).

1.4 For the Environment Agency this requires them to modify the consents and undertake other activities outlined in the Stage 4 site action plan in order to contribute to restoring the River Itchen SAC to favourable condition.

2. Background

2.1 The River Itchen has been notified by the UK Government to the European Commission as a Special Area of Conservation (SAC) under Directive 92/43/EC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive). It is also a Site of Special Scientific Interest (SSSI), designated under section 28 of the Wildlife and Countryside Act 1981. SSSIs do not as such fall under the Habitats Directive regime, although in practice many SSSIs are also SACs.

2.2 The requirements of the Habitats Directive (and Wild Birds Directive) are transposed into UK law through The Conservation (Natural Habitats &c.) Regulations 1994 (the 1994 Regulations as amended). The 1994 Regulations apply to "European sites" as defined under regulation 10, which include SACs. The River Itchen is a SAC and therefore the 1994 Regulations apply to it.

2.3 The Environment Agency has a duty, under regulation 50 of the 1994 Regulations, to review any permission for an activity which may effect a "European Site". Such a review would cover all permissions and not just abstraction licences, including discharge consents, waste management licences, and integrated pollution control authorisations.

2.4 Following their review the Environment Agency issued its Stage 4 site action plan (SAP) for the river Itchen SAC in which it outlines the interventions that are required to remove the risks of adverse effects on the integrity of the site.

3. The proposed plan of action – Southern Water

3.1 Southern Water's actions as follows:

- 1 Plan to meet target headroom in the Hampshire South zone during and beyond AMP5. This sets out that the headroom over and above target headroom in the zone will be used to help accommodate any licence changes at Otterbourne and Twyford. Southern Water will not be seeking to fully replace lost deployable output from the zone as a result of the implementation of the licence amendments, it is only intending to meet its target headroom;
- 2 Universally meter throughout Hampshire, whilst ensuring the regulatory conditions are met;
- 3 Investigate the abstraction at Testwood in terms of its current licence limit during AMP 5. This will allow us to resolve what licence amendments could be required and whether these would impact on the deployable output of the scheme;
- 4 Develop Southern Water's Testwood abstraction potentially to its current licence limit, in accordance with any required licence amendments;
- 5 Test pump the river augmentation schemes on the Itchen, understand and rectify the current hydraulic constraints of the scheme and define an operating schedule for the scheme during AMP5. Work with the Environment Agency to modify and possibly transfer the augmentation licences. This work will allow us to affirm the deployable output of the scheme.
- 6 Investigate other resource options, including the new abstraction at the tidal limit on the Itchen, during AMP 5. These investigations will not be limited to just a few likely schemes, but ensure that the options appraisal work builds on the current understanding of both companies and the Environment Agency.

3.2 To facilitate this work, a steering group will be set up to go through a detailed appraisal of the potential schemes that could benefit the zone. The key members of the group, which would be chaired by Southern Water, would be the Environment Agency, Portsmouth Water Company and Natural England.

3.3 On the completion of items 1 to 6, Southern Water will be in a position to know exactly whether they can fully comply with the River Itchen & Twyford licence modifications required by the Site Action Plan, or whether there is still a residual issue that would have to be resolved in AMP6 to allow the licences to be fully amended.

3.4 Through the concession of headroom, metering and changes at Testwood, the supply demand balance of the zone will allow some, if not all, of the licence amendments to be made. Southern Water recognises that the Environment Agency will implement partial licence changes as soon as it is agreed public water supplies remain secure to planned target headroom. This may involve more than one change to the licences

being implemented before the end of March 2015, including an initial change with respect to existing surplus resources.

4. The proposed plan of action - Portsmouth Water

4.1 Portsmouth Water plans to ensure that target headroom is provided through to 2015 and for the duration of the Water Resources Management Plan. The imposition of minimum residual flow conditions on the River Itchen, as required by the EA's Site Action Plan, will result in a reduction in the peak deployable output of the Company's Gaters Mill surface water abstraction. As a result, a range of measures as outlined below will be required in the Company's Final Water Resources Plan and Final Business Plan due in April 2009.

1. Demand Management Measures consisting of:

- A selective metering programme which will deliver universal metering across the Company's area by 2030.
- A Leakage Savings Initiative which will deliver economically justified reductions in the current level of leakage by 2015.
- A targeted Water Efficiency Programme incorporating the issue of Save-a-Flush Bags to all households and trials of further initiatives with Housing Associations by 2015.

2. Water Resource Options including:

- The installation of a treatment plant to recover the washwater lost in the filtration process at Farlington WTW.
- The development of additional boreholes at Lavant and Brickkiln WTWs, near Chichester, which will deliver the peak licensed output without any change to the annual licensed volume, which has recently been confirmed by the Habitats Regulations Review of Consents process.

3. Co-operating with Southern Water Services and the EA in assessing the alternative options available to both companies which will enable the EA's Site Action Plan licence changes to be delivered as soon as practically possible.

4. The continued promotion of Havant Thicket Winter Storage Reservoir which may be required:

- As an alternative to the options currently proposed by both Southern Water Services and Portsmouth Water.
- To recover lost output resulting from any non-renewal of Portsmouth Water licences
- To recover the impacts of any licence reductions resulting from investigations required by the EA to satisfy the needs of the Water Framework Directive.
- To provide bulk supplies from Portsmouth Water to Southern Water Services in either its Hampshire South, Sussex Coast or Sussex North Zones as identified as possibilities in the EA's WRSE Regional Model.

- 4.2 The Company anticipates that such requirements might be defined and confirmed during the AMP5 (2010-15) period.
- 4.3 The company also recognises that the Environment Agency will implement partial licences changes as soon as it is agreed public water supplies remain secure to planned target headroom. This may involve more than one change to the licences being implemented before the end of March 2015, including an initial change with respect to existing surplus resources.

5. The proposed plan of action – the Environment Agency

- 5.1 Environment Agency actions as follows:
 1. Work with Southern Water to modify and possibly transfer the Candover/Alre augmentation licences.
 2. Work with companies on the environmental assessment of Testwood
 3. Liaise with Natural England over any newly proposed changes to abstraction licences and augmentation regimes.
 4. Work with Southern Water to progress the investigation into other resource options, including abstraction at the tidal limit of the Itchen.
 5. Work with other permission holders in order to fully implement the river Itchen Site Action Plan.

6. Summary

- 6.1 All parties recognise that the series of actions outlined in the Environment Agency's review of consents site action plan are required to be undertaken to remove the risks of adverse effect on the integrity of the SAC from licensed water company abstraction.
- 6.2 This memorandum of understanding sets out the intention of all the parties to enable these actions to be completed in a timely manner, whilst recognising the statutory duties placed upon each party.
- 6.3 Therefore we all agree to work together during the AMP5 period 2010 to 2015 to enable licence modifications to be made. Every effort will be made to secure all the licence changes necessary to comply with the requirements of the Site Action Plan for the river Itchen (dated October 2007) during this period. However in the event that not all of the licence amendments can be made during this time, due to a conflict of a party's statutory undertaking, then any outstanding amendments will be made to the licences as soon as practically possible thereafter.