Chapter 10a
Non financial measures
Security of supply index

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Guidance

The security of supply index describes company planned and reference levels of service in table 10 lines 31 and 32 respectively for average demand in a dry year. The company should submit the index using dry year average demand in the table.

Some companies in England and Wales consider that critical period conditions are an important driver of their water resource planning. If the company believes that critical period conditions are a key aspect of the security of supply we also expect it to complete the information based on critical period conditions.

Company commentary

Calculation of the security of supply index should follow the approach adopted by the companies in England and Wales. The company should therefore follow the guidance for calculating the security of supply index as set out in Ofwat's RD 03/02 (Annex A provides calculation guidance).

There are many elements of the security of supply index calculation that should be common to water resource plan updates and there should be consistency for the following:

Water resource zones, water available for use and target headroom.

If an operational company water resource plan exists it should be attached as an Annex to the commentary.

The company should follow the definitions set out in the Environment Agency's Water Resource Planning Guidelines (http://www.environment-agency.gov.uk/subjects/waterres/981441/408371/) for the following: water available for use and reporting year distribution input.

Bulk supply imports and exports should be based on a dry year, and should be the maximum amounts that the company may request under their contracts or be obliged to supply.

Water available for use should be calculated to a common reference level of service used in the Environment Agency's '1997 Reassessment of Water Company Yields' and as detailed in Annex A of Ofwat's RD 03/02. If the company is not able to precisely replicate the reference level of service, it should estimate yields as closely in line with the reference level of service as possible and should set out any assumptions clearly in the commentary.

The company should:

- confirm that it has applied a dry year adjustment factor to reported distribution input to derive dry year distribution input, and explain the basis of that factor; and
- forecast the index score for the remainder of the SBP period and submit a SoSI profile in the company commentary. In future years the company will be asked to reconcile actual scores to these forecasts making reference to progress in delivering schemes.

Guidance for Reporters

The reporter shall check that the company has followed the guidance for calculating the security of supply index as set out in Ofwat's RD 03/02. Where the company has not followed the guidance, the reporter shall explain why and comment on the validity of the company's reasoning.

There are many elements of the security of supply index calculation that should be common to a company's water resource plan updates.

The reporter shall check and comment on whether the company has an appropriate operational water resource plan, and if so, check that there has been consistency for the following:

- Water resource zones,
- water available for use,
- reporting year distribution input; and
- target headroom.

Where there is a difference between the figures used in the water resource plan updates and those used to calculate the index, the reporter shall ask the company to explain why and comment on the company's justification.

The reporter shall confirm whether the company has followed the definitions set out in the Environment Agency's Water Resource Planning Guidelines for the following: water available for use and reporting year distribution input). Where these elements are not consistent with the Agency's definitions, the reporter shall ask the company to explain why and comment on its explanation.

Where best practice methodology has been established for assessing components of the supply/demand balance, the reporter shall establish whether the company has followed best practice, challenging and commenting on the company's reasoning if it has not.

Bulk supply imports and exports should be based on a dry year (or critical period if relevant), and should be the maximum amounts that the company may request under their contracts or be obliged to supply. The reporter should confirm whether the company has followed this definition and comment on its reasoning if it has not.

Water available for use should be calculated to a common reference level of service used in the Environment Agency's '1997 Reassessment of Water Company Yields'. It is recognised that in some circumstances, the company may not be able to precisely replicate the reference level of service. The reporter should comment on the consistency between the reference level of service used to calculate the index and that used in the '1997 Reassessment of Water Company Yields', explaining any discrepancy.

We have asked the company to explain the basis of their dry year adjustment – the reporter should comment on the robustness of the company's approach. If the company uses a different ratio to adjust the report year to a dry year than it uses in its resource plan, the reporter should comment on the company's explanation.

The reporter should also comment on the appropriateness of the company's SoSI profile submission for the remainder of the SBP period.

Table 10a column definitions
SECURITY OF SUPPLY INDEX

1	Water resource zone		text
Definition	Company to enter zonal name		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

2	WAFU (EA definition)	Ml/d	2dp
Definition	Water available for use is defined as deployable output less sustainability reductions and reductions made for outage allowance in a resource zone.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

3	Bulk imports	Ml/d	2dp
Definition	Volume of water imported in bulk supplies by the appointed business. Include treated imports and untreated imports which are treated by the appointed business, but exclude non-potable supplies. Bulk imports should be based on a dry year and be consistent with those assumed in water resource plans (if an appropriate operational plan exists). These should be the maximum amounts requested under contract.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

4	Bulk exports	Ml/d	2dp
Definition	Volume of water exported in bulk supplies by the appointed business. Include treated exports and untreated exports which are treated by the appointed business, but exclude non-potable supplies. Bulk exports should be based on a dry year and be consistent with those assumed in water resource plans (if an appropriate operational plan exists). These should be the maximum amounts that the appointed business may be obliged to supply.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Reference	BN40010P/R/C		

5	Dry year distribution input	Ml/d	2dp
Definition	Distribution input recorded during the year adjusted by a dry year factor. The dry year factor should be based on a combination of: - the relationship between normal and dry year distribution input forecasts assumed in your water resource plans (if an appropriate operational plan exists); and - any difference between the report year conditions and those that underlie your normal year distribution input forecast.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

6	Reporting year distribution input	Ml/d	2dp
Definition	The average amount of portable water entering the distribution system at the point of production.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

7	Dry year available headroom	Ml/d	2dp
Definition	The difference between water available for use (including bulk imports and exports) and dry year annual average demand (expressed as distribution input) at any given point in time.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Calculated: the sum of columns 2 and 3, minus columns 4 and 5.		
Responsibility	Network Regulation Team		

8	Target headroom	Ml/d	2dp
Definition	The threshold or minimum acceptable headroom which, under the conditions assumed for the forecast of dry year annual average demand, would trigger the need for the introduction of those water management activities (from source to end use) that would result in an increase in water available for use or a decrease in demand. Target headroom should be consistent with that used in the company's water resource plan to maintain the balance between supply and demand (if an appropriate operational plan exists).		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

9	Surplus/deficit	Ml/d	2dp
Definition	The amount of water available after meeting demand and target headroom (i.e. the difference between available headroom and target headroom).		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Calculated: column 7 minus column 8.		
Responsibility	Network Regulation Team		

10	Percentage surplus/deficit	%	2dp
Definition	The percentage of water available after meeting demand and target headroom.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Calculated: column 9 divided by the sum of columns 5 and 8.		
Responsibility	Network Regulation Team		

11	Zonal population	000	3dp
Definition	The total average resident population in the water resource zone.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Input		
Responsibility	Network Regulation Team		

12	Percentage of total population with headroom deficit	%	0dp
Definition	The proportion of the company's customers that are exposed to a headroom deficit.		
Primary Purpose	Checking compliance with statutory and Licence requirements		
Processing rule	Calculated: if column 9 is less than 0, then divide column 11 by the total sum of column 11.		
Responsibility	Network Regulation Team		

13	Zonal Index (percentage deficit^2 x % population affected x 100)	nr	3dp
Definition	The Security of Supply index score for each individual water resource zone. The index is a function of the square of the deficit, so that large deficits affecting small zones weigh in the overall index.		
Primary Purpose	Checking compliance with statutory and Licence requirements		
Processing rule	Calculated: column 10 squared, multiplied by column 12, then multiplied by 100.		
Responsibility	Network Regulation Team		

14	Security of Supply Index	nr	0dp
Definition	The overall Security of Supply index score for the company. This should be consistent with line 31 of table 10 for planned levels of service and line 32 of table 10 for reference levels of service.		
Primary Purpose	Checking compliance with statutory and Licence requirements.		
Processing rule	Calculated: 1 minus the total sum of column 13, multiplied by 100 rounded down to the nearest whole number		
Responsibility	Network Regulation Team		

CHANGE CONTROL SHEET
CHAPTER 10a

2008/1.0	First issue of chapter for the SBP period