UPDATING THE OVERALL PERFORMANCE ASSESSMENT (OPA) – A CONSULTATION

DECEMBER 2003

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Updating the overall performance assessment (OPA)

Overview

Ofwat first introduced the overall performance assessment (OPA) in 1999. The OPA is calculated each year and provides a comparative overview of company performance. It covers measures of water supply, sewerage service, customer service and environmental performance. Measures relating to sewerage services apply to water and sewerage companies only.

The OPA provides an incentive to companies to maintain services and, where necessary, improve because it links standards of service provided to the prices customers pay. At the last price review, we allowed companies who had provided the best service to charge customers slightly more than they otherwise would have done and those that had provided poorer services had to reduce charges.

Price adjustments based on the OPA will form part of the current review of prices for 2005-10.

This consultation paper looks primarily at longer term issues. It sets out possible updates to the OPA and the way in which the OPA might be used during 2004-09 as input to the 2009 periodic review of prices for 2010 onwards. A summary of the key issues is provided in table 1.

Ofwat welcomes comments on the issues set out in this paper. These should be sent to:

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Responses should reach Ofwat by **2 February 2004** and should be clearly marked **OPA review**.

Unless otherwise requested, responses will be placed in the Ofwat library and made available to the public.

If you have any general or technical enquiries please contact Sheila Miller on 0121 625 1464 or by email at Sheila.Miller@ofwat.gsi.gov.uk

Table 1 Summary of key issues in this review

Proposals for change in 2004-05	Proposals for change during 2005-06 to 2008-09, once data is robust
DG2 (risk of low water pressure) Update data performance range to reflect industry performance in 2002-03.	No change
DG5 (properties at risk of sewer flooding) Update data performance range to reflect industry performance in 2002-03. **DG5 (Flooding incidents)** No change.	No change
DG9 (telephone contact) Continue to use measure of response time based on industry average performance until a new measure is available.	New measure proposed that includes an assessment of - all lines busy - calls abandoned - connection time - call handling satisfaction survey Expected from 2005-06
Assessed customer service Update assessment of call centre contact hours. Otherwise no change.	No change
Sewage treatment works consent compliance. No change	Add compliance with descriptive and flow consents. Update calculation method to reflect additional number of works at the same time. Not expected before 2006-07.
Satisfactory sludge disposal No change to measure. Move from company reporting to Environment Agency reporting. Expect to use dual reporting initially, from 2004-05.	No change to measure. Stop dual reporting after two to three years once reporting transition is complete
Security of supply measures Introduce additional measure based on security of supply index. Reweight **DG4 (water restrictions)** and leakage assessment to accommodate additional measure. Assess **leakage** against three-year rolling target.	No change
Measures that we do not propose to change	
DG3 (unplanned interruptions)	
Drinking water quality based on DWI's Operational Performance Index	
DG6 (response to billing contacts)	
DG7 (response to written complaints)	
DG8 (billing of metered customers)	
Category 1, 2 and 3 pollution incidents (sewage)	

Category 1 and 2 pollution incidents (water)

1. Purpose and reasons for this review

In February 2002 we published 'Linking service levels to prices – Conclusions'. This set out the conclusions from the extensive review of the OPA that was carried out in 2001 and set out the method for the OPA from 2001-02 to 2003-04. The review also concluded that it would be appropriate to revise some measures after 2003-04.

It is important for incentives and for reasons of fairness that companies are as clear as possible about how their performance will be assessed in future.

The purpose of this current consultation is to seek views on our proposals on the measures that are now appropriate to update and on which we will assess performance from 2004-05 onwards. This would be reflected in the OPA and the next review of prices in 2009.

In 'Setting price limits for 2005-10: Framework and Approach, March 2003' we confirmed our approach for the current price review. In this review of the OPA we have taken the opportunity to include a proposal about the application of the OPA and price adjustments in the current review of prices for 2005-10.

Throughout this document we refer to the current OPA methodology on which you can find further detail in 'Linking service levels to prices – Conclusions, February 2002'.

In preparing this document we have sought initial views from the Environment Agency, the Drinking Water Inspectorate (DWI), WaterVoice and the water companies.

2. Background to the overall performance assessment

Each year we assess companies' overall delivery of service to customers in the overall performance assessment (OPA). The assessment serves two purposes. Firstly, it enables the Director to make comparisons of the quality of the overall service companies provide to customers, and to take this into account at each price review. Secondly, it informs customers (and other interested parties) about the overall performance of their local water company.

In July 2001, we issued a consultation document, 'Linking service levels to prices', on possible changes to the OPA approach at that time. We invited views on the scale and timing of any future adjustments to companies' price limits, and the way in which companies' overall performance was assessed.

The consultation drew responses from WaterVoice Committees, companies, other regulators (EA and DWI) and groups representing consumer and environmental interests. In February 2002, we issued our conclusions.

- We would maintain our earlier range of possible adjustments to companies' price limits in the light of performance (that is from +0.5% for the best performing companies to –1.0% for the worst).
- We would adjust the price limits for this purpose only at each review.
- We would take company performance data for 2002-03 and 2003-04 as our base for adjusting price limits at the review of prices for 2005 to 2010.

The OPA reflects the broad range of services provided to customers. The key areas and contributing measures included are:

- water supply (water pressure, interruptions to supply, hosepipe bans, and drinking water quality);
- sewerage service (sewer flooding incidents and risk of flooding);
- customer service (written complaints, billing contacts, meter reading, telephone answering, telephone access, services to customers with special needs, supply pipe repair policies, debt and revenue policies, complaint handling, compensation, and provision of information to customers); and
- environmental impact (leakage, sewage treatment works, pollution incidents from water and sewerage activities, sludge disposal).

In February 2002, in 'Linking service levels to prices – conclusions' we set out the method for calculating the OPA score for each measure. The method we use converts each measure of performance into a score out of 50 points. To do this we use a simple mathematical method that compares the company performance against a fixed performance range. The method is set out in detail in annex 1. Current performance ranges were set to reflect industry

performance in 1997-98 (except for sewer flooding, where the ranges are set from performance over 1997-98 to 2000-01).

These ‘scores out of 50’ are then weighted to derive the final total OPA score. The weights reflect the relative importance customers place on each measure. The current weightings reflect the findings of the customer research that we carried as part of the last OPA review. These findings are set out in annex 2. The more recent joint customer research carried out for PR04 suggests that these weightings remain appropriate.

We derive two sets of OPAs, one is for water and sewerage companies (WaSCs) only and one is for all companies. The WaSCs’ OPA includes all measures and the ‘all companies’ OPA excludes the measures associated with sewerage services.

3. Using the OPA from 2002-03 and 2003-04 for the current review of prices for 2005-10

As described in section 2, two sets of OPA scores are derived each year. One is for WaSCs (all measures) and one is for all companies (excluding sewerage related measures). As we stated in 'Linking service levels to prices – Conclusions, February 2002', and confirmed in 'Setting water and sewerage price limits for 2005-10: Framework and approach', we will use the OPA scores from 2002-03 and 2003-04 in the current review of prices for 2005-10.

We confirm that price adjustments will only be applied if there is sufficient difference in performance between companies. We will not know this until after companies tell us in June 2004 about performance in 2003-04. Therefore we will retain our discretion on this decision until we make draft determinations.

However, there is one issue on which we would like to invite views on at this stage. We currently carry out two separate analyses of performance. One looks at all companies' performance for all the non-sewerage related measures. The second looks at WaSCs only and encompasses the sewerage service. As it is possible that water and sewerage companies' markings may vary between these two assessments, we need to consider how to take this into account in making any price adjustments. We propose that any price adjustment derived from the WaSC OPA score should be applied to the sewerage turnover. Any price adjustment derived from the 'all company' OPA score should be applied to the water turnover.

We welcome any views you may have on this proposal.

4. Proposals for current measures

4.1 Weighting of measures

At the last OPA review in 2002 we changed the headline weighting for the four key areas (water supply, sewerage service, customer service and environmental performance). The change increased the weighting of environmental performance reflecting customer research[1] carried out at that time.

The current joint stakeholder research[2] confirms that these weightings still broadly reflect the relative importance that customers attach to view the elements of overall service they receive from their water company. It is also desirable to retain the overall shape and total weighting so that historic OPA scores can be used to track company performance each year.

We do not propose changing the weighting of the key areas. But some of our proposals for changes to individual measures also involve changes to the weights within each area. These are described in the sections that follow.

4.2 Performance ranges

Each of the assessments of company performance are currently measured against an industry performance range for that measure. For the OPA for 2001-02 to 2003-04 the performance ranges have been set to reflect company performance in 1997, except for sewer flooding where the range is based on performance in 1997-98 to 2000-01. The industry performance ranges during 2001-02 and 2002-03 are compared with the fixed performance ranges in annex 3.

Recent research shows that customers are broadly content with existing service levels in most areas. We propose revising performance ranges only where industry performance in 2002-03 has improved significantly from 1997-98 levels and where we expect further improvement. Companies' draft business plans, submitted in August 2003 as part of the periodic review for 2005-10, generally propose to maintain or improve 2002-03 performance levels. Updating the ranges to reflect more recent performance incentivises companies to maintain their existing levels of service and risks creating artificial distinctions between companies. We do not propose to change the ranges for measures that we believe this could incentivise improvements beyond what customers want.

Our proposals for any change to performance ranges for each of the current measures are discussed in the following sections.

[1] Understanding customers' views: An Ofwat/ONCC report, October 2001.
[2] The 2004 periodic review: Research into customers' views, August 2002. A further report about this research is due for publication in December 2003.

4.3 Taking account of funding of enhanced levels of service

Our current OPA methodology makes an adjustment to account for differences in investment programmes to address sewer flooding. We propose to continue to do this. As stated at the last review, we do not propose to extend this approach to other measures because the benefits do not outweigh the increase in complexity and loss of transparency.

4.4 Water supply measures (DG2, DG3, DG4 and drinking water quality)

Table 2 Summary of proposals for water supply measures

Measure	Assessment method	Data range	Weighting
(DG2) Low pressure	No change	Revise to 2002-03 range	No change
(DG3) Unplanned interruptions to supply	No change	No change	No change
(DG4) Hosepipe restrictions	No change	No change	Reduced weighting to accommodate additional security of supply measure (see section 4.7.4.)
Drinking water quality	No change	No change	No change

4.4.1 (DG2) Low water pressure

Current measure
The proportion of properties served at risk of receiving low water pressure (below the reference level).

Discussion
Industry performance has improved significantly in recent years. All companies plan to maintain these improvements and some companies propose further improvement. Therefore, we consider it is appropriate to revise the performance range to reflect 2002-03 performance levels. (See annex 3 for performance range data.)

Currently DG2 is one of two measures where annual performance is comparative rather than being assessed against absolute measures of what is acceptable. We intend to introduce an absolute criterion for annual monitoring of this measure. This will replace the current comparative assessment, which is based on industry average performance each year. We have already received support for this from some companies. We will consult separately about this in advance of next years report 'Levels of service for the water industry in England and Wales'.

Proposal
We propose retaining the existing measure as defined in appendix 1 of 'Linking service levels to prices – conclusions', and revising the performance range to reflect 2002-03 performance levels.

4.4.2 (DG3) Unplanned interruptions to supply

Current measure
An assessment based on the number of properties experiencing unplanned interruptions without warning to their water supply, in excess of 6, 12 and 24 hours.

Discussion
We are content that the current measure is adequate. Companies are proposing to maintain service levels and current performance is broadly consistent with the existing performance range. Therefore there is no reason to change this measure.

It has been suggested that the assessment should take account of the time of day at which interruptions occur. We do not currently collect this information. To do so would add significantly to our regulatory reporting requirements. Whilst we understand that interruptions at different times of day can be more (or less) inconvenient to customers, we consider that the focus of this measure should be on the incidence of interruptions. This reflects companies' maintenance and management of the system rather than the timing of the interruption, which by its nature, is unplanned and unmanageable.

Proposal
We propose retaining the existing measure and performance ranges as defined in appendix 2 of 'Linking service levels to prices – conclusions'.

4.4.3 (DG4) Hosepipe restrictions

For details of our proposals about DG4, see section 4.7.4 - security of supply. In summary, we propose introducing a new OPA measure based on the Ofwat security of supply index. In introducing this new measure we consider that it would be appropriate to significantly reduce the weighting of the DG4 measure, because management of water restrictions is part of management of security of supply. We do not want to remove it completely because it is an important aspect of service to customers.

4.4.4 Drinking water quality

Current measure
An assessment of drinking water quality based on the Drinking Water Inspectorate's (DWI) operational performance index (OPI), which assesses compliance for six determinands. These are iron, manganese, aluminium, turbidity, faecal coliforms and trihalomethanes.

Discussion
From our perspective and from feedback we have received from water companies, we have no reason to change the way in which the operational performance index (OPI) is incorporated into the OPA. The OPI is an effective way of reflecting drinking water quality in the OPA.

It is our understanding that the DWI have no current plans to change their OPI which would impact on its use in our assessment. The requirements of the Water Supply (Water Quality) Regulations 2000[3] do not affect the data available to the DWI for these parameters.

Proposal
No change proposed to measure or performance range as defined in appendix 4 of 'Linking service levels to prices – conclusions'.

[3] These regulations came into force in 2000 in England and in 2001 in Wales.

4.5 Sewerage service measures (DG5)

Table 3 Summary of proposals for sewerage service measures

Measure	Assessment method	Data range	Weighting
(DG5) sewer flooding incidents due to overloaded sewers	No change	No change	No change
(DG5) sewer flooding incidents due to other causes	No change	No change	No change
(DG5) Properties at risk of flooding	No change	Revise to reflect data range at 2002-03	No change

Current measures

Three aspects of sewer flooding are currently assessed.

- Overloaded sewers: An assessment based on the number of incidents of internal sewage flooding caused by overload of a sewer (also termed hydraulic incapacity).
- Other causes: An assessment based on the number of incidents of internal sewage flooding caused by equipment failure, blockage or collapse of, a sewer.
- At risk: An assessment based on the number of properties considered to be at risk of flooding by sewage, caused by overload, more frequently than once in ten years.

Discussion

Industry performance in this area is improving and companies are planning further improvements during 2005-10. Therefore we consider it appropriate to revise the performance range to reflect 2002-03 performance levels. (See annex 3 for performance range data.)

We will be collecting information about properties at risk of flooding more than once in 20 years from 2003-04 onwards. We do not propose including this in the OPA during 2005-10, because the focus of company activity over the next few years will be on properties at the most severe risk of flooding. After 2010, it may become appropriate to include the lower risk properties.

Currently we only collect information about properties that are flooded internally. We will be collecting information about external flooding in the annual company returns from June 2004 onwards. We expect to include an assessment of external flooding in the OPA in the future once data is robust and we will consult further before then. We do not propose including this in the OPA during 2004-09.

Proposal
For the assessment of sewer flooding incidents, we propose retaining the existing measures and performance ranges as defined in appendices 5 and 6 of 'Linking service levels to prices – conclusions'.

For the assessment based on the number of properties at risk of flooding more frequently than once in ten years, we propose retaining the existing measure as defined in appendix 1 of 'Linking service levels to prices – conclusions', and revising performance range to reflect performance in 2002-03.

For 2005-10, we do not propose including properties at risk of flooding more frequently than once in twenty years. We note it may become relevant to include this measure in the OPA after 2010.

We propose including a measure of external sewer flooding in the OPA once the data is robust. We will consult further on this. We will not include this measure before 2009-10.

4.6 Customer service measures (DG6, DG7, DG8, DG9 and assessed customer service)

Table 4 Summary of proposals for customer service measures

Measure	Assessment method	Data range	Weighting
(DG6) Response to billing contacts	No change	No change	No change
(DG7) Response to written complaints	No change	No change	No change
(DG8) Billing of metered customers	No change	No change	No change
(DG9) Ease of telephone contact	New measure proposed. Currently under development with industry working group. Not to be included until data is robust and following further consultation on detail of method and data ranges. Not expected before 2005-06.		No change
Assessed customer service	Amendment to how we assess telephone contact hours. No other changes	No change	No change

4.6.1 (DG6) Billing contact

Current measure
The proportion of billing contacts answered within five working days.

Proposal
We are content with this measure and performance range, as defined in appendix 8 of 'Linking service levels to prices – conclusions'. We do not propose any changes.

4.6.2 (DG7) Written complaints

Current measure
The proportion of written complaints answered within ten working days.

Proposal
We are content with this measure and performance range, as defined in appendix 8 of 'Linking service levels to prices – conclusions'. We do not propose any changes.

4.6.3 (DG8) Metered bills

Current measure
The proportion of metered accounts based on a meter reading. The company or the customer can make the meter reading. One meter reading a year is the minimum requirement for this assessment.

Discussion
We are content with this measure and are not proposing any changes. It has been suggested to us to revise the minimum requirements to two meter readings a year.

We currently do not collect information about this. Before such a change was made, the customer and company benefits would need proper investigation to be sure that the extra effort in meter reading, data collection and reporting was justified.

Proposal
We propose retaining the existing measure and performance range, as defined in appendix 8 of 'Linking service levels to prices – conclusions'. However, we acknowledge that the overall shape of meter reading may change before 2010. Consequently we may need to review this measure in the future to ensure it remains appropriate.

4.6.4 (DG9) Ease of telephone contact

Current measure
The proportion of calls answered within 30 seconds.

Discussion
It has not been possible to measure the proportion of calls answered within 30 seconds in a consistent way across all companies. This is because of technical differences in the measurement capabilities of telephone systems used. For the purposes of the OPA, an industry average performance score has been derived for the last two years. We expect to continue with this approach until we develop a suitable alternative.

We have been working with the water industry to improve the way in which telephone services are measured. The working group is still developing and testing the new measure. Subject to the conclusions from the development trials, the proposed new indicator is set out below. We expect to include the new measure from 2005-06. Further consultation will take place before the indicator is introduced.

It has been suggested to us that we include a measure of the number of complaints a company receives by telephone and also in writing. We already collect this information from companies, but the consistency of the data is not robust enough for us to use for comparative purposes. As outlined below, the new measure will provide us with a comparative measure of customer satisfaction.

Outline proposal (subject to working group conclusions)
We propose an assessment against four aspects of telephone contact:

- All lines busy - Percentage of total calls to a company on customer contact lines that receive an engaged tone/message
- Calls abandoned - Where the caller abandons their call before it is substantively answered, as a percentage of calls that 'get though' (ie do not receive engaged tone).
- Connection time – The length of time a caller waits before their call is connected to a person or automated system.
- Call handling – An overall satisfaction score as measured by the survey being developed by the working group.

To derive the overall DG9 measure we propose combining the four measures as shown in table 5.

Table 5 Proposed weighting of DG9 measures

Measure	**Relative proportion of total DG9 measure**
All lines busy score	16.6%
Calls abandoned score	16.6%
Connection time score	16.6%
Call handling survey satisfaction score	50%

The DG9 OPA score would then be combined with DG6, 7 and 8 as in the current OPA methodology. A data range would be defined as part of the development trials.

4.6.5 Assessed customer service

Current measure
This measure of the quality of customer service is based on seven measures:

- revenue and debt collection;
- complaint handling;
- information to customers;
- telephone contact hours;
- services for the disabled and elderly customers;
- compensation policy; and
- supply pipe repair policy.

Discussion
We are content with this overall measure. Companies' performance has improved and they plan to sustain this. We do not propose changing the performance ranges, because we do not want to incentivise further improvements beyond those customers want to see.
A small change is proposed to the way in which we measure telephone contact hours. This is to reflect changing customer behaviour observed by some companies, where the number of calls received in weekday evenings is increasing and weekend calls are decreasing.

Proposal
We propose retaining the existing measure and performance range, as defined in appendix 9 of 'Linking service levels to prices – conclusions', with one change to how we assess telephone contact hours, as outlined in table 6.

Table 6 Proposal for revised banding for assessing telephone contact hours

Banding		Current method		Proposed method
		Weekday opening	Weekend opening	Total weekly contact hours
1	Top	More than or equal to 50 hours	More than or equal to 5 hours	More than 50 hours (a)
2	Middle	More than or equal to 50 hours	Less than 5 hours	More than 45 hours and less than or equal to 50 hours (b)
3	Bottom	Less than or equal to 50 hours	Less than 5 hours	45 hours or less (c)

a) More than 50 hours is based on opening for more than one extra hour each weekday
b) 45 to 50 hours is based on opening one extra hour each weekday
c) 45 hours is based on normal office hours eg 8.30 to 5.30 Monday to Friday.

Other views
It has been suggested that we include an assessment of 'hours appointments are available'. We do not currently collect this information and have little evidence of customers' expectations in this area.

Your views about the value of a measure of appointment flexibility and how we could measure this are welcomed.

It has also been suggested that we include a measure of 'how well a company keeps appointments'. As part of our monitoring of the Guaranteed Standards Scheme, we already collect information about missed appointments and the compensation payments made as a result. This data suggests that the level of missed appointments is low. The benefit of adding this measure to the OPA is not clear.

We would welcome views about the inclusion of a measure of missed appointments.

4.7 Environmental performance measures

Table 7 Summary of proposals for environmental performance measures

Measure	Assessment method	Data range	Weighting
Sewage treatment works compliance	Add compliance with descriptive and flow consents. Not expected before 2006-07	Reset to reflect additional works	No change
Satisfactory sludge disposal	Measure is unchanged. Move from company data reporting to Environment Agency reporting.	No change expected. But will be checked against reported data	No change
Category 1 and 2 pollution incidents (sewage)	No change	No change	No change
Category 3 pollution incidents (sewage)	No change	No change	No change
Category 1 and 2 pollution incidents (water)	No change	No change	No change
Leakage	Judge performance against target of a 36-month rolling average	No change	Reduced weight to incorporate additional security of supply measure
Security of supply	Additional measure based on security of supply index	To be set each year, based on industry performance in that year	Total weighting of security of supply, leakage and DG4 equals previous weight of leakage and DG4.

4.7.1 Sewage treatment works consent compliance

Current measure
We assess compliance at sewage treatment works with numeric consents. Performance is based on calendar year data as reported to us by the Environment Agency in the MD109 return. The compliance parameters included in the OPA are summarised in table 8.

Table 8 Sewage treatment works compliance conditions included in the OPA

Parameter	Legislation	Compliance condition
Biochemical oxygen demand (BOD)	WRA [1] UWWT [2]	Compliance with the look up table (LUT) effluent consent condition limits.
	UWWT [2]	Compliance with LUT consent condition limit requiring percentage removal of BOD across the works, as assessed by influent and effluent BOD concentrations.
Suspended solids (SS)	WRA	Compliance with the LUT effluent consent condition limit.
Ammonia (NH_4)	WRA	Compliance with the LUT effluent consent condition limit.
Phosphorus (P)	WRA UWWT[2]	Compliance with the effluent consent condition limit for annual average concentration
	UWWT[2]	Compliance with the consent condition limit requiring percentage removal of P across the works, as assessed by influent and effluent P concentrations.
UV Disinfection	WRA	Compliance with the required UV dose for 99% of the time (where the period of time is annual or seasonal as specified in the consent conditions[3]).
(1) WRA – Water Resources Act.		
(2) UWWT – Urban Waste Water Treatment Regulations The UWWT regulations provide two approaches for BOD and P: A works is considered to have met compliance conditions if it passes either of these conditions.		
(3) Some works are required to apply UV disinfection year round, others during the bathing season only.		

Compliance with the UV disinfection compliance conditions has been included in the OPA since 2002-03.

The calculation of the OPA performance score is derived from the equation:

$$\frac{\text{Population equivalent (pe) of STWs failing consent conditions}}{\text{Relevant pe served (resident) (numeric consents)}} \times 100$$

In our annual report, 'Levels of service for the water industry in England and Wales', non-compliance with the WRA and the UWWT is reported separately. In the calculation of the OPA, this data is combined. However, should a works fail conditions set by both regulations, double counting is avoided.

The current measure does not include failures of upper tier consents or reporting failures. We confirm that we do not intend to include these in the future.

Discussion

Compliance with descriptive consents

As we concluded at the last OPA review, we propose including compliance with descriptive consents. The Environment Agency already provides us each year with the data we need to do this. The Environment Agency's target is to audit every works at least once a year. Currently coverage is not as consistent as we would want it to be for the purposes of the OPA. This addition would not be made until coverage was consistent. We do not expect this to be before 2006-07.

Currently in the OPA, sewage treatment works compliance is calculated as a proportion of the population equivalent served[4]. The introduction of compliance with descriptive consents would significantly increase the total number of works assessed but with little change to the total population equivalent served. It is therefore appropriate that we also review the way in which this measure is calculated. Table 9 shows the number of works associated with the current measure and the effect of adding works with descriptive consents.

Table 9 Impact of including descriptive consents

	Current measure (numeric consents only)	**Proposed measure (numeric and descriptive consents)**
Population equivalent of works a)	62.9 million	63.2 million
Number of works	4,276 b)	6,300 a)
a) Data source: company returns to us, June 2003.		
b) Data source: Environment Agency return to us, July 2003.		

Compliance with flow consents

Treatment works consents also contain restrictions on discharge flow. The Environment Agency consider this should be taken into account in the OPA. Therefore, we propose to include this aspect of compliance in the OPA measure once we are satisfied that the data is robust. This is not expected to be before 2005-06.

Proposal

We propose adding compliance with descriptive consents and discharge flow consents once data is robust. We do not expect this to be before 2006-07.

We acknowledge that the calculation of this measure may need to be revised. We propose to combine the current method (based on population equivalent served) with a measure based on number of works. For example, 50% of the total measure of compliance could be works failing as a proportion of total population equivalent served, plus 50% based on works failing as a proportion

[4] Population equivalence relates to both the population served and the non-domestic load on a sewage treatment works.

of the total number of works. We would also reset the data range as appropriate.

4.7.2 Sewage sludge disposal

Current measure
An assessment of the proportion of sewage sludge disposed of in an unsatisfactory manner.

Discussion
Currently the companies report this information to us each year. The way in which the disposal of sludge is carried out and monitored is changing. This is as a result of the implementation of changes to legislation and also some change in common practice.

For the purposes of the OPA, we will still assess the proportion of sewage sludge disposed of in an unsatisfactory manner. But in the future, the Environment Agency will audit the monitoring of sludge disposal and report to us. We have already discussed reporting with the Environment Agency and plan to trial reporting for part of 2004. Until the Environment Agency is in a position to provide a complete and robust return, we will also continue to collection information from the companies as we do currently.

Proposal
We propose retaining the existing measure and data range for unsatisfactory sludge disposal as defined in appendix 11 of 'Linking service levels to prices – conclusions'. As legislative changes are implemented we will start to receive the data required for this measure from the Environment Agency. During the transition from company reporting to Environment Agency reporting, we propose that companies continue to report to us until the transition is complete. We expect this to take two to three years. We will check that the data range is unaffected by the reporting change.

4.7.3 Pollution incidents

Current measures
Three aspects of pollution incidents are assessed.

- The number of category 1 and 2 pollution incidents resulting from sewage collection and treatment activities.
- The number of category 3 pollution incidents resulting from sewage collection and treatment activities.
- The number of category 1 and 2 pollution incidents resulting from water treatment and distribution activities.

The information we require for this assessment is provided to us by the Environment Agency each year (see table 10 for details).

Table 10 How we use the pollution incidents reported in table 1d of the Environment Agency's annual report

Source/premises	Category 1and 2	Category 3
Sewage treatment works	Included in OPA. Category 1 and 2 pollution incidents (sewage).	Included in OPA. Category 3 pollution incidents (sewage).
Combined sewer overflow		
Storm tank		
Rising main		
Water treatment works	Included in OPA. Category 1 and 2 pollution incidents (water).	Not included in the OPA.
Water distribution system		
Surface water outfall	Not included in OPA	
Pumping station	Included in OPA. Category 1 and 2 pollution incidents (sewage).	Included in OPA. Category 3 pollution incidents (sewage).
Foul sewers		
Other		

Discussion
We have included pollution incidents in this way since 2001-02. It has been suggested to us by the Environment Agency, that the relative weighting of the three assessments is changed to place a higher weighting on the category 3 sewage related failures and a lower weighting on the category 1 and 2 water related failures. However, we would prefer not to make any changes to these measures at this time, because they have only been in place in their current form for two years. Therefore we do not propose to change these measures during 2005-10 unless we receive feedback to demonstrate that the balance of views has changed significantly since the last review.

Proposals
We propose retaining the three existing measures of pollution incidents with the current performance ranges, as defined in appendices 12, 13 and 14 of 'Linking service levels to prices – conclusions'.

4.7.4 Security of supply

Current measures
Two aspects of security of supply are currently assessed. These are the proportion of population affected by hosepipe restrictions (DG4), and performance against agreed leakage targets.

Discussion
Maintaining the security of water supply is an essential part of companies' functions. Since 2001, we have measured companies' performance against a security of supply index (SoSI). This has been reported annually in our report 'Security of supply, leakage and the efficient use of water'.

The concept of 'headroom' is important to the SoSI. Headroom is the difference between the amount of water a company has available to supply (or water available for use) under specified planning conditions, and its expected distribution input under the same conditions. Target headroom is the

difference between water available for use, and the input to distribution that companies need in each of their resource zones to take account of future supply and demand uncertainties. Achieving target headroom shows that a company is able to deliver its planned level of service.

The index is designed to measure at a company level:

- the size of any deficit in headroom against the company's estimate of target headroom in each of its resource zones; and
- the proportion of customers in each resource zone exposed to the headroom deficit.

Levels of service are expressed in terms of expectations about the frequency of restrictions on use, such as hosepipe bans during dry years. Companies have their own assumptions on the levels of service that they plan to provide to their customers. If assumptions about the levels of service or the expected frequency of restrictions on use change, then this also influences the reliable yield from surface water resources. This affects available headroom, and therefore the SoSI score. For this reason, companies also submit anadditional calculation of the index based on reference levels of service, common to all companies. This helps us to make comparisons between companies.

At the time of the last OPA review the SoSI was still under development and had not been used in annual monitoring. There was industry support for the inclusion of the measure in the OPA, but some concerns were also raised. Therefore, the inclusion of the SoSI in the OPA was deferred until the measure had been fully developed and its use in our annual company monitoring established.

We consider that the SoSI is now sufficiently robust for inclusion in the OPA. We acknowledge that the index could still develop and we remain open to possible improvements. Some have suggested that the index is not robust enough to use in the OPA because companies determine their own targets for headroom. We feel, however, that the index is sufficiently robust to use in the OPA because:

- the companies' target headroom is set for each AMP period in advance;
- the Environment Agency and Ofwat can challenge companies' proposals during the review of water resource plans;
- companies do not have an incentive to understate their target headroom, because this would prevent them from demonstrating the case for necessary security of supply investments in setting price limits; and
- We have opportunity to further challenge companies' proposals for maintaining and improving security of supply when we review their business plans.

To incorporate the SoSI measure discussed above in the OPA, we think it is appropriate to reduce significantly the weighting of the current measures of leakage performance and (DG4) water restrictions. It could be argued that these measures should be removed completely because the SoSI captures these elements. In particular we acknowledge that imposing hosepipe restrictions is part of a sensible strategy. However, we propose retaining

these measures because of the importance that customers place on hosepipe restrictions and leakage.

The DG4 water restriction measure is currently calculated over five years. This smoothes the effect of a particularly dry year. We propose retaining this method of measurement.

Companies agree leakage performance targets with us for each year. The current OPA measures how closely these agreed annual targets are met. Leakage is subject to annual variation beyond the companies' control. For example, after a worse than average winter it is likely that leakage will be higher than target. In a mild winter, using the same financial resources, it is likely that companies will report leakage well below the target levels.

In order to smooth these annual variations, for the purposes of monitoring company performance, our assessment of leakage now includes average performance over the last three years. Annual targets are still agreed and leakage is still assessed each year. But regulatory action is not automatic after failure in a single year. Nor is a company expected to maintain a single year's outperformance. Companies are expected to demonstrate how external events have driven performance. 2002-03 was the first year in which this method was used.

For the purposes of the OPA, we propose adopting this approach to measuring performance against targets. The current method does not reward companies for exceeding targets, and we do not plan to change this. But where companies fail to meet targets and can demonstrate to our satisfaction that this was driven by external events, we would reflect this in the OPA score.

Proposal
We propose incorporating a measure based on the annual SoSI and retaining the measures for leakage and hosepipe restrictions, with a reduced weighting. We acknowledge that these measures are captured by the overall approach for the SoSI, but we propose continuing to include them in the OPA because of the significant customer interest in these aspects.

For leakage, we propose judging performance against targets on a 36-month rolling average. This will bring the OPA measure in line with the way in which we now monitor companies' leakage performance.

Table 11 Proposed weighting of security of supply measures

Measure	Current weighting		Proposed weighting		
	WaSCs	All companies	WaSCs		All companies
(DG4) Hosepipe restrictions	0.5	0.5	0.1	10%	0.15
Leakage	0.5	1.0	0.15	15%	0.225
Security of supply index assessment	0	0	0.75	75%	1.125
Total weighting	1.0	1.5	1.0	100%	1.5

Proposed data ranges

All companies are planning to address headroom deficits by the end of 2010, and therefore all should perform well in the index by that time. To encourage progress during 2005-10 we propose to use the actual industry SoSI range for each year.

We do not propose changing the data ranges for leakage or hosepipe restrictions.

5. Other potential measures

This section introduces suggestions we have received on items which might be included in the OPA in the future. Before we consider developing any proposals, we would welcome views about the suitability and practicality of these suggestions.

5.1 Environmental performance – compliance with discharge consents at clean water assets

Currently we include a measure of compliance with discharge consents that apply to sewage treatment works. Discharge consents are also set for other industry assets (for example, water treatment works, pumping stations and water storage overflows). It has been suggested that we include a measure of compliance with discharge consents that apply to these other industry assets.

We welcome views on this suggestion. However, we note that the discharge consents for these clean water assets are based on 'upper tier (UT)' limits only and do not contain 'look up table (LUT)' limits. As noted in section 3.6.1, in our current assessment of sewage treatment works compliance we do not use UT consent conditions. We use the LUT consent conditions because they are a better measure of the consistency of works operation. Without LUT based consents there is not an obvious way to include these assets in the OPA. We note that any significant failure of these assets would be captured in our current assessment of pollution incidents.

5.2 Environmental performance – compliance water abstraction licence consents

The Environment Agency set abstraction licences for the quantity of water that a water company can take from a water source. It has been suggested that a measure of compliance with abstraction licences could be included in the OPA.

The suggested measure is not intended to replace Environment Agency monitoring (or prosecution). The suggested objective of the inclusion of such a measure in the OPA is to further incentivise companies to meet licence conditions more closely.

We welcome your views on the inclusion of a measure based on the percentage compliance, by volume, with abstraction licences.

5.3 Sustainable performance

We have received suggestions about developing new measures of 'sustainability' and 'corporate behaviour'. The Water Act 2003 places a duty on us 'to contribute to the achievement of sustainable development.' If suitable measures were available and included in the OPA then this would provide useful incentives to meet these duties. Of course many of the existing OPA measures are relevant to sustainable development (for example, the

security of supply measures and some of the customer service measures.) Also the assessed customer service score includes an assessment of the information supplied by each company to its customers about free water meters, efficient use of water and its policy for supply pipe repairs. However, we do not currently have any OPA measures reflecting the overall effectiveness of company demand management in both the water and sewerage services.

We welcome further ideas about how the progress on sustainable development could be measured comparatively and whether we should consider including further items in the OPA.

6. Using the OPA from 2004-05 to 2008-09 for the 2009 review of price limits from 2010-15

The feedback from the last review confirmed that for a single adjustment at price reviews we should use as many years of performance data as possible. Accordingly, if we continue with current practice, we would use five years of data when we consider adjustments to prices for the period after 2010. (From 2004-05 through to 2008-09 inclusive.) We also propose weighting each year equally to even out any annual fluctuations and maintain the incentive for each company to perform well every year.

Previously we have canvassed views on whether the OPA should be developed into a more dynamic mechanism, to provide stronger, continuous incentives on each company's management. This might be achieved, for example through an annual adjustment up or down to reflect the company's performance in last reported analysis (either as a single year figure or for example a three year rolling average) rather than the current approach of a one-off adjustment for the whole price limit period covering several years' performance.

To date there has been no consensus for moving away from the current approach. As set out in "Linking service to prices – conclusions" we will retain a one-off price adjustment, where appropriate, for PR04.

However we propose to return to this issue following the current price review and as part of our consultation on whether the period between price reviews should be changed for PR09.

Table 12 Proposed OPA measures from 2004-05 to 2008-09

Proposals for change in 2004-05	Proposals for change during 2005-06 to 2008-09, once data is robust (1)
DG2 (risk of low water pressure) Update data performance range to reflect industry performance in 2002-03	No change
DG3 (unplanned interruptions) No change	No change
Drinking water quality based on DWI's Operational Performance Index No change	No change
DG5 (properties at risk of sewer flooding) Update data performance range to reflect industry performance in 2002-03	No change
DG5 (Flooding incidents) No change	No change
DG6 (response to billing contacts) No change	No change
DG7 (response to written complaints) No change	No change
DG8 (billing of metered customers) No change	No change
DG9 (telephone contact) Continue to use measure of response time based on industry average performance until a new measure is available	New measure that includes an assessment of all lines busy; calls abandoned; connection time and call handling satisfaction survey. Expected from 2005-06

Proposals for change in 2004-05	Proposals for change during 2005-06 to 2008-09, once data is robust (1)
Assessed customer service Update assessment of call centre contact hours. Otherwise no change.	No change
Sewage treatment works consent compliance No change	Add compliance with descriptive and flow consents. Update calculation method to reflect additional number of works at the same time. Not expected before 2006-07.
Satisfactory sludge disposal No change to measure. Move from company reporting to Environment Agency reporting. Expect to use dual reporting initially, from 2004-05.	No change to measure. Stop dual reporting after 2 to 3 years once reporting transition is complete.
Category 1 and 2 pollution incidents (sewage) No change	No change
Category 3 pollution incidents (sewage) No change	No change
Category 1 and 2 pollution incidents (water) No change	No change
Security of supply measures Introduce additional measure based on security of supply index. Reweight **DG4 (water restrictions) and leakage** assessment to accommodate additional measure. Assess leakage against three-year rolling target	No change
(1) For the measures to be introduced 'not before'. These are the earliest introduction dates and would be confirmed to companies in advance. We will continue to use current measures until the proposed change is robust.	

LIST OF /CONSULTEES

Water Companies
Anglian Water
Bournemouth & West Hampshire Water
Bristol Water
Cambridge Water
Dee Valley Water
Dŵr Cymru/Welsh Water
Essex & Suffolk Water
Folkestone & Dover Water
Mid Kent Water
Northumbrian Water
Portsmouth Water
Severn Trent Water
South East Water
South Staffordshire Water
South West Water
Southern Water
Sutton & East Surrey Water
Tendring Hundred Water
Thames Water
Three Valleys Water
United Utilities
Wessex Water
Yorkshire Water
Water UK

Government and other regulators
Better Regulation Task Force
Civil Aviation Authority
Countryside Council for Wales
Defra
DTI
Drinking Water Inspectorate
English Nature
Environment Agency
Health and Safety Executive
Local Government Association
Ofgem
Office of Fair Trading
Office of the Rail Regulator
Oftel
The Scottish Executive
Welsh Assembly Government
Water Industry Commissioner for Scotland

Reporters (Consultants who audit water company returns)
Black & Veatch
Halcrow Management Sciences
Halliburton Brown & Root Services
Monson Engineering Ltd
MWH UK Ltd
Strategic Management Consultants
W S Atkins

Business/Industry
Chartered Institute of Purchasing and Supply
Energy Information Centre
Confederation of British Industry
Food & Drink Federation
MEUC
Biwater Treatment
CIA
National Federation of Small Businesses
Utility Consumers Consortium
North Eastern Purchasing Organisation
Lagur
Shell UK
Nissan
Bass Breweries
House Builders Federation
Local Government association
The Boots Company plc
Chemical Industries Association
Millennium Inorganic Chemicals
Utility Performance Consultants
Engineering Council
Association of British Insurers
Association of Consulting Engineers
The Chartered Institute of Building Services

Consumer organisations
Energywatch
Barnados
Age Concern
CROSS
National Consumer Council
National Association of Local Councils
Waterwatch
Help the Aged
Money Advice Association
Money Advice Trust
Citizens Advice
NEA
National Council for One Parent Families

NFU
National Consumer Federation
National Union of Residents Associations
RNIB
RNID
National Federation of Community Organisations
National Pensioners Convention
National Water Charges Advisory Service
RADAR
UNISON
Amicus-AEEU
GMB
Consumers Association
Trade Unions Congres
Chartered Institute of Environmental Health
Campaign against monopoly abuse
Institute of Consumer Affairs
Child Poverty Action Group
National Campaign for Water Justice
National Water Charges Advisory Service
WaterVoice
Welsh Consumer Council

Environmental organisations
Campaign for Cleaner Seas
Council for National Parks
Country Land and Business Association
The Countryside Agency
Environment Council
Environmental Data Services
Friends of the Earth
Friends of the Earth Wales
Institute of Environmental Assessment
National Trust
River Conservation Society
Royal Commission of Environmental Pollution
Royal Society for Nature Conservation
RSPB & Wildlife and Countryside Link
Surfers Against Sewage
The Waterways Trust
Wildlife Trusts
WWF UK

Water Organisations
British Water
Clay Pipe Development Association Ltd
Institute of Plumbing
Institute of Hydrology
International Water Association
Marine Conservation Society

Sewer Renovation Federation
Society of British water and Wastewater Industries
WRc Plc

GLOSSARY OF TERMS

Descriptive consents
Discharges from small sewage treatment works (STWs) are often regulated by ‘descriptive’ consents which prohibit through words, not numbers, the release of poisonous or injurious matter.

Discharge consent
A discharge consent is a permit issued by the Environment Agency which sets out the conditions under which a consent holder may make a discharge of sewage or trade effluent to controlled waters.

Enhanced service levels (ESL)
Enhanced service level allowances are funds provided within price limits to provide a significant step change in customer service.

Equivalent population (pe)
Includes both the domestic population served and the non-domestic load on the sewage treatment service.

Final Determination
Outcome of a price review including company price limits which operate for a five year period and specific outputs which the company must deliver.

Guaranteed Standards Scheme
A scheme which lays down minimum guaranteed standards of service to customers by companies. If the standards are not met customers are entitled to compensation. In many cases this is paid automatically.

Hydraulic overload
The inability of a sewer to pass forward (pass downstream) a flow of sewage due to the incapacity of a particular pipe, or section of the sewerage system.

June returns
Annual data submissions by water companies to Ofwat regarding their activities and performance.

Numeric consents
Discharges from larger STWs are regulated by ‘numeric’ consents which prescribe the quality, in numerical and chemical terms, of the discharge.

Operational performance index (OPI)
The DWI's measure of the operational performance of water treatment works and distribution systems, calculated by averaging the compliance of water supply zones for six parameters: iron, manganese, aluminium, turbidity, faecal coliforms and trihalomethanes.

Periodic review
The resetting of all water companies' price limits. Price limits are set every five years.

Pollution incidents
Pollution incidents are categorised according to their impact on the environment, Category 1 being the most severe, Category 4 the least severe.

Price limits
The annual increase in charges companies can make is limited by the licences. The limit is described as RPI + K + U. K represents the amount by which average charges can rise in any year, RPI is the Retail Price Index and U is unused K from previous years. A specific K value is set by the Director for each company for each year, usually at a Periodic Review. The value reflects what a company needs to charge to finance the provision of services to customers.

Resource zone
The largest possible zone in which all water resources, including external transfers, can be shared. It delineates a zone in which all customers will experience the same risk of supply failure from a resource shortfall.

Sludge
The final form of solid matter that is removed during sewage or water treatment.

Target headroom
The minimum buffer a water company should allow between supply and demand to cater for specified uncertainties in the overall supply/demand balance.

Wastewater
A term for sewage, either influent to, or effluent from, a sewage treatment process.

Annex 1
How company performance is turned into an overall performance assessment score

Each performance measure is converted to a score out of 50 points. The better a company's performance, the higher the score.

Why does a performance score need to be converted into an OPA score?

- Many of the elements of performance result in scores of different order of magnitudes and also with different units (eg some scores are measured in percentages and some as numbers of events).

- Adding these scores together would mean that some elements, where the scoring methodology results in a large score, would dominate the result. Therefore it would not matter how a company performed in the other elements, where the scoring methodology results in a smaller score, as this would have little impact on the total score.

- In order to ensure that all elements of performance are scored on the same scale, each performance score is converted into an OPA score of between 5 and 50. These individual OPA scores are then weighted (to reflect the importance of that element in the total OPA score) and then added together to form the total OPA score.

- The following calculation converts the score for each element of performance into an OPA score which feeds into the total OPA score.

$$\frac{(\text{Company score} - \text{range min}}{\text{range max} - \text{range min}} \times 45) + 5$$

There are three parts to the calculation. Firstly the performance score is converted into a score of between 0 and 1. Then it is factored into a score of between 0 and 45 and finally changed into a score of between 5 and 50. These three calculations are explained in more detail overleaf.

How does the equation change a performance score into an OPA score?

1. **Firstly each performance score is changed so that it is in the range of 0 to 1**. Then all scores are on the same scale and when the scores are added together one performance measure does not dominate the score.
   - This is calculated, for each element of performance, using the following part of the equation:

$$\frac{\text{Company score - range min}}{\text{range max - range min}}$$

     - The bottom part of the equation calculates how big the range is that a company can differentiate itself in. So if the maximum performance score expected is 100 and the minimum is 90 then a company **can** score up to 10 points over the minimum (100-90).
     - The top part of the equation calculates how far away from the expected minimum a company **actually** scores. In this example, if a company scores 95 then it scores 5 points above the minimum.
     - Dividing the scores gives the proportion of the available points scored by a company (a value between 0 and 1). The company described in this example, will get a score of 5/10 ie 0.5. A company achieving the maximum performance score of 100 will have this converted into a score of 10/10 ie 1, whilst a company achieving the minimum performance score of 90 would have this converted into a score of 0/10 ie 0.
   - This is done for each element of the performance assessed and so there are now a range of scores between 0 and 1 for each element.

2. Secondly the score is increased so that it is between 0 and 45. This is calculated by multiplying the above score, which is now between 0 and 1, by 45. This is to avoid scores being below one decimal place which are more difficult to read.

3. **Finally the score is changed so that it is between 5 and 50**. The OPA score is calculated by adding 5 to the above scores (currently between 0 and 45). This is to set the minimum score for each assessment to be 5 and the maximum to be 50.

What if a company's performance is outside the expected ranges?

The ranges have been chosen based on historic performance. If a company performs better than the maximum expected they will receive the top score of 50. If they perform below the minimum expected then they will receive the lowest score of 5.

Example

Below is an example of the calculation applied to data for drinking water quality as assessed by the Drinking Water Inspectorate for a water company (on a scale of 0 to 100) in 1999.

In this example the company has scored 99.86. The performance range for this assessment is:

Maximum: 100
Minimum: 98.4

The OPA score is calculated by entering the ranges and the company's score into the calculation below:

$$\left[\frac{\text{company score} - \text{range minimum}}{\text{range maximum} - \text{range minimum}} \times 45 \right] + 5$$

$$\left[\frac{99.86 - 98.4}{100 - 98.4} \times 45 \right] + 5$$

$$\left[\frac{1.46}{1.6} \times 45 \right] + 5$$

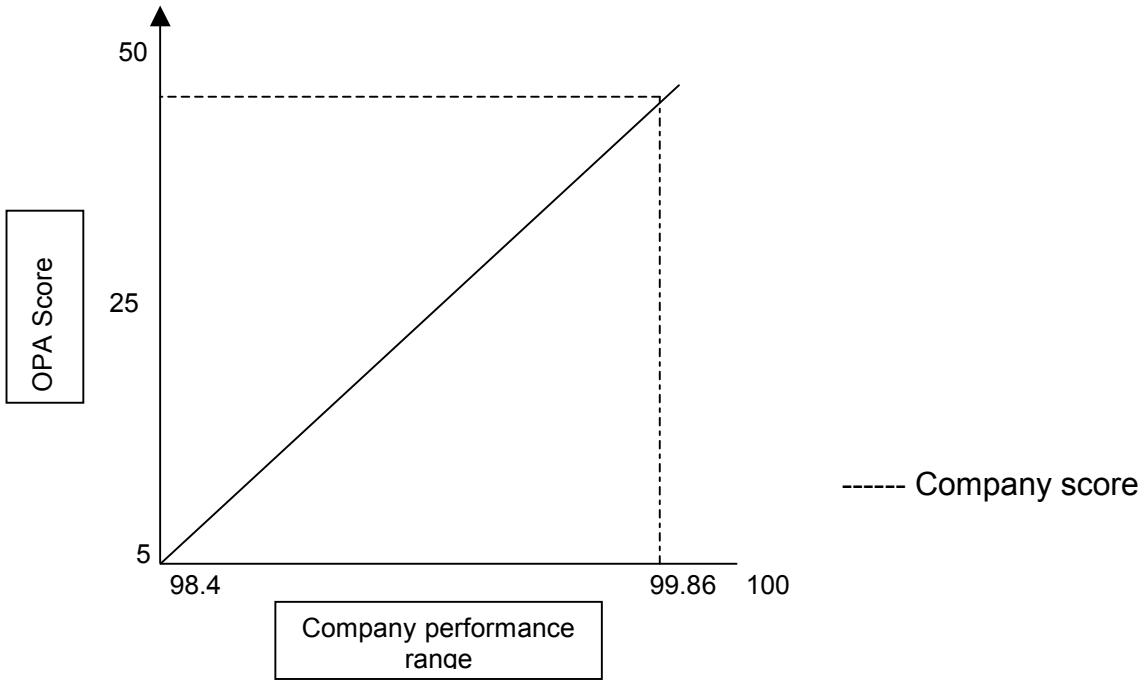
[0.9125 x 45] + 5

46.0625 rounded to 46

The first part of the equation provides the companies performance in terms of the range between a value of 0 and 1.

The second part (x 45, + 5) transposes the figure into a base score of 45, and the addition of 5 increases the value based on the premise that no company scores less than 5.

Graphically the companies' performance can be explained in the diagram below



Annex 2

Current weighting of performance measures

Key area / measure	Weighting for water and sewerage companies	Weighting for all companies
Water supply	**3**	**3**
DG2 - risk of low pressure score	0.75	0.75
DG3 - unplanned interruption score	0.75	0.75
DG4 - water restrictions	0.5	0.5
Drinking water quality	1	1
Sewerage service	**1.5**	**0**
Sewer flooding incidents (capacity)	0.5	-
Sewer flooding incidents (other causes)	0.75	-
Properties at risk of sewer flooding more than once in 10 years	0.25	-
Customer service	**1.5**	**1.5**
Company contact score	0.75	0.75
Other customer service	0.75	0.75
Environmental performance	**2.75**	**1.25**
Category 1 and 2 pollution incidents per million equivalent resident population (sewage)	0.5	-
Category 3 pollution incidents per million equivalent resident population (sewage)	0.25	-
Sludge disposal	0.25	-
Percentage equivalent population served by STWs in breach of their consent	1	-
Category 1 and 2 pollution incidents (water)	0.25	0.25
Leakage	0.5	1
Weightings total	**8.75**	**5.75**

Annex 3

Performance ranges compared with actual data ranges

Range fixed for 2001-02 to 2003-04		Measure	Actual range during 2001-02 and 2002-03		
Water supply					
min	**max**	**DG2 low pressure**		**min**	**max**
0.05	0.65	**WaSCs**	2001-02	0.01	0.27
			2002-03	0.01	0.16
0	1.35	**All companies**	2001-02	0.00	0.98
			2002-03	0.00	0.38
min	**max**	**DG3 interruptions**		**min**	**max**
0.13	3.00	**WaSCs**	2001-02	0.14	1.98
			2002-03	0.08	0.97
0.00	3.00	**All companies**	2001-02	0.06	1.98
			2002-03	0.00	0.97
min	**max**	**DG4 water restrictions**		**min**	**max**
0.00	895.76	**WaSCs**	2001-02	0.00	0.00
			2002-03	0.00	6.96
0.00	1026.13	**All companies**	2001-02	0.00	580
			2002-03	0.00	6.96
min	**max**	**Drinking water quality**		**min**	**max**
98.4	100	**WaSCs**	2001-02	99.5	99.9
			2002-03	99.5	100
98.4	100	**All companies**	2001-02	99.5	100
			2002-03	99.5	100

Performance ranges compared with actual data ranges – (continued)

Range fixed for 2001-02 to 2003-04		Measure	Actual range during 2001-02 and 2002-03		
Sewerage service					
min	**max**	**DG5 sewer flooding overloaded**		**min**	**max**
0.0015	0.036	**WaSCs**	2001-02	0.001	0.0126
			2002-03	0.0018	0.0232
min	**max**	**DG5 sewer flooding other**		**min**	**max**
0.0047	0.029	**WaSCs**	2001-02	0.0037	0.0195
			2002-03	0.0062	0.0215
min	**max**	**DG5 at risk of sewer flooding**		**min**	**max**
0.012	0.22	**WaSCs**	2001-02	0.012	0.080
			2002-03	0.014	0.067

Performance ranges compared with actual data ranges – (continued)

Range fixed for 2001-02 to 2003-04		Measure	Actual range during 2001-02 and 2002-03		
Customer Service					
min	**max**	**DG6 Response to billing contacts**		**min**	**max**
90	100	**WaSCs**	2001-02	96.58	100
			2002-03	98.29	100
90	100	**All companies**	2001-02	95.34	100
			2002-03	98.23	100
min	**max**	**DG7 Response to written complaints**		**min**	**max**
95	100	**WaSCs**	2001-02	98.28	100
			2002-03	99.35	100
95	100	**All companies**	2001-02	98.28	100
			2002-03	99.35	100
min	**max**	**DG8 Billing of metered customers**		**min**	**max**
98	100	**WaSCs**	2001-02	98.31	99.96
			2002-03	99.74	99.99
98	100	**All companies**	2001-02	98.31	100
			2002-03	99.51	100
		DG9 all lines busy			
not measured		**WaSCs**	2002-03	0.00	24.25
		All companies	2002-03	0.00	57.83
		DG9 calls abandoned			
not measured		**WaSCs**	2001-02	0.6	2.47
			2002-03	0.34	3.76
		All companies	2001-02	0.46	4.2
			2002-03	0.34	12.19
min	**max**	**Assessed Customer Service**		**min**	**max**
10	18	**WaSCs**	2001-02	7	11
			2002-03	7	12
10	18	**All companies**	2001-02	7	16
			2002-03	7	14

Performance ranges compared with actual data ranges – (continued)

Range fixed for 2001-02 to 2003-04		Measure	Actual range during 2001-02 and 2002-03		
Environmental performance					
min	**max**	**STW consent compliance**		**min**	**max**
0	4.93	**WaSCs**	2001-02	0	8.61
			2002-03	0	18.83
min	**max**	**Unsatisfactory sludge disposal**		**min**	**max**
0	4	**WaSCs**	2001-02	0	0.4
			2002-03	0	0
min	**max**	**Cat 1&2 pollution incidents - sewage**		**min**	**max**
1.06	6.17	**WaSCs**	2001-02	1.19	6.19
			2002-03	0.84	6.28
min	**max**	**Cat 3 pollution incidents - sewage**		**min**	**max**
9.44	145.07	**WaSCs**	2001-02	14.44	129.06
			2002-03	15.69	98.64
min	**max**	**Cat 1&2 pollution incidents - water**		**min**	**max**
0	1.7	**WaSCs**	2001-02	0	0.64
			2002-03	0	0.43
0	1.7	**All companies**	2001-02	0	0.70
			2002-03	0	0.43
min	**max**	**Leakage performance**		**min**	**max**
20	50	**WaSCs**	2001-02	20	50
			2002-03	20	50
20	50	**All companies**	2001-02	20	50
			2002-03	20	50