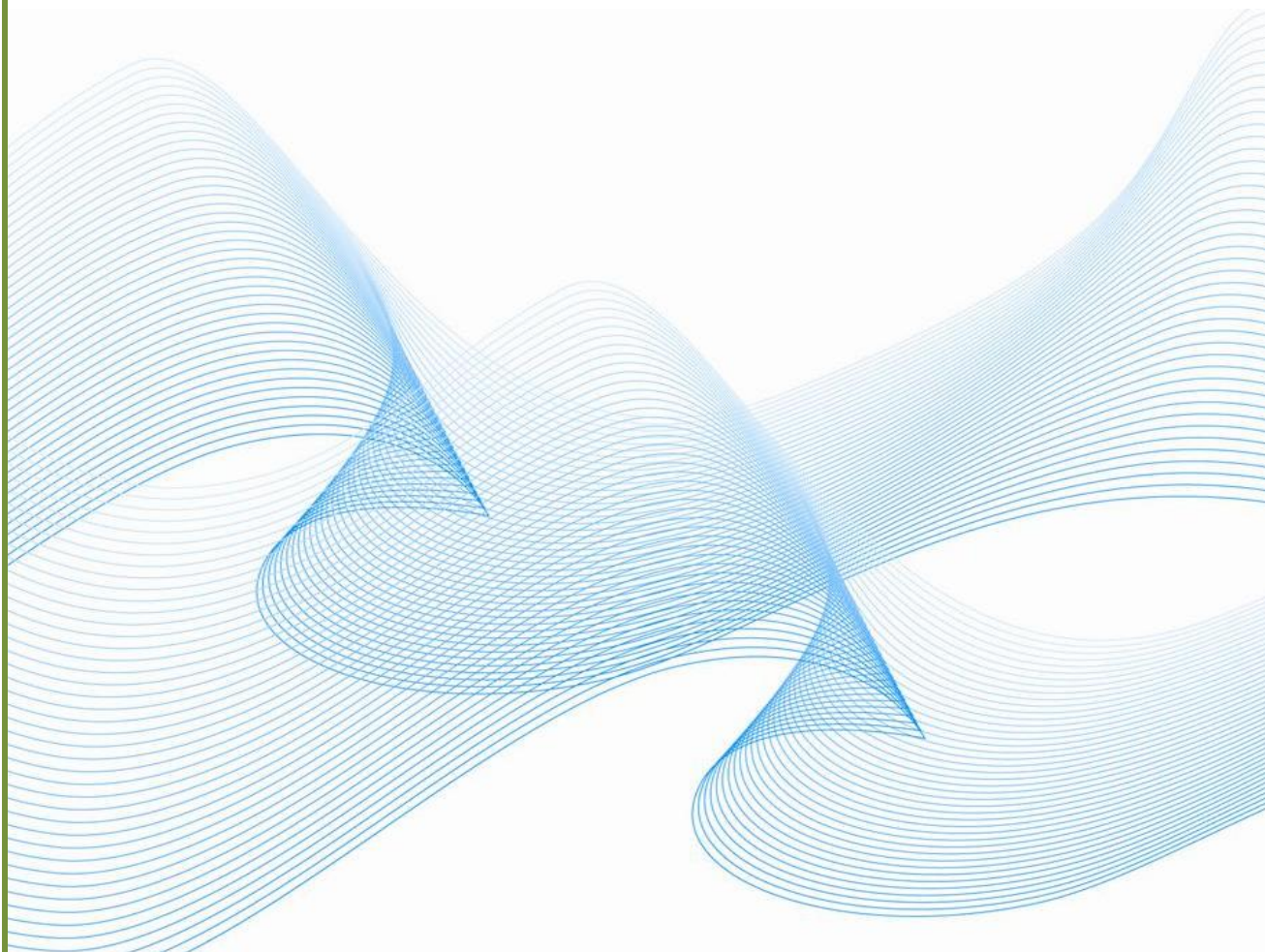




# Water and Sewerage Service Price Control 2010-13

Final Determination Main Report - Annex A  
Overall Performance Assessment

February 2010



# Water and Sewerage Revenue and Charges Price Control 2010-2013

Final Determination Main Report  
Annex A – OPA Methodology

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# A1. Background

1.1.1. This appendix summarises the Utility Regulator’s assessment of the levels of service that NI Water provides, as measured by a localised version of the Overall Performance Assessment (OPA).

1.1.2. The OPA is a system of assessment developed by Ofwat that takes the data on water services, sewerage services, customer service and environmental compliance, and scores companies on a scale of 0-50 points based on their performance.

1.1.3. This score out of 50 is then weighted based on consumers’ views to give final OPA scores for each company. These are then collated and published in league table format in Ofwat’s annual Service and Delivery report.

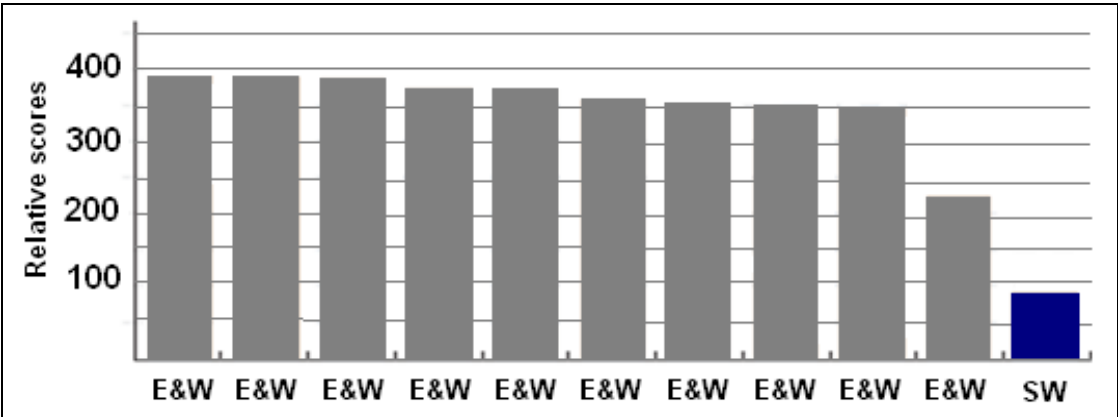
1.1.4. This provides a simple, user friendly way to report levels of service, and incentivises companies to improve and maintain their levels of service.

1.1.5. The latest OPA conducted on NI Water was based on 2008/09 data when the company scored 103 out of a possible 304 points.

1.1.6. Although this score compares poorly with the 2008/09 England and Wales average for the same measures (288), it should be viewed in the context of a newly regulated company, an ageing asset network, and poor data quality.

1.1.7. The service gap exhibited by Scottish Water at the start of regulation was similar in scale:

**Table 1.1 – Scottish Water relative overall performance 2002-03**



Source: WICS Customer Service Report 2002-03 p5

## A2. Utility Regulator OPA

2.1.1. Since the OPA was first conducted on NI Water in 2006/07, there has been an ongoing review of service measurement involving the Utility Regulator, CCNI, NI Water and the local quality regulators.

2.1.2. The aim of this review was to gauge the practicality and / or usefulness of amending the Ofwat OPA in order to make it more suitable to NI Water's current levels of service, and to take account of 'legacy' and data issues that remain from DRD Water Service.

2.1.3. WICS and Ofwat have also been consulted on a number of specific issues relating to the development of a localised OPA.

2.1.4. Having considered a number of options, and taken advice from numerous expert sources including DWI (NI), NIEA, CCNI, CC Water, Ofwat and WICS, the Utility Regulator resolved to continue using a conventional OPA model – i.e. one which mirrors the Ofwat OPA.

2.1.5. The weights, ranges and calculations are therefore exactly the same as the model used by Ofwat to assess water and sewerage companies in England and Wales.

2.1.6. The only adjustments made to the OPA used by the Utility Regulator are aesthetic, and purely for reasons of localisation – e.g. the scale used to classify pollution incidents by DEFRA in England and Wales is 1, 2 & 3, whereas the corresponding scale used by the NI Environment Agency is 'High', 'Medium' and 'Low'.

2.1.7. By retaining the conventional OPA model the Utility Regulator ensures that NI Water can be benchmarked against the performance of companies in England and Wales, and that a consistent bank of local past scores is maintained and can be used to analyse NI Water's future performance.

2.1.8. The Utility Regulator is aware of the disparity of service levels between NI Water and companies within the England and Wales industry, and acknowledges the challenges that NI Water will face over the coming years.

2.1.9. However, neither NI Water's current position, nor the challenge it faces are unprecedented.

2.1.10. The English and Welsh companies, and latterly Scottish Water, have all demonstrated that once initial efficiency gains are made, large improvements in the OPA are possible, while achieving significant and ongoing efficiency savings.

## A3. PC10 – The Way Ahead

3.1.1. The key elements of NI Water's performance over the PC10 period are that it must deliver improvements to customer services, while ensuring that it operates within the limitations of its allowed revenue.

3.1.2. In respect of improving service levels, we plan to continue to monitor NI Water's absolute and relative performance throughout PC10 using the OPA and compare its performance to that which is / has been achieved elsewhere in the water industry.

3.1.3. As stated in section A.2, we have not made any adjustments to the weights, ranges or calculations in the OPA to account for NI Water's (relatively) poor levels of service; such issues of disparity will be addressed in the commentary.

3.1.4. The Utility Regulator has expressed serious concerns about NI Water's information systems and quality and the scope of the OPA throughout PC10 will depend upon the level and quality of information that NI Water is able to provide to the Utility Regulator.

3.1.5. As a result of a number of serious information issues and the subsequent Utility Regulator investigation, NI Water has provided us with legally binding undertakings in respect of improving its information and systems quality.

3.1.6. It is therefore our strong expectation that both the level and quality of the regulatory information that NI Water provides will improve significantly over the PC10 period.

3.1.7. While it is the Regulator's intention to expand the scope of the OPA throughout PC10 and beyond, the set of measures used in 2007/08 will be the basis upon which we will assess NI Water's performance over the three years of PC10. (See 4.1.1)

3.1.8. Ofwat have recently concluded a consultation on the introduction of a new service measurement tool known as the Service Incentive Mechanism (SIM) which will eventually replace the OPA and focus attention on a more qualitatively based assessment of customer experience.

3.1.9. This was a necessary response to a situation whereby companies had, through successive regulatory periods, converged towards much higher levels of performance making the differences between them smaller over time. Ofwat now consider that with core service elements secure, the OPA has served its purpose and it is now time to re-focus efforts on customer experience measures.

3.1.10. However it is clear that this situation does not exist in NI Water's case, and so the Utility Regulator has resolved to retain the OPA as the primary means of reporting NI Water's performance to consumers.

## A4. Performance Baseline

4.1.1. The Ofwat 2007/08 OPA included the following measures; the Utility Regulator published most of these for NI Water, while some were excluded due to absent or poor quality data:

**Table 4.1 – Components of the 2007-08 OPA**

| Measure assessed in England and Wales               | Used by NIAUR | Reason for exclusion       |
|---|---------------|----------------------------|
| DG2 – Properties at risk of low pressure            | ✓             | N/A                        |
| DG3 – Properties subject to unplanned interruptions | ✓             | N/A                        |
| Population with hosepipe restrictions               | ✓             | N/A                        |
| Drinking water quality                              | ✓             | N/A                        |
| Sewer flooding (Hydraulic incapacity)               | ✗             | Data not complete / robust |
| Sewer flooding (Other causes)                       | ✗             | Data not complete / robust |
| Properties at risk of sewer flooding                | ✗             | DG5 register not complete  |
| Customer Service (Combined contact score)           | ✓             | N/A                        |
| Customer Service (Assessed score)                   | ✗             | Data not requested         |
| Category 1 & 2 pollution incidents (Sewerage)       | ✓             | N/A                        |
| Category 3 pollution incidents (Sewerage)           | ✓             | N/A                        |
| Category 1 pollution incidents (Water)              | ✓             | N/A                        |
| Wastewater treatment works in breach of consents    | ✓             | N/A                        |
| Sewage sludge disposal                              | ✓             | N/A                        |
| Leakage assessment                                  | ✓             | N/A                        |
| Security of supply (Performance against target)     | ✗             | Data not complete / robust |
| Security of supply (Absolute performance)           | ✗             | Data not complete / robust |

4.1.2. NI Water's individual 2007/08 OPA scores are shown below:

**Table 4.2 – NI Water vs England and Wales OPA Performance (2007/08)**

| Measure                                   | MAX<br>OPA<br>Score | E&W<br>Max<br>Collated | E&W<br>Max<br>Co. | E&W<br>Average<br>Co. | E&W<br>Min Co. | E&W<br>Min<br>Collated | NI<br>Water |
|---|---------------------|------------------------|-------------------|-----------------------|----------------|------------------------|-------------|
| DG2 Risk of low pressure                  | 38                  | 37                     | 36                | 36                    | 34             | 34                     | 4           |
| DG3 Unplanned Interruptions               | 38                  | 37                     | 36                | 31                    | 4              | 4                      | 22          |
| DG4 Hosepipe Restrictions                 | 13                  | 13                     | 13                | 13                    | 13             | 13                     | 13          |
| Customer Service Combined Score           | 38                  | 38                     | 38                | 31                    | 20             | 11                     | 4           |
| Drinking Water Quality                    | 50                  | 49                     | 48                | 46                    | 47             | 42                     | 5           |
| Sewage Sludge disposal                    | 13                  | 13                     | 13                | 13                    | 13             | 13                     | 13          |
| Leakage Assessment                        | 13                  | 13                     | 13                | 13                    | 11             | 11                     | 13          |
| Water Pollution Incidents (High & Med)    | 13                  | 13                     | 13                | 12                    | 13             | 8                      | 13          |
| Sewerage Pollution Incidents (High & Med) | 25                  | 25                     | 25                | 23                    | 24             | 19                     | 3           |
| Sewerage Pollution Incidents (Low)        | 13                  | 13                     | 13                | 11                    | 11             | 8                      | 3           |
| STW consent breaches                      | 50                  | 50                     | 50                | 46                    | 50             | 25                     | 5           |
| <b>TOTAL</b>                              | <b>304</b>          | <b>301</b>             | <b>298</b>        | <b>275</b>            | <b>240</b>     | <b>188</b>             | <b>98</b>   |

4.1.3. As can be seen the company lagged behind England and Wales by a significant margin.

4.1.4. NI Water did however produce excellent performances on some measures, achieving full marks for Hosepipe Restrictions, Sewage Sludge disposal, and Water Pollution incidents.

4.1.5. Full marks were also achieved for leakage, though concerns remain about the robustness of NI Water's leakage target setting, and reported performances from 2007/08 to present. NI Water's 2008/09 unweighted leakage score has been reduced by 5 points because of this, and leakage will continue to be a keen area of focus for the Utility Regulator during PC10 and beyond.

4.1.6. Based on past performance in GB, and especially Scotland, it is our strong expectation that NI Water's OPA scores can and will significantly improve from this 2007/08 baseline over the PC10 period.



## A5. Latest and projected scores

5.1.1. Initial analysis of NI Water's 2008/09 Annual Information Return (AIR09) indicates an OPA score of 103, an improvement of 5 points from the 2007/08 score<sup>1</sup>.

5.1.2. Looking forward, NI Water has set out projected performance levels in its PC10 Business Plan; if these are achieved, its 2009/10 OPA score would be 117, with scores of 129, 147 and 204 in 2010/11, 2011/12 and 2012/13 respectively.

5.1.3. The 2012/13 OPA scores projected by the Utility Regulator, using NI Water data are shown below:

**Table 5.1 – PC10 Business Plan projected OPA (2012/13) vs England & Wales Water and Sewerage Companies' 2008-09 OPA**

| Measure                                   | MAX OPA Score | E&W Max Collated | E&W Max Co. | E&W Average Co. | E&W Min Co. | E&W Min Collated | NI Water   |
|---|---------------|------------------|-------------|-----------------|-------------|------------------|------------|
| DG2 Risk of low pressure                  | 38            | 37               | 36          | 36              | 37          | 29               | 24         |
| DG3 Unplanned Interruptions               | 38            | 38               | 37          | 34              | 33          | 30               | 27         |
| DG4 Hosepipe Restrictions                 | 13            | 13               | 13          | 13              | 13          | 13               | 13         |
| Customer Service Combined Score           | 38            | 38               | 38          | 36              | 25          | 25               | 36         |
| Drinking Water Quality                    | 50            | 50               | 50          | 47              | 44          | 44               | 26         |
| Sewage Sludge disposal                    | 13            | 13               | 13          | 13              | 13          | 10               | 13         |
| Leakage Assessment                        | 13            | 13               | 13          | 13              | 13          | 13               | 13         |
| Water Pollution Incidents (High & Med)    | 13            | 13               | 13          | 13              | 12          | 11               | 13         |
| Sewerage Pollution Incidents (High & Med) | 25            | 25               | 25          | 25              | 25          | 22               | 3          |
| Sewerage Pollution Incidents (Low)        | 13            | 13               | 12          | 11              | 12          | 9                | 7          |
| STW consent breaches                      | 50            | 50               | 50          | 47              | 23          | 23               | 29         |
| <b>TOTAL</b>                              | <b>304</b>    | <b>303</b>       | <b>300</b>  | <b>288</b>      | <b>250</b>  | <b>229</b>       | <b>204</b> |

5.1.4. It should be noted that most, but not all of the measures in Table 5.1 are based on performance predictions from the PC10 Business Plan or reflect information received during the PC10 query process.

<sup>1</sup> (These figures are subject to possible revision prior to our publication of the 2008/09 Cost and Performance Report)

5.1.5. Where the requisite data was not included in the Business Plan, or subsequently received from NI Water, scores have been projected on the basis of assumed performance.

5.1.6. This practice was only applied where:

- (i) It was considered sound and reasonable to assume a given level of performance on the basis of historical trends; and / or,
- (ii) There are additional and sufficient incentives already in place for such measures e.g. legislation covering pollution of waterways, bathing waters etc.

The measures for which there were no data in the PC10 Business Plan (hosepipe restrictions and water pollution incidents) were both considered to meet one or both of the criteria outlined above, and thus the Regulator has assumed that NI Water will achieve full marks on these measures over the course of PC10.

5.1.7. Following the Utility Regulator's draft determination, NI Water revised its performance projections downward stating that based on its analysis *"the delivery of services to the standards proposed within our Business Plan would not be achievable."*

5.1.8. These two sets of projected scores are shown below. The top line shows the OPA scores based on NI Water's original PC10 Business Plan, the bottom line shows OPA scores based on NI Water's revised performance projections following the Regulator's draft determination:

**Table 5.2 – Projected OPA scores over the PC10 Period**

| Source | 2007/08 | 2008/09 | Source                           | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|--------|---------|---------|----------------------------------|---------|---------|---------|---------|
| Actual | 98      | 103     | Based on PC10 Business Plan      | 117     | 129     | 147     | 204     |
| Actual | 98      | 103     | Revised post draft determination | 117     | 129     | 145     | 180     |

5.1.9. When the Utility Regulator published its draft determination the clear message was that the operations, capital investment and levels of service contained within NI Water's PC10 Business Plan were deliverable for a lower level of funding than NI Water claimed i.e. that the services (and service improvements) could be delivered more efficiently.

5.1.10. In claiming that the efficiency targets outlined in our draft determination could only result in reduced levels of service, NI Water is effectively stating that it is operating at or near peak efficiency - this is clearly not the case.

5.1.11. The Utility Regulator is strongly of the opinion that with good management practice, the levels of service that NI Water proposed to deliver in the original PC10 Business Plan are more than achievable given the level of funding allowed in the draft determination.

5.1.12. The Utility Regulator also believes that these improvements are achievable more quickly than NI Water has stated.

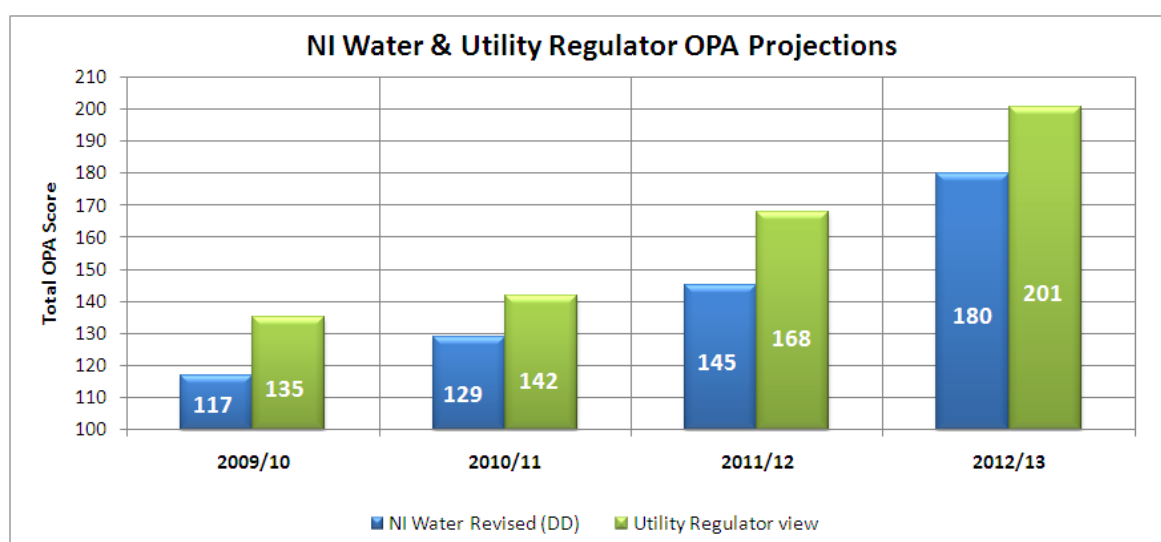
5.1.13. The Utility Regulator has carried out detailed analysis of NI Water's Business Plan and believes that the company can achieve scores in the region of those shown in Table 5.3 :

**Table 5.3 - Utility Regulator view of OPA scores over PC10**

| Source | 2007/08 | 2008/09 | Source                 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|--------|---------|---------|------------------------|---------|---------|---------|---------|
| Actual | 98      | 103     | Utility Regulator view | 135     | 142     | 168     | 201     |

5.1.14. The graph below shows the revised NI Water view of PC10 OPA performance against the Utility Regulator's view:

**Figure 5.1 - OPA projections based on NI Water view vs Utility Regulator view**



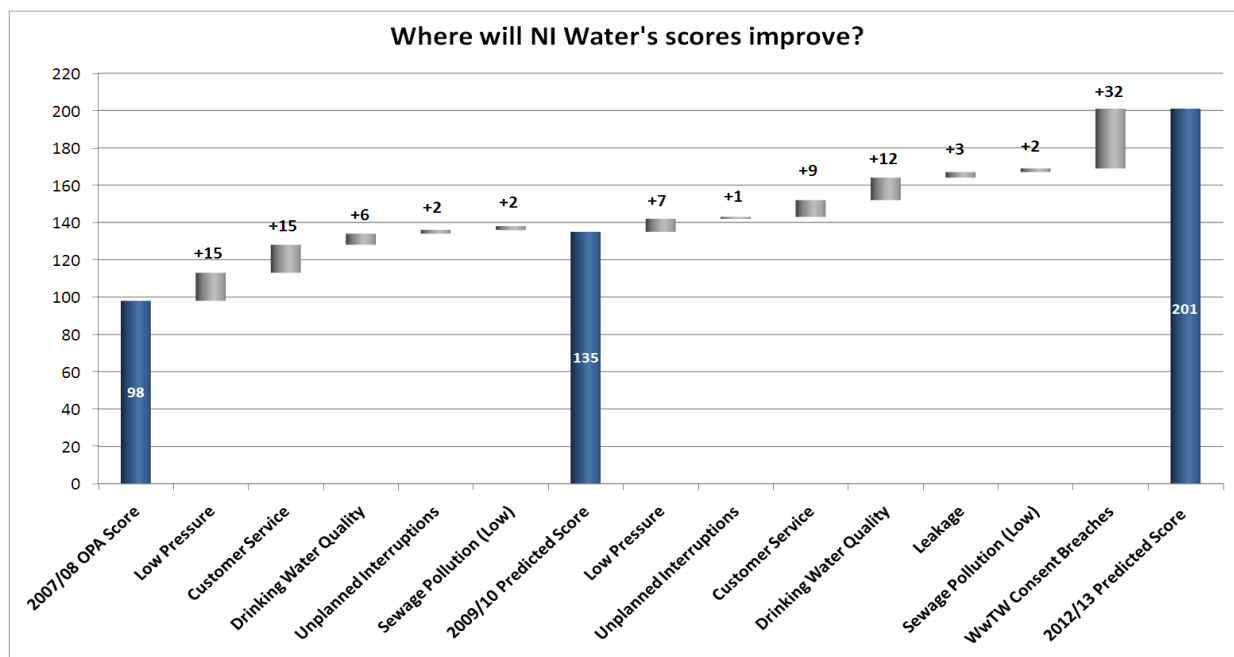
5.1.15. The breakdown of the Regulator's projected score of 201 is shown below:

**Table 5.4 – Utility Regulator projected OPA (2012/13) vs England & Wales Water and Sewerage Companies' 2008-09 OPA**

| Measure                                   | MAX<br>OPA<br>Score | E&W<br>Max<br>Collated | E&W<br>Max<br>Co. | E&W<br>Average<br>Co. | E&W<br>Min Co. | E&W<br>Min<br>Collated | NI<br>Water |
|---|---------------------|------------------------|-------------------|-----------------------|----------------|------------------------|-------------|
| DG2 Risk of low pressure                  | 38                  | 37                     | 36                | 36                    | 37             | 29                     | 26          |
| DG3 Unplanned Interruptions               | 38                  | 38                     | 37                | 34                    | 33             | 30                     | 25          |
| DG4 Hosepipe Restrictions                 | 13                  | 13                     | 13                | 13                    | 13             | 13                     | 13          |
| Customer Service Combined Score           | 38                  | 38                     | 38                | 36                    | 25             | 25                     | 28          |
| Drinking Water Quality                    | 50                  | 50                     | 50                | 47                    | 44             | 44                     | 23          |
| Sewage Sludge disposal                    | 13                  | 13                     | 13                | 13                    | 13             | 10                     | 13          |
| Leakage Assessment                        | 13                  | 13                     | 13                | 13                    | 13             | 13                     | 13          |
| Water Pollution Incidents (High & Med)    | 13                  | 13                     | 13                | 13                    | 12             | 11                     | 13          |
| Sewerage Pollution Incidents (High & Med) | 25                  | 25                     | 25                | 25                    | 25             | 22                     | 3           |
| Sewerage Pollution Incidents (Low)        | 13                  | 13                     | 12                | 11                    | 12             | 9                      | 7           |
| STW consent breaches                      | 50                  | 50                     | 50                | 47                    | 23             | 23                     | 37          |
| <b>TOTAL</b>                              | <b>304</b>          | <b>303</b>             | <b>300</b>        | <b>288</b>            | <b>250</b>     | <b>229</b>             | <b>201</b>  |

5.1.16. The transition from 2007/08 to 2009/10 and on to 2012/13 is summarised in the graph below:

**Figure 5.2 – Projected improvement in NI Water's OPA score**



5.1.17. To summarise:

- i. The Regulator believes that NI Water has underestimated its ability in respect of how quickly its OPA score will improve and that the baseline service gap will be closed more quickly than the company's performance projections indicate.
- ii. The Regulator specifically believes that baseline service levels over the period 2009/10 to 2011/12 will be higher than NI Water's revised performance projections suggest.
- iii. Based on current information, the Regulator believes that the OPA score projected for 2012/13 (201) is a reasonable forecast of what is achievable while also delivering the efficiency requirements of the draft determination.

5.1.18. The current predicted increases are based solely on the OPA indicators used by the Utility Regulator in 2007/08. By the end of PC10 it is envisaged that the Utility Regulator OPA model will include most (if not all) of the OPA measures.

5.1.19. As a consequence, the baseline service level will be re-scoped for PC13 and this will afford the company an even greater opportunity to improve its OPA score relative to England and Wales performance.

## A6. Drinking Water Quality

6.1.1. The issue of drinking water quality has been raised by NI Water as a particular point of concern in the OPA.

6.1.2. Although the drinking water supplied by NI Water is considered to be of high quality by the Northern Ireland Drinking Water Inspectorate, significant quality issues remain. These are mostly (but not exclusively) related to Trihalomethanes (THMs).

6.1.3. THMs are bi-products of the chlorination process and are particularly prevalent in water supplied from upland water sources and 'peaty' water catchment areas such as those in Northern Ireland.

6.1.4. Because NI Water has a particular problem with THMs, the company's six parameter Operational Performance Indicator (OPI 6) score (an average of 6 Mean Zonal Compliance figures) is lower than those in England and Wales. In 2007/08 NI Water's results for the OPI 6 measures were:

**Table 6.1 – NI Water MZC OPI 6 score 2007-08**

| Measure          | MZC %        |
|------------------|--------------|
| Iron             | 98.89        |
| Manganese        | 98.87        |
| Faecal Coliforms | 99.80        |
| Turbidity        | 99.77        |
| Aluminium        | 98.78        |
| Trihalomethanes  | 79.37        |
| <b>Mean</b>      | <b>95.91</b> |

6.1.5. The average score of 95.91 lies outside of the scoreable range of the OPA, therefore in 2007/08 NI Water scored the minimum of 5 points.

6.1.6. Based on NI Water's PC10 Business plan projections, this will increase to 26 points by 2012/13.

6.1.7. The Utility Regulator acknowledges this commitment to improving drinking water quality, but believes that a more realistic score might be 23 points by 2012/13.

6.1.8. When compared to the England and Wales average of 46 points this performance looks particularly concerning, though it should again be noted that unlike NI Water, the English and Welsh companies have benefited from twenty years of regulation.

6.1.9. It is for this reason that NI Water has consistently raised its drinking water quality score as a particular area of concern in respect of the OPA.

6.1.10. It has been suggested that the Utility Regulator exclude the measure from the OPA until such time as performance is sufficiently improved; the OPA implications of this are shown below:

**Table 6.2 – Predicted OPA performances including and excluding Drinking Water Quality**

|                                     | 2007/08<br>OPA<br>Score | Forecast<br>OPA<br>Score<br>(2009/10) | Forecast<br>OPA<br>Score<br>(2012/13) | OPA<br>change<br>2007/08<br>to<br>2012/13 | %<br>Change<br>2007/08<br>to<br>2012/13 | OPA<br>change<br>2009/10<br>to<br>2012/13 | %<br>Change<br>2009/10<br>to<br>2012/13 |
|-------------------------------------|-------------------------|---------------------------------------|---------------------------------------|---|---|---|---|
| Including Drinking<br>Water Quality | 98                      | 135                                   | 201                                   | +103                                      | 105%                                    | +66                                       | 49%                                     |
| Excluding Drinking<br>Water Quality | 93                      | 124                                   | 178                                   | +85                                       | 91%                                     | +54                                       | 44%                                     |

6.1.11. As can be seen, NI Water stands to gain 85 OPA points (2007/08 to 2012/13) an increase of 91% when the drinking water quality measure is removed, as opposed to an increase of 103 OPA points (or 105%) when drinking water quality is included.

6.1.12. The Utility Regulator, in keeping with the decision to use a conventional OPA model and following discussions with local quality regulators, has resolved to include the drinking water quality measure 'as is' in the OPA for PC10.



## A7. Conclusions

7.1.1. The Utility Regulator acknowledges the challenges that lie ahead of NI Water for the PC10 period and beyond.

7.5.2. We also welcome NI Water's positive attitude to regulation, and its commitment to become 'the number one Utility Company in the UK by 2014.'

7.5.3. We are encouraged by NI Water's positive individual OPA performances to date, and the commitment to good service that these represent.

7.5.4. However, the overall level of service provided is significantly lower than that provided by other companies in the industry which, while not without cause in some cases, is unacceptable for local consumers and taxpayers.

7.5.5. It is the Utility Regulator's strong expectation that the foundation laid by NI Water's recent and unprecedented level of capital spend, and its publicly stated commitment to service improvements going forward will increase its OPA scores vastly over the PC10 period and beyond.

7.5.6. In order to provide as robust an incentive as possible, we strongly recommend that the Department for Regional Development gives serious consideration to linking any NI Water directors' bonuses to the company's OPA score.

7.5.7. The Regulator is prepared to assist on the development of any such incentive mechanism in conjunction with both DRD and NI Water.