Research and Library Services

Northern Ireland Assembly

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STRAND ONE REPORT – TECHNICAL ANNEXES

Research and Library Service

This report aims to evaluate if, and to what extent, the discussion and recommendations as contained within the Strand One report are supported by the data presented in the Technical Annexes.

SUMMARY OF KEY POINTS

The Independent Water Review Panel's Stand One Report contains a series of findings and recommendations with regards to the cost and funding of Northern Ireland's water and sewerage services. The Technical Annexe to the report provides further detail on a number of recommendations contained within the report.

Five key issues are considered within the Annexe, these include: efficiencies; water in rates/paying twice; road drainage; affordability analysis and underinvestment. Only these topics are contained within the technical annexes. All other recommendations and findings are qualified only, by commentary contained within the Strand One report.

Efficiencies

The Review Panel recommended that Northern Ireland Water's (NIW) operational cost efficiency target should be raised to 40% for the period 2009/10 and that more challenging capital expenditure targets should be submitted to the regulator.

Annex 1 presents the seven sources of research considered in making this recommendation. The Review Team concluded that there is significant scope for increasing NIW's efficiency targets and that this can be justified by the research presented. The case of Capital expenditure is less clear cut as there is little consensus amongst the research examined. The recommendations are heavily reliant on judgement, however, there is scope for increased efficiencies, albeit less so than for operational expenditure.

Paying Twice

The Review Team recommended that an annual sum of £109m should be taken from the domestic regional rates in recognition of ratepayers' historic contribution to water and sewerage services.

Annexe 2 presents the sources considered in making this contribution which included analysis of the change in public expenditure controls, rates contributions from the 1990s and what the rates contributions were used for.

The primary source of information was the 1998/99 rates leaflet. From this it was identified that £178.435m was earmarked to be collected as regional rate revenue in respect of water and sewerage. Of this £78.84m was assessed as being in respect of the regional rate, which amounted to £129.50 per household on average.

These figures were rolled forward using three different scenarios, all of which provided comparable results. These workings are contained within the Annexe together with a copy of the 1998/99 rates leaflets.

Recovering the cost of road drainage

The Review Team recommend that from 2008/09, liability for the costs of road drainage should be transferred from sewerage service users to the Roads Service.

Annexe 3 presents a more detailed explanation of why this should be the case. It notes that even through roads drainage displays similar characteristics to that of a public good, the relationship between service supplier and the beneficiary of the service is far from clear cut.

The annexe states the case for and against the customer paying for roads drainage costs and comments that the case for, is largely based on reasons of simplicity and practicality.

The Annexe concludes that much work is required to accurately estimate road drainage volumes .

Affordability analysis

The Review Panel examined the proposed affordability tariff. It was acknowledged that more work was required on this issue and that further detail would be presented in the Strand Two report.

Annexe 4 assessed the tariffs as outlined in the Scheme of Charges 2007/08. Five charging models were considered and the results of each clearly demonstrated that, as the charging scheme stands, approximately 6% of people would fall into water poverty. Issues surrounding the need for more targeted intervention were starkly illustrated, with pensioners and those owning their homes outright, disproportionately represented within the results.

Underinvestment in Northern Ireland

The Review Panel concluded that the level of investment in Northern Ireland’s water and sewerage infrastructure had been less than that in Britain.

Annexe 5 provides the relevant data. Whilst the Team acknowledge that historical data was difficult to obtain, a clear picture of the trends experienced in Northern Ireland is presented. The Panel conclude that historically, Northern Ireland has lagged behind the rest of the UK in terms of investment in water and sewerage services. However, recent investment from 2001/02 has made significant progress in reducing the gap between Great Britain and Northern Ireland. It is estimated that an additional investment of £432.8 and £414m would have been required to bring Northern Ireland up to the levels found in England and Wales, and Scotland respectively.

The Panel also recommend that there is need for further clarification and discussion on the matter of setting drinking quality standards and it is stated that a fundamental decision is required as to whether this marginal improvement in standards is ‘value for money’. Given the statement that there is research “indicating that there may be a link between THMs in drinking water to certain cancers and adverse pregnancy outcomes”, further supporting evidence would have been useful.

In conclusion, whilst the Technical Annexes provide additional information on the five issues outlined above, clarification on the remaining recommendations and findings would have been informative.

CONTENTS

1. Introduction

This report has been prepared for the Committee for Regional Development. It considers the Technical Annexes for the Strand One Report on Costs and Funding[1] as prepared by the Independent Water Review Panel.

This report will aim to evaluate if, and to what extent, the discussion and recommendations as contained within the Strand One report are supported by the data presented in the Technical Annexes.[2]

2. Strand One Report – Costs and Funding

The Strand One Report contains a series of findings and recommendations. In addition to the summary and detailed recommendations, some 11 funding and 10 cost recommendations are presented at the outset of the report. (See Appendix 1)

The Technical Annexes, published in October 2007, provides further detail on a number of key issues contained within the report. These include efficiencies; water in rates/paying twice; road drainage; affordability analysis; and underinvestment.

It is only these topics that are examined within the technical annexes. It is therefore immediately clear that technical backup is not provided for all recommendations and findings.

3. Strand One Report – Technical Annexes

As previously stated, the technical annexes provide information on 5 key themes. Each of these shall be considered in turn following the statement of the relevant recommendations.

4. Efficiencies

Recommendation: Northern Ireland Water's (NIW) operational cost efficiency target should be raised to 40% for the period ending 2009/10.[3]

Recommendation: DRD as shareholder should review NIW's arrangements for performance related pay to ensure that any enhanced payments are directly related to outperforming the prescribed targets.

Recommendation: Northern Ireland Water should review its capital expenditure efficiency targets and submit more challenging targets for the regulator.[4]

Annexe 1 provides information on the issue of achievable efficiencies for Northern Ireland Water (NIW). Key information and arguments are summarised below.

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[1] Independent Water Review Panel, Strand One Report, Costs and Funding, October 2007. http://www.iwrp-ni.org.uk/iwrp_strand_1_report-2.pdf
[2] Independent Water Review Panel, Strand One Report, Costs and Funding, Technical Annexes, October 2007. http://www.iwrp-ni.org.uk/strand_1_report_technical_annexes.pdf
[3] See 5.15, 5.16, pg 53 of Strand One Report.
[4] See 5.26, pg 56 of Strand One Report.

- Northern Ireland Water has committed to efficiency targets of 22% for Opex and 17% for Capex.
- The Review Team considered seven sources of efficiency data including: UBS Report; DRD Relative Efficiency Analysis by ERNST; DRD initial efficiency targets based on the aforementioned and IFM analysis; Water Service ICS analysis; the Scottish experience; and NIAUR analysis.
- UBS Report– This considered, inter alia, the relative efficiency of NI Water Service. It concluded that the scope for Opex efficiencies was a range between 20% - 40% cumulative by 2009/10. Capex displayed a similar range of 20% - 40% by 2009/10.
- DRD Relative Efficiency Analysis, ERNEST – This considered relative efficiency of Water Service using Ofwat econometric and cost based approaches. The analysis illustrated that NIW was very inefficient compared to water companies in England and Wales and concluded that the scope for catch-up (efficiency gap) was 65.8% and 59.2% on water and sewerage operating expenditure. Scope for catch-up was less in terms of water and sewerage capital expenditure at 37.1% and 15.3%.
- These efficiency gaps were then translated into illustrative targets using the Ofwat approach. This involved a 'carrot and stick' approach whereby a required percentage of the efficiency gap is set as a target, in this case 60%. The remaining efficiency gap is left as an 'incentive' to exceed the target set. From this analysis, the corresponding efficiency targets were set at 42% for base operating expenditure for water with an enhancement target of 53%; 37% for sewerage opex with an enhancement of 47%; 17% for water capex and 10% for the sewerage capex.
- DRD Initial Efficiency targets – In 2006 DRD set the targets of opex at 35% and capex at 27% from 2002/03 – 2009/10. This decision was based on the UBS report, DRD Relative Efficiency Analysis and IMF analysis.
- Integrated Financial Model (IFM) – This considered different scenarios around the impact of the efficiency targets. It was projected that set at these levels, the efficiency targets would eliminate the need for a pegging subsidy and would offer headroom in meeting the commitment to peg average tariffs to that found in England and Wales.
- Water Service: ICS analysis - Assessed the relative position of NIW in relation to the water companies of England and Wales and reassessed the work undertaken to date. There were a number of changes in the assumptions used for this modelling. The Review Team noted that neither ERNEST nor ICS Consulting had sufficient information to run all the Ofwat comparisons. ICS were however, able to run additional equations in relation to sewerage opex and used a further two years of data. This research questioned the previous assumption of using the number of billed properties within calculations and argued that this might produce illogical results.
- The ICS analysis identified lower efficiency gaps and therefore readjusted the targets to 25.5% and 19.5% for water and sewerage opex and 12.1% and 0% for water and sewerage capex.
- Scottish experience – The Review Team considered the 2001 price review by the Water Industry Commissioner for Scotland (WICS). An observed efficiency gap of 44% in terms of opex was identified for Scottish Water (SW). WICS recommended that 80% of the 44% efficiency gap identified should be set as the Scottish Water target. Overall SW was challenged to reduce its

opex by 37% by 2005/06. This was exceeded. Evidence also suggested that English and Welsh companies had closed 85% of opex efficiency gaps in their best performing 5-year period

- WICS identified an efficiency gap of 42% for capex. A target of 34% was set. Efficiencies of 31% were achieved.
- NIAUR Analysis – NIAUR completed an Ofwat style analysis in relation to the efficiency gaps and the resulting targets. Ofwat approaches produced combined targets of 37% for opex and 10% for capex.

From the review of the analysis above, the team concluded that there was enormous scope for increasing NIW's efficiency targets. The Review Team noted that ERNST, ICS, and NIAUR analysis generated comparable results in terms of NIW's water opex efficiency.

However, with regards to sewerage opex there was less agreement. The Review Panel commented that:

- ICS assumptions may artificially portray NIW as being more efficient than it actually is; and
- ICS model "acted to substantially underestimate the efficiency gap in relation to sewerage opex – particularly since only 3 of the 5 models could be run due to lack of information".

With regards to the use of applying fixed percentages to identified efficiency gaps in order to create targets, as done by Ofwat, the Review Panel concluded that:[5]

- Use of Ofwat bands potentially insulates management against the challenge of improving the efficiency of the company with the customer ultimately paying the price;
- Scottish Water was required to bridge 80% of identified efficiency gaps and achieved them;
- WICS believed that English and Welsh companies bridged 85% of efficiency gaps;
- NIW will be recouping revenue from customers to cover cost of investment which will be used to realise cost savings – this would not be typically allowed by Ofwat. Difficult to see why DRD should impose Ofwat style targets while at the same time allowing collection of revenue from customers;
- Part of the rationale for higher efficiency targets in Scotland was the provision of "spend to save" funding within the allowed revenue collected from customers; and
- UBS assessed that the scope for the achievement of efficiencies would be greater under the GoCo model that a Statutory Organisation.

The panel therefore recommended that opex efficiency should be increased. They note that given the above analysis, the existing target could have been set at anything up to 40%.

In terms of capex efficiency targets, the situation is less clear cut as there is little concensus amongst the evidence examined. The recommendations are heavily reliant on judgement. However, it is clear that there is less scope for achieving capex efficiencies.

[5] Reproduced from Strand One Report – Technical Annexes, pg 7, October 2007.

5. PAYING TWICE

Recommendation: We recommend that from 2008/09 an annual sum of around £109m should be taken from the domestic regional rates in recognition of ratepayers' historic contribution to water and sewerage services. In 2008/09, this should be households' only contribution: the balance should be paid by the NI Block.[6]

Summary: Rate Payers have paid a substantial annual contribution towards the costs of the Water Service.

Annexe 2 provides information on the issue of paying twice. Key points include:

- Strong concern that water charging was something already contained within the rates and that infrastructure had already been paid for.
- The Review Team considered a number of sources including the changing Public Expenditure (PE) controls, rates contributions from the 1990s and what these contributions covered.
- Public Expenditure controls changed in 1991 and 1999. Prior to 1991 level of spending was set independently of revenue sources and spending was agreed with Her Majesty's Treasury (HMT). Regional rates were made available for HMT.
- 1991-1999 – PE controls changed as NI granted permission to use a portion of regional rate to boost expenditure. Known as 'Appropriation in Aid', total spending power increased and water and sewerage was assigned revenue from this source.
- 1999 – Removal of Appropriation in Aid. All regional rate revenue was available for Northern Ireland Assembly (NIA) priorities.
- The Review Team considered rates leaflets from 1990s. They identified that in 1998/99, £178.435m was earmarked to be collected as regional rate revenue in respect of water and sewerage. Of this, £78.84m was assessed as being in respect of domestic regional rate ie. £129.50 per household on average.
- The Review Team has rolled this figure forward to April 2006 using three scenarios. These include rolling the contribution forward taking account of: the RPI; the change in domestic regional poundage (i.e. actual changes in rates bills); the increase in rates in 2006/07 that was set aside for the Secretary of State's three funding packages.
- All scenarios provide comparable results with a domestic contribution of around £100m annually.
- Evidence considered by the Review Team concluded that this revenue collected did not cover, nor was intended to cover full operating and capital costs of providing water and sewage services. The rates leaflets indicated that "revenue collected through the regional rate for all services included an amount for current expenditure and a further amount in relation to notional loan charges which were a significant proportion of their expenditure."

[6] See 3.9, pg 40, Strand One Report, October 2007.

- The annexe further sets out how domestic contributions were derived between 1992-1998; how domestic regional rate poundages change; and attaches the 1998/99 rates leaflet.

6. Recovering the costs of Road Drainage

Recommendation: From 2008/09 liability for the costs of road drainage should be transferred from sewerage service users to the Roads Service.[7]

Annex 3 considers the recovery of costs of road drainage. Key points include:

- Relationship between the service supplier and the beneficiary of the service is far from clear in that the beneficiaries of the service are more than those connected to the sewerage system.
- Road drainage displays characteristics of a public good in that it is non-rivalry and non-excludable in terms of consumption.
- Current proposals see road drainage form part of sewerage service costs to be recovered from customers.
- In GB, costs are recovered from sewerage customers. Legislation prohibits the recovery of costs from highway authorities. No such prohibition exists in Northern Ireland.
- A case study of street lighting is presented for comparison.
- The case for and against inclusion of road drainage in sewerage costs is presented.
- The case for collection of road drainage costs from sewerage customers is largely based on reasons of simplicity and practicality.
- Information is not readily available on the amount of storm water in Northern Ireland. This is estimated to be 55% of total volume in GB however, DRD indicate that a study carried out in 1993 suggested that only 20% of storm water comes from public roads.

The Review Panel note that much work is required to accurately estimate road drainage volumes. The information would tend to suggest that any charge might be somewhere in the range of 10% - 20% sewerage costs assuming that costs are allocated on the basis of volumes.

7. Affordability analysis

Finding: The Review Team examined the proposed affordability tariff and whilst they considered that it was better than comparable schemes in Britain, it suffered from targeting and take up problems. More work will be undertaken and presented in the second report.[8]

Recommendation: Future household payments should be based on property values and supported by an improved affordability scheme to prevent water poverty.

Annexe 4 assesses the impact of the Scheme of Charges 2007-2008. The Review Team have modelled the likely generation of revenue using Family Resource Survey

[7] See 7.8, pg 64, Strand One Report, October 2007.
[8] See 9.11, pg 74, Strand One Report, October 2007.

(FRS) and considered the effect of the affordability tariff in terms of revenue creation and in reducing water poverty[9].

Five models are considered and the results of each are summarised below. The model assumes a revenue target of £192.0m. This is broadly comparable to that outlined in 'the license'.

Model 1 (Base Model) - 100% payment of water charges using unmeasured tariffs

Charges for water and sewerage services are based on the use of a standing charge and a variable rate based on capital value of the home. Charges are capped.

- Revenue creation of £192m.
- Some evidence of regressivity within the charging scheme among certain income groups. Decile 3 pays the highest contribution.
- 8.8% of people and 14.4% of households in water poverty.
- Pensioners disproportionately represented, accounting for 38% of those in water poverty.
- Those owning their homes outright are disproportionately represented accounting for some 58% of those in water poverty despite the group making up only 1/3 of the overall population.

Model 2a (Full Model) - Unmeasured and affordability tariffs as set out in the scheme of charges.

Charges for water and sewerage services are based on standing charge and a variable rate based on capital value of the home. Charges are capped and affordability tariff as outlined in the scheme of charges applies.

- Revenue creation of £172.8 (£19.2m less than base model)
- Examples of regressivity within model with those in the 7th and 8th decile proportionately paying the least.
- 6.7% of people and 10.5% of households in water poverty. (Improvement of 2.1% and 3.9% with use of affordability tariff).
- Pensioners make up an even higher proportion of those in water poverty. 69% of those in water poverty own their property outright.
- Following the introduction of affordability tariffs, it is clear that for those who qualify, almost all are removed from water poverty.
- Of the 6.7% of those left in water poverty, 96% will not qualify for the affordability tariff and will be paying the full unmeasured tariff.

Model 2b (Full Model, Amended): Unmeasured and Zero Affordability Tariffs

In this model those who qualify for affordability tariff pay nothing towards water and sewerage charges.

- Revenue creation of £153m (£39m less than base model)
- 6.4% of people and 10.1% of households in water poverty, which is a reduction of only 0.3% on affordability tariffs outlined in previous models.
- The Review Team note that this implies that the affordability tariffs are set at a reasonable level.

[9] Note water poverty is defined as a household paying greater than 3% of its income on water charges. People in water poverty are defined as people who live in these households.

Model 3a: "Pure" Capital Value Model: Unmeasured tariffs

In this model everyone pays for water and sewerage charges based on the capital value of the home. There are no standing charges, no caps and no affordability tariffs.

- Revenue generated is £123.9m. The variable charge must be increased by around 50% before £192m target revenue is reached.
- 9.1% of people or 13.8% of households are in water poverty.

Model 3b: "Pure" Capital Value Model: Unmeasured with affordability tariffs.

Charges are made based on the capital value of the home. However, the regular affordability tariff is applied.

- Revenue creation of £178.2m.
- 7.5% of people and 11.1% of homes in water poverty.

Accepting all limitations and assumptions, this detail provides significant evidence that further work is required to ensure that water and sewerage charges do not put people into water poverty. The Review Panel acknowledge this and further indicate that information on this matter will be presented within the Strand 2 report.

It is clear that, as the Scheme of Charges 2008-2011 stand, approximately 6% of people will fall into water poverty given the requirement to generate revenue of £192m.

Issues surrounding the need for targeting of intervention are also starkly illustrated within the annexe. Pensioners and those owning their homes outright are disproportionately represented within those falling into water poverty.

It should be noted that given the recommendation of no volumetric charging, no modelling of the measured tariffs was included within the technical annexe.

8. Underinvestment in Northern Ireland

Recommendation: The level of investment in our water and sewerage infrastructure has been less than in Britain.[10]

Annex 5 considers the legacy of underinvestment in Northern Ireland's Water and Sewerage Infrastructure.

Key messages contained within the annexe include:

- A number of estimates have been put forward for the estimated backlog in expenditure or underinvestment. Northern Ireland Second Asset Management Plan (2003) estimated this to be in the region of £953m. NIW (2007) assessed this to be around £1.9bn. This dramatic increase can be accounted for by adjusting to current prices and the need to satisfy more stringent environmental standards.

[10] See 4.19, 4.20, 4.21, Strand One Report, October 2007.

- NIW estimate that £393m of investment undertaken in recent years can be classified as backlog expenditure.
- Achievement of levels currently experienced in England and Wales increases the figure of underinvestment significantly.
- £242m additional investment required to raise drinking water levels to those experienced in England and Wales (99.96%). The Review Team comments that a fundamental decision is required as to whether this marginal improvement in standards is 'value for money'.
- There is a need for further clarification and discussion on the matter of setting drinking water quality standards and the consequent targets.
- Historically, Northern Ireland has lagged behind the rest of the UK in terms of investment in water and sewerage services. However, recent investment from 2001/02 has made significant progress in reducing the gap between GB and NI investment. These trends are clearly demonstrated in graphs contained within the Technical Annexe Report.
- In total, the Review Panel estimate that over the period 1989/90 to 2000/01, an additional investment of £432.8m (£39m annually) and £414m (£38m annually) would have been required to bring Northern Ireland Investment up to the levels found in England and Wales, and Scotland respectively.
- Since 2001/02 there has been a surge in capital investment in Northern Ireland which has significantly reduced the investment gap between England and Wales and Northern Ireland. However, due to continued high levels of investment in water and sewerage services in Scotland, the investment gap still remains.
- It is important to consider specific characteristics of a region as this can have a considerable impact on associated costs of providing investment in water and sewerage services.
- Northern Ireland is characterised by a large dispersed rural population, higher levels of leakage and supplies lower volumes of water per kilometre of water main, resulting in higher costs of providing investment. Labour costs have remained below England and Wales which has gone some way in reducing the gap between the cost of providing investment in NI and GB.
- Labour productivity has historically been lower in Northern Ireland than in the rest of the UK. This has, however, seen significant improvement over the last five years.

The Review Team noted that it was challenging to obtain all the historical data, however, in terms of information and arguments provided within the Annexe, a clear picture of the trends experienced in Northern Ireland is presented. Further information on data sources for cross referencing would have been useful.

One issue which would have benefited from greater clarification is that regarding drinking water quality and the presence of trihalomethanes (THMs). Both the report and the annexe state that there is research indicating a possible link between THMs in drinking water to certain cancers and adverse pregnancy outcomes. Given the potential significance of this statement for Northern Ireland, supporting evidence would have been informative.

9. CONCLUSION

In conclusion, whilst the Technical Annexes provide additional information on the five issues outlined above, clarification on the remaining recommendations and findings and found in Appendix 1, would have been informative.

APPENDIX 1[11]

FINDINGS AND RECOMMENDATIONS

Summary

- Direct rule ministers' proposal for water charges should be abandoned, saving householders around £143m in 2008/09 and £153m in 2009/10
- There should be no separate bill for water and sewerage services
- Plans for metering domestic customers should be discontinued
- Future household payments should be based on property values and supported by an improved affordability scheme to prevent water poverty
- Households should not have to pay for unfair costs such as roads drainage and the extra cost of the shareholder's dividend
- No cross subsidy between domestic and non domestic users
- Northern Ireland Water's efficiency savings target should be almost doubled
- Northern Ireland Water's contract with Crystal Alliance should be fundamentally reviewed
- Under direct rule there was a lack of openness and transparency in the water reform process

[11] Independent Water Review Panel, Strand One Report – Costs and Funding, October 2007. See pgs 5-11. http://www.iwrp-ni.org.uk/iwrp_strand_1_report-2.pdf

- Ratepayers have paid a substantial annual contribution towards the costs of the Water Service
- The level of investment in our water and sewerage infrastructure has been less than in Britain
- NI would lose annual spending power of around £100m if the Water Service continued to be funded directly from the rates or the Block grant
- Privatisation is not an option, as set out by the Minister in our terms of reference.

Funding recommendations in detail

- From 2008/9 an annual sum of around £109m should be taken from the domestic regional rates in recognition of ratepayers' historic contribution to water and sewerage services: this payment will be worth around £160 for the average household (3.9)
- In 2008/9, this will be households' only contribution to the services: the balance should be paid from the NI Block (2.35)
- In 2008/9, the rates relief scheme should continue to apply both to the rates and to domestic water and sewerage payments (2.35)

- Householders' payments for water and sewerage services should be clearly and separately identified on their rates bill and earmarked for Northern Ireland Water (2.36)
- From 2009/10 water and sewerage payments should be collected through the same billing and collection system as the rates: there should not be a separate system (2.36)
- From 2009/10 these payments should be sufficient to ensure that the services are self-financing at the lowest possible cost to users (2.36)
- As with the rates, householders' water and sewerage payments should be calculated on the basis of property capital values (2.36)
- There should be no standing charge or volumetric element (2.36)
- Payments should be eligible for new improved affordability arrangements about which we will be making recommendations in our second report (2.36)
- Payment arrangements for the non-domestic sector should proceed as planned, and should be reviewed by the Regulator in due course to ensure that there is no cross-subsidy between the two sectors (2.10)
- The implementation of domestic metering should be discontinued for the foreseeable future (2.36)

Cost recommendations in detail

- Northern Ireland Water's operational cost efficiency target should be raised to 40% for the period ending 2009/10 (5.16)

- Northern Ireland Water should review its capital expenditure efficiency targets and submit more challenging targets for the Regulator to consider in the light of our other recommendations (5.35)

- As Shareholder, DRD, on behalf of the Minister, should review NIW's arrangements for performance related pay to ensure that any enhanced payments are directly related to outperforming the prescribed efficiency targets (5.17)

- Given the high level of drinking water compliance already achieved and the substantial investment required to effect further marginal improvements, the Executive should consider as a decision properly to be taken at the political level the cost effectiveness of increasingly exacting drinking water compliance targets (5.26)

- Despite the potential costs to the NI Block, there should be at least a partial waiver of the dividend extracted from NIW by DRD, such that customers will pay no more than they would under a debt financed model (6.9)

- NIW's contract with Crystal Alliance should be fundamentally reviewed, given that our recommendations will considerably alter the nature and scale of the work required (7.5)
- From 2008/9 liability for the costs of road drainage should be transferred from sewerage users to the Roads Service (7.8)
- The Reasonable Cost Allowance Scheme for developers should be reviewed to ensure that it is cost reflective and is operated at no cost to other users (7.11)
- NIW assets which have already been identified as surplus should be disposed of to maximise their value to customers and taxpayers (7.17)
- The Regulator should review NIW's portfolio of assets with a view to identifying additional assets which are surplus to requirements and disposing of them (7.17)

Findings in detail

- Under UK-wide changes in Treasury accounting rules in 2002, if we had continued to pay for the Water Service out of the rates, the NI Block would have lost annual spending power of around £100m and increasing: in this respect the shift in status from agency to public corporation is already substantially benefiting the people of Northern Ireland. Moreover, the change is also releasing a further £60m annually for capital investment in other public expenditure priorities (2.8)

- There was a lack of openness and transparency in the water reform process from 2002: the potential costs and alternative policy options may not have been adequately assessed (1.15)

- Ratepayers historically paid a substantial annual contribution towards the costs of the water service through the regional rate: this was roughly equivalent to £109m at today's prices (3.6)

- After 1998 the linkage between the regional rate and payments to the Water Service was broken: but the rate was not reduced and ratepayers understandably believed that they were continuing to contribute (3.7)

- The revenue raised from the regional rate did not cover the full costs of the Water Service (3.8)

- Our level of infrastructure investment has been lower than in Britain since 1989. (4.19)

- £50m was added to the NI Block in 1989 to reflect the public expenditure consequences of the privatization of water and sewerage services in England and has continued to be paid (4.21)

- Volumetric charging (metering) should not be extended to domestic users here until and unless:
  - there is a foreseen water shortage requiring additional investment in extraction or storage capacity
  - other more cost-effective conservation measures have been implemented (2.33)

- The N.I. Consumer Council and the office of independent Utility Regulator have a significant role to play in protecting the interests of service users, and should continue their respective responsibilities (7.13)

- The proposed Affordability Tariff is better than comparable schemes in Britain, but suffers from targeting and take-up problems.