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**GUIDELINE FOR:**

- **ACCOUNTING FOR CAPITAL MAINTENANCE CHARGES AND CURRENT COSTS; AND**
  - **THE ANALYSIS OF REGULATORY CAPITAL VALUES**
- 

**REGULATORY  
ACCOUNTING  
GUIDELINE 1.04**

**Operative:  
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## Contents

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<b>Part 1</b>	<b>Explanatory note</b>	<b>3</b>
	Introduction	3
	Licence Authority	3
	Objectives	4
	Infrastructure renewals accounting	4
	Profit measurement	6
	Real financial capital maintenance	7
	Asset valuation principles	7
	Valuing new investment	8
	Assets existing at 31 March 1990	10
	Infrastructure assets	12
	Current cost profit and loss account	14
	Regulatory capital values	17
	Limitations on use	18
<b>Part 2</b>	<b>Definition of terms</b>	<b>21</b>
<b>Part 3</b>	<b>Accounting guideline</b>	<b>24</b>
	<b>3.1 Scope</b>	<b>24</b>
	<b>3.2 Current cost balance sheet</b>	<b>24</b>
	Infrastructure assets	25
	Operational assets	26
	Other tangible assets	27
	<b>3.3 Current cost profit and loss account</b>	<b>28</b>
	Adjustments to HC operating profit	28
	Financing adjustment	28
	Exceptional items	28
	Extraordinary items	28
	<b>3.4 Content of accounts</b>	<b>29</b>
	<b>3.5 Regulatory capital value</b>	<b>29</b>
<b>Appendices</b>		
	<b>1 Worked example</b>	<b>33</b>
	<b>2 Assumptions made in RAG 1.04</b>	<b>39</b>
	<b>3 Current cost accounting policies</b>	<b>41</b>
	<b>4 Acronyms</b>	<b>43</b>
	<b>5 Bibliography</b>	<b>44</b>

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# Part One – Explanatory note

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## 1.1 Introduction

- 1.1.1 This explanatory note discusses the objectives of the requirements for current cost (CC) accounts, the rationale behind the form of modified real terms accounting required and the limitations on the uses and interpretation of the accounts in their present form.
- 1.1.2 It also flags various simplifications being adopted in these guidelines for application of the principle in the water industry. Most of the simplifications are based on an assumption of immateriality. If for a particular company any of these simplifying assumptions are not immaterial, then more accurate profit adjustments may be appropriate. Some of the simplifications may be refined after further research; in these cases future guidance will be given on the treatment of the effect of refining the simplifying assumptions.
- 1.1.3 Also included in this section, is an explanation of the regulatory capital value (RCV) that should be disclosed by way of a note to the current cost accounts. Although the asset valuation used in the CC accounts remains that of Modern Equivalent Assets, the disclosure of RCVs is important since the calculation of the RCV is an essential element in Ofwat's price determination process.
- 1.1.4 Part 2 defines terminology. The formal guidelines on Current Cost Accounting ('CCA') are set out in Part 3. Appendix 1 sets out an illustrative example of the application of the guidelines. Appendix 2 lists the simplifying assumptions being made and Appendix 3 contains a recommended statement of CCA policies. Appendices 4 and 5 give acronyms used and a short bibliography.
- 1.1.5 The regulatory accounts consist of historic cost and current cost accounts. This RAG defines treatment of particular items (eg IRC and audit reports) where Ofwat requirements differ from those normally required under UKGAAP and Companies Act legislation.

## 1.2. Licence authority

- 1.2.1 Paragraph 8 of Condition F of the Licence requires Appointees to prepare CCA statements in addition to historical cost accounting statements in accordance with guidelines notified by the Water Services Regulation Authority (WSRA).
- 1.2.2 These guidelines may:
- specify the form and content of CCA statements;
  - require reconciliations between the CCA statements and the historical cost statements;
  - specify the accounting principles and the basis of calculation to be used in preparing CCA statements; and
  - specify the nature of the auditor's report required in respect of CCA statements.

### **1.3 Objectives**

- 1.3.1 The general objective of Ofwat in issuing these revised guidelines is for companies to publish accounting statements which will be consistent with the economic framework in which they are regulated. More specifically, Ofwat is seeking to achieve the following objectives:
- to provide a comparable measure of the real costs of supply, including the cost of capital, across companies;
  - to provide realistic measures of asset values and the trends in the returns earned on these assets.
  - to promote transparency of regulation by publishing regulatory capital values (RCVs); and
  - to promote transparency of costs.
- 1.3.2 These guidelines on CCA will provide Ofwat with measures of total real costs and of trends in the real rates of return that are suitable for comparative purposes. Limitations upon the interpretation and uses of the CC accounts in the water industry are the subject of paragraph 1.13 below. Basically a form of modified real terms accounting is adopted. Profit is measured in real terms but initial assets are valued at replacement cost. This replacement cost will be above the economic value (the present value of the net revenues arising from these assets) and hence the "fair" value, such as would be used in acquisition accounting. Accordingly the absolute rates of return shown are of very limited significance. The rate of increase in profit reflects the cost of capital on new investment and the total costs of output have to be adjusted to include the normal costs of capital. The rate of return allowed by Ofwat in setting price limits is a return on the RCV and is reflected in the revenues which companies charge. The RCV is often used by the investment community and others in determining a company's market value. The rate of return on the RCV is therefore more widely used and a better understood measure than the return on the replacement cost of the assets. The inclusion of the RCV in the accounts will allow users to assess this return themselves.

### **1.4 Infrastructure renewals accounting**

- 1.4.1 Historical cost accounts ('HCA') are recognised universally as a legitimate method of financial reporting but have a variety of limitations, in particular in regard to the return on capital earned in capital intensive industries with long asset lives such as the water industry. In the presence of inflation these limitations typically lead to:
- understated asset values;
  - overstated profit measures; and consequently
  - overstated returns on capital and distorted measures of total costs which persist even if inflation falls to zero.
- 1.4.2 The adoption of infrastructure renewals accounting by the industry overcame only in part such limitations of traditional HCA for infrastructure assets.
- 1.4.3 Infrastructure renewals accounting is used for long-life network assets (called infrastructure assets). It effectively regards the whole quantum of individual assets as a single infrastructure asset. Infrastructure renewals accounting is based on an operational assessment of activity needed to maintain the serviceability of the underground infrastructure over a medium to long-term period (typically in excess of 15 years). This period should be directly linked to

the company investment planning horizon and approach under the Capital Maintenance Common Planning Framework (CMCPF).

- 1.4.4 These guidelines on infrastructure renewals accounting will provide Ofwat with measures of total real costs of maintaining the infrastructure network..
- 1.4.5 We set out our initial guidance on infrastructure renewals accounting in RD 7/93 'The long range normative charge for infrastructure renewals' (June 1993) and it still remains relevant. RD 7/93 is copied as an appendix to this RAG.
- 1.4.6 FRS15 'Tangible fixed assets' does not allow for **full** infrastructure renewals accounting. FRS 15 requires all fixed assets to be depreciated but recognises that renewals accounting can be used as a method for estimating depreciation the charge under certain circumstances. Paragraphs 97 to 99 of FRS15 set out how the infrastructure renewals charge can be used as an estimation of the depreciation charge for infrastructure assets under FRS15. In addition these paragraphs explain how the charge should be presented in the statutory accounts in a way which is very different to that required by infrastructure renewals accounting and the RAGs. The RAGs require the difference between the infrastructure renewals charge and infrastructure renewals expenditure to be held as an accrual or prepayment within the balance sheet. FRS15 however requires the infrastructure renewals expenditure to be treated as the depreciation charge for the period which is to be deducted from the carrying amount of the asset. Actual expenditure is capitalised as incurred.

FRS12 'Provisions, contingent liabilities and contingent assets' does not allow provisions for future maintenance. However infrastructure renewals accounting requires the difference between infrastructure renewals charge and expenditure in the year to be accumulated in the balance sheet.

FRS12 'Provisions, contingent liabilities and contingent assets' (effective from March 1999) and FRS 15 'Tangible fixed assets' (effective from March 2000) should be dis-applied for infrastructure assets for regulatory accounts purposes (both historic and current cost). A full reconciliation between the statutory accounts (whether produced under UK GAAP or IFRS) and the historic cost regulatory accounts should be included within the regulatory accounts in accordance with Appendix 2 of RAG 3.06. Paragraphs 1.11.15 to 1.11.17 consider the infrastructure renewals charge (IRC) in more detail.

- 1.4.7 Each company is responsible for determining its IRC policy and ensuring that it is in accordance with the RAGs. We do not necessarily expect companies to apply our price setting methodology for calculating the infrastructure renewals charge for the regulatory accounts. Rather each company should develop and apply a policy for calculating its infrastructure renewals charge that meets the requirement of the RAGs. A key component of this requirement is to link the company's own medium to long-term maintenance planning. This is likely to differ for each company.
- 1.4.8 Companies should ensure that any significant changes in its long-run IRE forecasts are incorporated in the calculation of the IRC.

## 1.5 Profit measurement

1.5.1 The ASC Handbook on 'Accounting for the effects of changing prices' (1986) discusses two alternative measures of a company's profits which can be summarised as follows:

- Real Financial Capital Maintenance ('FCM') is concerned with maintaining the real financial capital of a company and with its ability to continue financing its functions. Under real FCM, profit is measured after provision has been made to maintain the purchasing power of opening financial capital. This involves the use of a general inflation index such as the RPI. Real FCM therefore addresses the principal concerns of the shareholders of a company. In the absence of general inflation real FCM is equivalent to conventional HCA, with the exception of the treatment of unrealised holding gains (paragraph 1.8.11).
- Operating Capability Maintenance ('OCM') is concerned with maintaining the physical output capability of the assets of a company. Under OCM, profit is measured after provision has been made for replacing the output capability of a company's physical assets which involves the use of specific inflation indices such as the Construction Price Index (COPI) or the Baxter index. This will typically be a major concern for the management of a company and was the approach used in Statement of Standard Accounting Practice ('SSAP') 16 – Current Cost Accounting (this standard was withdrawn).

1.5.2 The Statement of Principles for Financial Reporting (December 1999) discusses measurement in financial statements (Chapter 6) of assets or liabilities. The Statement recognises that whilst the financial capital maintenance (FCM) concept approach is satisfactory under conditions of stable prices it is open to criticism when there are substantial general or specific price changes. There is no evidence looking over a period of time that the industry has experienced specific price changes, accordingly the RPI remains the best measure of price changes overall. The linkage for the water industry between revenues charged under the RPI + K regime and general price increases in costs negates the criticism about the FCM approach where there are substantial general price increases.

1.5.3 The Water Act 2003 sets out the Water Services Regulation Authority's primary duties as follows:

### Part 2 Section 39

- (a) to further the consumer objective,
- (b) to secure that the functions of a water undertaker and of a sewerage undertaker are properly carried out as respects every area of England and Wales,
- (c) to secure that companies holding appointments under Chapter 1 of Part 2 of this Act as relevant undertakers are able (in particular, by securing reasonable returns on their capital) to finance the proper carrying out of the functions; and

- (d) to secure that the activities authorised by the licence of a licensed water supplier and any statutory functions imposed on it in consequence of the licence are properly carried out.

Following discussions with the Working Group on Accounting Issues for Regulation ('WGAR') in 1991 (in response to an identical duty to that described under (c) above), it was decided that the regulatory CC accounts should be prepared on a real FCM basis. This provides a measure of profit that is well suited to achieving a balance between the providers of capital and customers.

- 1.5.4 The WSRA also has a duty to ensure that the companies maintain the required level of physical operating capability. The June returns on the level of service and capital expenditure, are however specifically designed to monitor operating capability plans against required service standards, and so there is no need to reflect OCM concepts in the CC accounts.

## **1.6 Real financial capital maintenance**

- 1.6.1 In a normal competitive environment, it is usual for the accounts to focus on the returns to shareholders. Under real financial capital maintenance, profit is defined to be the increase in purchasing power of shareholders' funds, allowing for the introduction and withdrawal of capital, including dividends. The RPI is generally used as a measure of the change in the purchasing power of the unit of account, partly because of availability and stability in the estimates. Over a period, the RPI does not usually diverge greatly from other measures of general inflation, though for particular classes of shareholder other measures of purchasing power trends may be more relevant. In the water industry, the RPI is already built into the price control formula as a measure of general inflation, and this reinforces the relevance of using this index in measuring real financial performance.

- 1.6.2 Normally, to identify the real gains to shareholders, it will be sufficient to estimate the change in nominal value to the business of all assets and liabilities allowing for distributions etc. such as dividends, and make a single adjustment for the impact of inflation on shareholders' opening funds. As further discussed in paragraph 1.13 below, for regulatory purposes the focus of interest is on the real return on net operating assets, whether these were financed by debt or by equity. This requires the separate identification of a financing adjustment; this is broadly the real gain which shareholders make from the impact of inflation on nominal debt liabilities.

## **1.7 Asset valuation principles**

- 1.7.1 FRS15 – tangible fixed assets sets out the principles of accounting for the initial measurement, valuation and depreciation of tangible fixed assets. The principles for initial measurement and depreciation set out in FRS15 should be applied to the CC accounts, except where specifically dis-applied for infrastructure assets (paragraph 1.4.6). In respect of valuation the principles set out below should be applied to the CC accounts.

- 1.7.2 In passing all real changes in asset values through the profit and loss account, the definition of profits under FCM places stress on appropriate methods of asset valuation. In an ongoing business, the most relevant basis of valuation is current value to the business. Using the net recoverable value of assets (from

immediate, if orderly, sale) can lead to instability in the timing of recognition of profits especially where specialised assets are significant, as in the water industry. Economic valuation (NPV of gross profit flow) is both too subjective and clearly circular in reasoning in an environment in which prices are being regulated.

- 1.7.3 The CCA value of tangible assets to a business means what potential competitors would find it worth paying for them in the absence of barriers to entry and exit from the business, even if the competition is hypothetical. This will be the cost of an asset of equivalent productive capability to satisfy the remaining service potential of the asset being valued - a Modern Equivalent Asset ('MEA') - if the asset would be worth replacing, or the recoverable amount if it would not.
- 1.7.4 The gross MEA value is what it would cost to replace an old asset with a technically up to date new asset with the same service capability allowing for any difference both in the quality of output and in operating costs. The net MEA value is the depreciated value taking into account the remaining service potential of an old asset compared with a new asset, and is stated gross of third party contributions.
- 1.7.5 The CCA value of assets to a regulated business may however be affected by the nature of the regulation. In the water industry the requirement that regulation should allow for the financial viability of an efficient operator means that new investment can be valued on normal CCA principles ignoring potential restrictions imposed by the regulator. However the constraints on price levels means that the true value to the business of initial assets is actually the recoverable amount. This would normally be the present value of the associated cash flows, discounted at the cost of capital, i.e. the economic value. However the estimation of the future cash flows is subjective and could be circular since the regulator sets price limits.
- 1.7.6 Accordingly, in valuing initial operational assets used in the appointed business, existing at the time of privatisation, it is assumed that the effect of regulatory constraints can be disregarded. The value to the business under such circumstances will generally be the MEA. Furthermore initial assets are to be valued at their full MEA, whether or not they were originally, or would now be, paid for by third parties. These modifications to pure real terms accounting principles are discussed further in paragraph 1.13.

## **1.8 Valuing new investment**

- 1.8.1 Although the principles of CC asset valuation described above were set out in SSAP 16 and the ASC Handbook, these guidelines generally require the use of the RPI in restating net asset values (and hence the CC depreciation adjustment) rather than the use of specific indices as illustrated in the Notes to SSAP 16 and the Handbook. The rationale for this goes beyond the simplicity of the adjustment and can most easily be seen in relation to new investment, by considering the appropriate treatment of general inflation, expected relative price movements and unexpected relative price movements separately.

### **General inflation**

- 1.8.2 If there is no general inflation and no relative price movements, HC accounts will correctly measure FCM profits. The timing of the recognition of the real profits will be affected by judgement on depreciation profiles due to physical wear, rising

maintenance costs etc., but over the life of an asset the total original (real) cost of a new asset will be recognised as an expense.

- 1.8.3 The correct FCM method of dealing with general inflation (changes in the value of the unit of account) is Constant Purchasing Power ('CPP') Retail Price Indexation (RPI) of historical costs.

#### **Expected relative price movement**

- 1.8.4 If, in the absence of general inflation, there is expected to be a relative movement in the price of an asset, this should in principle be reflected, even in HCA, in the shape of the depreciation profile and the judgement of asset lives. In particular, where rapid technical progress is expected, it may be appropriate to use some form of accelerated depreciation (sum of digits, reducing balance etc). In aggregating depreciation over assets of different ages, however, sophistication in depreciation profiling may not produce a material improvement in the timing of the recognition of profits.
- 1.8.5 If general inflation is superimposed on the expected relative price movement in asset values, again CPP indexation of the HC accounts is the relevant extra adjustment. In these guidelines it is assumed that HC (and therefore CC) depreciation profiles adequately reflect judgements about expected relative price movements and other relevant factors determining depreciation.

#### **Unexpected relative price movement**

- 1.8.6 In the absence of inflation, conventional HC accounting deals with the effect of unexpected relative price movements on asset values by periodic reviews of asset lives and in principle, depreciation profiles (as required under FRS15). The relative 'price' of the net value of an old asset does not necessarily move pro rata with the price of a new MEA, for example, if the unexpected price movement leads to a revision of the depreciation profile. The change in the net book value is put through the profit and loss account and generally smoothed over remaining asset lives.
- 1.8.7 For revaluation losses other than those caused by a clear consumption of economic benefits FRS15 permits recognition in the statement of total recognised gains and losses (STRGL). Revaluation gains and losses are generally recognised in the STRGL. In the CC accounts revaluation gains should be recognised in the current cost reserve. A separate STRGL is not required for the current cost element of the regulatory accounts.

These are the principles, expressed in real terms to deal with general inflation which are required to deal with unexpected relative price movements in these guidelines.

- 1.8.8 The CC methodology for estimating net asset values is illustrated in the Guidance Notes to SSAP 16 and the Handbook. This is derived from attempts to measure profit after operating capability maintenance, and does not distinguish between expected and unexpected price movements in the use of specific indices. One consequence is that if all the real change in net assets values so estimated is immediately put to the profit and loss account, the estimate of real profit can be unstable. Although this only affects the timing of the recognition of real profit, this is a significant reason why these guidelines require the use of RPI

in annual asset revaluation, focusing specific price changes on the periodic reviews at which the latest Asset Management Plan ('AMP') information can be taken into account. At these reviews special consideration can be given to how far net book values need changing (i.e. in theory, depreciation profiles changed) and the appropriate treatment in the regulatory accounts.

- 1.8.9 FRS15 allows, but does not require, entities to carry their fixed assets at revalued amounts. If the valuation route is chosen it should be applied consistently to all fixed assets of the same class. The revaluations need to be regularly updated. This means full valuation at least once every five years with a less detailed interim valuation in the third year and in other years if there is evidence that the value has changed significantly or, valuations can be carried out on a rolling basis over a five-year cycle with an interim valuation on the remaining assets in the class where there has been indication of a material change in value.
- 1.8.10 For the purposes of the regulatory accounts, the asset revaluation using RPI should be carried out on an annual basis. Revaluations arising from specific price changes should be carried out once every five years to coincide with the production of the AMP. In order to ensure consistency across the industry companies will be notified in advance by RD letter which year of each quinquennium this revaluation should be incorporated into the regulatory accounts.

### **Non depreciating assets**

- 1.8.11 To be consistent with the above treatment of depreciating assets, non depreciating (and possible appreciating) assets should be valued at value to the business (generally market values) and real increases taken to income. The initial valuation should be indexed for general inflation using the RPI, unless further revaluation is incorporated in the HC accounts. The guideline follows the normal HC practice of only recognising, in the profit and loss account, holding gains on realisation when they may need to be identified as exceptional or extraordinary.

### **Goodwill**

- 1.8.12 It is assumed that no implicit goodwill is created by the regulatory process, except that arising from differential efficiency so that changes in the real value of tangible and monetary assets in the balance sheet are a suitable measure of financial performance. FRS10 – Goodwill and Intangible Assets only allows purchased goodwill to be capitalised in the balance sheet. Therefore, internally generated goodwill should not be capitalised. Purchased goodwill is the difference between the cost of the acquired entity and the aggregate of the fair values of that entity's identifiable assets and liabilities. It is assumed that there will be no goodwill in the appointed business as the parent company usually acquires new companies and takes any purchased goodwill to its balance sheet.

## **1.9 Assets existing at 31 March 1990**

- 1.9.1 The above discussion sets out the principles to be followed in valuing new investment. The value of existing assets has been a major factor in the balance sheets of the water industry for many years. In applying the same valuation principles to old depreciable assets as to new, the initial estimates of net asset value clearly accumulate at one time. Where there are revisions to depreciation

profiles, these would have been spread over a long period if real terms accounts had been kept from the start of the business. Furthermore, especially in the absence of full historical cost records, the initial net values will be derived from gross MEA estimates rather than being depreciated real historical cost.

- 1.9.2 The AMPs prepared for price setting purposes are the obvious basis for the new gross MEA estimates. The general assumption (see paragraph 1.10.6) is that in the longer term there will be no significant relative movement between the PPI (Producer Price Index) and the RPI. Accordingly it is assumed that a better estimate of the net replacement cost of initial assets will be obtained by indexing the original September 1987 AMP unit costs to 31 March 1990 using the RPI rather than the PPI leaving depreciation profiles unadjusted.
- 1.9.3 It has already been explained in paragraph 1.7.6 above that the valuation of initial operational assets is to disregard the impact of the regulatory regime which would otherwise imply that the value to the business was the recoverable amount. Surplus land however is to be treated as an investment for this purpose as its value to the business taking into account any proceeds that are passed on to customers. Initial assets are defined to be those in place at the beginning of the first accounting period under the present regime, i.e. March 31, 1990.
- 1.9.4 Returning below to the special case of infrastructure assets, the initial values of the bulk of above ground assets were based upon the net values as at September 1987 using (SSAP 16 Guidance Notes) CCA methodology, incorporating specific price movements to that date. These were adjusted where appropriate for AMP information and indexed using the RPI to 31 March 1990. From 31 March 1990, the guidelines require the use of RPI indexation with subsequent reviews of relative price trends, as for new investment above. At periodic reviews, it will be important to identify how much of the change in real values represents further improvements in the initial value estimate, to be treated as a prior year adjustment, and how much should be taken through the profit and loss account.
- 1.9.5 The MEAs of the existing system in use, estimated on a plant by plant basis may seem an overestimate in that, starting from scratch, the system would probably be designed quite differently for example, with fewer, larger plant. However, except where there is a clear definition to redesign and rebuild the system in 'optimum' configuration, the MEAs should be based on the actual system. The MEAs of individual components, where necessary, should nevertheless be based on expected capacity in use. As systems expand and change, a degree of suboptimality at any one time is inevitable and part of the total cost of output. If rebuilding is introduced in future AMPs, care will have to be taken over the treatment of the NBV of redundant assets; again a significant part may be refinement of the initial valuation rather than cost incurred in the subsequent period.
- 1.9.6 In principle net MEAs of existing assets should be adjusted or the different operating costs of the actual assets compared with their modern equivalent. It is assumed that this has been done, for example, by deducting the present value of the difference in operating costs from the unadjusted MEA values.

## **1.10 Infrastructure assets**

- 1.10.1 The valuation of existing assets in the water industry is, of course, heavily influenced by the value of infrastructure assets. The indefinite life of these assets has led to the adoption of infrastructure renewals accounting, in which the measure of the consumption of capital is based on the expected actual level of renewals expenditure. Given that most infrastructure assets are worth replacing, even if replacement is not a foreseeable eventuality, the adoption of infrastructure renewals accounting has led to a reconsideration of the principles to be adopted in identifying the value to the business of existing infrastructure assets. FRS15 does not allow full infrastructure renewals accounting as mentioned previously in paragraph 1.4.6 and therefore that part of the FRS should be dis-applied for regulatory accounting purposes.

### **Gross MEAs**

- 1.10.2 The gross MEAs of infrastructure assets should usually be based on the replacement cost of assets delivering to modern standards, defined as the standards upon which initial AMPs were based.

### **Abatement factors**

- 1.10.3 Up to March 1992 when this RAG was first issued, the water and sewerage companies (WaSCs) applied a 40% abatement factor to the pre 1981 MEA values of mains and sewers. Conventional depreciation was calculated on the basis of the abated assets value. Historically, this abatement factor was aimed at addressing such issues as redundancy and the extent to which existing assets would not have to be replaced at the expense of the company, partly due to technical progress in relining techniques.
- 1.10.4 The Guidelines require that no abatement factor is applied and any former accumulated current cost depreciation charge is not to be deducted. The new gross value is then to be indexed only by the RPI between periodic reviews at which new AMP information will be taken into account. The rationale for this and the implicit simplifications are discussed below.

### **Redundancy**

- 1.10.5 Although redundancy was one of the factors lying behind the 40% abatement factor, it is assumed that redundant assets have now been appropriately reflected in the length, diameter etc. of MEAs. As noted above in paragraph 1.9.4, it is the existing system in use which is to be valued including the existing suboptimality of layout. It is assumed that writing off further redundancies as they are recognised will not so materially distort profit recognition that a depreciation provision for accruing redundancy in the system will be required.

### **Technical progress**

- 1.10.6 'Technical progress' is used here as shorthand for relative price movements affecting the value to the business of infrastructure assets. Some prices for example, of labour, will almost certainly rise in real terms but it is assumed that technical progress affecting infrastructure assets is not so rapid that overall,

replacement costs fall in real terms. Accordingly, no further depreciation obsolescence is required from present gross MEAs

- 1.10.7 In the past, one aspect of technical progress has been the development of 'no - dig' relining techniques. In extremes, this could mean that all renewals expenditure relates to relining the 'pipe' and the 'hole' does not depreciate at all. Accordingly, like land, the 'hole' element would retain its original real cost value to the business although in the absence of this historical cost information, initial MEA costs of hole (and pipe) are to be used instead and indexed for RPI.

### **Third party contributions**

- 1.10.8 In assessing the opening value of assets at 31 March 1990 in the regulatory accounts, the extent of third party financing affects the worth to the business. Ofwat has concluded that, for the purposes to which the CC accounts of the industry will be put, the amount of the deduction for third party contributions on initial assets is essentially arbitrary; any deduction will lead to an automatic adjustment of the initial rate of return being earned on these assets. A revision in the initial deduction will be offset by a revision in the rate of return which will be ignored for the purposes of monitoring the trends in real profit rates. For the purpose of monitoring the real cost efficiency it is in any case the cost gross of third party contributions which are most relevant.
- 1.10.9 Accordingly it is assumed that assets in place at March 31, 1990 would not have been subject to third party contributions and so the guidelines require that no deduction be made for third party finance. Any deductions made in existing CCA gross asset values for example, on post 1981 assets, should be removed notably by using unit replacement costs from AMPs. Future (actual) third party contributions are to be treated like grants and carried forward (in real terms) as deferred income deducted in net operating assets. Consequently for example, adopted assets are to be brought in as an asset in the year of adoption at their MEA cost with a corresponding credit to third party contributions.
- 1.10.10 Future government grants on infrastructure assets are assumed to be negligible. No deduction from existing infrastructure assets to allow for this form of finance is therefore required. If such grants occur in future they will be treated as windfalls reducing the cost of particular assets. However to maintain consistency with the treatment of grants on other assets, they are to be shown separately as deferred income deducted in calculating net operating assets. Unlike the equivalent grants for non - infrastructure assets, this deferred income is not written (in real terms) to the profit and loss account over time. This is consistent with the assumption above of no depreciation on infrastructure assets. The accrued grants are only indexed by the RPI.

## 1.11 Current cost profit and loss account

1.11.1 In reconciling the HC and CC profit and loss accounts, it is convenient to adopt the notation that:

$$\text{RPI} = \% \text{ change in RPI in financial year} = \frac{\text{Closing RPI} - \text{Opening RPI}}{\text{Opening RPI}}$$

1.11.2 It follows from the definition of real FCM profit in paragraph 1.5 that:

Real FCM retained profit = increase in reserves less RPI x opening shareholders funds.

where:

increase in reserves = HC retained profit + nominal gains on assets not recognised in HC profit less nominal gains recognised in HC profit in this period not previously so recognised (for example, on disposals).

and

RPI x opening shareholders funds = RPI x opening fixed assets plus RPI x opening working capital less RPI x opening net finance, where fixed assets are net of third party contributions.

### Fixed asset adjustments

1.11.3 With the above assumptions and simplifications, the fixed asset adjustments can be derived as follows:

Nominal gains not recognised in HC profit

- nominal gains recognised in HC profit in the period not previously so recognised
  - RPI x opening fixed assets
- = (closing CC fixed assets less opening CC fixed assets) less closing HC fixed assets less opening HC fixed assets) less RPI x opening CC fixed assets.
- = (opening CC NBV + RPI x opening CC NBV + AMP adjustment + additions less CC NBV of disposals less CC depreciation less opening CC NBV) less (opening HC NBV + additions less HC NBV of disposals less HC depreciation less opening HC NBV) less RPI x opening CC NBV.
- = AMP adjustment less  
(CC depreciation less HC depreciation) less  
(CC NBV of disposals less HC NBV of disposals).

- 1.11.4 In the absence of an AMP adjustment, this equals the depreciation adjustment plus the disposal of fixed asset adjustment described in paragraph 3.3.1. If real unrealised gains or losses have been taken to the current cost reserve then a more sophisticated disposal of fixed assets adjustment will be needed. Adjustments to asset values arising from future AMP revisions will only be taken into account at the time of periodic price reviews. A distinction is then likely to have to be drawn between revision to the value of existing assets at the time of the introduction of the new regulatory regime and that of assets subsequently introduced. It will also be necessary to ensure consistency with assumptions and revisions on depreciation charges and renewals charges.
- 1.11.5 It has also been assumed for fixed assets that RPI indexation is immaterial, in other words all additions occur at the year end; and assets in use with an HC net book value of zero have been valued at net MEA value.

### **Working capital adjustment**

- 1.11.6 The working capital adjustment is the adjustment for the impact of general inflation on the real value of the working capital of the business.
- 1.11.7 RPI x opening working capital in paragraph 1.11.2 equals the working capital adjustment in paragraph 3.3.1. The need to identify a working capital adjustment separately in measuring real term profits is a by product of the need to identify the financing adjustment as discussed in paragraph 1.6.2. Theoretically, whether or not an asset or liability should be included in the working capital or financing adjustments depends on whether the corresponding, nominal income stream is (implicitly or explicitly) above or below operating profit. In these guidelines, it has been assumed for working capital that holding gains on stock during the year are immaterial. In other words, the CC valuation of closing stock equals the HC valuation of closing stock. All cash balances should be excluded from the working capital balance

### **Financing adjustment**

- 1.11.8 The financing adjustment is the real gain or loss arising for shareholders from the impact of general inflation on monetary assets and liabilities.
- 1.11.9 RPI x opening net finance in paragraph 1.11.2 equals the financing adjustment in paragraph 3.3.3. It has been assumed for net finance that :
- the CC valuation of closing investments equals the HC valuation of closing investments;
  - the CC capitalisation of interest during construction equals the HC capitalisation of interest during construction in real terms; and
  - the impact of changes in interest rates on the value to the business of financing liabilities can be ignored. Since this would only affect the division of profits between shareholders and debt holders, it is not a matter of immediate significance for regulatory purposes anyway.

- 1.11.10 The financing adjustment should be refined if equity is issued during the year for cash as follows:

Financing adjustment = opening net finance x RPI less equity injection x RPI after injection;

Where RPI after injection denotes the percentage increase in the RPI between the date of the equity injection and the date of the closing balance sheet. This refinement is itself an approximation and can be explained as follows.

- 1.11.11 If equity is issued during the year, it is assumed that most of this equity will be in the form of cash at the year end and will not have been converted into fixed assets. This cash will earn interest at nominal interest rates and it is therefore appropriate to reduce the financing adjustment which is concerned in part with converting nominal interest to real interest.
- 1.11.12 If instead, loans have been raised during the year, it is again assumed that most of these loans will not have been converted into fixed assets at the year end. However, in this instance, the loans will be automatically offset against the associated cash because of the definition of net finance and so no explicit refinement of the financing adjustment is required.
- 1.11.13 The financing adjustment should also be refined where companies have index-linked debt (the value of which will not be eroded by inflation), for any dividend creditor and for the deferred tax liability.
- 1.11.14 Appendix 1 of RAG 1.04, part 7 shows an example calculation of the financing adjustment.

### **Infrastructure renewals charge (IRC)**

- 1.11.15 This appears in both the regulatory HC and CC profit and loss accounts but is no longer included in the HC statutory accounts (see paragraph 1.4.6 for more details). The basis of the infrastructure renewals charge has to be conceptually consistent with the above assumptions on asset valuation. For accounting purposes the IRC should reflect the company's assessment of its medium- to long-term capital maintenance needs for its infrastructure assets. As a measure of capital consumption, it contains no provisions for redundancy or obsolescence. We expect that the same basis of calculation is used for calculating the IRC in both the historic and current cost regulatory accounts.
- 1.11.16 To maintain this element of consistency with the assumptions on asset valuation, with effect from the 1991 - 92 regulatory accounts, it has been appropriate to index the renewals charge by RPI, as measured by the average inflation rate over the year. (Previous to this, although the guidelines advocated the use of COPI rather than RPI different companies were applying different indices in the calculation of the infrastructure renewals charge). This basis of calculation applies in the first instance, to the current cost accounts but companies should use the same basis for their regulatory historical cost accounts.
- 1.11.17 The infrastructure renewals accrual or prepayment is included in the balance sheet. The renewals accrual may indicate that the company will need to carry out higher levels of maintenance sometime in the future which it has already charged

in its accounts. The renewals prepayment indicates that the company is ahead of the original plan and there will be a likelihood of lower levels of maintenance in the short term.

## **1.12 Regulatory capital values**

- 1.12.1 As discussed in paragraph 1.9.3, the valuation of initial operating assets should disregard the impact of the regulatory regime which would otherwise imply that the value to the business was the recoverable amount. To date MEA values have been reflected in the regulatory accounts with no reference to or inclusion of the value placed on the asset base for regulatory purposes (primarily for price setting). However, over time analysts and investors have increased their focus on the RCV, using it to determine a company's market value. Therefore from the 2002-03 financial year onward the regulatory capital value will be included in a note to the regulatory accounts. This will enable readers of the accounts to assess the value of the assets used for regulatory purposes (the RCV) relative to the largely replacement value of the assets (the MEA value).
- 1.12.2 The RCV starts with a direct measure of the value placed on each company's capital and debt by the financial markets following privatisation (or a broadly similar measure for water only companies which were not floated). This is then rolled forward to take account of new capital investment, net of depreciation. The calculation of RCVs is an essential element in Ofwat's price determination process. They also act as a proxy for market values and as such form an important basis for measuring financial performance.
- 1.12.3 The Ofwat methodology is effectively a regulatory hybrid to provide equitable treatment between consumers and shareholders. It is based on acquisition costs to ensure that there is no windfall gain to shareholders. Consumers incur depreciation charges based on current replacement (MEA) costs, so that each period consumers pay for the asset value used in the services supplied.
- 1.12.4 The initial RCV is calculated as the average of the market value of each water and sewerage company for the first 200 days for which the shares were listed plus the total value of debt at privatisation. A proxy for the initial market value was used for the water only companies that were not privatised in 1989.
- 1.12.5 The value has been adjusted each year to take account of net investment. Capital expenditure to enhance and maintain the network which has been assumed in setting price limits has been added to the value. This is after deducting the amount of depreciation (based on the MEA values of the assets) which has been assumed in setting price limits. Any grants and contributions and associated amortisation are also taken into account. Infrastructure renewals expenditure is not added to the RCV but the movement in the infrastructure renewals accrual or prepayment is included. Adjustments are also made in respect of disposals of land to remove the value of this from the RCV.
- 1.12.6 The RCV is adjusted each year by RPI to take account of inflation.
- 1.12.7 By setting out clear guidance on RCV methodology and publishing the values of the RCV in the regulatory accounts, transparency will be aided and there will be consistency between the companies. The figures in the reconciliation will be those determined by Ofwat at Periodic Reviews. The proforma for the RCV is illustrated in RAG3.06, appendix 2 and also in section 3.5 of this guideline.

## **Logging up of capital expenditure**

- 1.12.8 The net additional capital expenditure included in the RCV at periodic reviews is the amount determined by Ofwat as necessary for companies to meet new obligations, improve service levels and maintain the existing asset base. Between periodic reviews, if the company is required to meet additional statutory obligations the capital costs associated with this work are 'logged up' and are added to the RCV at the next review. The level of cost associated with those assets which is incorporated into the RCV is subject to challenge by Ofwat as it would be at a periodic review.
- 1.12.9 Any investment over and above the levels projected at price reviews, which does not meet the definition of a new statutory requirement, is not as a matter of course, included in the RCV for future remuneration. Exceptions to this may be made. For example, for the 1999 and the 2004 periodic reviews, expenditure in total for each service for over the previous AMP period in excess of determination was only included where;
- a) companies provided clear and incontrovertible evidence that customers had been consulted,
  - b) that the investment was a clear priority for customers and;
  - c) that customers were prepared to pay higher bills.

## **Efficiency**

- 1.12.10 In order to provide incentives to encourage companies to continue to improve efficiency, where companies have spent less in delivering the required outputs than determined at periodic reviews they may keep the benefits of these capital efficiencies for a specific period of time, after which they are passed to customers.
- 1.12.11 For the 1999 periodic review a 5 rolling year period was adopted. For example, if in 1994-95 a company actually incurred capital expenditure of £80m compared to £100m assumed by Ofwat, the company would continue to be remunerated for £100m in the RCV for the five-years until 2000-01 when the RCV would be adjusted downward by £20m. This approach was used again at the 2004 periodic review with the additional step that the adjustments were smoothed on an Net Present Value basis over the 5 years. The reconciliation of the opening and closing RCV to be included in the accounts is discussed in section 3.5.

## **1.13 Limitations on use**

- 1.13.1 This section identifies various limits which can be placed on the interpretation and uses of the CC accounts in the water industry for regulatory purposes, given the assumptions and simplifications set out above.
- 1.13.2 Historically, the most important assumption was that the effect of the regulatory regime on the value to the business of initial assets could be ignored. This amounted to avoiding the adoption of acquisition accounting, with premature judgement about economic values including the relevant cost of capital. The MEA values to be used also assumed that there would have been no third party contributions on initial assets which would have been taken into account in an

economic value. These assumptions represent the principle modification to real terms accounting required by these guidelines.

- 1.13.3 Given the adoption of MEA initial values, rather than real acquisition costs, the initial absolute level of rate of return on CC capital employed would be abnormally low. Furthermore, the differences in this rate between companies will be an accident of history reflecting where each company happens to have reached in the process of determining prices in the previous regulatory regimes, whether statutory or in the nationalised industry control framework. There is no implication from the existing regulatory framework that the rate of return on initial assets should be either equalised or brought up to normal profit rates overall in the near future.
- 1.13.4 An alternative approach to asset valuation would have been to value initial assets at the market value when the regulatory regime was introduced. In the case of the WaSCs this could have been identified with the market value on flotation which, allowing for debt, represents the acquisition cost for the new shareholders. For the water only companies (WoCs), the capital market value on conversion to the new regulatory regime would have been relevant. However there are significant areas of judgement which would have been necessary in determining the precise timing of the relevant market valuation if it was both to avoid excluding legitimate flotation discount costs and to avoid circularity in anticipating the effects of profit regulation on the economic value of assets. Although valuation of assets on this basis, in aggregate, would have allowed profit rates to be nearer to normal levels, it was considered that the subjective judgements involved were more appropriately confined to the allowed rate of change in the low rates of return than frozen in initial asset values. Furthermore the total current costs, including the cost of capital, of different services would have been meaningless for comparative purposes using this alternative valuation method. Although MEA valuation is the most appropriate method of asset valuation for the purposes of the regulatory accounts, the RCV is an essential element in Ofwat's price determination process and is used widely by the investment community. It is now included in the regulatory accounts as a separate note.
- 1.13.5 Nevertheless there are considerable uncertainties identified above in the MEA valuation of initial assets, particularly the third party financing assumption and the extent of initial depreciation. The principles adopted are designed to monitor correctly the return being earned on new investment in satisfaction of the obligation to ensure financial viability. Adjustments to the value of initial assets from subsequent AMP reviews, and the effect on overall rates of return, will largely be discounted for regulatory purposes. For comparing cost efficiency, the costs without any deduction for third party finance also seem more relevant.
- 1.13.6 In conclusion the form of current cost accounts required by the Licence will be used for the purposes of monitoring:
- the trend in real rates of return between companies;
  - the comparative cost levels of different services between companies including the cost of capital on the capital employed.

The trend in profit rates will need to be monitored to allow for a reasonable return on new investment. The analysis of the real cost levels of different services will contribute to the required judgements about efficiency levels. The inclusion of the RCV's in the regulatory accounts will ensure consistency of approach by the

companies and also aid transparency for our stakeholders with regard to the publishing of future RCVs.

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## Part Two – Definition of terms

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<b>AMP adjustment</b>	The revision in the MEA valuation of the fixed assets as a result of the most up to date information companies has on their asset base. Valuations generally take place when companies are preparing their business plans as part of the price review process.
<b>Current cost operating profit</b>	Calculated on a real terms basis at the pre tax, pre interest level.
<b>Financing adjustment</b>	The impact of general inflation on the real value of net finance for the business.
<b>Infrastructure assets</b>	Mainly underground systems of mains and sewers, impounding and pumped raw storage reservoirs, dams, sludge pipelines and sea outfalls. Information about infrastructure assets is also to be regarded as an infrastructure asset.
<b>Infrastructure charge</b>	The initial charge for connecting premises to the water and sewerage system for domestic purposes as defined in Section 79(2) of the 1989 Water Act.
<b>Infrastructure renewals accrual/prepayment</b>	The cumulative difference between the infrastructure renewals charge and the actual infrastructure renewals expenditure. A prepayment indicates that more expenditure has been incurred than charged, whereas an accrual indicates that less expenditure has been incurred than charged. The accrual/prepayment is recorded in the balance sheet.
<b>Infrastructure renewals charge</b>	The annual accounting provision for expenditure on the renewal of infrastructure assets charged to the profit and loss account. It should reflect the company's assessment of its medium- to long-term infrastructure renewals expenditure needs.
<b>Initial assets</b>	Those in place at March 31, 1990.
<b>Modified real terms accounting</b>	Real terms accounting modified by the exclusion of unrealised gains and the inclusion of initial operational assets at their value to the business ignoring the impact of the regulatory regime and the extent of third party contributions.

<b>Net finance</b>	<p>All monetary assets and liabilities other than to equity shareholders, which are not included in 'net operating assets'. It therefore includes;</p> <ul style="list-style-type: none"> <li>• borrowings,</li> <li>• non-trade debtors and creditors,</li> <li>• investments, and</li> <li>• corporation tax payable,</li> </ul> <p>but excludes proposed dividends.</p>
<b>Operational assets</b>	<p>Assets including those of a specialised nature employed for operational purposes, namely: Intake works, pumping stations, treatment works, boreholes and operational land. Land which is not currently in operational use but is expected to be in operational use in the foreseeable future should also be included in this category, as should plant and machinery inherent in the nature of the works. Offices, depots, workshops, residential properties directly connected with water and sewerage services and land held for the purpose of protecting the wholesomeness of water supplies.</p>
<b>Other assets</b>	<p>Non specialised, non operational plant, machinery, vehicles, surplus land and all other assets not listed in the categories above.</p>
<b>Real</b>	<p>After allowing for the impact of RPI.</p>
<b>Real financial capital maintenance</b>	<p>The measurement of profit after allowing for maintaining the real value of shareholders' funds.</p>
<b>Real terms accounting</b>	<p>The combination of valuing assets at value to the business with the inclusion of all realised and unrealised gains in the measurement of profit after real financial capital maintenance.</p>
<b>Recoverable amount</b>	<p>The greater of the net realisable value of an asset and where applicable, the amount recoverable from its further use, discounted as appropriate.</p>
<b>Regulatory capital value</b>	<p>The capital base used in setting price limits. The value of the appointed business which earns a return on investment. It represents the market value (200 day average), including debt, plus subsequent new capital expenditure (net of depreciation) as assumed at the time of price setting and including new obligations imposed since 1989.</p>

**Third party contributions since 1989 – 90**

Grants and third party contributions received in respect of infrastructure assets and any deferred income relating to grants and third party contributions for non infrastructure assets.

**Value to the business**

Net current replacement cost or if a permanent diminution below net current replacement cost has been recognised, recoverable amount.

**Working capital**

The aggregate of;

- stocks,
- trade debtors,
- trade creditors,
- measured income accrual,
- capital creditors,
- deferred income (relating to advance receipts only), and
- any other debtor and creditor balances relating to expenditure which is charged to the profit and loss account before operating profit.

It should exclude the infrastructure renewals prepayment or accrual.

**Working capital adjustment**

The adjustment for the impact of general inflation on the real value of working capital to the business.

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## Part Three – Accounting guideline

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### 3.1 Scope

- 3.1.1 Under Condition F of the Licence, companies are responsible for publishing audited CCA statements in accordance with these guidelines. CCA statements are required only for the appointed business of the Appointee.
- 3.1.2 Under the information requirements of Condition B, companies are also required to submit audited HCA and CCA information on a charging year basis for the purpose of assessing possible interim K adjustments. The procedure for submitting this actual data is set out in 'RD/MD' letters.
- 3.1.3 These guidelines require that the CCA statements be prepared on the basis of modified real terms accounting in accordance with paragraphs 3.2 and 3.3. CCA statements should contain a profit and loss account and balance sheet together with supplementary notes and information in the form set out in Appendix 2 of RAG 3.06.
- 3.1.4 Merger accounting rules will apply for regulatory accounts to ensure reliable and compatible information to support a regulatory approach which relies upon comparative competition. Therefore FRS6 (Acquisitions and Mergers) is to be dis-applied for appointed businesses that have been amalgamated to ensure that a full years performance is adequately reflected in the regulatory accounts in the year of amalgamation.

### 3.2 Current cost balance sheet

- 3.2.1 The current cost balance sheet should include all assets, which the appointed business owns or is responsible for operating except for those subject to operating leases.
- 3.2.2 Except as indicated below, assets and liabilities should be included on a basis consistent with the historical cost statements.
- 3.2.3 Assets originally funded, wholly or partly, by third parties such as adopted, requisitioned and Section 24 assets and communication pipes from mains to stop taps, should be valued as for assets funded by the companies themselves.
- 3.2.4 Initial assets in operational use should be valued at net current replacement cost.
- 3.2.5 All other fixed assets including those not in operational use such as surplus land, should be included at their value to the business.
- 3.2.6 Assets under construction should be included in the appropriate asset category. Any interest capitalised in the HC accounts should also be capitalised in the CC accounts but using the equivalent real rate of return calculated by adjustment for the RPI.

## **Infrastructure assets**

- 3.2.7 Infrastructure assets should be valued at their gross current replacement cost, calculated as follows, without being subject to depreciation.

Gross replacement cost  
Opening balance  
AMP adjustment  
RPI adjustment  
Disposals  
Additions  
Closing balance

Each line in this calculation is discussed below.

### **Opening balance**

- 3.2.8 Opening balances will be the closing balance from the previous financial year carried forward.

### **AMP adjustment**

- 3.2.9 The AMP adjustment is the revaluation adjustment required to bring the assets to the gross modern equivalent asset value. The increase to the MEA value arising from adjustments for general inflation through the RPI adjustment should be taken to the current cost reserve. This adjustment (also known as 'AMP adjustment') is calculated at a periodic review and incorporated into the accounts generally in the first year of the following AMP period. The period in which the adjustment should be incorporated into the accounts will be confirmed in advance by Ofwat in an RD letter.

### **RPI adjustment**

- 3.2.10 The opening balance after amendment by the AMP adjustment, should be restated using the RPI. The amounts at which asset values are carried will therefore be frozen in real terms between AMP reviews, subject to subsequent additions and disposals. In this RPI adjustment, RPI denotes the percentage change in the retail price index between the opening and closing balance sheet dates. This will be based on the RPI published in April and notified to companies by Ofwat immediately after its publication. RPI indexation on additions during the year may be assumed to be immaterial.

### **Disposals**

- 3.2.11 In the event of the disposal of infrastructure assets, the opening balance should be reduced by the gross value of the disposed assets.

### **Additions**

- 3.2.12 Additions to the opening balance comprise expenditure on enhancement and asset maintenance of the base service of the non-infrastructure asset base.
- 3.2.13 Additions should be stated gross of third party contributions such as grants and infrastructure charges.

## Operational assets

3.2.14 All operational assets including specialised and non-specialised operational properties should be valued in the current cost balance sheet at their net current replacement cost which is calculated as follows.

### Gross replacement cost

Opening balance  
AMP adjustment  
RPI adjustment  
Disposals  
Additions  
Closing balance

### Accumulated depreciation

Opening balance  
AMP adjustment  
RPI adjustment  
Disposals  
Provision for year  
Closing balance

### Net Book Value

Closing balance  
  
Opening balance

Each line in this calculation is discussed below.

### Opening balance

3.2.15 The opening balances will be the closing balances from the previous financial year carried forward.

### AMP adjustment

3.2.16 The AMP adjustment is the revaluation adjustment required to bring the assets to the gross modern equivalent asset value.

### RPI adjustment

3.2.17 The opening balance for gross replacement cost and accumulated depreciation after amendment by the AMP adjustment, should be restated using the RPI. The indexation of additions during the year may be assumed to be immaterial.

## **Disposals**

3.2.18 Asset disposals should be written off gross replacement cost and accumulated depreciation.

## **Additions**

3.2.19 Fixed asset additions should be stated gross of third party contributions such as grants and infrastructure charges.

## **Provision for year**

3.2.20 The depreciation charge for the year should be calculated using the same depreciation profiles and asset lives as for the historical cost depreciation charge. In principle the depreciation profiles should take account of technical progress, the cost of capital, variations in output and changing running costs.

## **Non specialised operational properties**

3.2.21 Non specialised operational properties should be valued at estimated open market value on an existing use basis using the proforma set out above for specialised operational assets. The calculation of each line in this proforma is as described above. The estimates of open market value should generally be restated using the RPI between periodic reviews but revaluations in historical cost accounts should be incorporated in the current cost accounts with changes in real value identified separately in the current cost reserve.

## **Other tangible assets**

3.2.22 Other tangible assets include non specialised plant, machinery, vehicles, surplus land and all other assets not included in the categories listed above.

3.2.23 These assets, with the exception of surplus land, should be valued at estimated net current replacement cost using the proforma in paragraph 3.2.14.

3.2.24 Surplus land should be valued at value to the business taking into account any proceeds that are to be passed to customers.

## **Third party contributions since 31 March 1990**

3.2.25 Third party contributions received in 1990 - 91 and thereafter should be treated in the balance sheet as deferred income, indexed using RPI and credited to the profit and loss account in line with the depreciation charge on the assets financed. Accordingly contributions in respect of infrastructure assets should simply be accumulated in real terms subject to disposals.

## **Reserves**

3.2.26 Reserves in the current cost balance sheet should include revaluation surpluses or deficits and adjustments made to allow for the impact of price changes in arriving at current cost profit attributable to shareholders.

### **3.3 Current cost profit and loss account**

#### **Adjustments to historical cost operating profit**

3.3.1 The current cost operating profit should be derived from the historical cost operating profit by deduction of the following adjustments:

- in relation to fixed assets, a depreciation adjustment equal to current cost depreciation less historical cost depreciation;
- in relation to the disposal of fixed assets, a disposal of fixed assets adjustment equal to the current cost net book value of disposed assets less the historical cost net book value of disposed assets; and
- in relation to working capital, a working capital adjustment.

The recommended proformas for the submission of the regulatory accounts are set out in RAG 3.06 and include an analysis of the current cost operating profit which contains the current cost depreciation charge and the current cost profit on the disposal of fixed assets rather than making the relevant adjustments to the historical cost operating profit.

3.3.2 The calculation of current cost depreciation on non-infrastructure assets is described in paragraph 3.2.21. No depreciation is charged on infrastructure assets in the regulatory accounting statements and there is therefore no current cost depreciation charge for infrastructure assets, FRS12 and FRS15 are to be dis-applied for infrastructure assets for the purposes of the regulatory accounts.

#### **Financing adjustment**

3.3.3 The calculation of current cost profit attributable to shareholders before taxation needs to take account of real gains arising from the effect of inflation on net finance. The relevant adjustment is called a financing adjustment. Normally this should be calculated as opening net finance multiplied by the percentage change in the RPI during the financial year.

3.3.4 The calculation may require modification if new finance is raised during the year. In particular, if equity is issued during the year for cash then this adjustment should normally be reduced by the impact of general inflation as measured by the percentage change in the RPI between the date of the equity injection and the date of the closing balance sheet, on the real value of the equity issued. Any more refined basis of adjustment for changes in net finance during the year should be disclosed.

#### **Exceptional items**

3.3.5 Exceptional items should be disclosed as a separate item. An analysis of the type and amount of each item should be added to the notes.

#### **Extraordinary items**

3.3.6 FRS3 'Reporting Financial Performance' states that extraordinary items are extremely rare as they relate to highly abnormal events or transactions that fall outside the ordinary activities of a reporting entity and which are not expected to

recur. If extraordinary items do occur, they should be positioned on the P&L after profit on ordinary activities after tax and minority interests.

### 3.4 Contents of accounts

- 3.4.1 Proformas for the current cost regulatory accounting information are contained in Appendix 2 of RAG 3.06. The required proformas are set out in RAG3 3.1.5.
- 3.4.2 All the tables (with the exception of regulatory capital value and the five year summaries) should disclose current year's figures alongside the previous year's figures.
- 3.4.3 The bases used for the allocation of general assets between water, sewerage and sewage treatment and disposal should be disclosed as required by paragraph 7 of Condition F.
- 3.4.4 A further note to the CCA statements should analyse current cost net book value only by service and by asset type simultaneously.
- 3.4.5 The RCV should be disclosed in a separate note. This should reflect the value determined by Ofwat for price setting purposes and show the roll forward from the value of the start of the period to the closing value at the end of the period. The requirements for disclosure of the RCV are discussed further in Section 3.5 below.

### 3.5 Regulatory capital value (RCV)

- 3.5.1 The RCV reconciliation should be in current year prices and reflect the rolling basis adopted as a result of the consultation paper MD172 'Publishing future regulatory capital values' (13 September 2001). The amounts to be included in the regulatory accounts are those determined by Ofwat at periodic reviews, or at interim determinations subsequent to the reviews. This is the amount on which companies earn a rate of return.

	<b>Current Year</b>
1. Opening RCV	
2. Capital expenditure	x
3. Infrastructure renewals expenditure	x
4. Infrastructure renewals charge	(x)
5. Grants and contributions	(x)
6. Depreciation	(x)
7. Outperformance of Regulatory - Assumptions	(x)
 Closing RCV	 x
Average year RCV	x

- 3.5.2 All amounts are in current year prices. As the RCV and the amounts to be included are those determined by Ofwat, companies should contact Ofwat in advance of publication to confirm the figures which should be reported. Contact details will be provided each year in the RD letter which Ofwat issues confirming requirements for the regulatory accounts.

### **Opening RCV**

- 3.5.3 This is the closing value from the previous year inflated using RPI to the current year-end price base.

All the amounts are those projected by Ofwat at the last periodic review.

### **Capital expenditure**

- 3.5.4 In this reconciliation this is projected net capex (net of IRE).

### **Infrastructure renewals expenditure**

- 3.5.5 IRE is net planned maintenance expenditure on the infrastructure network, ie net of any grants and contributions. The IRE is taken together with the infrastructure renewals charge (IRC) to ensure that the movement in the infrastructure renewals accrual/prepayment is included. This reflects the extent to which more (or less) money has been spent in maintaining infrastructure asset base thus increasing (or decreasing) the value to be remunerated.

### **Infrastructure renewals charge**

- 3.5.6 Infrastructure Renewals accounting is used for long-life network assets. It is based on an operational assessment of activity needed to maintain the serviceability of the underground infrastructure over an appropriate time horizon. The IRC should reflect the medium- to long-term maintenance needs of the infrastructure assets network. The annual IRC is deducted from the RCV.

### **Grants and contributions**

- 3.5.7 These are grants and contributions received in respect of non-infrastructure assets. The figures are deducted from the RCV.

### **Depreciation**

- 3.5.8 This is current cost depreciation on non-infrastructure assets and is deducted from the RCV. The depreciation charge is calculated from the MEA value of the assets. It is the charge assumed by Ofwat in setting price limits.

### **Outperformance of Regulatory Assumptions**

- 3.5.9 The RCV reflects past capital efficiencies and hence the benefit of these can be transferred to customers through lower prices. In order to maintain incentives, companies retain the benefit of the capital efficiencies for a fixed period before they are transferred to customers.

3.5.10 The capital efficiencies line shows the cumulative value of out-performance. The RCV is adjusted on a rolling basis to ensure companies retain the efficiency savings for five years. For example, in the period 2005-10 the RCV is adjusted for efficiencies made in 1999-2004. The adjustment to take account of past capital efficiencies was introduced for the first time at the 1999 Periodic Review. The first year of the new price limits resulting from this review was 2000-01 and the RCV was adjusted in this year to take account of efficiencies achieved in 1994-95. However, in 2000-01 companies would have already had the benefit of capital efficiencies made prior to 1994-95 for more than five years. An adjustment to the opening RCV for 2000-01 was therefore made for capital efficiencies made in 1993-94. The period 1990-91 to 1992-93 was considered in total and where for this period overall efficiencies had been made, an adjustment was made to the opening RCV in 2000-01.

3.5.11 Capital expenditure efficiencies are calculated by comparing the projected values of capital expenditure (including infrastructure renewals expenditure) and actual values. Efficiencies are calculated at a service level. A comparison of projected and actual depreciation is not made. However, an adjustment to the depreciation attributable to the difference in expenditure has been calculated using a standard asset life for each service. The capital efficiencies are deducted from the RCV. For the first time at the 2004 price review, the efficiency adjustments were then smoothed on a 'net present value' basis to ensure a smooth profile of the efficiency adjustments within a five year price setting period.

### **Closing RCV**

3.5.12 This is the sum of lines 1 to 7 paragraph 3.5.1 and is rolled forward each year to become the opening RCV for the following year.

### **Average year RCV**

3.5.13 This is the sum of the opening and closing RCV for the year at base year average prices, divided by two, and inflated by the change in financial year average RPI. At the 2004 price review, the base year was 2002-03.

3.5.14 Companies will be required to provide an explanation that the note sets out the RCV used in the current price setting period. The actual expenditure level during the year recorded in the regulatory accounts and that shown in the reconciliation will differ, as will depreciation. Differences in the capital expenditure will not affect price limits in the current period but will be taken into account in the calculation of the RCV when Ofwat next reviews price limits.

3.5.15 Companies should also explain items which may be logged up and items of discretionary expenditure for possible inclusion in the RCV future. The commentary should note that these items will require agreement with Ofwat at the next price setting period.

### **Movements of periodic review**

3.5.16 At each periodic review there may be changes to the opening value of the RCV to take into account certain items which have arisen in the previous price setting period. For example:

- Including the net effect of items which have been logged up or logged down.

- Reflecting actual COPI rather than the projection Ofwat made when price limits were last set.
- Ensuring an appropriate deduction for any proceeds from land sales made in accordance with Condition K of companies' licences.

3.5.17 Where this is the case, companies should explain the movement from the closing value reported in the prior year to the opening value for the current year in the note to the accounts. The total amount of such adjustments should be reported together with a description of the adjustments made. The impact of each individual element is not required unless there are judged significant in their own right.

# APPENDIX 1 Worked example

## Introduction

This simplified worked example is based on a hypothetical water company. It is intended to illustrate the preparation of CC accounts from HC accounts.

### 1 HC Profit and Loss account

	xxx7	xxx7	xxx7	xxx6	xxx6	xxx6
	Appointed	Non- appointed	Total	Appointed	Non- appointed	Total
	£m	£m	£m	£m	£m	£m
Turnover	672.9	6.9	679.8	634.6	6.3	640.9
Operating costs	(369.6)	(2.9)	(372.5)	(355.1)	(2.9)	(358.0)
Depreciation	(54.0)	-	(54.0)	(51.0)	-	(51.0)
Operating income	2.9	0.2	3.1	5.0	0.2	5.2
Operating profit	252.1	4.2	256.3	233.4	3.6	237.0
Other income	1.1	-	1.1	1.7	-	1.7
Net interest	(107.3)	-	(107.3)	(100.2)	-	(100.2)
Profit before taxation	146.0	4.2	150.2	134.8	3.6	138.4
Taxation						
-Current	(4.1)	-	(4.1)	(4.2)	-	(4.2)
-Deferred	(18.0)	-	(18.0)	(6.2)	-	(6.2)
Profit after taxation	123.8	4.2	128.0	124.4	3.6	128.0
Dividends	(110.6)	(4.2)	(114.8)	(113.6)	(3.6)	(117.2)
Retained profit	13.2	-	13.2	10.9	-	10.9

## 2 HC Balance sheet

	xxx7			xxx6		
	Appointed	Non- appointed	Total	Appointed	Non- appointed	Total
	£m	£m	£m	£m	£m	£m
<b>Fixed Assets</b>						
Tangible fixed assets	3,565.8	-	3,565.8	3,407.5	-	3,407.5
Investments						
-loan to group company	243.9	-	243.9	244.5	-	244.5
-other	3.0	-	3.0	3.0	-	3.0
	<b>3,812.8</b>	<b>-</b>	<b>3,812.8</b>	<b>3,655.0</b>	<b>-</b>	<b>3,655.0</b>
<b>Current Assets</b>						
Stocks	3.1	0.2	3.3	3.1	0.2	3.3
Debtors	249.8	2.2	252.0	212.1	2.1	214.2
Cash	37.1	-	37.1	27.2	-	27.2
Short term deposits	154.1	-	154.1	134.3	-	134.3
Infrastructure renewals prepayment	10.1	-	10.1	8.1	-	8.1
	<b>454.2</b>	<b>2.4</b>	<b>456.6</b>	<b>384.8</b>	<b>2.3</b>	<b>387.1</b>
<b>Creditors: amounts falling due within one year</b>						
Creditors	(215.1)	(1.0)	(216.1)	(196.9)	(1.3)	(198.2)
Borrowings	(189.0)	(1.4)	(190.4)	(134.2)	(1.0)	(135.2)
Corporation tax payable	(54.2)	-	(54.2)	(54.2)	-	(54.2)
Ordinary share dividends payable	(42.2)	-	(42.2)	(33.7)	-	(33.7)
Net current assets	<b>(46.2)</b>	<b>(2.4)</b>	<b>(46.2)</b>	<b>(34.1)</b>	<b>(2.3)</b>	<b>(34.1)</b>
Total assets less current liabilities	<b>3,766.5</b>	<b>-</b>	<b>3,766.5</b>	<b>3,620.9</b>	<b>-</b>	<b>3,620.9</b>
<b>Creditors: amounts falling due after more than one year</b>						
Borrowings	(2,129.9)	-	(2,129.9)	(2,015.8)	-	(2,015.8)
Other creditors	(35.8)	-	(35.8)	(35.8)	-	(35.8)
	<b>(2,165.7)</b>	<b>-</b>	<b>(2,165.7)</b>	<b>(2,051.6)</b>	<b>-</b>	<b>(2,051.6)</b>
<b>Provisions for liabilities and charges</b>						
Deferred tax provision	(175.2)	-	(175.2)	(157.2)	-	(157.2)
Deferred income - grants and contributions	(39.3)	-	(39.3)	(39.3)	-	(39.3)
Post employment liabilities	(100.0)	-	(100.0)	(100.0)	-	(100.0)
Other Provisions	(10.3)	-	(10.3)	(9.9)	-	(9.9)
	<b>(324.8)</b>	<b>-</b>	<b>(324.8)</b>	<b>(306.4)</b>	<b>-</b>	<b>(306.4)</b>
<b>Net assets employed</b>	<b>1,276.1</b>	<b>-</b>	<b>1,276.1</b>	<b>1,262.9</b>	<b>-</b>	<b>1,262.9</b>
<b>Capital and reserves</b>						
Called up share capital	535.4	-	535.4	535.4	-	535.4
Share premium	105.4	-	105.4	105.4	-	105.4
Profit and loss account	601.5	-	601.5	588.3	-	588.3
Other reserves	33.8	-	33.8	33.8	-	33.8
<b>Capital and reserves</b>	<b>1,276.1</b>	<b>-</b>	<b>1,276.1</b>	<b>1,262.9</b>	<b>-</b>	<b>1,262.9</b>

### 3 CC Profit and Loss account

	<b>xxx7</b>	<b>xxx6</b>
	<b>£m</b>	<b>£m</b>
Turnover	672.9	634.6
Operating costs	(476.1)	(410.4)
Operating income	2.7	4.3
Working capital adjustment	0.2	0.3
Current cost operating profit	199.7	185.7
Other income	1.1	1.7
Net interest	(107.3)	(100.2)
Financing adjustment	53.9	48.5
Current cost profit before taxation	147.4	135.6
Taxation		
-Current	(4.1)	(4.2)
-Deferred	(18.0)	(6.2)
Current cost profit attributable to shareholders	125.3	125.2
Dividends	(110.6)	(113.6)
Current cost profit retained	14.7	11.7

## 4 CC Balance sheet

	xxx7	xxx6
	£m	£m
<b>Fixed Assets</b>		
Tangible Assets	20,922.7	19,954.0
Third party contributions	(367.4)	(336.7)
	<u>20,555.3</u>	<u>19,619.5</u>
Working capital	(20.7)	(7.7)
Cash	37.1	27.2
Short term deposits	154.1	134.3
Infrastructure renewals prepayment	10.1	8.1
<b>Net operating assets</b>	<b><u>20,735.9</u></b>	<b><u>19,781.3</u></b>
<b>Non-operating assets and liabilities</b>		
Borrowings	(189.0)	(134.2)
Non-trade debtors	65.1	35.6
Non-trade creditors due within one year	(6.6)	(9.6)
Investments		
-loan to group company	243.9	244.5
-other	3.0	3.0
Corporation tax payable	(54.2)	(54.2)
Ordinary share dividends payable	(42.2)	(33.7)
	<u>20.0</u>	<u>51.5</u>
<b>Creditors: amounts falling due after more than one year</b>		
Borrowings	(2,129.9)	(2,015.8)
Other creditors	(35.8)	(35.8)
	<u>(2,165.7)</u>	<u>(2,051.6)</u>
<b>Provisions for liabilities and charges</b>		
Deferred tax provision	(175.2)	(157.2)
Post employment liabilities	(100.0)	(100.0)
Other Provisions	(10.3)	(9.9)
	<u>(285.5)</u>	<u>(267.1)</u>
<b>Net Assets</b>	<b><u>18,304.8</u></b>	<b><u>17,514.1</u></b>
<b>Capital and reserves</b>		
Called up share capital	535.4	535.4
Share premium	105.4	105.4
Profit and loss account	(24.1)	(38.8)
Current cost reserve at 31 March	17,655.9	16,879.8
Other Reserves	32.3	32.3
<b>Total capital and reserves</b>	<b><u>18,304.8</u></b>	<b><u>17,514.1</u></b>

## 5 Working capital

	xxx7	xxx6
	£m	£m
Stocks	3.1	3.1
Trade Debtors - measured household	41.0	39.8
- unmeasured household	20.2	18.7
- measured non-household	7.5	9.1
- unmeasured non-household	1.0	0.9
Measured income accrual	60.0	55.0
Prepayments and other debtors	55.0	53.0
Trade creditors	(30.2)	(30.5)
Deferred income - customer advance receipts	(30.3)	(23.5)
Capital creditors	(59.7)	(60.4)
Accruals and other creditors	(88.2)	(72.9)
	<u>(20.7)</u>	<u>(7.7)</u>

## 6 Working capital adjustment

	xxx7
	£m
Opening working capital	(7.7)
RPI	3.1%
Adjustment : $-7.7 \times 3.1\% \times (-1)$	<u>0.2</u>

## 7 Financing adjustment

	xxx7
	£m
Opening net assets	17,514.1
Opening net fixed assets	19,619.5
	<u>(2,105.4)</u>
add back: Working capital	7.7
Opening net finance	<u>(2,097.7)</u>
add back:	
Ordinary share dividends payable	33.7
Index linked debt	168.0
Deferred tax provision	157.2
Revised opening net finance	<u>(1,738.8)</u>
RPI	3.1%
Adjustment : $-1738.8 \times 3.1\% \times (-1)$	<u>53.9</u>

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## APPENDIX 2 Assumptions made in RAG 1.04

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The assumptions made in RAG 1.04 fall into two categories, those (here starred) which are mandatory in the present guidelines and those which are based on materiality considerations which may be refutable in specific cases.

		<b>Reference Paragraph</b>
*1	The effect of the regulatory regime on the value to the business of initial assets can be disregarded.	1.7.6
*2	The RPI provides a better basis for indexing the original September 1997 AMP unit costs to March 1990, than the PPI.	1.9.2
3	Net MEAs are adjusted for the higher operating cost of initial assets.	1.9.6
*4	Modern standards are not below those to which assets were originally designed.	1.10.2
*5	The deduction in gross MEAs to arrive at original standards was the infrastructure renewals backlog.	1.10.2
6	Redundant assets were appropriately reflected in MEAs.	1.10.6
7	Future immediate recognition of redundancies will not materially affect profits.	1.10.6
*8	Technical progress is not so rapid as to lead to falls in the MEA values of infrastructure assets.	1.10.7
*9	Initial infrastructure assets would not have been subject to third party contributions.	1.10.13
10	Future government grants on infrastructure assets are negligible.	1.10.14
11	In - year RPI indexation of fixed asset additions is immaterial.	1.11.5
12	Assets in use with zero HC net book value have been valued at net MEA.	1.11.5
13	Holding gains on stock during the year are immaterial.	1.11.7
14	The CC and HC valuations of closing investments are equal.	1.11.9
15	The CC capitalisation of interest during construction equals the HC capitalisation in real terms.	1.11.9

- |    |   |         |
|----|---|---------|
| 16 | The impact of changes in interest rates on the value to the business of financing liabilities can be ignored. | 1.12.9  |
| 17 | If equity is issued during the year, the proceeds will still be held as cash at the year end.                 | 1.11.11 |
| 18 | If loans are raised during the year, the proceeds will still be held as cash at the year end.                 | 1.11.12 |

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## **APPENDIX 3 Current cost accounting policies**

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In response to requests from companies Ofwat has prepared the following statement of current cost accounting policies. It is recommended that companies adopt this statement to the extent that it is applicable.

### **Current cost accounting policies**

These accounts have been prepared for the Appointed Business of XYZ Limited in accordance with guidance issued by the Director General of Water Services for modified real terms financial statements suitable for regulation in the water industry. They measure profitability on the basis of real financial capital maintenance in the context of assets which are valued at their current cost value to the business with the exception of assets acquired prior to 31 March 1990.

The accounting policies used are the same as those adopted in the statutory historical cost accounts except as set out below.

### **Tangible fixed assets**

Assets acquired prior to 31 March 1990 and in operational use are valued at the replacement cost of their operating capability. To the extent that the regulatory regime does not allow such assets to earn a return high enough to justify that value, this represents a modification of the value to the business principle. Also, no provision is made for the possible funding of future replacements of pre – 31 March 1990 assets by contributions from third parties and to the extent that some of those assets would on replacement be so funded, replacement cost again differs from value to the business. Redundant assets are valued at their recoverable amounts.

### **Modern equivalent asset (MEA) valuation**

A review of the MEA valuation and asset stock is undertaken as part of the Periodic Review. The revised values arising from this review provide the basis for calculating the MEA in the current cost financial statements. The process of continuing refinement of asset records has produced adjustments to existing values. The current cost depreciation figures included in the current cost operating costs are based upon the revised MEA values.

### **Land and buildings**

Non - specialised operational properties were valued on the basis of open market value for existing use at {date} and have been expressed in real terms by indexing using the Retail Price Index ('RPI') since that date.

Specialised operational properties acquired since March 31, 1990 are valued at the lower of depreciated replacement cost and recoverable amount, restated annually between periodic Asset Management Plan ('AMP') reviews by adjusting for inflation as measured by changes in the RPI. The unamortised portion of third party contributions received is deducted in arriving at net operating assets (as described below ).

## **Infrastructure assets**

Mains, sewers, impounding and pumped raw water storage reservoirs, darns, sludge pipelines and sea outfalls are valued at replacement cost determined principally on the basis of data provided by the AMP.

A process of continuing refinement of assets records is expected to produce adjustments to existing values when periodic reviews of the AMP takes place. In the intervening years, values are restated to take account of changes in the general level of inflation as measured by changes in the RPI over the year.

## **Other fixed assets**

All other fixed assets are valued periodically at depreciated replacement cost. Between periodic AMP reviews, values are restated for inflation as measured by changes in the RPI.

## **Surplus land**

Surplus land is valued at recoverable amount taking into account that part of any proceeds to be passed onto customers under Condition B of the Licence.

## **Grants and other third party contributions**

Grants, infrastructure charges and other third party contributions received since 31 March 1990 are carried forward to the extent that any balance has not been credited to revenue. The balance carried forward is restated for the change in the RPI for the year and treated as for deferred income.

## **Real financial capital maintenance adjustments**

These adjustments are made to historical cost profit in order to arrive at profit after the maintenance of financial capital in real terms.

## **Working capital adjustment**

This is calculated by applying the change in the Retail Price Index ('RPI') over the year to the opening working capital balance.

## **Financing adjustment**

This is calculated by applying the change in the RPI over the year to the opening balance of net finance which comprises all monetary assets and liabilities in the balance sheet apart from;

- those included in working capital,
- deferred tax,
- dividends payable, and
- index linked debt.

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## APPENDIX 4 Acronyms

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AMP	Asset Management Plan
ASB	Accounting Standards Boards
ASC	Accounting Standards Committee
CC	Current Cost
CCA	Current Cost Accounting
COPI	Construction Output Price Index
CPP	Constant Purchasing Power
ENGE	Enhancement, New, Growth and Efficiency Capital Expenditure
FCM	Financial Capital Maintenance
FRS	Financial Reporting Standard
HC	Historical Cost
HCA	Historical Cost Accounting
IRC	Infrastructure Renewals Charge
IRE	Infrastructure Renewals Expenditure
MD letters	Letters to Managing Directors of water & sewerage & water only companies
MEA	Modern Equivalent Asset
NBV	Net Book Value
NPV	Net Present Value
OCM	Operating Capability Maintenance
P&L	Profit and Loss Account
PPI	Producer Prices construction output Index
PR99	Periodic Review 1999
RAG	Regulatory Accounting Guidelines
RCV	Regulatory Capital Value
RPI	Retail Price Index
SSAP	Statement of Standard Accounting Practice
STRGL	Statement of Total Recognised Gains and Losses
WASC	Water and Sewerage Company
WGAR	Working Group on Accounting Issues for Regulation
WOC	Water Only Company

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## APPENDIX 5 Bibliography

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- 1 SS AP 16, Current Cost Accounting, ASC, 1980.
- 2 FRS3 Reporting financial performance, ASB, June 1993.
- 3 FRS10 Goodwill and intangible assets, ASB, December 1997.
- 4 FRS12 Provisions, contingent liabilities and contingent assets, ASB, September 1998.
- 5 FRS15 Tangible fixed assets, ASB, February 1999.
- 6 Carsberg & Lumby, The Evaluation of Financial Performance in the Water Industry: The Role of Current Cost Accounting, CIPFA, 1983.
- 7 Tweedie and Whittington, The Debate on Inflation Accounting, Cambridge University Press, 1984.
- 8 Accounting for the effect of changing prices: a Handbook, ASC, 1986.
- 9 Accounting for Economic Costs and Changing Prices, HMSO, 1986.
- 10 BAWING Report, Department of the Environment (unpublished), 1987.
- 11 Edwards, Kay & Mayer, The Economic Analysis of Accounting Profitability, Clarendon Press, 1987.
- 12 Framework for the Preparation and Presentation of Financial Statements, IASC, 1988.
- 13 Infrastructure Accounting, Water Services Association, 1989.
- 14 The Future Shape of Financial Reports, joint Action Group of the ICAEW Board and the ICAS Research Committee, 1991.