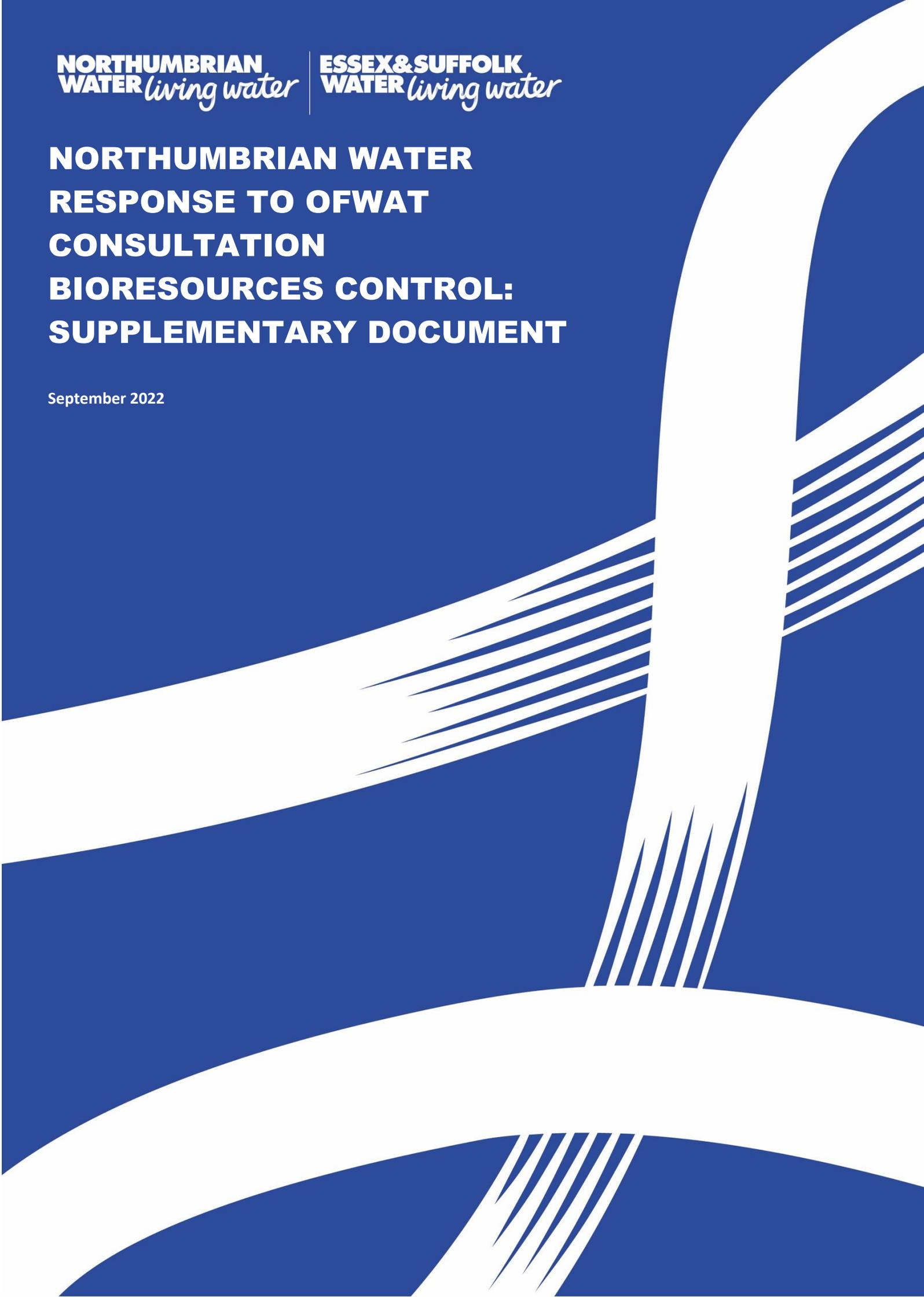


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**NORTHUMBRIAN WATER  
RESPONSE TO OFWAT  
CONSULTATION  
BIORESOURCES CONTROL:  
SUPPLEMENTARY DOCUMENT**

September 2022



## Northumbrian Water response to Bioresources control: supplementary document

### Overview

As one of the most efficient companies engaged in bioresources we see a clear opportunity for the successful creation of a market that can drive innovation, competition and better outcomes for customers. We are supportive of the creation of efficient trading opportunities either from new entry or the creation of capacity by incumbents. The bid assessment framework is a potent mechanism to encourage trading and we intend to use it to test the market for opportunities for efficient trading.

As currently designed, we do not believe that the radical approach Ofwat is taking for the PR24 bioresources control is likely to deliver for customers. It has become quite complex and is requiring considerable extra data and modelling for no discernible gain. The proposals as set out seem to focus upon a different form of cost recovery rather than the changes that are needed to develop a functioning market. We have set out our support for simplification in our response.

The original aim of creating a level playing field for third party entry appears is an area where there needs to be greater focus in policy development. The preferred approach uses a net MEAV and a WACC that is not market based and therefore does not reflect the risks that new investment faces. These issues must be addressed so that new capacity investment is able to recover its efficient costs.

The preferred approach requires subjective assessments of MEAV and Depreciation which Ofwat itself is clearly concerned about. One major improvement in PR14 and PR19 was the replacement of complex and time absorbing MEAV revaluations with the much simpler run off rate approach. These proposals revert us back to MEAV calculations and the intrusion of Ofwat into companies' assessment of asset economic lives. As a result, we are facing an approach that requires considerably more data, assurance and regulatory checking, with an associated additional burden compared to the relatively simple and generally accepted building blocks approach at PR19.

We therefore encourage:

- A revisiting of the objectives of this work and whether these proposals really do deliver the capability for a market whereby new investment/entry is financially viable.
- A more in depth consideration of the approach (i.e. its different impacts) and how the detail will operate in practice with greater worked examples.
- Reserving judgment on any final approach until proposals and models have been worked up further so that the strengths and weaknesses of them can be properly assessed.

This is a complex area involving significant changes and to make it a success we are keen to support greater transparency and engagement. We are happy to engage further with Ofwat in this area and remain supportive of the use of markets, but the policy proposals need to match the policy objectives put in place.

### Questions in the July 2022 draft methodology document:

#### Section 2 questions

##### ***Q2.1: Do you have any comments on this section?***

We do not think that the use of a net MEAV is consistent with the creation of a market approach as it will not enable a new entrant to cover its costs. Similarly, a current participant will not be able to recover any expansion costs that would be required to engage in efficient trading. These investments require the full MEAV to be remunerated and not the net MEAV. We therefore do not think this approach is consistent with the overall objectives of the policy. It is important that Ofwat's assessment of options always considers whether a new entrant or an expansion of capacity would be able to recover its efficient costs.

***Q2.2: Do you have any further comments on our approach to a separate efficiency assessment, in particular the options we consider in section 2.4.2?***

We still consider that a separate efficiency challenge for bioresources risks creating a “perfect company” that cannot be replicated in practice due to cost allocation and operational choices by companies. We also think it is risky for Ofwat to be dictating which operating models are efficient as driving companies towards a single way of operating could stifle innovation and not be in customers’ interests.

Ofwat’s arguments about the sewage treatment works per connected property variable accounting for some of these different choices does not currently hold much sway given the coefficient on this model estimates so far is counterintuitive as Ofwat itself acknowledges.<sup>1</sup>

**Section 3 questions**

***Q3.1: Do you have any comments on this section?***

Overall, we consider this section is a helpful step forward but still shows there is much work to do to reach a settled position for PR19. There needs to be a careful consideration of whether the options do indeed better deliver the objectives of a market-based approach (e.g. due to the use of net MEAV rather than GMEAV) and in depth model development. The current Option 3 model results are clearly not fit for purpose for setting a bioresources control given the issues with (lack of) statistical significance and counterintuitive signs on coefficients. Given this need for model development, we do not think much can be inferred from the results at this stage (e.g. the spread of efficiency scores or the level of the catch up challenge) or whether an approach is fit for purpose.

***Q3.2: Do you have any further comments on the draft methodology proposals which we propose to retain from our December document and our reasons for doing so?***

The shortfalls in Option 1 do not need to be addressed by a separate efficiency challenge as Option 1+ does. Instead, a single catch up challenge could be derived (as at PR19) and it could be applied separately to the bioresources modelled costs. This option should also be considered.

***Q3.3: Do you have any suggestions on how our approach to PR24 quality enhancements could be implemented in a way that achieves our objectives whilst addressing the concerns raised by stakeholders?***

We do not see a simple solution in this space. Quality enhancements are statutory requirements and therefore must be funded. They also vary by location which makes benchmarking difficult at a top-down level unless suitable cost drivers can be included – without such drivers it seems reasonable for these costs to be assessed separately.

***Q3.4: Do you agree with, or have any comments on, the degree of regulatory protection we propose for pre-2020 RCV? Do you agree with our proposal to implement option 1 to achieve this?***

We remain unclear how the approach outlined in Section 3.4.1 of the methodology consultation would be implemented and the modelling results / data included in the current consultation do not help us in understanding this. We suggest that Ofwat provide worked examples and to allow us to consider this properly. Until we see this it is hard to gauge what degree of protection is indeed provided.

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<sup>1</sup> “the number of sewage treatment works (STWs) per connected properties has a counter-intuitive sign and requires further consideration. It suggests that more STWs per connected properties reduce bioresources unit costs” (p13)

***Q3.5: Do you agree with, or have any comments on, our updated proposals for modelling financing costs in our benchmarking models?***

We continue to believe that there can be no meaningful third party entry to the bioresources market unless allowed returns rise to reflect the cost of capital of an equally efficient non regulated third party. The Jacobs report confirms this:

*“The Bioresources weighted average cost of capital (WACC) is below that which third parties would typically seek for similar investments, which may limit water companies’ ability to engage these suppliers”<sup>2</sup>*

Without a market based WACC, incumbent Wascs will have gate fees lower than an equivalent third party will be able to compete with. Ofwat cannot continue to insist that the risks in the bioresources market are no different from the network controls, given the scale of the changes proposed and the removal of post 2020 Bioresources RCV from the price setting process.

Finally, Ofwat should seriously consider the alternative of using a **nominal cost of capital** rather than a real one for financing costs. In the current regulatory system, the inflation part of the return is added to the RCV. For bioresources, this will mean inflating the NMEAV. Competitive markets returns are nominal, not real and third parties will need to finance their investments on that basis.

***Q3.6: Do you agree with, or have any comments on, our proposals in relation to managing volume risk? Do you agree with our preferred option, that is, option 2?***

Our understanding is that the proposals provide no protection for volume risk as there is no cost sharing. This further reinforces our view that a market based cost of capital is required in this area to reflect the increased risks that are faced.

***Q3.7: Do you agree with, or have any comments on, our proposals to make a separate adjustment for tax?***

There are two options for tax funding – either use a pre tax return or model tax on a company specific basis. Company specific taxation will depend in part upon levels of gearing and the interest tax shield. Ofwat will need to decide if a notional or actual gearing approach is to be taken for calculating this. An actual gearing approach will give higher geared companies lower tax charges and thus lower regulated gate fees. There also needs to be clarity over whether the tax reconciliation model still applies.

***Q3.8: Do you agree with, or have any comments on, our proposal to continue to refer to the post-2020 asset base as RCV? Summary of potential impacts of different options***

If the post 2020 asset base is not calculated or used in the same way as pre 2020, then there has to be a distinction made between them. As currently constructed, the post 2020 asset base might be better described as post-2020 NMEAV.

***Q3.9: Do you have any comments on our option assessment in the annex?***

We have three main comments on the option assessment:

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<sup>2</sup> Jacobs Bioresources Market Review May 2021, page 11

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- **Achievement of objectives:** to properly assess whether the options will facilitate a market with new entry and capacity increases there needs to be an assessment of whether it would be economically viable to make those investments. With the use of a net MEAV and a cost of capital that does not reflect market risks we do not see how this objective can be met.
- **Practicality and overall assessment:** the practicality of option 3 is dependent on the development of models with better properties – e.g. statistical significance and intuitive coefficient signs. Only once this has been achieved should it be the preferred option.
- **Wider impacts:** the consideration of impacts is narrow and partial. If the creation of a market is successful, there is the potential for stranded investments and non-recovery of costs. This will have a significant impact on financial metrics and the achievement of conditions within the regulatory ring fence and the maintain of a robust investment grade credit rating. These impacts and considerations warrant further consideration. A full impact assessment would help to ensure that all impacts are properly fleshed out for what is a complex and significant change in regulatory approach.

### Additional questions related to this supplement

***QS.1: Do you have any comments on the type of data used for the example model results?***

***Whilst recognising the proposed refinements to establishing standardised depreciation in annex 6, do you have further comments on whether RCV and RCV run-off would provide an acceptable and/or more appropriate input to our econometric cost benchmarking models over the 2020 to 2025 period?***

We are not convinced that Ofwat will ever be able to standardise depreciation in a way that will allow it to be used reliably in cost modelling. To do so requires a complex bottom up analysis of GMEAV, NMEAV and asset lives. Ensuring these are calculated consistently across companies is extremely onerous for all parties. Current cost depreciation has a difficult history in regulation (complex broad equivalence checks, double counting of fully depreciated assets).

The current regulatory system makes an annual allowance for a run-off rate depreciation of the RCV. This has the great advantage of being net present value neutral for the industry and customers and means there is little dispute at Price Reviews over the levels set, beyond ensuring intergenerational equity. Losing this neutrality seems to be an unfortunate side-effect of these proposals – one test that Ofwat must carry out is whether companies have an incentive to over or understate depreciation.

***QS.2: Do you have any comments on the econometric models and results? How could our models be improved? For example, should we consider alternative specifications or cost drivers?***

Business rates should continue to be included in the control as non-modelled costs and thus added to the modelled cost allowance to arrive as the price control allowance.

***QS.3: Do you agree with, or have comments on, the proposed, updated approach to calculating asset values and CCA depreciation as set out in annex 6? In particular, do you:***

- ***Agree with, or have any comments on, our proposed approach to calculating GMEAV and the alternative approach considered?***
- ***Agree with, or have any comments on, our proposed approach ('gradual unwinding') and alternative approach to estimate changes in the value of the NPV adjustment?***
- ***Agree with, or have any comments on, our proposed approach ('bottom-up method') to recording CCA depreciation?***
- ***Agree with, or have any comments on, our proposed approach to the rules on asset life assumptions?***
- ***Have any comments on the options to generate backcasting estimates of asset values and depreciation?***

## Northumbrian Water response to Bioresources control: supplementary document

### Comments on A6 Methodology for calculating asset values and CCA depreciation

#### Overview

The bioresources pre 2020 RCV (ie at 31/3/20) was based on the PR19 revaluation exercise and was part of the Final Determination (Ofwat and CMA). We assume that Ofwat are not looking to retrospectively change these values.

The closing 2025 Bioresources RCV (31/3/25) is also part of the PR19 determination and should also not be retrospectively changed. Investors rely on published RCV values (we note Ofwat provide these to companies annually for the APR). At the very least, Ofwat will need to be careful to not retrospectively adjust 2025 RCV downwards where actual 2020-25 capex is less than FD, as this would undermine the incentive properties of the bioresources 100% company cost sharing rate set in PR19 for 2020-25. To do this, we suggest Ofwat should consider setting the NMEAV model to ensure that the 2025 Bioresources RCV matches NMEAV at that point.

We share Ofwat's preference to avoid requiring the industry to resurrect annual bottom up MEAV valuations. Such valuations are time consuming and subjective. Depreciation is an accounting construct to smooth the 'lumpy' replacement (maintenance) costs of assets and must thus be recognised as a less precise measure of costs than maintenance expenditure. Depreciation is set on an ex ante basis, whilst maintenance costs are ex post. It is entirely possible that an asset could be fully depreciated, but still have an unforeseen remaining operational life.

For NWL, our PR19 valuation exercise assumed that our actual assets were the same as hypothetical new builds. Our bioresources assets were built over 2009-12 and so still reflect best practice (Advanced Anaerobic Digestion).

#### A6.1 Background: Recap on the outputs from the PR19 valuation exercise

As we understand it, Ofwat are proposing to use the NMEAV as the asset base for financing. The 2020 RCV was set to match 2020 NMEAV, so they are interchangeable at that point. Ofwat are thus proposing to inflate NMEAV in a similar way to RCV and deduct depreciation. Separately, Ofwat are tracking post 2020 NMEAV. We recognise that NMEAV will include actual expenditure rather than forecast (as per RCV), although see our comment on matching 2025 RCV and NMEAV. Ofwat will need to consider whether actual expenditure difference from forecast would impact on the in-period price control.

*Ofwat state: Under the proposed approach to bioresources benchmarking the NMEAV would be used as a measure of the asset value to which a notional cost of capital would be applied. This would calculate the notional finance costs for that company. This figure would then feed into the calculation of the cost per unit of sludge for each year of available data.*

It would be helpful to clarify if this NMEAV asset value is the aggregate of pre and post 2020 values.

#### A6.2.2 Calculation for the evolution of GMEAV

We agree that CPIH is the relevant inflation index to use for 2025 onwards.

We agree that, if CPIH is used for NMEAV indexation, then the WACC used should be CPIH stripped.

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### Box 1: Calculation of nominal GMEAV over time

Opening GMEAV + capex – disposals = Closing GMEAV

### Box 2: Alternative calculation of nominal GMEAV over time

Opening GMEAV + Enhancement Capex = Closing GMEAV

We agree with Ofwat’s proposal under Box 1. We agree that assuming capital maintenance replaces matching assets does make the alternative approach attractive, but this might not always apply, so should be retained as a cross check rather than an assumption.

### A6.2.3 Calculations for evolution of NMEAV

We are not convinced that Ofwat’s ‘year lag’ on inflating NMEAV is correct. This is not the way Ofwat inflates the RCV (closing RCV is always inflated by the FYE price base, not the price base of the previous year). To apply an inflation increase from 20/21 to 21/22 to 22/23 NMEAV values ignores the inflation that happens during 22/23 (it is instead applied to increase 23/24 opening NMEAV).

<b>Ofwat lagged</b>		<b>20/21</b>	<b>21/22</b>	<b>22/23</b>
Inflation in the year	FYA	2%	10%	5%
Opening (prev year prices)	FYA t-1		100	102
Inflation	FYA t-1		2	10.2
Additions	FYA		10	10
Depreciation	FYA		(10)	(10)
Closing	FYA		102	112.2

We believe this ‘inflation in the year’ approach is more appropriate:

<b>RCV indexation approach</b>		<b>20/21</b>	<b>21/22</b>	<b>22/23</b>
Inflation in the year	FYA	2%	10%	5%
Opening (prev year prices)	FYA t-1		100	110
Inflation	FYA		10	5.5
Additions	FYA		10	10
Depreciation	FYA		(10)	(10)
Closing	FYA		110	115.5

As our actual and hypothetical assets are the same,  $\Delta AHA$  is zero for NWL. We agree with Ofwat that it is preferable to move away from hypothetical assets towards actual assets.

We agree that, for price control purposes, it is best to assume that GMEAV and NMEAV inflate by CPIH. Indeed, as this inflation is a component of the nominal return on investments, so using any other figure for MEAV inflation would undermine the aggregate nominal return calculation.

### A6.3 Further guidance regarding CCA depreciation

#### A6.3.2 CCA depreciation for bioresources assets required at 31 March 2020:

*An issue with this approach is that, at that point, all assets would be assumed to be fully depreciate yet half of the assets would still remain in use. This means this approach would tend to overstate depreciation before this point and understate it thereafter.*

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We do not understand this statement. GMEAV/Depreciation (straight line) should equal the average full life of the assets. The statement seems to be referring to the NMEAV position, but that value is not relevant for this calculation.

We do however support this approach as a pragmatic way of calculating the implicit asset lives using companies' own assessments.

### **A6.3.3 Proposed approach to recording CCA depreciation**

*Our preferred approach is the bottom-up method to calculate depreciation. Our experience from collecting depreciation data and our example modelling indicates that it is important that this data is provided in a clear, accurate and consistent manner. We consider this is best achieved through this approach. As companies already have access to a breakdown of the asset used for the PR19 valuation exercise, this should not impose a significant additional burden.*

We do not agree with this proposal. We do not see how Ofwat can describe this as '*not imposing a significant additional burden*' when page 43 lists seven new tasks required to use the spreadsheet and admits that '*the structure of the spreadsheet for the valuation exercise at PR19 was not designed for the purpose of producing annual depreciation charges and tracking asset values over time*'.

The PR19 granular spreadsheet was complex and onerous to build at the time and to continue to use it to calculate depreciation would require full GMEAV revaluations. Companies have not used it for several years and many would have to start again to reflect recent investments.

We would be replacing a simple approach (single run off rate applied to RCV) with an onerous, non transparent one, requiring annual recalculation of GMEAV and full asset lives for every thickening plant and treatment centre. We oppose this strongly.

### **A6.3.4 Rules on asset life assumptions**

*For instance, if companies were to extend the assumed asset life of assets included in their GMEAV value at 31 March 2020, there are risks that this could lead to excessive costs to customers via the depreciation charges reflected in the cost benchmarking exercise. This could arise, for example, if the impacts of changes to an asset life assumption were applied retrospectively such that the reported NMEAV of the bioresources assets increased simply as a consequence of changes to asset life assumptions.*

Extension of assumed asset lives would reduce annual depreciation, lowering charges to customers. We understand and agree with Ofwat that the 2020 RCV and NMEAV must remain fixed and there can be no retrospective adjustments to those values. This does not mean that asset values can't be changed from those used in the PR19 exercise to allow updated annual depreciation to be calculated from 2020 onwards.

Northumbrian Water  
September 2022