



Water today, water tomorrow

**Dispute referred under section 51C of the Water Industry
Act 1991**

**Contributions to on and off-site works for Area 6, Phase 2
of the Stockmoor Village Development in Bridgwater,
Somerset**

**Aquamain (UK) Limited / Persimmon Homes Limited vs.
Wessex Water**

Final Determination

3 December 2014

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1. Introduction

A. The complaint

- 1.1 This determination concerns a dispute referred to the Water Services Regulation Authority (“**Ofwat**”) by Aquamain (UK) Ltd (“**Aquamain**”) on behalf of Persimmon Homes¹ (Severn Valley) Ltd (“**Persimmon**”), under section 51C(11) and section 30A of the Water Industry Act 1991 (“**the Act**”). The dispute relates to the charges that Wessex Water (“**Wessex**”) has sought to recover as a contribution to a spine main and off-site works.
- 1.2 Aquamain was engaged by Persimmon to self-lay the on-site mains and service connections for Area 6, Phase 2 of the Stockmoor Village development at Bridgwater (“**the Site**”) which comprises 136 properties. Separately, following discussions with Persimmon, Wessex agreed to provide a new spine main to serve the Stockmoor Village development and to undertake off-site reinforcement works to serve the entire Stockmoor Village development (which Persimmon has developed on a phased basis), as well as a neighbouring development at Wilstock Village (together “**the Works**”). Wessex has sought to recover a proportion of the cost of providing the Works (estimated at £81,397.36) from Persimmon and have also included this amount in the calculation of the asset value payment for the mains self-laid by Aquamain. In addition, Wessex is seeking to recover infrastructure charges totalling £91,936 for the 136 new properties on the Site as they will be connected to the water and sewerage networks for the first time.
- 1.3 Persimmon, through its contractor Aquamain, does not dispute the scope of the Works undertaken by Wessex nor the way in which the costs of the Works have been split across the two developments and the different phases of development. Aquamain has, however, requested that Ofwat determine whether the inclusion of the figure of £81,397.36 as a contribution towards the costs involved in delivering the Works should be classified as “costs reasonably incurred” under section 51C(3) of the Act and hence included in the calculation of the asset value payment. Aquamain do not believe that Wessex should include the costs related to the Works in the asset value payment calculation because infrastructure charges are also being raised under section 146 of the Act and they consider that the latter also funds the off-site works and network capacity improvements.

¹ On 14 February 2014 Persimmon confirmed in writing to Ofwat that Aquamain is acting on their behalf with regard to this dispute.

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- 1.4 We are satisfied that the parties are in dispute and that we have jurisdiction to make a determination in accordance with section 51C(11) and section 30A of the Act.
- 1.5 This final determination considers the costs that can be regarded as having been reasonably incurred in relation to the Site's self-laid mains. As part of this, we consider whether what could be regarded as the 'costs reasonably incurred' would differ in light of the fact that infrastructure charges have also been levied in respect of the Site. The scope of our determination does not include consideration of the reasonableness of the nature of the Works nor the costs of the Works, neither of which have been disputed. Nor does our determination consider the agreement reached between Wessex and Persimmon regarding how charges would be apportioned between the different phases of Persimmon's developments, which is also not in dispute. We have very limited determination powers regarding a company's recovery of infrastructure charges. In the context of this dispute, we do not have jurisdiction to make a determination regarding Wessex's ability to levy infrastructure charges. Our determination does however comment on the interaction between infrastructure charges and charges recovered for works considered necessary in consequence of self-laid works.

B. Purpose of this document

- 1.6 This is our final determination in relation to this dispute. In reaching our decision we have considered the evidence provided by Aquamain and Wessex and the factual background to the dispute (section 2) as well as the legal framework for the provision of new water supplies (section 3). Our detailed determination is set out in section 4.
- 1.7 Before reaching this final determination, we issued a draft determination to the parties to the dispute on 4 September 2014 and invited them to make representations to us on the determination we were minded to make. Aquamain submitted their representations to us on 16 September 2014. Wessex submitted their representations to us on 25 September 2014. The parties' views on the issues considered in this determination are also addressed in section 4.

C. Overview of our determination

- 1.8 On the basis of the information provided to us, we are satisfied that Wessex's estimate of the asset value payment calculation is in accordance with section 51C of the Act.

1.9 We have additionally considered the interaction between the infrastructure charges recovered under section 146 of the Act and a company's Licence Condition C and charges recovered for off-site works when considering the nature of "costs reasonably incurred" under section 51C(3) of the Act. We consider that Wessex is entitled to raise infrastructure charges under section 146 of the Act. Wessex is entitled to raise such infrastructure charges in addition to the charges raised under the separate and unrelated section 51C of the Act concerning the financial arrangements for self-laid works. To avoid any double recovery of costs, we would expect infrastructure charges recovered under section 146 of the Act to be used for network improvement works and hence costs that are distinct from those works and costs directly attributed to meeting the requirements of the particular site and hence included in self-lay charges due to being considered necessary in consequence.

2. Factual background

2.1 The key facts and background to this dispute are set out in this section.

A. The parties

Complainant

(i) The self-lay organisation

2.2 **Aquamain** is a self-lay organisation (SLO) accredited under the Water Industry Registration Scheme. Persimmon appointed Aquamain to lay the on-site water mains and service connections for the Site. Aquamain are acting on behalf of Persimmon with regard to this dispute.

(ii) The developer

2.3 **Persimmon** is one of the UK's leading house builders. The Persimmon Homes Group comprises of a number of regional offices throughout the UK.

Company

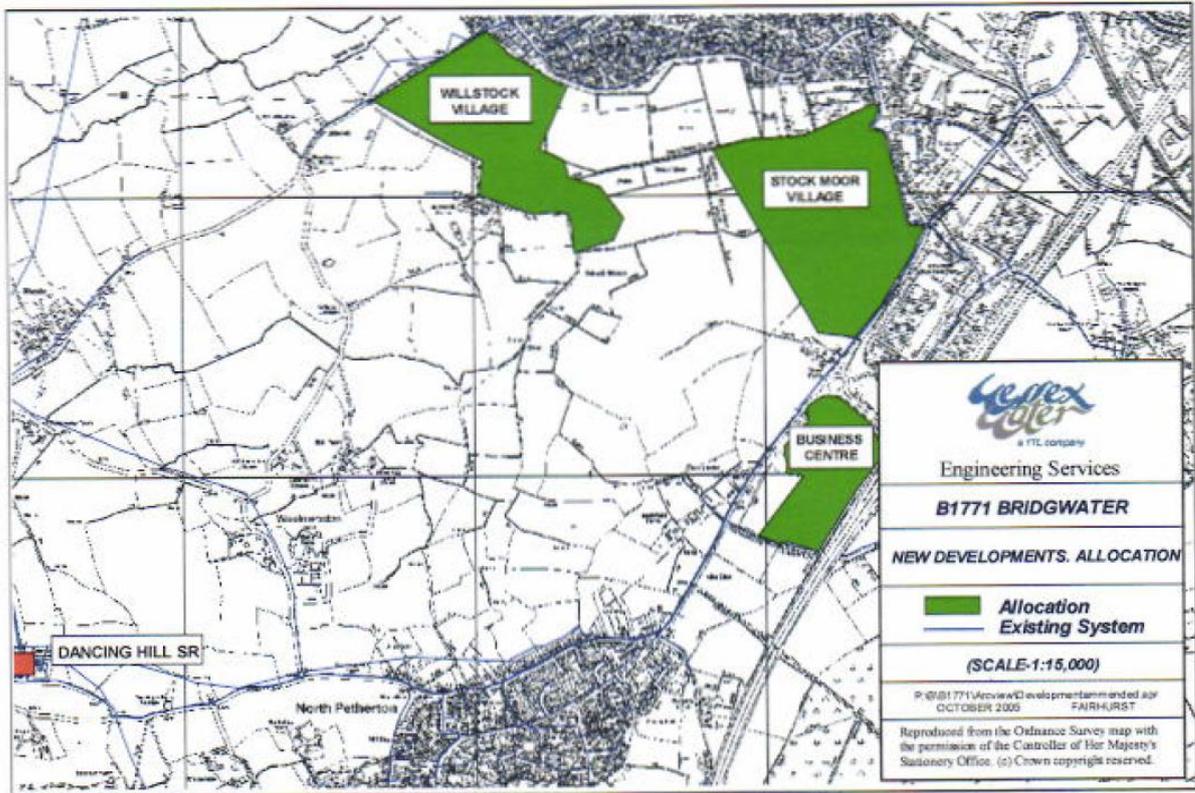
(iii) Wessex

2.4 **Wessex** is appointed under the Act to provide water services to customers in parts of the South West of England.

B. The Site

2.5 Stockmoor Village is a Persimmon development located in North Petherton, on the southern outskirts of Bridgwater, Somerset. The Site to which this dispute relates is the final phase of the Stockmoor Village development. The Site comprises the construction of 136 residential properties.

2.6 As shown in the following map, Stockmoor Village is one of two sites that have been developed in the area, the other being at Wilstock Village (now a Bloor Homes development).



Source: Wessex Water

- 2.7 The number of properties which were to be constructed at the Stockmoor Village and Wilstock Village developments, and which were the subject of planning discussions between Persimmon and Wessex, has varied over time. While it was initially envisaged that a total of 1,460 properties would be constructed across the two developments (850 at Stockmoor Village and 650 at Wilstock Village), this was then increased to 1,850 (850 at Stockmoor and 1,000 at Wilstock). However, subsequently the figure for Stockmoor Village was revised again and it was this new figure of 811 properties that was ultimately used by Wessex for the purposes of allocating costs to the development.
- 2.8 While the planned number of properties across the two developments has varied, the following tables show the actual number of properties which have been part of applications received by Wessex for connections and water mains requisitions / self-lay schemes across the two sites to date.

Table 1: Stockmoor Village

Name	Developer	Number of Properties
Area 1		59
Area 2 – Phase 1 Stockmoor Village	Persimmon Homes	57
Area 2 – Phase 2 Stockmoor Village	Persimmon Homes (Severn Valley) Ltd	125
Area 3 – Stockmoor Village	Persimmon Homes (South West/Westbury Partnerships)	147
Area 4 – Stockmoor Village	Persimmon Homes (South West) Ltd	95
Area 5 – Stockmoor Village	Westbury Partnerships	161
Area 6 – (Parade) Stockmoor Village	Persimmon Homes (South West) Ltd	59
Stockmoor Village- Local Centre	Henry Davidson Developments Ltd	110
Area 6 – Phase 2 Stockmoor Village	Persimmon Homes (Severn Valley) Ltd	136
TOTAL		949

Source: Wessex Water

Table 2: Wilstock Village

Name	Developer	Number of Properties
Area 7 – Phase 1 (Wilstock Farm)	Bloor Homes	365
Area 7 – Phase 2 (Wilstock Farm)	Bloor Homes	285
TOTAL		650

Source: Wessex Water

C. The Works

2.9 In view of the scale of the proposed development, and the lack of sufficient capacity in the existing network, in 2007 Wessex and Persimmon agreed that both on-site and off-site works would be required. Wessex confirmed² that the required works to be carried out by them included:

- a) the provision of a new spine main to serve the Stockmoor Village development; and

² Wessex's response to Ofwat Request for Information, 11 July 2014.

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- b) off-site reinforcement works to service the Stockmoor Village development and a nearby development at Wilstock Village. These off-site works were scoped to cater for the increased capacity required to facilitate the phased development of 1,850 properties across both developments.

a) Spine main for Stockmoor Village development

- 2.10 In order to facilitate the water supply distribution to properties on the Stockmoor Village development, a new spine main was scoped as being required. This spine main serves all properties on the Stockmoor Village development, including the Site.
- 2.11 Wessex and Persimmon agreed that this main would be built as the early phases of the Stockmoor Village development were constructed and as on-site water mains were being delivered for each of the phases. Wessex and Persimmon also agreed that financial contributions towards the spine main would be recovered from each phase of Stockmoor Village since it serves the entire Stockmoor Village development.
- 2.12 The spine main consists of 751m of 250mm diameter HPPE pipework passing under the highway in Charolais Drive and Stockmoor Drive. It was provided at a cost £193,470.

b) Off-site reinforcement main

- 2.13 In addition to the spine main, a project involving off-site mains reinforcement was scoped to cater for both of the Stockmoor Village and Wilstock Village developments. Distribution modelling, completed by Wessex in 2004, had shown that the existing distribution system that would supply these developments was at capacity at existing peak demands and would require significant reinforcement; otherwise additional properties would be added to the DG2 register³. As there were no properties in the area that were currently on the register, it was considered that any addition would be unacceptable.
- 2.14 Discussions between Wessex and Persimmon established that existing local water mains infrastructure would be capable of supporting the initial phase of the development of 95 properties at Stockmoor Village (Phase 4) before the need for off-site reinforcement.

³ A register that water companies are required to keep to identify the number of connected properties that have received, and are likely to receive, pressure below the reference level when demand for water is at a normal level.

2.15 The scheme involved providing around 2.1km of 400mm diameter main. It was estimated that the works would cost £317,500, but the actual costs incurred by Wessex to complete the works was £462,990.

D. Cost apportionment

2.16 In this section we set out the approach Wessex applied to apportion the costs of the works undertaken to supply the Stockmoor Village and Wilstock Village developments. This approach was agreed between Wessex and Persimmon as part of agreeing the works needed to serve the developments. The approach was subsequently applied by Wessex when each of the developments' phases came forward (whether under requisition or self-lay arrangements) such that the appropriate proportion of costs could be included in their charge calculations.

2.17 While the approach to apportioning costs across the developments is not disputed by the parties (and hence does not form part of this determination), it does serve to explain the basis on which Wessex arrived at the costs that were used as inputs to their calculation of the asset value payment and the charges they sought to recover for the Site under section 51C of the Act.

2.18 The basis on which the costs would be split between the two developments and the different phases of those developments was discussed and agreed between Wessex and Persimmon in 2007. In particular, at the request of the developer, it was agreed that all contributions towards the costs of the works undertaken by Wessex would be attributed to the Stockmoor Village development solely⁴.

2.19 Nevertheless, as plans for the developments evolved, the means of delivering water mains to serve the building out of Stockmoor Village also changed in the early phases. As a result, the means of allocating costs for the whole development's infrastructure, such as the spine main, developed over time.

2.20 Wessex wrote to Persimmon in December 2007 to notify them that as certain phases of the Stockmoor Village development were under construction, they would complete detailed design and tender arrangements for the off-site reinforcement work. They also noted that contributions for off-site reinforcement were already in place for the dwellings under construction and that outstanding contributions for the remaining areas would be recovered through subsequent water main requisition arrangements under section 41 of the Act between Persimmon and Wessex.

⁴ This was as a result of the developer seeking to sell the Wilstock site as a fully serviced site and any costs incurred in providing off-site water main reinforcement would be factored into the sale price of the site. .

Spine main cost allocation

- 2.21 Phase 4 of Stockmoor Village was the first phase of the development and involved the construction of 95 properties. According to Wessex, a portion of the spine main estimate (which was included in the initial section 41 estimate for Phase 4) was attributed directly to Phase 4. At this stage the total number of properties known about for Stockmoor Village was 811 and the contribution towards the spine main from Phase 4 was estimated at £41,256.60.
- 2.22 It appears that subsequently the means of apportioning contributions from each phase of the development changed. Under the new approach agreed between Wessex and Persimmon, it was agreed that the £41,256.60 from Phase 4 would be deducted from the whole estimated cost of the spine main and the remaining costs would then be apportioned over the remaining properties to be built on the Stockmoor Village development. At that stage the development was expected to comprise 811 properties, so following the 95 properties in Phase 4 there were a further 716 properties to be built. As the total cost of the spine main was estimated to be £193,471, this would have left a contribution of £152,214 to be apportioned to the remaining 716 properties planned for Stockmoor Village.
- 2.23 While this would have resulted in a per property contribution of £212.58 towards the spine main, Wessex informed us that they had mistakenly deducted the Phase 4 contribution of £41,256.60 from the remaining £152,214 rather than the outstanding balance of £193,471. This resulted in a net figure of £110,957.40 which was then used to calculate a per property contribution of £154.97 (rounded to £155) for the remaining 716 properties.
- 2.24 Wessex acknowledged that as a result of this error on their part, they had under recovered the cost of the spine main. However, they have not sought to recover these additional costs from Persimmon and have maintained the contribution of £155 per property.

Off-site reinforcement cost allocation

- 2.25 In relation to the allocation of the costs for the off-site reinforcement works, discussions between Wessex and Persimmon established that existing local water mains infrastructure would be capable of supporting the initial phase of the development of 95 properties (Phase 4) before the need for off-site reinforcement works. Accordingly contributions to the off-site reinforcement works were only sought from the remaining 716 properties in the development.

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- 2.26 The cost of delivering the off-site reinforcement works was estimated at £317,500. This figure was used by Wessex as the basis for allocating costs to the remaining phases within the Stockmoor Village development (after Phase 4) and resulted in a per property contribution of £443.44 (i.e. £317,500 / 716).
- 2.27 Wessex confirmed to us that the actual cost of the off-site reinforcement works was significantly higher than estimated. This was due to delays, landowner issues and a revised and phased design and construction programme. As a result, the actual costs incurred by Wessex to provide the off-site works increased to £462,990. Nevertheless, Wessex used the previously estimated cost of the off-site works as the basis for its cost allocations to the phases of the development rather than the higher costs actually incurred. Using the final actual costs would have meant a higher allocation per property of £646.63 rather than the £443.44 used by Wessex. Wessex has not sought to recover these additional costs from Persimmon.

The Site

- 2.28 As a result of the apportionment of costs set out above, Wessex allocated costs of £598.51 to each of the 136 properties on the Site (comprising the £155 contribution to the spine main and the £443.44 contribution to the off-site reinforcement works⁵). This resulted in a total cost of £81,397.36 which Wessex then used as the basis for its charges and the calculation of the asset value payment (as set out below).

E. Asset Value Payment

- 2.29 On 8 April 2013, Persimmon received an offer letter from Wessex relating to its application to self-lay the mains on the Site. In this letter, Wessex estimated the total costs of the on-site and off-site works at £215,389.96. This was based on the contribution of £81,397.36 towards the works that Wessex had undertaken to supply the Site (on the basis set out above) and Wessex's estimated costs of £133,992.60 for the on-site works which were to be provided by Aquamain. These costs were not disputed by Aquamain or Persimmon.
- 2.30 Using this estimate for the on-site works provided by Aquamain and taking into account the estimated income from the 136 new properties on the Site, Wessex calculated a Gross Asset Value Payment of £124,942.02. The offer letter also stated that on satisfactory completion of the mains and connection to the network, Wessex would pay this sum to Persimmon less the statutory

⁵ The cumulative figures vary slightly due to the different approaches to rounding used by Wessex over time.

commuted sum figure of £13,949.30 for the Works. (The approach used by Wessex to calculate these figures is set out in Appendix 1).

F. Infrastructure Charges

- 2.31 In addition to the charges Wessex sought to recover under section 51C of the Act, Wessex also levied infrastructure charges on the 136 properties on the Site. This is based on Wessex's 2013/14 infrastructure charge figures of £338 for each property connected to the water network for the first time and £338 for each property connected to the sewer network. Therefore Wessex sought to recover a total of £91,936 for the Site (i.e. £45,968 for connecting to the water network and £45,968 for connection to the sewer network).
- 2.32 As of July 2014, Wessex had invoiced for infrastructure charges for 39 of the Site's properties, totalling £26,364 (£13,182 for water and £13,182 for sewerage).

G. Dispute

- 2.33 Aquamain challenged whether the contribution of £81,397.36 for the Works can be classified as "costs reasonably incurred" under section 51C(3) of the Act and hence included in Wessex's calculation of the asset value payment and charges associated with the self-lay of water mains under section 51C of the Act. In particular, it disputed whether Wessex should include the costs related to the Works in the asset value payment calculation when infrastructure charges are also being recovered under section 146 of the Act, since they argue, the latter also fund off-site works and network capacity improvements.
- 2.34 Wessex claimed that the approach it adopted in seeking contributions for the phased development of Stockmoor Village was fully agreed at the outset with Persimmon. It also claimed that the approach used in calculating the asset value payment for the Site is correct and in keeping with the provisions of the Act. Wessex also considered that it is fully entitled to levy infrastructure charges for the Site.

3. The legal framework

3.1 This section outlines the key legislative provisions relevant to this dispute.

A. Supplies for domestic purposes

3.2 Where an owner or occupier of premises requires a supply of water for premises in a particular locality (such as a development site) for domestic purposes:

- (i) under section 41(2) of the Act, the owner or occupier of premises in that locality may requisition the water undertaker to provide a main. Subject to the conditions set out in section 41 of the Act being fulfilled, the water undertaker is under a duty to provide the water main (“**requisition**”); or
- (ii) the owner or occupier of the premises in that locality may choose to construct the required mains and /or service pipes themselves and reach an agreement under section 51A(1) of the Act for that infrastructure to be vested in the water undertaker at an agreed date if it is constructed in accordance with the terms of an adoption agreement agreed between the parties (“**self-lay**”).

B. Requisition charge

3.3 Under section 41(1)(c) and section 42(2) of the Act, as part of the duty to comply with a water main requisition, a water undertaker can recover a contribution from the owner or occupier of the premises towards the costs of providing the water main (a “**requisition charge**”).

3.4 Sections 42 – 43A set out the financial conditions for complying with a mains requisition. The requisition charge a water undertaker is allowed to recover is calculated by reference to i) the annual borrowing costs of a loan of an amount that would be required to cover the costs reasonably incurred in providing the main; and ii) the revenue which will be recovered by the water undertaker by means of the new main (i.e. the bills paid by customers connected to that main, which is in turn derived from the occupancy rates of the premises connecting) over each of the 12 years following the provision of the water main. Where, in any of those years, the revenue exceeds the borrowing costs, the owner or occupier of the premises will not be required to make any payment. Where the borrowing costs exceed the revenue, the water undertaker is entitled to require the owner or occupier of the premises to pay the difference to the water undertaker.

3.5 Under section 42(2)(a) the owner or occupier of the premises can choose to pay the water undertaker the requisition charge either by way of an annual amount over each of the 12 years following the provision of the water main (the “**relevant deficit**”), or a single lump sum payment made following the provision of the water main. This is referred to as the **discounted aggregate deficit** (the “**DAD**”) and is commonly called the “**statutory commuted sum**”. The relevant deficit is calculated in accordance with section 43 of the Act and the DAD is calculated in accordance with section 43A of the Act.

3.6 The final requisition charge can only be requested once the water main has been provided, albeit a security payment towards this can be requested in advance by the water undertaker by virtue of section 42(1)(b) of the Act.

C. Self-Lay

3.7 Section 51C of the Act sets out the financial conditions of complying with an agreement to adopt self-laid mains (entered into under section 51A of the Act). The section provides for two financial transactions:

- i) Sections 51C(2) and (3) of the Act provide for the water undertaker to recover the costs it reasonably incurs in connection with the adopted main from the person constructing or proposing to construct that self-laid main. This is sometimes termed the “**developer payment**”. The water undertaker may, under section 51C(4), require a security payment in relation to the developer payment.
- ii) Section 51C(5) of the Act requires the water undertaker to pay the person constructing or proposing to construct the self-laid main the “**discounted offset amount**” at the point of the main being adopted. This payment is often called the “**asset value payment**”.

3.8 Subject to the terms of the adoption agreement agreed between the parties under section 51A of the Act, these payments can be made to/from the developer or the self-lay organisation (“**SLO**”) who has constructed the adopted main on their behalf.

3.9 Sections 51C(6) – 51(C)(9) of the Act set out the approach to be used to calculate the discounted offset amount, which involves taking the sum of the “estimated offsets” for each of the twelve years following the vesting in the water undertaker of the water main. For each of the twelve years following the adoption of the main, the “**estimated offset**” is the lesser of

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- (i) the estimated revenue that will be recovered by means of the adopted main for the year; and
 - (ii) the annual borrowing costs of a loan that would be required to cover the costs of providing the adopted main (based on the water undertaker's estimated costs).

These annual figures are discounted (to determine their net present value) and summed for the 12 year period to calculate the discounted offset amount.

3.10 As a result of the two financial provisions set out above, with the potential for one payment to go from the water undertaker to the developer / SLO and another from the developer / SLO to the water undertaker, where both payments are due it is common for the water undertaker to net one payment off against the other, resulting in a single financial transaction taking place. This is sometimes called the “**net asset value payment value**”, since it offsets the developer payment against the discounted offset amount (i.e. the gross asset value payment value).

D. Costs that can be included in the calculation of the developer charge and asset value payment

3.11 The calculation of the asset value payment and developer payment rely on establishing the costs reasonably incurred in providing a new water main.

3.12 The provisions within section 51C of the Act cross-refer back to section 43 and 43A of the Act for the purposes of calculating the developer payment and the asset value payment. Section 51C(3) of the Act states that the developer payment comprises the costs referred to in section 43(4)(a) and (b) of the Act. This provides that the water undertaker shall take into account costs reasonably incurred in connection with the adopted main equivalent to:

- a) *"the costs reasonably incurred in providing such other water mains and such tanks, service reservoirs and pumping stations as it is necessary to provide in consequence of the incorporation of the adopted main into the undertaker's supply system; and*
- b) *such proportion (if any) as is reasonable of the costs reasonably incurred in providing or procuring the provision of any such additional capacity in an earlier main as falls to be used in consequence of the incorporation of the adopted main into the undertaker's supply system."*

3.13 As a result of this section, the water undertaker's calculation can include costs they reasonably incur as a result of them providing wider works or capacity

(be that in new or existing / reinforced infrastructure) that may be physically located outside of the specific site / locality that is the subject of the self-lay (i.e. in the wider network), but which are considered necessary in consequence of the self-lay in order to provide a supply to that site / locality.

- 3.14 Section 51(C)(8) of the Act also refers back to section 43 (via section 43A) of the Act in stating that the costs used for establishing the annual borrowing costs for the asset value payment calculation should be the same as those included for the calculation of the requisition charge. Equal treatment of the costs in this way means that the charges recovered from the developer by the water undertaker are equivalent, regardless of whether the infrastructure is requisitioned or self-laid. This ensures a level playing field in terms of the offer provided by the statutory water undertaker in this competitive market.

E. Disputes regarding requisition and self-lay payments

- 3.15 Section 51C(11) of the Act provides that any dispute regarding the payments required to be made (i.e. the developer payment or the asset value payment) under the provisions of section 51C of the Act can be referred to Ofwat for determination under section 30A of the Act.

F. Infrastructure charges

- 3.16 Infrastructure charges are charges that a water or sewerage undertaker is entitled to raise pursuant to a charges scheme and section 146 of the Act. They are payable when connecting premises to a public water supply or public sewer for the first time. They are charged separately for water and sewerage services.
- 3.17 The methods for calculating the amount of infrastructure charges an undertaker can recover are set out in Condition C of their instrument of appointment (i.e. their licence). Depending on the type of premises being connected, charges are applied on the basis of either the standard infrastructure charge method (where a standard rate is applied per premises) or the relevant multiplier method (where the standard rate is adjusted for certain types of premises to reflect the number and type of water fittings used in the premises, e.g. premises subject to a common billing agreement).
- 3.18 Ofwat has specific, defined powers to make determinations on disputes. As set out in Condition C of an undertaker's instrument of appointment, in terms of infrastructure charges these determination powers are limited to disputes relating to the calculation of the relevant multiplier (including how it has been

calculated and/or the number or type of fittings on which this calculation has been based).

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4. Ofwat's determination

4.1 This section sets out our final determination in this dispute. Although we comment on the calculation of the asset value payment, the focus and our determination is on whether Wessex can recover the cost of the Works undertaken by them (through the asset value payment) whilst at the same time raising infrastructure charges on the Site.

A. Wessex's calculation of the asset value payment

4.2 We have considered the evidence provided by the parties, including detailed spreadsheets provided by Wessex in which they set out the approach that they adopted to estimate the asset value payment. A summary of their approach is included at Appendix 1.

4.3 In the calculations that Wessex provided they used separate calculations for the net asset value:

- Firstly, Wessex offset the forecast income from the 136 properties on the Site⁶ against the annual borrowing costs of a loan necessary to cover the £133,992.60 cost of the work provided by Aquamain. Each annual offset was then discounted to arrive at a gross asset value payment of £124,942.02.
- Secondly, Wessex used the remaining surplus income (i.e. the annual income which exceeds that used in the calculation of the gross asset value payment) to offset against the annual financing costs for the works that they provided, as per the calculation of a requisition charge. This resulted in a charge of £13,949.30.
- Finally, Wessex deducted the requisition charge from the gross asset payment to arrive at a net asset value payment of £110,992.72 (i.e. £124,942.02 - £13,949.30).

Complainant's view

4.4 In their response to our draft determination, Aquamain confirmed that the costs used by Wessex for the calculation of their charges are not in dispute. They did note, however, that they have found it reassuring that our draft determination concluded that Wessex has applied the costs in a way that

⁶ In estimating the income from the Site, Wessex has assumed annual revenue per property of between £225.93 and £312.60 over the 12 year period. These are based on Wessex's standard water consumption per property (104 m³ per annum) and the company's annual standing charge and volumetric charges. These have then been increased by 2.75% per annum from 2014/15 to take account of inflation. We are satisfied that this provides a suitable estimate for the annual income revenue per property at the Site.

matched Ofwat's view on what can be charged (as detailed in "Ofwat's view" below).

Company's view

4.5 In their response to our draft determination, Wessex welcomed our draft determination's clarification that their approach to calculating the net asset value payment is in accordance with section 51C of the Act (as detailed in "Ofwat's view" below).

Ofwat's view

4.6 We are satisfied that Wessex's calculation of the net asset value payment position is correct and reflects the provisions of section 51C of the Act.

4.7 The methodology adopted by Wessex for calculating the net asset value payment is not strictly in line with the provisions of the Act (as set out in the Legal Framework in section 3) as they have run two separate calculations based on the costs of the works they incurred in providing the water main. However as a result of both of their calculations taking account of the income offset (i.e. Wessex has used income from the Site firstly against the asset value payment and then against the developer payment), it results in the same net position. As a result, Wessex has used the same total income to offset against the same total loan costs.

4.8 We also used Wessex's spreadsheet to recalculate the asset value payment using the total costs of £215,389.96 and offsetting total income against this amount. Under this approach, the asset value payment would be estimated as £192,390.08. However, Wessex could then recover £81,397.36 for the cost of the on-site spine and off-site reinforcement work provided by them in the form of the developer payment. This confirms that the net position would be the same at £110,992.72.

B. The interactions between off-site works, asset value payments and infrastructure charges

Complainant's view

4.9 In their original complaint to us and in their representations on our draft determination, Aquamain challenged Wessex's ability to recover the costs of network reinforcement works through the Site's self-lay charges and the calculation of the asset value payment, whilst at the same time also raising infrastructure charges. They argued that this results in the double recovery of

costs by Wessex since both sets of charges are to cover the cost of the network reinforcement works required as a result of the development.

- 4.10 In their response to our draft determination Aquamain acknowledged the logic to raising infrastructure charges where individual properties are connected to the network without any network reinforcement works being done, and accepted that infrastructure charges provide funding for any reinforcement works necessary as a result of many such connections. However, Aquamain argued that the development of Stockmoor Village is different as Wessex had already decided that network reinforcement works were required and had scoped these works before the new development was supplied in order to safeguard future supplies. Aquamain claimed that if this scoping was done correctly it is inconceivable that there would be any subsequent need for Wessex to undertake further works on their 'local network' as a result of the Stockmoor Village development.
- 4.11 To support their argument, Aquamain pointed to our draft determination and previous determinations where we had stated that in order "to avoid any double recovery of costs, we would expect infrastructure charges to be used in ways which are distinct from those directly attributable to meeting the requirement of the site". They consider that because Wessex is charging for both the infrastructure charge and the reinforcement work they are recovering the cost of the work twice. They consider that this is evidenced by wording on the Ofwat website that indicates that the "purpose of infrastructure charges are now simply to cover the cost of developing local networks to serve new customers".
- 4.12 Aquamain argued that Wessex should either use the infrastructure charges from the Stockmoor Village site to fund the network reinforcement work they have deemed necessary to supply the Site, or, alternatively, they should seek to recover the reinforcement costs from the developer/SLO.
- 4.13 In their representations on our draft determination, Aquamain acknowledged that recovering £338 per property by way of water infrastructure charges would fall short of the £443 per property (or £646 if the actual construction costs are used) needed to fund the reinforcement works. They suggested that this issue could be avoided if Ofwat were able to determine that infrastructure charges should, in these circumstances, not be chargeable. They stated that in the event that the legislation and licence conditions make such a conclusion difficult, the costs should be covered by either:-
- recognising that the infrastructure charge is an average amount or,

-
- limiting the ‘reasonable costs’ of the reinforcement work able to be recovered to the value of the work which exceeds the infrastructure charge income, i.e. £105 per property on this development.

4.14 Aquamain stated that if Wessex is permitted to charge for both reinforcement works and levy infrastructure charges, they should also be expected to set out the nature of the subsequent enhancements to their ‘local network’ that they envisage undertaking.

Company’s view

4.15 Wessex welcomed Ofwat’s confirmation in our draft determination that it is entitled to separately recover infrastructure charges for the Site in accordance with section 146 of the Act and Licence Condition C. However, Wessex also noted that the use of the term “local” in relation to the network improvement works that infrastructure charges can be allocated to, raises questions about the basis for this expectation and how “local” should be defined.

Ofwat’s view

4.16 Infrastructure charges were originally established to enable water and sewerage undertakers to invest in network improvements required to meet general increasing demand from new customers. Reflecting Licence Condition C, undertakers are able to raise infrastructure charges for each new premises they connect to the public network for the first time, regardless of whether or not their connection directly requires a network improvement scheme.

4.17 Due to being standard flat rate charges, infrastructure charges do not directly reflect the actual costs of a specific network improvement scheme incurred by the undertaker. Infrastructure charges become a source of general funding water and sewerage undertakers can use towards improving and developing their networks so they can meet general increases in demand. As a result network improvements works which are funded by infrastructure charges may not occur at the same point, either geographically or in time, as the development site from which they have been raised.

4.18 In 1995 Ofwat provided guidance to companies which noted that infrastructure charges were to help finance “local network enhancement”. Rather than to define any specific geographical location, the use of this term was intended to clarify that this meant the undertaker’s distribution system, distinguishing this from water treatment or water resources costs.

4.19 In setting out what can be considered to be “costs reasonably incurred” section 43(4) of the Act (to which the Act’s self-lay provisions under sections

51A-51C cross-refer) allows for the inclusion of specific works in the wider network that are considered necessary in consequence of the new main, i.e. those directly attributable to supplying the development site. These calculations cannot include costs incurred in schemes that are not necessary to supply the site in question.

- 4.20 We consider that the provision under section 146 of the Act for raising an infrastructure charge is separate and independent of the provisions for the self-lay of water mains under section 51A-51C of the Act. There is no legal interaction between these sections of the Act. As a result we do not consider that it possible to offset them against each other, for example in the way proposed by Aquamain in their response to our draft determination.
- 4.21 Water and sewerage undertakers are entitled to raise charges under both provisions where, as in the case of the Stockmoor Village development, self-lay works are resulting in the connection of premises to the network for the first time. Likewise, undertakers can legitimately use the money recovered from both of these charging provisions to fund network improvement works. However, to avoid any double recovery of costs, we expect these funding routes to be distinct. We expect infrastructure charges to be used to cover the costs of network improvements works that are different from those directly attributable to (i.e. necessary in consequence of) supplying the site they are raised against, since the latter can be recovered through self-lay charges.
- 4.22 There is currently no obligation for undertakers to track through how infrastructure charge income from individual sites is expended. We do however expect undertakers to work with their customers to ensure they understand the rationale for the charges they are being asked to pay and, in the case of infrastructure charges, the kinds of works they may be used towards.

5. Conclusion

- 5.1 We are satisfied that Wessex's calculation of the asset value payment to Aquamain is correct. The costs relating to the Works are costs reasonably incurred by Wessex for the purposes of section 51C of the Act and can be both recovered by Wessex and included in their calculation of the asset value payment
- 5.2 We are satisfied that Wessex is also entitled to separately recover infrastructure charges for the Site in accordance with section 146 of the Act and recovery of the infrastructure charge does not affect what costs have been reasonably incurred when considering the calculation of the asset value payment.

Appendix 1: Wessex Water's Asset Value Payment Calculation

SELF LAY WATER SUPPLY

1. Data from 'Data Input' sheet

On-site/off-site works (to be provided by SLO)		Off-site or reinforcement works to be undertaken by Wessex Water but payable by SLO	
Scheme cost	£ 133,992.60	Capital cost of network reinforcement	£ 81,397
Interest rate	3.500%	Interest rate	3.500%
Annuitiy factor	-0.1035	Annuitiy factor	-0.1035
Annual financing chg	-£13,866.08	Annual financing chg	-£423.32
Occ_rate	49%	Occ_rate	49%
Water consumption	104.0 m ³	Water consumption	104.0 m ³

NB. Diversions should not be included as these are fully rechargeable and do not qualify for netting-off of income

NB. Any surplus annual income from the Gross Asset Value Payment calculation up to the shadow borrowing costs of Wessex Water providing the SLO's works is used to offset the annual deficiency costs on the works to be provided by Wessex Water.

2. Gross Asset Value Payment calculation

Site Name	Stockmoor Area 6, Phase 2, Bridgwater
Developer	Persimmon Homes
Date of estimate	12 April 2013
Other comments	\$41 153364 - Spine main and off site reinforcement charge of £558.51 Per Prop. = £81,397.56

Payment summary		Gross Asset Payment		Payable to SLO (estimate only)						
		£124,942.02								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Year from completion of main(s)	Annual repayments of loan charge	Capital repayment	Interest repayment	Build rate	Cumulative Build rate	Cumulative occupancy	Reckonable income (Revenue due from water consumption charges)	Income allowance (lessor of reckonable income or annual repayment of loan)	Discount factor	Asset Payment (discounted value of income allowance)
1	£13,866.08	£9,176.34	£4,689.74	36	36	18	£ 4,498.73	£ 4,498.73	0.9662	£ 4,346.60
2	£13,866.08	£9,497.51	£4,368.57	50	86	61	£ 16,064.70	£ 13,866.08	0.9335	£ 12,944.14
3	£13,866.08	£9,829.93	£4,036.16	50	136	111	£ 29,960.07	£ 13,866.08	0.9019	£ 12,506.41
4	£13,866.08	£10,173.97	£3,692.11	0	136	136	£ 37,759.79	£ 13,866.08	0.8714	£ 12,063.49
5	£13,866.08	£10,198.60	£3,667.48	0	136	136	£ 38,836.95	£ 13,866.08	0.8420	£ 11,674.87
6	£13,866.08	£10,887.01	£2,979.07	0	136	136	£ 39,803.99	£ 13,866.08	0.8135	£ 11,280.07
7	£13,866.08	£10,912.99	£2,953.10	0	136	136	£ 40,933.61	£ 13,866.08	0.7860	£ 10,898.62
8	£13,866.08	£11,650.01	£2,216.07	0	136	136	£ 42,090.57	£ 13,866.08	0.7594	£ 10,530.06
9	£13,866.08	£12,057.77	£1,808.32	0	136	136	£ 43,275.60	£ 13,866.08	0.7337	£ 10,173.97
10	£13,866.08	£12,479.79	£1,386.30	0	136	136	£ 44,489.48	£ 13,866.08	0.7089	£ 9,829.93
11	£13,866.08	£12,916.58	£949.50	0	136	136	£ 45,897.00	£ 13,866.08	0.6849	£ 9,497.51
12	£13,866.08	£13,368.66	£497.42	0	136	136	£ 46,870.98	£ 13,866.08	0.6618	£ 9,176.34
	£168,333.00	£133,149.19	£33,243.84	136			£ 430,181.47	£157,025.65		£ 124,942.02

Assumptions

Scheme cost	£133,992.60
Interest rate	3.50%
Annuitiy factor	-0.1035
Annual loan charge	-£13,866.08
Water consumption	104.0 m ³ /year

Actual and projected water charges (per property)

(l) Year	(m) m ³ /prop/yr	(n) £ per m ³	(o) £/prop/yr	(p) Standing Charge (£/prop)	(q) Total cost (£/prop)
2013-14	1	104.0	£ 2,172.4	£ 225.93	£ 2,398.33
2014-15	2	104.0	£ 2,291.9	£ 236.36	£ 2,528.26
2015-16	3	104.0	£ 2,354.9	£ 244.91	£ 2,600.81
2016-17	4	104.0	£ 2,419.7	£ 251.65	£ 2,671.36
2017-18	5	104.0	£ 2,486.2	£ 258.57	£ 2,744.77
2018-19	6	104.0	£ 2,554.6	£ 265.68	£ 2,820.28
2019-20	7	104.0	£ 2,624.8	£ 272.98	£ 2,907.78
2020-21	8	104.0	£ 2,697.0	£ 280.49	£ 2,977.49
2021-22	9	104.0	£ 2,771.2	£ 288.20	£ 3,059.40
2022-23	10	104.0	£ 2,847.4	£ 296.13	£ 3,143.53
2023-24	11	104.0	£ 2,925.7	£ 304.27	£ 3,230.00
2024-25	12	104.0	£ 3,006.1	£ 312.64	£ 3,318.74

Actual and projected water charges (total of non-household properties)

(l) Year	(r) Total volume m ³ /yr	(n) £ per m ³	(s) Standing Charge (£)	(t) Total cost (£)
2013-14	1	0	£ 2,172.4	£ 2,172.4
2014-15	2	0	£ 2,291.9	£ 4,584.3
2015-16	3	0	£ 2,354.9	£ 7,039.2
2016-17	4	0	£ 2,419.7	£ 9,518.9
2017-18	5	0	£ 2,486.2	£ 12,025.1
2018-19	6	0	£ 2,554.6	£ 14,569.7
2019-20	7	0	£ 2,624.8	£ 17,154.5
2020-21	8	0	£ 2,697.0	£ 19,771.5
2021-22	9	0	£ 2,771.2	£ 22,420.7
2022-23	10	0	£ 2,847.4	£ 25,103.1
2023-24	11	0	£ 2,925.7	£ 27,818.8
2024-25	12	0	£ 3,006.1	£ 30,564.9

Key to columns

- (a) Years from completion of works
- (b) Annual cost of loan to finance works
- (c) Capital repayment element of loan
- (d) Interest charge element of loan
- (e) Assumed build rate of development (properties per year)
- (f) Cumulative build rate
- (g) Our estimate of cumulative occupancy based on the cumulative build rate in order to calculate full year water charges income
- (h) The water charges income we estimate we will receive from the properties serviced by the works
- (i) The shortfall between the annual loan charge and the income we receive, i.e. (b) - (h)
- (j) The factor (based on the interest rate) used to discount all deficiency amounts to a present value
- (k) The present value of the annual deficiency, i.e. (i) x (j)
- (l) Years from completion of works
- (m) The assumed general inflation used to calculate water charges at money of the day prices
- (n) The assumed water consumption in cubic metres per year per property
- (o) The assessed volumetric cost of water in £ per cubic metre
- (p) The assessed volumetric cost of water in £ per property per year, i.e. (o) x (n)
- (q) The assessed standing charge for water per property per year
- (r) The total cost of water per property per year, i.e. (p) + (q)
- (s) Total volume of forecast non-household consumption
- (t) Total standing charges of forecast non-household properties, based on assumed meters to be employed
- (u) Total forecast income from non-household properties
- (v) The annual income which exceeds that used in the calculation of the Gross Asset Value payment but which does not exceed the annual borrowing cost where Wessex Water to provide the SLO's works i.e. any excess of column (n) over column (o)

Memo Item only

3. Off-Site or network reinforcement costs (if applicable) converted into commuted lump sum - calculated by standard requisition calculation

(l) Year	(b) Annual Financing Charge	(v) Reckonable (Surplus) Income	(i) Annual Deficiency	(j) Discount Factor	(k) Discounted Deficits
2013-14	£ 8,423.32	£ -	£ 8,423.32	0.9662	£ 8,138.47
2014-15	£ 8,423.32	£ 2,198.62	£ 6,224.70	0.9335	£ 5,810.83
2015-16	£ 8,423.32	£ 16,093.98	£ -	0.9019	£ -
2016-17	£ 8,423.32	£ 23,593.71	£ -	0.8714	£ -
2017-18	£ 8,423.32	£ 24,970.87	£ -	0.8420	£ -
2018-19	£ 8,423.32	£ 25,937.90	£ -	0.8135	£ -
2019-20	£ 8,423.32	£ 27,067.53	£ -	0.7860	£ -
2020-21	£ 8,423.32	£ 28,224.49	£ -	0.7594	£ -
2021-22	£ 8,423.32	£ 29,409.52	£ -	0.7337	£ -
2022-23	£ 8,423.32	£ 30,623.40	£ -	0.7089	£ -
2023-24	£ 8,423.32	£ 31,730.92	£ -	0.6849	£ -
2024-25	£ 8,423.32	£ 33,004.89	£ -	0.6618	£ -
Commuted deficits on reinforcement works =					£ 13,949.30
