

July 2017

Trust in water

# Mullberry Homes and United Utilities

Final decision on an appeal made under section 105(2) of the Water Industry Act 1991

Appeal about the size of the bonds required by United Utilities at two development sites.

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## **Summary of our final decision**

This appeal is about the bonds required by United Utilities in two separate sewer adoption agreements, and it was referred to us for decision under section 105(2) of the Water Industry Act 1991.

Our decision is that United Utilities' charges for two separate bonds were reasonable.

## 1. Introduction

### A. The complaint

- 1.1 This is a final decision of an appeal referred by Mullberry Homes (**the Complainant**) to the Water Services Regulation Authority (**Ofwat**), on 3 January 2017 for decision under section 105(2) of the Water Industry Act 1991 (**the Act**).
- 1.2 The appeal has been made following a dispute between the Complainant and United Utilities, and is about whether the bonds required by United Utilities as terms of sewer adoption agreements at two development sites are reasonable.

### B. Purpose of this document

- 1.3 This is our final decision of this appeal, following our consideration of the legal framework for appeals made under section 105 of the Act, and the evidence provided to us by both parties.

### C. Overview of our decision

- 1.4 Our decision is detailed in [Chapter 5](#) of this document, but is summarised below.
- 1.5 In light of the legal framework of the Act and the evidence we have gathered from the parties to the dispute, we have decided that the bonds required by United Utilities from the Complainant as terms of the sewer adoption agreements for the two sites are reasonable.

## 2. Background

### A. The parties

#### Complainant

2.1 The Complainant is Mullberry Homes, a home developer based in Blackburn, Lancashire.

#### United Utilities

2.2 United Utilities is appointed under the Act to provide water and sewerage services to customers in Cumbria, where the two sites are located.

### B. The sites

2.3 The Complainant is developing two distinct and unconnected sites:

**Table 1 – Details of the two sites**

Name of site	Location	Number of properties
Parkview	Barrow-in-Furness, Cumbria	54
Thornccliffe	Barrow-in-Furness, Cumbria	29

### C. Applications and bond requirements for the sewer adoption agreements

2.4 On 18 December 2015, the Complainant submitted an application under section 104 of the Act to United Utilities in respect of the Parkview site.

2.5 On 22 March 2016, the Complainant submitted an application under section 104 of the Act to United Utilities in respect of the Thornccliffe site.

2.6 United Utilities subsequently issued its assumed levels of the sewer construction costs and bond figures, as set out in the table below. It explained to us that it calculates the bond as 10% of the sewer construction costs, which it said is a standard industry approach based on 'Sewers for Adoption, 6th edition'.

**Table 2 – United Utilities' assumed levels of sewer construction costs and bonds required at the two sites**

Name of site	United Utilities' estimated sewer construction costs	Size of bond
Parkview	£312,560	£31,256
Thornccliffe	£164,067	£16,406

- 2.7 On 3 January 2017, the Complainant referred a dispute to us. The Complainant does not dispute that the bonds are calculated at 10% of estimated costs but it does consider that the amount of the bonds required by United Utilities for both sites is excessive.
- 2.8 As the Complainant does not dispute that United Utilities calculates the bonds at 10% of the assumed level of the sewer construction costs, our draft and final decisions have only looked at the reasonableness of United Utilities' assumed level of the sewer construction costs.
- 2.9 On receipt of the complaint, we asked United Utilities to provide us with a breakdown of its estimated cost of the sewer construction at both sites. United Utilities said the costs were based on a schedule of construction rates using 2005 prices<sup>1</sup>, and included labour, materials and reinstatement. This breakdown is as follows:

**Table 3 – United Utilities' breakdown of cost of works at the Parkview site**

Description	Diameter	Depth	Length	Cost
Pipe	150mm	Up to 3m	454m	£68,806.56
Pipe	225mm	Up to 3m	129m	£22,769.79
Pipe	300mm	Up to 3m	59m	£10,684.90
Pipe	900mm	Up to 3m	45m	£24,036.30
Pipe	900mm	Over 3m	148m	£79,052.72

<sup>1</sup> United Utilities uses 2005 prices as since then it has competitively tendered network projects and, therefore, it does not have a more up to date schedule of rates. United Utilities has stated that it only uses these rates for calculating fees associated with section 104 of the Act and to set the level of bond. It also noted that using these rates allows it to provide estimates quickly to developers which it considers developers value.

Description	Diameter	Depth	Number	Cost
Manhole	1200mm	Up to 3m	19	£57,282.72
Manhole	1350mm	Up to 3m	1	£3,379.64
Manhole	2400mm	Up to 3m	2	£13,605.92
Manhole	2400mm	Over 3m	4	£27,211.84
Sewer connection	150mm	Up to 3m	1	£729.55
Flow controls			2	£5,000
<b>Total</b>				<b>£312,559.94</b>

**Table 4 – United Utilities' breakdown of cost of works at the Thorncliffe site**

Description	Diameter	Depth	Length	Cost
Pipe	150mm	Up to 3m	202.31m	£30,000.25
Pipe	300mm	Up to 3m	94.82m	£17,171.54
Surface water box culvert	1750mm x 1000mm	N/A	64.73m <sup>2</sup>	£24,985.78
Description	Diameter	Depth	Number	Cost
Manhole	1200mm	Up to 3m	11	£33,163.68
Manhole	1350mm	Up to 3m	2	£6,759.28
Manhole	1500mm	Up to 3m	1	£3,744.90
Manhole	1800mm	Up to 3m	1	£4,680.19
Manhole	3000mm	Up to 3m	2	£28,365.68
Manhole	3000mm	Over 3m	1	£14,182.84
Sewer connection	300mm	Up to 3m	1	£833.62
<b>Total</b>				<b>£164,067.76</b>

### **3. Legal framework**

- 3.1 This section outlines the key legislative provisions relevant to this case.
- 3.2 Under section 104 of the Act, a sewerage company and any person constructing a sewer may enter into an agreement in which the sewerage company will, subject to certain conditions, adopt that sewer. We refer to this below as a section 104 agreement.
- 3.3 Under section 105(2) of the Act, any person constructing a sewer may appeal to Ofwat where a sewerage company has:
- a. refused to enter into a section 104 agreement;
  - b. offered to enter into a section 104 agreement, but on terms to which that person objects; or
  - c. failed, before the end of two months from receiving an application for a section 104 agreement, either to refuse the application or to give notice to the applicant of the terms on which it is prepared to enter into an agreement.
- 3.4 Section 105(4) of the Act provides that upon hearing such an appeal, Ofwat may allow or disallow the proposal of the undertaker and may modify the terms of any agreement. Section 105(7) of the Act provides that in deciding an appeal Ofwat must have regard to the considerations specified in section 102(5) of the Act. These include: whether the sewers are adapted to or required for a general system of sewerage; whether the sewer will be built under a highway; the number of buildings which the sewer is intended to serve; and the method of construction.

## **4. Jurisdiction to decide the appeal**

4.1 We are satisfied that there is a dispute between the Complainant and United Utilities about one of the terms of the section 104 agreements – i.e. – the size of the bonds required by United Utilities. Therefore, we are satisfied that we have jurisdiction to hear this appeal in accordance with section 105(2) of the Act. This is because:

- the Complainant requested that United Utilities adopt the sewers at two development sites;
- United Utilities treated these requests as applications to adopt the sewers under section 104 of the Act; and
- the size of the bonds required by United Utilities as terms of the section 104 agreements is disputed as being excessive by the Complainant.

## 5. Draft decision

- 5.1 United Utilities provided its representation on the draft decision on 30 May 2017. It said it had no further comment on the substance of the case but it raised one issue of clarification.
- 5.2 United Utilities clarified that the schedule of rates utilised by United Utilities for the purposes of calculating the required bond represents an assumed level of sewer construction cost which is only used for the purposes of calculating the bond figure required for adoptions of sewers constructed by developers. In the event that developers were to request that United Utilities actually deliver a sewer construction on their behalf then United Utilities would calculate actual construction cost estimates based on current rates for the delivery of such projects. These would be different from the schedules utilised for the purposes of calculating the bond.
- 5.3 Mullberry Homes did not make any representations on the draft decision. It did note, however, that it had redesigned some of the drainage runs and it considered this would affect the bonds.
- 5.4 On 28 June 2017, United Utilities confirmed that Mullberry Homes submitted a further application to amend the design of the sewers for the Parkview site but that the application was rejected as it did not meet United Utilities' technical requirements.
- 5.5 Based on the above, this final decision remains based on the bond figures, and costs, set out earlier in this document.

## 6. Final decision

- 6.1 In this chapter we set out our final decision which has been taken having considered all the evidence provided to us by both parties.
- 6.2 Although we are required to have regard to the considerations listed in section 102(5) of the Act in deciding an appeal of this nature, we do not consider these considerations have a bearing on this case, given the limited nature of the issues in dispute.
- 6.3 As the Complainant does not dispute that United Utilities calculates the bonds at 10% of the assumed level of the sewer construction costs, this decision only looks at the reasonableness of United Utilities' assumed level of the sewer construction costs.
- 6.4 In order to assess the reasonableness of United Utilities' estimate, we have used benchmark costs set out in a model that formed part of a report we commissioned in 2016, which looks at the reasonableness of sewer construction costs. We input individual cost elements into the model, and it calculates a total anticipated price for the sewer construction.
- 6.5 The report was carried out by Aqua Consulting and it took into account the actual costs of projects from thousands of water industry projects from around the UK during Asset Management Periods (**AMP**) 4, 5 and 6 (which covers the period 2005 to present) to establish a range of typical costs expected for the development of infrastructure assets. The report also took into account likely variables such as ground types, locations, materials and construction methods to further test sensitivities in the cost data.
- 6.6 Although the model does not allow an exact like for like comparison, it allows us to calculate a benchmark figure which we can use to inform our judgement as to the reasonable costs for constructing the relevant sewers. Tables 5 and 6, below, show the costs we have modelled for the two sites.

**Table 5 – Sewer connection pricing model: Parkview**

Description	Diameter	Depth	Length	UU cost	Mean cost
Pipe	150mm	Up to 3m	454m	£68,806.56	£124,741.04
Pipe	225mm	Up to 3m	129m	£22,769.79	£41,111.01

Pipe	300mm	Up to 3m	59m	£10,684.90	£20,152.04
Pipe	700mm <sup>2</sup>	Up to 3m	45m	£24,036.30	£24,813.00
Pipe	700mm <sup>3</sup>	Over 3m	148m	£79,052.72	£104,553.12
Description	Diameter	Depth	Number	UU cost	Mean cost
Manhole	1200mm	Up to 3m	19	£57,282.72	£76,312.36
Manhole	1350mm	Up to 3m	1	£3,379.64	£4,403.94
Manhole	1800mm <sup>4</sup>	Up to 3m	2	£13,605.92	£11,907.92
Manhole	1800mm <sup>5</sup>	Over 3m	4	£27,211.84	£32,628.20
<b>Total</b>				<b>£312,559.94</b>	<b>£440,622.63</b>

**Table 6 – Sewer connection pricing model: Thorncliffe**

Description	Diameter	Depth	Length	UU cost	Mean cost
Pipe	150mm	Up to 3m	202.31m	£30,000.25	£55,586.70
Pipe	300mm	Up to 3m	94.82m	£17,171.54	£32,386.72
Description	Diameter	Depth	Number	UU cost	Mean cost
Manhole	1200mm	Up to 3m	11	£33,163.68	£44,180.84
Manhole	1350mm	Up to 3m	2	£6,759.28	£8,807.88
Manhole	1500mm	Up to 3m	1	£3,744.90	£4,922.93
Manhole	1800mm	Up to 3m	1	£4,680.19	£5,953.96

<sup>2</sup> The model does not allow us to enter 900mm, which was the actual pipe diameter size quoted by United Utilities. 700mm is the nearest alternative.

<sup>3</sup> The model does not allow us to enter 900mm, which was the actual pipe diameter size quoted by United Utilities. 700mm is the nearest alternative.

<sup>4</sup> The model does not allow us to enter 2400mm, which was the actual manhole diameter size quoted by United Utilities. 1800mm is the nearest alternative.

<sup>5</sup> The model does not allow us to enter 2400mm, which was the actual manhole diameter size quoted by United Utilities. 1800mm is the nearest alternative.

Manhole	1800mm <sup>6</sup>	Up to 3m	2	£28,365.68	£11,907.92
Manhole	1800mm <sup>7</sup>	Over 3m	1	£14,182.84	£8,157.05
<b>Total</b>				<b>£164,067.76</b>	<b>£171,903.99</b>

- 6.7 As set out above, tables 5 and 6 demonstrate that United Utilities' estimate of costs for the sewer construction works at both sites is below the mean level set out in the sewer connection pricing model for constructing similar sewers.
- 6.8 It is important to note that the sewer connection pricing model is likely to underestimate the anticipated mean price for similar sewer construction. This is because it doesn't allow a like-for-like comparison. For example, the model does not allow us to enter some of the items that are relevant in this case such as surface water box culverts and flow controls. Also, the maximum pipe diameter we can enter in the model is 700mm, although 193m of pipe at the Parkview site was of a diameter of 900mm.
- 6.9 With regards to the surface water box culvert at the Thorncliffe site, as set out above, we have not been able to run this through our model. We have, however, conducted some analysis to determine if United Utilities' estimate is reasonable.
- 6.10 According to United Utilities' schedule of rates, a 1500mm pipe which has a similar cross dimensional area to a surface water box culvert, costs over twice as much as the price per linear metre of a surface water box culvert. We also note that in 2004 the Environment Agency conducted some analysis of culverts and found that the typical costs per linear metre for pre-cast concrete culverts were between £777 and £938 which far exceeds United Utilities' cost estimate for culverts in this case.<sup>8</sup>
- 6.11 Taking the above into account, we do not consider the cost for the surface water box culverts to be unreasonable.
- 6.12 With regards to the flow controls, United Utilities has not provided any breakdown of the cost for this beyond an individual flow control costing £2500.

<sup>6</sup> The model does not allow us to enter 3000mm, which was the actual manhole diameter size quoted by United Utilities. 1800mm is the nearest alternative.

<sup>7</sup> The model does not allow us to enter 3000mm, which was the actual manhole diameter size quoted by United Utilities. 1800mm is the nearest alternative.

<sup>8</sup> [http://evidence.environment-agency.gov.uk/FCERM/Libraries/FCERM\\_Project\\_Documents/SC080039\\_cost\\_culverts.sflb.ashx](http://evidence.environment-agency.gov.uk/FCERM/Libraries/FCERM_Project_Documents/SC080039_cost_culverts.sflb.ashx)

Given the reasonableness of the rest of the costs, and the price of the flow control relative to the rest of the works, we do not consider the cost to be unreasonable.

- 6.13 In addition, United Utilities based its sewer construction costs on a schedule of rates dating from 2005, which has not been inflated. If United Utilities chose to use current cost estimates, as opposed to those from twelve years ago, we would expect the cost estimates, and therefore the 10% bond figure, to be much higher.

### **Conclusion**

- 6.14 In light of the legal framework of the Act, and the evidence we have gathered from the parties to the dispute, we have concluded that the sewer construction estimates for the two sites are below the mean anticipated prices set out in the sewer connection pricing model. Where we have been unable to use the sewer connection pricing model, we have carried out further research on the reasonableness of the cost estimates. Taken as a whole, we consider the construction costs estimated by United Utilities to be reasonable. Accordingly, we conclude that no refund is due to the Complainant.