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## Lead Pipes IAP Response

1 April 2019

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## 1. IAP challenge

Ofwat have adjusted the allowance for lead supply pipe replacement by reducing the forecast number for pipes from 7,000 to 5,154.

Extract from 'Meeting lead standards enhancement feeder model':

*"We calculate the allowed number of supply pipes replaced during AMP 7 as **5,154 replacements**, which is calculated as follows:*

*a) Number of replacements should WSH follow the industry's renewal rate = **3,436 replacements** = Industry annual renewal rate of 0.4043% \* WSH annual average number of existing lead pipes of 169,978 \* 5 years of AMP7 period (source: Ofwat calculations, tab 'HDD\_WSH evidence')*

*b) Uplift the 3,436 replacements by 50% to reflect WSH's tighter target from 10 to 5ug/l, by 50% = **5,154 replacements** = 3,436 replacements \* 1.5"*

## 2. Summary of our response to the Initial Assessment by Ofwat

This is a new strategy for us, which has the explicit support of Welsh Government, the Water Health Partnership for Wales and the DWI. It means that using the historical data for the industry average rate of replacing communication pipes is not an appropriate basis for predicting the number of supply pipes we will replace in AMP7.

Our strategy is set out in this document and explains why we have high confidence in being able to deliver 7,000 replacements during AMP7. We expect the DWI to issue a legal notice before 31 December 2019 requiring us to replace at least 7,000 pipes by 2025.

We have also ensured that there are customer protection measures in place should we fail to meet the target.

In Section 3 we present our strategy, which demonstrates the change in focus for AMP7 and explains our plan to deliver this step change in the number of supply pipes replaced.

We understand that there was some confusion generated by including a value of 0 in table WS4 line 1. Our plan focuses on the replacement of supply pipes, and the definition of the line item states that it is for communication pipes.

### 3. Background to our strategy

Lead is a cumulative toxin for which there is no safe level, children under 6 years old are especially sensitive to lead and even exposure to low levels can reduce IQ and cause behavioural problems. Children in lower socio-economic status are at an increased risk of lead exposure as they are more likely to live in poorer quality ageing housing, have a poorer diet (poor nutrition can increase lead adsorption) and live in more polluted areas (source: Public Health Wales). In Wales, 23% of households and 31% of children are in poverty.

It is estimated that 25% of homes in Wales have lead pipes and to mitigate this we phosphate dose approximately 95% of our supply to control lead. This has resulted in over 99% compliance with the lead standard (10 µg/l), but in some water quality zones the lead failure rate is higher, which could be due to the housing stock or the condition or age of the lead pipes.

We work closely with public health stakeholders through the Water Health Partnership for Wales (WHP) to continually develop our lead strategy. It is recognised by the WHP and others that, due to the extensive legacy of lead pipes in Wales and the low income status of large areas of Wales, removing lead pipes is a societal issue that will need considerable, long term investment.

Our strategy is consistent with the requirements of the Well-being of Future Generations Act 2015 and the Welsh Government's Water Strategy for Wales.

#### 4. Delivery strategy

In our PR19 plan we have set ourselves a performance commitment (Wt8) to deliver 7000 replacement supply pipes and communication pipes through a mix of approaches. (Note that if we find lead in a communication and supply pipe to a customer property, and if the customer turns down our offer to replace the supply pipe, we would in any case replace the communication pipe, and this would be counted as 1).

These approaches are a significant change from our current practice so cannot be compared to our historic renewal rates.

<b>Approach</b>	<b>Expected number of pipes</b>
Replace on sample failure	560
Arbed programme	3,500
Housing associations	2,940
<b>Total</b>	<b>7,000</b>

##### 4.1. Replace on sample failure

The legal standard for lead levels is 10 µg/l. We propose to take a more conservative view than this and investigate where a sample at a customer's tap is taken that exceeds 5 µg/l. Where the communications pipe is found to be made of lead then we will replace this. Where the supply pipe is found to be lead we will also offer to replace this free of charge. We typically experience about 140 instances per year where the lead level in a sample exceeds 5 µg/l. About 20% of customers refuse the offer of a replacement, wanting to avoid the disruption it entails. We therefore estimate that about 560 replacements will be made through this strategy in AMP7.

##### 4.2. Partnership with the European Regional Development Fund and Welsh Government funded Arbed programme

We are currently finalising negotiations for a partnership with Arbed am Byth, the consortium that has been set up to deliver the Welsh Government's Arbed programme, which aims to reduce fuel poverty and reduce energy usage in the most deprived areas of Wales. The third phase of the Arbed programme is just about to start and is scheduled to be completed in 2021, covering 6000 properties. It is expected that a further phase will be agreed after this with a further 6000 properties covered in the following 2 years. Whilst the contractors are modernising the selected homes they have agreed to replace all lead pipework, which we will then reimburse them for. This programme is targeting old housing stock, with the worst energy efficiency and these are most likely to have lead pipes so we expect lead to be found in 50% of these. We therefore estimate that we will deliver between 3000 and 6000 lead replacements through this partnership. However this programme will commence in AMP6 so the first replacements will be completed in 2019/20, for which we estimate 1000. The AMP7 estimate for this programme is between 2000 and 5000, with our central estimate being 3500.

##### 4.3. Partnerships with housing associations

We have engaged several housing associations in discussions to form partnerships to remove lead supply pipes in their properties. Two of these, namely Pobl Housing Group and Trivallis,

have granted us unrestricted access to their properties to make the replacements. This access removes many of the barriers that we typically face in getting the approval of homeowners for work to take place.

Pobl Housing Group own 20,000 properties across Wales. We have analysed their housing stock and estimate that 4000 of these are supplied by lead pipework.

Trivallis own 18,000 properties in Cardiff and the south Wales valleys. We have not yet analysed their housing stock but assuming a similar profile to the Pobl housing stock implies 3600 properties supplied by lead pipework.

We have taken a conservative estimate of how many replacements will be made through these partnerships in AMP7 in our overall estimate of AMP7 delivery, until the programme has started. We expect to phase this programme of work into AMP8 and have assumed we will deliver 2,940 in AMP7.

## 5. Customer Protection for non-delivery

Customers are protected from us failing to deliver the 7,000 pipes target through an ODI under-performance penalty rate of £778 per pipe.

## 6. DWI legal requirement

The DWI are supportive of lead pipe replacement. A draft DWI notice was submitted in September 2018 with a requirement to replace 7,000 lead pipes by 2025. We expect the final notice to be issued by 31 December 2019 and given DWI's stance that water companies aren't doing enough about lead we expect the notice to require 7,000 lead pipe replacement as a minimum.