

First Time Sewerage



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Executive summary

Driver for investment

Although the majority of properties in Wales and England are connected to the public sewerage system, an estimated 4% of properties (7% for Wales alone) depend on independent privately owned and operated systems such as septic tanks, cess-pools and package treatment plants. In most cases, provided that these are properly installed and adequately maintained, they provide a satisfactory and sustainable solution for the treatment and disposal of sewage. However, in some locations factors such as the number and/or size of properties, local soil and water conditions, and difficulties of access for maintenance can cause unsatisfactory discharges, resulting in an adverse impact on the environment and amenity.

If private sewage treatment systems cannot provide a satisfactory, long term solution for sewage disposal and are causing, or likely to cause, an environmental or amenity problem, then seeking a connection to the public sewerage system could be considered.

One option is to apply for a public sewer to be provided under the first-time sewerage provisions, Section 101A of the Water Industry Act 1991. Every AMP we receive several requests for consideration.

The investment

We propose to invest £6.66m (pre-efficiency) during AMP7 in First Time Sewerage, to play a factor in the desired outcomes and measures of success that our customers have helped us to set. This investment will help us meet our customer promise



Safeguard our environment for future generations: Provide clean, safe water for new customers with no detriment to levels of service for existing customers.

Delivering for the future

In Welsh Water 2050, we identified a number of future trends which will impact on the way we operate now and in the future. Our proposed First Time Sewerage investment will ensure that we can continue to meet the service requirements of our current and future customers in AMP7. The main trends driving this investment are:



Demographic change: A growing population, as well as migration within our area, will place increasing demands on our environment and requests for public sewerage.



Environmental change: An increased risk of environmental pollution may lead to a reduction in water quality and biodiversity.

Delivering our Strategic Responses

In Welsh Water 2050, we set out to deliver 18 Strategic Responses. This investment will contribute primarily to the following two:



Working with customers and communities - We will work with customers and communities to co-create solutions, share knowledge, and support initiatives which reduce water use, prevent sewer abuse, and provide wider benefits for communities and the environment.



Cleaner rivers and beaches - With increasing pressure on the natural environment from increased population, changing land use, climate change and the new sources of pollution, we will improve our wastewater assets to do our part to help achieve 'good' environmental status for our rivers, lakes and coastal waters.

1 Delivering our customer outcomes

Need for investment

First Time Sewerage is implemented through Section 101A of the Water Industry Act 1991.

Section 101A places a duty on Sewerage Companies to provide a public sewer to resolve environmental or amenity problems that are being caused by private drainage systems, where certain criteria are met.

These criteria consider the cost of the various options that would resolve the problems and the extent of the benefit to the environment or amenity that would result from resolving the problems. Duties identify those properties that "pollute" or are "likely to pollute".

Residents in our operating area can make a formal request that we consider their property for connection to the public network. We follow a formal process to evaluate the costs and benefits then decisions are reviewed and approved by Natural Resources Wales.

Views of our customers and stakeholders

We have undertaken extensive consultation with customers through our PR19 preparation programme, including our Welsh Water 2050 strategy consultation held in the summer of 2017, which engaged with 19,980 of our customers.

- Customers identified Cleaner Rivers and Beaches as one of our highest importance areas of focus.

As such we will work closely with our key stakeholders to ensure that Duty schemes implemented under the S101A process balance amenity benefits and value to the wider sewerage customers. These stakeholders include:

- Householders, occupiers and property owners and their representatives;
- Local Authority environmental health and drainage staff;
- Sewerage undertakers;
- The environmental regulators - Natural Resources Wales and the Environment Agency;
- Ofwat (The Water Services Regulation Authority).

Benefit for our customers

Investment in First Time Sewerage schemes will play a factor in reducing pollution and environmental damage across Wales.

2 Investing for now and in the long-term

Future challenges

We have an on-going dialogue with Welsh Government on potential changes to the legislation and associated statutory guidance enabling us to challenge and influence potential changes to ensure the best outcomes for both our customers and the environment.

Legal duties

First Time Sewerage is implemented through Section 101A of the Water Industry Act 1991.

Where it is best value and cost beneficial to do so, we have a duty to provide first time sewerage. We will be in breach of our duty under section 101A if we have failed to deliver the proposed scheme by the date it we indicated or which has been determined by the Appointed Body following a referral.

The Welsh Ministers have authorised Ofwat so that, where a dispute arises and we are in breach of our duty, Ofwat will be able to take enforcement action.

Planning for the future

New applications

Applications for S101A can be made to us at any time and upon receipt of an application we must then undertake an assessment. It is therefore necessary to predict the number of applications that we will receive. This has been forecast from the historic number of applications received.

Re-assessments

We also receive requests to re-assess historic assessments, which previously found that there was no duty to provide public sewerage, to check this is still the case. Again, the rate of such applications is not determined by us. However, in

AMP6 we have re-assessed 2 applications, as it was established that criteria had changed to warrant a review on the impact of the in the original assessment. There are currently no plans for us to initiate any re-assessments, therefore the number of re-assessments has been calculated from the rate of historic re-assessments undertaken.

Appeals

Where an assessment concludes that there is no duty for us to provide public sewerage under Section 101A of the Water Industry Act 1991 interested parties can lodge an appeal with the arbiter, currently Natural Resources Wales. The date by which a Duty scheme must be delivered can also be appealed. There is no time limit for when appeals can be lodged, though historically most appeals are lodged within 2 years of the assessment concluding. The potential number of appeals is therefore linked to the number of assessments completed, so has been calculated from historic rates of appeals.

Building on progress

Duty schemes

The number of duty schemes is linked to the number of assessments and appeals which are completed, and also the nature of the localities for which sewerage has been requested. The nature of the problems within the localities has changed since the legislation was introduced and the number of properties in localities has reduced. The proportion of assessments and appeals resulting in Duty schemes has been calculated from historic data.

Table 1 below shows the historic assessment and schemes data and AMP7 predictions.

First Time Sewerage



Investment Area	AMP3	AMP4	AMP5	AMP6	AMP7
New applications / assessments	38	13	10	10	10
Re-assessments	6	8	3	3	3
Appeals lodged	0	11	2	2	2
Duty schemes from 1st assessments	6	0	2	2	3
Duty schemes from re-assessments	4	0	0	0	2
Duty schemes from appeals	0	5	2	3	2

Table 1 - Historic assessment of previous applications and AMP7 estimate

3 Preferred option

Preferred option

We propose to invest £6.665m pre-efficiency enhancement spend during AMP7 in First Time Sewerage, to play a factor in the desired outcomes and measures of success that our customers have helped us to set. This plan has significant uncertainty in it. We have to be able to respond to decisions as they are made up until 2025.

This section provides details of the programme that supports our total proposed investment. The investment case comprises of three duty named schemes, three forecast schemes and a budget for assessment of applications.

Assessment of Applications

An investment of £0.285m for the management and assessment of Section 101A applications has been calculated based on the anticipated number of new applications, reassessments and appeals. The historic costs associated with this work has been adjusted to the 2017-18 price but remains otherwise unchanged.

Confirmed Duty Schemes - Due to Reassessments

We have currently committed to delivering two Section 101A First Time Sewerage scheme in AMP7 at Treuddyn and Middlegate. These schemes have become duty schemes as a result of reassessments. Both assessments originally concluded that the private options were the least cost options and that we had no duty under Section 101A.

In the case of Treuddyn the owner of one property provided evidence to show that the proposed private scheme was not able to be undertaken due to land access issues, which the property owner was not able to overcome and hence asked for this new information to be included in a reassessment. A re-assessment was undertaken and found that the public option was now the preferred option. The number of duty properties for this scheme is three and it has a capital investment of £0.242m.

For Middlegate a similar situation arose. The assessment originally concluded that there was no duty under Section 101A as the private option was the least cost option. Following the outcome of the assessment the local council and Natural Resources Wales worked with the local property owners to look at undertaking the private option, but found that again due to land issues the private option could not be undertaken. Taking into account these findings a reassessment was carried out and found that the public option was now the least cost option. The number of duty properties for this scheme is 26 and it has a capital investment of £0.805m.

Confirmed Duty Schemes - Due to Appeals

To date we have undertaken three assessments of the Red Wharf Bay area in relation to first time sewerage. The latest assessment indicated that the private option was both the least-cost and the most cost-beneficial option. Based on this outcome the assessment concluded that there was no duty for us to provide public sewerage.

The conclusion of the assessment was disputed by the residents and referred to Natural Resources Wales for determination in November 2012, which is still ongoing. We are unsure when the final decision will be made regarding this scheme. We have included £2.003m in the plan, the cost that is being used in the determination assessment.

Forecast Duty Scheme

We have forecast that we will need to undertake an additional three schemes in AMP7. This forecast is based on the historical application rates from the preceding AMPs. Historic costs, across AMP4, AMP5 and AMP6 to date, were used to generate a cost per property, as exact application rates are uncertain. AMP7 is therefore expected to cover a total of 33 properties at a capital investment of £3.329m.

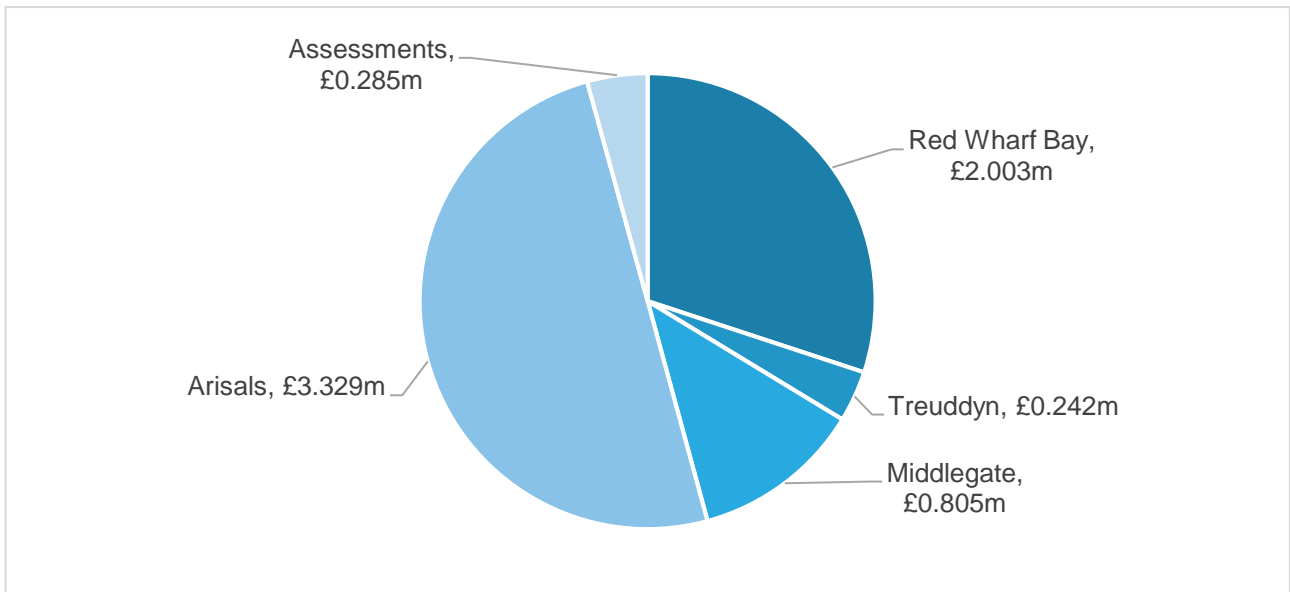


Figure 1 - Breakdown of our investment proposals (pre-efficiency)

4 Cost efficiency and innovation

Cost efficiency

We are proposing to deliver £0.8m of cost efficiencies as part of this investment programme, with a post efficiency CAPEX investment of £5.87m.

We will make use of the latest available technologies in terms of package sewage treatment plants to minimise the capital and operational costs of these projects as much as possible.

5 Value for money and affordability

Impact on customer bills

We understand the importance of balancing the need for investment with the affordability of our bills. We believe the investment will help to deliver the level of service our customers and regulators expect, and represents an optimal approach for sustained long term improvement.

Value for money

We recognise the need to demonstrate value for money in everything that we do. In arriving at the proposed investment, we have closely considered the costs and benefits of different approaches to make sure that the investment represents long term value to our customers.

Our processes are driven this in mind and include:

- Maintaining an external consultant to undertake assessments as they are received, negating a requirement to maintain a full time resource to deliver S101a schemes
- Robust assessment of costs provided by our consultant, to ensure that a duty scheme is truly in the interests of our customer base.
- Working closely with other stakeholders to develop non duty solutions where they are more cost beneficial.

The programmes of work have been developed so that they are delivered in conjunction with other programmes of work and we will maintain a leading edge on currently available technologies to ensure that scheme/solutions costs are delivering the most efficient outputs.

6 Delivery

Procurement

Enquiries and assessments will continue to be addressed through our S101a specialist consultant (Aecom).

Where duty schemes have been identified, the various projects will be delivered by our Capital Alliance throughout AMP7 with scope and programme adjustments being made to meet current operational and other issues. We will monitor performance month by month so that we can respond quickly to emerging signs if we are not getting the benefits we have projected.

Programme

A prioritised programme will be developed linked to the wider wastewater programmes and associated benefits of the interventions.

These programmes of work will be continually updated following performance, customer data and the identification of circumstances that lead to opportunistic interventions, whilst ensuring delivery within any commitment timeframes. The programme will be developed and optimised early in year five of AMP6 based upon the developing wider wastewater programme and data and further enquiries received to this point.

We have currently only set out only the five year AMP7 programme as programmes for further AMPs will be based on applications, assessments and

appeal rates throughout. Our current estimates of application rates will be reviewed throughout AMP7.

Risk mitigation and customer protection

We will continue to deliver our duties through our previously established mechanisms, with our dedicated consultant managing the process throughout.

There is a risk that upon completion of a new sewerage scheme, property owners may not choose to connect to the public sewer. This was a case in Beachley, where of 107 duty properties identified, only 8 have connected to the new system. This impacts not only on the final value of the scheme to our customers, with environmental impacts still to be seen, but also of the effectiveness of the solution.

This is an inherent risk within the S101A process and we are actively lobbying the Welsh Government with a view to improving the process and recommending increased use of enforcement powers where environmental impacts are avoidable.

7 Assurance

Governance

Our current approach to First Time Sewerage is to have a dedicated specialist consultant manage the process. This is particularly relevant given the cost basis for identifying a duty to provide public sewerage. As such, we feel the inclusion of an independent entity is a critical component of good governance.

We continue to welcome the input of applicable stakeholders throughout the enquiries, assessment and appeals process.

We will continue to apply these effective governance systems for our proposed AMP7 investment programme.

Cost assurance

Linked to good governance, we independently cost using bespoke local information (cess pit maintenance) to establish if improved maintenance regimes are feasible.

If the scheme is further developed, costs are derived using our UCD model. The model is updated annually and externally benchmarked every five years to make sure that costs remain current.

Measures of Success

There is no current defined measure of success – while we have a focus on Preventing Pollution, until we implement a scheme we are not responsible for any pollution events, this would fall on the current property owners and EA/NRW.

The Water Services Regulation Authority (Ofwat) is responsible for regulating the economic performance of the sewerage undertakers in England and Wales.

The Welsh Ministers have authorised Ofwat to carry out enforcement of the undertaker's duty to provide a public sewer for domestic sewerage drainage purposes under Section 101A of the Act.

Future assurance

We have strong governance procedures for the planning and delivery of our capital investment. Our Board will continue to provide the high level overview and governance to ensure that we deliver these improvements in the interests of our customers.

Supporting Documents (available on request)

Original Assessment of the Red Wharf Bay S101A
Application