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Appendix 3.3

OUR APPROACH TO VOID PROPERTIES AND GAP SITES

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1.0 PURPOSE OF THIS DOCUMENT

The purpose of this document is to outline our current thinking regarding void properties and gap sites for both household (HH) and non-household (NHH) premises. It also details the elements for consideration in setting any Performance Commitments (PCs) and incentives in these areas.

The paper covers the following:

- Industry position;
- National statistics (HH);
- Our relative position;
- Setting a target;
- Non-households;
- Next steps.

2.0 INTRODUCTION & BACKGROUND

Ofwat in their final methodology set out a requirement for companies to consider an Outcome Delivery Incentive (ODI) in relation to voids, empty properties and gap sites.

- An empty property is defined as a property with no "occupier", i.e. no one is living in the property.

- A void property is a property that is not currently being billed by the water company.

- A gap site is a property that is currently not recorded on the relevant company database and is not being charged whilst in receipt of a chargeable water or sewerage service.

A void property could either be empty, or occupied but unbilled. Similarly a gap site could actually not be on the company database and receiving services or receiving services via a shared supply arrangement and therefore legitimately not being billed. These points will be discussed further, later in this paper.

2.1 NW and ESW Property database

NW and ESW maintain their billed property database in our Oracle Customer Care and Billing System (CC&B). This system holds data on all our billed and unbilled properties, both HH and NHH. All properties are recorded in the system and a reference seed point for the property is also held within our corporate GIS system. NHH properties have a local authority business rates Valuation Office Agency (VOA) reference number assigned against them where this is known. A dedicated team, the Wholesale Property Data team, is responsible for the maintenance of both HH and NHH data. This maintenance includes the creation of new supplied premises and alterations or updates to existing properties. The data items managed includes, but is not limited to, the following items: the property address, rateable value, meter details, surface area plans etc.

We endeavour to manage the database both reactively and proactively:

- Reactively – we adjust and update information in response to direct contact from customers or retailers.

- Proactively – we receive weekly updates from the government's VOA in respect of changes to the local authority business rates database. This enables us to investigate a range of changes even if we have not been advised by the customer.

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2.2 Occupancy status

We have a dedicated team, the Occupier Integrity team, who actively manage the occupancy status of our HH properties. The team have an established 24 step process in order to monitor and maintain the accuracy of the occupancy status for all HH properties.

Previously this team also maintained the data for NHH properties. However since the opening of the NHH retail water market, the primary responsibility for maintenance of the occupancy status has passed to retailers and the resources allocated to this task transferred to the retailer we exited to, now called Wave. The data item “Occupancy status” is now maintained by the relevant retailer. The wholesaler has the right to challenge this status with the retailer if they consider it to be incorrect. The wholesaler clearly has significant interest in the accuracy of the occupancy status and we are currently assessing the impact of the new market on this aspect of its operations. We will ensure that adequate monitoring and control mechanisms are put in place to ensure the accuracy and integrity of this data on an ongoing basis. The new market is still relatively immature and we are not convinced that stable operation has yet been achieved. Accordingly we do envisage that our plans and approach will change in light of actual operating experience in the new market and the natural evolution of the market.

2.3 Why is this important?

The level of void properties is important because if the number of voids increases, this increases the average bill for those occupied customers. A simple example is given below:

Income requirement	£100m
Number of customers billed (occupied)	1,000,000
Voids	50,000
Average bill	=£100

If we reduce our voids to 30,000 we would be billing 20,000 extra customers. This would result in the following;

Income requirement	£100m
Number of customers billed (occupied)	1,020,000
Voids	30,000
Average bill	=£98.04

Therefore the lower the number of voids we have, the lower the average bill is for customers.

The secondary factor in relation to voids that was raised in the recent PwC debt report commissioned for Ofwat was that companies with higher numbers of void properties would experience lower levels of debt. This is because potentially void property rates tend to be higher in rented properties, particularly short term rents. This sector generally is harder to collect from and has higher debt levels. Therefore billing lower numbers of customers in this segment will result in lower debt levels for companies.

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3.0 CURRENT POSITION

3.1 Industry position

For HH this is based on the 2016 reported numbers that Ofwat published as part of their PwC report on Retail Services Efficiency. The following table shows the industry position on voids and our relative position.

The NHH position is drawn from data published by MOSL from the data set within the new Central Market Operating System (CMOS). Therefore it is not strictly a void property count but a void Supply Point Identifier (SPID) count. The two are slightly different but for comparative purposes it is considered to be sufficiently representative of the position.

	Household	Non-household	
Company	**Void %**	**Void % SPID*s Water**	**Void % SPIDs Sewerage**
Anglian	2.56%	6%	7%
NWL	6.56% (4.82%)	14%	17%
Affinity	3.2%	13%	n/a
Welsh	4.32%	n/a	n/a
Severn Trent	4.22%	13%	16%
South West Water	1.63%	6%	7%
Southern	2.33%	10%	9%
Thames Water	2.44%	15%	14%
United utilities	6.06%	18%	23%
Wessex	1.98%	3%	5%
Yorkshire	4.80%	14%	15%
South East Water	2.02%	8%	n/a
Bournemouth Water	0.95%	n/a	n/a
Bristol Water	3.06%	2%	n/a
Dee Valley Water	1.83%	0%	n/a
Portsmouth	2.36%	8%	n/a
South Staffs	2.67%	11%	n/a
Industry Ave	**3.61%**	**12%**	**15%**

The industry average void rate (HH) is 3.61%. NWL's 2016 reported numbers were 6.56% which was the highest in the industry with UU at 6.06% being the second highest. We are currently reporting a void rate of 4.82% which is still the second highest in the industry.

Bournemouth Water are the best performing company at 0.95%. There is clearly a north/south divide in the numbers with the northern and midland companies reporting higher rates of void properties than those in the south.

Our Northumbrian operating area has a much higher void property level than many other parts of the country. This is largely driven by a less active housing market, with property demand much lower than in other parts of the country.

Our NHH void property (combined SPID core rate) rate is currently 15.5%, which when combined with the HH rate gives an overall level of voids at 5.31%.

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3.2 Gap sites and empty properties - Current thinking on metrics

The real issue is not the number of empty properties or the number of gap sites but the number of properties recorded as empty but are actually occupied and receiving services, and the number of gap sites that are not on our property database and are receiving services for which they are not being billed. The number of these are by definition unknown and therefore an indirect or statistical sampling approach is required to assess and understand the actual position. We are intending to adopt a dual stranded approach.

- Method 1 - We will seek to benchmark our property database to any relevant comparator data. Section 3.1 details our current understanding of the comparator data in respect of void property data. We are exploring additional databases with which to compare in order to gain greater insight. The aim of this analysis is to try and identify any statistically significant differences that might indicate an underlying issue. We anticipate that this analysis will be particularly useful in identifying potential gap sites.

- Method 2 - We will conduct regular annual spot checks on the accuracy by means of sample analysis and checking. Typically this will be the in depth investigation of a random number of voids or post code areas. Our findings will be extrapolated across the broader database in order to estimate the actual position.

4.0 NATIONAL STATISTICS & OTHER BENCHMARK DATA

4.1 Household data

We have reviewed the government statistics on vacant dwellings which are published on the government website. The analysis we have carried out has used two tables which are annually updated on the website;

Table 615 - “All vacant dwellings by local authority district, England, from 2004“ and;

Table 125: - “Dwelling stock estimates by local authority district: 2001 – 2016“

These tables show “dwellings“ by local authority area for both occupied and vacant dwellings. We have used this to proxy our areas of supply and calculate an empty property rate for each of our areas. The absolute numbers will not match our own due to border issues between water company boundary and local authority regions and other factors such as joint or bulk supplies. However this data allows us to ascertain an approximate and relative void level.

Area	Vacant No	All Dwellings	Vacant %
Darlington UA	1,556	50,080	3.11%
Durham UA	9,649	239,270	4.03%
Hartlepool UA	1,769	43,430	4.07%
Middlesbrough UA	2,504	61,780	4.05%
Northumberland UA	4,941	152,180	3.25%
Redcar and Cleveland UA	2,184	63,190	3.46%
Stockton-on-Tees UA	2,584	84,490	3.06%

Gateshead	2,833	93,480	3.03%
Newcastle upon Tyne	3,064	124,690	2.46%
North Tyneside	3,078	96,700	3.18%
South Tyneside	2,256	71,120	3.17%
Sunderland	4,161	126,110	3.30%
Total Northumbrian	40,579	1,206,520	3.36%
Southend-on-Sea UA	2,107	79,700	2.64%
Thurrock UA	1,407	65,870	2.14%
Basildon	1,546	76,940	2.01%
Brentwood	807	32,790	2.46%
Castle Point	758	38,350	1.98%
Chelmsford	1,303	73,800	1.77%
Maldon	539	27,810	1.94%
Rochford	623	35,300	1.76%
Barking and Dagenham	752	73,910	1.02%
Havering	1,259	101,270	1.24%
Redbridge	1,241	102,710	1.21%
Waltham Forest	1,280	101,280	1.26%
Total Essex	13,622	809,730	1.68%
Great Yarmouth	1,621	45,280	3.58%
South Norfolk	1,227	58,430	2.10%
Suffolk Coastal	1,626	60,130	2.70%
Waveney	1,512	55,350	2.73%
Total Suffolk	5,986	219,190	2.73%
Total	60,187	2,235,440	2.69%

The table above shows a regional variation as seen in the industry figures, our Essex/London area has significantly lower levels of vacant properties than both the Northumbrian and Suffolk regions.

Nationally the vacant property rate from the government statistics is 2.49% compared to an industry average of 3.61% therefore as an industry we are reporting 1.12% higher voids.

Taking a simple approach on this basis we might expect our level of voids to be as follows:

Simple Est.	Current level	Diff	
Essex	2.68%	4.27%	1.59%
Suffolk	3.73%	4.61%	0.88%
Northumbrian	4.36%	5.16%	0.80%

Interestingly our highest variance is in our Essex region. This might be skewed a little due to the relative numbers in the London region in the national statistics as we may not service the full region of these London Boroughs, however it does suggest that there is potential in this region to reduce the void property numbers more than in the Suffolk and Northumbrian areas.

If we were to reduce the void numbers in Essex by 1%, some 6,120 properties (and bring these into charge), this would reduce Essex bills by up to £3 a year (around 1%).

4.2 Non-household Data

Voids

As mentioned earlier our NHH void rate based on SPID count is currently over 15%. This breaks down across the operating areas as follows:

Northumbrian	12,443 properties (16.2%)
Essex	5,056 (15.2%)
Suffolk	1,138 (10.4%)

As this information is based on SPID count as opposed to the property count the data is slightly different to that used for formal void reporting purpose. This approach has been taken in this analysis purely to facilitate ease of discussion or reconciliation with retailer data.

We have conducted some internal spot sampling of vacant premises and conducted one external spot sample check on vacant premises across a number of post codes. The results show a range of outcomes with an indicated potential error in occupancy status of between 10-35%. Further investigation including site visits if necessary are now required to fully validate this potential. However, in light of these findings we have commenced a full review of our vacant premises using internal resources. We will supplement this with external service providers if required.

Relative to the rest of the water sector we have an elevated level of voids. There are a variety of socio-economic factors that potentially explain regional variances, with geographical areas that have historically had large heavy industries or significant manufacturing bases being particularly affected by changes in economic circumstances. This has resulted in significant regional differences. We are intending to seek relevant comparators within other sectors within our operating area to see if the position is similar.

Gap sites

We have completed a high level indicative comparison with an external third party data provider. This was primarily done to identify potential gap sites. The total property count on our property database was compared on a post code by post code basis (area post code only) to the records of the external third party. The comparison covered both billable and non-billable (shared supply) properties. Historically in the north NWL has benchmarked and maintained its data set with reference to the VOA data set. As a sewerage provider a large number of shared supplies are effectively shared supplies for water services only, with sewerage charges often charged separately. Hence the relative difference in position between our Northumbrian and Essex and Suffolk operations (where we are only the water services provider) is not a surprise. The results are given below:

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	NWL database[1]	Data Specialist Est.	Difference	%
Essex	43,311	48,822	5,538	-13%
Suffolk	14,281	17,283	1,911	-13%
Northumbrian	103,378	91,703	-11,675	+12.7%

NWL think that some of the differences in Essex and Suffolk data are down to shared or overlapping post code areas with other wholesalers. To validate and investigate this, more detailed analysis of some sample post codes in Essex and Suffolk has been carried out. We specifically looked at three post codes that we knew had no overlapping area. These more detailed results are given below.

	Post Code			Total
	CM12 9	IP18 6	RM1 3	
Addresses on NWL database	457	832	481	1770
Potential gap sites	5	0	7	12 (0.89%)
Actual gap sites after investigation	0	0	0	0

The survey identified less than 1% of potential gap sites and after investigation none of these proved to be gap sites. The majority were shared supply premises that were not on our database. This has given us comfort that our main databases are accurate and that our historic approach of matching to the VOA dataset is a well-founded approach. Accordingly we plan to continue with this approach but recognise that we have some work to do on completing a fuller match to the VOA database for all our shared supply premises. Work will commence shortly on improving this match.

We also continue to explore the options for external matching to other data sources and where practical options exist to match on post code or VOA reference, we will complete these checks on a campaign basis to further build confidence in our data set.

[1] The database includes non-billable premises including shared supplies and premises that don't receive a service from NWL.

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5.0 SETTING A TARGET (HOUSEHOLD)

5.1 Discussion

Different levels in different operating areas

5.1.1 Northumbrian

"True" Northumbrian rate should be higher than average national level –

Local authority Govt stats north	4.36%,
Local authority Govt stats national	2.69%
Industry average	3.61%
Northumbrian actual	5.14%

Target 4.48% plus 0.3% gives target of 4.78%.

Based on a total number of occupied and void properties of 1,144,051, 4.78% would be a reduction of 4,140 properties on our current position (February 2018).

5.1.2 Essex

Local authority Govt stats Essex	2.68%,
Local authority Govt stats national	2.69%
Industry average	3.61%
Essex actual	4.17%

Target 2.80% plus 0.4% gives target of 3.20%.

Based on a total number of occupied and void properties of 641,499, 3.2% would be a reduction of 6,223 properties (February 2018).

5.1.3 Suffolk

Local authority Govt stats Suffolk	3.73%,
Local authority Govt stats national	2.69%
Industry average	3.61%
Suffolk actual	4.14%

Target 3.85% plus 0.25% gives target of 4.10%.

Based on a total number of occupied and void properties of 122,134, 4.1% would be a reduction of 56 properties (February 2018).

5.1.4 Summary

In total this would give:

Area	Current (Feb)	Target Rate	Target No	Change
Northumbrian	58,826	4.78%	54,686	4,140
Essex	26,751	3.20%	20,528	6,223
Suffolk	5,063	4.10%	5,007	56
Total	90,640		80,221	10,419
Void Rate	4.75%	4.21%		0.55%

In our 2016/17 annual performance report void numbers were significantly higher at 6.56%. Our position has improved significantly since this time. We have corrected our interpretation of bulk metered properties which has reduced our void properties significantly and also our underlying position has improved since last year. Therefore whilst the reduction from today's position looks modest the relative drop from the last reporting year would represent a 2.35% improvement in the void rate.
An improvement of 10,419 voids based on an average bill of £380 would result in £3,959,220 in additional billing revenue which would reduce average bills by just over £2 (based on February 2018 figures).

6.0 CURRENT ACTIONS

The new water retail market has changed the landscape in respect of NHH void property management. Retailers now control this status in CMOS, with wholesalers having a right to challenge. The initial market trends have been disappointing and have seen an increase in the number of void properties overall although NWL's position has remained relatively stable.

Accordingly we commenced an internal review of the occupancy status on all NHH properties. The total number of void properties is approximately 18,679. The findings of the process will be assessed on an ongoing basis and adjustments made to the resource deployed in light of the findings. All incorrect occupancy statuses identified will be raised with the relevant retailer.

The potential impact or benefit is harder to calculate for NHH properties due to the broader range of applicable charges. However, it is likely that the majority of incorrectly identified properties will be at the smaller end of the scale but the benefits remain the same. The placement on charge of additional customers will see reductions in the overall average wholesale charges.

7.0 PROPOSED ONGOING ACTIONS (NHH)

7.1 Ongoing benchmarking activities

On an annual basis we will complete a comparator exercise between our property database and an external data source[2]. We intend to hold a "data hack seminar" to assess potential alternate data sets and sources that we can legitimately assess our data against.

We will monitor our rate of proactive maintenance of the property database by recording the number of VOA updates assessed per month.

[2] Work is ongoing to identify a range of valid and suitable external sources to validate against.

We will also continue to monitor and investigate consumption at metered vacant properties. We will seek to compare our data to that of the broader industry.

We have 76.5% of our billed NHH property database cross referenced and matched to VOA records. We will continue to progress matching to the VOA data set and will seek to improve our percentage match by 3% per annum with a target of 95% fully matched.

7.2 Annual statistical sample work

On an annual basis we will utilise either a third party resource, or a dedicated internal project team, to fully investigate a randomly selected sample of our void properties for a full occupancy integrity check. The sample size will be statistically significant and between 2-5% of our total number of voids.

On an annual basis we will utilise a third party resource to fully investigate a specific targeted post code(s) area. The work will include comparator analysis to a third party data source and a full occupier integrity check of all void properties within the relevant areas. The sample size will be between 1-2% of our total number of properties.

7.3 Consideration of incentive mechanisms

There has been considerable discussion in the NHH market around the potential for gap site or void property incentive schemes. Retailers and external third party data providers have all been advocating the introduction of incentive schemes. We think it is too early in the market's development to know if such a scheme would be beneficial.

In the new market it is the retailer who is responsible for the occupancy status and it seems inappropriate to incentivise what is an obligation under the codes. No other obligations require an incentive scheme; indeed the market is predicated on all trading parties accurately fulfilling their obligations. This is supported and encouraged by a Market Performance Framework that financially penalises a party's failure to perform in a number of key areas.

We recognise that the resolution of an incorrect occupancy status is complex and that to resolve an incorrect occupancy status two main actions are required:

- Step 1 is to identify that the premise is actually occupied and receiving a service,
- Step 2 is to then identify, contact and agree billing arrangements with the relevant person

Step 1 can be carried out by a wholesaler, retailer or even a third party but Step 2 remains the responsibility of the retailer.

Providing an incentive to a party that already controls the data item could run the risk of introducing inappropriate market behaviours. Our intention is to monitor the situation, liaise closely and directly with retailers to promote good practice in maintenance and upkeep of occupancy status data, and keep under review the relative merits or otherwise of incentives. Similarly we will also monitor and assess potential options available to correct any failure to accurately maintain the occupancy status. This will include options to introduce a Market Performance Standard and the possibility of charging retailers for metered consumption at vacant properties. We will also keep under review the potential to introduce an incentive scheme at any time should we consider this to be an appropriate action.

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We are understanding of the commercial issues surrounding a retailer's ability or appetite to commit resource to address vacancy issues and therefore we would be supportive of a national incentive scheme with central administration and validation as this would mitigate any risk of inadvertently introducing inappropriate behaviours. We have already proposed via the Market Performance Committee that such a scheme could be funded by Market Performance Charges.

In the longer term we would be supportive of legislative change to enable a move to a charging mechanism for vacant premises aligned with that which now exists in Scotland. The owner of a vacant premise, in the absence of a tenant, or actual occupation of the premise, is still effectively receiving a service and we believe should therefore pay for that service in some form. This mitigates the potential for hidden occupancy.

In relation to gap sites, the main issue here is the fact that a significant proportion of the property database, namely unbilled properties on shared supply arrangements, is not visible in the new market. This has led to considerable speculation on the scale of the issue. There are undoubtedly gap sites in existence but the challenge is to accurately quantify the scale and identify them in a cost effective manner. We have used a spot analysis approach to look at the issue in our area and are confident that the figures are relatively low. Given this position we believe that our best approach is not to fund an incentive scheme but to continue with our established approach of matching to the VOA dataset. Performance in this regard therefore being better achieved via a PC in regard to the completeness of our matching process. Hence our proposals see us seek to target a higher level of matching to the VOA database. We will again keep an open mind to the introduction of an incentive scheme if we feel this becomes cost justified and the best course of action.

8.0 PROPOSED METRICS

8.1 Void properties

Our proposed HH PC is to reduce our level of voids as close as economically possible to the underlying level. We are proposing to set our PC at 4.21% by 2025 reducing this further to 4% in 2030 and maintaining this level thereafter.
There are costs and risk of increasing bad debt associated with reducing the number of voids therefore we feel it is appropriate to attach a financial reward/penalty ODI.

8.2 Gap sites

We have previously matched our database with external sources and whilst this has given results on the NHH side, it has proven difficult on the HH side due to the sheer volumes of false positives that are generated. Most data mismatches tend to turn out to be bulk meters, shared supplies, naming or configuration of flats etc. This type of exercise generates a lot of work and cost before we can make any benefit. As we are unable to quantify any potential benefit for gap sites we have chosen to focus on NHH properties, and will measure the extent to which we have matched our property database with that of the VOA.

Around 76.5% of properties are currently matched; 95% is a reasonable proportion that will be fully matchable. We therefore propose to set our PC at 84.4% in 2020-21, tightening to 95% in 2024-25 and maintaining this in the years beyond.

It is right to apply a PC to gap sites however, we believe that a non-financial incentive is appropriate. The current number of gap sites is an unknown and an unmeasurable number. The PC is therefore an indirect one and seeks to decrease our risk to gap sites existing. It would be inappropriate to apply an ODI on the basis of an indirect assessment. Value to customers arising from the identification of any gap sites will be automatically generated by the increase in the number of chargeable customers.

We will commit to carry out a one off data match with an external company to identify any HH gap sites. We will then assess the finding and make a cost effective decision on what steps to take in the future.

8.3 Percentage of completed Valuation Office Agency updates

On an ongoing basis we will seek to evaluate, and action if required, 75% of all VOA data published updates.

9.0 INDICATIVE COSTS

9.1 Household activity

To reduce the voids as indicated in Section 5 we would need to do approximately 20,000 additional inspection visits at around £10 a visit. We will need to buy in credit reference void data more regularly, at around £50k a year and employ two more office staff at just under £60k, plus £10k additional bills and promotional materials.

Therefore the additional cost of reducing the voids to this level is estimated at around £320k. This is all OPEX cost.

9.2 Non- household activity

To evaluate 75% of VOA updates we would require an additional 1.5 Full time equivalent within the Property Data team. This is estimated to cost £45k per annum.

To improve data matching by 3% per annum will require an estimated budget of circa £20k per annum. This would either be internal resources or more likely an external third party data provider.

The annual statistical sample work is estimated to cost £25k per annum with an external third party data provider.