

Table 2 – Lines 2 to 4c, Block A – DG2 Properties receiving pressure/flow below reference level

1. Key Findings

Criteria	RAG	Assessment
Independent review of performance and reporting	Green	Performance good. Reporting process well managed
Methodology	Green	Methodology consistent with current process, control points identified and understood
Assumptions	Green	Assumptions reasonable and appropriately applied
Source data	Green	Source data is clearly identified, complete beyond material concern, well managed through to accurate systems input
Clarity of audit trails	Green	Detailed and comprehensive audit trail to all numbers available
Confidence grades	Green	Confidence grade appropriate and rationale clearly documented
Governance	Green	Responsibilities for integrity of data and commentary clearly defined. Good evidence of engagement and of final sign-off.

- The DG2 Register contains full documentary evidence for properties that remain, are added or are removed from the register.
- The Company has estimated the cost of removing properties by considering the costs of components related to hydraulic issues. Whilst this remains an approximation as the cost is derived from schemes that have a range of different investment drivers we consider the Company has made significant improvements in the robustness of the calculation and the supporting audit trails. The average cost appears to have stabilised at around £ [x] /property, with the AIR16 value being slightly higher at £ [x] /property removed.
- We audited the reported data and challenged the processes on a sample basis. We consider the data reported in the table is robustly prepared using systems and process that are appropriate and in line with the reporting requirements and that are properly implemented with effective quality control and governance arrangements.

2. Audit Scope

The audit consisted of interviews with the NI Water system holders which included a discussion on the Company methodology for data collection and collation, a review of the estimated cost of removing properties from the register and a demonstration of the DG2 Register and supporting documents.

3. Performance and significant events

A total of 182 properties were removed from the register, due to a combination of mains rehabilitation (150), infrastructure improvements (21) and better information (11). No properties were added to the DG2 register in AIR16.

The Company has reported the number of properties on the register with pressure below 7.5m; this number has decreased slightly to 126 properties (from 137 at AIR15).

The Company has calculated the average cost of removing properties from the DG2 register as £ [x] /property. There has been a reasonable level of stability over the last three years (£ [x] /property in AIR14 and £ [x] /property in AIR15)

We consider there is likely to be a degree of year-on-year variability in the average cost of removing properties from the DG2 register due mainly to the different mix of schemes undertaken through the report year. Removing properties from the DG2 register is often not the key driver for the investment.

4. Compliance methodology and process controls

4.1 Compliance methodology

The properties within the DG2 register are only revised following the implementation of schemes. We recommend that with the improved availability of pressure data within Netbase the Company could refresh the DG2 register on a more regular basis.

Although the AIR16 average cost of removing properties from the DG2 register is similar to AIR15 and AIR14 we consider there will continue to be year-on-year variability due to the different mix of schemes with various investment drivers that are undertaken each year.

4.2 Process/methodology controls

Properties at risk of receiving low pressure or flow are recorded in the Company's DG2 register; this contains full documentary evidence for properties that remain, are added or are removed from the register.

We note that the Company's methodology demands that the table and commentary are signed off by senior management.

The Company demonstrated the quality assurance controls they have in place to ensure the data collation process is robust. Over the course of our audits we saw evidence of internal data challenge and consistency checks built into the calculation spreadsheet.

5. Summary of audit checks

The Company has collected DG2 information using a representative network of critical pressure monitoring points and details which have been converted into numbers of properties at risk of receiving low pressure, by using its GIS system.

We found that the DG2 Register contains hyperlinks to all available information to support each property within the DG2 Register. This includes reports, logging traces, GIS plots and details of pressure analysis. This information is also retained for any properties originally on the DG2 Register and subsequently removed due to better information.

In terms of allowable exclusions, NI Water is aware of the various low pressure events that can be excluded from the DG2 Register. However, in the absence of comprehensive monitoring systems it has not reported any allowable exclusions. Since 2010/11 NI Water no-longer excludes properties that are located within 15m elevation of the service reservoir.

We examined the DG2 register and extract used to complete this table and confirm that the Company has an audit trail to confirm the removal of the 182 properties as a result of the schemes, with 900 being the number of properties on the DG2 register at the end of the year.

The removal of properties from the DG2 register was the result of six schemes. We examined one scheme in detail (The Glens) which resulted in the removal of 11 properties due to company action and 5 due to better information. We confirm that the number of properties removed from the DG2 register has been assessed correctly.

The properties within the DG2 register are only revised following the implementation of schemes. We recommend that with the improved availability of pressure data within Netbase the Company could refresh the DG2 register on a more regular basis.

The Company has calculated the average overall cost of removing a DG2 property from the register. The majority of the main rehabilitation schemes have multiple drivers for investment (such as structural improvements, water quality and operational issues (leakage) in addition to hydraulic drivers (DG2)).

There is a large variation in unit costs for DG2 removals within each scheme. The Company provided full details of the costs of each scheme that resulted in removal of properties from the DG2 register, which varied from £ [x] /property to £ [x] /property (with an exceptional cost of £ [x] /property for the removal of two properties in one scheme).

We reviewed the calculation and supporting data for the work packages and consider that there are robust audit trails.

Although the AIR16 average cost is similar to the AIR15 and AIR14 costs we consider that there may still be significant year-on-year variability in the average cost in future years due to the relatively small number of schemes with mixed investment drivers undertaken by the Company each year.

6. Confidence Grades

The Company has implemented an improved process and audit trails for the calculation of line 4c. We therefore support the confidence grade of B2 for this line.

The Company has not changed the confidence grade for any of the remaining lines in this table; we consider the values reported for AIR15 are still appropriate for AIR16.

7. Recommendations

We consider that the Company should investigate the use of the pressure data now available within Netbase to undertake a regular refresh of the data used to identify properties at risk of receiving pressure or flow below reference level.

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