

8. Pressure Mapping across our water system and DG2 Analysis Tool



Situation

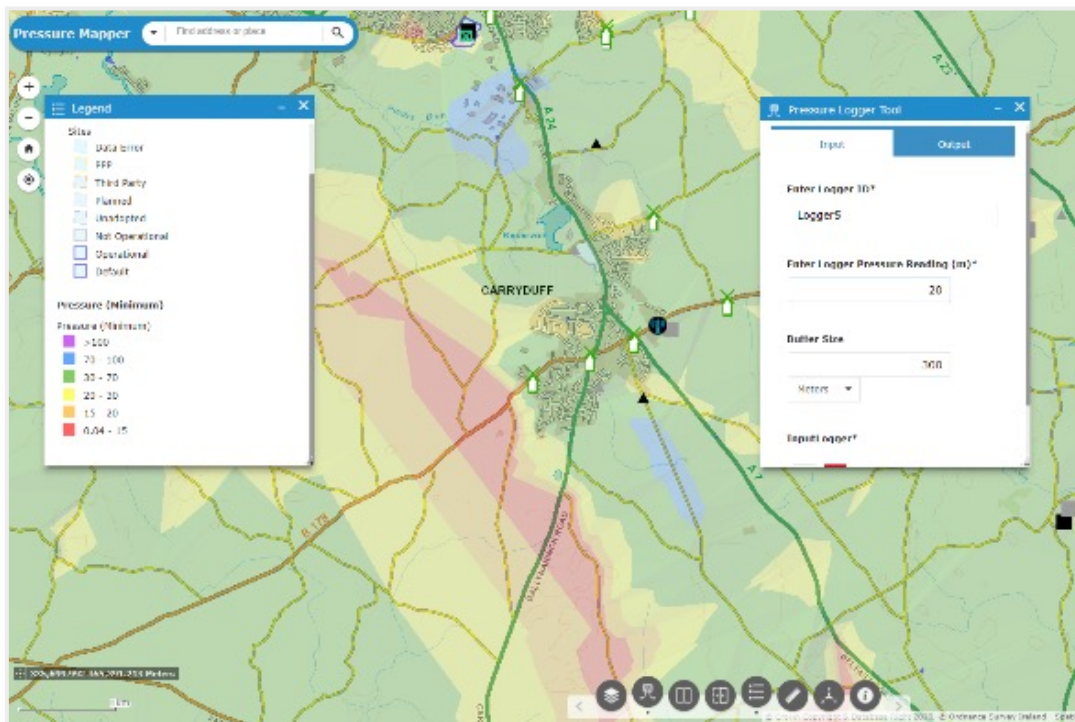
Previously pressure at a given location had to be obtained through pressure logging or from the hydraulic models, which had an associated resource requirement.

NI Water's Pressure Mapping Application is a suite of tools which display the network pressure at any given location across Northern Ireland. These tools:

- allow an operative to input a logged reading which recalculates the static pressure
- calculate the minimum pressure at a customer's property which automates the DG2 analysis
- collate logged pressures on a single App used to continually refresh the Pressure Mapper

Action

The Pressure Mapper was built using pressures exported from the hydraulic models and from on-site pressure logging. The Application uses the best available logged or modelled pressure to back-calculate the static pressure at each customer point. The pressures on the mapper are recalculated if and when new logged or modelling pressures become available.



Results

The Pressure Mapper is being used by operations team during unplanned interruptions to determine customers without supply and for rezoning options. It is also being used to automate the DG2 analysis. Developer Services are using the tool to determine headroom within a DMA and the likely impact of single or small developments. When more permanent pressure monitoring locations are installed throughout the network as part of our Smart Networks, the Pressure Mapper will be linked to 'real time' data from the 'live' network.