



Association of Directors of
Environment, Economy, Planning & Transport

ADEPT President's Awards 2022

Entry form

Award category:	Category 2: Digital innovation/technology
Title:	Gully analysis to refocus revenue spend
Entrant:	Hertfordshire County Council
Main contact name:	Peter Simpson
Email address:	peter.simpson@hertfordshire.gov.uk
Partner/s (if applicable):	Ringway
Headline summary (150 characters, c. 20-25 words) Using data to influence gully cleaning regimes that sustain a resilient network and deliver an efficient, effective programme and achieve best value for money.	

Please note we need **at least one supporting image** per award submission.

Supporting images should be attached separately as jpg or png files.

Please paste links to any supporting video evidence here

Link 1	ADEPT submission - Virtual Operations Hub.mp4: https://youtu.be/G5j7qJ2Eam0
Link 2	ADEPT President's Awards - Category 2: Gully Analysis: https://youtu.be/waOy59Ra-OY



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500-word project outline (please ensure you do not exceed the word count and address all the judges' criteria – for more info see [here](#))

Hertfordshire County Council are responsible for the maintenance of approximately 187,000 gullies across their network. Ringway, in partnership with HCC, carry out this cyclical cleansing based on an operationally effective programme defined by the characteristics of the gullies i.e. Do they sit in flood areas? Are they on the high-speed network? Are they privately maintained?

Since 2017, Ringway have been digitally collecting information on the assets using an Esri Collection app to build a greater understanding of the drainage asset. Data such as:

- silt level
- gully blocked
- gully damage
- traffic management requirements

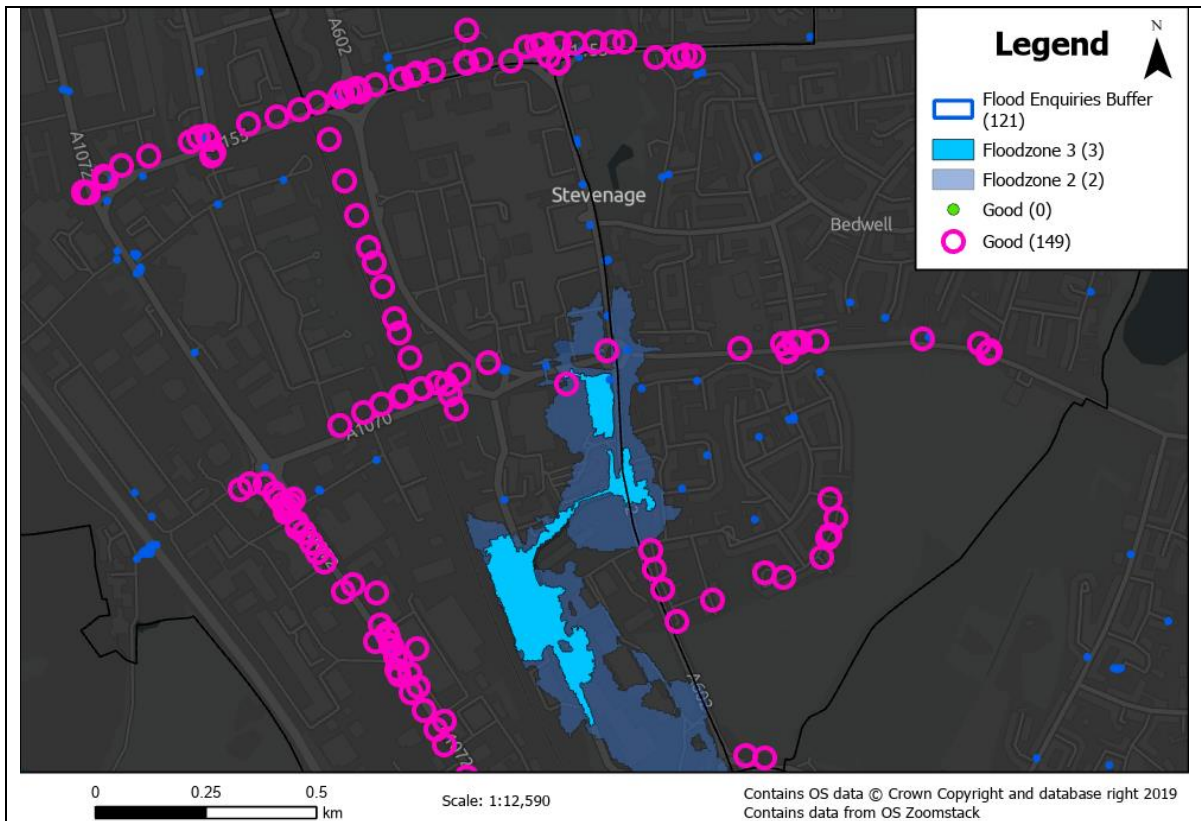
This wealth of information enabled the Highways Service to take an evidence led, risk-based approach to gully cleansing, resulting in a more efficient programme and better value for money for the residents of Hertfordshire

Annually the collected data has been used by the HCC-Ringway partnership to inform the learning and review process. With 5 years' worth of information available to us, 2022 saw the most data rich review and analysis yet. Utilising Esri's ArcGIS we were able to combine complex datasets, within set rules quickly and efficiently, displaying the results in a map-based format. Rules such as:

1. Have the assets silt levels been "Good" (approximately 0-25% full) on the previous 3 visits?
 - a. If yes, is there at least 60% assets on a USRN that have had "Good" Silt levels recorded in the previous 3 visits?
2. Are the assets located in Environmental Agency flood zones?
3. Are the assets located within 5m of public enquiry related to flooding within the last 3 years?

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The project involved a human reality check, collating feedback from teams across the County to input their local knowledge against the results from the data analysis. This work was undertaken innovatively using a web application to store the information against the same dataset for direct compatibility and overcame geographical location barriers. This highlighted some minor anomalies the generally proved the analysis.

The data was used to support the decision to change the gully cleaning priority to improve the service, with a move to lower frequency cycles ultimately reducing cost. This is predominantly driven by moving from the 18-month to the 24-month cycle. Over the last 3 cycles we have moved over 19,000 gullies to the 24-month cycle avoiding approximately £175,000 spend in this area.

The data and subsequent analysis allow us to simply and efficiently adjust and refine operations and achieve an efficient cost-effective gully cleansing programme. The data analysis helps the Service drive the wider drainage functions including drainage investigations, gully dig-outs and the coordination of “deep clean” programmes with District Councils. Ultimately, the innovative use of data and GIS has produced an operational programme bespoke to Hertfordshire’s needs delivered in the most cost-effective way.