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Proactive Conditioning Programme (ProCON)

Discolouration makes up a large percentage of customer complaints for water companies. To tackle this challenge, the Proactive Conditioning Programme (ProCon) was initiated by United Utilities as a proactive measure whereby several mains or specific sections of a main are conditioned to higher flows to remove the build-up material on pipe walls.

My role as an Assistant Engineer in the Clean Water Modelling team at AtkinsRéalis has been both challenging and enlightening. Over the past year, I've had the privilege of contributing to the efforts that enable United Utilities to enhance their discolouration performance and comply with OFWAT stringent regulatory standards. My responsibilities include employing network modelling tools to gain deeper insights into the water network's response to flow changes.

Specifically, we have used Synergi Liquid to experiment with flush locations, profiles, choosing monitor locations and opening and closing isolation valves, enabling the optimisation of flushes that target mains that cause discoloration in the network whilst maintaining acceptable level of service.

Over the past year our collaborative efforts have shown significant results in addressing the discoloration in mains. Taking these proactive measures is not only essential to improve the discoloration performance, but it also enhances the efficiency of the water network in a DMA. Additionally, it can be seen as a more feasible option as opposed to replacing the older mains and CI mains that normally cause the issue.

This presentation aims to share my experiences, challenges, and insights through the past year working on ProCon.