Scottish Water install nine tonne underground pump on McDonald Road

Scottish Water have just installed a nine-tonne underground giant screw pump which is 14.4 metres long in an underground chamber on McDonald Road.

This is part of a £5 million investment in McDonald Road Waste Water Pumping Station to ensure that the city's waste water keeps on flowing in the right way. The Archimedean screw pump moves millions of litres of water and after a 50 year life, the site is having a major upgrade.

The newly installed screw pump replaces the original which was removed from the ground in October 2024. It is one of two screw pumps below ground at McDonald Road. Known as the "foul", or "duty" screw, it is in operation every day to move waste water and collect drainage from the Canonmills and Broughton areas of the city, transferring it to a large sewer. Gravity then takes over and the waste water runs along the sewer to Scotland's largest waste water treatment works at Seafield for treatment.

Rob Mustard, Scottish Water's Director of Capital Investment said: "The refurbishment of McDonald Road Pumping Station represents a significant investment in Edinburgh's waste water network, supporting our goals of service excellence and delivering improvements for the benefit of the environment and customers for years to come." Extracting and installing assets of this size is challenging work, and it requires a good deal of forward planning and coordination to be undertaken safely.

Rob added: "The screw pump installed at McDonald Road Pumping Station is just one of many impressive and vital underground assets serving communities across Scotland, most of which people will rarely see. This was a major operation and our dedicated teams are to be congratulated for carrying out the challenging work safely."

William Moore, Scottish Water's project manager for the operation said: [] "It's not every day that people get to see the hidden giants that keep Scotland's waste and water cycle running, so it's been fantastic to be able to share footage of the extraction and installation of these colossal screw pumps during the refurbishment with the community."

□The foul screw is located adjacent to the larger "storm screw", which operates under storm conditions. The original storm screw was removed in December 2023 and replaced with a new one in April 2024. □



