

Reducing OPEX costs at Blackwatertown WWTW

Installation of the McGill distributor allows significant reduction in operational visits to the Blackwatertown WWTW.



Blackwatertown WWTW

Works

The Blackwater WWTW is one of conventional design, with a 758PE inflow treated to a 35:50:10 (BOD₅: SS: NH₄-N) Registered Discharge Standard; secondary treatment is provided by two 10m diameter stone media trickling filters.

The pumped inflow to the Blackwatertown works has long been an operational challenge, with an extended cycle in inflows common during low flow conditions. Efforts were made by NI Water in 2008 to address this issue, with balancing tanks installed downstream of the primary settlement tank and recirculation of final effluent introduced to help regulate the performance of the trickling filters.

While safeguarding the continued compliance of the works, these process adaptations were requiring NI Water operatives to visit the site three times weekly to ensure effective secondary treatment at the works, diverting critical operator time.

To address this issue, two McGill Distributors were installed at the site and flow balancing arrangements adjusted to compliment the operation of the McGill Distributors.

Impact

Since installation of the McGill Distributor, NI Water have been able to reduce operational visits to a weekly schedule; reflecting their confidence in the effectively blockage free operation of the McGill distributor and certainty of rotation provided in even the lowest flow conditions.

Results

With a 66% reduction in man hours required to operate the works, the McGill Distributor has significantly reduced the operational costs of these Works; safeguarding its position as a compliant, low maintenance works within the NI Water portfolio.