



SPECIAL EU PROGRAMMES BODY

Project Case Study: Source to Tap—Project update

THEME:

Environment

FUNDING (ERDF+MATCH):

€4,909,921.26

MATCH FUNDING:

Department of Agriculture, Environment and Rural Affairs; and the Department of Housing, Local Government and Heritage

LEAD PARTNER:

Northern Ireland Water

PROJECT PARTNERS:

Agri-Food and Biosciences Institute (AFBI), The Rivers Trust, East Border Region Ltd, Ulster University, Irish

Start Date: 01/10/2016

End Date: 30/09/2022



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Monitoring water quality through COVID-19

The first lockdown presented Source to Tap with many challenges, including how to maintain the intensive water quality monitoring programme in the Derg and Finn catchments. This was particularly important during the first lockdown period in the Spring as MCPA applications in the catchment usually start around April and we were keen not to miss these from our monitoring and analysis.

Social distancing during the collection of the samples was not a significant challenge. Sample storage and sufficient equipment, however, were more complex issues to overcome as analysis of the samples could not happen due to the labs being closed and so a solution needed to be found to store all the samples to be collected. A review of other studies indicated that freezing the water samples was the most viable solution for ensuring no MCPA degradation before the labs could reopen.

However, the annual increases in sampling frequency after the winter period from daily sampling to 24/7 (7-hourly frequency) sampling was planned for mid-March, which coincided with the closure of the labs. With two sites, each producing 24 samples per week, and no clear idea how long lockdown might last, the 24/7 sampling frequency would have translated into a very large freezer! Additionally, we had just four sets of bottles per site (i.e. four weeks-worth at the 24/7 frequency) and no time to order more.

We therefore made the decision to continue sampling the rivers once per day rather than increase the frequency, which was a lower-than-ideal resolution but gave us capacity to take and store nearly four months of samples. Another advantage of this strategy was that, instead of someone needing to change the bottles once a week, the sites only needed to be visited once every 24 days, reducing the risks for all involved. And so, armed with just empty bottles and a packed lunch (to avoid local shops), sampling continued.

Luckily, shortly after deployment of the final sets of bottles, restrictions eased and the lab staff returned. Whilst they were catching up with the frozen samples, the very warm lockdown weather proved useful in that it had lowered the rivers enough that field staff could get in to replace the gauge board (see photo) that had broken off during a winter flood. By 30th June, we had freed up enough bottles to return to 24/7 sampling and we continued to visit the sites on a weekly basis until early December, which was the same frequency as in previous years.

With lockdown restrictions lifted and the river low enough the project was finally able to fix its gauge board to assist with the important sampling work.

