

# Community-led monitoring to improve water quality



## December 2021 Project Update



### Water quality monitors (WaterBoxes)

Following signal testing supported by Friends of Bradford's Becks members, our developers in Taiwan have upgraded the WaterBox to work with the telecommunications systems that we can use in and around Bradford. New WaterBox circuit boards have recently been printed to a new and improved design. The Taiwan team are doing final testing before the WaterBoxes are shipped to the UK.

### Getting ready for the WaterBoxes' arrival in the UK

Friends of Bradford's Becks and Yorkshire Water have kindly taken members of our research team on tours of the becks, so that we can understand the pollution problems experienced and where water quality monitors might be useful. We've started to request permission to install the WaterBoxes and to ensure that all relevant health and safety considerations are covered.

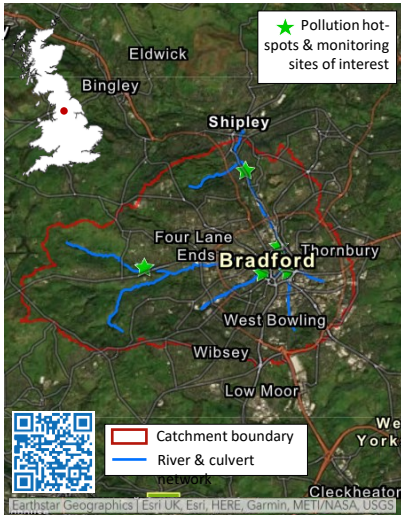
### Sharing and visualising water quality data

When the WaterBoxes are installed, we need to find the best way to share the data with you, so that you can track down sources of pollution. We've tested a few different approaches, and will share some options in a workshop within the next few months. We would love to have your feedback and preferences on data sharing and visualisation.

### Cameras on the becks

Yorkshire Water will be installing 150 cameras on wastewater outfalls as part of a pilot scheme to improve visibility of its sewer network and enable quicker assessment of how their system is performing. Bradford's Becks are one of nine areas selected for the pilot. By accessing images remotely, investigations can be carried out before sending teams to site, improving efficiency and reducing emissions through travel for inspections.

We are speaking to Yorkshire Water regularly about their cameras project, and are hoping that some of the WaterBoxes planned for Bradford can be installed near the cameras, giving the community two ways of remotely monitoring the becks.



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### Activities in Taiwan

The Taiwan Clean Water Alliance (TCWA) has been busy preparing for a referendum to confirm support for tighter regulations for wastewater collection, treatment and disposal, and for more efficient water use by local industries. Led by the TCWA and approved by the local government of Hsinchu, the referendum will take place in December. As the group has been busy with the referendum, the installation of the first WaterBox has been postponed until after it has passed.

Several members of the Taiwan UpStream team joined and won this year's Taiwan Presidential Hackathon which aims to promote the application of open data to improve governance. Over the past few months, the team, which also includes members from government organisations, has worked hard to develop a prototype web platform to enable collaborative river basin management. Winning the Hackathon ensures stronger government support for the initiative, which aims to empower citizens, businesses and government agencies to work together. UpStream continues to contribute to the initiative.

There's an interesting article about our Taiwanese pilot site for UpStream [here](#).



### What's next?

When the upgraded WaterBoxes arrive in the UK, we'll test them further before inviting you to a workshop where you can see how they work and learn more about the project.

Image source:  
<https://english.cw.com.tw/article/article.action?id=2740>



### Get involved

There are lots of ways that you could get involved in UpStream. Please let us know if you'd like to take part via the form on our project website: <https://research.ncl.ac.uk/upstream/getinvolved/>

If you have any questions, then please feel free to get in touch: [amy.jones@rpsgroup.com](mailto:amy.jones@rpsgroup.com) or [eleonor.starkey1@ncl.ac.uk](mailto:eleonor.starkey1@ncl.ac.uk)

