

Fowey Transitional and Coastal Waters (TraC) Catchment Investigation

A Using Sediment as a Resource (USAR) Case Study

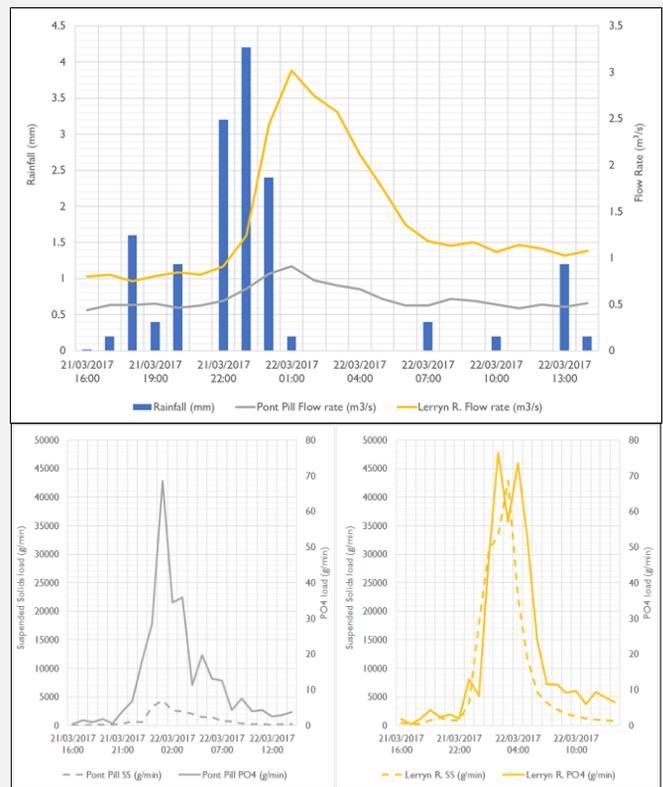
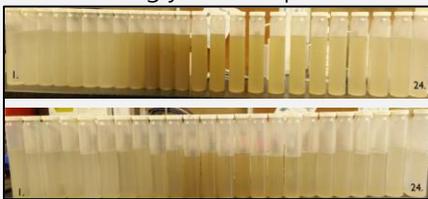
WATER QUALITY – WET WEATHER SURVEYS

Informed by initial desk based approaches, a wet weather walkover of the River Lerryn was undertaken. The majority of sources identified were low grade issues, predominantly pertaining to river crossings and other small inputs. More severe inputs were identified where livestock fencing was required, and turbid farm infrastructure runoff was entering a tributary.



WATER QUALITY – In-Situ MONITORING

To better understand how the River Lerryn and Pont Pill rivers respond to a runoff inducing rainfall event, with regard to sediment and nutrients, continuous monitoring and event based passive sampling was installed on the rivers. During the monitored rainfall event, both sites experienced increases in soluble reactive phosphorus loading and peak at similar levels. The increased load observed at Pont Pill is much shorter lived in severity, whilst the Lerryn River experiences a second peak. Nutrient loading at both sites correlate strongly with suspended solids load.



DELIVERING BEST PRACTICE ON THE GROUND

There are a wide range of measures that can be implemented across a river catchment to alleviate local sediment-related issues. The effectiveness of these measures is dependent on the scale of the issue and the size of the upstream catchment. The primary functions of these interventions are to prevent sediment erosion at source, disconnect sediment transport pathways, or to reduce the contamination of in-river sediments.

Through the Fowey TraC project, options for the management of sediments and yard runoff were discussed on three holdings. A relatively small system such as the one delivered here in the upper River Lerryn can be constructed for under £1000 – a viable option for most agricultural businesses.

