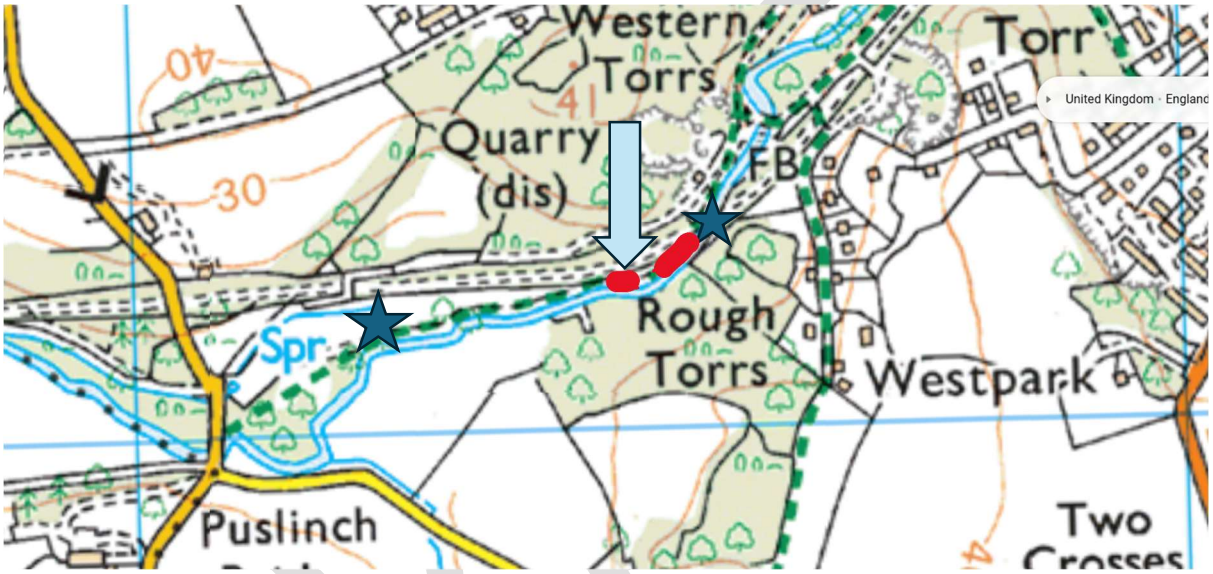
Footpath 20 (Public)– between the former railway bridge at Western Torrs and Rough Torrs down to the road bridge at Puslinch

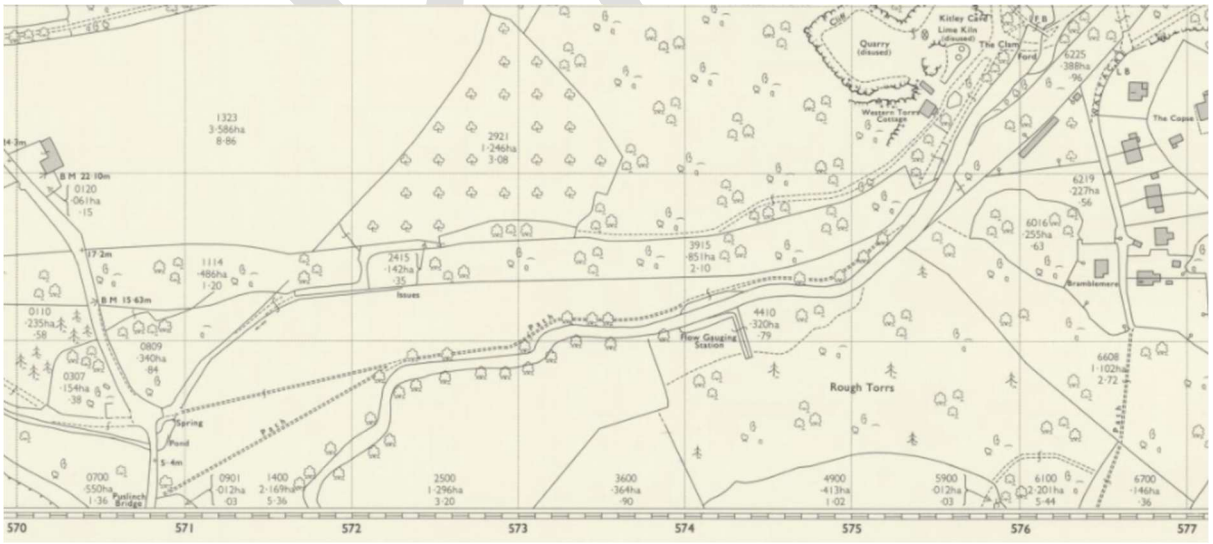
Problem

Erosion to bank of the River Yealm. When the river is 'up' and flowing fast or in flood, the water is wearing away the banks and the surface of the public footpath. The bank erosion is being exacerbated by dogs jumping into the river and scrabbling up the bank.

Location (the closest postcode is PL8 2GY)

The scheme will be between the two blue stars on the below map. Works will take place adjacent to the watercourse, but not within it.





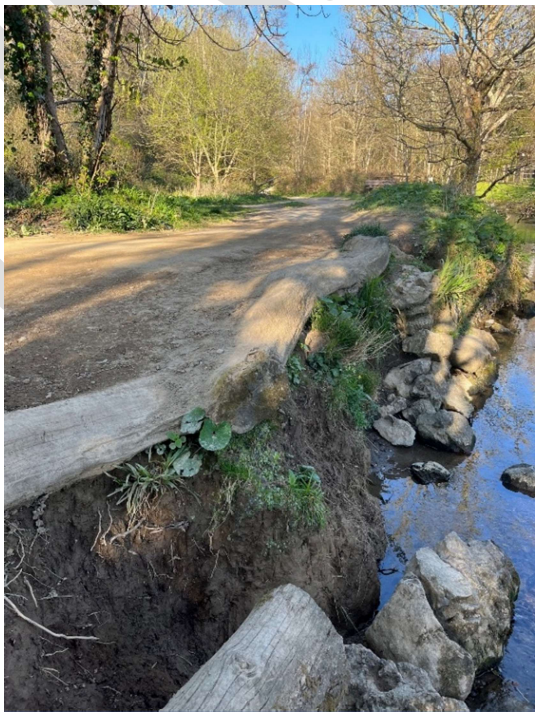
Aim of the Scheme

- To repair, reinstate and protect the northside of the river bank and footpath where excessive erosion has occurred and provide a more user friendly surface the pathway

- creation of a bund between the two stars, to protect the path from flood water, it will not be continuous as the height of the bank in places, is high enough to prevent the water breaching the bank. The bund will only be along the lower stretches.
- resurface two stretches of path the existing gravel path with concrete – one 50 metre stretch and one 40 metre stretch. The location of these areas is show with the red marking.
- fill in holes in the existing gravel/compacted earth path with aggregate and soil

Bank reinstatement

Some work has previously been done to support the banks; examples of this is shown below. It is proposed that this style of log faced support is used on stretches of the whole river between the two stars on the location map. It will not necessarily be continuous – areas that are suffering erosion will be supported in this way, to stabilise the bank and provide a stable base for trees and plants to grow.



Bund

The bund will be hard- faced with wood and anchored to a soil bund with plain 2.5mm wire on all bare bank sides. The soil bund would be between 600 and 900mm high and about 1.4 metre wide at the base, with a 60 degree taper on the path side.

This bund would be planted with deep rooted grass and wild flowers and tall type trees oak, beech and sycamore to grow big enough after the bund wood hard face rots away in 10-20 years.

The soil to do this would be harvested from the (northern) left side of the path when looking East.

Any water that breaches the bund will drain into the surrounding area and join up with a small stream that flows from the Spring, marked on the location map.

At the location marked with an arrow on the location map, a pipe will be laid under the path to ensure any water that breaches the bund can flow back into the river. The pipe will have a 90-degree angle bend and be tilted so that the velocity of the water draws out the water but does not allow water to flow up it.

Concrete resurfacing

The path from the Western Torrs railway bridge down to the first existing concrete strip (looking West). This stretch will be 50 meters. This path will be 2.5 metres wide and 100 mm deep. This area is very vulnerable to erosion and seen from vehicular access point of view will not be possible if nothing is done to improve/maintain the path.

A further stretch of concrete, 40 metres long and approximately 1.4 metres wide will be laid to link the two existing stretches of concrete path.

After concrete is dry the boards would be taken up and then the surrounding area will be filled with soil mix to grow grass.

Site of proposed concrete path – 50 metres long.

(view looking North East)

(view looking South West – existing concrete path visible in distance)

An example of the existing concrete path that will be extended.

Filling in smaller holes and pits in the path

Pits in the path will be back filled with 803 aggregate stone to a level that makes it useable, as at the moment there are some large pits are in the path.

The following photographs show some of the problems that this scheme is trying address

Example of the bank erosion, that is being accelerated by dogs jumping into the river and scrambling out. Here the bank will be faced with logs and built up, to prevent further erosion.

Management System and Risk Assessment

We consider this to be a low risk and simple activity to maintian and improve Footpath 20. A risk assessment will be done to protect both the environment and the public if such works go ahead.

The works manager will be onsite to protect the public from works and mechanical aids. A banks person will also be on site.

Use of Concrete – the concrete will be contained in boards while it is setting, it will not enter the river. **The work will not be undertaken in rainy conditions** to ensure there is no run off which enters the river.

Materials – where possible materials from the surrounding area will be used. The materials will be sympathetically harvested, ensuring that habitat disruption is kept to a minimum. Please note that this route is frequently used by dog walkers and a local gun dog trainer; it is unlikely that any nesting birds will be disturbed when harvesting soils and logs from the surrounding areas.

Mechanical Equipment – the works will be undertaken by hand and with a medium size swing shoval.