

## **Conserving important endemic fish species through the construction of a weir on the Krom River.**

FOOTPRINT Environmental Services was successful in concluding an application to build a weir across the Krom River to create a haven for endemic fish populations.

The Krom River is home to an important population of endemic freshwater fish species that are unique to the river systems of the Cederberg.

One of the key threats to the continued survival of these species are predatory alien invasive fish species that were introduced to the river systems of the Cederberg for angling purposes.

As a result these fish populations which are regarded as the most threatened endemic fish species population in South Africa. The use of a fish ladder in this weir is not considered feasible as the suite of alien fish present in the river are such that they would be able to navigate up these. Therefore the design of the weir is such that it prevents the upstream movement of alien invasive fish by providing an insurmountable obstruction to their movement.

The weir itself will be constructed on the bedrock of the river and at its highest point on the stream will be 1.4 metres above the downstream side of the weir, a height recommended by CapeNature during discussions with the river ecologist from Scientific Services. An apron 6000mm wide X 2500mm long X 150mm thick will be constructed directly downstream of the weir overflow to prevent the erosion downstream of the weir and the creation of a deep pool that would allow alien invasive fish to gather below the weir and possibly clear it on their way upstream. The other dimensions end to end of the weir will extend to the 1:100 year floodline.

The site itself is within a closed valley, on a perennial Cape Fold Mountain Upland River within the valley floor and topographically very nearly flat and the proposed site for the weir is just upstream of the access road which crosses the river at this point. Soils and subsurface are seasonally inundated as the site is within a river. However the geology (Cederberg Sandstone) and the sandy soils present on the site are stable and the soils well drained and not prone to erosion.