



## Reservoir Pitch Stone repair works



## Overview

Macari Hill Civil Engineering (MHCE) were recently engaged by their client to complete pitch stone repair works to different areas Loch Glow Service Reservoir. The original pitch stone works had deteriorated over the years and required several repairs to maintain the integrity of the dam wall. Figures 1 and 2 show the extent of the repair areas.

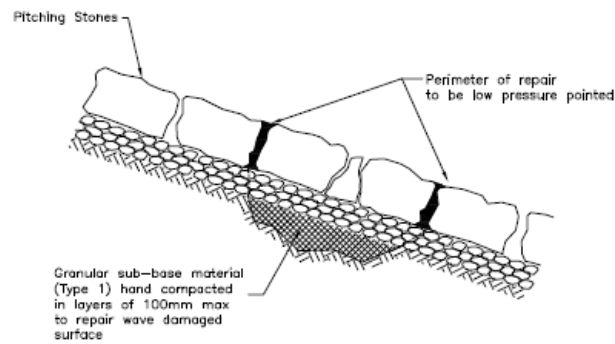


Fig 1. Existing pitch stones missing from the upstream reservoir wall.



Fig2. The reservoir levels required to be dropped before repair works could commence.

The designer provided a specification for the repair work which detailed the position of the new stones and materials to be used. See Figure 3



Repaired Area with Loss of Bedding

**Figure 3** Design Detail of pitch stone repair.

Our client proposed to use stone from another site which would be delivered and broken to shape using an excavator and Hydraulic breaker. After conducting a site visit MHCE proposed an alternative to use reclaimed Whin Stone setts. This proposal was accepted eliminating the requirement for the additional plant. Due to the site being popular with anglers it reduced the noise disturbance to the reservoir users whilst also using a reclaimed material thus providing a more sustainable solution.

Figures 4, 5 and 6 below show photographs of the finished repairs.



**Fig.4.** Reclaimed whin setts on east facing wall



**Fig 5.** Reclaimed whin setts on North facing wall



**Fig 6.** Reclaimed setts on north facing wall west of spillway entrance

The client was very satisfied with the completed repair works and they propose use the reclaimed setts for any future repairs to their existing assets.