RELINING OF RESERVOIRS - SCOTTS MILL

At Connect St Helena we are in the process of upgrading our water systems across Island. A major part of this involves relining of the existing reservoirs. The reservoir at Scott's Mill has already been relined and another two will be relined this financial year. This week we thought we would 'dive in' and tell you more about how we go about relining a reservoir.

Scott's Mill drained

The first step is to do a status assessment of the existing lining. This is done when the water levels are naturally low so that we can observe tears or failures in the linings. The consideration to reline reservoirs at great cost are also measured against the cost in maintaining the linings – when the cost of the lining maintenance are higher than feasible, we look at relining rather than maintaining.

The next step is to do a complete survey of the reservoir to be relined. This mainly involves the surveying of the reservoir when empty – in order to accurately determine the shape of the reservoir so that potential contractors can create accurate estimates of the cost.

We then put a bid out to tender so that we can find a contractor to do the work. For the relining of the Scott's Mill Reservoir we selected the same contractor that installed the original lining, with the decision made to reline the reservoir with a Butyl lining again, as this material proved to stood the test of time. As well as a competitive price, the contractor selected for the relining have materials and a method of installation that has proven to be very durable.

The Scott's Mill project was particularly difficult because time was limited and the project had to be finished before the rainy season began. Before the contractors arrived all the prep work had to be completed. This included clearing vegetation and digging the trenches used to anchor the lining.

Connect staff doing trenching works around Scott's Mill

The lining composed of several different panels, each one duly pre-manufactured to the exact shape of the reservoir (leaving a slight overlap). These were then installed over the existing lining so that there would be a double layer of protection from any damage.

Re-lining of Scott's Mill

A team of sixteen people worked together to hot weld the various lining panels together, including around the inlet and outlet pipes in order to create an effective seal. Within four days the work was completed and the reservoir was re-filled.

We are in the process to redesign and enlarge the Harpers 3 Reservoir, in order to increase our water security, with all of this being done to reduce water loss and render our raw water collection systems more efficient.

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