



WEIR AT GRABOUW BRIDGE

The Municipality was desperately looking for investment and needed to make this original part of Grabouw and Elgin look attractive to encourage visitors to the Apple Museum and restaurant, and investment near the river. Old pictures of the bridge show open water under the bridge - see view from Apple Museum site.

Therefore the aim was two-fold:

- 1) To use it as a vehicle to ensure good water quality downstream for farmers by raising the water level and the water table in the riparian zone above and below the bridge to discourage people from living in the river with all its associated problems of significant faecal matter and repeated destructive fires; and
- 2) To improve the appearance of Grabouw town by providing a lake-type effect that create business opportunities.

The weir was built in 1983 by farmers both upstream and downstream of the weir, under the guidance of the Grabouw town engineer Mr Danie Bosch. The project was approved by Mr Andre Roux of DWAF at the time. The wall was built up with excess sediment from the river with a 20m plus rock lined overflow on the Grabouw side of the weir where the river channel was at the time, and where the weir is now breached.

In the middle 1980's an incident occurred whereby a vagrant drowned in the 'lake', and the municipality was asked by the police to open the weir so that they could get at the body which was badly entangled underwater. Unfortunately the Municipality was too late to do a thorough repair of the weir and rock lined overflow due to financial constraints. Rains washed away a significant portion of the overflow which was not now protected by stacked stones as can be seen in situ.

New beginnings

In 2010 The Development Bank of Southern Africa identified Grabouw as one of the six Growth points in South Africa (satellite towns close to large cities or industrial development opportunities) and started a process to identify developments that could aid the expected population growth in providing job opportunities. The rejuvenation of the Grabouw CBD was one of many projects identified.

Called the Grabouw Development Initiative, the re-instatement of the weir proved to be the one major factor that would boost CBD development, and lure investors to develop Grabouw and hence improve socio-economic conditions.



On the other hand the exponential development of low-cost housing areas in the upper reaches of the Swannie River (which flows into the Klipdrift River and then into the Palmiet River), has become a concern to the Groenland Water Users Association (GWUA), responsible (a) for managing the water resources in the Palmiet catchment area and (b) providing a high standard of irrigation water to the farmers from the Palmiet River. This includes ensuring that the water quality in the Palmiet River itself is of such good quality that it would not jeopardise the export (fruit) market farmers abstracting water directly from the Palmiet River downstream of the town of Grabouw.

The Grabouw low cost housing developments come with all the management issues South Africa is well aware of... Blocked toilets, littered storm water channels and drains, any type of pollutant thrown into the river, cattle grazing and being slaughtered close to the river, shacks being added to houses without proper sanitation facilities etc. In addition, the upper Swannie River catchment comprises of very sandy soils which, due to a lack of vegetation cover, flows into mismanaged drain and sewerage pipe manholes, causing more blockages and spills – especially E-coli.

The 2000s saw an increased awareness from importers regarding the quality of the water used for fresh fruit products. Pollution such as mentioned in the previous paragraph is unacceptable and therefore the GWUA has to make sure the system is clean. In the past 5 years the GWUA has been monitoring various points along the Palmiet River, and has in fact identified point sources of pollution that would otherwise have gone undetected.

The GWUAs main concern is the continuous high pollution counts, especially e-Coli, above the



confluence of the Klipdrif and

Palmiet Rivers. Although the clean water from the Palmiet helps to dilute the pollution coming from especially the Swannie/Klipdrif River, more needs to be done to filter the pollutants from the water before they reach the Palmiet River above the Grabouw road bridge. There are plans being motivated and funds being sourced to re-habilitate the wetlands above the Industrial Road section of the Swannie River, but that will only be the first nutrient extraction area. The artificial wetland created in the 1980 by the farmers after building a weir in the Palmiet River just below the Grabouw road bridge, is the ideal second and largest pollutant filtering system.

Advantages of re-instating the weir

Once re-instated, the weir will fulfil the functions which it was initially intended for in the 1980s:

- 1) To use it as a vehicle to ensure good water quality downstream for farmers by raising the water level and the water table in the riparian zone above and below the bridge to discourage people from living in the river with all its associated problems of significant faecal matter and repeated destructive fires and in addition with the present day knowledge of the importance and functions of wetlands.
- 2) To improve the appearance of Grabouw town by providing a lake-type effect that create business opportunities.
- 3) To ensure good water quality downstream for farmers drawing water directly from the Palmiet River by creating a large wetland situation to clean up any and all pollution from the Klipdrif and Swannie Rivers draining most of Grabouw, in a sustainable manner.