



BUSHMAN'S RIVER MOUTH / BOESMANSRIVERMOND

Ratepayers' Association / Belastingbetalersvereniging Ward 3 / Wyk 3
P.O.Box 50, Boesmansrivermond, 6190

Director General
Dept. Water Affairs and Forestry
Private Bag X 313
Pretoria 0001

13th February, 2008

Attn. Dir: National Water Resource Planning

Dear Sir,

To further our comments in our letter dated 5th February, 2008, we have made some other observations.

We wrote to Mr. Langenegger of Bigen Africa asking about their estimates their costs and that of RO costs. He replied that RO was a minimum of R8.50 per kilolitre, this may be possible with completely new installations. We however checked on the production costs of RO water from the Albany Coast Water Board, both RO and borehole water. The RO costs including capital items, running costs etc and recently there has been an up grade of the system. This is approximately **R6.54** per kilolitre which is quite different to **R8.50** used by Bigen Africa. RO has become a lot more efficient in recent years as the technology has developed. To give you some idea as current production electrical input is 3.3Kw/hour per kilolitre and with energy recovery systems that comes down to 2.2Kw per kilolitre. That is on the electrical power consumption estimates which are a big part of the cost. We suggested wind power to supplement energy costs.

The new technology membranes are more efficient and costs of membranes has also reduced with more manufactures in the field. RO water is produced at 70ppm TDS which means it can easily be blended with other water sources to achieve a desired specification. Glen Melville water is about 700ppm TDS if the dam is regularly flushed which does not allow the flexibility of blending.

The current proposal by Bigen Africa is R889m up front which is a huge capital expenditure which would translate into a capital and interest repayment of R8.5m per month over 20 years at 10%. Added to this would be running expenses which are unknown. This is all to deliver 30 megalitres of water per day which would cost at R283,330 per day which translates to **R9.45 per kilolitre, without running costs**. We believe that the whole scheme needs to be looked at more carefully with an emphasis on cost per kilolitre. There are no cost estimates as to the delivery of water to the consumer by Bigen Africa but they readily discount alternatives on a cost basis.

There are just too many anomalies in the current proposal and it is the consumer who will ultimately have to pay for the water. The current proposal is placing a huge amount of capital into pipelines, pump stations, treatment works and none into the production of water which is the commodity required. There are question marks over the long term sustainability of inland water as we are in a water deficit country where water is a precious commodity.

A careful consideration of all available water resources including second grade water need to be taken into account and solutions for the medium to long term water requirements for the area will be found. A current proposal is just too expensive and with a little more thought and planning, with a phased approach, solutions, which are far more favorable to Ndlambe could be found.

Yours faithfully,

Johann Smuts
Chairman Bushman's River Ratepayers Association

Committee: Johann Smuts (Chairman), Charles Sprong (Vice Chairman) , Wendy Grove (Secretary), Charles Sprong (Treasurer), Schalk Kotze, R Phol., W Northrop, A.Vosloo, M.Mullins, Trevor Franklin, Ian Smith