

3.4 Agulhas Wellfield

Water for Agulhas is abstracted from a municipal wellfield (Agulhas Wellfield) consisting of two production boreholes, LA1 and LA2 (see Figure 16). Both of these boreholes tap a conglomerate horizon at the base of the Bredasdorp Group sediments.

The Agulhas Wellfield was connected to the Struisbaai water system in August 2015 to enable augmentation of Struisbaai's water supply during peak demand.

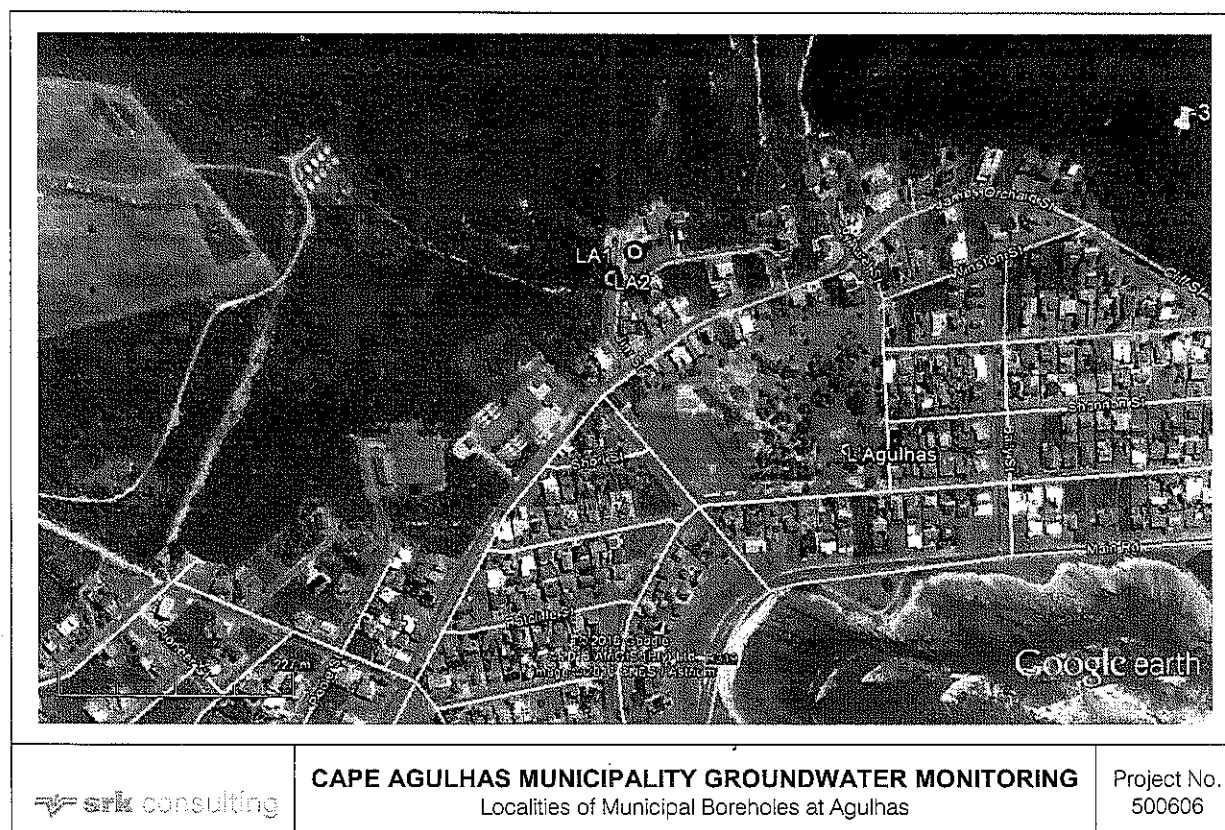


Figure 16: Localities of Municipal boreholes at Agulhas

The volumes abstracted from the Agulhas Wellfield are graphically shown in Figure 17 and Figure 18. Since monitoring commenced in 1996, abstraction from the Agulhas wellfield has gradually increased over the last 20 years from c.100 000 m³/a to c.175 000 m³/a in 2015. In 2014 a maximum of 237 000 m³ was abstracted. *Note: Abstraction data from the two boreholes over the last two years indicated faulty flow meters and abstraction therefore had to be estimated by multiplying the hours pumped with each pumps average yield.*

The water level variation of the boreholes in relation to abstraction and rainfall are graphically illustrated in Figure 19. These graphs indicate that in spite of the gradual increase in abstraction over the last 20 years, the rest water level in the production boreholes have remained fairly stable, with no obvious declining trends noticeable. *Note: The few deeper water level readings plotted on the graphs represent levels measured while the pumps were running.*

Based on these data, the current rate of abstraction can continue. Care, however, must be taken that the estimated "safe" aquifer yield of c.300 000 m³/annum (Visser, 2009) is not exceeded. Should more water be needed in future, it is recommended that desalination of brackish to salt water from

aquifers near the coast at Struisbaai be considered. Implementation of this option will also positively improve the water quality of Struisbaai and Agulhas.

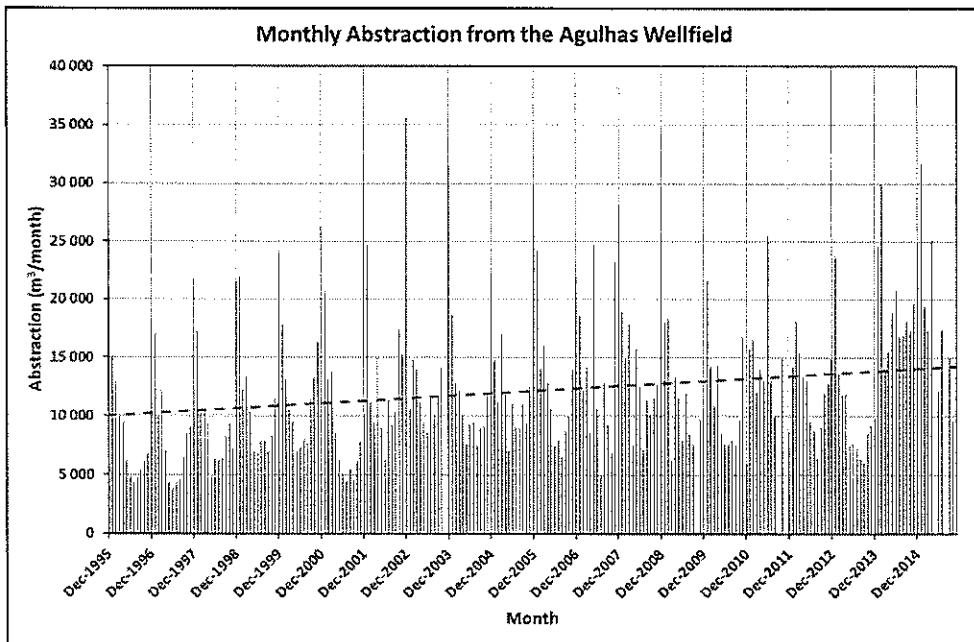


Figure 17: Monthly Abstraction from the Agulhas Wellfield

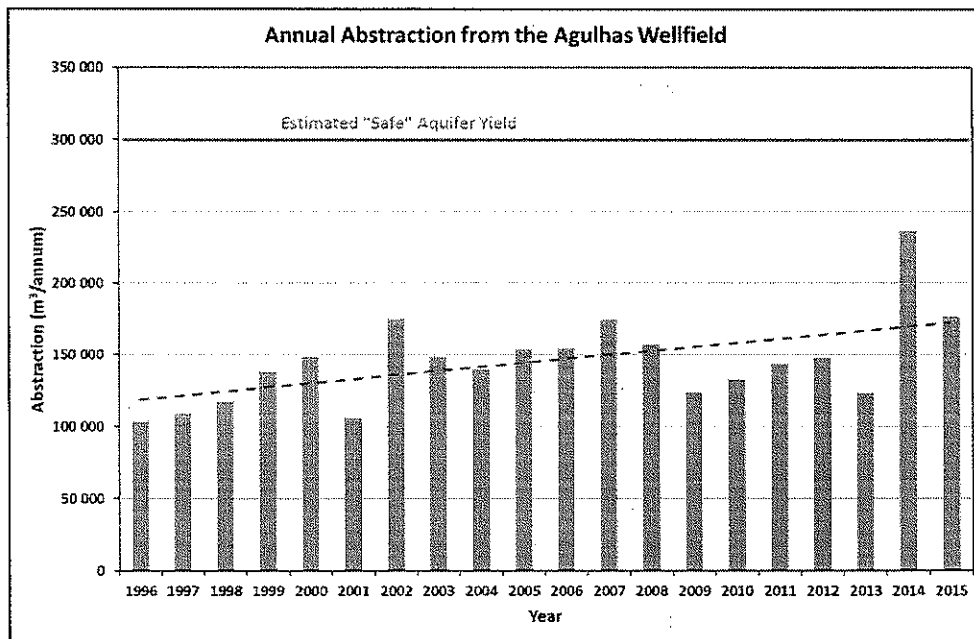


Figure 18: Annual Abstraction from the Agulhas Wellfield