

A hive of activity!

November 2012

Since our last newsletter, Abagold has been a hive of activity! Below are glimpses of the progress made since July 2011.

The first two of 15 planned units on Sulamanzi have been completed, and already houses 14 tons of abalone. The farms are managed by Jackie Stewart. The third unit's construction is underway, and ahead of schedule.



The first tanks installed



Aerial view of the Sulamanzi farm

Construction of four seaweed tanks has been completed and put into operation. In the seaweed tanks, Abagold farms with *Ulva Lactuca*, also known as sea lettuce (http://en.wikipedia.org/wiki/Ulva_lactuca) which is a natural food for abalone.

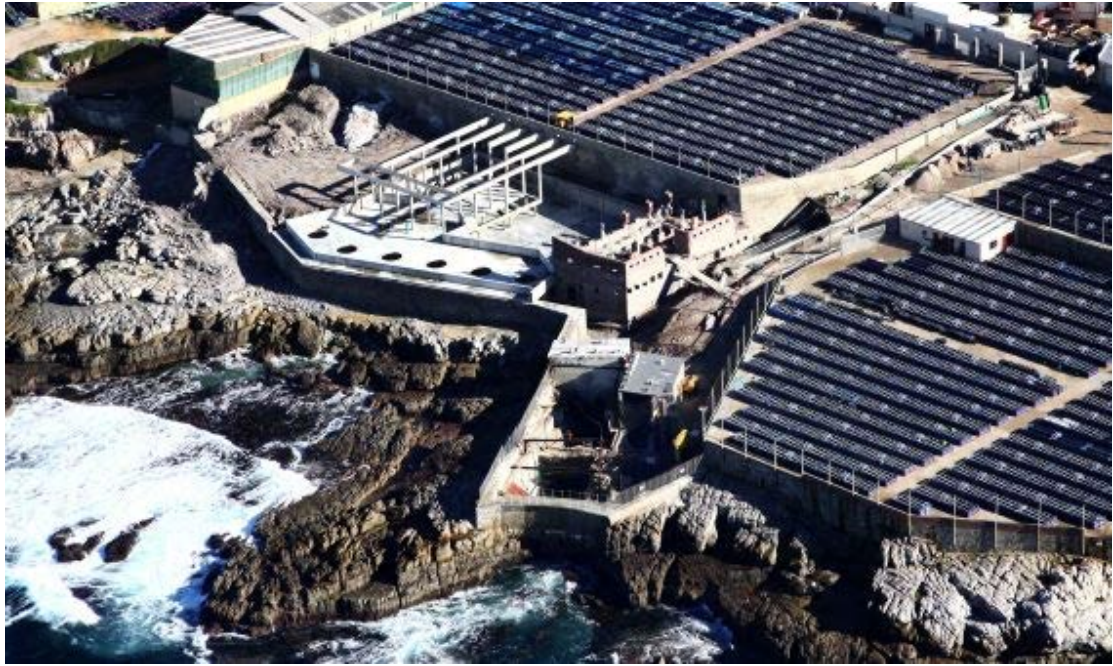


The newly built sea weed tanks



Sea weed tanks filled with *Ulva Lactuca*

In order to supply the new and existing farms with sufficient quality and quantity of seawater, the complete water recirculation, filtration and pumping system had to be enlarged and upgraded. It was done over a period of two years and the project is nearing completion.



An aerial view of the enlarged sump and pumping station

A set of three “kelp catchers” were installed which acts as a primary filter for all incoming seawater, stopping any seaweed and large pieces of debris from reaching the pump intakes.



The three, newly installed kelp catchers

The five existing primary pumps are being replaced with four custom built, imported, high efficiency, high volume, low head pumps. These new pumps will each discharge five million litres per hour (filling an Olympic size swimming pool in 30 minutes) into the secondary sump through a 900mm diameter discharge pipe. Three of the four pumps will be in operation with one acting as a standby pump. The pump house is being rebuilt to accommodate the new substantially larger pumps.



The dam under construction



The completed dam, that will retain around 3.2 million liters of water.

From the sump water is pumped via a pressure regulating tower to six newly constructed swirl degritters. Two large pipelines of 1000mm and 1200mm respectively carry the water. The rotation of the water inside the swirler degritters allows for particles with a specific gravity higher than that of sea water to settle out into the centre cone from where it gets flushed out.



The six swirl degritters

The clean water overflows from the degritters through drum filters into the secondary sump area. The drum filters will further clean the water, filtering it down to 60microns. Once the complete system is operational, 11 drum filters will work in parallel to accomplish this.



The new drum filters, for further cleaning of water.

The newly built secondary sump allows for 3,2 million liters of water to be retained. From the secondary sump, the water is pumped via 12 separate pumps to the four farms, according to their requirements.



The pumps being offloaded

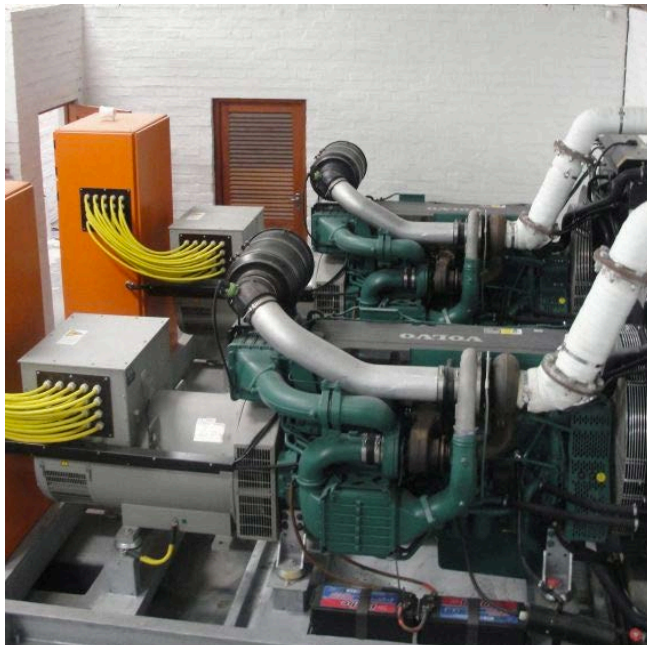


1200mm Pipes being installed

In the event of a power failure, a total of 3300 kVA backup generation power plants have been installed.



Transformers



The additional generators installed