

## Group Visit to SEMBCORP

Wednesday 11th JUNE 2014

Report by Michael Minton Press Liaison Officer

On 11<sup>th</sup> June 2014 a group of members and ladies visited the main offices and works of Sembcorp Water Company in Bournemouth. It is now owned by a major international organisation whose headquarters is in Singapore. This part has an annual turnover of £40m, a capital expenditure of £10m, a pipe renewal programme of £10m plus new mains costing £5m. It has downsized its main workforce to just 175 and sub-contracts its operational programmes. Its main ethos is to proceed with caution in order to ensure secure supplies of clean water. It is therefore a low risk, but also a low return company. As a result it recently closed a plumbing contracting arm called AquaCare to domestic customers, but still has some major non-domestic operations.



There is only limited customer growth in its area of supply which runs from close to Salisbury in the north, to the south coast from Beaulieu to Poole. As a result it is the only water company in the country to be registered as in no risk of running out of supplies. Its main sources are from the Avon and Stour rivers plus a number of bore holes one of which is on the Ampress site serving Lymington. This provides very pure water as it is filtered through a sand layer that goes from the middle of the New Forest to the Isle of Wight.

It is the smallest of the 22 statutory water companies in the UK with under 500,000 customers and does not handle waste water, or sewerage. 25% of its output goes to Fawley which does not require the same level of treatment as for its domestic customers. For these there is a strict routine to ensure the highest possible level of cleanliness and safety. The company is subject to regulation and inspection from a range of government agencies including Ofwat which as the regulator determines the charge it can make to customers which is reviewed every 5 years. We were told it was currently in negotiation which would result probably in a reduction in charge for an average customer from £153 (about 19% below the national average) to £133 a year. This could be lower, but there is a cross subsidy for unpaid debts of £4.77; the company cannot legally disconnect. However it has the lowest debt in the UK and is pursuing a number of

promotional and meter installations programmes to reduce consumption. It has around 25% leakage, but again this is relatively low as the system is not as old as many other major urban companies. Bournemouth is quite a new conurbation having been started in the 1800s.



The visit concentrated on the engineering side of the business and its daily operational management. Members visited first the two recently completed major reservoirs at Longham and were escorted around by the manager Piers Rensey. He started with the company in 1980s and began work on this project in 1998. It is on the edge of the Stour floodplain and it took 25 to 30 years to finish. The first lake was filled in 2003 and the second in 2010. Piers gave a detailed explanation of the technical side of construction. The top soil was set aside and the gravel sold for building projects for which the company received royalties to offset the cost of £15.1m. The bed is clay and the sides largely natural material which is highly graded for moisture content and density. Some sealing was done with a compound the runs like custard, but sets like concrete. There is constant erosion and small leakage. Algae growth is contained by a sonic system run by a solar panel. This area is now fully landscaped and is a nature reserve and fishing lakes. It is open to the public for walks.

Piers showed diagrammatically how the water supply is taken from the rivers and through various purifying processes before delivery to customers. He explained the balancing between high summer demand due to temperatures and visitors, while the supply was high in winter with rainfall which was relatively low in Summer. This area is fortunate as the two rivers are relatively clean with low industrial and farming drain-offs. Once the water is drawn from them it goes through a filtering to remove larger impurities and into settling ponds which allows the water to filter down through a sand bed at a controlled rate. It then meets a granular carbon activated-living biological layer called Schutzdecke which kills of any germs. There is an organism, Cryptoscriptidium which is hard to kill and can cause stomach ailments. New plants have been installed using UV which kills this at the final stage.

At this point members transferred to the main site at Alderney and had a tour of the works including the operations room manned 24 hours a day on three shifts.

Today all the valves and control systems are computerised with radio and landline connections back to this centre. It is the only manned control point. All the other pumping and treatment locations are automatic. These are in the north of the New Forest, at Matchams, Knapp Hill and Poole. There are also bore holes. The operational manager regulates the flow through the systems to match demand. There is a forecasting model for both short and long-term to ensure the strategic reserves such as the Longham reservoirs. Are used regularly so as to avoid build up of unwanted growths.

Each site had to be managed to ensure the water passes through the various stages of cleansing and purity. Alderney as the largest has a number of small tanks/reservoirs which are used alternately so that they can be regularly cleaned and renewed. The newly commissioned UV plant is operated with four streams, two of which are idle at any time. It is a highly engineered and computer controlled facility. Similar plants are planned for other sites. The water has to be chlorinated at one stage, but this is then reduced in concentration to meet the tastes of the customer. We were not allowed in as the fumes could be toxic.

On a lovely sunny day such as the one members experienced the water works and reservoirs were beautiful and peaceful. It was hard to realise this was a major engineering operation supplying 145 m. litres a day rising to a peak of 240m serving a population of 408,000 through 2809 km of mains over an area of 1041 sq km. There had never been a water shortage in the last 150 years, and it was unlikely there would be any in the future. There was some discussion about fluoridisation and hard water treatment. However the company felt this was a question of customer choice and had no plans to take any action on either.

Sembcorps had bought into this company to get technical expertise in running a water company and experience of handling domestic customers. Their big potential was in the growing economies in Asia and South America so would do little more in Europe. High dividends was not an issue and water companies were seen as solid long-term investments by such as pension funds.

Members left Alderney having enjoyed a splendid morning very much better informed on how their water reached them and reassured that it would continue in plentiful supply for the foreseeable future.