

Innovations for clean water



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Practical Report
Caravan park

The club of agil pensioners

*The reference for exemplary
wastewater treatment in the Kingdom:
Long Ashes / England*


Report & Photos:
Uwe S. Meschede



Yorkshire pudding, which incidentally is not a sweet dessert but rather is served as accompaniment to roast meat dishes, as well as other specialities of the region are to be found in the Long Ashes Inn. Here, the pensioners living in the park are happy to meet especially at teatime with scones and cream to chat about one or two subjects – for example the pension policy in far-distant London.

Sheep upon sheep. That's the first impression if one turns left in Skipton into the Yorkshire Dales. Past the endless meadows with no end of those mobile balls of wool, through places with names like Rylstone, Cracoe and Threapland until, after nearly 14 kilometres, you are forced to stop at the crossroads in Threshfield. If you drove straight on then, after Grassington, you would come upon a pretty place for a day trip very popular with tourists. But turning left in the direction of Kilnsey you are on the right road. Now it is only just two kilometres and you have reached the destination: at the caravan and holiday home park of Long Ashes.





Yorkshire Dales is the name for the softly curving hillocks and valleys surrounding the caravan and holiday home park Long Ashes, which lies in northern England, some 70 km north of Leeds and not far from the historical locality of Grassington. Particular characteristics: very green, very romantic – and a lot of sheep.



The sign-posting at the entrance to the park says straight away what is what and how to find the Long Ashes Leisure Club.

“People come from all over and England to inspect our wastewater treatment plant” recounts Darren Durkin, by trade universal craftsman, caretaker and general factotum in Long Ashes Park. And as an old hand he adds: “And in the meantime I already feel myself to be a proper tourist guide.” No wonder: the news of the “super wastewater treatment plant from Germany” as Darren

calls it, due to the almost 250 caravan and holiday home owners, who come from all over England is multiplying and spreading rapidly over the whole kingdom. And because first-class wastewater treatment is also becoming ever more important in England, a reliable and future-oriented system, which optimally treats the wastewater produced, is in the meanwhile also encountering keen interest

here on the part of authorities, industry and commerce. Yet it is not so long ago that the plant was commissioned.... “Previously” Darren suggests “We had only a completely normal activated sludge plant which a farmer from the neighbourhood built for us. However, once the park grew enormously within a very few years, it no longer was a solution – the old activated





The club, in addition to a cafeteria, also offers a fitness room, a beauty salon and an indoor swimming pool.

sludge process was totally overloaded and the values were catastrophic. After all, we have in the meantime almost 130 holiday homes, 120 permanently sited caravans, a recreation centre with swimming pool, beauty salon and cafeteria as well as a proper restaurant which also serves customers from outside". With this he pointed first to the Long Ashes Leisure Club and then the tip of his index finger moved in the direction of the Long Ashes Inn restaurant. "In 2004 we then started to look for a solution which not only took into account the present conditions and the optimum treatment of the enormous quantities of wastewater which we already have today, but is also capable of expansion in case we continue to grow in the same way," Darren says, and moves off in the direction of the wastewater treatment plant.

It appears that the complete park is divided into different classes – from very inexpensive to very lavish. On the right-hand side, above the

park administration, the Leisure Club and the Long Ashes Inn, lies the area of the holiday homes. And even within this zone it is again classified: at the bottom the simpler, small houses with minute but well-kept front gardens and further up the opulent properties of the more well-to-do inhabitants. On the other side, the caravan area, the same principle: above the luxury caravans, below the inexpensive variants. Expressed in Euros upwards from ca. € 10,000 – for a second-hand caravan – everyone here can create his own small idyll. Naturally there are no limits set upwards.

The nearer one now gets to the small woods and the wastewater treatment plant lying behind it the simpler are the Mobile Holiday Homes whose owners, however, cannot resist a certain irony with regard to their co-inhabitants with the luxury abodes: names like "Hilton", "White Palace" or "Bill Gates" are gentle sideswipes at the "high society" in the prestigious quarter of the park.

Having arrived in the small woods Darren then points out the loose woodland soil: "The wastewater pipes from the complete park come together under the green area in front of the Leisure Club and the park administration. From there the wastewater then flows through a central pipe, through the woods up to the park's own farmhouse in which the wastewater treatment plant is located. Fortunately, the elevation there is so low that we do not need a pumping station." It is approximately 250 metres as the crow flies from the Leisure Club to the small woods and from there another good 100 metres up to the farmhouse. "Above all here in the woods, with the many trees growing close together and the thick roots, the excavations were back-breaking work" Darren remarks and with this pulls a face drawn with pain.

Slowly the shrubbery of the woods becomes lighter, ever more light rays force their way through the thin branches of the pine trees and sud-



Darren Durkin regularly monitors the AQUAMAX® XXL Plant for 1,000 PT and checks whether anybody from outside has entered the plant and opened the covers.

denly one is again standing in the middle of the glaring sun – directly in front of the wastewater treatment plant bedded in yellow gravel and surrounded by a high fence.. “Significantly bigger than expected” is the first thought with this appearance. Darren is prepared for this: “At that time we already built our old plant with a rather large volume”, he said, “Therefore, for the new plant we needed only a single new tank for the buffer”. Darren’s arms describe an enormous circle and the resonant pride now gave his voice a somewhat schoolmasterly tone: “In total we now have approximately 315 cubic metres tank volume. Of these, 35 cubic metres go to the primary settling stage, a further 35 cubic metres to the first buffer tank, 55 cubic metres to the main buffer, 140 cubic metres to the SBR tank and 40 metres to the tank for excess sludge. The clarified water tank is additional to this.” Darren opens the fence gate which has a sign stating “No entrance!”, and

points out the covers of the aeration tank. “Here is the large AQUA-system unit.” Darren opens one of the tank covers and points into the dark pit. “In winter most of the time very little happens here as people stay where they are even on their free days. In summer, and above all at weekends, the park is always full to the brim – then we even have masses of campers with their tents here. The production of wastewater is correspondingly variable – sometimes very little, sometimes a great deal. And you also still have to include the cafeteria, the restaurant and the spa area – through these there is additionally also a lot of grease in the wastewater. But now that’s no longer a problem – the large aerator makes sure that the complete wastewater is always optimally and thoroughly mixed and aerated and we continuously achieve these first-class values.”

Darren closes the cover again, runs his eye once more speculative-

ly over the rest of the plant and finally moves off again in the direction of the fence gate. “With the many people who stay with us in the summer we are never absolutely certain. Therefore, we make sure that we always err on the side of safety and secure everything doubled and trebled; we even keep the covers on the tanks locked – just in case someone gets the idea of climbing over the fence”. After he has secured the entrance to the plant with two oversized padlocks and straightened the “No entrance” sign, he continues: “With the calculation of the plant we then assumed a daily inflow of wastewater of on average 180 litres and an organic load of approximately 60 g/l per inhabitant as well as an hourly quantity of wastewater of some 1/10th of the total daily volume. We told ourselves that we were thus, in any case, on the safe side.” Darren’s eyes began to light up. “From this there then resulted this AQUAMAX® XXL plant for 1,000 PT and the fantastic effluent

values, which we continuously measure here.” He adds laconically: “At the end of the day all these people don’t come here for nothing!”

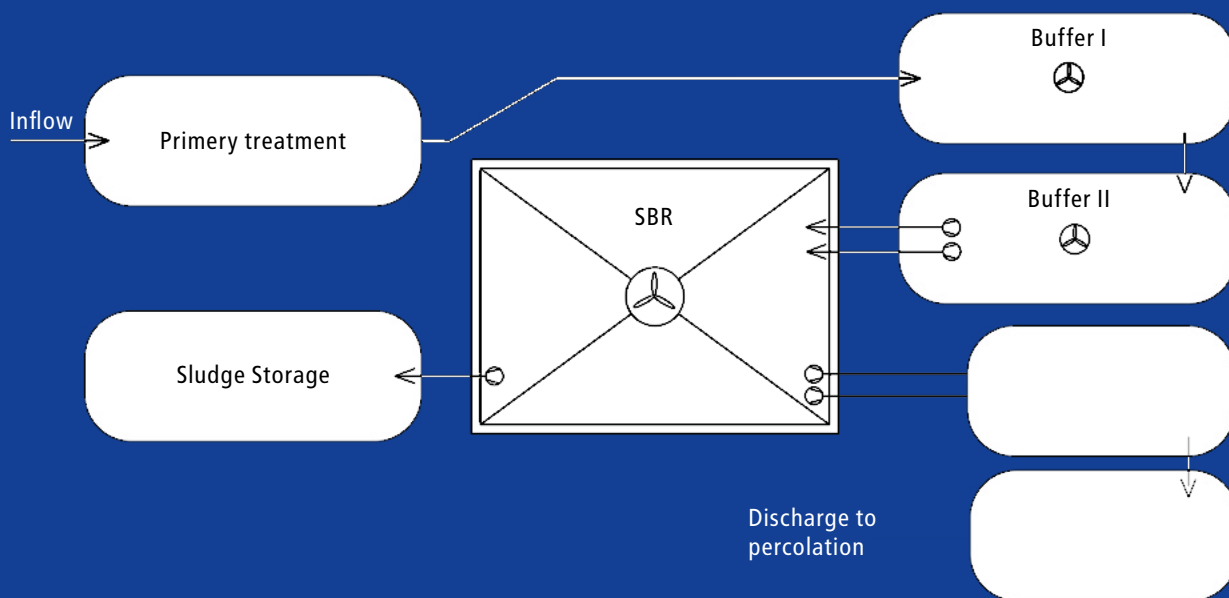
Darren turns around and looks back at the hilly landscape, the soft green of the wide fields and the never ending Yorkshire Dales in which he is at home. “Perhaps”, he says, wrapped in thought, “One day I will again turn from being the sought-after wastewater treatment plant guide to become a proper tourist guide in order to be able to show all these people who come to us not only a perfect wastewater treatment plant with perfect effluent values but rather also this perfect countryside.” In the background a sheep bleats quietly.



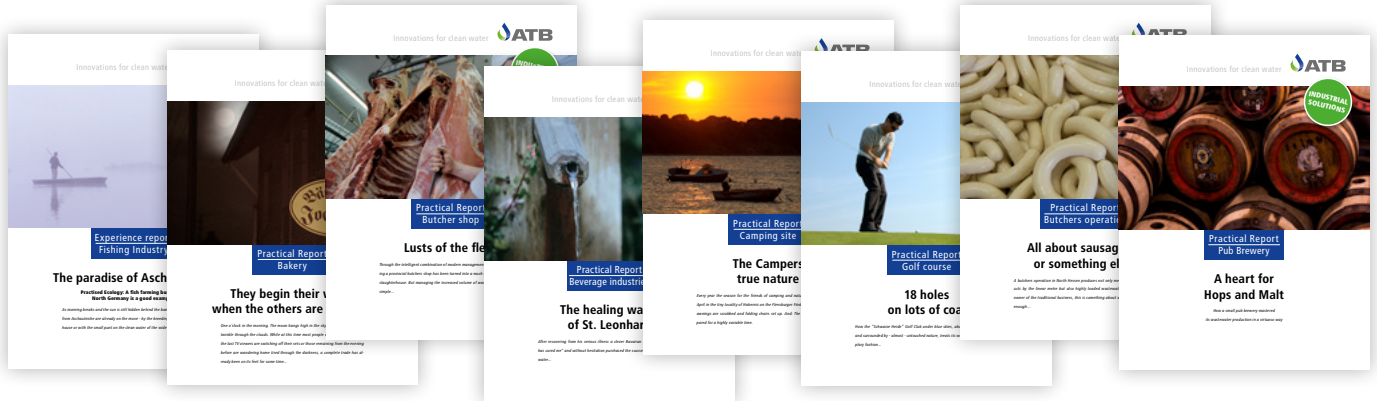
Through the large volume of the aeration tank the employment of the large aeration AQUASYSTEM offered itself. The photo shows the first test, following the installation with filled tank.

The Long Ashes project at a glance:

Owner	Long Ashes Caravan Park GB – North Yorkshire	
Project management and insatallation	ATB Environmental (UK) Ltd.	
Plant technology	ATB Umwelttechnologien GmbH	
Plant size	AQUAMAX® XXL-1 - 1.000 PT	
Costs of plant technology	Ca. 65.000,- €	
Commissioning	March 2005	
Required treatment performance	BOD ₅	< 25 mg/l
	Suspended Solids	< 45 mg/l
Effluent values	BOD ₅	= 9,6 mg/l
	Suspended Solids	= 17 mg/l



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