

CaseStudy

Martin Emmett Nursery grower, South East

"We've tried to take a holistic approach to water management, starting with the capture of rainfall from the glasshouse roofs right through to monitoring the supplies that run through our water capture system. We also collect the water that we've used and recirculate and reuse it. We're doing what we can to take full responsibility for our water – both its quality and the quantity we have available. This is about business resilience but it's also about trying to maintain a high standard of environmental management.

"We purchased this site 18 years ago as a greenfield site. We wanted to start off with a masterplan that gave full long-term security to the business and part of that was the security of our water supply. We're actually in one of the areas of the country that benefits from a good water supply but the area is over licensed in terms of abstraction and we know also that some of the water from this area is being exported to a neighbouring area. So to give us the assurance of long-term security we decided that we wanted to integrate a reservoir project into the site.

"It's not just about the business, it's about the locality. The area has a problem with flooding and this very comprehensive and extensive attenuation system is effectively alleviating a potentially significant flood risk to the area as a whole.

"The water that's in the reservoir is a mix of water we've used previously and rainwater we've collected from the site and that basically goes through our irrigation system. Our systems aren't precision irrigation systems but because we're collecting all the water again we know we've got an efficient system overall. Most of our systems are overhead irrigation systems watering areas of crop.

"We have all our beds on a 'V'-shaped profile whereby all the water that isn't absorbed by the plants runs to the centre of the beds. In the centre of each bed is a series of French drains. These drains lead into a network of linear reservoirs and they all feed to a common point near the reservoir and we pump the water up to the reservoir from there. A certain amount of water still flows out of our site to a watercourse, but the majority we collect and pump back into the reservoir.

"This system means we are taking full responsibility for the water we're using. A lot of the water we're using we've already used and recycled. It means that we have to be very careful in terms of what we put into



the water – any pesticide residues, management of nutrients. It gives us that full cycle and control of our water quality.

"We monitor the water we put into the reservoir. We actually measure the amount going in, we monitor the level of the reservoir, and we monitor the quality of the water that goes into our collection systems before it comes into the reservoir. After we've filtered it and treated it we monitor the quality of the water that goes out of the system as well. At any one time we need to know what sort of water capacity we've got.

"We have an area of wetland habitat which we created as part of this project and this effectively acts as a sump to the system, so when we've got a surplus of water coming off because of heavy rainfall it goes into this wetland habitat where we can pre-store the water before we pump it into the main reservoir. It's quite a stable habitat and we also put in two islands which are good nesting habitats for birds.

"It's a long-term project but we wanted to have this degree of ownership over our environmental management. In the longer term we're confident that we are always going to have a serviceable water supply for this site. And I think businesses as a whole need to ask themselves if they can say that."