



# Paignton Zoo

Zoo turns to tech to ensure comfortable climate for animals



Monitoring specialist Hanwell is called upon for temperature monitoring initiative.

One of the UK's most environmentally-friendly zoos has launched a new temperature monitoring initiative to ensure animals are kept in the best possible conditions without compromising energy efficiency. Paignton Zoo in Devon is one of the UK's oldest zoos and one of the most forward-thinking when it comes to sustainability, holding the environmental standard ISO 14001 for over 9 years.

The Zoo, which has won numerous awards for its environmentally-friendly approach to conservation, is undertaking a project that will be of use to all members of the British & Irish Association of Zoos & Aquariums (BIAZA), the body which promotes best practice in top zoos and aquariums across the country.

Paignton Zoo is home to around 2,000 animals representing 300 species, a renowned breeding centre and a registered educational and scientific charity, attracting around half-a-million visitors each year.

Currently celebrating its 90th anniversary, the zoo's managers are now embarking on a unique thermal regulation study.

Hanwell was invited to introduce its Hanwell energy monitoring system, using wireless technology to gather and transmit energy consumption data from 12 animal enclosures spread across the Zoo's 80-acre site.

The robust Hanwell system uses the extensive range offered by radio communication rather than risking the ongoing expense of SMS and mobile alternatives.



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Peter Morgan, the environmental officer for Paignton Zoo, said, “The Hanwell system meets the criteria required by Paignton Zoo to gather data on energy consumption. It will allow informed decisions to be made which should help make animal enclosures even more energy efficient by reducing energy consumption and helping reduce our costs. The Hanwell system can also measure temperature and humidity, helping to improve our understanding of the conditions in and cost of each animal enclosure.”

Already the timing of energy usage within the amphibian enclosures has been adjusted to draw more from off-peak electricity. The system has only recently been installed and staff at Paignton Zoo are looking forward to a complete year of data so that the analysis can be evaluated across all seasons.



One of the advantages of the Hanwell system is that it can be adapted and expanded to meet changing needs. Discussions are already underway about the addition of humidity sensors, as well as further temperature sensors, to create a comprehensive environmental monitoring solution. Moving forward, there are plans to incorporate load balancing functions into the energy system to enable further efficiency savings.

Since the equipment was installed at Paignton Zoo, Newquay Zoo (which is also own and operated by the Whitley Wildlife Conservation Trust) has purchased a system.

Hanwell CEO Ian Robinson said: “The introduction of temperature monitoring technology to Paignton Zoo has been a fantastic project to work on, with many technical challenges to overcome. But we now have a solution up and running that is providing the zoo’s management team with valuable data and will continue to do so over the coming months. This latest project – and its expansion in the future – further demonstrates the versatility of our world-leading monitoring technology and the many different environments in which it is deployed.”

### DID YOU KNOW

The UK chart at Number 1 for the top energy wasters in Europe. Monitoring energy usage can result in significant savings within weeks of installation.

