



NORTHUMBRIAN  
WATER

# Sound camera sense

**NiNorsonic**

NWSS (Northumbrian Water Scientific Services) pride themselves on being innovative and are always actively looking for ways to move forward, a demonstration of this is the purchase of a new acoustic camera.

The acoustic camera visually represents the level of sound approaching the camera from different directions. The operation is based on signals coming from 256 individual microphones mounted on a 1.05m dish.

The sound from different directions will reach each microphone on the dish at different times. By analysing the delays and comparing them to the sound from different directions, it is possible to indicate the level of sound from a given direction.

The microphone dish also has a wide angle optical camera for recording live video images. The visual representation of sound levels can be superimposed over the top of the optical picture.

Measurements can be taken from 0.5m to infinity although resolution reduces as distance increases. The high number of microphones allows for low level noise sources to be measured.

This is an extremely powerful tool that can be used in many ways such as:

- Noise breakout from buildings.
- Source location and identification of tonal sources for industry.
- Sound insulation, highlights weak points in partitions and doors.
- Wind turbine assessments.

Our reports are provided in a clear, concise format based on pictures taken with the camera. Movie files will also be provided highlighting areas of interest. Raw data files are retained so data can be revisited if required.

This camera compliments NWSS's existing industrial and environmental noise consultancy services.

NWSS have recently gained MCERTS for bioaerosols from stacks in accordance with VDI 4257 part 2, which was developed for work carried out on behalf of the Environment Agency.

NWSS are one of the UK's leading environmental services and offer a comprehensive emission monitoring service covering particulates, dioxins, heavy metals, inorganic and organic compounds as well as BS EN 14181 assessments.

They also provide a range of services that include Legionella control, analytical services, MCERTS stack monitoring, acoustics, air quality and vibration.

To find out more visit [www.nw-ss.co.uk](http://www.nw-ss.co.uk).

