

AQUATONICS LTD

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EXPERT WITNESS WORK ON WATER POLLUTION AND FISH KILLS

AQUATONICS LTD – EXPERTS IN AQUATIC SURVEYS

Aquatronics Ltd have been involved in ecological and environmental surveys since 1982. Our expertise covers a variety of disciplines, including aquatic ecology, aquatic and sediment chemistry, toxicity testing, fish physiology health and welfare, and Environmental Impact Assessments.

We work in all aquatic habitats (freshwater, estuarine and marine). Most of our work is in the UK, but we can provide our services anywhere in the world. Our clients include organizations that have been accused of pollution and those who have concerns about the effects of water pollution on their businesses.

Professor Anne Smith (Anne Brown) is an internationally respected fish physiologist, with particular expertise in the impacts of pollutants and natural stressors on fish and assessment of fish health. Dr Phil Smith specialises in the impacts of water pollution incidents on invertebrates and aquatic ecology.

It is important to act quickly in order to gather relevant evidence. For free confidential advice on a particular pollution incident please phone us on 01363 776456 or 07971 258594 (mobile).

POLLUTION OF LAKES, STREAMS, ESTUARIES AND COASTAL WATERS

Aquatronics carry out investigations of fish kills and other pollution incidents in all types of aquatic habitats.

We can provide Expert Witness inputs on factors responsible for the fish and invertebrate mortalities. Often more than a single factor is responsible, for example poor water quality combined with high summer temperatures and low dissolved oxygen.

We have been involved in a variety of legal cases in the UK such as:

- impacts of dredging on mussels and cockles
- impacts of a sewage discharge on microbiological quality of mussels
- fish kills due to discharges
- fish kills downstream of a trout farm
- effects of run-off after a fire
- impacts of a diesel spill
- run-off from a composting site
- impacts of leaks from sewers

TYPES OF INVESTIGATION

- Site investigations, including drainage from industrial premises
- Surveys of freshwater and marine invertebrates
- Electro-fishing studies of fish populations
- Chemical analysis of water quality
- Chemical analysis of sediments
- Post-mortems investigation of fish
- Literature reviews of specific toxic compounds

EXAMPLES OF INVESTIGATIONS BY AQUATONICS FOR LEGAL OR QUANTUM ASSESSMENT

- Wash estuary: microbiological contamination of mussels
- Poole Harbour: impacts of dredging on mussels
- Thames estuary: baseline studies of cockles prior to dredging
- Devon: forensic analysis of marine life on a human skull for Devon & Cornwall Police
- Devon: fish post mortem examinations
- Cornwall & Devon: studies for South West Water of impacts of sewage pollution incidents on estuarine waters
- Somerset: impact of runoff from a building site
- Wiltshire: impact of a large spill of diesel on a tributary of the River Thames
- Gloucestershire: impacts of a fire and related discharge on a river
- Herefordshire: investigation of the effects of a failed power supply on a trout farm
- Herefordshire: microbiological contamination of a water supply for an organic farm
- Staffordshire: assessment of impacts of run-off from a composting site on a watercourse
- Cheshire: assessment of potential pollution of a river
- Humberside: impacts of a trout farm on water quality downstream
- Thailand: assessment of causes of contamination of tuna at a processing factory

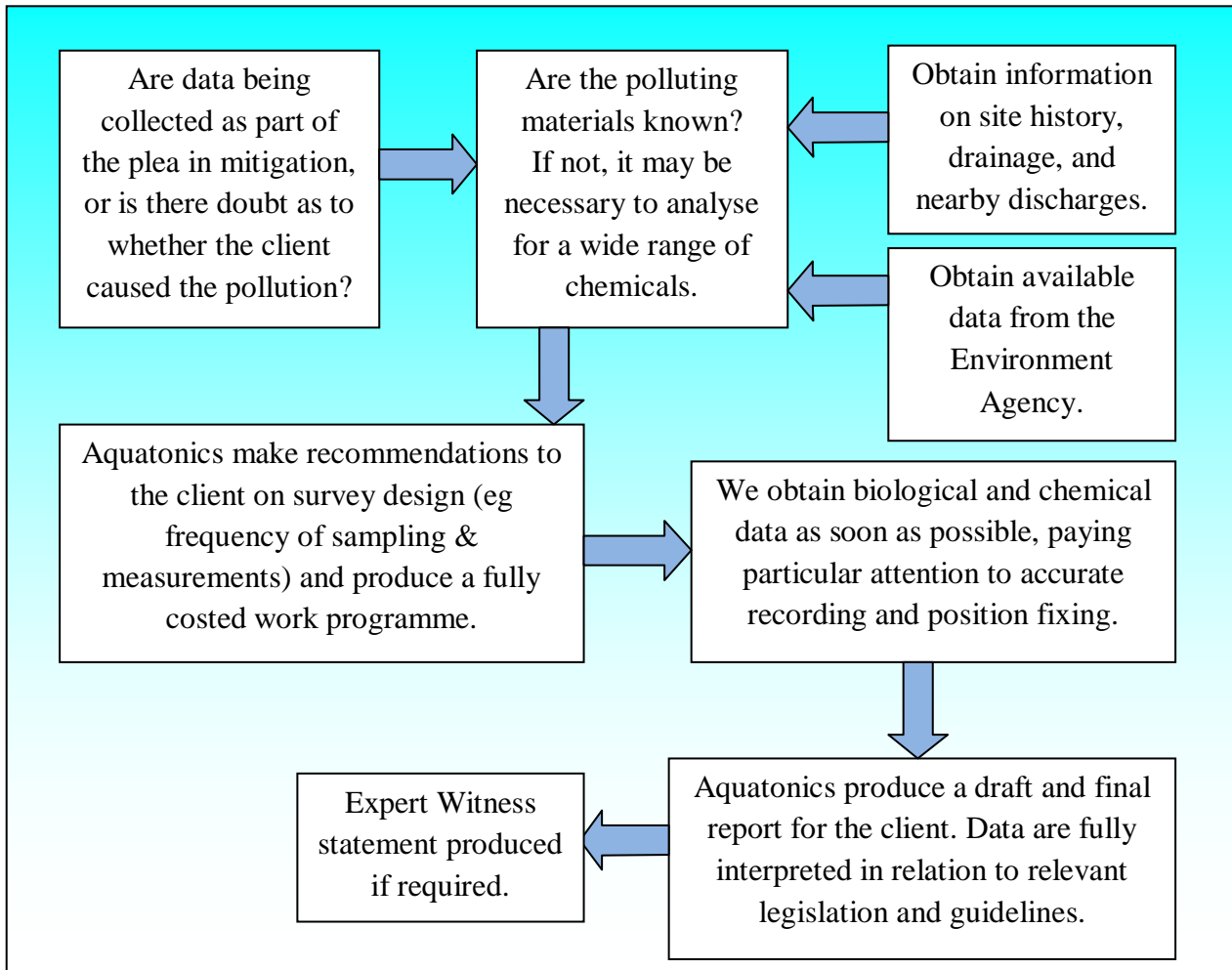
SCIENTIFIC INVESTIGATIONS

Investigations are determined by a combination of factors:

- Purpose (eg pleas in mitigation, investigation of cause)
- Site history in relation to possible historic pollutants
- Location of discharge in relation to other discharges and watercourses
- Legislative framework
- Requirement for sampling of water, sediments, flora or fauna
- Scale of a survey and intensity of sampling
- Need for repeat survey to monitor recovery

The diagram below shows the multi-stage process that we employ and questions asked prior to, and during the response to, a water pollution incident.

STAGES IN RESPONDING TO A WATER POLLUTION INCIDENT.



REPORT

We produce a non-technical summary of the main findings and provide full details of sampling methods, analytical methods and a detailed interpretation of the results in relation to national and/or international guidelines and standards.

FURTHER INFORMATION

If you need assistance with any aspects of contaminated waters, sediments, flora or fauna please contact either Dr Phil Smith (waters, sediments and invertebrates) or Professor Anne Smith (fish including aquaculture) for confidential free advice.

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