## 4. Aquatic invertebrates and biological water quality monitoring

Penny Anderson Associates Ltd. (PAA) is nationally recognised as a leading environmental consultancy, with a dedicated, experienced and highly skilled team of freshwater ecologists and hydrologists in addition to our other services. This enables us to deliver uniquely professional and high quality surveys to suit your needs. Our specialised reports, aided by our Geographic Information Systems (GIS) department, can be tailored to meet any project requirements.

## **Biological Water Quality**

PAA has many years experience carrying out biological water quality surveys, assessing and monitoring river health, following Environment Agency methods and guidelines where appropriate. We complete in-house laboratory identification providing biological water quality assessments from start to finish, from survey to report. Projects including long term monitoring of discharges from airports; providing baseline water quality assessments for housing developments and assessing impacts from specific pollution events give us a wealth of experience.

## **Predictive System for Multimetrics (PSYM)**

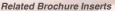
Great crested newt (GCN) pond surveys will be familiar to many housing developers. At PAA we can provide highly experienced field ecologists to survey for GCN. We can also undertake a PSYM assessment of the conservation status of your ponds, following standard survey methodologies and analysis techniques. Using specific aquatic invertebrate and aquatic plant surveys we will be able to determine if your pond is classified as a UK BAP habitat, an important consideration in the planning process.

## Invasive and protected species

Following the introduction of the American signal crayfish, the decline in the legally protected native whiteclawed crayfish has been well documented. At PAA we can provide licensed and experienced ecologists to undertake survey work, and guide you through the legal requirements and processes involved with developments that may affect this species.

The lesser silver water beetle (a European protected species) is now only found in areas of Somerset and Cheshire. With licensed ecologists and a wealth of recent experience, PAA has the expertise needed to survey and provide mitigation for this species.

For more information, please contact us: enquiries@pennyanderson.com



Information is available summarising our expertise in the following related areas; please contact us if you require copies of any of these numbered brochure inserts:

Animals: protected and priority species and development.
Applied hydrology and development.
Ecological survey and evaluation.
Ecological survey calendar
Environmental impact assessment.
Habitat creation and restoration.
Habitats regulations assessment.
Quarries and mineral workings: environmental services.
Soils and development.
Specialist invertebrate survey and services.
Strategic planning for wildlife and people.
Sustainability: BREEAM and CSH.
Vegetation survey and assessment.
Water Framework Directive and water quality monitoring.
Wetlands: sustainable urban drainage.

