

New Service: Bioresources

Building on more than a decade's experience developing innovative solutions for the waste water and industrial sectors, Aqua Enviro's capabilities now encompass a wide range of biowastes and bioresources.

What are bioresources?

Bioresources include the whole range of biologically-derived materials, including:

- **Digestate** – food-based, manure and/or crop-based, from source-segregated or mixed inputs
- **Biosolids** - treated sewage sludge
- **Compost** – from source-segregated or mixed inputs
- **Food and drink waste**, including processing residues (such as brewing and distilling by-products, co-products and wastes), municipal and commercial food waste
- **Garden waste** - including grass clippings and tree/shrub prunings
- **Biomass ashes** (such as meat and bone meal ash, sewage sludge ash and paper sludge ash)
- **Industrial sludges** (including paper crumble)

What support do we offer?

Our services include:

- **PAS110 support**, ensuring that operational approaches conform with the requirements of the Biofertiliser Certification Scheme
- Ensuring sludge treatment centres are ready for audit under the **Biosolids Assurance Scheme (BAS)**
- **Bespoke environmental permitting** for application of materials to non-agricultural and agricultural land
- **'End of waste' applications** for materials used as fertilisers, soil improvers/substitutes, growing media and energy production
- **Training for biowaste/resource producers and farm advisors** on how best to incorporate biofertilisers (such as digestate, biosolids and compost) into farm nutrient planning
- **Feasibility studies, technical due diligence and process optimisation for AD facilities.** Including tracer testing, de-packaging and screening performance testing, monitoring and advising on process chemistry and biology
- **Optimising digestate de-watering.** Using bespoke apparatus developed in-house to mimic commercial separation technologies, we can determine the best approaches to digestate de-watering
- **Training for site operators.** We offer a range of bespoke training covering topics such as: Interpretation of process monitoring data; Ensuring product quality meets customer requirements

We are also collaborating on a range of innovative approaches to bioresource valorisation, including phosphate capture, novel AD pre-treatments and novel fertiliser manufacture – both on a commercial and speculative R&D basis.



Meet the Team

To discuss any of our services, including the potential to collaborate on new bioresource valorisation processes – please get in touch with the team.



- **David Tompkins** leads Aqua Enviro's work on bioresources, building on a number of years' experience as WRAP's agriculture sector specialist. Combined with a background in soil science and horticulture, David has a broad range of experience in organic waste treatment and market requirements for quality, consistency and safety – whether from source-segregated or mixed sources.

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- **Matt Taylor** has 10 years' practical experience in the resource management, water and agricultural industries, providing technical and regulatory advice to material producers, recyclers, policy makers and regulators. Matt has led research projects and provided technical input to numerous Defra, UKWIR, WRAP, Water and Resource Management Company contracts, including the development of the Biosolids Assurance Scheme.

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- **Ana Afonso** is a Process Technician with considerable experience in site management and process optimisation, including process review and asset condition reporting for a wide range of technologies: THP, traditional activated sludge plants, AD, EGSB and UASB – as well as dewatering and sludge handling.

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