

Candidates for the 2021 CWA committee elections Biographies

Shantanu Banerjee Director, Glonet

Shantanu's experience in environmental management spans a wide range of disciplines. He has worked with partners in developing environmental strategies, as well as making technical and strategic inputs into environmental projects, at all stages of a project life cycle. This has necessarily included inputs in: Policy development, Systems design, Strategy development, EIA, Climate change, Project economic viability, Resource utilisation & optimisation and Client management.

Shantanu has proven record of accomplishment in building and, when required, leading effective multi-disciplinary teams, and for his planning, reporting, and problem-solving skills. Shantanu has extensive international experience. He has made significant contributions to projects in many countries where it is essential that solutions are appropriate to the culture and budget of the client nation.

1992 – Date – Owner of Proprietary Consultancy Company

The company provides consultancy services to clients in the environmental sector focusing on waste management and industrial effluent treatment. Shantanu is also an associate of several UK Consulting and Engineering companies; including, since 1999, Oceans ESU Limited, a company specialising in bioremediation, water resource

Lucy Crockford Senior Lecturer, Harper Adams University

I am a Senior Lecturer in Soil and Water Management at Harper Adams University with a PhD in Geography from Trinity College Dublin. I have an active interest in constructed wetlands with two students currently researching for their final year projects and I also teach some of the principles to our environmental quality module in the second year. I would describe myself as a hydrologist first of all with a good dose of geochemistry. My background is primarily catchment science and I have recently been awarded Chartered Water and Environmental Manager by CIWEM. I currently volunteer with the Rivers and Coastal Group with CIWEM and I'm on the board of the Soil and Water Management Centre at HAU. I enjoy outreach and running events and I'm passionate about dissemination and science communication. I'm also very eager to develop my own research interests and being involved with a group like CWA would be great for developing ideas and opportunities. I have a Twitter handle @SWLeCLC and here is my profile on the HAU network: <https://www.harper-adams.ac.uk/general/staff/profile/201382/Lucy-Crockford/> I will be taking maternity leave from the end of April but I'm hopeful that I can "keep my hand in" with my networks while I'm off for the year.

Gabriela Dotro Senior Research Fellow, Cranfield University

Dr Gabriela Dotro is a Senior Research Fellow with Cranfield University and a passionate wetland advocate. She has a PhD in Engineering from the University of Memphis (USA), an MDes in

Environmental Science from the University of Calgary (Canada) and a BSc in Ecological Engineering from the Universidad de Flores (Argentina). Gaby's main area of expertise are nature-based solutions for wastewater treatment and biogeochemical transformation of phosphorus, iron and nitrogen in engineered ecosystems. She is currently working on the development and improvement of nature-based solutions to deliver multiple benefits beyond wastewater treatment. She has co-authored two Open Access books on Treatment Wetlands, has served in the International Water Association Wetland Specialist Group and the CWA management committees for over eight years, and is developing a suite of online CPD courses on nature-based solutions and ecological engineering.

Lucian Gill

Director, LSG Scientific Consulting

Lucian was part of the team that introduced the concept of Reed Beds and wetlands to the UK and organized the introduction of the WRc and Water Authorities to the concept of Reed Bed treatment technology and methodology.

As an industrial chemist the possibility of treating chemical effluents was fascinating whilst others of the team were researching sewage and farm effluents. Lucian carried out the research, design and construction supervision for the first two major Reed Beds built in the UK at ICI (Billingham) and British Steel (Llanwern). Both systems were put online in the late eighties and are still extant today. This was followed by the construction of the first Oilfields produced water systems for Shell/PDO in Oman around the year 2000. With the success of the Oman operation a further nine major systems with a total capacity of 500,000 tons per day were constructed in East Africa for the China National/Petronas consortium. With such large volumes of water it was necessary to integrate the whole of the systems into a complete catchment management model which brought together forestry, fisheries and agriculture.

Research on the ability of soil based Reed Beds to eradicate bacteria and virus from sewage led to the development of a method demonstrating that new antibacterial species were being produced in the Reed Bed. The use of GC/MS was postulated to deduce the structures of these agents. This area still remains an area of interest and is of particular relevance today.

As well as being intensely practical Lucian has a keen interest in education and research and would like to promote the CWA as a lead body in complete catchment management and a new economic direction focusing on natural resources.

James Knightbridge

Catchment Management Lead, Mott MacDonald

Principal Environmental Hydrologist working in Integrated Water Resources Management. My focus is on multi-sector water quality, water resources, and land management challenges and solutions. My interest in wetland creation and management, and more broadly nature-based solutions stems from my promotion of holistic and systems thinking at a catchment level and at a more local scale to map and appraise the links between hydrology, agriculture, land management, ecology and communities. I have a particular technical focus on integrated catchment management, water quality and approaches to enhance natural and social capital. Over the past few years a growing focus of this is working with the UK water sector to review and design opportunities for integrated constructed wetlands and river restoration. Mott MacDonald Catchment Management Lead and I

currently sit, or have recently sat, on internal and external networks for ecosystem services, catchment-system operators, and nature-based solutions.

Dave Naismith
Principal Consultant, Wildfowl and Wetlands Trust

I have worked as a technical designer and project manager on a range of habitat creation, SuDS, NFM and treatment wetland projects during my career with WWT. Recently I have been working on nutrient neutrality wetlands focusing on Nitrogen and Phosphorus, and designing water quality improvement wetlands to buffer down-stream protected sites such as Ramsar, SSSI and NNR nature reserves. I have also worked on urban and community based wetland projects such as daylighting streams, SuDS in schools and urban green/blue space landscape design. In 2020 I was one of the judges for the Landscape Institute Awards for the Excellence in Flood and Water category and will be presenting at the LI Greener Recovery Festival on the Sustainable Water Management in March 2021, both have been great opportunities to promote wetlands within the profession further.

I am passionate about wetlands and will continue to work towards furthering knowledge, understanding and technological application of treatment solutions to as wider an audience as possible. I see the work of the CWA as critical in bringing together a wide ranging and highly skilled group of people to promote knowledge sharing and to raise the profile and understanding of wetlands in the UK. I have thoroughly enjoyed my last two years on the committee and would like to continue to contribute where I can with another two years.

Liam Reynolds
Environmental Scientist, Wessex Water

I work for Wessex Water (2 years) as an environmental scientist specialising in constructed wetland development and delivery. Of note, I'm currently working on the Cromhall and Durleigh ICWs programmes (delivered by Wessex Water in 2019/20) with a focus on quantifying water quality/quantity and wider ecosystem service impacts. I also manage several projects addressing fluvial fish passage and habitat creation. Prior to Wessex Water I occupied several roles with the Rivers Trust movement over a 4 year period. In addition, I'm a graduate from University College London with a MSc in Aquatic Science.

George Rose
Director, Water Design Engineers

I am a director of Water Design Engineers, a member of the CWA. By profession I am a civil and environmental engineer with over 20 years of experience in the field of water and wastewater engineering and infrastructure maintenance. Working in both the UK and in Sub-Saharan Africa, I have led the design, build, installation and refurbishment of a number of industrial water and wastewater treatment plants. I have also designed bespoke drainage and wetland systems for the sustainable management of surface water. My specialism is nutrient neutrality – helping developers ensure that new projects in sensitive areas are nitrate and/or phosphate 'neutral'. This work utilises my knowledge and experience of SuDS, wetlands and agricultural water management, to specify works that achieve neutrality. This includes the design of 'off site' mitigation schemes involving interceptor wetlands and retrofit SuDS.

I would like to be elected onto the CWA committee to help the organisation become a key player in the advocacy of wetlands and SuDS as sustainable mitigation measures for the neutralisation of nutrient and carbon emissions from new developments. Nutrient neutrality is a serious issue affecting developers right now, whilst carbon neutrality is about to be a key issue with the implementation of the new Environment Act. Constructed wetlands, professionally designed to the recognised codes, can help developers to achieve the neutrality required whilst also providing an opportunity for natural flood management (NFM) and biodiversity net gain (BNG). Carbon and nutrient neutrality is something that has to be viewed at the catchment level, so I would welcome the opportunity to collaborate with Catchment Based Approach (CaBA) and the Rivers Trust. I see the CWA as becoming the 'go to' organisation for those who seek best practise technical guidance on implementing carbon and nutrient neutrality in the most sustainable manner.

Matthew Simpson
Director, 35percent Ltd

Matthew has over 20 years' experience in delivering wetland-related conservation, research, assessment and management related projects. Matthew's experience includes: - design of constructed wetland treatment and sustainable drainage systems - design and management of natural infrastructure within urban and rural areas - habitat design for restoration, creation and enhancement and habitat management planning - wetland biodiversity and ecosystem service identification, assessment and economic and non-economic valuation of structure, processes, functions and benefits of wetlands - community and stakeholder consultation and project delivery - design and management of eco-tourism and visitor centre projects - training and capacity building in wetland monitoring and management.

Matthew has managed conservation, research, management and capacity building projects in Europe, Asia, South East Asia, Africa, South America and North America. Matthew is a Director of 35 Percent Ltd that delivers wetland design and management related projects around the world for clients ranging from private companies to governments to international agencies. Matthew is also a Director of the Cobra Collective that promotes and supports community owned solutions that recognise indigenous knowledge and best practice for the benefit of marginalised communities. Matthew is currently the President of the Society of Wetland Scientists (SWS) Europe, Immediate Past President for the SWS Professional Certification Program and Vice Chair of the SWS Ramsar Section. He is also a member of the Ramsar Convention on Wetlands Scientific and Technical Review Panel. He is therefore ideally placed to provide a link to SWS and Ramsar.

Geoff Sweaney
Director, Wetland Engineering

Geoff has served as chair of the CWA since 2013, having helped to organise several successful conferences and led the CWA's response to the DEFRA consultation on reform to legislation on Small Sewage discharges in 2014-2016, resulting in the publication of the CWA guidelines on small sewage treatment in 2019. He has also led the CWA initiative to work closely with the Society for Wetland sciences since 2019. He works as an independent wetland design consultant alongside a voluntary role as a trustee of the Calder Rivers Trust in West Yorkshire, UK. Geoff has been involved with design and operation of treatment wetlands all his career, (since 1993) and prior to becoming independent was the Regional Technology lead for Natural Treatment systems at CH2M Hill (which has since become Jacobs).