

FLOOD & COAST EXCELLENCE AWARDS 2020

Winners Brochure



Environment
Agency

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ABOUT THE AWARDS

The Environment Agency's Flood & Coast Excellence Awards, previously known as the Project Excellence Awards, are a long-running way to recognise the projects, programmes, teams and individuals that set the standard for how we want to work in the future as a sector and as a nation.

We received a wide range of excellent submissions for 2020 which demonstrated real-life examples of what is possible when we apply teamwork, creativity and professionalism to meet the challenges we face across the Flood and Coastal Risk Management sector.



Trophies by Tinkertastic

Whilst previous Flood & Coast Excellence Awards have been presented in person as part of an exciting dinner ceremony, restrictions on mass gatherings in 2020 meant that the awards ceremony needed to be presented virtually. The 2020 awards ceremony video successfully premiered on the Environment Agency's YouTube channel and can be viewed [here](#).

As sustainability is a major focus of the entire Flood & Coast event, this year's trophies were handmade using recycled glass and FSC-approved wood.

2020 JUDGING PANEL

The Flood & Coast Excellence Awards 2020 Judging Panel is made up of esteemed representatives from across government, the private sector and academia to ensure a balanced and fair judging process. Judging is a rigorous two-stage process, with an initial scoring exercise to determine the finalists before the judging panel virtually convenes to discuss the entries and vote on the winners.



Julie Foley (Head Judge) – Julie is Director of Flood Risk Strategy and National Adaptation at the Environment Agency. She led the development of the Environment Agency's National Flood and Coastal Erosion Risk Management Strategy, working with government, risk management authorities and other partners. Julie was previously Area Director for the Environment Agency's Cambridgeshire & Bedfordshire Area and Deputy Director for Sustainable Places.



Catherine Wright – Catherine is Acting Executive Director of Flood and Coastal Risk Management at the Environment Agency. She is responsible for setting the direction of flood and coastal risk management in England, managing key stakeholder relationships and providing advice to government to help develop and implement flood and coastal erosion risk management policies.



Terry Fuller – Terry is Chief Executive of CIWEM. He is responsible for the delivery of the Institution's strategic aims and its services to members and the public interest. He has nearly 30 years' experience as a River and Coastal Flood Risk Manager, having delivered major projects in some of the world's most beautiful and challenging locations. Terry previously managed the rivers and coastal business for Jacobs Engineering and worked in their global business development group.



Alastair Chisholm – Alastair is Director of Policy at CIWEM. He is responsible for translating CIWEM member expertise into technical and policy advice for decision makers at all levels, environmental managers and the public. He has experience across an extensive range of environmental issues, including water resources, flood risk management, air quality and waste and resource management.



Liz Parkes – Liz is Deputy Director of Climate Change and Business Services at the Environment Agency. She works closely with a range of government departments on both preventing and responding to the climate emergency and brings a focus on how we put people at the heart of that thinking. Liz combines extensive regulatory experience with the ability to think creatively and strategically about the future.

2020 JUDGING PANEL



Lynne Frostick – Lynne is an Earth and Environmental Scientist with 50 years of research experience into sediment transport and the environmental risks associated with water and waste. She was a Professor of Physical Geography at the University of Hull until 2014. Since 2015, Lynne has served on the Environment Agency Board as the member responsible for Flood and Coastal Risk Management.



Ken Allison – Ken is Director of Allocation and Asset Management at the Environment Agency. He has worked for the Environment Agency for nearly 30 years, following ten years working mainly abroad on overseas development assignments. He is responsible for assuring major investments for some of the Environment Agency's largest FCRM projects and overseeing the Environment Agency's Asset Management Strategy.



Steven Trehella – Steven is a Fellow of the Institution of Civil Engineers, specialising in the shaping of sustainable investments in flood and coastal resilience and place-sensitive adaptation. Drawing on an international career spanning more than 25 years, Steven works closely with clients and partners to create solutions that secure investment and approvals and bring to life the connections between water, people and place.



Hannah Coogan – Hannah is a Technical Director specialising in strategic flood risk management and stakeholder engagement at JBA Consulting. She represents JBA on the Environment Agency National Stakeholder Engagement Community of Practice and is currently leading on stakeholder engagement for JBA working in the Environment Agency South East Collaborative Delivery Hub.

WINNER:

Our City Our River – Derby

Derby City Council, Environment Agency, Galliford Try Black & Veatch JV, Trent & Peak Archaeology

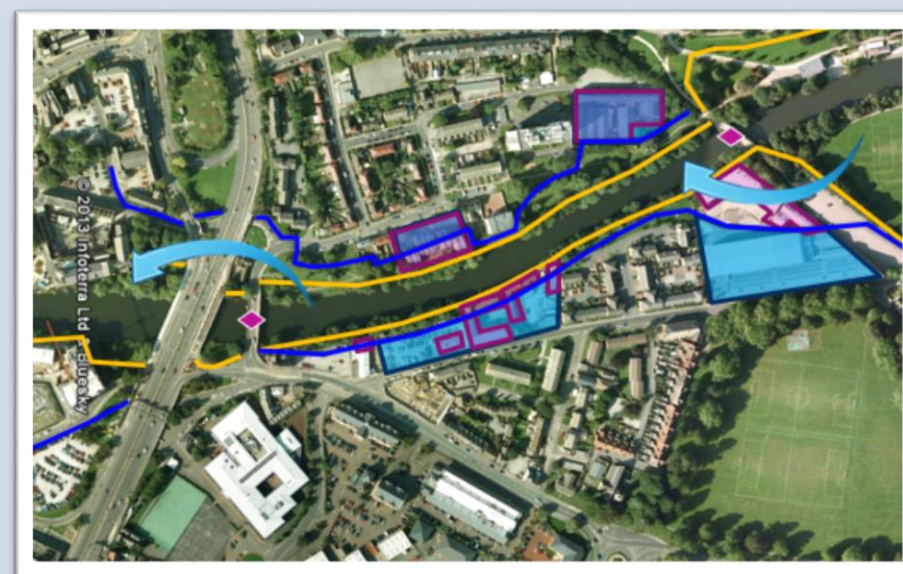
Our City Our River is a flagship scheme in which Derby City Council and the Environment Agency have taken a long-term view of climate resilience for the City of Derby.

The scheme originated from the need to reduce significant flood risk to homes, businesses and historic buildings along the lower River Derwent. The flood risk management approach taken is to make space for water by setting defences back away from the river and ensure the city remains resilient to the future challenges of climate change.

The scheme not only safeguards people and property from flooding, it also contributes positively to local economic regeneration and sustainable growth, while enhancing the city's heritage assets.

Judge's comments:

"The judges were impressed with how the scheme reduces flood risk to protect people and property by making space for water and also liked how the scheme reconnects people with the river through regeneration, community engagement, education and awareness. This is an inspiring example of the multitude of benefits a scheme can provide a local community and its future generations by safeguarding against the increasing effects of climate change."



WINNER:

Building with Nature Indonesia

EcoShape, Wetlands International, Indonesia
Ministry of Marine Affairs and Fisheries, Indonesia
Ministry of Public Works and Public Housing

Northern Java's shorelines suffer from land subsidence and severe erosion. In some places, more than three kilometres of coastal land has already been lost, mainly due to the removal of mangrove belts and unsustainable coastal infrastructure and aquaculture.

The 'Building with Nature' approach looks to reverse the trend of coastal erosion and unsustainable economic development in Northern Java using mangrove rehabilitation to regain coastal land and restore the sediment balance and by working with sea currents rather than fighting against these natural processes.

The project takes a multi-stakeholder approach for the introduction of sustainable multi-functional land uses that enables inclusive economic growth once the coastline is stable.

Judge's comments:

"This is a powerful example of integrating nature-based solutions to manage coastal zones. The approach felt inclusive of the local community and demonstrates the social, economic and environmental benefits that can be realised with schemes like this, both during and after construction. Congratulations to the project team for developing a sustainable solution to ensuring a safe and productive coastline for generations to come."



WINNER:

WaterUp – Water Upskilling for Resilience

Arup, The Flow Partnership

Community-driven and decentralised water management is an effective and robust way to decrease global water woes whilst delivering environmental, social and economic resilience.

WaterUp uses traditional knowledge and engineering techniques to develop language-neutral educational materials for communities, providing them with techniques to catalyse landscape restoration and livelihood improvements.

These educational tools have been tested in communities across India and Colombia and has equipped people with knowledge on how build their own water retention features to capture and store rainfall, which provides more reliable access to water and restores ecosystems.

Judge's comments:

"This is a highly impactful project that takes a broad view of water management by educating and empowering local people to develop their own future water management systems. This innovative approach of engaging with communities to improve their water literacy and develop solutions to their unique challenges is really inspiring and demonstrates a flexible and globally-applicable method of improving community flood and drought resilience."



WINNER:

Walking through the Estuary – 3D Geospatial Data for the Enterprise

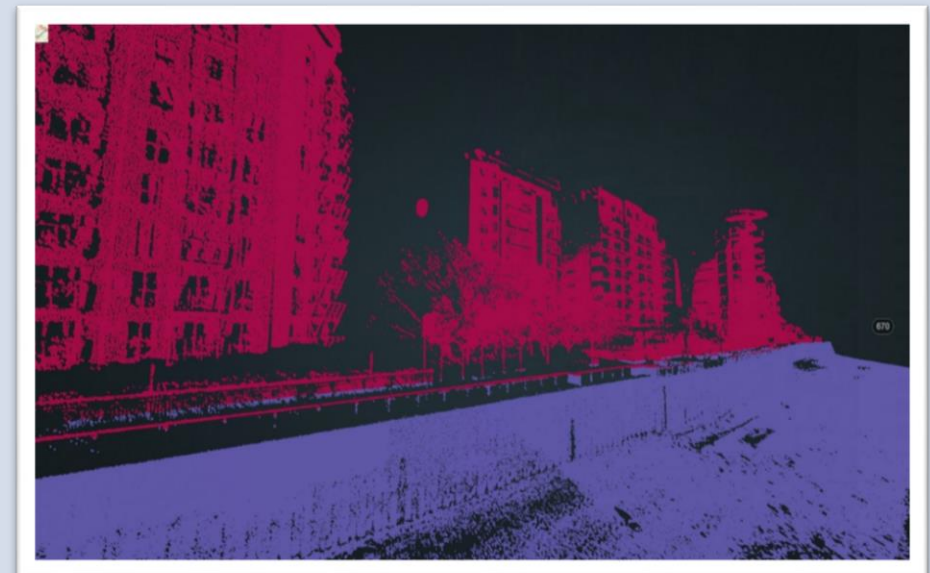
TEAM2100

The Thames Estuary Asset Management 2100 programme is the Environment Agency's largest flood-risk management programme.

The team have brought together a variety of techniques to capture asset information and recently started an Enhanced Monitoring Survey programme, collecting repeatable mobile mapping surveys of around 160 kilometres by using a boat-mounted Leica Pegasus 2 Ultimate. This provides LiDAR, spherical imagery and high-resolution video data for thousands of assets on both sides of the river, which is the foundation for the creation of a 3D model and digital twin of the flood defence system. Innovative solutions have been developed to ensure the large geospatial dataset is accessible to the enterprise over the web, making it quicker, safer and more user-centric and enabling more timely and better informed decision-making.

Judge's comments:

"The judges were impressed by this new approach of bringing together numerous tried and tested digital tools to create a dataset that is user-friendly and accessible. Having a single source of geospatial asset information and removing the historic barriers between users and data are exciting developments that have the potential to trigger step changes in understanding vulnerabilities, impacts and options to sustain and improve London's flood defence system."



JOINT WINNER:

Frances Fox

UK Student Climate Network (UKSCN)

Frances Fox is an A-Level student and member of Bath Youth Climate Alliance and UK Student Climate Network. She represented the national school strikers when she stood up on the same stage as Greta Thunberg in Bristol to speak to the crowd of 30,000 people demanding action from government and businesses on climate change.

Frances also represented the UK Student Climate Network in the Global Strike Film that called on others to mobilise and send a strong message to leaders attending the UN Climate Summit. She has served as an outreach coordinator to engage with and motivate more people to support the system change needed to tackle the climate crisis.

Frances has worked tirelessly to bring awareness and has been an inspiration to her peers and the tens of thousands of people who have heard her speak.

Judge's comments:

"The judges were impressed with how Frances is challenging the status quo and courageously driving the climate agenda. She is an excellent role model for young people and her messages are impactful across generations. The unprecedented global activism we've seen led by young people like Frances brings climate change issues sharply into focus and calls on us in the FCRM sector to hear their voices and make this a turning point in history."



JOINT WINNER:

Fay Bull

AECOM

Fay Bull is a Regional Director and AECOM. Her experience in reducing flood risk whilst delivering multiple outcomes for communities, combined with her technical know-how, has made her a role model for others in technical roles and a mentor to people early in their careers. She has used her knowledge of the industry to encourage her colleagues to deliver more ambitious, courageous and creative schemes.

As a member of Women in FCERM, Fay is passionate about improving diversity in the sector, with much of her voluntary work focused on promoting equality in the workplace. She inspires young women to be confident, bold and progress their careers in an area they are passionate about and encourages all team members to think outside the box and embrace a culture of innovation.

Fay has set high standards for collaborative behaviours in her team and has demonstrated a tireless commitment and passion for the sector.

Judge's comments:

"It was obvious to the judges that Fay puts her heart and soul into her work as a role model and mentor. The judges really appreciated how she promotes women in STEM, champions the communities she works with and encourages innovation across her teams. Fay is creating legacy, succession and a sustainable growth of excellence in FCERM."



WINNER:

Building with Nature Indonesia

EcoShape, Wetlands International, Indonesia Ministry of Marine Affairs and Fisheries, Indonesia Ministry of Public Works and Public Housing

Sustainable, nature-based solutions are required to meet the needs of the growing numbers of people who live in the world's deltas and along coasts. The 'Building with Nature' flagship project looks to address this issue by working with communities in Northern Java to restore mangrove coastlines that reduce coastal erosion and can adapt to sea level rise.

To ensure the sustainability of the initiative and to enable replication, training and embedding the approach in policy and planning has been crucial from the first phase until the final phase. The aim of the project is to create a model of utilising natural processes and providing opportunities for nature to develop sustainable engineering solutions that can be replicated in rural and urban coastlines in Indonesia and beyond.

Judge's comments:

"The judges were inspired by this truly international effort and the potential applicability of this blue infrastructure approach to other vulnerable coastlines in Indonesia and worldwide. It was also great to see how training and embedding the approach in policy has helped make replication in other areas possible. We hope to start seeing more innovative, nature-based solutions like this cropping up on an international scale."



WINNER:

Southsea Coastal Scheme

Portsmouth City Council, Coastal Partners

The Southsea Coastal Scheme is a Portsmouth City Council project being delivered through Coastal Partners, with backing from the Environment Agency and UK Government.

The Southsea Coastal Scheme presents an outline design of a sloped sea wall known as a revetment and a set-back defence that will offer the standard of protection Southsea requires for the next 100 years, whilst offering an opportunity to enhance the seafront and maintain the area's unique heritage.

The team worked with the public to consider and protect the unique character of each area of the seafront throughout the refinement of the scheme design. Beach management is also an integral part of the plan, which means a healthy beach will continue to be maintained where one exists at the moment.

Judge's comments:

"The team put forward a high quality case for this large, more than £100 million scheme that will better protect more than 4,100 properties from flooding. The team are to be particularly recognised for managing a huge amount of detailed and technical information in a way that produced a clear and compelling case."



WINNER:

Killingworth & Longbenton Surface Water Management

Northumbrian Water, Esh-Stantec, Esh Construction, North Tyneside Council, Environment Agency

Killingworth and Longbenton are areas of North Tyneside, England with a history of flooding and was in need of changes to surface water management to improve water quality and enable growth. The team worked together to develop and deliver the Killingworth and Longbenton Surface Water Management Scheme, which is an innovative multi-site project that uses sustainable drainage systems to manage surface water and to provide opportunities for biodiversity, new habitat creation and educational facilities.

The drainage strategy includes surface water retention ponds, detention areas, channels, wetland areas, surface water separation, and source controls to manage surface water in the catchment. By changing land use practices and developing surface water management techniques, the team were able to provide multiple benefits, including reduced flood risk to over 3500 properties and numerous environmental and community enhancements.

Judge's comments:

"This is an excellent example of what can be achieved by combining the resources and knowledge of different flood risk management authorities. The approach is innovative and weaves together a number of different approaches to address surface water issues in the area whilst delivering multiple benefits and making a real positive impact to the local community."



JOINT WINNER:

Kellie Fisher

Environment Agency

Kellie Fisher is a Senior Advisor in FCERM at the Environment Agency and leads on coastal adaptation to climate change and sea level rise on the East Anglian coast. She has a geotechnical engineer background and became a chartered engineer in 2019.

Kellie is an outstanding advocate who has been praised for leading coastal communities through adaptation in a male-dominated environment. She successfully campaigned for a change to women's PPE choices and has challenged thoughtless behaviour where gender bias has been clear.

Kellie mentors and supports junior male and female colleagues and actively helps female colleagues progress, recognising the challenges they face on a daily basis. She is an active member of the Environment Agency Women's Network and became a STEM ambassador in 2019, recognising the importance of encouraging the next generation of engineers

Kellie is both vocal and active in challenging gender issues in a constructive and productive way, paving the way forward for real change.

Judge's comments:

"The judges really admired how Kellie reached out further than her organisation and also appreciated the range of interventions she was championing. Her work really sets an example of what you can achieve yourself locally – and this is something everyone can do."



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Jacobs

JOINT WINNER:

Pete Stilliard

Jacobs

Pete Stilliard is a Principal Consultant at Jacobs and is a passionate ambassador for change in the FCRM sector who prides himself on challenging the status quo. He has a knack for identifying subtle biases and consistently takes the time to educate, encourage and challenge perspectives of those around him.

Pete has been regarded as a champion for gender equality and uses his influence to actively bring not only awareness but change in the working environment. He articulately expresses the benefits of having a diverse team and promotes initiatives to enhance the diversity and inclusion aspect of Jacob's culture.

Pete is involved in the Jacobs Women's Network and is a member of the global leadership team. He is also the co-chair of the Men of Jacobs Women's Network and is always keen to share his energy for engaging men in gender equality.

Judge's comments:

"Pete's nomination demonstrated how he isn't just supporting women but is also actively engaging men in gender equality. By challenging the status quo, taking the time to educate and encourage those around him, he has spawned actual change in his organisation."



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HIGHLY COMMENDED FINALISTS:

Coastal Management

Automated Nearshore Monitoring for Coastal Management and Resilience

Wyre Council, Marlan Maritime Technologies

Wyre Council have worked with Marlan Maritime Technologies to implement a first-of-its-kind automated nearshore monitoring system. The radar system monitors changing intertidal elevations at high resolution in response to storms and constant longshore forcings, subtidal bathymetric changes, and surface current directions and magnitudes. By continuously observing the immediate nearshore zone adjacent to the seawall, over £2m efficiencies have been gained. This sustainable approach is readily transferable to other coastal authorities and provides visible evidence to the local community allowing them to understand and adapt to coastal change.

Digital Excellence

Development of 2D Pluvial Flood Modelling for the USA

Atkins North America

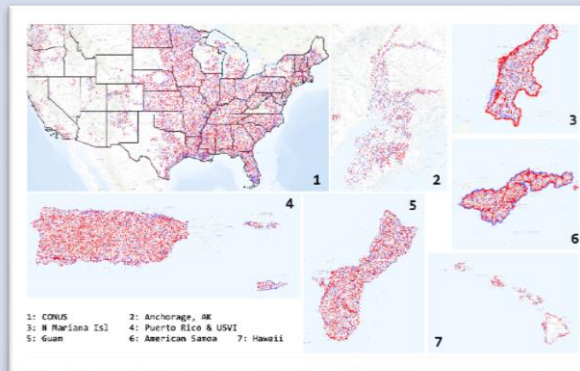
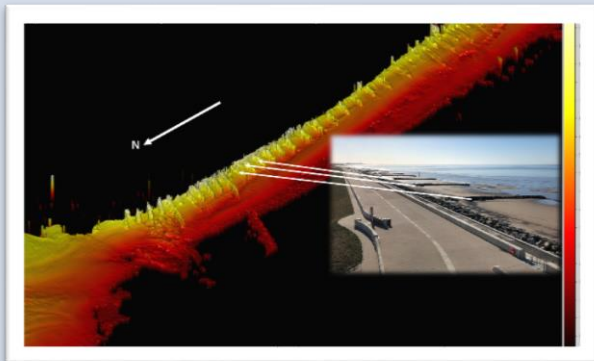
Flood protection programs in the USA have traditionally focused on riverine flood protection, with many properties at-risk from pluvial flooding often not identified and not adequately protected or insured. Recognising the need for a better understanding of how pluvial flooding threatens communities, Atkins initiated a mass 2D pluvial flood modelling effort, creating pluvial models for all 50 states as well as the major territories. Using an open-source 2D pluvial flood modelling engine and Google Cloud, approximately 4.5 million square kilometres of the country were modelled, with entire states being processed at the rate of one per day. The results are now being used by FEMA and Atkins and is having large impacts in resilience and flood modelling across the nation.

Surface Water Management

Better, Greener Flood Defences for Stockport

AECOM

AECOM was commissioned by Stockport Metropolitan Borough Council to provide technical services and advice to support the delivery of the Stockport Park Life Project, which aims to manage flood risk through assessing a range of sustainable flood mitigation measures across Stockport's parks. Graduates from AECOM led the study by investigating a total of 27 parks within the main areas of flood risk in the area and developing a list of traditional and creative opportunities to manage surface water, including sustainable drainage systems sports pitches, natural flood management, de-culverting and pond expansion. These techniques sought to use SuDs to deliver a multitude of benefits that enrich the local environment and community.



To find out more about the Flood & Coast Excellence Awards,
visit the Flood & Coast website:

<https://www.floodandcoast.com/excellence-awards/>

or email:

FloodandCoast@environment-agency.gov.uk



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