FLOODPLAIN MANAGEMENT AUSTRALIA

EXCELLENCE AWARDS 2024

NATIONAL CONFERENCE 21-24 MAY
BRISBANE, QUEENSLAND

WELCOME FROM THE FMA PRESIDENT

Welcome to the Floodplain Management Australia Excellence Awards for 2024.

The Excellence Awards are the highlight of our National Conference each year, and provide an opportunity to showcase the important work of flood risk management practitioners which, all too often, is taken for granted.

So I am thrilled that in 2024 we can shine the spotlight on 9 flood risk management champions and showcase 12 outstanding projects, including our first nomination from New Zealand.

You can read a little about them on the following pages...

Best of luck to all!

Ian Dinham
FMA PRESIDENT

EXCELLENCE AWARD CATEGORIES

FMA IAG YOUNG FLOODPLAIN MANAGER OF THE YEAR AWARD

Given to a Young Floodplain Manager who has made an outstanding contribution or achievement to the floodplain management industry in their early career, and who embodies the core values of the Young Floodplain Managers network.

FMA ALLAN EZZY FLOOD RISK MANAGER OF THE YEAR AWARD

Given to an individual who demonstrates the highest level of achievement in areas of flood risk management including best practice, wise and sustainable land use planning, community awareness and resilience, and innovation.

FMA IAG FLOOD RISK MANAGEMENT PROJECT OF THE YEAR AWARD

Given to a project that demonstrates the highest level of achievement in areas of flood risk management including best practice, public benefit, community involvement and innovation.

FMA IAG YOUNG FLOODPLAIN MANAGER OF THE YEAR AWARD

ABOUT THE AWARD

The Young Floodplain Manager Award aims to recognise a Young Floodplain Manager who has made an outstanding contribution or achievement to the floodplain management industry in their early career, and who embodies the core values of the **Young Floodplain Managers** network.

We acknowledge the generous support of IAG. FMA and IAG continue to strive to improve the quality and availability of flood insurance.

AWARD SELECTION CRITERIA

- The individual's commitment to collaborate and share knowledge.
- An activity or project that demonstrates technical excellence or innovation.
- Cultivation of opportunities to connect YFMs from across the public and private sectors as well as other young professional groups.
- The extent to which the individual serves as an advocate for gender equality and diversity in all YFM activities and the broader industry.

WHAT IS THE PRIZE?

FREE Full Three-Day Registration to the 2025 FMA National Conference and Pre-Conference Workshops PLUS crystal trophy PLUS luxury hamper.

BJORN BRYANT
WATER TECHNOLOGY

Recently, Bjorn has been managing a very large flood mapping study covering the Mornington Peninsula, an area of 723km2. Bjorn's role has been Project Manager, managing a team of around 10 engineers and his communication and knowledge sharing has been excellent.

He is willing to take the time to explain very technical problems to help Council make informed decisions even when there is a potential conflict with other stakeholders.

Bjorn has set up a walking group of flood engineers and support staff to get together outside of work and do a 10-20km walk along one of the tributaries of the Yarra River. This has built a sense of team and community, and a great connection to the waterways.

Bjorn has then shared his experiences of the walks on LinkedIn, to shine a light on the small oasis within the urban desert, and also to call out areas where he sees work needs to be done, i.e. littering, weed, erosion, a loss of natural character.

Bjorn also recently presented at a Monash University industry night, encouraging young engineers to join the floodplain management profession.

BLAIR FILER

JB PACIFIC

Blair Filer is a flood engineer whose career is filled with significant projects, including the Brisbane River Strategic Management Study, Richmond River Flood Study, dam failure assessments and international projects in Samoa.

Blair's deep technical knowledge and passion for hydrology led directly to innovation within the recent Major Update to the City of Moreton Bay's Regional Flood Database.

With great demonstrated understanding of fundamental hydrology equations, during tender Blair both acknowledged the proposed industry-leading methodology for the hydrology model update, and identified an opportunity to yet again improve project outcomes.

Blair demonstrated to Council the validity of his alternative approach via a trial, enabling Council to adopt his innovative method for the whole RFD.

Blair's resulting work speaks to his commitment to technical excellence, with Blair drawing on a variety of coding, modelling, and visual communication skills to innovate throughout the project.

CATHERINE WALKER

WMS ENGINEERING

Catherine has managed numerous Flood Studies, Floodplain Risk Management Studies and Plans, levee and detention basin feasibility studies, flood warning system assessments, community education program development, and voluntary purchase and voluntary house raising scheme reviews.

Catherine is passionate about flood education, particularly in schools, and has developed school flood education resources that Councils and Consultants can use to provide catchment-specific information in a fun and understandable way for primary school students.

Catherine has been a mentor in the Sydney University's Women in Engineering Mentoring Network since 2018 and been a panellist and speaker on several occasions for the University's STEM Teacher Enrichment Academy.

Catherine has presented at numerous FMA Conferences and led the FMA response to the NSW Flood Inquiry Recommendations, involving extensive consultation with key stakeholders.

HAYDEN BRIGG

AECOM

Hayden is a highly skilled Senior Civil Engineer with specialist flood risk management experience and track record over 9 years in the Water Resources field. His expertise lies in floodplain management and stormwater strategies, along with hydrologic and hydraulic assessments for design projects.

Hayden has worked on various floodplain management projects throughout his career. His notable contributions include his involvement in the recently completed Whitsunday Regional Floodplain Management Plan and the ongoing Whitsunday Stormwater Management Strategy. As an outcome of his work on the Whitsunday FMP Project, Hayden was able to provide valuable knowledge that assisted the Whitsunday Local Disaster Management Group in flood forecasting and emergency management procedures during the Tropical Cyclone Kirrily activation earlier this year.

In addition, after Tropical Cyclone Debbie in 2017, Hayden played a key role in developing flood studies for Mackay Regional Council, specifically in rural areas in the southwest region. These studies involved multiple community consultation sessions to gather information and share the findings of the studies with local residents. Hayden was involved in the initial Committee for YFMs for Queensland, assisting and planning and organising events to connect the YFM network.

HAYDEN GUSE
WRM WATER & ENVIRONMENT

Hayden is a genuine 'all-rounder' who excels at all aspects of floodplain management and is generous with his time, giving back to the industry and supporting the development of junior engineers.

Hayden has excellent technical skills, developed over a wide range of studies in QLD and NSW. Hayden developed the bespoke flood damages curves for the Brisbane River Strategic Floodplain Management Study, which have been adopted in the NSW DPE damages guidance and applied to numerous international studies.

Hayden recently delivered the Boggabri Floodplain Risk Management Study and Plan, including well-received community consultation. This study investigated a range of mitigation measures including rezoning, community education, flood warning and disaster updates. Hayden led the technical study and delivered a well-received community consultation program.

Hayden has been an active member of the Engineers Australia Water Panel for 5 years, helping to host industry knowledge-sharing events. Hayden organises the Michael Woodhouse undergraduate award, providing opportunities for undergraduates to present their research to the water industry.

FMA ALLAN EZZY FLOOD RISK MANAGER OF THE YEAR

Allan Ezzy APM AM served as FMA Chairman from 1999 - 2011 when he decided not to re-nominate for the position.

Allan has extensive experience in urban environmental issues due to his roles as a member of a local council, the former Upper Parramatta River Catchment Trust and the former Sydney Metropolitan CMA.

Allan served as a Councillor on Holroyd City Council for 38 years, including 9 terms as Mayor. Allan is a Life Member of FMA.

ABOUT THE AWARD

This Award recognises the outstanding individual efforts of flood risk professionals within the field of flood risk management.

AWARD SELECTION CRITERIA

- Demonstrating use of best practice in FRM
- Promoting wise and sustainable land use planning
- Contributing to community awareness and resilience
- Initiating innovative approaches or programs.

WHAT IS THE PRIZE?

FREE Full Three-Day Registration to the 2025 FMA National Conference and Pre-Conference Workshops PLUS crystal trophy PLUS luxury hamper.

AILSA SCHOFIELD
BUREAU OF METEOROLOGY

In her 18 year career in all aspects of floodplain management, and having worked in all levels of government, Ailsa has a holistic and deep understanding of floodplain management, land use planning, environmental issues, flooding, emergency management and flood policy development. Throughout her career, Ailsa has promoted wise management of development on floodplains, improved community awareness of flood-related issues and actively helped to reduce the risks of flooding to life and property in all her roles. In her current role as a Senior Hydrologist at the Bureau of Meteorology, Ailsa draws on her 14 years' experience in local and state government conducting floodplain and emergency management, to deliver decision support services with impact and value.

In her role at Shoalhaven City Council prior, Ailsa developed the first Caravan Parks in Flood Prone Areas Development Control Plan (DCP) in the state, and the Sustainable Stormwater Development Control Plan (DCP), the first for Council. In addition, Ailsa managed Council's Floodplain Management Program in full by determining strategic priorities to deliver Flood Studies, and Floodplain Risk Management Studies and Plans, and their recommendations.

Ailsa's professionalism and integrity is unwavering and her dedication to public safety and environmental well-being is peerless. Ailsa has contributed to numerous strategic initiatives to improve community resilience including through her work with the NSW and ACT Flood Warning Consultative Committee, contribution to the development of FLARE guidelines, and leading the Bureau's input into the Total Flood Warning System and NSW Floodplain Management guidelines.

MAX MOLLER
FLUSSIG ENGINEERS

Max has been instrumental in promoting wise and sustainable land use planning through his flood inundation risk reports. By providing comprehensive assessments and recommendations, he helps stakeholders make informed decisions that mitigate flood risks and foster sustainable development practices. His dedication to ensuring that flood-prone areas are appropriately managed contributes significantly to the resilience and long-term viability of communities and their infrastructure.

Max's contributions extend beyond technical expertise; he plays a vital role in enhancing community awareness and resilience through his flood inundation risk reports. By communicating complex information in an accessible manner, he empowers communities to understand their flood risks and take proactive measures to enhance resilience. Max's work fosters a culture of preparedness and collaboration, ultimately strengthening community resilience in the face of flooding events.

Max has been at the forefront of innovation, initiating ground-breaking approaches and programs utilising UAV Lidar drones for real-time data capture. Through this technology, he has revolutionised the way flood inundation reports are conducted, providing precise and detailed data essential for effective risk assessment and mitigation planning.

Moreover, Max's dedication extends beyond technological advancements; he actively supports council staff in understanding flood inundation reports, imparting knowledge on basic hydrology and hydraulics. His efforts not only enhance the quality of reports but also empower local authorities to make informed decisions regarding flood management strategies.

PETER CINQUE
NSW STATE EMERGENCY SERVICE

Throughout the course of his 53 year career, Peter has advocated for appropriate and evidence-based flood risk management to ensure that existing and future communities are not placed in areas of significant risk of flooding.

This is particularly evidenced in the Hawkesbury Nepean Valley, where he developed the Emergency Flood Plan to manage the residual risk. This has more recently spread to across all of NSW, which has seen the development of hundreds of subsectors across the State which underpin emergency planning, response, community awareness and more. He has lead NSW SES' prevention and preparedness activities, particularly in influencing land use planning processes through a quantitative and evidence-based approach and through the development of an operational evacuation decision management tool, expanding upon the Hawkesbury Nepean Flood Plan.

Peter has developed the flood risk analysis and visualisation project within NSW SES which aims to increase the community's access to and awareness of their flood risk. The project is developing interactive story maps across NSW catchments combining technical flood data and community stories to best communicate information to communities and build resilience. Peter has been instrumental in the development of the evacuation management and planning approaches that have rolled across NSW. Peter's work has allowed NSW to issue detailed warnings to specific parts of communities.

STEPHEN YEO

NSW RECONSTRUCTION AUTHORITY

Stephen has played an integral role in the NSW Government's management of the Hawkesbury-Nepean floodplain, recognised as having one of the highest flood risks in NSW. In addition to leading the Hawkesbury-Nepean River Flood Study, one of the largest of its kind in Australia, he has been proactively involved in the implementation of a variety of flood risk mitigation measures. This has included flood awareness and preparedness campaigns, working with the SES and other agencies on planning and response management, involvement in various education programs and materials on flood behaviour and input to strategic flood planning through the South Creek cumulative impact assessment to ensure that development is undertaken appropriately in this catchment.

Earlier in his career, Stephen was the Disaster Mitigation Advisor for the South Pacific Applied Geoscience Commission, responsible for designing community flood education programs and flood warning systems. Stephen has been a key input to sustainable land use planning, considering a range of flood risk factors such as emergency evacuation and inundation. He led the South Creek cumulative impact assessment study, that provided a wide scale strategic investigation on appropriate development in one of the largest growth areas in Sydney.

He has worked with the NSW Reconstruction Authority's team and the SES to ensure that emergency evacuation is appropriately planned and incorporated in Western Sydney, including complex considerations of evacuation routes and required infrastructure for a large, growing population base.

FMA IAG FLOOD RISK MANAGEMENT PROJECT OF THE YEAR

We acknowledge the generous support of IAG. IAG is the largest general insurance company in Australia and New Zealand. IAG's purpose is to *"help make your world a safer place"*.

ABOUT THE AWARD

The Award will be given to a project that demonstrates the highest level of achievement in areas of flood risk management including public benefit, community involvement and innovative solutions.

AWARD SELECTION CRITERIA

- Project enhances understanding/knowledge of best practice FRM
- Project is cost effective and sustainable
- Project has increased public or political profile of FRM
- Project actively involves community or stakeholder groups.

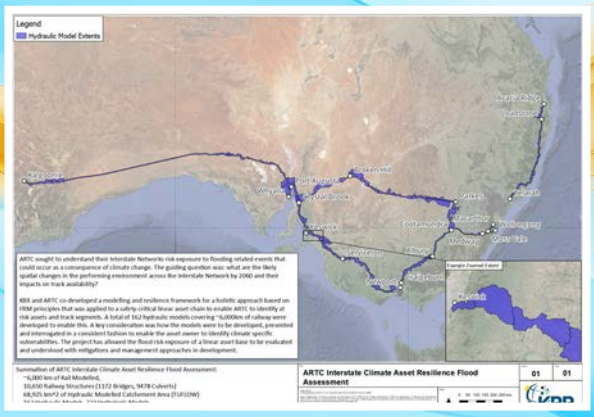
WHAT IS THE PRIZE?

WINNER
$10,000 cash to be used for a purpose related to FRM or flood risk education PLUS crystal trophy PLUS luxury hamper.

HIGHLY COMMENDED
FREE Full Three-Day Registration to the 2025 FMA National Conference and Pre-Conference Workshops PLUS crystal trophy PLUS luxury hamper.

ARTC INTERSTATE CLIMATE ASSET RESILIENCE FLOOD ASSESSMENT

KBR + ARTC



ARTC sought to understand their Interstate Network's risk exposure to flooding related events that could occur as a consequence of climate change. The guiding question was: what are the likely spatial changes in the performing environment across the Interstate Network by 2060 and their impacts on track availability?

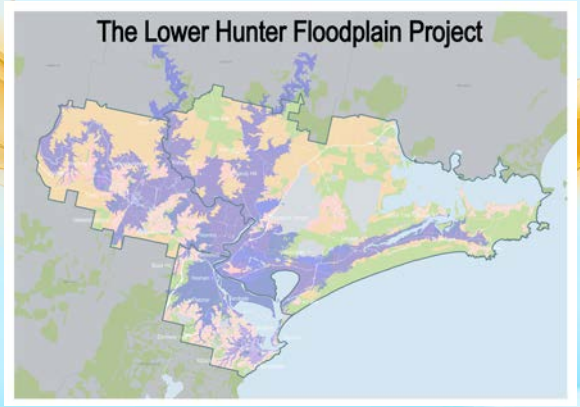
KBR and ARTC co-developed a modelling framework and holistic approach based on FRM principles that was applied to a safety-critical linear asset chain to enable ARTC to identify at risk assets and track segments. A total of 162 hydraulic models covering ~6,000km of railway were developed to enable this.

A key consideration was how the models were to be developed, presented and interrogated in a consistent fashion to enable the asset owner to identify climate specific vulnerabilities. Extensive areas were modelled while capturing highly detailed information localised to key assets.

The project has allowed the flood risk exposure of a linear asset base to be evaluated and understood with mitigations and management approaches in development.

COLLABORATIVE LEADERSHIP FOR A SUSTAINABLE LOWER HUNTER

PORT STEPHENS COUNCIL



The Lower Hunter Floodplain Project represents a ground-breaking achievement in floodplain management across Australia. This collaborative initiative established comprehensive planning controls to address cumulative impacts across a vast and diverse region.

Consent authorities often evaluate development applications on a lot-by-lot basis, overlooking at the approval stage the cumulative effects of multiple developments, particularly across floodplains.

This approach has led to a piecemeal understanding of impacts, a failure to account for legacy planning issues and a lack of coordination among different jurisdictions. In the Lower Hunter, substantial volumes of fill have been imported in recent years with the anticipation of a population increase of 130,000 people over the next two decades.

The resulting catchment-wide strategy enables consistent, reasonable and appropriate planning controls to be applied across the entire catchment to manage cumulative development impact.

This project was a collaboration between Port Stephens Council, Maitland City Council and the City of Newcastle with support from the State Government to understand and manage the cumulative impacts for current and future development across the Lower Hunter floodplain.

GREATER WELLINGTON'S CLIMATE RESILIENCE PROGRAMME

GREATER WELLINGTON REGIONAL COUNCIL

Greater Wellington Regional Council's Climate Resilience Programme (CRP) helped build flood resilient and empowered communities. Council delivered broader cultural, social, economic and environmental benefits alongside fourteen flood and erosion risk management projects on three rivers (programme value $NZ23.6M).

This 'Broader Outcomes' work provides a model for councils to authentically partner with mana whenua (local Māori), and work with contractors, to deliver multiple community benefits. Through partnership with mana whenua and collaboration with contractors, this work has:

- provided wellbeing training to reduce stigma around mental health issues in an industry with high suicide rates;
- helped improve career prospects through targeted training opportunities;
- seen Ngāti Toa Rangatira gain civil construction jobs;
- started Ngāhere-O-Tāne, a programme for multiple agencies to come together alongside local iwi.

Ngāhere-O-Tāne is for people within the system (mental health, addictions, probation and imprisonment) that offers a holistic approach to address intergenerational and direct trauma, cultural separation and austerity.

The success of this programme to deliver flood protection infrastructure combined with delivering a diverse set of social procurement outcomes helped raise awareness of climate change impacts, and the importance of flood protection infrastructure within the broader PARA framework.

50 DAMS FLOOD RISK ASSESSMENT

MAX MOLLER

In this project, Max Moller of Flussig Engineers harnessed UAV Lidar drone technology to capture real-time data, enhancing the accuracy of flood modeling. This data was seamlessly integrated into the InfoWorks ICM flood modeling software and then supplemented with extensive research papers sourced from the FMA's website and various other reputable outlets. This comprehensive methodology ensured precision in flood modeling and implementation strategies for each of the 50 Dam flood risk modeling scenarios.

Each dam location in the project poses a significant risk to landowners and properties in the event of a dam break flood path. The necessity to comprehend the flood hazard and associated risks cannot be overstated. Many of these dams have never undergone a flood assessment before, presenting a unique opportunity to advance understanding and implementation of best practices in flood risk management. Through meticulous analysis and modeling, one can not only mitigate potential damages but also establish robust frameworks for proactive risk management strategies.

Through meticulous analysis and modeling, the project has brought to light the inherent risks associated with dam locations and their potential impact on surrounding communities and infrastruture. By effectively communicating these findings to stakeholders, including government agencies, dam owners, and local communities, the project has fostered greater awareness and understanding of flood risk management practices.

FLOODSMART LAKE MAC

LAKE MACQUARIE CITY COUNCIL

Lake Macquarie City experiences regular flooding in and around major and minor creeks and tributaries as well as low-lying land adjacent to the lake and its waterways. Almost a third of Lake Mac's 90 suburbs and 19,600 properties are potentially affected by flooding and inundation (mainstream as well as tidal).

A strategic priority for Council is to reduce the impact of flooding and flood liability, including losses for individual owners, while realising the benefits from utilising and developing flood-affected land.

The FloodSmart web hub leverages Council's significant investment in flood research and planning to give residents, emergency services and other key stakeholders the tools they need to prepare for flooding events. Easy to access online, FloodSmart is a one-stop shop providing a comprehensive guide to flood management in Lake Macquarie City, as well as providing free information to assess flooding risks for individual properties.

FloodSmart Lake Mac was designed, coordinated, developed entirely in-house by Council staff with the end product aim being to create a unique website experience servicing a target audience of community members, key stakeholders, end users with a definitive informational one-stop-shop arsenal covering emergency and floodplain management in Lake Macquarie City.

HAWKESBURY-NEPEAN RIVER FLOOD STUDY

NSW RECONSTRUCTION AUTHORITY + RHELM + CATCHMENT SIMULATION SOLUTIONS + WMA WATER

The Hawkesbury-Nepean River Flood Study covers 8 local government areas on Sydney's western and northern fringes, providing contemporary, granular flood information for one of the highest risk floodplains in Australia. It took four years to develop and was informed by four floods that occurred during its development.

These floods afforded the opportunity to collect a range of flood information to ensure the flood models are accurately representing the observed floods. Including 13 report volumes, the Flood Study is one of the largest undertaken in Australia. It provides vital technical flood information for community safety, evacuation and emergency management, Council and state-led land use planning, and infrastructure investment prioritisation.

The Monte Carlo modelling simulated 20,000 flood scenarios and has allowed an understanding of the variability of potential floods used for evacuation planning. The project was challenged by three major floods during its development, necessitating additional validations resulting in a flood model that may be considered even more robust and reliable.

Outputs of the study will be used to inform communities of their risk, by councils, by state agencies including the NSW Reconstruction Authority, NSW SES, DCCEEW, DPHI, Transport for NSW and WaterNSW, and by the Bureau of Meteorology.

IMPROVING FLOODPLAIN CONNECTIONS

DEPARTMENT OF CLIMATE CHANGE, ENERGY, THE ENVIRONMENT AND WATER

The Improving Floodplain Connections (IFC) project is a multi-agency accelerated compliance project that worked to reduce the number of high priority unapproved flood works across the northern Murray Darling Basin.

The project sought the removal, modification or approval of structures that are effecting flow connectivity to significant ecological and cultural assets, or are having a significant effect on neighbouring properties or towns. Through stakeholder and community consultation, problem flood works were identified, prioritised and investigated using spatial analysis, licensing review, modelling and site inspections. A remediation pathway was determined and implemented in consultation with the landholder.

The processes combine multi disciplines including; engineering, ecology, engagement, licensing and investigation. This allows for the holistic examination of the flood work and its likely impact. The process differs from typical practice, where flood works are examined primarily from a hydraulic modelling perspective and a tangible damages estimation. Rather the impacts to ecological and cultural assets and values, as well as the flood risk to life and property, were examined to prioritise flood works to be investigated.

Widespread flooding in 2022 highlighted the need for a collaborative approach to fix problem floodworks and the IFC project is predicted to have reduced business as usual timeframes of 15 years down to 3 years under the project. The project team includes; DCCEEW Water, NRAR, WaterNSW, Crown Lands, DPI Fisheries and DCCEEW BCS.

LOCKYER VALLEY REGIONAL COUNCIL FLOOD INFORMATION PORTAL

SPATIAL INNOVATION

Lockyer Valley Regional Council faces high demand for flood impact data, crucial for planning decisions internally and externally. Despite industry recognition for a reliable manual system since 2011, misconceptions about regional flood risks persisted, impacting investment and stalling decision making.

Now, a cutting-edge automated system is revolutionising flood information access, offering real-time, point specific data that's delivered accurately and efficiently.

This project delivered an advanced online system for real-time flood information across the entire Lockyer Valley, offering enhanced data selection within properties, ideal for diverse regional and rural areas.

The flood information portal is both cost effective and sustainable and returns significant benefit in terms of cost reduction to both Council and external consumers of the services.

The first year is on track to deliver cost savings of approximately $1,500,000 to Council through reduction in internal labour cost and $324,000 to residents, delivering the service at zero cost.

The system allows access to user-selected point based data. The intuitive interface has high public acceptance, reducing report processing time from 15 days to seconds.

Access to the Portal is available at
https://floodinformationportal.lvrc.qld.gov.au/flood.

LOGAN FLOOD PORTAL

LOGAN CITY COUNCIL

Logan launched a new online flood portal providing easy, anytime access to comprehensive flood risk mapping and information. With a strong focus on transparency and understanding, the service publishes key maps for the community, including flood risk, depth, extent and historic floods, and provides industry users with self-service flood model mapping for the full range of events.

A comprehensive property report and a range of supporting videos, fact sheets and other content helps raise awareness about flood risk, the valuable catchments and the importance of the flood study work. This helps everyone to better understand how to live, work, learn and play safely in the floodplain.

Council used the experience in responding to enquiries, a scan of other products and approaches, and design experts to determine how best to balance the needs of regular “Mum and Dad” users with those of industry planning and engineering users.

The Logan Flood Portal’s usage has been steady in the range of 200-400 users per day. Monitoring indicates a steady weekly pattern, mostly likely by industry users, with notable spikes corresponding with weather events and media coverage, indicating strong community interest. The Portal helps people see both current and future flood risk, and explore potential flood impact across a range of different flood events. A ‘More’ menu provides information about Logan’s catchments, environment and flood studies program. A prominent link to Logan’s Disaster Dashboard helps residents improve their preparation for and response to a severe weather event.

NARRABEEN LAGOON ENTRANCE MANAGEMENT STRATEGY

NORTHERN BEACHES COUNCIL

The Narrabeen Lagoon Entrance Management Strategy reviewed Council's management of Narrabeen Lagoon entrance. The main objective was to determine the most viable, best practice way to reduce the risk of flooding on the adjacent floodplain. It investigated possible improvements and whether any new innovative techniques could be incorporated, and presented a prioritised set of recommendations for implementation. The Strategy identified, analysed and evaluated a range of possible alternative options, assessing technical feasibility and economic, social and environmental impacts and risks. The multi-faceted assessment was informed by a review of practices around the world, extensive community consultation, modelling of selected options and cost benefit analysis.

There are about 70 ICOLL's in NSW whose entrance periodically fills with sand and closes. Around half are artificially managed for flood mitigation purposes. ICOLL floodplain management is challenging, due to the complex interaction between rainfall-induced flooding and coastal processes (eg. littoral drift, beach rotation, etc) as well as environmental sensitivity and future impacts from sea level rise. The 253-page report comprises a comprehensive investigation with best practice recommendations. It's available online, along with a snapshot document and two 7-minute videos (one educational about how entrance management works, the other explaining the options).

The Strategy has been adopted by Council and some of the main recommendations for improvement have already been implemented as part of the entrance clearance works (end of 2023), several mechanical openings (2023), and commencement of dune rehabilitation works (2024).

TASMANIAN STRATEGIC FLOOD MAPPING PROJECT

SES TASMANIA + WMAWATER + AUTODESK + INDICIUM DYNAMICS

Following the 2016 floods, the Tasmanian and Australian Governments funded the Tasmanian Strategic Flood Mapping Project to better understand the statewide flood risk, help build stronger community resilience, and support effective emergency response and recovery decision making. The project involved hydrologic and hydrodynamic modelling to produce flood mapping and a modelling system for the entirety of Tasmania. A major aim of this modelling was to achieve a design flood extent that is valid for all areas of the state, not just for a single area of interest.

The models were calibrated to gauge data and surveyed flood levels and excellent calibration results were achieved. The design flood extents produced are valid for all areas of the state and the modelling system meets all the project aims. Calculating the critical design floods for all areas of the state would have required tens of thousands of model runs. To practically complete hydrodynamic modelling at a state-wide scale, the innovative method used in this project enabled the condensing of a huge number of design event scenarios into a manageable set of scenarios to run through the hydrodynamic model.

The process used a hydrologic model to assess all potential design scenarios and create both an ideal set of design scenarios for each sub-catchment in the state, and a set of scenarios that appropriately represented each sub-catchment while keeping errors within set bounds. This significantly reduced the number of runs required in the hydrodynamic model to less than 500 for the whole state. This is the first time a calibrated flood modelling and design mapping has been achieved over a whole state.

WHITSUNDAY REGION FLOODPLAIN MANAGMENT PLAN

AECOM + WHITSUNDAY REGIONAL COUNCIL

The Whitsunday Region is a North Queensland coastal region that covers an area of 24,000 square kilometres and includes the major townships of Bowen, Proserpine, Airlie Beach, and Cannonvale. The Whitsunday Region Floodplain Management Plan (FMP) is an exemplar of cost-efficient delivery by the Council. The team were able to achieve more with less by developing a detailed understanding of the Region's flood risk and creating a plan for managing the flood risk.

The FMP project developed up-to-date flood modelling for the major floodplains of the Proserpine River and Don River and the local waterways within major townships. A detailed flood risk assessment was developed that considered flood conditions and community vulnerabilities and guided the identification of 112 projects and initiatives for ongoing flood risk management.

The Whitsunday Region FMP was developed collaboratively through extensive consultation with key stakeholders and a number of Community touchpoints. During the project, consultation guided several facets of the project such as data discovery to inform the project, review of base-line flood modelling, providing input to the flood risk assessment, identification of the flood risk management projects/ initiatives, priortisation of projects/ initiatives, and final FMP project outcomes.

Key to the floodplain management plan was the acknowledgement of shared ownership of the flood risk, with projects and initiatives identified for thirteen separate stakeholder groups.

PAST EA WINNERS 2019 - 2021

2019

FMA Allan Ezzy Flood Risk Manager of the Year

Peter Garland
City of Sydney

FMA NRMA Insurance Flood Risk Management Project of the Year

WINNER
Bureau of Meteorology + Tweed Shire Council + Tumbulgum Community Association + NSW OEH + NSW SES Development and Implementation of a Flood Warning and Response Service for Tumbulgum

HIGHLY COMMENDED
Brisbane City Council Flood Resilient Homes Program

THE FMA EXCELLENCE AWARDS WERE NOT HELD IN 2020.

2021

FMA YFM Floodplain Manager of the Year

Tim Morrison
Catchment Simulation Solutions

FMA Allan Ezzy Flood Risk Manager of the Year

Paul Grech
GLN Planning

Graeme Milligan
ORA

FMA NRMA Insurance Flood Risk Management Project of the Year

WINNER
NSW SES + Infrastructure NSW
Hawkesbury Nepean Valley Community Resilience Program

HIGHLY COMMENDED
Central Coast Council
Davistown and Empire Bay Climate Change Adaptation Landform Design

FIND OUT MORE ABOUT OUR PAST WINNERS AT FLOODS.ASN.AU/EA

PAST EA WINNERS 2022 - 2023

2022

FMA IAG Young Floodplain Manager of the Year

Erin Hughes
Hydrology and Risk Consulting

FMA Allan Ezzy Flood Risk Manager of the Year

WINNER
Bill Syme
TUFLOW

FMA ICA Flood Risk Management Project of the Year

WINNER
Wollongong City Council
Implementing ARR2019 in Wollongong

HIGHLY COMMENDED
Water Technology + Synergy Solutions + Ipswich City Council
Ipswich Integrated Catchment Plan

2023

FMA IAG Young Floodplain Manager of the Year

Isabelle Testoni
Catchment Simulation Solutions

FMA Allan Ezzy Flood Risk Manager of the Year

WINNER
Chris Thomas
Advisian

HIGHLY COMMENDED
Greg Jones
Lake Macquarie City Council

FMA IAG Flood Risk Management Project of the Year

WINNER
Brisbane City Council
Flood information Portal

HIGHLY COMMENDED
AECOM + HARC + DTMR + NineSquared
Inland Freight Route Link Study

FIND OUT MORE ABOUT OUR PAST WINNERS AT FLOODS.ASN.AU/EA

NOTES/IDEAS

NEW CONTACTS