

Mitigating Infrastructure Damage: How FloodTuff Is Leading the Way in Flood Protection

Australia has always been prone to natural disasters, but the frequency and severity of flooding events have escalated over the past decade. Major floods, like those in 2022 in Queensland and New South Wales, have wreaked havoc on infrastructure, leading to billions of dollars in damage. Roads, bridges, railways, utilities—these vital networks are often the first to bear the brunt of floodwaters, causing massive disruption to daily life and economic activity.

At TRI Underground, we recognise the urgency of addressing these challenges head-on. As experts in infrastructure solutions, we're committed to bringing innovative, practical products to market that not only withstand the forces of nature but help communities recover faster. One such product is FloodTuff, a cutting-edge flood protection system designed to mitigate infrastructure damage and minimise downtime during and after flood events.

- FloodTuff offers a proactive, rapid-response flood barrier system designed to protect essential infrastructure during extreme weather events
- Unlike traditional flood defences, FloodTuff provides a flexible and cost-effective solution, minimising the need for permanent infrastructure and reducing deployment time
- The system helps to safeguard roads, bridges, utilities, and railways, reducing damage and enabling faster recovery for affected communities

How FloodTuff Helps Mitigate Infrastructure Damage



Rapid Deployment: FloodTuff is designed for quick installation and immediate protection. Its modular design allows for fast, flexible deployment in areas that need it most, even before floodwaters begin to rise. This is crucial in minimising damage, as authorities race against time to protect critical infrastructure.



Durability and Strength: Constructed with high-quality, durable materials, FloodTuff is built to withstand the intense pressure of floodwaters. Whether it's a heavy rainfall event or the rapid onset of a flash flood, FloodTuff stays in place, reducing the risk of erosion and damage to roads, bridges, and utilities.

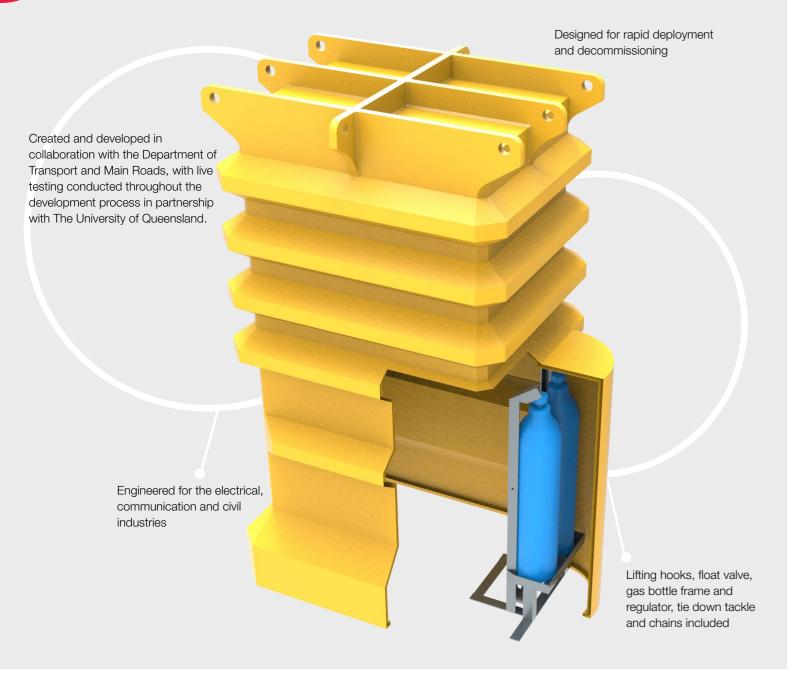


Cost-Effective Solution: One of the biggest challenges after a flood event is the cost of recovery. FloodTuff helps reduce the financial burden on local governments and businesses by mitigating infrastructure damage and preventing the need for extensive repairs. With costs associated with flood infrastructure damage reaching billions, investing in early protection makes financial sense in the long run.



Reducing Downtime: One of the most disruptive aspects of floods is the downtime that comes with infrastructure failure. With FloodTuff, critical transportation and utilities can remain operational for longer, even during extreme weather events. This reduces flood events' economic and social impact, ensuring communities can recover more quickly.

FloodTuff: The Latest Addition to the Leading TRITUFF Product Line



DESCRIPTION	LIMIT/PARAMETERS
Maximum Weight	270kg
Maximum Depth of Water Above Ground Level	5m
Maximum Designed Uplift	3.1T
Maximum Water Flow Rate	0.5m/s (4 Chains) 1m/s (6 chains)
Design Life	15 years

TRI Underground's Groundbreaking Deployment of FloodTuff During Cyclone Alfred

Revolutionising Storm Infrastructure Protection

On March 3, 2025, Transport and Main Roads (TMR) deployed FloodTuff units to Outer Brisbane's most flood-prone areas in preparation for Cyclone Alfred. By March 11, after the cyclone had passed, the systems were decommissioned, having surpassed expectations in protecting critical infrastructure. The successful deployment demonstrated the immense value of proactive flood management technologies in safeguarding communities and assets.

Installation Outcome

TMR successfully deployed all 33 FloodTuff units within three days. Of these units, five were directly impacted by flood conditions. Notably, one unit experienced flooding up to 1.5 meters. Despite these challenging conditions, all five flood-affected units effectively kept water out of the traffic signal boxes, preventing approximately \$100,000 in potential repair costs.

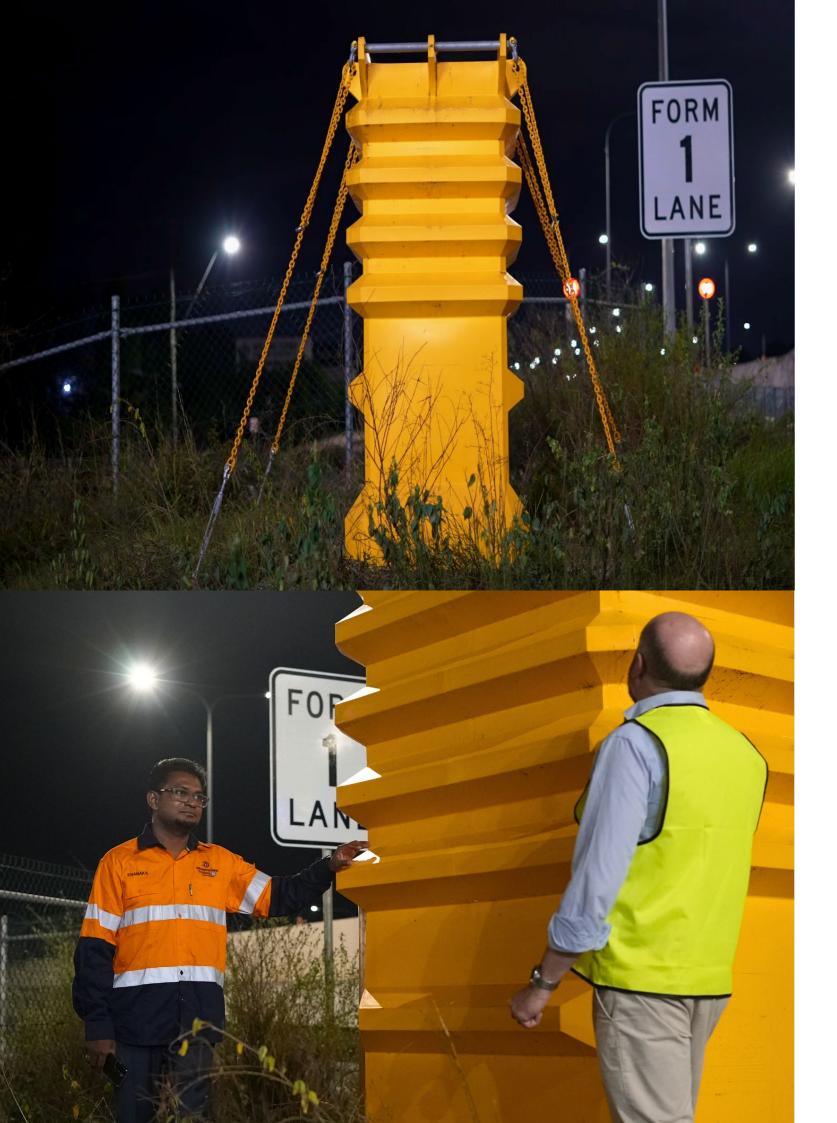
Furthermore, four of the units continued to supply power to the traffic signals, ensuring uninterrupted operation at the affected intersections despite the flooding. This reliable performance of the FloodTuff units contributed significantly to the success of the deployment, earning TMR's appreciation for both the product and the smooth implementation process.

The deployment also garnered significant public attention. The FloodTuff units sparked curiosity, with the public engaging on social media and seeking information through the TMR website. The story even attracted coverage from Channel 9 News, further highlighting the effectiveness and impact of the Flood Tuff technology.

"The deployment of FloodTuff systems was a game-changer for us—an investment in innovation that paid off when it mattered most. Cyclone Alfred tested our resilience, and thanks to these systems, we not only weathered the storm but emerged stronger, proving that preparedness is the key to protecting our future."







This section is for important notes about our amazing FloodTuff product.

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