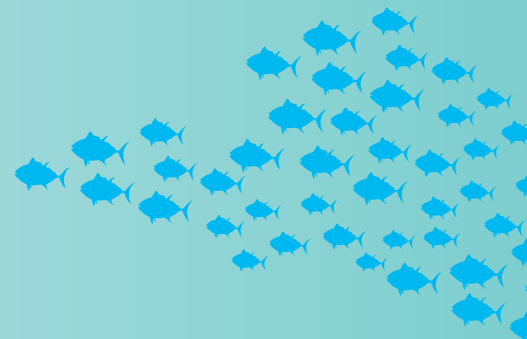


TULLY JOHNSTONE WATER QUALITY PROGRAM



The Tully Johnstone Water Quality Program aims to prevent 170 tonnes of dissolved inorganic nitrogen from entering the Reef each year

Sugarcane and banana farming in the Tully Johnstone region has a long, rich history that has resulted in a melting pot of cultures and nationalities central to the identity and prosperity of the local community. The region includes World Heritage forests, iconic wildlife, and seascapes and landscapes of spectacular beauty. Vast sugarcane and banana farms stretch across the fertile slopes and coastal plains. These farmers are supported by productivity services and agronomy providers to implement sustainable agricultural practices and innovative farming methods that benefit both farmers and the environment.

The three-year, \$11.6 million water quality program is managed by Terrain Natural Resource Management with support from Canegrowers Innisfail as partnership coordinator. The program focusses on improving land and nutrient management practices to improve the profitability, productivity and sustainability of cane and banana farms and improve the quality of water leaving farms in the Tully Johnstone region.

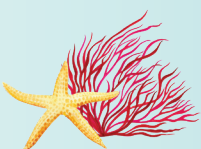


WORKING WITH FARMERS

Local partners in the Tully Johnstone region work closely with sugarcane and banana farmers to increase uptake of farm management practices that both improve the productivity and profitability of their farms, and reduce runoff of dissolved inorganic nitrogen.

Through extension services and access to capital to implement pollutant reduction activities, farmers engaged in the program can improve the health of the soil on their land and gain access to tools that aid decision-making.

Simple activities such as better nutrient planning and planting mixed species cover crops, improve the health of the soil and make a huge impact on the quality of water flowing into local waterways and out to Reef ecosystems.



PROJECTS

Local Area Nutrient Datahub



LiquaForce's LAND is a secure digital storage system for farm, soil, and production data that enables easy long-term monitoring of performance over time. LAND uses crop history, land structure, and soil composition to produce an optimised Six Easy Steps nutrient management plan enabling farmers to reduce excess nutrients flowing into local water ways.

Water Quality Monitoring



James Cook University's TropWATER will work with Terrain NRM to build a robust, multi-scale (paddock to sub-catchment) water quality monitoring system to support local extension initiatives in the catchment. The project will implement a dynamic, interactive water quality monitoring and extension approach that fosters a mutual understanding between scientists, extension practitioners, land managers and farmers.

Cassowary Coast Reef Smart Farming



The Cassowary Coast Reef Smart Farming project works with sugarcane farmers in the Tully and Johnstone catchments to improve nutrient use efficiency, and with banana farmers to refine nutrient inputs, which reduces costs and keeps Reef ecosystems healthy.

Wetland Monitoring



Terrain NRM is partnered with JCU TropWATER to monitor wetland treatment systems, focusing on nitrogen removal efficacy to extend our understanding of the role of these landscape features play in improving the quality of agricultural runoff in Great Barrier Reef catchments. Outcomes will inform the scientific community through increased understanding of wetland hydrological and nutrient dynamics.

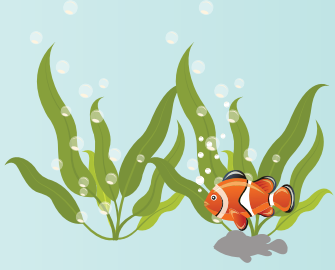


The Tully Johnstone Water Quality Program is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

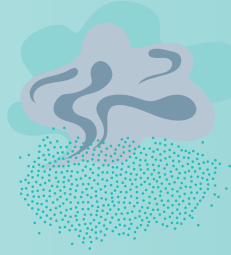
TULLY JOHNSTONE WATER QUALITY PROGRAM



A recent survey found more than 80% of growers agree that adopting new farming practices was both easy and a good thing to do



Pesticides affect plants in freshwater wetlands and the whole food chain, including amphibians and fish essential to a healthy ecosystem



Dissolved inorganic nitrogen (DIN) is a nutrient that is immediately available for uptake by plants and can cause algal blooms

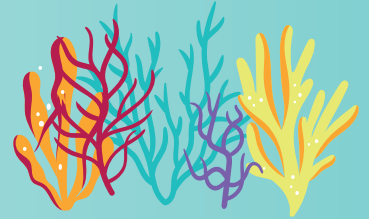


Improved nitrogen management practices can reduce DIN runoff while maintaining productivity

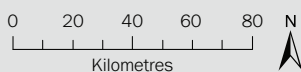
Algal blooms can compete for space, affect coral metabolism, reduce coral settlement and increase susceptibility to coral disease



Pollutants reduce the Great Barrier Reef's ability to recover from catastrophic events such as tropical cyclones and mass coral bleaching



Wetlands used to act like a sponge for nutrients, but more than 80% have been lost in the Pioneer and Plane basins



The Tully Johnstone Water Quality Program is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.