

Reef 2050 Water Quality Improvement Plan investments

This table includes key Australian and Queensland government investments in Reef 2050 Water Quality Improvement Plan actions. Investment sources include the Queensland Reef Water Quality Program and the Australian Government's Reef Trust, National Landcare Program Reef 2050 (Reef 2050), Reef Program and National Environmental Science Program Tropical Water Quality Hub (NESP TWQ) programs.

The allocated program investment covers approved and announced investment for the period 2017-2018 to 2021-2022.

DAF = Queensland Department of Agriculture and Fisheries

DES = Queensland Government Department of Environment and Science

DNRME = Queensland Government Department of Natural Resources, Mines and Energy

DoEE = Australian Government Department of Environment and Energy

Overarching action	Activity within Australian Government Reef programs and Queensland Reef Water Quality Program	Lead agency	Investment source	Program allocation over five years [#] (2017-2018 to 2021-2022)		
				*Australian Government	Queensland Government	Total
Responding to the challenge: Actions to progress towards targets						
Minimum practice standards						
Action 1.1—Implement minimum practice standards for all relevant agricultural industries, which can be met either voluntarily, e.g. through industry-led best management practice (BMP) programs or as a result of regulation.	Support to voluntary industry-led BMP programs in cane, grazing, grains, and banana industries, including continual improvement of BMP modules, benchmarking of producer's operations and accreditation to industry standard. Future support for BMP in horticultural industries is proposed.	DES	Queensland Reef Water Quality Program		\$28,540,000	\$28,540,000
	Proposed changes to the reef regulations of the <i>Environmental Protection Act 1994</i> .	DES	Queensland Reef Water Quality Program		\$5,658,821	\$5,658,821
	Targeted compliance program under the <i>Environmental Protection Act 1994</i> .	DES	Queensland Reef Water Quality Program		\$8,610,000	\$8,610,000
	Enhance integration of data and use the Water Tracking and Electronic Reporting System (WaTERS) to capture point source release monitoring and tracking data online.	DES	Queensland Reef Water Quality Program		\$75,000	\$75,000
	Support the transition of graziers, and cane and banana growers to improved practices through access to professional advice.	DES	Queensland Reef Water Quality Program		\$13,800,000	\$13,800,000

[#] Final allocation may vary depending on program priorities.

^{*} Announced investment as of May 2018, does not include departmental costs associated with administering the Australian Government programs.

Culture of innovation and stewardship						
Action 2.1—Support land managers to increase capacity to adopt improved management practices, e.g. through coordinated management extension, education and awareness programs.	Boost extension resources, providing greater access for farmers to extension services to enable greater practice change in Great Barrier Reef farming communities and building long term capacity in the advisory services.	DAF	Queensland Reef Water Quality Program		\$6,030,000	\$6,030,000
	Extension and education activities targeted at adoption of voluntary industry-led BMP programs.	DAF	Queensland Reef Water Quality Program		\$21,480,000	\$21,480,000
	Enhanced education and extension coordination through: <ul style="list-style-type: none"> stakeholder engagement to achieve practice change a review of current extension and education approaches development of a 3 year program plan and implementation strategy development of a framework for education and extension. Pilot an agriculture capacity building program focusing on extension training networks and interns.	DAF	Queensland Reef Water Quality Program		\$2,120,000	\$2,120,000
	Increased use and improved function of nominated grazing extension tools for extension service providers to support the capacity of graziers to make climate responsive management decisions using decision support tools such as Forage and Vegmachine.	DES	Queensland Reef Water Quality Program		\$2,535,000	\$2,535,000
	Project Cane Changer—a large-scale social change program in the Wet Tropics to better understand motivations and associated benefits of behaviour change to encourage cane farmers to adopt actions that will improve water quality outcomes.	DES	Queensland Reef Water Quality Program		\$2,018,586	\$2,018,586
	Wetlands demonstration on-ground case studies, wetlands extension with clients, management of local wetlands committees, development and delivery of wetlands information and tools for landholders.	DAF	Queensland Reef Water Quality Program		\$500,000	\$500,000
	Targeted extension approach to accelerate adoption of improved grazing management practices in priority areas in the Burnett Mary region.	DES	Queensland Reef Water Quality Program		\$620,000	\$620,000
	Implementation of two Major Integrated Projects (MIPs) in the Wet Tropics and Burdekin regions to pilot a range of activities with producers and the community to reduce nutrient, pesticide and sediment loads into local waterways and ultimately the Great Barrier Reef.	DES	Queensland Reef Water Quality Program		\$31,776,042	\$31,776,042
	DES's scientific information, technical expertise and advice supports research agendas underpinning Reef 2050 Plan and the Queensland Government.	DES	Queensland Reef Water Quality Program		\$710,000	\$710,000
	Project Pioneer: Innovation in Grazing Land Management—to support graziers in sediment hotspots to identify and implement practices that help improve their profitability and land condition. (Total project investment = \$2.908 million across 2015-2016 to 2018-2019.)	DoEE	Reef Trust	\$1,657,560		\$1,657,560

Mackay Whitsunday Isaac Sustainable Agriculture—Cane—to support cane farmers to transition from D and C class practice to at least B class. (Total project investment = \$4.425 million across 2015-2016 to 2018-2019.)	DoEE	Reef Trust	\$2,522,250		\$2,522,250
Reef Trust Tenders (Cane)—to support cane farmers to reduce end-of-catchment DIN loads generated in the Burdekin and Wet Tropics regions. (Total project investment = \$20.162 million across 2013-2014 to 2021-2022.)	DoEE	Reef Trust	\$14,187,311		\$14,187,311
Project Catalyst Revamp—game changing farm management practices—for enhanced management practices for sugar cane farmers. (Total project investment = \$3 million across 2015-2016 to 2018-2019.)	DoEE	Reef Trust	\$1,710,000		\$1,710,000
Reef Alliance—Growing a Great Barrier Reef—to support landholders to change practices in cane, grazing, horticulture, bananas, grains and cropping. (Total project investment = \$45.667 million across 2015-2016 to 2018-2019.)	DoEE	Reef Trust	\$26,030,184		\$26,030,184
Support of cane farmer trials of enhanced efficiency fertiliser in the catchments of the Great Barrier Reef—to target fertiliser nitrogen losses to the Reef from cane farms by increasing Nitrogen Use Efficiency. (Total project investment = \$7.1 million across 2016-2017 to 2020-2021. Queensland Reef Water Quality Program funding was provided in 2016-2017.)	DoEE	Reef Trust	\$4,700,000		\$4,700,000
Project Uplift Farming Systems Initiative—a co-investment with MSF sugar to assist sugar cane growers to transition to more efficient farming systems to improve on-farm nutrient management. (Total project investment = \$4.521 million across 2016-2017 to 2021-2022.)	DoEE	Reef Trust	\$4,285,780		\$4,285,780
Complete Nutrient Management Planning—to encourage cane growers to adopt reduced nutrient application rates.	DoEE	Reef Trust	\$3,384,285		\$3,384,285
Systems Repair and Water Quality Partnerships (Total project investment = \$26.5 million across 2013-2014 to 2017-2018.)	DoEE	Reef Program	\$2,596,134		\$2,596,134
\$32.75 million for water quality actions through the Reef Trust as part of the Australian Government's approximately \$60 million Investing in the Future of the Great Barrier Reef package announced in January 2018.	DoEE	Reef Trust	\$32,748,000		\$32,748,000
\$201 million for water quality projects under the Reef Trust—Great Barrier Reef Foundation Partnership, as part of the Australian Government's announcement of \$500 million for Great Barrier Reef protection in April 2018. (Investment allocation is from 2017-2018 to 2023-2024.)	DoEE	Reef Trust	\$201,000,000		\$201,000,000
Great Barrier Reef Innovation Fund—addressing agricultural management practices, water treatment systems and water quality monitoring.	DES	Queensland Reef Water Quality Program		\$4,060,862	\$4,060,862

Action 2.6—Trial and implement innovative monitoring, land management and treatment system options that aim to deliver water quality benefits.	Implement projects to build on successful trials of on-ground management practices. DAF's agricultural research and development projects in relation to grazing, sugarcane, grains, bananas and horticulture with partner organisations, including industry and universities that provide significant reef water quality benefits through exploring new technology and practices, improved pesticide and fertiliser management, economic evaluation and incorporating improved management into farming systems.	DAF	Queensland Reef Water Quality Program		\$7,200,000	\$7,200,000
	Economic validation of practices—validating the economics of management practices that improve water quality and providing this information to landholders in decision support tools and as part of the extension program.	DAF	Queensland Reef Water Quality Program		\$6,580,000	\$6,580,000
	Science in the Paddock – targeted projects of direct action to address water quality pollutants across all agricultural industries based on priorities through Science in the Paddock program.	DES	Queensland Reef Water Quality Program		\$21,467,470	\$21,467,470
	Demonstration projects to encourage improved practice uptake at a local scale.	DES	Queensland Reef Water Quality Program		\$1,631,230	\$1,631,230
	Burdekin cane farmer engagement: complete nutrient management planning for cane farming (RP 161).	DES	Queensland Reef Water Quality Program		\$1,656,200	\$1,656,200
Catchment restoration						
Action 3.2—Use guidelines, Traditional knowledge and decision support tools to design and inform interventions.	Queensland Wetlands Program: <ul style="list-style-type: none"> provision of wetlands tools and WetlandInfo web site delivery of walking the landscape whole of catchment management understanding. 	DES	Queensland Reef Water Quality Program		\$1,000,000	\$1,000,000
Action 3.3—Trial and implement innovation in catchment repair projects to reduce sediment and nutrient delivery to the Reef.	Targeted projects of direct action through sustainable landscape management and system repair including riparian revegetation, gully repair, streambank stabilisation and coastal wetlands rehabilitation.	DNRME	Queensland Reef Water Quality Program		\$16,460,000	\$16,460,000
	Streambank and gully remediation projects including innovative gully remediation in partnership with Greening Australia and erosion management plan and operational works on Springvale Station.	DES	Queensland Reef Water Quality Program		\$3,417,080	\$3,417,080
	Reef water quality projects in the Central Queensland region seeking to reduce nutrient, pesticide and sediment losses to waterways.	DES	Queensland Reef Water Quality Program		\$4,000,000	\$4,000,000
	Implement cost effective restoration works and improve land management practices to address gully and streambank erosion. (Total project investment = \$38.55 million across 2015-2016 to 2021-2022.)	DoEE	Reef Trust	\$30,401,766		\$30,401,766
	In partnership with Greening Australia, support works for wetland and coastal ecosystem rehabilitation. (Total project investment = \$7 million across 2015-2016 to 2020-2021.)	DoEE	Reef Trust	\$5,100,000		\$5,100,000

Enabling delivery

Science and knowledge

Action 4.1—Identify, prioritise and fill knowledge gaps through the Reef 2050 Water Quality Improvement Plan Research, Development and Innovation Strategy.	Research, Development and Innovation Strategy development.	DES	Queensland Reef Water Quality Program		Included in Action 7.5	Included in Action 7.5
Action 4.2—Integrate forms of knowledge including science, policy, management, Traditional Owner and community through regular synthesis workshops and theme-specific working groups to support consistent communication messages and guidance for managers.	Annual synthesis workshop across science, policy and management and projects arising.	DES	Queensland Reef Water Quality Program		\$815,586	\$815,586
Action 4.3—Deliver decision support tools, communication and education products tailored to specific audiences.	Communication projects.	DES	Queensland Reef Water Quality Program		\$196,610	\$196,610
	Activities to improve communication and information to support large scale change in practice, including communication tools, workshops, communication strategies and implementation plans.	DES	Queensland Reef Water Quality Program		\$1,490,958	\$1,690,958
		DoEE	Reef 2050	\$200,000		
	National Environmental Science Program Tropical Water Quality Hub. (Total project investment = \$31.98 million across 2014-2015 to 2020-2021.)	DoEE	NESP TWQ	\$18,750.00		\$18,750.00
	Whitsunday scoping study—to obtain a greater understanding of the causes of the water quality decline in the Whitsunday Region. (Total project investment = \$315,000 across 2016-2017 to 2018-2019)	DoEE	Reef 2050	\$236,250		\$236,250
3D LiDAR Terrain Mapping Services project—for high resolution 3D mapping data of erosion processes in the Reef's catchments.	DoEE	Reef 2050	\$1,800,000		\$1,800,000	

Governance						
Action 6.1—Collaborate and coordinate between the Queensland and Australian governments, in line with the Reef 2050 Long-Term Sustainability Plan governance structures.	Secretariat support to governance groups.	DES	Queensland Reef Water Quality Program		\$2,750,000	\$2,922,000
		DoEE	Reef 2050	\$172,000		
Action 6.2—Ensure program design aligns with water quality priorities.	Annual Queensland Reef Water Quality Program Investment Report/Plan.	DES	Queensland Reef Water Quality Program		Included in Governance	Included in Governance
Action 6.3—Ensure accountability of investment to outcomes in this plan.	Program management.	DES	Queensland Reef Water Quality Program		\$55,500	\$55,500
Evaluating performance						
Action 7.1—Monitor and model management practice and water quality improvements through the Paddock to Reef program.	Monitoring programs: Great Barrier Reef ground cover mapping, loads monitoring, riparian vegetation, wetland condition, wetlands mapping and extent.	DES	Queensland Reef Water Quality Program		\$10,952,000	\$10,952,000
	Catchment loads modelling, gully mapping, Paddock to Reef support to regional Natural Resource Management body components.	DNRME	Queensland Reef Water Quality Program		\$8,510,000	\$8,510,000
	Management practice adoption reporting.	DAF	Queensland Reef Water Quality Program		\$2,850,000	\$2,850,000
	Monitoring, modelling, evaluation and reporting.	DES	Queensland Reef Water Quality Program		\$5,544,000	\$8,544,000
		DoEE	Reef 2050	\$3,000,000**		
	Wetland condition monitoring and water quality monitoring and modelling.	DES	Queensland Reef Water Quality Program		\$5,780,000	\$5,780,000
	Ambient water quality monitoring, high resolution satellite imagery.	DNRME	Queensland Reef Water Quality Program		\$7,500,000	\$7,500,000
	Research and development improvement of water models in the Great Barrier Reef catchments through the Queensland Water Modelling Network (QWMN).	DES	Queensland Reef Water Quality Program		\$700,000	\$700,000
Collection, storage, access and enhancement of information that support catchment restoration and land management as well as monitoring, modelling and reporting of outcomes in Reef catchments.	DES	Queensland Reef Water Quality Program		\$3,820,000	\$3,820,000	

**Investment from 2017–2018 and 2018–2019 only—investment from 2019–2020 to 2021–2022 is subject to advice from the Reef 2050 Integrated Monitoring and Reporting Program design work.

	Data management and delivery through Science and Spatial Information Management for Reef (SSIMR).	DNRME	Queensland Reef Water Quality Program		\$885,000	\$885,000
Action 7.4—Evaluate the effectiveness of programs, governance mechanisms, and adaptations.	Develop an Evaluation Framework and annually evaluate and report on performance of overall Reef investment program and review governance.	DES	Queensland Reef Water Quality Program		\$1,045,070	\$1,045,070
Action 7.5—Report progress towards targets, objectives and outcomes.	Develop and release a Great Barrier Reef Water Quality Report Card.	DES	Queensland Reef Water Quality Program		\$1,890,000	\$1,890,000
Action 7.6—Communicate regionally relevant information for management decisions and local communities.	Regional report card partnerships membership and support.	DES	Queensland Reef Water Quality Program		\$10,600,000	\$11,400,000
		DoEE	Reef 2050	\$800,000**		
Action 7.7—Make data and information publicly available through a range of communication products.	Operationalising eReefs. (Total project investment = \$2.3 million across 2016-2017 to 2019-2020.)	DES	Queensland Reef Water Quality Program		\$750,000	\$2,150,000
		DoEE	Reef 2050	\$1,400,000		
TOTAL					\$356,681,521	\$258,081,015

There is further unallocated Australian Government Reef investment (up to \$56 million) that may be allocated to water quality. This table will be updated periodically to reflect new investments.

**Investment from 2017–2018 and 2018–2019 only—investment from 2019–2020 to 2021–2022 is subject to advice from the Reef 2050 Integrated Monitoring and Reporting Program design work.