

# Paddock to Reef Integrated Monitoring, Modelling and Reporting Program

FEDERATION FUNDING AGREEMENT - ENVIRONMENT

<b>Table 1: Formalities and operation of schedule</b>																					
Parties	Commonwealth Queensland (or the State)																				
Duration	This Schedule is expected to expire on 30 December 2026.																				
Purpose	The projects within this Schedule will improve paddock modelling and the underlying data. The projects will involve data collection and monitoring related to the transport of sediment, nutrients and pesticides in a range of land uses (see <b>Attachment A</b> for detail). This will support the delivery of the Paddock to Reef Integrated Monitoring, Modelling and Reporting Program.																				
Estimated financial contributions	<p>The Commonwealth will provide an estimated total financial contribution to the State of \$13.0m (GST exclusive) in respect of this Schedule.</p> <table border="1"> <thead> <tr> <th><b>Table 1</b> (\$ million)</th> <th><b>2023-24</b></th> <th><b>2024-25</b></th> <th><b>2025-26</b></th> <th><b>Total</b></th> </tr> </thead> <tbody> <tr> <td><b>Estimated total budget</b></td> <td><b>5.8</b></td> <td><b>5.6</b></td> <td><b>6.1</b></td> <td><b>17.5</b></td> </tr> <tr> <td><i>Less estimated National Partnership Payments</i></td> <td>4.3</td> <td>4.1</td> <td>4.6</td> <td>13.0</td> </tr> <tr> <td>Balance of non-Commonwealth contributions</td> <td>1.5</td> <td>1.5</td> <td>1.5</td> <td>4.5</td> </tr> </tbody> </table>	<b>Table 1</b> (\$ million)	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>Total</b>	<b>Estimated total budget</b>	<b>5.8</b>	<b>5.6</b>	<b>6.1</b>	<b>17.5</b>	<i>Less estimated National Partnership Payments</i>	4.3	4.1	4.6	13.0	Balance of non-Commonwealth contributions	1.5	1.5	1.5	4.5
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Additional terms	<p><b>Schedule duration</b></p> <ol style="list-style-type: none"> <li>1. Funding duration is on execution of this agreement to 30 June 2026. In the case of delay of a milestone into a subsequent financial year, a request for a movement of funds approval will be required.</li> </ol> <p><b>Implementation Plan</b></p> <ol style="list-style-type: none"> <li>2. Project specific timeframes will be finalized after the commencement of this Schedule, in the form of an Implementation Plan. <ol style="list-style-type: none"> <li>a. Queensland Department of Resources to collaborate with the Queensland Department of Environment and Science</li> </ol> </li> </ol>																				

and the Queensland Department of Agriculture and Fisheries on the development of the Implementation Plan.

- b. The Implementation Plan structure will be developed in discussions between Queensland and the Commonwealth.
- c. The Implementation Plan will be developed by Queensland and provided to the Commonwealth for approval. The Commonwealth will aim to approve (within two months) of provision of the Plan.

**Annual Work Plan**

- 3. An annual work plan covering the Paddock Monitoring and Modelling projects will be developed by Queensland for acceptance by the Commonwealth. The work plan will include as a minimum:
  - a. Key deliverables for the reporting period.
  - b. Project costing estimates and forecasts of planned expenditure.
  - c. Project performance and resourcing including delivery schedule.
  - d. Risks and issues register with proposed mitigations.
  - e. Planned communication and publication products.

**Annual performance report**

- 4. An annual performance plan covering the Paddock Monitoring and Modelling projects will be developed by Queensland for acceptance by the Commonwealth. The performance plan will include as a minimum the following:
  - a. Reporting of progress against key deliverables for the reporting period, including project performance and delivery.
  - b. Identification of issues during the reporting period and how their impact was mitigated.
  - c. Highlighting achievements.
  - d. Explanations for unanticipated results.
  - e. Progress made on communication and publication products.
  - f. Financial reporting of expenditure made during the reporting period. This should highlight differences from that forecast in the corresponding financial years workplan. Where significant, an explanation should be provided for the difference and a plan provided which includes anticipated timing for expenditure of held funds.

**Table 2: Performance requirements, reporting and payment summary**

<b>Output</b>	<b>No.</b>	<b>Performance milestones</b>	<b>Timing</b>	<b>Payment</b>
To deliver a combination of monitoring and modelling to assess progress towards meeting targets outlined in the Reef 2050 Water Quality Improvement Plan.	1.	Queensland agrees and signs the Schedule.	Upon signature of Schedule	\$0.5m
	2a.	Commonwealth acceptance of a work plan covering 2023-24 financial year from Queensland.	Within 3 months of project commencement	\$2.0m
	2b.	Written evidence provided to the Commonwealth of Queensland's input into the Paddock to Reef Integrated Monitoring, Modelling and Reporting Program Implementation Plan (2023 – 2026) led by the Queensland Department of Environment and Science.		
	3a.	Queensland delivery of work plan covering 2024-25 financial year to the Commonwealth.	30/04/2024	Nil
	3b.	Commonwealth acceptance of a work plan covering 2024-25 financial year from Queensland.	Within 2 months of delivery	\$1.8m
	4a.	Queensland delivery of an annual performance report on the progress on activities in the 2023-24 workplan, including details of expenditure to date to the Commonwealth.	30/09/2024	Nil
	4b.	Commonwealth acceptance of an annual performance report on the progress on activities in the 2023-24 workplan, including details of expenditure to date from Queensland.	Within 2 months of delivery	\$2.3m
	5a.	Queensland delivery of work plan covering 2025-26 financial year to the Commonwealth.	28/2/2025	Nil
	5b.	Commonwealth acceptance of a work plan covering 2025-26 financial year from Queensland.	Within 2 months of delivery	\$1.8m
	6a.	Queensland delivery of an annual performance report on the progress on activities in the 2024-25 workplan, including details of expenditure to date to the Commonwealth.	29/09/2025	Nil
6b.	Commonwealth acceptance of an annual performance report on the progress on activities in the 2024-25 workplan, including details of expenditure to date from Queensland.	Within 2 months of delivery	\$2.3m	
7a.	Queensland delivery of an annual performance report on the progress on activities in the 2025-26 workplan, including details of expenditure to date to the Commonwealth.			

	7b.	Queensland submits an evaluation of the program and a financial statement endorsed by the Chief Financial Officer (CFO) of the Queensland Department of Resources.	28/04/2026	Nil
	8a.	Commonwealth acceptance of an annual performance report on the progress on activities in the 2025-26 workplan, including details of expenditure to date from Queensland.	Within 2 months of delivery	\$2.3m
	8b.	Commonwealth accepts an evaluation of the program and a financial statement endorsed by the Chief Financial Officer (CFO) of the Queensland Department of Resources.		

The Parties have confirmed their commitment to this schedule as follows:

**Signed** for and on behalf of the Commonwealth  
of Australia by



**The Honourable Tanya Plibersek MP**  
Minister for the Environment and Water

11. 4 2024

**Signed** for and on behalf of the  
State of Queensland by



**The Honourable Scott Stewart MP**  
Minister for Resources and Critical Minerals

21 / 05 / 2024

Attachment A: Project description and funding					
Project Description		Funding Distribution over 3 years (\$M)			Total Funding (\$M)
		2023-2024	2024-2025	2025-2026	
<b>1. Paddock Modelling</b> Paddock modelling assesses the effect of adoption of improved land management on nutrient, sediment and pesticide loads generated annually by sugarcane, grain and bananas farms. The model outputs are used to measure the effectiveness of investment; and progress against the Reef water quality targets, as reported in the Reef Water Quality Report Card. The models are also used to simulate the effect of different land management practices and the management changes needed to achieve the water quality targets. In future, the modelling will also provide water quality data on high priority horticulture crops. The project will focus on the continued improvement of the paddock models and underlying data to ensure up-to-date and accurate information informs the Reef Report Cards, P2R Projector and policy development. Key producers, agronomy service providers, sugar mills and regional industry representatives are engaged on outcomes and changes on an ongoing basis.	Queensland Government	0.000	0.000	0.000	0.000
	Australian Government	1.035	1.059	1.074	3.168
<b>2. Effect of grazing pressure and pasture type on land condition and runoff water quality (Brigalow Belt)</b> This long-term monitoring project provides critical information about the concentrations of sediment transported from grazing under controlled conditions. The Brigalow Catchment site provides the only pre-European settlement control site to measure the impact of common and emerging grazing practices. The data will improve confidence in sediment management interventions through improved understanding of hillslope, gully and streambank sediment attribution ratios. This will improve the accuracy of reporting, the P2R Projector tool and scenario modelling. This project will engage directly with producers, industry bodies, and extension providers.	Queensland Government	0.452	0.463	0.475	1.390
	Australian Government	0.428	0.421	0.476	1.325
<b>3. Runoff and deep drainage of nutrients and pesticides from sugarcane (Mackay Whitsunday region)</b> This project is a multi-site trial to address data and knowledge gaps about the transport of nutrients and high toxicity pesticides via deep drainage, groundwater and volatilisation. Data collected will be used to validate and parameterise the paddock models on nitrogen loss pathways on free draining soils for which there is no data. The project includes the long-term Multifarm site which collects water quality data for the P2R Catchment Loads Monitoring Program. This project will engage directly with producers, industry bodies and extension providers to ensure the trial is relevant to current industry practices and has industry support.	Queensland Government	0.206	0.229	0.234	0.669
	Australian Government	0.505	0.533	0.531	1.569
<b>4. Measurement of streambank and gully erosion in GBR catchments.</b> This project will use LiDAR data analysis tools to identify the spatial distribution of streambank erosion hotspots within the priority Fitzroy, Burnett-Mary and Burdekin catchments. The tools will improve the calculation of erosion sediment losses and the effectiveness of remediation strategies and techniques. The project will also provide data to improve the scale and accuracy of current streambank and gully mapping used to parameterise the catchment models that inform the P2R Projector and Gully Toolbox. This project will coordinate directly with other subject matter experts and landscape rehabilitation service providers to achieve a more consistent approach to gully and streambank investment prioritisation, monitoring and evaluation.	Queensland Government	0.230	0.236	0.242	0.709
	Australian Government	0.447	0.388	0.505	1.340
<b>5. Investigating runoff and deep drainage in banana cropping in collaboration with RP63a (Wet Tropics region).</b> This project will provide the baseline dataset for dissolved organic nitrogen, insecticides and fungicides in runoff from bananas. Data on pesticide usage and off-site transport are very limited for banana cropping and is required for the construction of a new 'industry practice representative' banana model. The trial is being delivered in collaboration with the Queensland Department of Agriculture and Fisheries (QDAF) and the Australian Banana Growers Council (ABGC) at the South Johnstone research station. The ABGC are providing technical expertise and industry data to ensure the trial is relevant to current industry practices and ensure industry engagement. QDAF is undertaking the Queensland Government funded RP63a banana nutrient trial project in parallel.	Queensland Government	0.310	0.323	0.331	0.963
	Australian Government	0.480	0.455	0.415	1.350
<b>6. Impact of recycle pits on water quality and farm water balance for irrigated farms (Lower Burdekin) (until June 2025)</b> This project will establish foundational data on the common practice of recycling irrigation tailwater and rainfall runoff to the head irrigation ditch in the Burdekin irrigation scheme. Verified data can be used to inform policy and design better management practices for recycle pits. The project is in collaboration with Burdekin Bowen Integrated Floodplain Management Advisory Committee Incorporated (BBIFMAC Inc) and leading regional agronomists. Key Burdekin sugarcane producers and industry bodies will be fully consulted.	Queensland Government	0.000	0.000	0.000	0.000
	Australian Government	0.054	0.054	0.009	0.117
<b>7. Nutrients, sediment and pesticides in runoff and deep drainage from tree crops (macadamia and avocado) (Burnett Mary region)</b> The project will produce data needed to establish a baseline dataset and understanding of nutrient and pesticide transport in deep drainage and surface water runoff from macadamias and avocados. The data is required to undertake an evaluation of water quality risk from macadamias and avocados and inform future paddock modelling. Tree cropping is rapidly expanding in the Burnett, Fitzroy and Wet Tropics region. The project will be delivered in collaboration with the QDAF Bundaberg Research Station local producers and industry bodies.	Queensland Government	0.140	0.179	0.192	0.510
	Australian Government	0.237	0.400	0.620	1.257
<b>8. Wetland natural values for climate change and water quality benefit (Wet Tropics region)</b> The project will produce foundational data required to develop an understanding of the capacity for nitrogen removal of wetland systems and parametrise a wetland model module in the P2R Source catchment models. This project will inform decision making about investments in wetlands as a water quality treatment and enable nitrogen removal via wetland systems to be accounted for in the Paddock to Reef catchment models. This project will engage directly with industry, natural resource management bodies and extension providers.	Queensland Government	0.109	0.067	0.063	0.239
	Australian Government	1.115	0.790	0.970	2.875
<b>Queensland Government Total</b>		<b>1.446</b>	<b>1.497</b>	<b>1.537</b>	<b>4.480</b>
<b>Australian Government Total</b>		<b>4.300</b>	<b>4.100</b>	<b>4.600</b>	<b>13.000</b>
<b>Total</b>		<b>5.746</b>	<b>5.597</b>	<b>6.137</b>	<b>17.480</b>