Road Management System Newsletter Mid-Year Update - September 2025

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Road Management System News

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The Road Management System (RMS) is a collection of modern systems to support DoWH asset management objectives and processes. The primary system is called Asset & Work Manager (AWM) (formerly RAMM).

As Phase 1 of the implementation project draws to a close, we can celebrate the significant progress achieved together. It also provides an opportunity for a call to action, building on our shared success to drive even greater results in Phase 2.

In 2024, there was a high level of activity for the implementation of the RMS including the rollout training in November. This newsletter provides an update of the activities that have been taking place in the first half of 2025, and determines some of the lessons learned from the pilot studies and implementation more generally.

Capacity Development

PNG Department of Works and Highways | Asset Management

- Rollout training and IT equipment has been provided to provincial and regional staff, supported by the Works Kuru knowledge base (access here: **help.pngroads.com**)
- Both one-on-one and weekly office hour sessions have been provided to support provincial teams with refresher training, and answer any questions they have with using the AWM system. There are now many provincial officers who have a good understanding of how to validate data, raise data fix requests (over 190 requests added in 2025) and use the monthly project monitoring module.
- Some officers are yet to fully engage with the system since the rollout training. The final stages of Phase 1 provide the opportunity for everyone to get involved and contribute to the progress already being made.
- There have been weekly data fix request sessions with the Asset Management Branch (AMB) team, who have resolved over 220 data fix requests in 2025.
- The Network Monitoring and Evaluation (NM&E) team are now well versed in using the AWM system to keep a projects and contracts register, and to support the monthly project monitoring process.
- AMB staff are preparing to take on more ownership of network and structures validation tasks. Updated Knowledge base (Works Kuru) articles are now available to support this work.
- DoWH AMB are taking ownership of some training activities by organising the meetings with provincial engineers and conduct the drop-in sessions themselves.
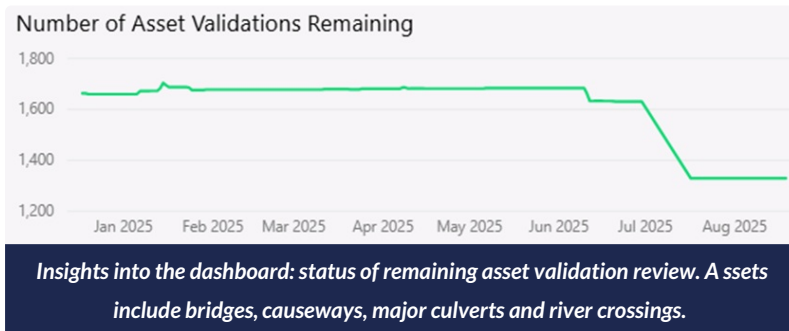
Network

- Over 8,300km of the national road network now managed in AWM. Thanks to the dedication of provincial teams, eleven provinces have now fully completed their network validation review, with most of the remaining provinces having completed over 80%.
- Centreline improvements and updates following the April 2025 Gazette changes are ongoing, with a focus on national routes

Network Validation Remaining by kilometres

Insights into the dashboard: status of remaining network validation review
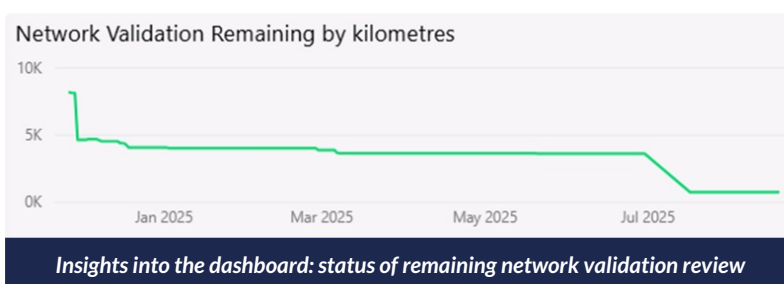
Road Structures

- There are now a total of 946 bridges, 519 major culverts and 79 causeways recorded in the System.
- 340 bridge condition survey results have been imported into AWM, with another 100 under review before importing.
- Provincial teams are progressing with structures validation, though most provinces have 60-70% of their structures still needing validation.
- A notification system now alerts the structure assets administrator when new structure records are added

Number of Asset Validations Remaining

Insights into the dashboard: status of remaining asset validation review. A ssets include bridges, causeways, major culverts and river crossings.

Projects

- The monthly project monitoring process in AWM has been finalised and is available for use, including automated PDF reporting for draft and final versions. Unfortunately, there has still been lack of engagement from some provinces in using this process.
- Over 380 project records and 320 contract records have been loaded into the system, including all TSSP Proforma contracts.
- Updating project monitoring records has been tested and configured in the ThinkProject 'Assets' app, which is set to replace RAMM Mobile.
- A notification system has been set up to alert NM&E advisors when new project records are added.

Selection of photos from project monitoring reports:

Type 5 Open drain on both sides of the road on New Britain Highway, East New Britain

Excavation and widening along the New Britain Highway, East New Britain

Culvert Cleaning and drainage works on Momote Road, Manus

Upgrading and sealing of 2.5km from Chabbai Junction on Buka Road, Bougainville

Data Collection

Network Video

- Training sessions were held with the AMB team to build capability in capturing network video, and additional footage was collected during fieldwork.
- Network video has now been captured from Bougainville and Vanimo, and has been uploaded to **www.mapillary.com**, improving data accessibility and supporting infrastructure assessments.

Traffic Counting

- The national traffic count programme has been set, including site frequency and schedule, and has been approved by AMB leadership.
- Remson Maea has been collecting traffic count data in East New Britain and Gulf with results pending upload to AWM.
- A contractor has been engaged to deliver the traffic count programme, with processes for data flow back into AWM to be finalised.
- Options for Metro RoadPods and additional pneumatic tube counters are still under consideration, particularly for Port Moresby urban roads.

Network Conditions

- The AWM network has been loaded into TotalPave, streamlining transfer of condition data into AWM.
- Bougainville roughness data (460 km) collected via TotalPave is now available in AWM.
- Rough-o-Meter 4 data has been collected, with data for Lealea Road now uploaded into the system.
- Uploading condition data still requires manual checks to match locations, due to ongoing network updates in the system: this will reduce once network alignment is finalised.

RMS Systems

- Power BI dashboards are now fully functional to help to track the quantity of data in the System, track the progress and status of projects, and the extent to which the provincial staff are carrying out their assigned tasks. These dashboards are available to management and executive staff.
- Step-by-step guides on joining Microsoft Teams calls and sharing screens have been provided through the Works Kuru, supporting more effective use of the platform during online meetings.

Asset Management Maturity Assessment

- The Asset Management Maturity Assessment was conducted to review and improve AM practices, previous reviews conducted in 2023 and in 2018.
- Interviews were held in February 2025 with over 15 key people, including DoWH Secretary Mr. Gibson Holemba and other executives.
- The review used a tool with 268 questions and resulted in an overall score of 2.37 out of 5. The assessment provided detailed results and included recommendations for improvement, accompanied by a visual heatmap to show the gaps identified. The results were presented to executive directors on 25th June 2025.

Lessons Learned

Continually improvement depends on learning from both our successes and challenges. Every lesson helps contribute towards a smarter, more resilient road network. Here we will reflect on lessons learned from the pilot studies that were conducted in two provinces and during Phase 1 Implementation more generally.

Two pilot rollout and training activities were carried out to test how provincial staff could take on RMS data validation and collection:
- Kavieng, New Ireland: 10–15 August 2024
- Buka, Bougainville: 7–10 April 2025

New Ireland was selected as a pre-rollout trial site to refine training content, test tools, and assess how data collection could be managed at the provincial level. Bougainville was chosen for its strong engagement during the national rollout, with the visit focused on refresher training and understanding challenges with using the system independently. Lessons learnt are set out as follows:

- **Technology literacy varies**: Training needs to be paced carefully, allowing less confident users time to learn while encouraging more capable staff to support their colleagues.
- **Building confidence takes time**: Staff gained basic competence during training but often lacked confidence using the live system. More supervised, in-person training by AMB team is recommended until provincial teams feel ready to work independently.
- **Task repetition is valuable**: Both trainers and trainees may resist repetitive exercises, but repeated practice builds necessary confidence.
- **Traffic counting and video collection responsibilities**: In most cases, having AMB staff or contractors handle these tasks is more efficient, except in harder-to-reach locations such as Bougainville, where investing in provincial capacity may be worthwhile.
- **Maintaining communication**: Regular, scheduled follow-up meetings after training are essential. Communication channels such as Teams should be tested before trainers leave.
- **Connectivity and funding challenges**: Limited internet access and tight budgets for data collection activities remain barriers. Exploring alternative funding models or incorporating data collection into major works contracts may help.
- **Clear data responsibility**: Identifying a designated person responsible for data entry and validation in each province helps streamline communication and support ongoing data management.
- **Ownership and motivation from management:** Regular communication from management and the executive team is essential to reinforce the value of engineer support and the benefits of using the AWM system. When the engineers feel confidents and acknowledged by the executive team, they are more likely to invest time in learning and using the system effectively. As managers and executives deepen their understanding of the insights and efficiencies the AWM system provides, they can actively encourage and motivate their teams to adopt it more consistently. This top-down endorsement not only drives usage but also fosters a culture of ownership and continuous improvement.

Next Steps

- **AWM Training**: In October 2025, the RMS Implementation team will be bringing an accredited trainer from ThinkProject (Software provider for AWM) to conduct refresher training sessions and provide the opportunity for officers to become certified AWM users. Remote support sessions will continue as per usual.
- **Asset Handover Management**: Over the coming months there will be a focus on how we collect asset data at the end of projects and transfer this efficiently and accurately into the AWM System.
- **AMB Ownership**: The AMB team will continue to take more ownership of supporting provincial staff activity using the AWM system and its administration. GHD team will create more opportunities to increase the ownership of the AMB team during the transition period.

Call to Action

Together, we can maintain momentum and take RMS to the next level in Phase 2. Strong engagement and accountability from provincial staff and executive leadership will be the key to unlocking even greater impact for our road network. To move forward effectively, we ask for focussed attention on the following:

- **Promote training participation**: Executive-level staff should actively encourage their officers' attendance at refresher trainings and office hours, addressing both technical and engagement barriers.
- **Complete network and structures validation:** Provincial staff must finalise network validation by the end of Phase 1 to support alignment and future updates.
- **Complete monthly project monitoring records:** Monthly reporting by provincial staff remains inconsistent. Escalation to executive level is recommended. The system has been designed to easily complete project updates, and the benefits are great. For example:
    - Project monitoring not only highlights challenges being faced in the field, but also gives Headquarters the insights needed to respond quickly and provide stronger support.
    - Good project work should be celebrated! Photo evidence in particular demonstrates the great work that is being done in the provinces. Public rewarding and recognition should be conducted to promote and encourage people to do the great work.
    - Up to date project data allows for headquarters to have a better understanding of the status of the network and helps them to allocate Government and Donor funding.
    - Often funding is provided on the condition that reporting is regularly provided and is accurate. The system generated project reports offer an efficient means to provide this type of reporting.
- **Become familiar with the system and its capabilities:** If there is an expectation that officers are using the system, then there should be a good level of understanding from managers about the system's capabilities and how they can use it to work more efficiently.
- **Familiarise yourself with the Circular Instructions:** The circular instructions 112025, 122025, 132025 and 142025 were distributed early in 2025, these set out the requirements relating to the use of AWM.

Contact

We welcome your feedback and questions about this newsletter or the RMS implementation. By sharing your ideas and experiences, you help us improve and strengthen our collective effort to build a smarter, more resilient road

network for Papua New Guinea.

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