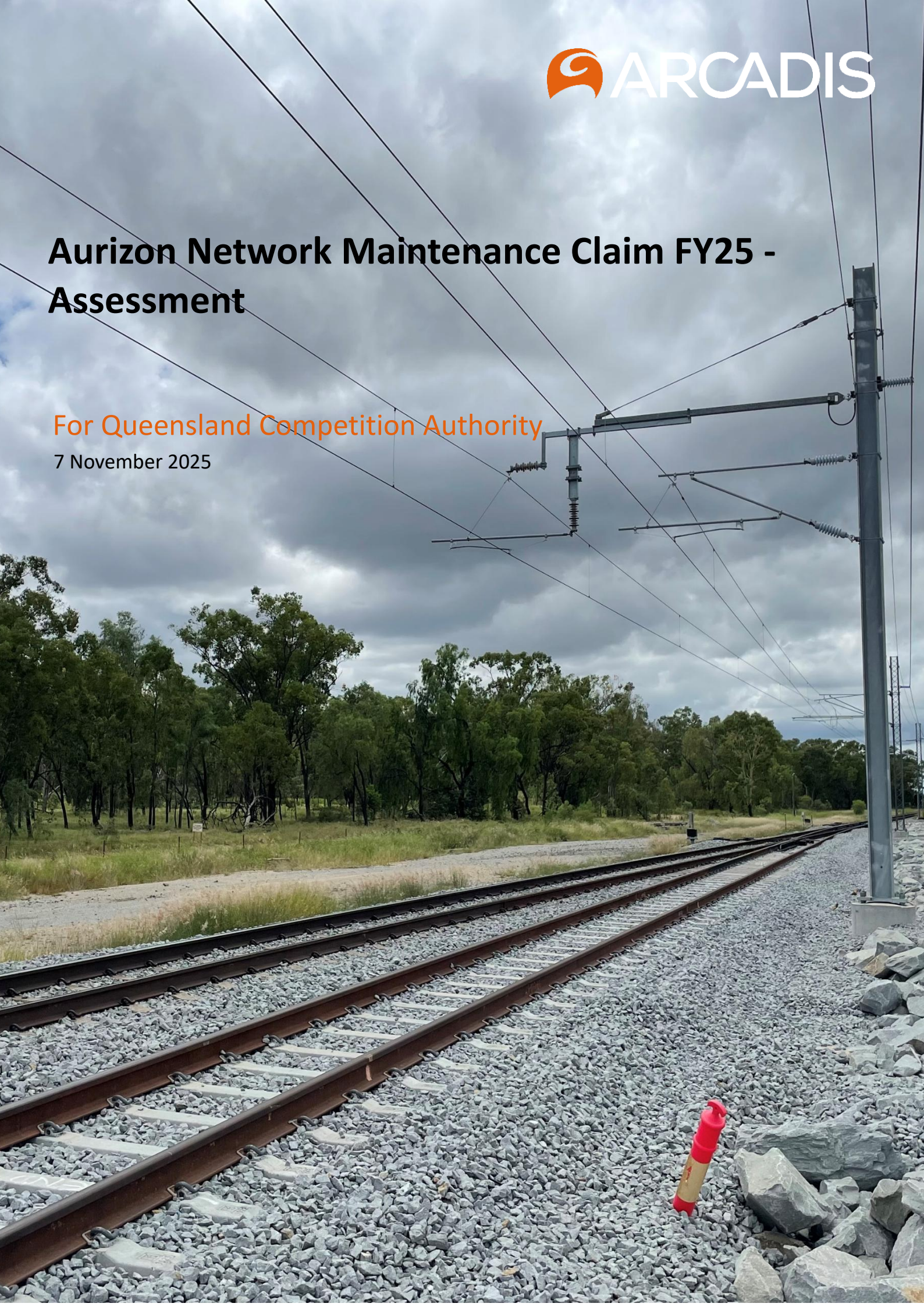


Aurizon Network Maintenance Claim FY25 - Assessment

For Queensland Competition Authority

7 November 2025





AURIZON NETWORK Maintenance Expenditure Claim

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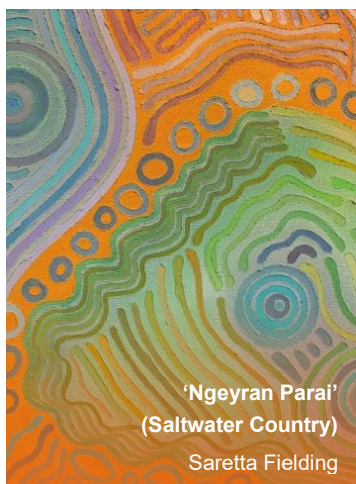
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Date

7/11/2025



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Arcadis is committed to driving inclusion and diversity across our business. This includes specific and actionable policies that aim to make a positive impact on Aboriginal and Torres Strait Islander employment, education and a broader cultural change. Approved by Reconciliation Australia, Arcadis' Reconciliation Plan contains detailed and transparent strategies, targets and measurable actions. We continue to build respect, support education and create employment opportunities with Aboriginal and Torres Strait Island employees within our business.

Further information is [available here](#).

REVISIONS

Revision	Date	Details	Prepared by	Reviewed by	Issued to
A	07/11/2025	Draft for review	V. Thayananthan,	B. Mower #10421	QCA

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Arcadis has relied on information provided to it by Queensland Competition Authority and Aurizon Network to produce the report and arrive at its conclusions. The report is based upon information obtained on or before the report's completion (date above). Circumstances and events may occur following this date beyond our control and may affect the findings or projections contained in the report. We may not be held responsible for such circumstances of events and expressly disclaim any responsibility, therefore.

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1 INTRODUCTION

1.1 Background

The Queensland Competition Authority (QCA) is an independent statutory body responsible for implementing competition policy and regulating infrastructure owned by state and private entities that requires third-party access. As such, the QCA is responsible for the regulation of third-party access to below-rail infrastructure operated by Aurizon Network Pty Ltd (Aurizon Network).

Aurizon Network (Aurizon) is a wholly owned subsidiary of Aurizon Holdings Limited. Aurizon Network's below rail infrastructure comprises a 2,670-kilometre multi-user track network comprising four major coal systems and one connecting system servicing Queensland's Bowen Basin coal region: Newlands, Goonyella, Blackwater, and Moura with Goonyella Abbot Point Expansion - the connecting system link. Collectively this is known as the Central Queensland Coal Network (CQCN). The services provided by Aurizon Network's below rail network are declared for third-party access under the Queensland Competition Authority Act 1997 (the QCA Act).

1.2 Objective

The Queensland Competition Authority (QCA) is responsible for approving the Regulatory Asset Base (RAB) for the Central Queensland Coal Network. To ensure that current and future tariffs are charged fairly and for works deemed necessary, infrastructure work expenditure is subject to regulation from the Queensland Competition Authority Act 1997 (QCA Act) and the Queensland Competition Authority Regulation 2007 (QCA Regulation). Under the regulatory process, works must be submitted as an expenditure claim to the QCA, subject to the QCA approval process before inclusion in the RAB. An access undertaking, approved by the QCA and developed in accordance with the Act, provides a framework for the provision of access to Aurizon Network's rail network. The current undertaking agreement, *Aurizon Network 2017 Access Undertaking (UT5)*, approved by the QCA in 2019. UT5 requires maintenance of a RAB reflecting the value of the CQCN infrastructure.

QCA has engaged Arcadis to perform a reasonable assessment of elements of Aurizon Network's rail maintenance expenditure. Arcadis has assessed the budget exceedance of selected maintenance expenditure and assessed the reasonableness of these items which informs the prudence and efficiency of maintenance expenditure outlined in UT5 cls 7A.11.5.

1.3 Extent of review

Aurizon advised QCA it would be seeking approval of maintenance expenditure claims across multiple locations within the CQCN.

For this review, key elements of the works were assessed by the Arcadis team in line with the primary discipline aligned with that work. A summary of the cost claims Arcadis was asked to assess is provided in Table 1.

Table 1 - Summary of Arcadis Assessment – maintenance expenditure

Element	System	Total budget exceedance (\$ millions)	Total budget exceedance (%)
General track maintenance	Blackwater	3.7	15.4
General track maintenance	Goonyella	3.6	20.6
Signalling and telecommunications	Goonyella	2.3	17.7
Total amount assessed by Arcadis		9.6	

2 MAINTENANCE EXPENDITURE

2.1 Maintenance Expenditure Methodology

Arcadis has been engaged to assess reasonableness of the maintenance costs relating to the Aurizon FY25 Maintenance Claim as it triggers UT5 clause 7A.11.5 (f)¹, whereby QCA will 'consider any item in a Maintenance Costs Claim which is at least \$2 million more than the corresponding item in the Approved Maintenance Strategy and Budget for a Coal System' and assess whether these are prudent and efficient.

In this assessment, Arcadis has applied a reasonableness assessment that will inform QCA of the prudence and efficiency of these maintenance expenditure exceedances. Reasonableness is defined as a rational, justifiable, and logically based approach using professional judgment and informed decisions supported by available data and aligned with prudence cost requirements. It considers compliance requirements such as CETS, CESS, and safety, as well as the organisation's strategic objectives and performance requirements. When distinguishing between maintenance and capital expenditure, reasonableness involves applying sound judgment to determine if an activity aligns with the criteria for each category. Our assessment of reasonableness involves considering the pertinent financial, regulatory, and strategic aspects of the submission investment. Reasonableness evaluates the outcome in relation to the criteria of prudence and cost efficiency. This can be assessed in conjunction with the prudence and efficiency assessment applied in UT5 clause 7A.11.5. Table 2 outlines the items being assessed in the FY25 maintenance expenditure claim.

Table 2 - Summary of Arcadis Assessment – maintenance expenditure assessment

Element	System	Cost type	Assessment type
General track	Blackwater	Maintenance expenditure	Reasonableness assessment
General track	Goonyella	Maintenance expenditure	Reasonableness assessment
Signalling and telecommunications	Goonyella	Maintenance expenditure	Reasonableness assessment

2.2 Extent of review

Aurizon advised QCA it would be seeking approval for maintenance expenditure claims across multiple locations within the CQCN. QCA has requested Arcadis' advice on sections of this claim, to determine whether various items are prudent and efficient under clause 6.2.3 of 2017 Access Undertaking (UT5).

For this review, key elements of the works were assessed by the Arcadis team in line with the primary discipline aligned with that work. A summary of the cost claim Arcadis was asked to assess is provided in Table 3.

¹ ¹ Aurizon Network, 2017 Access Undertaking (UT5) (2024), page 194-196

Table 3 - Summary of Arcadis Assessment – maintenance expenditure FY25

Element	System	Total budget exceedance (\$ millions)	Total budget exceedance (%)
General track maintenance	Blackwater	3.7	15.4
General track maintenance	Goonyella	3.6	20.7
Signalling and telecommunications	Goonyella	2.3	17.7
Total amount assessed by Arcadis		9.6	

The assessment of the claim was conducted with respect to the Proposal on 3 October 2025. This was informed by terms from QCA, including the criteria outlined in clause 7A.11.5(h) and having regard to the more detailed framework that applies to determination of prudence and efficiency of Aurizon's maintenance expenditure claims as summarised above.

2.3 Reasonableness assessments

2.3.1 General Track Maintenance

The costs for general track maintenance exceeded the Blackwater budget by \$3.7m and Goonyella budget by \$3.6m. This exceedance is broken down in Table 4. Below, Arcadis has assessed these items on a reasonableness basis.

Table 4 - Breakdown of general track maintenance FY25 for selected locations

Budget exceedance (\$millions)	Blackwater	Goonyella
Labour and indirect costs	0.8	2.0
Contractors costs	2.7	1.3
Materials and external plant	0.3	0.5
Consumables and other	0.2	-0.1
Less non-coal spend	-0.2	0.0
Total general track maintenance exceedance	3.7	3.6

Labour and indirect costs

Blackwater

The main driver noted for labour and indirect costs exceeding initial planned budget is driven by the need to support higher levels of corrective rail maintenance to address internal rail defects and surface defects. It is understood that the initial FY25 budget was based on FY22-FY24 defects. Upon assessing these defects, it is noted that defects have increased steadily, year on year, particularly transverse defect welds. Further, regarding rail defects management, Aurizon clarified that it does not currently operate a predictive defects management system and bases its budgeting primarily on historical costs (in this case, FY22–FY24 actual costs). It would be reasonable to expect

Aurizon, which claims to be Australia's largest rail freight operator, to have an active steel rail condition management regime, which includes predictive modelling verified through field observations.

We deem the exceedance of \$0.8m in labour and indirect costs reasonable due to the requirement to address rail and surface defects. However, the FY25 budget is based on an average of historical data. We expect that going forward Aurizon is able to create a more accurate prediction of its defects instead of using historical averages.

Goonyella

The \$2.0m exceedance in labour and contractor costs for Goonyella is reasonable when considering the operational circumstances outlined by Aurizon. The primary driver for this exceedance was the significant increase in corrective rail maintenance activities, which stemmed from a higher incidence of rail and surface defects than anticipated in the FY25 budget. This necessitated greater internal labour allocation and material consumption.

In addition, Goonyella experienced a shortage of skilled electrical resources, which required the redeployment of personnel from the Blackwater system. Although this redeployment helped manage overall workforce needs and resulted in some offsetting labour cost reductions for Blackwater, Goonyella incurred additional internal labour costs, as well as ancillary expenses for travel and accommodation, to support its maintenance program. This is confirmed by comparing the total labour and contractor cost exceedances between Blackwater and Goonyella (\$3.3m and \$3.5m respectively). This shows that the two systems have similar exceedances, driven by different activity mix variations and resource redeployment.

Aurizon's approach to utilise internal labour, rather than external contractors, was considered prudent and cost-effective, but external labour hire was still required at times due to timing and phasing differences in operational requirements. External contractor costs typically exceed those for internal labour, further contributing to the budgetary exceedance. Additionally, Goonyella saw minor increases in indirect costs, such as consumables and higher depreciation, which were influenced by delays in the light-vehicle replacement program and global supply chain disruptions.

The higher costs in Goonyella are justified by the need to maintain operational effectiveness in the face of increased defects and workforce shortages, as well as the strategic decision to prioritise internal resource utilisation. Overall, the exceedance is reasonable given the unforeseen maintenance demands and the measures taken by Aurizon to address these challenges.

Contractor costs

Blackwater

It is noted that \$2.1m of the exceedance in contractor costs related to the additional scope associated with the targeted drainage program. The targeted drainage program was not included in the FY25 budget and was not specifically approved, resulting in an exceedance in expenditure. Arcadis investigated the targeted drainage program further.

It is understood that the targeted drainage program seeks to improve performance and reliability of the Rail Infrastructure by introducing a 4% grade at 'high impact' sites (i.e. those with the largest potential impact from formation failures) that seeks to steer water away from track and into cross drains (culverts etc). Aurizon is seeking to reduce the risk of drainage-related formation failure and improve track geometry over the long-term at these high impact sites. Following extended periods of wet weather (La Niña 2021–2023), Aurizon observed a deterioration in formation condition in various locations across the CQCN driven by factors including saturated soil composition. Information presented to the RIG in October 2024 included insights into the cause of FY24 formation failures, with over 60% of those having poor drainage and being under temporary speed restriction.

It was noted that the targeted drainage program allows Aurizon to manage formation condition at targeted sites, in a timely, cost-effective and less invasive manner than formation capital renewals. It is reasonable to understand that these works were implemented in FY25, as opposed to awaiting approval for this to be completed in FY26, as a time lag of one to one and a half years of approval

time would result in more failures which in effect would result in more costly remedial works. It is noted that Aurizon acted to maintain the UT5 maintenance objective that it was necessary to promote the safety, reliability and performance of the Rail Infrastructure.

Arcadis requested information on locations of reactive works and whether these were in the vicinity of preventative drainage works. Aurizon provided the locations of the reactive works in Blackwater and confirmed that this list was not in the vicinity of preventative works. Therefore, we are also satisfied with Aurizon's confirmation on no spatial overlap between the preventative and reactive drainage works.

Aurizon's targeted drainage works appear prudent and efficient. The explanation for reactive drainage maintenance is also reasonable, given the unpredictable nature of severe weather events which result in unanticipated scour, sedimentation and destruction of drainage systems. Overall, the exceedance in contractor costs relating to the targeted drainage program appear reasonable.

It is understood that the contract cost exceedance also related to incurred additional external contractor costs as a result of increased corrective maintenance on access roads and vegetation management activities. This is difficult to predict and therefore budget for 18-24 months prior to the implementation of the budget. Therefore, we deem this prudent and efficient.

Goonyella

Exceedance of \$2.4m due to targeted drainage program which was offset by savings in areas such as maintenance support by internal civil infrastructure team and reduction in costs due to corrective maintenance. This has led to a net overspend of \$1.3m.

Similar to discussion in the Blackwater section of contractor costs (above), the targeted drainage program in Goonyella aims to enhance the performance and reliability of the rail infrastructure by introducing a 4% grade at high-impact sites to direct water away from the track and into cross drains, thereby mitigating the risk of drainage-related formation failures and improving overall track geometry. Implementing these works within FY25, rather than deferring them to FY26 pending budget approval, was a prudent decision as deferral would likely have resulted in increased formation failures and more costly remedial works, potentially jeopardising the safety, reliability, and performance objectives outlined under the UT5 maintenance regime.

While the targeted drainage program resulted in additional contractor expenditure, this was partially offset by savings in other areas. Specifically, the Goonyella system benefited from increased utilisation of internal civil infrastructure teams for maintenance support, as well as reductions in costs associated with corrective maintenance activities, such as corridor maintenance and light engine services for track geometry. These offsets reflect Aurizon's ongoing efforts to balance cost efficiency with the need to address emergent infrastructure risks.

Arcadis has reviewed the rationale for the targeted drainage program and found Aurizon's approach to be prudent and efficient. The decision to address drainage issues proactively, rather than reactively, is reasonable given the unpredictable nature of severe weather events and the associated risk of rapid deterioration in track conditions. Overall, the exceedance in contractor costs relating to the targeted drainage program is justified, as it reflects necessary investment in infrastructure resilience.

Materials and external plant

Blackwater

Given the increased works required for the targeted drainage program, an exceedance in rail maintenance is deemed reasonable for the Blackwater system. We note that this exceedance is \$0.3m which is relatively marginal relative to overall general track and maintenance budget.

Goonyella

Given the increased works required for the targeted drainage program, an exceedance in rail maintenance expenditure is deemed reasonable for the Goonyella system. We note that this

exceedance is \$0.5m, which is justified because, as assessed above, the scope of maintenance has increased beyond initial planning. This has led to a corresponding rise in the need for materials and resources.

Consumables and other, less non-coal spend

Blackwater

The sum of these two line items nets to nil and therefore is deemed immaterial for the purposes of this assessment.

Goonyella

The sum of these two line items nets to \$0.1m and therefore is deemed immaterial for the purposes of this assessment.

2.3.2 Signalling and Telecommunications Maintenance

Arcadis was requested to investigate the budget exceedance for signalling and telecommunications relating to Goonyella. The overspend in Goonyella was \$2.3m.

This overspend was driven primarily by labour costs, with \$3.2m in labour-related overruns partially offset by \$1.5m in contractor cost savings. Approximately \$0.8m of the labour overspend is attributable to cost allocations from the Control Systems South team to the Goonyella system as per consultation with Aurizon. Labour allocations for FY25 were based on a mix of known requirements and historical actuals from FY22–FY24, periods influenced by labour shortages, adverse weather, and the need to reprioritise critical support works. As a result, planned activities were sometimes deferred in favour of more urgent corrective and preventative maintenance to uphold network reliability and respond to increased maintenance demand.

Another factor was a \$0.25m omission in internal labour costs from the FY25 budget. This was identified as a budgeting error and reported to customers in quarterly updates. Aurizon has since implemented improved review processes and system checks to prevent recurrence of such omissions.

Other drivers of the labour and indirect cost overrun include additional hours and shifts worked under the Infrastructure EA, with final entitlements for FY24 paid in July 2024 (~\$0.1m) and further provisions made for FY25 (~\$0.3m). Increased “on call” support and travel allowances were required throughout FY25, especially between November and January, as Southern teams travelled to support Goonyella’s elevated maintenance needs.

The move to internalise signalling and telecommunications maintenance activities has delivered a \$1.5m saving in contractor costs. This shift aligns with Aurizon’s strategic objective to reduce reliance on external contractors and build a more resilient internal capability. Arcadis has requested further information on Aurizon’s ongoing strategy to contain these costs, given that similar budget exceedances were observed in 2024, to ensure that cost management practices continue to improve. This was met with acknowledgment by Aurizon that it continues to implement its strategy to attract and retain skilled resources in the electrical discipline. The strategy involves a combination of enterprise agreement incentives, targeted apprentice and trainee programs, Western Depot retention and accelerated training programs. They noted that there are still challenges attracting skilled resources to the Western Depot (Moranbah) and that Aurizon has sought to utilise internal staff (e.g. drive in drive out), and reduce reliance on external contractors.

Overall, the overspend in Goonyella’s signalling and telecommunications budget is reasonable given the combination of difficult labour conditions, the correction of budget omissions and a deliberate move to internalise maintenance. The contractor savings demonstrate that, while upfront labour costs have increased, this approach is expected to have long term benefits. Further, we

acknowledge that rural areas have a different labour market to metropolitan areas and therefore it is difficult to retain staff in these areas. Although the long-term strategy to internalise staff and reduce focus on contractors is reasonable, we recommend that Aurizon factor this into their budget going forward.

2.4 FY24 and FY25 Budget Exceedance Comparison

As shown in Table 5, similar patterns of budget exceedance were observed in FY24 and FY25 for general track maintenance in both Blackwater and Goonyella, as well as for signalling and telecommunications in Goonyella. Arcadis was asked to investigate whether these exceedances represent a recurring issue across both years.

Table 5 – FY24 and FY25 budget exceedance comparison

Element	System	FY24 budget exceedance (\$ millions)	FY25 budget exceedance (\$ millions)
General track maintenance	Blackwater	3.6	3.7
General track maintenance	Goonyella	3.9	3.6
Signalling and telecommunications	Goonyella	3.5	2.3
Total budget exceedances		11.0	9.6

Table 6 presents the key drivers of budget exceedance for FY24 and FY25, highlighting areas of overlap and difference.

Overall, the main area of overlap between FY24 and FY25 is in signalling and telecommunications for Goonyella. This recurring exceedance is primarily driven by ongoing challenges in sourcing and retaining specialised staff in rural regions, which has led to higher labour costs and increased reliance on internal redeployment. While Arcadis considers this a reasonable budgetary exceedance given the operational context, it is recommended that these workforce constraints be explicitly factored into future maintenance budgets to ensure transparency for customers.

Arcadis sought further information from Aurizon regarding their long-term strategy to address labour shortages. Aurizon advised that the principal challenge remains the recruitment and retention of skilled resources at the Western Depot (Moranbah). To address this, Aurizon is continuing to implement a multi-faceted strategy that includes enterprise agreement incentives, targeted apprentice and trainee programs, Western Depot retention initiatives, and accelerated training programs. In the interim, Aurizon is deploying internal staff to meet immediate operational needs in the area.

Table 6 – Year on year maintenance budget exceedance commentary

Element	System	FY24 drivers for budget exceedance	FY25 drivers for budget exceedance	Overlap in reason for budget exceedance
General track maintenance	Blackwater	Labour costs: Unexpected wage increases driven by labour market shortages in FY24	Labour costs: Labour required to address an increase in defects, relative to historical defects.	No

Element	System	FY24 drivers for budget exceedance	FY25 drivers for budget exceedance	Overlap in reason for budget exceedance
		Contractor costs: Extension of track geometry car contract Material costs: Significant rise in ballast prices	Contractor costs: Contractors used to implement targeted drainage program	
General track maintenance	Goonyella	Labour costs: Unexpected wage increases driven by labour market shortages in FY24 Contractor costs: Extension of track geometry car contract, additional fire and vegetation management	Labour costs: Labour required to address an increase in defects, relative to historical defects. Contractor costs: Contractors used to implement targeted drainage program	No
Signalling and telecommunications	Goonyella	Labour costs: Difficulty in retaining specialised labour in rural areas leading to retention bonuses and travel and accommodation for internal staff.	Labour costs: Difficulty in retaining specialised labour in rural areas leading to redeployment of internal staff and travel and accommodation.	Yes

3 MAINTENANCE EXPENDITURE CONCLUSION

Table 7 below summarises the maintenance expenditure items assessed by Arcadis at the request of the QCA and our findings. Based on our analysis, we find all three items to be reasonable and therefore prudent and efficient under clause 6.2.3 of the 2017 Access Undertaking (UT5).

Table 7 - Summary of Arcadis Assessment – maintenance expenditure FY25

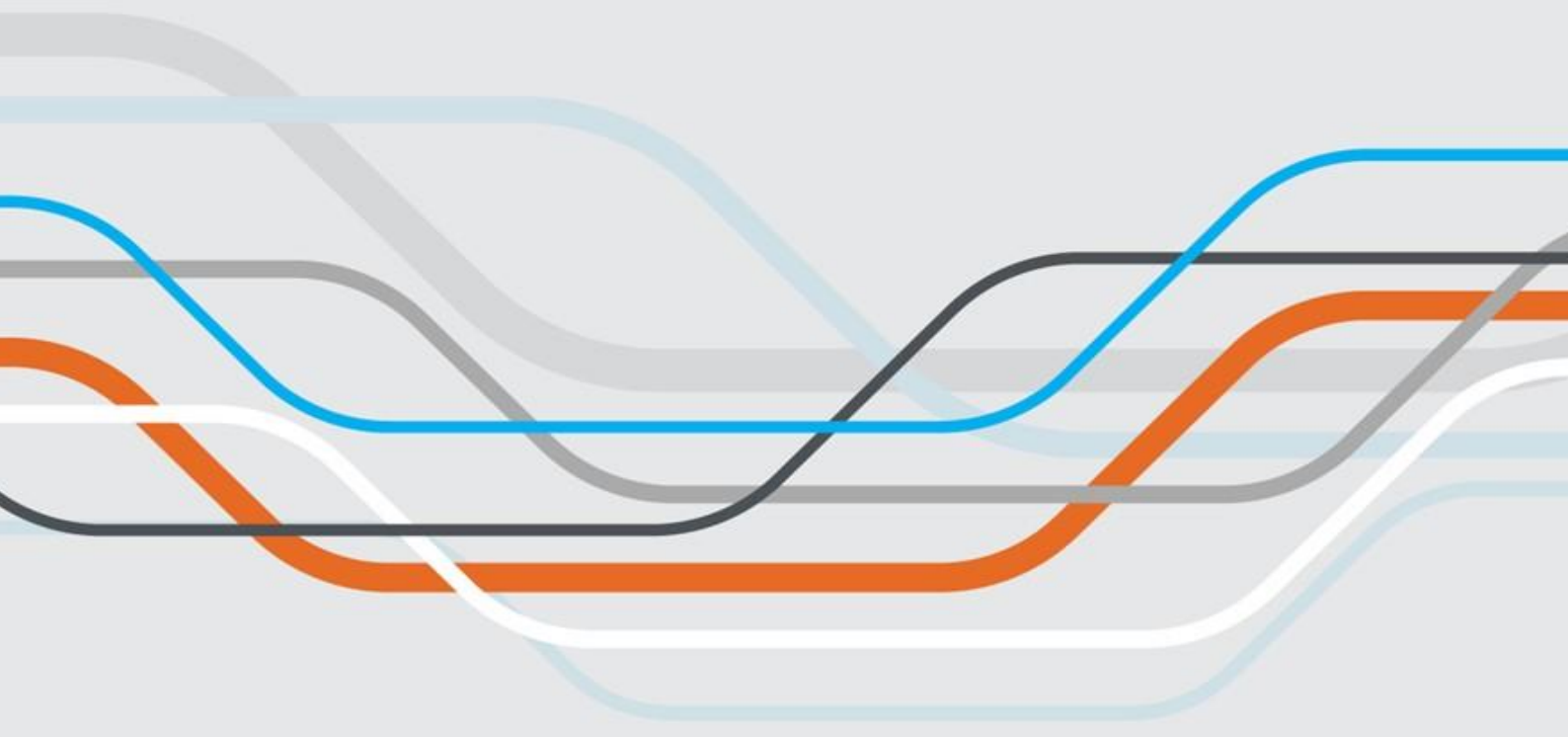
Element	System	Total budget exceedance (\$ millions)	Total budget exceedance deemed reasonable	Difference
General track maintenance	Blackwater	3.7	3.7	-
General track maintenance	Goonyella	3.6	3.6	-
Signalling and telecommunications	Goonyella	2.3	2.3	-
Total amount assessed by Arcadis		9.6	9.6	-

In addition to these findings, Arcadis has identified two key considerations for future maintenance expenditure assessments:

1. **Accommodation and Travel Costs:** Aurizon should ensure that accommodation and travel costs for internal staff working on the Goonyella line are factored into future budgets, particularly as strategies to attract skilled workers in Moranbah are in the process of being implemented.
2. **Predictive Defect Management:** It would be reasonable to expect Aurizon to develop and maintain an active steel rail condition management regime, incorporating predictive modelling validated through field observations. This approach would improve the accuracy of future defect estimates, moving beyond reliance on historical data alone.

These recommendations aim to enhance budget transparency and forecasting accuracy in future maintenance planning.

APPENDICES



A. REQUEST FOR INFORMATION

The following is a list of all documents provided by Aurizon for this assessment:

RFI no	System	Element	Query
1	Blackwater	General track	We understand that the targeted drainage program in FY25 was not included in budget. Was this approved by RIG in May 2024 or 2025? Note that this is a preventative program. Did you do reactive maintenance as budgeted in FY25? What was the reactive spend and what was unutilised?
2	Blackwater	General track	Where were the reactive works in Blackwater undertaken? Were they in the vicinity of preventative drainage works?
3	Blackwater	General track	Could you provide scope and detail for increased corrective maintenance on access roads and vegetation management activities?
4	Blackwater	General track	If Aurizon already has a predictive rail defects management system, why are you coming across unforeseen rail defects?
5	Goonyella	General track	We understand that the targeted drainage program in FY25 was not included in budget. Was this approved by RIG in May 2024 or 2025? Note that this is a preventative program. Did you do reactive maintenance as budgeted in FY25? What was the reactive spend and what was unutilised?
6	Goonyella	General track	Rail Maintenance - Could you explain why assumed activity levels were different from actual, i.e. what information was missing to predict that level of maintenance?
7	Goonyella	S&T	Do you have a strategy to deal with change in workload vs labour shortage going forward to avoid this for future periods?
8	Goonyella	S&T	How much of the \$3.2m overspend relates to the omitted 18 personnel?
9	Goonyella	S&T	How much of the \$3.2m overspend relates to S&T labour shortage related costs, i.e. bonuses (\$300k), accommodation, etc?

Note: Answers have been removed for confidentiality purposes.

Location of reactive drainage works:

Note: Answers have been removed for confidentiality purposes.

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