

Capability Train Plan

14 December 2021



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Introduction

The following Capability Train Plan (CTP) report has been provided in accordance with clause 3A of Schedule G of Aurizon Network's Access Undertaking (**UT5 Access Undertaking**) following publication of the Annual Capacity Assessment by the Independent Expert (IE) for the period to which it relates.

The Capability Train Plan for each Coal System is to demonstrate that Aurizon Network has sufficient capability to deliver existing Train Services Entitlements (TSEs) in each Coal System, having regard to Possessions referred to in clause 3A(c) of Schedule G, Existing Capacity, the System Operating Parameters (SOPS) (including any amendments referenced in the most recent Annual Capacity Assessment) and the relevant characteristics of each Coal System.

Unless otherwise defined, capitalised terms used in this document have the meaning given to those terms in the UT5 Access Undertaking.

Key Assumptions

In developing this report, Aurizon Network has made the following key assumptions:

- where possible, the SOPs as developed by the IE, and published on Aurizon Network's website have been used to inform capacity modelling.
- the FY22 Maintenance and Renewals Strategy and Budget (MRSB) system closure program has been incorporated, along with planned maintenance and renewal activities, and
- full Committed Capacity has been used as the demand, and this demand has been scaled to reflect Deliverable Network Capacity as described in the Initial Capacity Assessment Report.

Where Aurizon Network has used varied assumptions to the SOP, these are detailed in **Appendix 5**.

Deliverable Network Capacity (DNC)

DNC considers all constraints in the network including external factors outside of Aurizon Network's control, such as rollingstock capability, mine and port availability, delays and failures, and the supply chain operating mode.

The DNC has been calculated by the IE by system, month and year for the required assessment period is shown in Table 1 below. The table values represent the portion of committed Train Paths that are deliverable as determined by the IE's DNC assessment. Where this value is less than 100%, the DNC representing the capacity of the Rail Infrastructure is not able to meet the Committed Capacity at a Coal System level having regard to the way in which each Coal System operates in practice.

Aurizon Network's contract demand is therefore adjusted in line with the DNC figures in Table 1 and used as the demand input for the subsequent CTP modelling.

As Aurizon Network does not have a copy of the Independent Expert's simulation model, Aurizon Network has recently enhanced the capability of our own Central Queensland Capacity Simulation Model (CQCSM) to reflect the requirements of the definition of DNC under UT5.

Although every effort has been taken by both Aurizon Network and the Independent Expert to reflect the DNC requirements set out in UT5 there are inherent differences in the two models used that have the capacity to yield accurate though varying results. Details of noted model differences are listed in **Appendix 5**.

Table 1 – Deliverable Network Capacity as percentage of contracted demand

	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Newlands & GAPE	59%	65%	64%	70%	61%	67%	70%	69%	67%	70%	61%	70%
GAPE	57%	63%	62%	67%	59%	65%	68%	67%	64%	67%	59%	68%
Goonyella	91%	84%	97%	99%	90%	96%	96%	93%	91%	93%	91%	99%
Blackwater	100%	100%	100%	84%	93%	100%	97%	99%	100%	96%	91%	100%
Moura	99%	100%	100%	82%	92%	100%	94%	93%	99%	88%	93%	100%

Capacity Assessment

The parameters provided were configured in the dynamic simulation and the Capability Train Plan generated using the CQSCM. The following model results reflect the supply chain capability against the DNC adjusted Train Service Entitlements for the period to which it relates for all systems.

The modelling parameters used in the Aurizon Network's Preliminary ICAR Response were used as the basis for this assessment. This includes contractual demand, maintenance based on approved MRSB and consist numbers.

Table 2 – FY22 DNC Adjusted TSE's Achieved

System	DNC TSE	TSE Achieved	Cycle Time	TSE Variance (%)
Newlands & GAPE	9,530	9,530	25h32m	100%
Goonyella	25,366	25,366	20h35m	100%
Blackwater	20,115	20,115	29h33m	100%
Moura	4,354	4,354	21h15m	100%

Newlands & GAPE

With the current maintenance program deployed in the Newlands System, large system closures significantly reduce the throughput achieved in those months where maintenance activity occurs. This means that peaking capacity is available to rail additional trains on clear months, which offset for the months with maintenance. Figure 1 below highlights the impact of maintenance closures on available paths whilst Figure 2 highlights the subsequent impact on TSEs achieved and cycle time. This demonstrates the amount of peaking capacity required to be used on other months.

Figure 1 – Available Paths (loaded) and System Closures

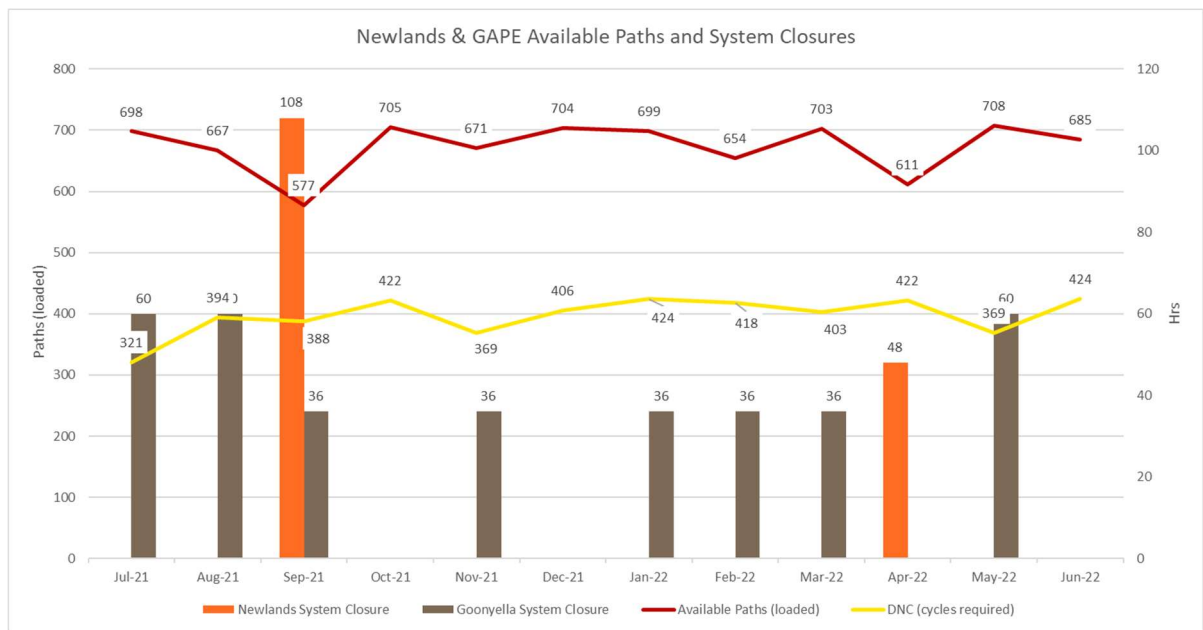
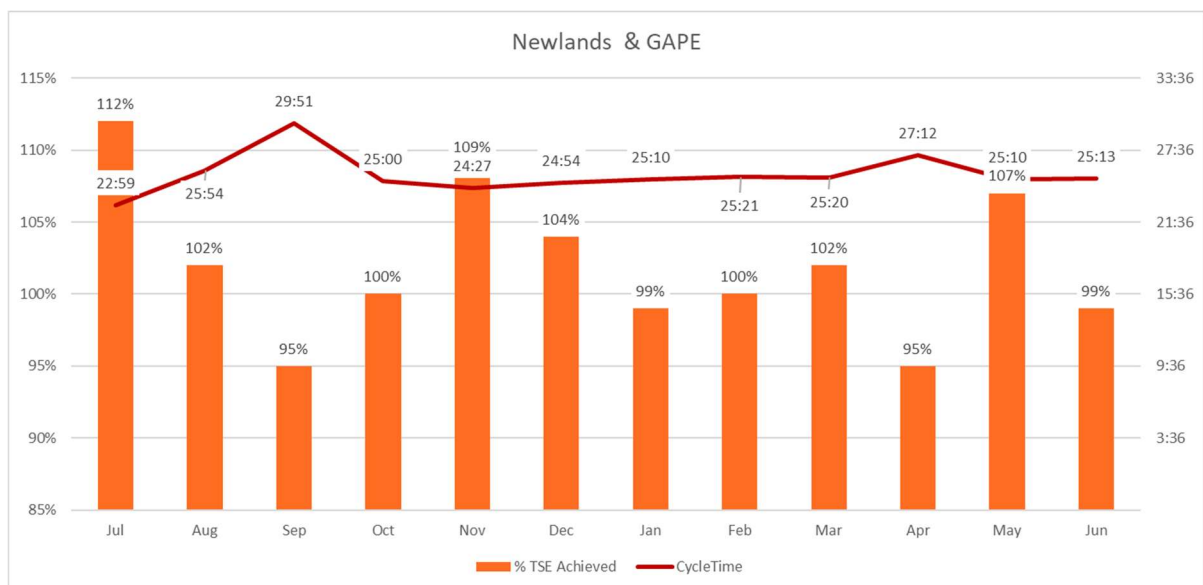


Figure 2 – DNC TSEs Achieved and Cycle Time



Goonyella

The Goonyella System has a regular pattern of 36hr maintenance closures, with three larger 60hr closures. The system should deliver consistent throughput across most months, and peaking capacity in other months to account for the impact of the larger 60hr closures. Figure 3 and Figure 4 below highlight the impact of maintenance closures on achieving throughput and demonstrates the amount of peaking capacity required to be used on other months.

Figure 3 – Available Paths (loaded) and System Closures

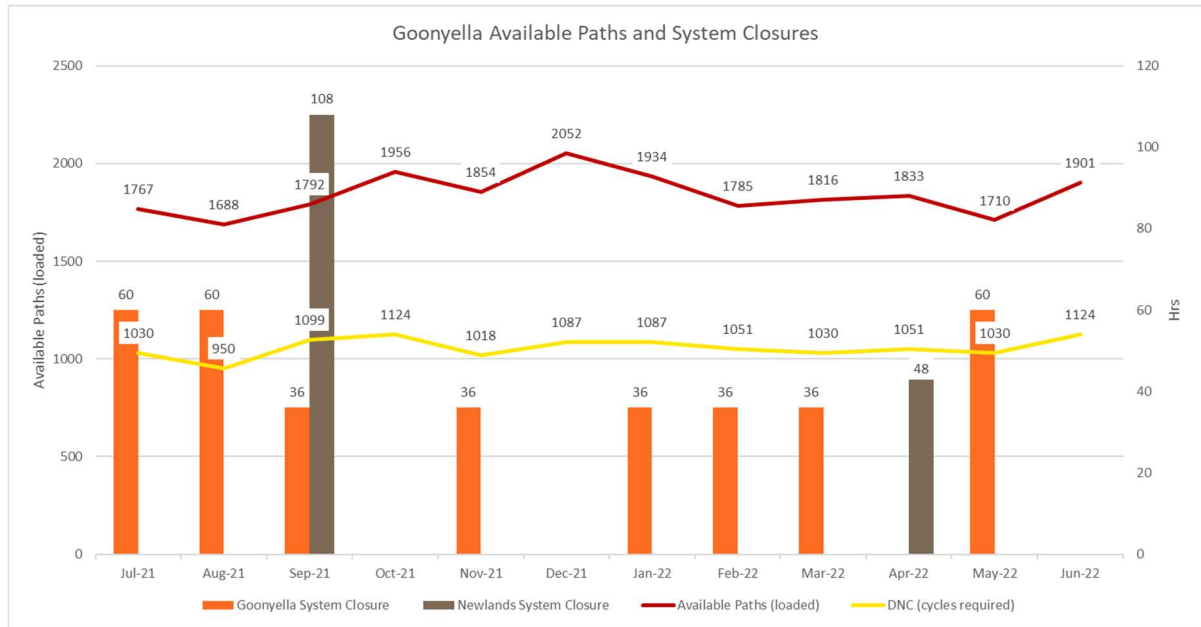
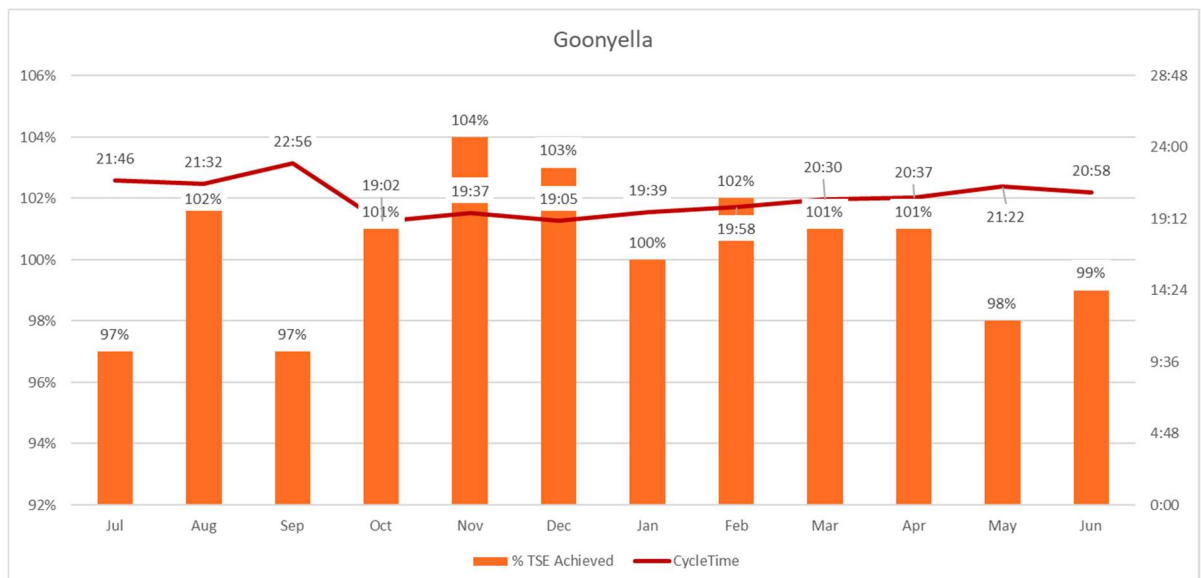


Figure 4 – DNC TSEs Achieved and Cycle Time



Blackwater

The Blackwater System has a regular pattern of 36hr maintenance closures, with some larger closures. Blackwater system should have sufficient capacity to deliver DNC across most months, and peaking capacity in other months to account for the impact of the larger closures. Figure 5 and Figure 6 below highlight the impact of maintenance closures on achieving throughput and demonstrates the amount of peaking capacity required to be used on other months.

Figure 5 – Available Paths (loaded) and System Closures

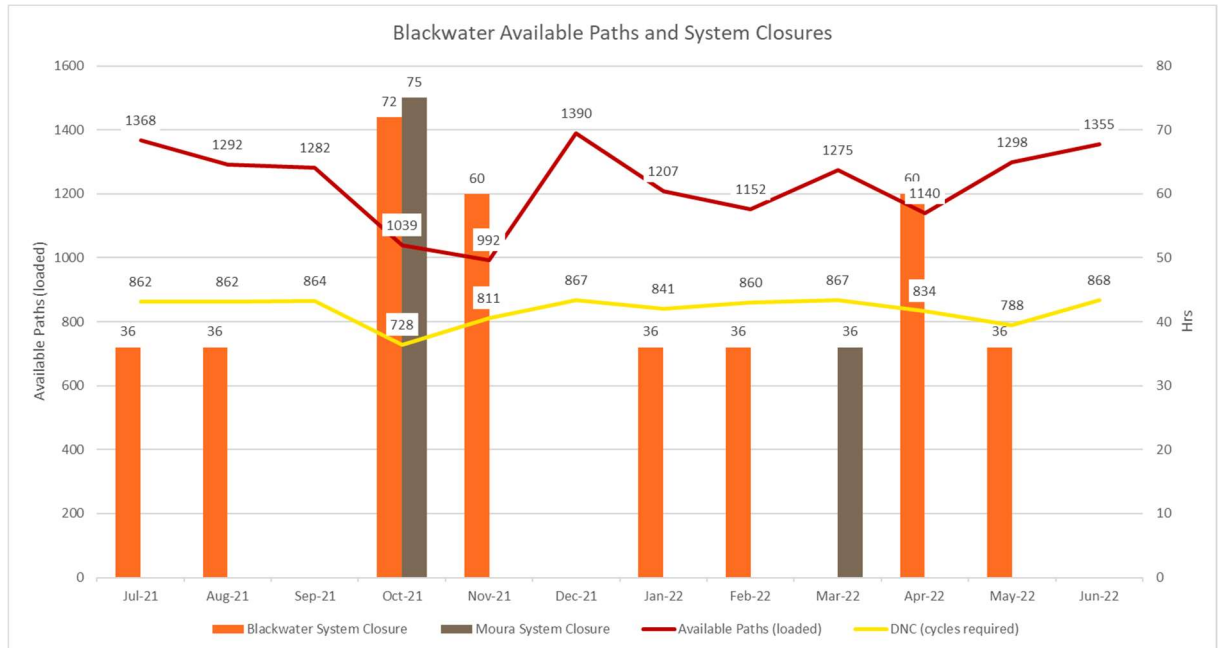
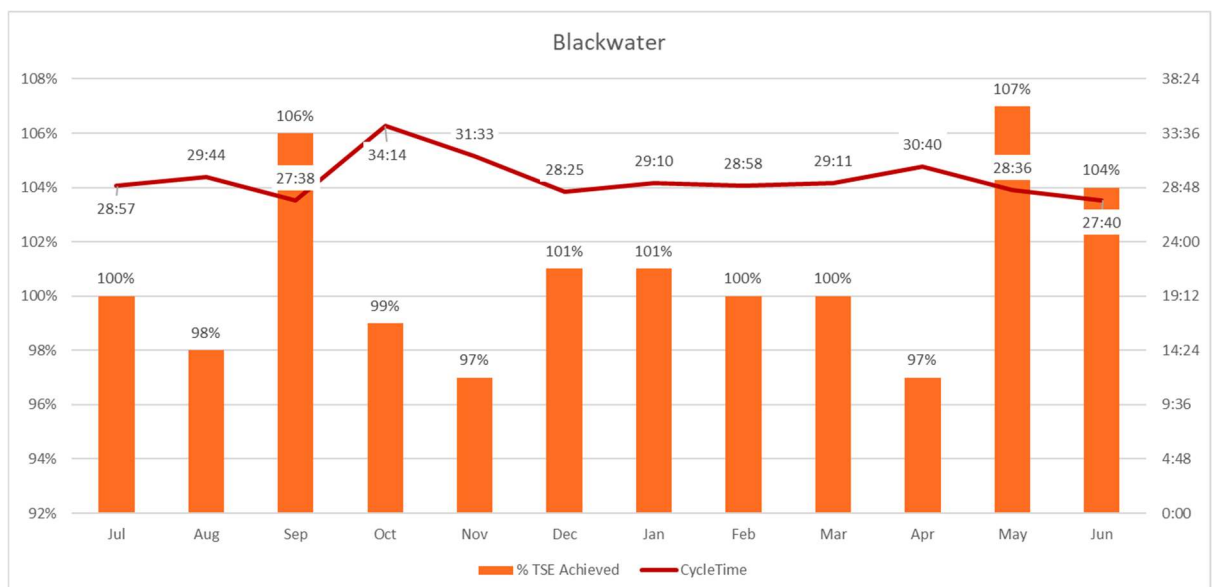


Figure 6 – DNC TSEs Achieved and Cycle Time



Moura

The Moura System has only two system closures however the Blackwater System has substantially more. The impact of a large closure in both the Moura and Blackwater systems can be seen in October and subsequent affect it has on both pathing and throughput as shown in Figure 7 and Figure 8 below. Moura systems should have sufficient capacity to deliver DNC across most months, and peaking capacity in other months to account for the impact of the larger closures.

Figure 7 – Available Paths (loaded) and System Closures

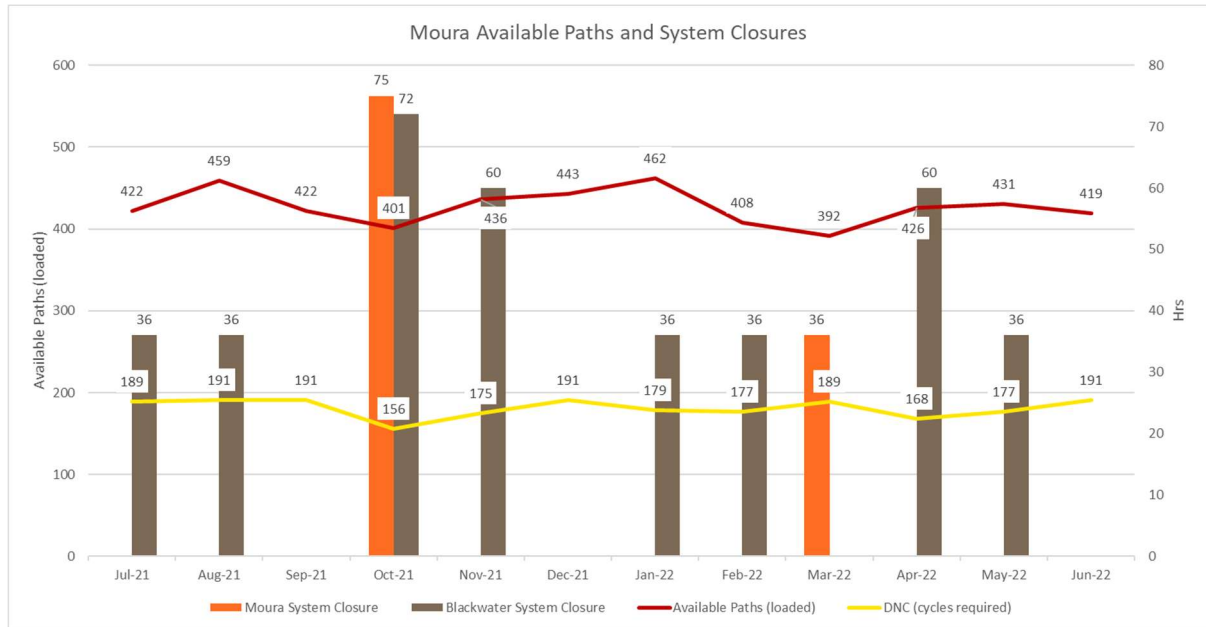
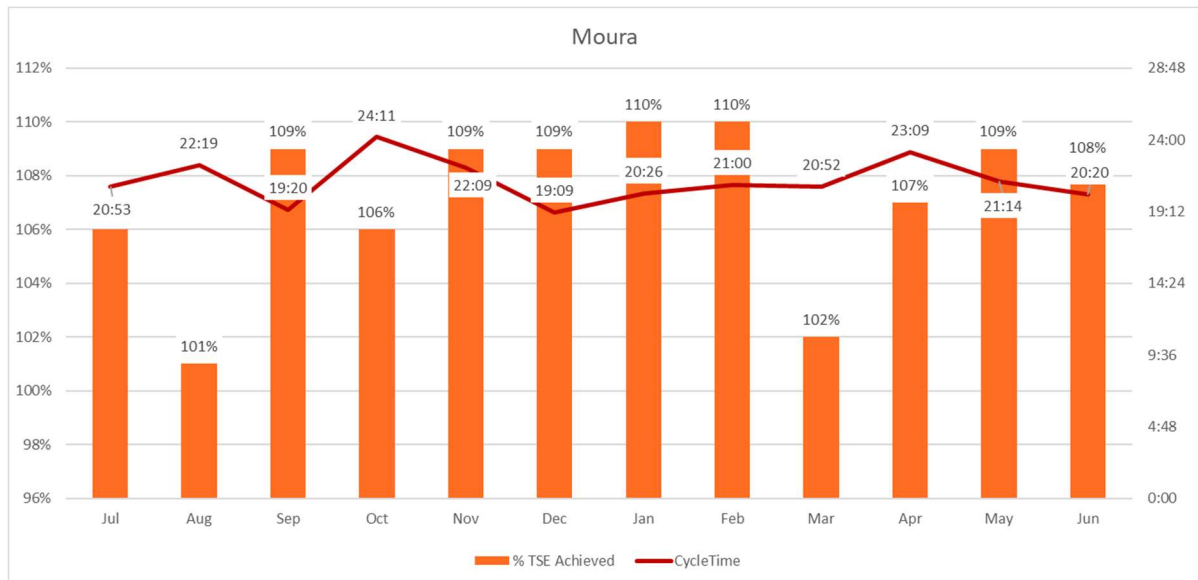


Figure 8 – DNC TSEs Achieved and Cycle Time



Appendix 1: Goonyella Corridor Asset Activity (Major Works & Integrated Closures)

Asset Activity Start	Asset Activity End	Asset Activity Description	Infrastructure Summary	Duration (hours)	Asset Activity Impact
07/07/2021 06:00	09/07/2021 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 60.0 hr/s	Broadlea Up Road (157.666) to Broadlea 12A/12B Up Road (158.178) Coppabella 45A/45B Up Road (147.780) to Carborough Downs Jct 7A/7B Up Road (160.772) Coppabella 45C/45D Down Road (147.879) to Wotonga Down Road (174.185) Gregory Junction 7 Pts (62.090) to Lilyvale 9B/9A Pts (62.545) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583) Saraji 12A/12B (67.535) to Lake Vermont Junction 7A/7B (85.697) Wotonga Angle Sig 22 (0.260) to Wotonga Sig 23 Up Road (174.185)	60	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Burton Carborough Dns Isaac Plains Moorvale Millennium Peak Downs Saraji Lake Vermont Norwich Park Middlemount German Creek Oak Creek Restricted Access All other mines Coppabella Angle UNAVAILABLE Wotonga Angle available.
07/07/2021 06:00	09/07/2021 18:00	GY - AS - BCM - IC JULY BCM 1 - 60.0 hr/s	Yukan_11A/11B Down Rd (30.039) to Black Mountain 8A/8B Down Road (40.798)	60	
11/07/2021 08:30	12/07/2021 03:30	GY - AS - BCM - PAS - JIL DN - 19.0 hr/s	Praguelands 12C/12D Down Road (14.581) to Jilalan Bypass 45A/45B Down Road (17.307)	19	
12/07/2021 16:30	14/07/2021 02:30	GY - AS - BCM - YUK YARD - BMT DN - 34.0 hr/s	Yukan 7A Up Road (28.718) to Yukan_12C/12D Down Road (30.020) Yukan 8A/B Down Road (27.687) to Black Mountain 8A/8B Down Road (40.798) Yukan_ER1A Down Road (28.889) to Yukan_ER2B Down Road (29.274)	34	

21/07/2021 02:00	23/07/2021 12:00	GY - AS - ICF - NGY Branch Closure Footprint - 58.0 hr/s	North Goonyella Junction 7A/7B (213.578) to North Goonyella Junction Sig 25 (213.828) Riverside 10A/10B (197.784) to Riverside Balloon_ER1A (205.775) Wotonga 7C/7D Down Road (174.023) to Wotonga Down Road (174.185) Wotonga Angle 1.354 (0.001) to Wotonga 12A/12B Down Road (176.821) Wotonga Down Road (174.186) to North Goonyella Junction 7A/7B (212.851)	58	NGY Branch 58hr IP NIL GAP traffic Nil access: Moranbah Nth Goonyella Riverside Nth Goonyella
24/07/2021 08:30	25/07/2021 01:00	GY - AS - BCM - IGD - MLJ SINGLE - 16.5 hr/s	Ingsdon 12A/12B (13.237) to Millennium Junction 7A/7B (16.531) Ingsdon Mainline (12.005) to Millennium Junction 7A/7B (16.531)	16.5	
26/07/2021 08:30	27/07/2021 14:30	GY - AS - BCM - MLJ - WCH SINGLE - 30.0 hr/s	Millennium Junction 7A/7B (16.532) to Winchester 7A/7B (31.033) Red Mountain 7A/7B (21.774) to Red Mountain 12A/12B (24.059)	30	
04/08/2021 06:00	06/08/2021 18:00	GY - AS - ICF - GG Branch Closure Footprint - 60.0 hr/s	Gregory Junction 7 Pts (62.090) to Lilyvale 9B/9A Pts (62.545) Lake Vermont Junction 12A/12B (87.017) to Dysart 7A/7B (88.314)	60	Nil Access: Norwich Pk Middlemount Oakly Ck German Ck Nil Cross System to/from Blackwater. 1hr window required Saraji - Lake Vermont for OH works, timing is flexible.
04/08/2021 06:00	06/08/2021 18:00	GY - AS - BCM - IC AUGUST GGY BCM 1 - 60.0 hr/s	Bundoora 7A/7B (127.375) to Oakly Creek 7A/7B (148.823) Bundoora_ER1B (128.728) to Bundoora 12A/12B (129.672) German Creek Junction Sig 13 (0.168) to German Creek Junction Sig 14 (131.642)	60	Nil access to GCB.
08/08/2021 16:30	10/08/2021 02:30	GY - AS - BCM - BRA - TOT UP - 34.0 hr/s	Braeside 12A/12B Up Road (107.812) to Tootoolah 8C/8D Up Road (132.712)	34	
18/08/2021 06:00	20/08/2021 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 60.0 hr/s	Coppabella 91A/91B Down Road (145.560) to Coppabella 45C/45D Down Road (147.879) Coppabella 92A/92B Up Road (145.679) to Coppabella 46A/46B Up Road (147.624) Coppabella 93A/B Down Road (1.045) to Coppabella 92A/92B Up Road (2.581) Coppabella 94C/94D Up Road (1.046) to Coppabella 12A/12B Up Road (3.897) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583)	60	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur

					Coppabella Angle available.
18/08/2021 06:00	20/08/2021 18:00	GY - AS - BCM - IC AUGUST GY BCM 1 - 60.0 hr/s	Dal Bay Xover Pts 11A/11B (7.876) to Dal Bay Xover Pts 12C/12D (8.216) Dal Bay Xover Pts 49A/49B Up Road (8.329) to Praguelands 8C/8D Up Road (14.464) Hay Point Entry 1 Sig 28 Up Road (3.961) to Dal Bay Xover Pts 49A/49B Up Road (8.329) Hay Point Entry 2 Sig 27 Down Road (3.961) to Dal Bay Xover Pts 49A/49B Up Road (8.329)	60	
22/08/2021 08:30	22/08/2021 20:30	GY - AS - BCM - BAL - WTA DN - 12.0 hr/s	Balook 7A/7B Up Road (74.599) to Wandoo 12C/12D Down Road (86.156) Balook 8A/8B Down Road (74.479) to Waitara 9B/9C Down Road (98.248)	12	
24/08/2021 08:30	25/08/2021 04:30	GY - AS - BCM - HAT - BBE UP - 20.0 hr/s	Hatfield 11A/11B Up Road (49.875) to Bolingbroke 8C/8D Up Road (60.506)	20	
31/08/2021 08:30	01/09/2021 20:30	GY - AS - BCM - NPK - MIJ SINGLE - 36.0 hr/s	Norwich Park 12A/12B (110.502) to Middlemount Junction 7A/7B (125.530)	36	
03/09/2021 08:30	03/09/2021 19:00	GY - AS - BCM - NPK - MIJ SINGLE - 10.5 hr/s	Norwich Park 12A/12B (110.502) to Middlemount Junction 7A/7B (125.530)	10.5	
05/09/2021 08:30	06/09/2021 04:30	GY - AS - BCM - HAT - BBE DN - 20.0 hr/s	Hatfield 12C/12D Down Road (49.925) to Bolingbroke 8A/8B Down Road (60.407)	20	
19/09/2021 08:30	19/09/2021 20:30	GY - AS - BCM - SAJ - DYS SINGLE - 12.0 hr/s	Saraji 12A/12B (67.535) to Dysart 7A/7B (88.314)	12	
28/09/2021 06:00	29/09/2021 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 36.0 hr/s	Broadlea Up Road (157.666) to Broadlea 12A/12B Up Road (158.178) Coppabella 45A/45B Up Road (147.780) to Carborough Downs Jct 7A/7B Up Road (160.772) Coppabella 45C/45D Down Road (147.879) to Wotonga Down Road (174.185) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583) Saraji 12A/12B (67.535) to Lake Vermont Junction 7A/7B (85.697) Wotonga Angle Sig 22 (0.260) to Wotonga Sig 23 Up Road (174.185)	36	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Burton Carborough Dns Isaac Plains Moorvale Millennium Peak Downs Saraji Restricted Access All other mines Wotonga Angle available.

10/11/2021 06:00	11/11/2021 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 36.0 hr/s	Coppabella 91A/91B Down Road (145.560) to Coppabella 45C/45D Down Road (147.879) Coppabella 92A/92B Up Road (145.679) to Coppabella 46A/46B Up Road (147.624) Coppabella 93A/B Down Road (1.045) to Coppabella 92A/92B Up Road (2.581) Coppabella 94C/94D Up Road (1.046) to Coppabella 12A/12B Up Road (3.897) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583)	36	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Restricted Access All other mines Coppabella Angle available Wotonga Angle available.
28/11/2021 02:00	02/12/2021 12:00	GY - AS - AR-TCC - BRA - MII UP - 106.0 hr/s	Braeside 12A/12B Up Road (107.812) to Mindi 11C/11D Up Road (120.682)	106	
06/01/2022 06:00	07/01/2022 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 36.0 hr/s	Coppabella 91A/91B Down Road (145.560) to Coppabella 45C/45D Down Road (147.879) Coppabella 92A/92B Up Road (145.679) to Coppabella 46A/46B Up Road (147.624) Coppabella 93A/B Down Road (1.045) to Coppabella 92A/92B Up Road (2.581) Coppabella 94C/94D Up Road (1.046) to Coppabella 12A/12B Up Road (3.897) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583)	36	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Restricted Access All other mines Coppabella Angle available Wotonga Angle available.
03/02/2022 06:00	05/02/2022 09:00	GY - AS - ICF - BA Branch 51hr IP Placeholder - 51.0 hr/s	Caval Ridge Balloon 12A/B (6.589) to Caval Ridge TLO (10.250) Isacc Plains Junction 171.883 (171.896) to Wotonga 8C/8D Up Road (173.638) Wandoo 8A/8B Down Road (85.944) to Wandoo 12C/12D Down Road (86.156) Wotonga 8A/8B Down Road (173.483) to Wotonga 7C/7D Down Road (174.023) Wotonga 8C/8D Up Road (173.638) to Wotonga 7C/7D Down Road (174.023) Wotonga Angle Sig 22 (0.001) to Blair Athol Mine ER1C (110.487)	51	Nil access BA Branch. Nil access: Blair Athol Clermont Terracom Caval Ridge

16/02/2022 06:00	17/02/2022 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 36.0 hr/s	Broadlea Up Road (157.666) to Broadlea 12A/12B Up Road (158.178) Coppabella 45A/45B Up Road (147.780) to Carborough Downs Jct 7A/7B Up Road (160.772) Coppabella 45C/45D Down Road (147.879) to Wotonga Down Road (174.185) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583) Saraji 12A/12B (67.535) to Lake Vermont Junction 7A/7B (85.697) Wotonga Angle Sig 22 (0.260) to Wotonga Sig 23 Up Road (174.185)	36	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Burton Carborough Dns Isaac Plains Moorvale Millennium Peak Downs Saraji Restricted Access All other mines Wotonga Angle available.
02/03/2022 08:30	03/03/2022 14:30	GY - AS - BCM - COB - MAL DN - 30.0 hr/s	Coppabella 45C/45D Down Road (147.879) to Mallawa 7C/7D Down Road (167.900)	30	
05/03/2022 08:30	06/03/2022 20:30	GY - AS - BCM - DXP - JIL DN - 36.0 hr/s	Dal Bay Xover Pts 11A/11B (7.876) to Dal Bay Xover Pts 9A/9B Down Road (8.329) Dal Bay Xover Pts 9A/9B Down Road (8.329) to Jilalan Bypass 45A/45B Down Road (17.307)	36	
07/03/2022 12:00	08/03/2022 12:00	GY - AS - BCM - PAS - JIL BYP UP - 24.0 hr/s	Praguelands 12A/12B Up Road (14.488) to Jilalan Bypass 11C/11D Up Road (22.635)	24	
16/03/2022 12:00	17/03/2022 12:00	GY - AS - BCM - YUK - BMT UP - 24.0 hr/s	Yukan_11C/11D Up Road (30.140) to Black Mountain 8C/8D Up Road (40.898)	24	
18/03/2022 08:30	18/03/2022 20:30	GY - AS - BCM - BMT - HAT YARD UP - 12.0 hr/s	Black Mountain 12A/12B Up Road (40.919) to Hatfield ER2B Up Road (49.332) Hatfield 7A/7B Up Road (47.526) to Hatfield 7C Middle Road (47.625)	12	
20/03/2022 08:30	20/03/2022 20:30	GY - AS - BCM - BLA - MAL DN - 12.0 hr/s	Broadlea 7A Down Road (155.938) to Mallawa 8A/8B (168.102)	12	
21/03/2022 12:00	22/03/2022 18:00	GY - AS - BCM - COB - CDJ YARD UP - 30.0 hr/s	Broadlea 101A Up Road (156.808) to Broadlea 12A/12B Up Road (158.178) Broadlea 7A Down Road (155.938) to Broadlea 12C Down Road (158.275) Coppabella 12A/12B Up Road (145.551) to Carborough Downs Jct 7A/7B Up Road (160.772)	30	Nil access to CDB.

29/03/2022 06:00	30/03/2022 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 36.0 hr/s	Broadlea Up Road (157.666) to Broadlea 12A/12B Up Road (158.178) Coppabella 45A/45B Up Road (147.780) to Carborough Downs Jct 7A/7B Up Road (160.772) Coppabella 45C/45D Down Road (147.879) to Wotonga Down Road (174.185) North Goonyella Junction 7A/7B (213.578) to North Goonyella Junction Sig 25 (213.828) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583) Saraji 12A/12B (67.535) to Lake Vermont Junction 7A/7B (85.697) Wotonga Angle Sig 22 (0.260) to Wotonga Sig 23 Up Road (174.185)	36	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Burton Carborough Dns Isaac Plains Moorvale Millennium Peak Downs Saraji Moranbah Nth Goonyella Riverside Nth Goonyella Restricted Access All other mines
29/03/2022 06:00	30/03/2022 18:00	GY - AS - BCM - IC MAR GY BCM 1 - 36.0 hr/s	Black Mountain 8A/8B Down Road (40.799) to Hatfield 7C Middle Road (47.625) Hatfield ER2B Up Road (49.333) to Hatfield Dead End Siding (49.700) Yukan_11C/11D Up Road (30.140) to Hatfield 11A/11B Up Road (49.875)	36	
27/04/2022 06:00	29/04/2022 18:00	GY - AS - ICF - GG Branch Closure Footprint - 60.0 hr/s	Millennium Junction 7A/7B (16.532) to Lake Vermont Junction 7A/7B (85.697)	60	Nil access: Peak Downs Saraji
27/04/2022 06:00	29/04/2022 18:00	GY - AS - BCM - IC APRIL GGY BCM 1 - 60.0 hr/s	Winchester 12A/12B (33.456) to Peak Downs 7A/7B (43.599)	60	
27/04/2022 06:00	29/04/2022 18:00	GY - AS - BCM - IC APRIL GGY BCM 2 - 60.0 hr/s	Harrow 7A/7B (57.550) to Lake Vermont Junction 7A/7B (85.697) Harrow 7A/7B (57.550) to Saraji 12A/12B (67.535) Saraji 7A/7B (64.796) to Saraji 64.879 (64.879)	60	Nil access to SJB.
11/05/2022 06:00	13/05/2022 18:00	GY - AS - ICF - GY Mainline Closure Footprint - 60.0 hr/s	Coppabella 91A/91B Down Road (145.560) to Coppabella 45C/45D Down Road (147.879) Coppabella 92A/92B Up Road (145.679) to Coppabella 46A/46B Up Road (147.624) Coppabella 93A/B Down Road (1.045) to Coppabella 92A/92B Up Road (2.581) Coppabella 94C/94D Up Road (1.046) to Coppabella 12A/12B Up Road (3.897) Praguelands Down Road (14.699) to Coppabella 7C/7D Down Road (142.683) Praguelands Up Road (14.699) to Coppabella 7A/7B Up Road (142.583)	60	Nil Access Goonyella mainline Nil Access: DBCT HPCT Hail Creek Bidgerley Sth Walker Macarthur Restricted Access All other

					mines Coppableea Angle unavailable. Wotonga Angle available.
11/05/2022 06:00	13/05/2022 18:00	GY - AS - BCM - IC MAY GY BCM 1 - 60.0 hr/s	Black Mountain 12C/12D Down Road (41.016) to Hatfield 12C/12D Down Road (49.925) Hatfield 7A/7B Up Road (47.526) to Hatfield 11A/11B Up Road (49.875) Hatfield ER1A Down Road (49.336) to Hatfield Ballast Quarry (49.749)	60	
11/05/2022 06:00	13/05/2022 18:00	GY - AS - BCM - IC MAY GY BCM 2 - 60.0 hr/s	Macarthur Junction Sig 24 (0.001) to Macarthur Junction_8 Pts Down Rd (0.179) Mindi 11A/11B Down Road (120.583) to Coppabella 7C/7D Down Road (142.683) South Walker Junction 7A/B Pts Up Road (127.249) to Tootoolah 12C/12D Down Road (132.923) South Walker Junction Sig 22 (0.001) to South Walker Junction 9A/9B Pts Down Road (0.260)	60	Nil access to HCB & BYB.

Appendix 2: Blackwater Corridor Asset Activity (Major Works & Integrated Closures)

Asset Activity Start	Asset Activity End	Asset Activity Description	Infrastructure Summary	Duration (hours)	Asset Activity Impact
12/07/2021 06:00	13/07/2021 18:00	BW - AS - ICF - BW Mainline Closure Footprint - 36.0 hr/s	Boorgoon Sig 16 (9.633) to Kinrola Junction 11B/11A (14.745) Minerva Balloon Junction 1.027 (0.001) to Wurba Junction 42.587 (1.026) Rangal 7B/7A Up Road (198.283) to Burngrove 12A/12B (202.282) Rocklands Sig 13 Up Road (1.093) to Blackwater 12B/12A Up Road (187.439) Rocklands Sig 14 Down Road (1.093) to Blackwater 12D/12C Down Road (187.542) Yan Yan 7D/7C (52.165) to Gregory Mine 12B/12A (62.226)	36	Moura Traffic can access RGTCT and QAL. Nil Access Blackwater mainline
13/07/2021 18:00	14/07/2021 06:00	BW - AS - AR-TCC - MEM - SAE SINGLE - 12.0 hr/s	Memooloo Junction 47.865 (47.865) to Starlee_Junction 78.673 (78.672)	12	
13/07/2021 18:00	14/07/2021 06:00	BW - AS - AR-TCC - TIK - BRG SINGLE - 12.0 hr/s	Boorgoon 0.076 Junction (0.001) to Boorgoon TLO (4.197) Tikardi 7A/7B (6.906) to Boorgoon 12A/12B (9.549)	12	Nil Access Boorgoon Balloon
23/08/2021 06:00	24/08/2021 18:00	BW - AS - ICF - BW Mainline Closure Footprint - 36.0 hr/s	Boorgoon Sig 16 (9.633) to Kinrola Junction 11B/11A (14.745) Minerva Balloon Junction 1.027 (0.001) to Wurba Junction 42.587 (1.026) Rangal 7B/7A Up Road (198.283) to Burngrove 12A/12B (202.282) Rocklands Sig 13 Up Road (1.093) to Blackwater 12B/12A Up Road (187.439) Rocklands Sig 14 Down Road (1.093) to Blackwater 12D/12C Down Road (187.542) Yan Yan 7D/7C (52.165) to Gregory Mine 12B/12A (62.226)	36	Full Moura Traffic Restricted Access GPCT Nil Access Blackwater mainline
28/08/2021 06:00	31/08/2021 10:00	BW - AS - AR-TCC - Gladstone Yard - 76.0 hr/s	Gladstone Loop (529.000) to Gladstone_191B (529.257) Gladstone Mainline (529.000) to Gladstone_193 (529.267)	76	Nil Access to QR Passenger Platform Nil access for Shunting
31/08/2021 06:00	31/08/2021 18:00	BW - AS - AR-TCC - BLU - BNL DN - 12.0 hr/s	Bluff 10B/10A Mainline Down Road (169.041) to Bluff 9B/9A Down Road (170.933) Bluff 12B/12A Mainline Down Road (168.854) to Boonal 7D/7C Down Road (181.482) Bluff 7B/7A Up Road (171.121) to Boonal 8D/8C Up Road (181.287)	12	Nil Access to QR Passenger Platform Nil access to QR Passenger Platform

03/09/2021 06:15	03/09/2021 16:15	BW - AS - AR-TCC - TNL - EDU DN - 10.0 hr/s	Tunnel 7B/7A Up Road (75.850) to Edungalba 11D/11C Up Road (84.646) Tunnel 8B/8A Down Road (75.447) to Edungalba 12D/12C Down Road (84.765)	10	
04/09/2021 06:15	04/09/2021 16:15	BW - AS - AR-TCC - TNL - EDU DN - 10.0 hr/s	Tunnel 7B/7A Up Road (75.850) to Edungalba 11D/11C Up Road (84.646) Tunnel 8B/8A Down Road (75.447) to Edungalba 12D/12C Down Road (84.765)	10	
05/09/2021 06:15	05/09/2021 16:15	BW - AS - AR-TCC - GTI - TNL DN - 10.0 hr/s	Grantleigh 11B/11A Down Road (65.923) to Tunnel 7C/7C Down Road (75.948) Grantleigh 7B/7A Up Road (68.137) to Tunnel 8D/8C Up Road (75.515)	10	
06/09/2021 06:15	06/09/2021 16:15	BW - AS - AR-TCC - GTI - TNL DN - 10.0 hr/s	Grantleigh 11B/11A Down Road (65.923) to Tunnel 7C/7C Down Road (75.948) Grantleigh 7B/7A Up Road (68.137) to Tunnel 8D/8C Up Road (75.515)	10	
29/09/2021 08:30	29/09/2021 20:30	BW - AS - BCM - BJQ - MGQ UP - 12.0 hr/s	Archer 8C/8D Up Road (617.175) to Archer 8A/8B Down Road (617.306) Archer Bad Order Siding (615.227) to Archer ER1A Up Road (615.502) Bajool 8C/8D Up Road (606.463) to Midgee 12A/12B Up Road (623.060)	12	
30/09/2021 08:30	30/09/2021 20:30	BW - AS - BCM - RCS - ACH UP - 12.0 hr/s	Archer 8C/8D Up Road (617.175) to Rocklands 50A/50B Up Road (631.607) Midgee 12C/12D Down Road (622.960) to Midgee 11A/11B Down Road (623.210)	12	
01/10/2021 17:00	02/10/2021 07:00	BW - AS - AR-TCC - WLT to BLP UP - 14.0 hr/s	Bluff 11B/11A Up Road (169.027) to Bluff 8B/8A Up Road (171.024) Walton 7B/7A Up Road (163.400) to Boonal Balloon Points 11C/11D Up Road (178.223)	14	
02/10/2021 07:00	05/10/2021 07:00	BW - AS - BCM - IC OCT - 72.0 hr/s	Ambrose 11C/11D Up Road (570.111) to Epala 7A/7B Up Road (577.835) Mt Larcom 7C/7D Down Road (566.725) to Raglan 8A/8B Down Road (586.150)	72	
05/10/2021 07:00	06/10/2021 01:00	BW - AS - AR-TCC - BJQ - BJQ UP - 96.0 hr/s	Bajool 11C/11D Up Road (603.601) to Bajool 7A/7B Up Road (606.441)	18	
05/10/2021 17:00	06/10/2021 07:00	BW - AS - AR-TCC - BLU to BLU DN - 14.0 hr/s	Bluff 10B/10A Mainline Down Road (169.041) to Bluff 9B/9A Down Road (170.933) Bluff 12B/12A Mainline Down Road (168.854) to Bluff 7D/7C Down Road (171.230)	14	Nil Access to QR Passenger Platform Nil access to QR Passenger Platform
13/10/2021 06:00	15/10/2021 18:00	BW - AS - BCM - IC OCT CRW - MCK BCM 1 - 60.0 hr/s	Crew 7B/7A (11.070) to Mackenzie 12B/12A (23.042)	60	

16/10/2021 16:30	17/10/2021 16:30	BW - AS - BCM - TRP - WAY DN - 24.0 hr/s	Wallaroo 11B/11A Down Road (114.920) to Tryphinia 12D/12C Down Road (128.372) Wallaroo 12B/12A Up Road (115.002) to Wallaroo 12D/12C Down Road (115.077) Wallaroo ER2B Down Road (115.191) to Wallaroo ER1A Down Road (115.706)	24	
17/10/2021 06:00	18/10/2021 18:00	BW - AS - ICF - Laleham Branch 36hr IP - 36.0 hr/s	Blackwater 45 Pts (0.001) to Blackwater 10B/10A Up Road (0.582) Blackwater ER4C (0.001) to Blackwater 45 Pts (0.582)	36	Laleham Branch 36hr IP Nil access Koorilgah
18/10/2021 12:00	19/10/2021 12:00	BW - AS - BCM - BJQ - MGQ UP - 24.0 hr/s	Archer 8C/8D Up Road (617.175) to Archer 8A/8B Down Road (617.306) Archer Bad Order Siding (615.227) to Archer ER1A Up Road (615.502) Bajool 8C/8D Up Road (606.463) to Midgee 12A/12B Up Road (623.060)	24	
30/10/2021 16:30	31/10/2021 18:30	BW - AS - BCM - AMB - EPA DN - 26.0 hr/s	Ambrose 12C/12D Down Road (570.234) to Epala 12A/12B Down Road (575.852)	26	
02/11/2021 08:30	03/11/2021 02:00	BW - AS - BCM - AOG - MLM DN - 17.5 hr/s	Aldoga 7C/7D Down Road (555.887) to Mt Larcom 11A/11B Down Road (564.851) East End 9.700 (0.001) to Aldoga 9A/9B Down Road (9.639)	17.5	Nil Access East End Nil access to QR Passenger Platform Restricted Access East End
10/11/2021 08:30	11/11/2021 20:30	BW - AS - BCM - BJQ - MGQ UP - 36.0 hr/s	Archer 8C/8D Up Road (617.175) to Archer 8A/8B Down Road (617.306) Archer Bad Order Siding (615.227) to Archer ER1A Up Road (615.502) Bajool 8C/8D Up Road (606.463) to Midgee 12A/12B Up Road (623.060)	36	
12/11/2021 16:30	13/11/2021 16:30	BW - AS - BCM - UMO - TRP UP - 24.0 hr/s	Dingo ER2B Up Road (141.389) to Dingo ER1A Up Road (141.767) Tryphinia 12B/12A Up Road (128.270) to Umolo 12D/12C Up Road (148.625) Tryphinia 8B/8A Down Road (130.201) to Umolo 11D/11C Down Road (148.520)	24	Nil access to QR Passenger Platform
14/11/2021 07:00	16/11/2021 19:00	BW - AS - BCM - IC NOV BW BCM 1 - 60.0 hr/s	Wallaroo 11B/11A Down Road (114.920) to Umolo 11D/11C Down Road (148.520) Wallaroo 12B/12A Up Road (115.002) to Dingo 11D/11C Up Road (140.853) Wallaroo ER2B Down Road (115.191) to Wallaroo ER1A Down Road (115.706)	60	
16/11/2021 19:00	17/11/2021 07:00	BW - AS - AR-TCC - WDH to GTI DN - 12.0 hr/s	Windah 8B/8A Down Road (57.550) to Grantleigh 7D/7C Down Road (68.239)	12	
24/11/2021 08:30	25/11/2021 14:30	BW - AS - BCM - BJQ - MMQ UP - 30.0 hr/s	Marmor 11C/11D Up Road (594.571) to Bajool 12A/12B Up Road (603.580)	30	

			Marmor 12C/12D Down Road (594.691) to Marmor 12A/12B Up Road (594.790)		
27/11/2021 08:30	28/11/2021 14:30	BW - AS - BCM - BJQ - ACH DN - 30.0 hr/s	Bajool 7C/7D Down Road (606.280) to Archer 8A/8B Down Road (617.306) Bajool 8C/8D Up Road (606.463) to Bajool 8A/8B Down Road (606.625)	30	
29/11/2021 16:30	30/11/2021 16:30	BW - AS - BCM - EPA - MMQ DN - 24.0 hr/s	Epala 7C/7D Down Road (577.735) to Marmor 11A/11B Down Road (594.670)	24	
05/01/2022 08:30	05/01/2022 20:30	BW - AS - BCM - UMO - PAA UP - 12.0 hr/s	Umolo 11B/11A Up Road (148.424) to Paranabal 12D/12C Up Road (156.520) Umolo 12B/12A Down Road (148.530) to Paranabal 11D/11C Down Road (156.335)	12	
07/01/2022 08:30	08/01/2022 20:30	BW - AS - BCM - WAY - TRY DN - 36.0 hr/s	Walleroo 11B/11A Down Road (114.920) to Tryphinia 12D/12C Down Road (128.372) Walleroo 12B/12A Up Road (115.002) to Wallaroo 12D/12C Down Road (115.077) Walleroo ER2B Down Road (115.191) to Wallaroo ER1A Down Road (115.706)	36	
10/01/2022 06:00	11/01/2022 18:00	BW - AS - BCM - IC JAN BW BCM 1 - 36.0 hr/s	Kabra 108B/A Down Road (20.650) to Kabra 108D/C Up Road (20.830) Kabra 110B/A Down Road (18.389) to Kabra 109B/A Down Road (20.428) Kabra 11B/11A Down Road (13.620) to Kabra 107D/C Down Road (21.029)	36	
10/01/2022 06:00	11/01/2022 18:00	BW - AS - ICF - BW Mainline Closure Footprint - 36.0 hr/s	Boorgoon Sig 16 (9.633) to Kinrola Junction 11B/11A (14.745) Minerva Balloon Junction 1.027 (0.001) to Wurba Junction 42.587 (1.026) Rangal 7B/7A Up Road (198.283) to Burngrove 12A/12B (202.282) Rocklands Sig 13 Up Road (1.093) to Blackwater 12B/12A Up Road (187.439) Rocklands Sig 14 Down Road (1.093) to Blackwater 12D/12C Down Road (187.542) Yan Yan 7D/7C (52.165) to Gregory Mine 12B/12A (62.226)	36	Full Moura Traffic Restricted Access GPCT Nil Access Blackwater mainline
18/02/2022 12:00	19/02/2022 12:00	BW - AS - BCM - WLT - BLU YARD UP - 24.0 hr/s	Bluff 11B/11A Up Road (169.027) to Bluff 8B/8A Up Road (171.024) Bluff 12B/12A Mainline Down Road (168.854) to Bluff 7D/7C Down Road (171.230) Walton 7B/7A Up Road (163.400) to Boonal Balloon Points 11C/11D Up Road (178.223)	24	
21/02/2022 06:00	22/02/2022 18:00	BW - AS - BCM - IC FEB BW BCM 1 - 36.0 hr/s	Warren 10B/10A Down Road (25.131) to Wycarbah 12D/12C Up Road (36.210) Warren 7B/7A Up Road (27.363) to Westwood 12B/12A Up Road (45.292) Wycarbah ER1B Up Road (37.059) to Wycarbah Dead End Siding (37.229)	36	

21/02/2022 06:00	22/02/2022 18:00	BW - AS - ICF - BW Mainline Closure Footprint - 36.0 hr/s	Boorgoon Sig 16 (9.633) to Kinrola Junction 11B/11A (14.745) Minerva Balloon Junction 1.027 (0.001) to Wurba Junction 42.587 (1.026) Rangal 7B/7A Up Road (198.283) to Burngrove 12A/12B (202.282) Rocklands Sig 13 Up Road (1.093) to Blackwater 12B/12A Up Road (187.439) Rocklands Sig 14 Down Road (1.093) to Blackwater 12D/12C Down Road (187.542) Yan Yan 7D/7C (52.165) to Gregory Mine 12B/12A (62.226)	36	Full Moura Traffic Restricted Access GPCT Nil Access Blackwater mainline
01/03/2022 06:00	03/03/2022 08:00	BW - AS - AR-TCC - TRY - DIN UP - 50.0 hr/s	Tryphinia 8D/8C Up Road (130.303) to Dingo 12B/12A Up Road (140.624)	50	
04/03/2022 06:00	06/03/2022 08:00	BW - AS - AR-TCC - TRY - DIN DN - 50.0 hr/s	Tryphinia 8B/8A Down Road (130.201) to Dingo 12D/12C Down Road (140.729)	50	
02/04/2022 07:00	04/04/2022 19:00	BW - AS - BCM - IC APRIL BW BCM 1 - 60.0 hr/s	Callemondah 294 B Up Road (536.725) to Yarwun 8C/8D Up Road (548.069) Mt Miller 11C/11D Up Road (540.324) to Mt Miller 8A/8B Down Road (542.619) Mt Miller Sig 22 Northern Leg (0.001) to Mt Miller 3B/2B Up Road (0.159)	60	
02/04/2022 07:00	04/04/2022 19:00	BW - AS - BCM - IC APRIL BW BCM 2 - 60.0 hr/s	Westwood 11B/11A Down Road (45.332) to Windah 8D/8C Up Road (57.698) Wycarbah 12B/12A Down Road (36.111) to Windah 7D/7C Down Road (57.828)	60	
02/04/2022 07:00	04/04/2022 19:00	BW - AS - ICF - BW Mainline Closure Footprint - 60.0 hr/s	Bluff No.4 Road (170.021) to Bluff 45B (170.973) Burngrove Sig 18 (0.361) to Gregory Mine 12B/12A (62.226) Crew 12B/12A (8.947) to Crew 7B/7A (11.070) Rocklands 8C Pts Down Road (0.000) to Wycarbah 11D/11C Down Road (36.091) Rocklands Sig 13 Up Road (1.093) to Rocklands Sig 18 Down Road (632.958)	60	Full Moura Traffic Restricted Access RGTCT Nil Access Blackwater mainline
16/05/2022 06:00	17/05/2022 18:00	BW - AS - BCM - IC MAY BW BCM 1 - 36.0 hr/s	Grantleigh 7B/7A Up Road (68.137) to Edungalba 11D/11C Up Road (84.646) Grantleigh 7D/7C Down Road (68.239) to Edungalba 12D/12C Down Road (84.765)	36	
16/05/2022 06:00	17/05/2022 18:00	BW - AS - BCM - IC MAY BW BCM 2 - 36.0 hr/s	Gracemere 10B/10A Up Road (8.954) to Kabra 108D/C Up Road (20.830) Gracemere 9B/9A Down Road (9.078) to Kabra 11D/11C Up Road (13.817) Kabra 101A Pts Up Road (15.427) to Kabra 109B/A Down Road (20.428)	36	

16/05/2022 06:00	17/05/2022 18:00	BW - AS - ICF - BW Mainline Closure Footprint - 36.0 hr/s	Bluff No.4 Road (170.021) to Bluff 45B (170.973) Burngrove Sig 18 (0.361) to Gregory Mine 12B/12A (62.226) Crew 12B/12A (8.947) to Crew 7B/7A (11.070) Rocklands 8C Pts Down Road (0.000) to Wycarbah 11D/11C Down Road (36.091) Rocklands Sig 13 Up Road (1.093) to Rocklands Sig 18 Down Road (632.958)	36	Full Moura Traffic Restricted Access RGCT Nil Access Blackwater mainline
24/05/2022 06:15	24/05/2022 16:15	BW - AS - AR-TCC - WYC - WWO DN - 10.0 hr/s	Westwood 11B/11A Down Road (45.332) to Westwood 11D/11C Common Road (45.445) Wycarbah 12B/12A Down Road (36.111) to Westwood 7C/7B Down Road (47.503)	10	
24/05/2022 07:00	29/05/2022 05:00	BW - AS - AR-TCC - BW Minerva Branch Footprint - 118.0 hr/s	Comet ER2C (224.474) to Yamala 12 Pts (242.343)	118	Nil access Minerva
27/05/2022 06:00	28/05/2022 18:00	BW - AS - AR-TCC - BJQ - ACH DN - 36.0 hr/s	Bajool 7C/7D Down Road (606.280) to Archer 8A/8B Down Road (617.306) Bajool 8C/8D Up Road (606.463) to Bajool 8A/8B Down Road (606.625)	36	
29/05/2022 06:00	29/05/2022 18:00	BW - AS - AR-TCC - BJQ - ACH DN - 12.0 hr/s	Bajool 7C/7D Down Road (606.280) to Archer 8A/8B Down Road (617.306) Bajool 8C/8D Up Road (606.463) to Bajool 8A/8B Down Road (606.625)	12	

Appendix 3: Newlands Corridor & GAPE Asset Activity (Major Works & Integrated Closures)

Asset Activity Start	Asset Activity End	Asset Activity Description	Infrastructure Summary	Duration (hours)	Asset Activity Impact
13/09/2021 03:00	17/09/2021 15:00	NL - AS - BCM - IC SEPT NL BCM 1 - 108.0 hr/s	Cockool 12A/12B (113.650) to Havilah 7A/7B (129.684)	108	
13/09/2021 03:00	17/09/2021 15:00	NL - AS - BCM - IC SEPT NL BCM 1 - 108.0 hr/s	Almoola 12A/12B (71.941) to Collinsville 7 Pts (75.601) Binbee 12A/12B (46.215) to Briaba 7A/7B (57.833) Briaba 7A/7B (57.834) to Almoola 12A/12B (71.941) Briaba 7A/7B (57.834) to Almoola 12A/12B (71.941)	108	
13/09/2021 07:00	17/09/2021 19:00	NL - AS - ICF - NL Mainline Closure Footprint - 108.0 hr/s	Briaba Sig 23 Up Road (58.096) to Almoola 12A/12B (71.941) Briaba Sig 25 Down Road (58.096) to Almoola 12A/12B (71.941) Havilah 12A/12B (131.317) to Newlands TLO (153.775) Kaili Sig 23 (0.000) to Abbot Point 10B/10A (21.227) McNaughton_Sig 51 (78.501) to McNaughton TLO (85.830) Pring 11A/11B (6.317) to Armuna 7A/7B (23.147) Suttor Creek 7 Pts (180.883) to North Goonyella Junction 7A/7B (211.890)	108	Full System Closure
20/04/2022 06:00	22/04/2022 06:00	NL - AS - ICF - NL Mainline Closure Footprint - 48.0 hr/s	Briaba Sig 23 Up Road (58.096) to Almoola 12A/12B (71.941) Briaba Sig 25 Down Road (58.096) to Almoola 12A/12B (71.941) Havilah 12A/12B (131.317) to Newlands TLO (153.775) Kaili Sig 23 (0.000) to Abbot Point 10B/10A (21.227) McNaughton_Sig 51 (78.501) to McNaughton TLO (85.830) Pring 11A/11B (6.317) to Armuna 7A/7B (23.147) Suttor Creek 7 Pts (180.883) to North Goonyella Junction 7A/7B (211.890)	48	Full System Closure

Appendix 4: Moura Corridor Asset Activity (Major Works & Integrated Closures)

Asset Activity Start	Asset Activity End	Asset Activity Description	Infrastructure Summary	Duration (hours)	Asset Activity Impact
27/10/2021 06:00	29/10/2021 09:00	MA - AS - BCM - IC OCT MRA BCM 1 - 51.0 hr/s	Stirrat 12 Pts (39.394) to Dumgree 7 Pts (109.727) Stirrat Loop (40.373) to Dumgree ER1B (108.817)	51	
27/10/2021 06:00	30/10/2021 09:00	MA - AS - ICF - MA Mainline Closure Footprint - 75.0 hr/s	Byellee 9 Pts (13.925) to Beldeeen 12 Pts (153.661)	75	Full System Closure
30/10/2021 09:00	31/10/2021 07:00	MA - AS - AR-TCC - Boundary Hill Balloon - 22.0 hr/s	Boundary Hill Junction Loop (0.001) to Boundary Hill TLO (5.968)	22	Nil Access Boundary Hill
16/03/2022 06:00	17/03/2022 18:00	MA - AS - ICF - MA Mainline Closure Footprint - 36.0 hr/s	Boundary Hill 11 Pts (4.133) to Boundary Hill TLO (5.968) Byellee 9 Pts (13.925) to Beldeeen 12 Pts (153.661)	36	Full System Closure

Appendix 5: Modelling Parameters

	CTP Model Parameter	2021 SOP
SRTs	Current planned SRTs (2021)	Aurizon Network's System Operating Parameters (2019)
Loadout Rates	Distribution of load times generated from Aurizon Network weighbridge data	Load rate distribution created from Above Rail operator data for the two-year period from January 2018 to December 2019
Unload Rates	Distribution of unload times generated from Aurizon Network unload data	Unload rate distribution created from data provided by multiple Above Rail operators and/or export terminals
Delays	Failure occurrence and delay length-based probability data formulated from incident data actuals	Inputs defining faults were developed by fitting distributions describing faults such that the model produced delays in a similar manner to the historical delay data
TSR's	TSR's are applied by month and per track section generated from TSR actual data (CY2020)	TSR's are applied by month and per track section. Distributions generated to fit low, mid and high classifications based on historical data
Demand mode of operation	Even Railings	Even Railings and Campaign Railings
TLO Availability	TLO planned maintenance assumed to occur is system shuts	TLO planned maintenance applied guided by historical data from FY16 to FY18
Payloads	Full payloads considered	Full Payloads and light Payloads distribution applied

Consist numbers modelled

Consist Type	Operators	CTP Consists	SOP Consists
Blackwater	2	38	41
Moura	1	8	7
Goonyella	4	37	44
Newlands	3	18	18

Appendix 6: QR MTP Timetable Traffic

The tables below contain station arrival times at the entry & exit points of timetabled North Coast Line traffic.

Northbound

Monday

Train no.	6381	Q301	VC71	QR92	82P9
Gladstone		1712	2223		2345
Callemondah	0730	1720	2234		0029
Rocklands	1007	1825	2352	1920	0205
Gracemere				1940	

Tuesday

Train no.	8CP1	YC49	6381	Y279	82P5	YU55	6WC3	Q301	82P9	VC73	Q311	QR92
Gladstone								1712	2030	2223	2317	
Callemondah	0515	0642	0730	1045	1230	1253	1440	1720	2114	2234	2326	
Rocklands	0650	0818	1007	1218	1405	1448	1633	1825	2250	2352	0022	
Rocklands							1959					1920
Gracemere							2008					1940
Nogoa							0045					

Wednesday

Train no.	PW57	8CP1	YC49	Y375	Y279	82P5	YU55	82P9	VC75	62N7	6381
Gladstone	0236							2030	2223		
Callemondah	0254	0515	0645	0737	1100	1230	1300	2114	2234	2200	0730
Rocklands	0410	0650	0818	0918	1233	1405	1448	2250	2352	2333	1007
Rocklands	0450										
Nogoa	0905										

Thursday

Train no.	8CP1	YC49	6381	YU45	Y279	82P5	YU55	Q301	QR92	82P9	6BC3
Gladstone								1712		2030	
Callemondah	0501	0609	0730	1029	1045	1230	1315	1720		2114	2136
Rocklands	0650	0803	1007	1201	1218	1405	1448	1825	1920	2250	2319
Gracemere									1940		0238
Nogoa											0715

Friday

Train no.	8CP1	YC49	6381	Y375	Y279	82P5	YU55	Q301	82P9	VC79	6BC6	QR92
Gladstone								1712	2030	2223		
Callemondah	0515	0630	0730	0744	1045	1230	1254	1720	2114	2234		
Rocklands	0650	0803	1007	0918	1218	1405	1448	1825	2250	2352	2044	1920
Gracemere											2053	1940
Nogoa												0130

Saturday

Train no.	8CP1	YC49	Y279	62N7	7Q39	Q301	QR92	VC81	PW57
Gladstone						1712		2223	2259
Callemondah	0510	0626	1115	1330	1956	1720		2234	2317
Rocklands	0650	0803	1250	1503	2220	1825	1920	2352	0033
Gracemere							1940		0135
Nogoa									0527

Sunday

Train no.	82P9	8CP1	Y375	YC77	6W46	82P3	YU45	6WC3	Q301	82P7	QR92	YU55	8UP9	6EC1	Y279	Q311
Gladstone									1712				2030			2317
Callemondah	0113	0258	0344	0414		1445	1542	1630	1720	1659		1830	2114	2128	2229	2326
Rocklands	0250	0435	0518	0548		1620	1718	1803	1825	1905		2003	2250	2318	0003	0022
Rocklands					1514						1920			0229		
Gracemere					1523						1940			0238		
Nogoa					2015									0715		

Southbound

Monday

Train no.	V980	87P6	Q992	8G08	Y874	Y776	87P0	P985	QJ93	87P8
Nogoa								1938		
Gracemere								0000	0148	
Rocklands	0045	0206	0716	1106	2026	2106	2226	0127	0157	0406
Callemondah	0156	0345	0821	1345	2205	2245	0005	0251	0254	0545
Gladstone	0202	0430	0826				0045	0258	0259	0630

Tuesday

Train no.	V982	65N0	Q992	87P4	Y796	8G08	87P2	6391	Y798	Q303	87P6
Nogoa								0640			
Gracemere								1208		0607	
Rocklands	0045	0426	0716	0246	1006	1106	1142	1217	1318		1558
Callemondah	0156	0605	0821	0425	1145	1345	1325		1505		1745
Gladstone	0202		0826								1755

Wednesday

Train no.	Y844	Q992	87P4	65C1	Y796	8G08	87P2	Y798	87P8	Y874	Y776
Nogoa				0425							
Rocklands				0957							
Rocklands	0103	0716	0343	1123	1006	1106	1142	1403	1646	2026	2106
Callemondah	0245	0821	0525	1305	1145	1345	1325	1545	1825	2205	2245
Gladstone		0826									

Thursday

Train no.	V972	Q303	Q992	87P4	Y796	8G08	87P2	Y798	87P6	Y776	65N0	P985
Nogoa												1938
Gracemere			0607									0000
Rocklands			0614									0009
Rocklands	0045		0716	0443	1006	1106	1142	1403	1646	2106	2214	0127
Callemondah	0156		0821	0625	1145	1345	1325	1545	1825	2245	0005	0251
Gladstone	0202		0826									0258

Friday

Train no.	V974	Q992	6YC1	87P4	Y796	8G08	87P2	Y798	87P6	65C5	Y874	Y776	65C3
Nogoa			0325							1435			1910
Gracemere			0848							1948			0028
Rocklands			0857							1957			0040
Rocklands	0045	0716		0828	1006	1106	1142-46	1403	1646	2125	2026	2106	0201
Callemondah	0156	0821		1045	1145	1345	1325	1545	1825	2305	2205	2245	0345
Gladstone	0202	0826											

Saturday

Train no.	Y844	V976	Q303	Q992	87P4	Y796	87P2	Y798
Gracemere			0607					
Rocklands	0123	0045	0614	0716	0803	1006	1142	1318
Callemondah	0305	0156		0821	0945	1145	1325	1505
Gladstone		0202		0826				

Sunday

Train no.	Y776	Q303	Q992	87P4	Y796	Y798	87P2	65C3
Nogoa								1640
Gracemere		0607						2208
Rocklands		0614						2217
Rocklands	0446		0716	0747	1026	1318	2206	2343
Callemondah	0625		0821	0945	1205	1505	2345	0125
Gladstone			0826					