CENTENNIAL

CENTENNIAL COAL
LIDSDALE SIDING
2020 ANNUAL REVIEW

February 2021

Annual Review Title Block

Name of Operation	Lidsdale Siding
Name of Operator	Ivanhoe Coal Pty Ltd
Project Approval #	Lidsdale Siding Upgrade PA 08_0223
Name of holder	Ivanhoe Coal Pty Ltd
Mining Lease #	N/A
Name of Holder of Mining Lease	N/A
Water Licence #	WAL25774 WAL24362
Name of Holder of Water Licence	Ivanhoe Coal Pty Ltd
MOP/RMP Start Date	N/A
MOP/RMP End Date	N/A
Annual Review Start Date	1 January 2020
Annual Review End Date	31 December 2020

I, certify that this audit report is a true and accurate record of the compliance status of Lidsdale Siding for the period 2019 and that I am authorized to make this statement on behalf of Ivanhoe Coal Pty Ltd.

Note:

a) *The Annual Review is an 'environmental audit' for the purposes of s122B (2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion) in an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.*

b) *The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents –maximum penalty 2 years imprisonment or $22, 000, or both).*

Name of Authorised Reporting Officer	MICHAEL CLARK
Title of Authorised Reporting Officer	Director
Signature of Authorised Reporting Officer	M. Clark
Date	24-2-21

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1. STATEMENT OF COMPLIANCE

Table 1-1 provides a statement of compliance with the relevant approval during the reporting period.

Table 1-1: Statement of Compliance

Approval	Were all conditions of the relevant approval(s) complied with?
Project Approval PA 08_0223	No
Environmental Protection Licence 5129	Yes
Water Access Licences 24362 & 25774	Yes

Table 1-2 is used to provide a list of conditions that were not complied with during the reporting period.

There were non-compliances recorded at Lidsdale Siding in 2020 against PA 08_0223. Table 1-2 shows the non-compliance during the reporting period and where it is addressed in this Annual Review. Table 1-3 is to be used as a key for Table 1-2.

Table 1-2: Non-compliances

Relevant Approval	Condition #	Condition summary	Compliance Status	Comment	Section addressed in report
PA 08_0223	Schedule 2, Condition 8A	The Proponent may receive and unload trains only during the day period	Non-compliant	Trains were both received and unloaded outside the approved day period on 15 occasions between January 2020 and December 2020	Section 5.5 Appendix G Appendix R
PA 08_0223	Schedule 5, Condition 7	The Proponent must notify the Planning Secretary and any other relevant agencies of any incidents that breach or exceed the limits or performance criteria in this approval	Non-compliant	Incidents for train receival and unloading outside of the approved day period were not reported to DPIE or any other relevant agencies	Appendix R

Table 1-3: Compliance Status Key for Table 1-2

Risk Level	Colour Code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium		Non-compliance with: • Potential for serious environmental consequences, but is unlikely to occur; or • Potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: • Potential for moderate environmental consequences, but is unlikely to occur; or • Potential for low environmental consequences, but is likely to occur
Administrative		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

2. INTRODUCTION

Ivanhoe Coal Pty Ltd (Centennial Ivanhoe) operates the Lidsdale Siding Rail Loading Facility, located approximately 12 kilometres northwest from the city of Lithgow, NSW. Lidsdale Siding is situated approximately 150 kilometres west of Sydney adjacent to the township of Wallerawang.

The Lidsdale Siding maps are located in Appendix A and illustrate the following:

- The regional context of the project
- The project boundary and site features
- Monitoring locations for:
    - Noise
    - Surface water, groundwater and discharge water
    - Air quality and meteorology
    - Aquatic ecology
- The hydrocarbon contamination study area
- The Willow removal area

The Lidsdale Siding Upgrade Project Environmental Assessment (EA) was submitted to the Department of Planning, Industry and Environment (DPIE) in August 2012. The Lidsdale Siding Upgrade Project was approved on 3 May 2013 by the Minister for Planning and Infrastructure, via the Planning Assessment Commission.

The upgrade project at Lidsdale Siding ensures the improvement of operational efficiency and increases its overall throughput capacity to approximately 6.3 million tonnes per annum. The upgraded train loading process is automated by establishing a coal stockpile with underground reclaimers feeding a conveyor, leading to a train loading bin with a total stockpile capacity of approximately 50,000 tonnes.

This Annual Review relates to the reporting period 1 January 2020 to 31 December 2020.

Table 2-1 provides the names and contact details of the key personnel who are responsible for the environmental management of the operation.

Table 2-1: Environmental Management Contact Details

Name	Position	Email	Contact Details
Anthony Brown	Manager Springvale Coal Services	anthony.brown@centennialcoal.com.au	02 6355 9511
Neil Thompson	Environment and Community Coordinator	neil.thompson@centennialcoal.com.au	02 6355 9509
Community Contact Number	SCSO Control Room	N/A	02 6355 9500

3. APPROVALS

A summary of the environmental approvals held by Lidsdale Siding is provided in Table 3-1 below.

Table 3-1: Lidsdale Siding Approvals

Approval/ Title/ Licence/ Permit	Description	Issued By	Expiry Date	Any changes during reporting period
Project Approval 08_0223	Approval to carry out coal handling and train loading operations on the site until 31 December 2042.	DPIE	31/12/2042	Yes (See section 3.1.1)
Environment Protection Licence (EPL) 5129	The licence authorises the operation of the coal loading facility under the *Protection of the Environment Operations Act 1997* (POEO Act). Licence conditions relate to pollution prevention and monitoring, and cleaner production through recycling and reuse and the implementation of best practice.	NSW Environment Protection Authority (EPA)	N/A	No
Site Lease	Memorandum of Lease (4/11/1978). NSW Rail land, but there is a lease in place between the managers of the site (John Holland Group) and Centennial Ivanhoe. The original lease was signed by the owners of the site (former Department of Public Transport Commission of NSW) and Austen and Butta Limited.	Public Transport Commission of NSW	30/04/2025	No
WAL 25774 WAL 24362	Lidsdale Siding currently holds two water access licences (WALs) for the extraction of surface water and groundwater to supplement water supply to the site. The WALs are issued under the Water Management Act 2000 and include specific extraction, monitoring, recording and reporting requirements. WAL 25774 licenses the extraction of up to 1 ML/year of surface water from Pipers Flat Creek; however, this water source is not currently used. WAL 24362 licenses the extraction of up to 8.5 ML/year of groundwater from a production bore.	WaterNSW	N/A	No
Monitoring Bore Licence 10BL605720	Additional water monitoring bores installed at Lidsdale Siding during 2015.	WaterNSW	N/A	No

3.1 Changes Made to Approvals during the Reporting Period

Changes were made to Lidsdale Siding's Project Approval 08_0223 (PA 08_0223) approval during the reporting period as listed in Table 3-1 and detailed in Section 3.1.1

3.1.1 Development Consent

Modification 3 – MOD 3

PA 08_0223 was modified under modification 3 (MOD 3) on 3 November 2020 as a response to Centennial's modification application report dated 14 April 2020 to remove restrictions on when the facility can undertake rail unloading activities and allow for the receipt and transfer of coal to the Mount Piper Power Station outside of the 'emergency situation' defined under Modification 1.

MOD 3 included the following modifications of noise related conditions of Schedule 3 of the consent:

- Condition 2 – An update of noise monitoring criteria at multiple sensitive receivers potentially impacted by Lidsdale Siding operations.
- Condition 3A – A process for conducting noise monitoring at any residence within 100 m of sensitive receiver location R8 upon LS receiving a written request.

Further discussion of the changes to PA 08_0223 noise conditions is provided in Appendix D.

3.1.2 Mining Authorisations

No mining authorisations are in place for Lidsdale Siding.

3.1.3 Environment Protection Licence

No variations were made to EPL 5129 during the reporting period.

3.1.4 Other Approvals

Refer to Table 3-1.

3.1.5 Environmental Management Plans

Consistent with the conditions of PA 08_0223, Centennial and Springvale Coal Services Operation (SCSO) have developed a number of site specific and western region documents to guide environmental management. These documents, including environmental management plans, strategies and programs identify potential environmental impacts and mitigation measures. A list of Lidsdale Siding's environmental management plans and their status as of 31 December 2020 is presented in Table 3-2.

Table 3-2: Status of Lidsdale Siding Environmental Management Plans

Management Plan	2020 Actions	Date Provided to DPIE	Approval from DPIE
Western Region Noise Management Plan (WRNMP)	• WRNMP reviewed following PA 08_0223 modifications. • Update to reflect MOD 3 changes including to revise noise monitoring criteria and include the process of conducting noise monitoring following written request from a residence within 100 m of sensitive receiver, R8.	22/06/2018	15/02/2021
Western Region Air Quality and Greenhouse Gas Management Plan (WRAQGGMP)	• WRAQGGMP reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	22/06/2018	04/07/2018
Western Region Aboriginal Cultural Heritage Management Plan (WRACHMP)	• WRACHMP reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	24/07/2017	27/10/2017
Lidsdale Siding Biodiversity Management Plan (LSBMP)	• WRBBOS reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	03/10/2013	15/11/2013
SCSO Pollution Incident Response Management Plan (SCSO PIRMP)	• SCSO PIRMP reviewed following PA 08_0223 modifications, and testing of the PIRMP. • No identified updates required from PA 08_0223 modifications.	Not required	Not required
SCSO Waste Management System (SCSO WMS)	• SCSO WMS reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	Not required	Not required
LS Water Management Plan (LSWMP)	• LSWMP reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	01/02/2021	Approval pending
LS Rehabilitation and Closure Plan (LSRCP)	• LSRCP reviewed following PA 08_0223 modifications. • No identified updates required from PA 08_0223 modifications.	02/02/2021	Approval pending
LS Construction Environmental Management Plan (LSCEMP)	• No actions for LSCEMP as it is associated with the 2013 Lidsdale Siding Upgrade Project	27/05/2013	28/05/2013

3.2 Annual Review Requirements

The Annual Review has been developed to satisfy the reporting requirements of the approvals listed in Table 3-3.

Table 3-3: Annual Review Requirements

Approval	Condition No	Requirement	Where addressed in Annual Review
PA 08_0223	Schedule 5 Condition 4	By the end of February 2014, and annually thereafter, the Proponent must review the environmental performance of the project to the satisfaction of the Planning Secretary. This review must:	This review
		(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the next year;	Section 6 and Section 7
		(b) include a comprehensive review of the monitoring results and complaints records of the project over the past calendar year, which includes a comparison of these results against the: i. relevant statutory requirements, limits or performance measures/criteria; ii. requirements of any plan or program required under this approval; iii. monitoring results of previous years; and iv. relevant predictions in the EA;	Sections 5.1 - 5.14 Appendix D - Appendix Q
		(c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;	Appendix R
		(d) identify any trends in the monitoring data over the life of the development;	Appendix D Appendix E Appendix F Appendix G Appendix H Appendix I Appendix J Appendix O Appendix M Appendix P
		(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Section 5.2 and Section 5.3
		(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.	Section 7

4. PRODUCTION AND OPERATIONS SUMMARY

4.1 Production

Table 4-1 provides the production summary for coal handling at Lidsdale Siding.

Table 4-1: Production Summary

Material	Approved Limit (PA 08_0223)	Coal received (t)		
		Previous reporting period **(2019)**	This reporting period **(2020)**	Forecasted next reporting period **(2021)**
Saleable product	Receive 6.3 million tonnes per annum	Received from SCSO: 0 tonnes Received via rail: 205,564 tonnes Railed from site: 6,848 tonnes	Received from SCSO: 0 Received via rail: 998,441 tonnes Railed from site: 0 tonnes	Received from SCSO: 0 Received via rail: 102,500[1] Railed from site: 0
Transport (rail)	All coal to be transported to or from the site by conveyor or by rail	Rail and conveyor transport only	Rail and conveyor transport only	Rail and conveyor transport only
	No more than 7 laden trains arrive at or leave the site per day	Maximum of 3 trains per day	Maximum of 3 trains per day	Maximum of 1 train per day[1]
	No more than 5 laden trains arrive at or leave the site each day when averaged per annum	Average 0.15 trains per day	Average 0.77 trains per day	Average 1 train per day[1]

[1] As per SCSO budgeted forecast at 31/01/2021

4.2 Operations

Table 4-2 provides the operating hours compliance summary for Lidsdale Siding.

Table 4-2: Operations Summary

Limits	Operation	Approved Limit (and source)	Previous Reporting Period (Actual)	This Reporting Period (Actual)
Hours of operation	Coal handling and train loading	24 hours per day, 7 days per week	Compliant	Complaint
	Coal receival and unloading	Day period only[2]	Not compliant	Not compliant

[2] *Day period for the purposes of coal receival and unloading from trains is defined as: The period from 07:00 to 18:00 on Monday to Saturday, and 08:00 to 18:00 on Sundays and Public Holidays*

5. PROJECT PERFORMANCE

Table 5-1: Summary of Monitoring Requirements

Monitoring Type	Overview of Monitoring Requirements	Requirement of Approval/Management Plan	Annual Review Section
Air quality and Greenhouse Gas	6 x dust gauges (DG) – Monthly 1 x Real Time Beta Attenuation Monitor (BAM) – Continuous	Western Region Air Quality and Greenhouse Gas Management Plan PA 08_0223 EPL 5129	Section 5.3 and Appendix E
Biodiversity	Annual	Western Region Biodiversity Offset Strategy PA 08_0223	Section 5.7 Appendix J
Heritage	As required	Western Region Historic Heritage Management Plan Western Region Aboriginal and Cultural Heritage Management Plan PA 08_0223	Section 5.8 Appendix K
Meteorological Monitoring	1 x weather station - Continuous	Western Region Air Quality and Greenhouse Gas Management Plan PA 08_0223 EPL 5129	Section 5.4 and Appendix F
Noise	Monthly	Western Region Noise Management Plan PA 08_0223 EPL 5129	Section 5.2 and Appendix D
Rehabilitation	Not required until rehabilitation areas established	Lidsdale Siding Rehabilitation and Closure Plan PA 08_0223	Section 5.12 and Appendix O
Waste	Waste stream mass	Springvale Coal Services Operations Waste Management Plan PA 08_0223 EPL 5129	Section 5.10 Appendix M
Water	Surface Water Volume and Quality – Monthly during discharge Quarterly groundwater level and quality	Lidsdale Siding Water Management Plan PA 08_0223 EPL 5129	Section 5.6 Appendix H Appendix I

5.1 Acquisition on Request

During the reporting period, Acquisition on Request at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 1.

Nil requests received or actions undertaken during the reporting period.

Nil information is presented in Appendix C.

5.2 Noise

During the reporting period, noise at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 2-7.
- Compliant with EPL 5129, Condition L4.1
- Managed in accordance with the WRNMP.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant noise information is presented in Appendix D.

5.3 Air Quality and Greenhouse Gas

During the reporting period, air quality at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 8-10.
- Compliant with EPL 5219, Conditions M2.1 and M2.2.
- Managed in accordance with the WRAQGGMP

Actions undertaken during the reporting period are detailed in Section 6.

Relevant air quality information is presented in Appendix E.

5.4 Meteorological Monitoring

During the reporting period, meteorological monitoring at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 11.
- Compliant with EPL 5129, Condition M4.2.
- Managed in compliance with the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant meteorological measurements are presented in Appendix F.

5.5 Transport

During the reporting period, transport at Lidsdale Siding was:

- Compliant with PA 08_0223
    - Schedule 3, Conditions 12-14.
- Not compliant with PA 08_0223
    - Schedule 2, Conditions 6-7.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant transport information is presented in Section 4 and Appendix G.

Information relating to the non-compliances is detailed in Appendix R.

5.6 Soil and Water

During the reporting period, water management at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 15-21.
- Compliant with EPL 5129 M2.3.
- Managed in accordance with the LSWMP.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant water quality information is presented in Appendix H and Appendix I.

Relevant information pertaining to soil contamination assessment from historic diesel spillage is presented in Appendix B.

5.7 Biodiversity

During the reporting period, biodiversity at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 22.
- Managed in accordance with the LSBMP.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant biodiversity information is presented in Appendix J.

5.8 Heritage

During the reporting period, heritage at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Conditions 23 and 24.
- Managed in accordance with the WRACHMP and the WRHHMP.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant heritage information is presented in Appendix K.

5.9 Visual

During the reporting period, visual impacts at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 25.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant visual information is presented in Appendix L.

5.10 Waste

During the reporting period, waste at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 26.
- Managed in accordance with EPL 5129, Condition L3.1.
- Managed in accordance with the SCSO Waste Management Plan.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant waste information is presented in Appendix M.

5.11 Bushfire Management

During the reporting period, bushfire management at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, and Condition 27.
- Managed in accordance with the SCSO Bushfire Management System.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant bushfire management information is presented in Appendix N.

5.12 Rehabilitation

During the reporting period, rehabilitation at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 3, Condition 28-31.
- Managed in accordance with the LSRCP.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant rehabilitation information is presented in Appendix O.

5.13 Community

During the reporting period, community and social impacts at Lidsdale Siding were:

- Compliant with PA 08_0223, Schedule 5, Condition 6.
- Compliant with EPL 5129, Condition M5-M6.
- Managed in accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects.

Actions undertaken during the reporting period are detailed in Section 6.

Relevant community information is presented in Appendix P.

5.14 Independent Audit

During the reporting period, the requirement to undertake an Independent Environmental Audit (IEA) at Lidsdale Siding was:

- Compliant with PA 08_0223, Schedule 5, Condition 9-10.

Refer to Appendix Q for recommendations of the 2018 IEA and current status.

5.15 Incidents and Non-Compliances

Refer to Appendix R for a summary of incidents and non-compliances during the reporting period.

6. ACTIONS UNDERTAKEN DURING REPORTING PERIOD

Table 6-1 below provides a summary of actions from the 2019 Annual Review, the action taken and where it is addressed in this Annual Review.

Table 6-1: Actions Undertaken During Reporting Period

Condition	Requested By	Action Required from 2019 Annual Review	Action Undertaken During 2020 Reporting Period
Noise	Not applicable	• Nil	• Nil
Air Quality and Greenhouse Gas	Not applicable	• Nil	• Nil
Meteorological Monitoring	Not applicable	• Nil	• Nil
Transport	DPIE	To satisfy the requirements with Schedule 2 Condition 7(d) and Condition 8A, a table is to be included providing the following information for each train movement during the period: a. Date, b. Arrival time c. Departure times d. Loading time; and e. Unloading times.	Appendix G, Table G 2 shows the requested train movements data for the 2019 and 2020 reporting period. No train loading activities occurred in the reporting period.
	DPIE	Review and record rail exceedances for trains attending Lidsdale Siding outside operation hours for unloading (day period) for Annual period and ensure 2020 Annual review includes exceedances from 2019.	Appendix G includes information pertaining to trains attending Lidsdale Siding. The identification of exceedances for the 2019 and 2020 reporting periods are contained within Appendix R.
Soil and Water	Not applicable	• Nil	• Nil
Biodiversity	Not applicable	• Nil	• Nil
Heritage	Not applicable	• Nil	• Nil
Visual	Not applicable	• Nil	• Nil
Waste	DPIE	Appendix M, Figure M-2 titled “Lidsdale Siding Recycling Percentage Received for 2019” the dates on graph refer to January 18 to December 18, can you please review this graph and amend prior to uploading on to the website to reflect the 2019 data. It is requested that the Annual Review is uploaded to the website within one month of the date of this letter.	The dates specified on ‘Appendix M, Figure M 2’ were updated for the 2019 calendar year. The 2019 Lidsdale Siding Annual Review was uploaded to the Centennial website on 27 February 2020.

Condition	Requested By	Action Required from 2019 Annual Review	Action Undertaken During 2020 Reporting Period
Bushfire Management	Not applicable	• Nil	• Nil
Rehabilitation	Not applicable	• Nil	• Nil
Community	Not applicable	In regard to the approval of Mod 1 in August 2019, the MOD 1 – Modification Report titled 'Lidsdale Siding: Environmental assessment for modification to development consent 08_0223' dated June 2019" (EA) Table 7.1, Centennial indicated notification boards will be installed at appropriate locations to identify when trains will be accessing the facility and, consequently, when there could be potential delays at the Main Street level crossing. To satisfy the requirement of this commitment in the EA, in the next Annual Review details are to be provided as to whether the notification boards have been installed, their location and whether they have been operating.	A train time notification board was installed at the entrance to Lidsdale Siding facing Main Street, Wallerawang in 2020. Information on the board is updated as required to indicate train arrival times.
Independent Audit	Not applicable	• Nil	• Nil

7. PROPOSED ACTIONS FOR NEXT REPORTING PERIOD

Table 7-1: Proposed Actions for Next Reporting Period

Condition	Proposed Action
Noise	• Conduct operations and activities in accordance with WRNMP. • Conduct operations and activities in compliance with PA 08_0223, Schedule 3, Condition 2-7. • Conduct operations and activities in compliance with EPL 5129, Condition L4.1.
Air Quality and Greenhouse Gas	• Conduct operations and activities in accordance with the WRAQGGMP. • Conduct operations undertaken in compliance with PA 08_0223, Schedule 3, and Condition 8-10. • Conduct operations undertaken in compliance with EPL 5129, Condition M2.2.
Meteorological Monitoring	• Conduct meteorological monitoring in compliance with PA 08_0223, Schedule 3, Condition 11. • Conduct meteorological monitoring in compliance with EPL 5129, Condition M4.
Transport	• Conduct operations undertaken in compliance with PA 08_0223, Schedule 3, and Conditions 12-14.
Soil and Water	• Conduct operations and activities in accordance with the LSWMP. • Undertake operations in compliance with PA 08_0223, Schedule 3, Condition 15-21. • Undertake operations in compliance with EPL 5129, Condition M2.3, L1 and L2. • Improve surface water management at LS through the Triangle Pond Project (see Appendix H).
Biodiversity	• Conduct operational activities in accordance with the LSBMP. • Conduct operational activities in compliance with PA 08_0223, Schedule 3, Condition 22.
Heritage	• Conduct operational activities in accordance with the WRACHMP. • Conduct operational activities in accordance with the WRHHMP. • Conduct operational activities in compliance in compliance with PA 08_0223, Schedule 3, Conditions 23 and 24.
Visual	• Conduct operational activities in compliance with PA 08_0223, Schedule 3, Condition 25.
Waste	• Conduct operational activities in compliance with PA 08_0223, Schedule 3, Condition 26. • Conduct operational activities in compliance with EPL 5129, Condition L3.
Bushfire Management	• Conduct operational activities in compliance with PA 08_0223, Schedule 3, and Condition 27.
Rehabilitation	• Conduct operational activities in accordance with the LSRCP. • Conduct operational activities in compliance with PA 08_0223, Schedule 3, Condition 28-31.
Community	• Conduct activities in accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects*. • Conduct operational activities in compliance with PA 08_0223, Schedule 5, Condition 6. • Conduct operational activities in compliance with EPL 5129, Condition M6. • Maintain the community information line for Lidsdale Siding to receive calls from the local community.

Condition	Proposed Action
Independent Environmental Audit	• Progression and completion of actions identified from 2018 audit as pertinent to disciplines identified above. • Complete three-yearly Independent Environmental Audit in accordance with PA 08_0223 Schedule 5, Condition 9.
Management Plans	• Undertake a review and revise all relevant management plans as required following this Annual Review, and/or as triggered in accordance with Lidsdale Siding approvals and approved management plans.

Appendices

Appendix A – Lidsdale Siding Plans

Appendix B – Lidsdale Siding Phase 2 Environmental Site Assessment Works

Background Summary

A Phase 2 Environmental Site Assessment (ESA) in support of further contaminated site characterisation at the site was finalised in 2017. The extent of the hydrocarbon contamination site and monitoring points are illustrated in Appendix A.

The objective of the limited ESA was to investigate the extent of hydrocarbon contamination identified on the Site, particularly as it pertains to impacts sourced from the former above ground diesel storage tank (AST). The purpose of the limited ESA was to address data gaps in previous site assessments to the extent practicable within the scope in order to satisfy consent conditions issued by the Department of Planning and Infrastructure to the extent practicable.

The limited ESA scope included installation and sampling of soil bores and groundwater wells, groundwater monitoring, sediment and surface water sampling. The purpose and objectives of the limited ESA scope have been met, within the limitations of the scope.

Hydrocarbon impacts in the vicinity of the former AST:

- are not considered to pose a risk to Human Health in any of the matrices investigated;
- exceed ecological screening and Site Management Limits in soil; and
- are not currently migrating beyond the site boundary.

The limited ESA report recommended development of an EMP for the Site as remediation of the site was not considered required to meet the NSW DPI conditions of consent for the proposed upgrade of the site.

In 2018 the EMP was finalised and enacted.

The objective of the EMP is to establish the general operation controls required for effective environmental management of the site. The EMP is based on the results of previous investigations prepared by other consultants and updated as additional results become available i.e. after annual groundwater monitoring events (GME). The EMP documents the following:

- Identification of all responsible parties and their corresponding requirements;
- Identification of site contamination issues;
- Monitoring / inspection locations;
- Frequency of monitoring /inspections;
- Methodology of monitoring / inspection;
- Any pre-determined trigger levels for action;
- Frequency of reporting; and
- Parties to be reported to.

The EMP[3] was developed in general accordance with the 'Guideline for the preparation of Environmental Management Plans' (2004) and implemented in 2018.

Implementation of the EMP was enacted in 2018 with the first bi-monthly sampling event conducted in June 2018.

[3] *The full EMP report can be provided on request to regulatory groups.*
Due to the documents' size (426 pages, 37MB) it is too large to insert fully in this Annual Review

2020 Activities

Conclusions were made from quarterly monitoring reports and are detailed in Table B 1.

Table B 1: 2020 quarterly hydrocarbon monitoring summary

Month	Quarterly monitoring report conclusion
January	• The January 2020 GME was the ninth monitoring event in accordance with the EMP. • There were no metal concentrations reported exceeding the 'trigger value for further investigation'. • TRH compounds were reported at concentrations exceeding the Site Assessment Criteria (SAC) at MW07 only. MW07 is located within the immediate vicinity of the known AST contamination zone and subject to a long-term EMP and therefore did not necessitate an immediate management response. • There were no hydrocarbon detections reported in wells installed along the downgradient (western) Site boundary (MW04, MW05, MW06 and ESMW01). • The January 2020 GME was the first series to collect monitored natural attenuation (MNA) time-series data. Three consecutive MNA monitoring events enable trend analysis using Mann-Kendall statistical analysis methodology. • Preliminary findings indicate that natural attenuation may be occurring for: dissolved oxygen, redox potential, ferrous iron, nitrate, and methane. Sulfate and microbial counts are inconclusive.
April	• The April 2020 GME was the 10th monitoring event in accordance with the EMP • There were no metal concentrations reported exceeding the 'trigger value for further investigation'. • TRH compounds were reported at concentrations exceeding the SAC at MW07 and MW01. These wells are located within the immediate vicinity of the known AST contamination zone and subject to a long-term EMP and therefore did not necessitate an immediate management response. • Napthalene was reported at concentrations exceeding the SAC at MW01. This well is located within the immediate vicinity of the known AST contamination zone and subject to a long-term EMP and therefore did not necessitate an immediate management response. • There were no hydrocarbon detections reported in wells installed along the downgradient (western) Site boundary (MW04, MW05, MW06 and ESMW01). • The April 2020 GME was the second series to collect MNA time-series data. Three consecutive MNA monitoring events enable trend analysis using Mann-Kendall statistical analysis methodology. • Preliminary findings indicate that natural attenuation may be occurring for: dissolved oxygen, redox potential, ferrous iron, nitrate, methane, and sulfate. Microbial counts are inconclusive.
July	• The July 2020 GME was the 11th monitoring event in accordance with the EMP. • There were no metal concentrations reported exceeding the 'trigger value for further investigation'. • TRH compounds were reported at concentrations exceeding the SAC at MW07 and ESMW01. MW07 is located within the immediate vicinity of the known AST contamination zone and subject to a long-term EMP and therefore did not necessitate an immediate management response. ESMW01 is located downgradient and reported TRHs for the first time. A further three exceedances of the limit of reporting (LOR) will require management response. • There were no hydrocarbon detections reported in wells installed along the downgradient (western) Site boundary (MW04, MW05, and MW06).

	• The preliminary findings from the first three rounds of MNA monitoring indicate that natural attenuation is occurring at source and downgradient locations. • The July 2020 GME represented the third time series data set for analytes above the LOR in some locations. Trend analysis using Mann-Kendall statistical analysis on available MNA parameters (ferrous iron, nitrate and methane) at source location MW07 reported insufficient statistical evidence of an increasing or decreasing trend. Ferrous iron reported a positive regression. Nitrate and methane reported neutral regression slopes.
October	• The October 2020 GME was the 12th monitoring event in accordance with the EMP. • There were no metal concentrations reported exceeding the 'trigger value for further investigation'. • TRH compounds were reported at concentrations exceeding the Site Assessment Criteria (SAC) at MW07 only. MW07 is located within the immediate vicinity of the known AST contamination zone and subject to a long-term EMP and therefore did not necessitate an immediate management response. • There were no hydrocarbon detections reported in wells installed along the downgradient (western) Site boundary (MW04, MW05, and MW06). • The preliminary findings from the first four rounds of MNA monitoring indicate that natural attenuation is likely to be occurring at the Site. • Analysis of ferrous iron at MW07 showed statistically significant evidence of an increasing trend that was indicative of natural attenuation. • The statistical sample size and/or variation in MNA parameters reported insufficient statistical evidence of an increasing or decreasing trend for nitrate and methane at the specified level of significance. • The historical trends of MNA parameters across the plume geometry indicates that natural attenuation is occurring.

Lidsdale Siding Contamination Assessment – EPA Interaction

On 13 February 2019, a summary report of environmental assessments undertaken and regulatory approvals applicable to Lidsdale Siding from 2009 until the present day was provided to the EPA. Information as provided had historically been sent to the EPA in 2013 and 2017 without response.

The purpose of the summary report was to collate the information contained in multiple assessments conducted at Lidsdale Siding during the nominated period as they pertained to site contamination and compliance with the former NSW Department of Environment, Climate Change and Water (DECCW), now EPA, Duty to Report requirements, to seek written endorsement from the EPA for the environmental management approach and EMP as currently enacted in accordance with Schedule 4, Condition 18 of the Lidsdale Siding Upgrade Project 08_0223.

Information was re-provided to the EPA on the 18 July 2019 as requested. The EPA acknowledged receipt of the information on 16 August 2019 with a formal response and information request received on 1 October 2019. A summary report was prepared and submitted to EPA in February 2020.

EPA responded in November 2020 with recommendations to support the EMP including:

- Additional monitoring requirements.
- A specific natural attenuation program.
- Consultation with the landowner.
- Considering alternative remedial strategies.

Centennial is reviewing the above recommendations and has commenced consultation with environmental contamination specialists to address these recommendations and update and resubmit the EMP to the EPA for endorsement of the amended management and monitoring strategy in 2021.

Appendix C – Acquisition on Request Information

No activity undertaken in period.

Appendix D – Noise Information

Performance against Environmental Assessment

The Environmental Assessment stated the Project would provide a significant reduction in noise emissions compared to the historical operations.

During the 2020 reporting period, no noise exceedances were recorded.

As railing activities were limited during 2020, the majority of noise measurements undertaken in the reporting period were not discernible (ND) therefore the noise levels recorded for the 2020 period were significantly reduced when compared to the pre-approval noise environment.

Table D 1 provides the existing noise limits, 2020 monitored range and modelled pre-project approval noise levels. Noise monitoring locations are identified in Appendix A.

Table D 1: Comparison of existing noise limits against modelled pre-project approval levels and 2020 results (dB)

Location	Existing Noise Compliance Limits Day, Evening and Night LAeq (15min)	Existing Noise Compliance Limits Night LA1 (1min)	Pre project approval range	Monitored range (2020) LAeq (15min)	Monitored range (2020) LA1 (1min)
LNM1 (R1) Lot 2 Main Street, Wallerawang	50	55	62-74	ND - 45dB	ND – 41dB
LNM2 (R2) Black Gold Cabins, Main Street, Wallerawang	48	49	62-74	ND – 43dB	ND – 35dB
LNM3 (R3) "Killarney" Brays Lane, Wallerawang	48	56	62-74	ND – 34dB	ND
LNM4 (R4) Fairview" Brays Lane, Wallerawang	43	54	59-71	ND – 32dB	ND
LNM5 (R5) Duncan Street, Lidsdale	46	57	56-68	ND – 39dB	ND
LNM6 (R6) Old Castlereagh Highway, Wallerawang	43	56	48-60	ND – 35dB	ND
LNM7 (R7) Royal Hotel, Main Street, Wallerawang	44	49	55-69	ND – 38dB	ND
LNM8 (R8) Corner Heel Street & Cripps Avenue Wallerawang	43	45	NM	ND – 38dB	ND
LNM9 (R9) Corner Cripps Avenue & Pindari Place Wallerawang	40	45	NM	ND – 38dB	ND
LNM10 (R10) Brays Lane, South Wallerawang	45	50	NM	ND – 43dB	ND
LNM11 (R11) "Tara" Brays Lane, Wallerawang	45	51	NM	ND – 40dB	ND

Location	Existing Noise Compliance Limits Day, Evening and Night LAeq (15min)	Existing Noise Compliance Limits Night LA1 (1min)	Pre project approval range	Monitored range (2020) LAeq (15min)	Monitored range (2020) LA1 (1min)
LNM12 (R12) Brays Lane Corner, Wallerawang	43	51	NM	ND – 48dB	ND

ND – *Not Discernible. When site only noise is noted as ND, there was no noise from the source of interest audible at the monitoring location*

NM – *Not Modelled. Receivers R8 – R12 were not modelled in Lidsdale Siding Upgrade Project Environmental Assessment*

Table D 2 and Figure D 1 show the historical exceedance count at each noise monitoring location.

Table D 2: 2014-2020 Lidsdale Siding attended noise monitoring non-compliances

Location	2014			2015			2016			2017			2018			2019			2020		
	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N
LNM1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LNM2	-	-	-	-	-	**1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LNM3	**1**	**1**	-	-	**2**	-	**1**	**1**	**1**	-	-	-	-	-	-	-	-	-	-	-	-
LNM4	-	-	-	-	-	-	-	-	**1**	-	-	-	-	-	-	-	-	-	-	-	-
LNM5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LNM6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LNM7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LNM8	-	**1**	-	-	-	**4**	-	-	-	-	-	**1**	-	-	-	-	-	-	-	-	-
LNM9	-	-	-	-	-	-	-	**1**	**1**	-	-	**1**	-	-	-	-	-	-	-	-	-
LNM10	-	-	-	-	-	-	-	-	**1**	-	-	-	-	-	-	-	-	-	-	-	-
LNM11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location	2014			2015			2016			2017			2018			2019			2020		
	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N	D	E	N
LNM12	**1**	-	-	-	-	-	-	-	**1**	-	-	-	-	-	-	-	-	-	-	-	-

D = Day period[4], E = Evening period[5], N = Night period[6]

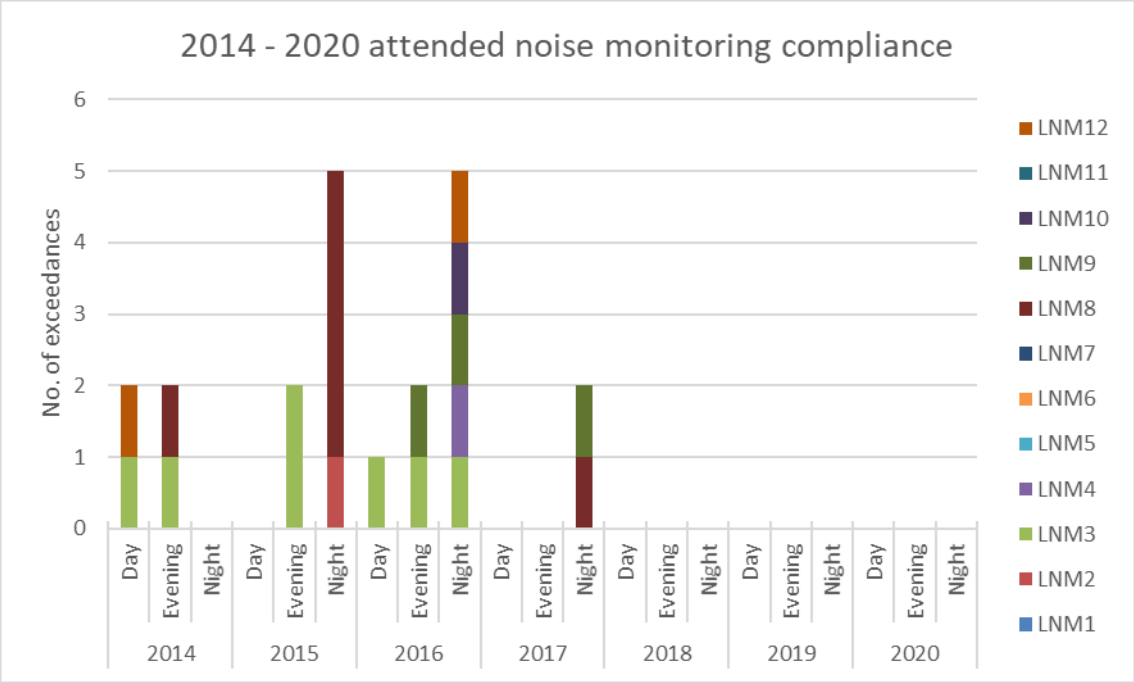

Figure D 1: 2014-2020 Lidsdale Siding attended noise monitoring compliance summary

[4] *Day period - The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays*
[5] *Evening period - The period from 6pm to 10pm*
[6] *Night period - The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays*

MOD 3 Noise Impact Assessment

On 14 April 2020, Centennial submitted a modification application for the Lidsdale Siding Upgrade Project under section 4.55(1A) of the EP&A Act. Centennial sought to remove restrictions on when the facility can undertake rail unloading activities and allow for the receipt and transfer of coal to the Mount Piper Power Station outside of the 'emergency situation' defined under MOD 1. Removing the existing unloading restrictions at Lidsdale Siding reduces long-term risks associated with supplying the power station with coal from a single mining operation and support the ongoing operation of the Mount Piper Power Station and the continued supply of electricity to NSW.

DPIE reviewed the scope of the modification and considered that it met the requirement as:

- The impacts of the developments as modified would be similar to the impacts of the approved project.
- There is no change to the project area or life of operations.
- It would not involve any further disturbance outside of the already approved disturbance areas for the project.

The Modification Report included a Noise Impact Assessment (NIA) to re-evaluate the project's daytime noise predictions against existing noise limits and using the NSW Government contemporary noise policy. The NIA was therefore prepared in accordance with the Noise Policy for Industry 2017 (NPfI), which supersedes the INP used in the original environmental assessment. The NIA utilised methodologies under the NPfI to re-evaluate Project Noise Trigger Levels (PNTLs) and re-model noise predictions.

The NIA also fulfilled a commitment made by Centennial following Modification 1 to verify noise emission levels from the facility during train unloading activities. Rail unloading activities only occur during the day period and no changes have been proposed to activities undertaken during the evening and night. On this basis, the NIA re-evaluated noise impacts for the day period only.

Table D 3 provides a comparison of the updated noise predictions for the site against existing noise limits and revised PNTLs.

Table D 3: Updated daytime noise limits (PA 08_0223)

Location	Existing Noise Compliance Limits LAeq (15min) (dB)	Revised Project Noise Trigger Level (dB)	Predicted Noise Level LAeq (15min) (dB)
LNM1 (R1) Lot 2 Main Street, Wallerawang	50	68 $_{\text{LAeq 15min}}$	50 (No change)
LNM2 (R2) Black Gold Cabins, Main Street, Wallerawang	48	58 $_{\text{LAeq period}}$	48 (+2)
LNM3 (R3) "Killarney" Brays Lane, Wallerawang	48	40 $_{\text{LAeq 15min}}$	48 (+1)
LNM4 (R4) Fairview" Brays Lane, Wallerawang	43	40 $_{\text{LAeq 15min}}$	43 (No change)
LNM5 (R5) Duncan Street, Lidsdale	46	40 $_{\text{LAeq 15min}}$	46 (No change)
LNM6 (R6) Old Castlereagh Highway, Wallerawang	43	40 $_{\text{LAeq 15min}}$	43 (No change)
LNM7 (R7) Royal Hotel, Main Street, Wallerawang	44	58 $_{\text{LAeq period}}$	44 (+3)
LNM8 (R8) Corner Heel Street & Cripps Avenue Wallerawang	43	40 $_{\text{LAeq 15min}}$	43 (+3)

Location	Existing Noise Compliance Limits LAeq (15min) (dB)	Revised Project Noise Trigger Level (dB)	Predicted Noise Level LAeq (15min) (dB)
LNM9 (R9) Corner Cripps Avenue & Pindari Place Wallerawang	40	40 $_{\text{LAeq 15min}}$	40 (+1)
LNM10 (R10) Brays Lane, South Wallerawang	45	40 $_{\text{LAeq 15min}}$	45 (No change)
LNM11 (R11) "Tara" Brays Lane, Wallerawang	45	40 $_{\text{LAeq 15min}}$	45 (No change)
LNM12 (R12) Brays Lane Corner, Wallerawang	43	40 $_{\text{LAeq 15min}}$	43 (No change)

At two receiver locations (R3 and R8), the predicted noise levels were higher than the existing noise limits and the PNTLs.

Residences within 100 m of Receiver 8 are eligible to request site specific monitoring in order to determine whether project noise levels are equal to or greater than 43 dB(A) and if relevant mitigation rights should be applied.

In February 2021, Centennial submitted a variation to EPL 5129 to align the updated noise criteria with PA 08_0223.

Sound Power Survey

Overall Sound Power 2020

To satisfy Condition 7 (d) of Schedule 3 of PA 08_0223, the sound power levels (SPL) of equipment on site is measured annually. SPL are compared to the levels used in the Lidsdale Siding Noise Impact Assessment (NIA): (Hatch 2012).

It has been previously identified that plant SPL at Lidsdale Siding are generally not similar to those used in the NIA. Train loading is restricted, where possible to the day period.

Sound powers determined from measured SPL are provided in Table D 4 and compared to the assumed levels in the NIA.

CV01 and CV02 were decommissioned as part of the LS Temporary Rail Unloader installation and was unavailable for SPL noise measurement at the time of testing. This meant SPL measurements were not able to be recorded from certain equipment.

Consequently, 2020 sound power results for CV01 and CV02 are not displayed in Table D 4 and Table D 5.

Table D 4: Overall 2020 Sound Power Results (dB)

Item	2020		Hatch NIA	L_{WA} Measured above Hatch NIA
	L_{WA}	L_W	L_{WA}	
CV01 conveyor, open side (1m)	-	-	77	-
CV01 conveyor, open side @ top (1m)	-	-	77	-
CV01 conveyor, closed side (1m)	-	-	77	-
CV02 conveyor, open side @ ground (1m)	-	-	84	-
CV02 conveyor, open side elevated (1m)	-	-	84	-
CV02 conveyor, closed side @ ground (1m)	-	-	84	-
CV01 drive	-	-	71	-
CV02 drives A + B	-	-	83	-
CV01 chute, lower section	-	-	68	-
CV01 conveyor, start point	-	-	68	-
Reclaim conveyor (1m)	80	84	-	-
Unload conveyor (1m)	73	82	-	-
Reclaim conveyor drive	90	92	-	-
Reclaim conveyor chute	102	104	-	-
Coal drop from wagon (1st drop)	106	108	-	-
Coal drop from wagon (2nd drop)	112	112	-	-
Locomotives	110	125	-	-

Notes: 1. A-weighted total sound power levels taken from Table 3.4 of Hatch 2012 NIA

Historical Comparison

A comparison of sound power levels from previous annual surveys are provided in Table D 5.

Table D 5: Historical Sound Power Level Comparison

Item	2016		2017		2018		2019		2020		Recent change	
	L_{WA}	L_W	L_{WA}	L_W	L_{WA}	L_W	L_{WA}	L_W	L_{WA}	L_W	L_{WA}	L_W
CV01 conveyor, open side (1m)	70	80	72	81	75	84	-	-	-	-	-	-
CV01 conveyor, open side @ top (1m)	-	-	73	79	70	79	-	-	-	-	-	-
CV01 conveyor, closed side (1m)	66	78	69	80	71	84	-	-	-	-	-	-
CV02 conveyor, open side @ ground (1m)	80	90	82	88	85	90	83	91	-	-	-	-
CV02 conveyor, open side elevated (1m)	80	90	82	92	82	90	82	91	-	-	-	-
CV02 conveyor, closed side @ ground (1m)	77	88	77	87	80	87	79	88	-	-	-	-
CV01 drive	100	105	99	104	98	106	-	-	-	-	-	-
CV02 drives A + B	105	114	106	117	104	114	103	112	-	-	-	-
TLO Hydraulics Opening	-	-	80	92	-	-	-	-	-	-	-	-
CV01 chute, lower section	96	101	89	93	80	88	-	-	-	-	-	-
CV01 chute, upper section	96	101	88	93	-	-	-	-	-	-	-	-
CV01 conveyor, start point	-	-	89	93	87	93	-	-	-	-	-	-
Reclaim conveyor (1m)	-	-	-	-	-	-	-	-	80	84	-	-
Unload conveyor (1m)	-	-	-	-	-	-	-	-	73	82	-	-
Reclaim conveyor drive	-	-	-	-	-	-	-	-	90	92	-	-
Reclaim conveyor chute	-	-	-	-	-	-	-	-	102	104	-	-
Coal drop from wagon (1st drop)	-	-	-	-	-	-	-	-	106	108	-	-
Coal drop from wagon (2nd drop)	-	-	-	-	-	-	-	-	112	112	-	-
Locomotives	-	-	-	-	-	-	-	-	110	125	-	-

Appendix E – Air Quality and Greenhouse Gas Information

Performance against Environmental Assessment

The Lidsdale Siding Environmental Assessment calculated the Predicted Annual Average concentrations at the site for depositional dust, total suspended particulate matter (TSP) and particulate matter < 10 µm (PM_{10}).

Of these parameters, depositional dust and PM_{10} are monitored on an ongoing basis to assess compliance against PA 08_0223 and EPL 5129 limits. Table E 1 below shows a comparison of 2020 monitored depositional dust against modelled pre-project approval levels.

Locations of the depositional dust gauges and the Beta Attenuation Monitor (BAM) are provided in Appendix A.

Table E 1: Comparison of 2020 dust data against modelled pre-project approval levels

Dust Monitor	Approval Criteria	Predicted cumulative range	Performance During Reporting Period
DG1	2 g/m^2/month Max Annual Average Increase	Not modelled	0.2 g/m^2/month
	4 g/m^2/month Total Annual Average	Not modelled	1.11 g/m^2/month
DG6	2 g/m^2/month Max Annual Average Increase	0.14–0.18	0.35 g/m^2/month
	4 g/m^2/month Total Annual Average	3.9–4.0	2.30 g/m^2/month
DG7	2 g/m^2/month Max Annual Average Increase	0.48	0.23 g/m^2/month
	4 g/m^2/month Total Annual Average	4.3	1.47 g/m^2/month
DG8	2 g/m^2/month Max Annual Average Increase	Not modelled	0.50 g/m^2/month
	4 g/m^2/month Total Annual Average	Not modelled	1.75 g/m^2/month
DG9	2 g/m^2/month Max Annual Average Increase	Not modelled	0.61 g/m^2/month
	4 g/m^2/month Total Annual Average	3.8–4.3	1.80 g/m^2/month
DG10	2 g/m^2/month Max Annual Average Increase	0.08–0.09	0.42 g/m^2/month
	4 g/m^2/month Total Annual Average	3.9	1.48 g/m^2/month
BAM (PM_{10})	25 µg/m^3 Annual Average (Long Term PM_{10})	17.1–23.3 µg/m^3	16.00 µg/m^3
	50 µg/m^3 24Hr Average (Short Term PM_{10})	Not modelled	241.16 µg/m^3
TSP	90 µg/m^3 Annual Average (Long term TSP)	34 – 45.1	Calculated at 40.00 µg/m^3

At all surrounding sites a consistent TSP to PM_{10} ratio has been established using HVAS data over several annual cycles. This ratio is used to estimate the TSP concentration, based on measured PM_{10} concentrations.

The ratio between TSP and PM_{10} concentrations has been calculated from long term monitoring data:

- Western Coal Services ratio = 0.43
- Springvale ratio = 0.45
- Angus Place ratio = 0.44
- Clarence Colliery ratio = 0.40.

For Lidsdale Siding, the most conservative ratio of 0.40 is used to calculate compliance with the TSP criteria from the PM_{10} data.

The measured PM_{10} annual average is divided by 0.40 to estimate the annual average TSP concentration.

Note that the predicted cumulative range for deposited dust and PM_{10} relate to an annual average.

The observed range for this reporting period relates to monthly measurements for deposited dust and daily measurements for PM_{10} so the values are not directly comparable.

Current annual averages for PM_{10} and deposited dust are within or below the predicted ranges and remain compliant with limits in the project approval and EPL.

The short-term (24 hour) PM_{10} criteria is 50 µg/m^3 at any residence on private land.

The long term (annual) PM_{10} criteria is 25 µg/m^3 and TSP criteria is 90 µg/m^3 at any residence on private land. The 2020 results are summarised in Table E 2 below.

Table E 2: 2020 Lidsdale Siding Air Quality Summary

	Criteria	Maximum (µg/m^3)	Mean (µg/m^3)
24hr PM_{10} (Short Term PM_{10})	50 µg/m^3	241.2	17.34
TSP	90 µg/m^3	-	40.00
PM_{10} (Long Term PM_{10})	25 µg/m^3	-	16.00

24-hour PM_{10} (Short Term PM_{10})

The short term PM_{10} mass concentration for January 2020 to December 2020 is presented in Figure E 1. Activities at Lidsdale Siding complied with PA 08_0223 air quality assessment criteria limits during all continuous PM_{10} monitoring undertaken.

Power failure and unit calibration maintenance to the Beta Attenuation Monitor (BAM) resulted in no monitoring data for the following dates and reasoning:

19 April – 24 April 2020

- An investigation found that the air intake pump failed in the BAM. The BAM was recommissioned on 24/04/2020.

This is not a non-compliance for Continuous emission monitoring systems as the minimum data capture, as a guide, should be 90%. The BAM was recording for approximately 360 of the 366 days which equates to a 98% data capture rate.

Elevated PM_{10} results were recorded above short-term criterion for particulate matter of 50 µg/m³ during the reporting period on the dates provided in Table E 3.

On each occasion, DPIE were notified of the elevated PM_{10} results above the 50 µg/m³ criterion in letter form.

Table E 3: Elevated PM_{10} results and reasoning

Date	PM_{10} Result (µg/m³)	Reason
1 January 2020	87.8	The combined result of regional dust storms from the west and bushfires burning in regional NSW.
2 January 2020	63.2	
4 January 2020	54.4	
5 January 2020	241.2	
8 January 2020	56.4	
11 January 2020	57.2	
23 January 2020	118.7	
24 January 2020	172.2	
25 January 2020	71.7	

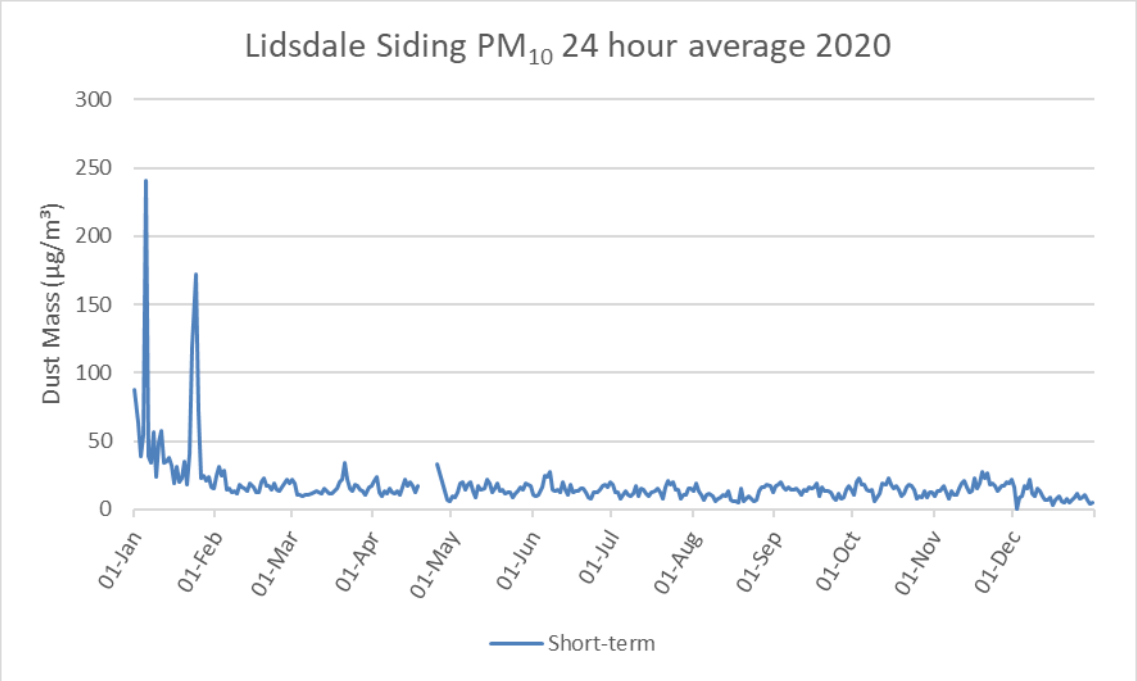

Figure E 1: 2020 PM_{10} 24-hour average[7]

[7] *The methodology for calculating results against the long term criteria is as follows: Calculations are performed on the 10 minute interval data recorded by the Beta Attenuation Monitor (BAM) installed at Lidsdale Siding. Only data of a specific quality is included in the calculations. All data points recorded during the reporting period were 'good continuous records'.*

Long Term PM_{10}

The long-term annual average for onsite PM_{10} was 16.00 µg/m³ in 2020, below the long-term criterion of 25 µg/m³. Historical results are presented in Figure E 2. The increase in long-term PM_{10} was attributable to regional dust storms and bushfires experienced in late 2019 and early 2020, and not due to particulate generating operations at Lidsdale Siding.

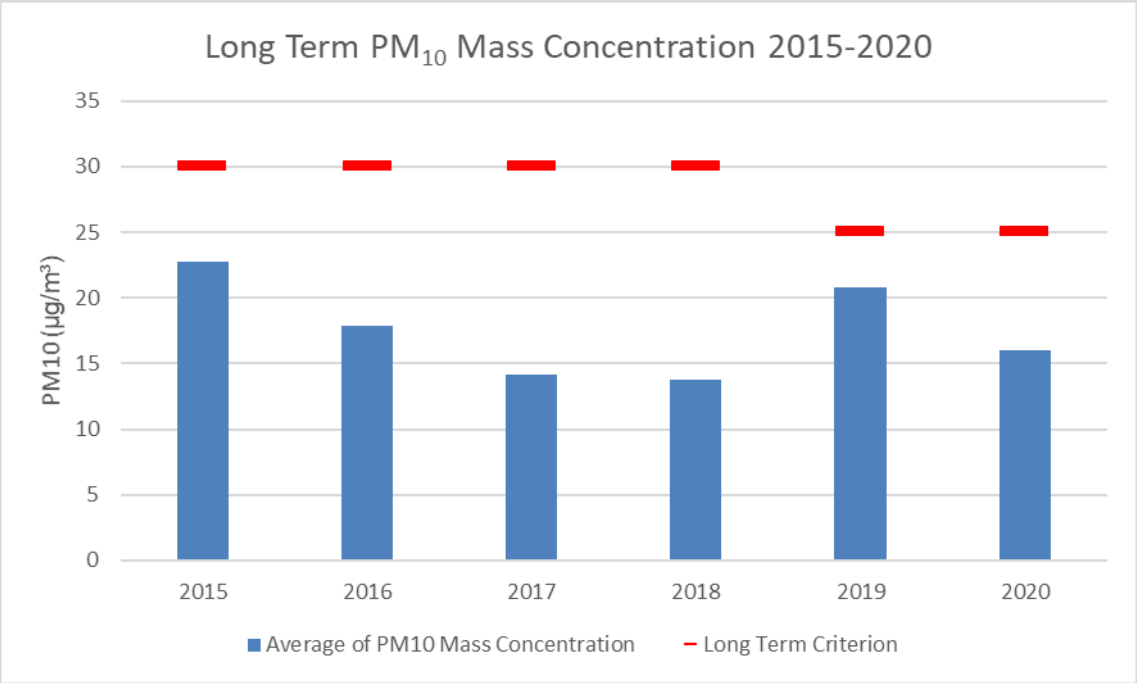

Figure E 2: Long term PM_{10} Mass Concentration (2015-2020)[8]

TSP

The long-term annual average for onsite TSP was 40.00 µg/m³ in 2020, below the long-term criterion of 90 µg/m³. Historical results are presented in Figure E 3. As with PM_{10}, the increase in long-term TSP was attributable to regional dust storms and bushfires experienced in late 2019 and early 2020, and not due to particulate generating operations at Lidsdale Siding.

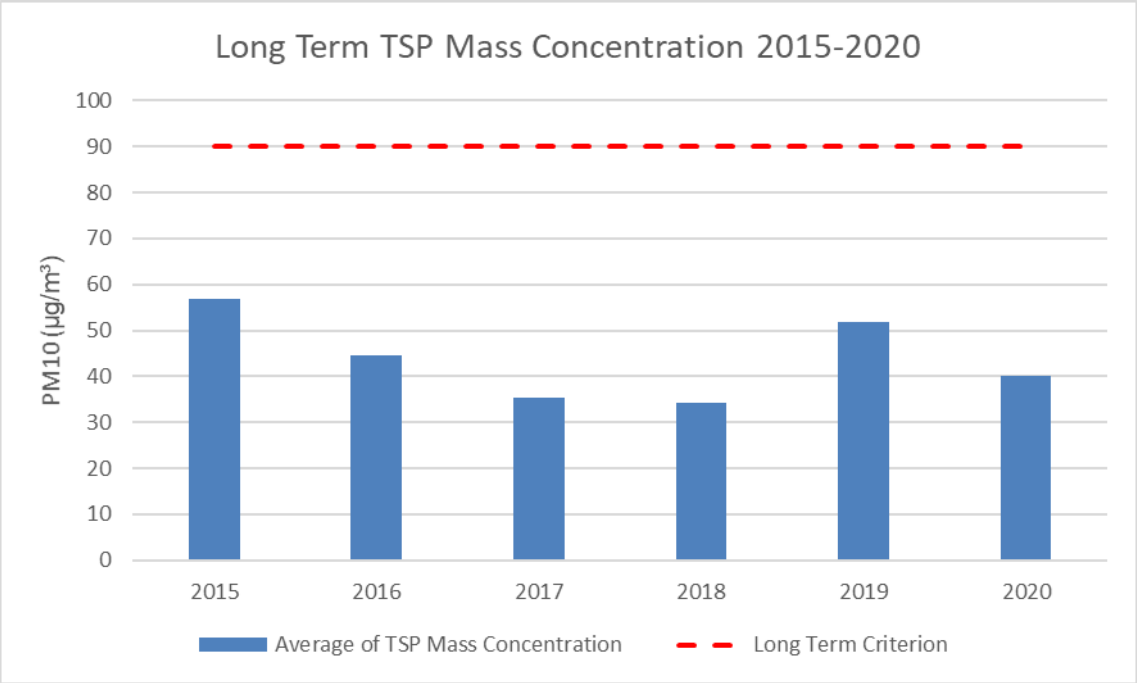

Figure E 3: Long term TSP Mass Concentration (2015-2020)[8]

[8] *Long term averages are taken of all data of appropriate quality between 12:00 am 1 January and 11:50 pm 31 December per calendar year period.*

Depositional Dust

The deposited dust limit is 4 g/m²/month at any residence on private land averaged annually. Centennial use daily dust forecast reports to determine the frequency of watering required for unsealed areas and to schedule dust suppression activities and operational mitigation.

- Depositional dust results greater than 4 g/m²/month are sent away for dust characterisation to determine the percentage attributable to operations at Lidsdale Siding.
- Any amended depositional dust results following fine particle analysis were published in LS EPL 5129 monitoring reports on the Centennial website as corrections on receipt of modified data.

Depositional dust emissions were below the annual average trigger (4 g/m²/month) at all dust gauges (Table E 4).

Table E 4: 2020 depositional dust summary

	LSDG1	LSDG6	LSDG7	LSDG8	LSDG9	LSDG10
Min	<0.1	0.31	0.25	0.65	0.41	0.43
Max	4.02	5.90	4.10	5.20	7.40	6.03
Average	**1.11**	**2.30**	**1.47**	**1.75**	**1.80**	**1.48**

The summary of 2020 depositional dust monitoring is shown in Figure E 4

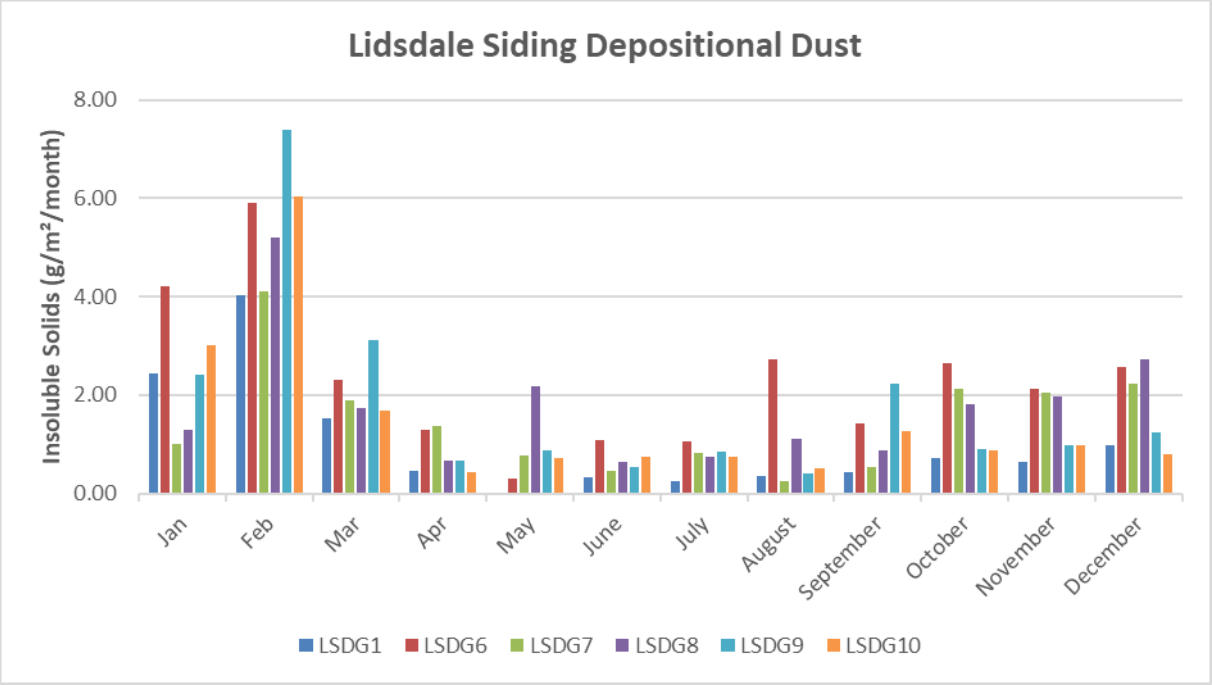

Figure E 4: 2020 depositional dust summary

A comparison of the annual average of depositional dust for Lidsdale Siding from 2014 to 2020 is shown in Figure E 5.

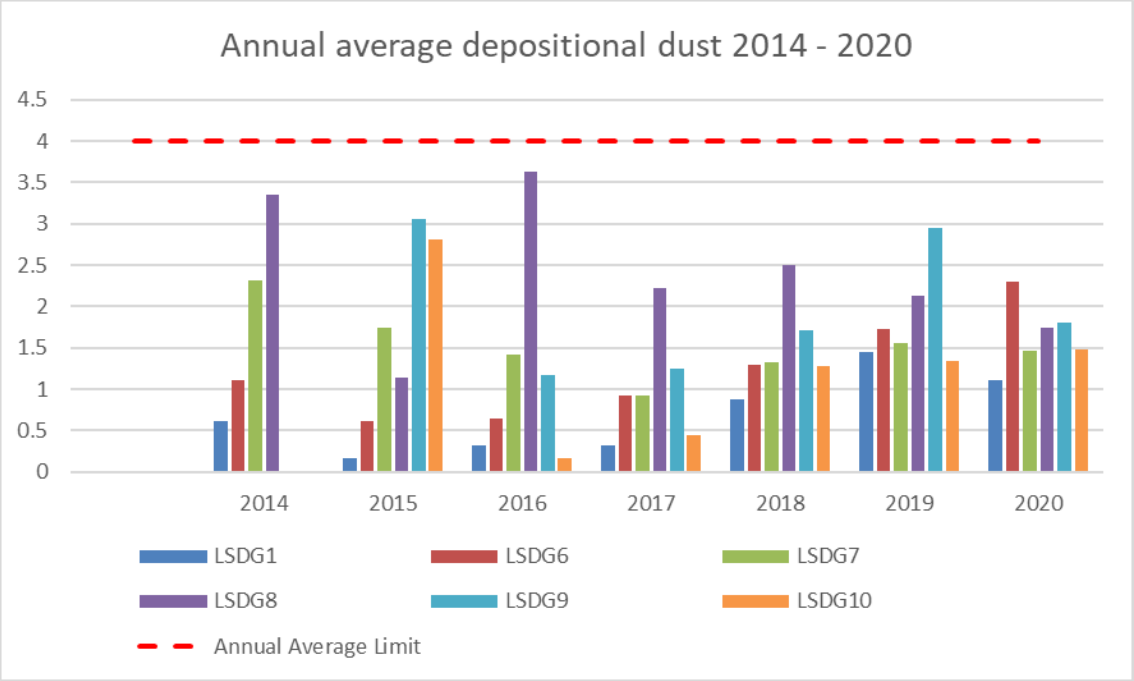

Figure E 5: Historical depositional dust summary – January 2011 to December 2020

The rolling average for depositional dust uses 12 months of data from February 2019 to January 2020 to generate the graph commencing January 2020 as shown in Figure E 6.

There were no exceedances of the 12-month rolling average during the reporting period.

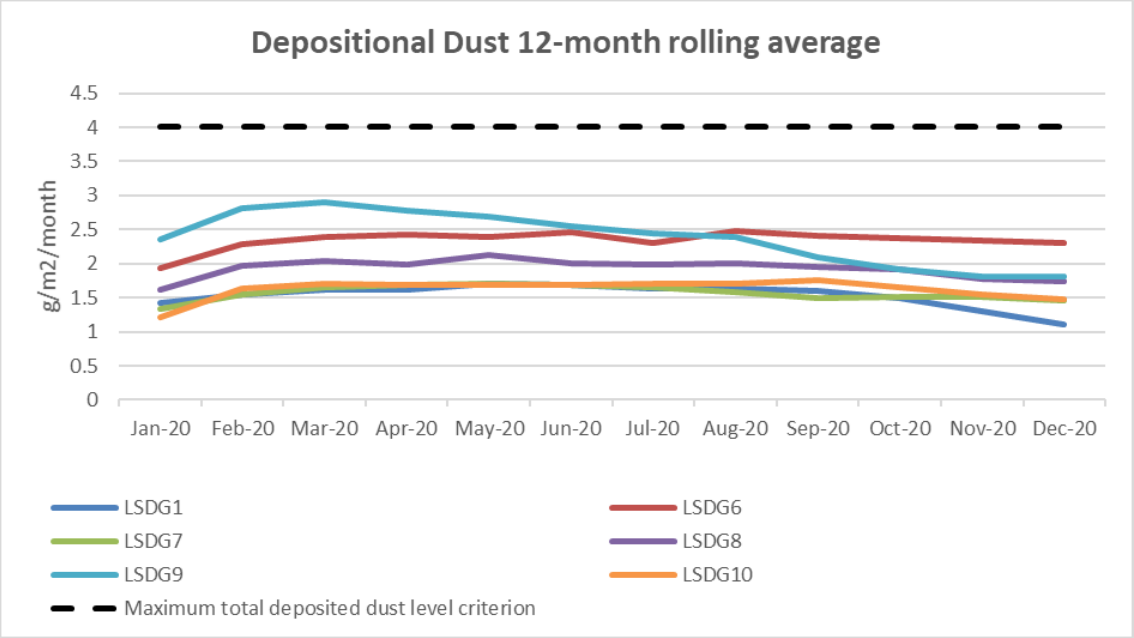

Figure E 6: 2020 depositional dust 12-month rolling average

The historical rolling average for depositional dust uses 12 months of data from May 2013 to generate the graph commencing April 2014 as shown in Figure E 7.

Historically, LSDG7 and LSDG9 and have exceeded the 12-month rolling average limit of 4 g/m^2/month but have remained under the limit since July 2014 and August 2015 respectively.

All other dust gauges have remained under the 4 g/m^2/month limit since April 2014.

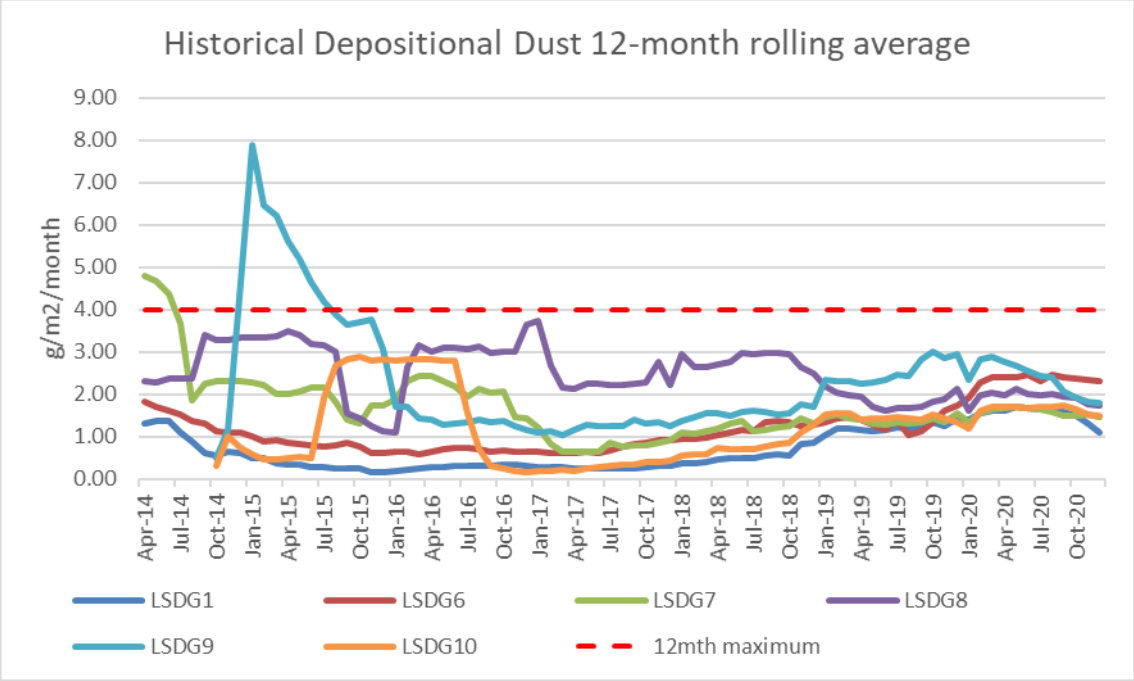

Figure E 7: May 2013 to December 2020 depositional dust 12-month rolling average

Greenhouse Gas

Greenhouse gas emissions are calculated for the financial year from emission sources at Lidsdale Siding. Table E 5 provides a greenhouse gas emissions summary for the 2019/20 financial year.

Table E 5: Total GHG emissions from site

Emissions Summary (CO_2-Et) July 2019 to June 2020	Total
Electricity	244.9
Diesel	258.8
Petroleum Based Oils and Greases (PBOG)	0
SF6	0
Fugitives – CH_4	0
Fugitives – CO_2	0
Surface Fugitive – Post Mining	0
TOTAL	**503.7**

Appendix F – Meteorological Information

Rainfall

The total monthly rainfall at the Lidsdale Siding site for the 2020 reporting period is summarised in Table F 1 and Figure F 1.

The location of the Lidsdale Siding Automated Weather Station (AWS) is provided in Appendix A.

Table F 1: Monthly Rainfall Summary

Month	Total Rainfall (mm)[9]	Long-term average (mm)[10]
January 2020	45.2	85.1
February 2020	116.2	76.8
March 2020	99.6	67.4
April 2020	78.6	43.2
May 2020	58.4	47.9
June 2020	32.8	49.6
July 2020	83.4	49.8
August 2020	106.2	63.1
September 2020	60	53
October 2020	66.6	67.1
November 2020	75.2	71.8
December 2020	105.6	73.6
Total	**927.8**	**748.4**

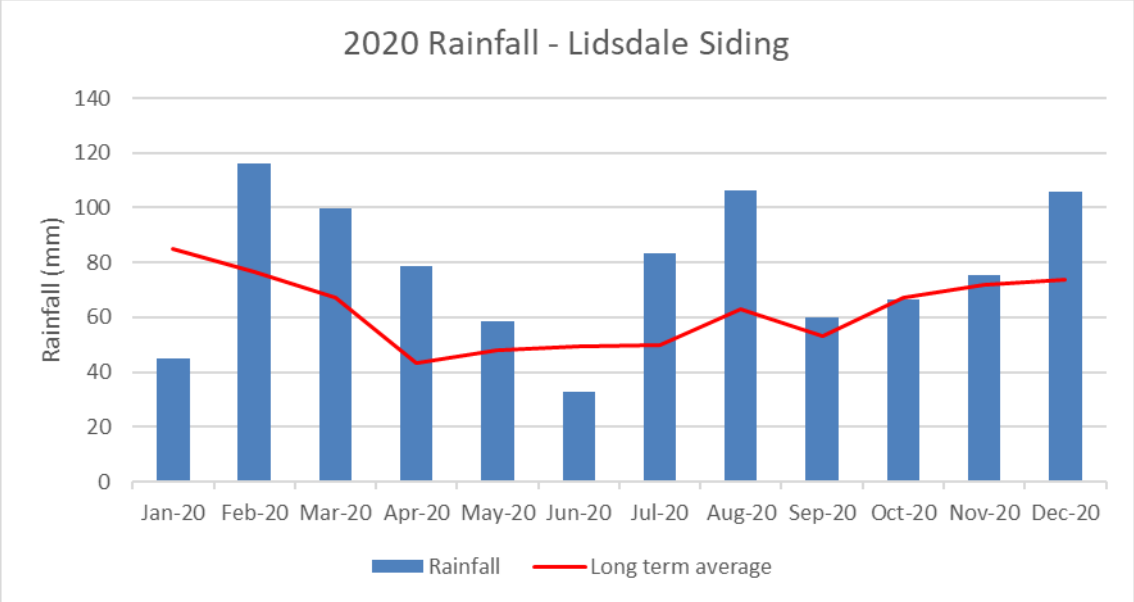

Figure F 1: Monthly Rainfall Summary

[9] *Lidsdale Siding Automated Weather Station*
[10] *BOM station 063132 Lidsdale (Maddox Lane) 1959-2020*

Temperature

The minimum and maximum monthly temperature for Lidsdale Siding for the 2020 reporting period is summarised in Table F 2 and Figure F 2.

Table F 2: Monthly Temperature Summary[11]

Month	Min (ºC)	Max (ºC)
January 2020	9.78	38.97
February 2020	4.00	38.65
March 2020	5.06	31.24
April 2020	-0.90	25.18
May 2020	-4.57	19.80
June 2020	-4.66	17.43
July 2020	-5.20	15.83
August 2020	-5.71	19.55
September 2020	-2.04	23.72
October 2020	-0.42	30.17
November 2020	3.19	33.14
December 2020	2.80	34.98

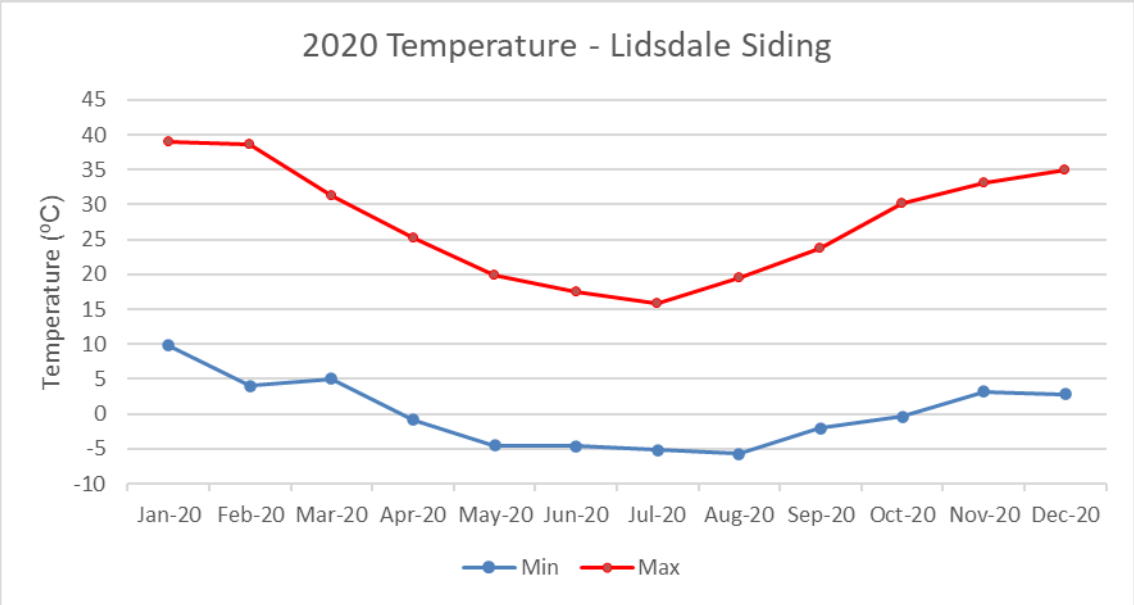

Figure F 2: Monthly Temperature Summary

[11] *Lidsdale Siding Automated Weather Station*

Appendix G – Transport Information

Performance against Environmental Assessment

The Traffic and Rail Impact Assessment concluded that the impact of the Project on the existing environment was primarily for the construction phase and recommended the road line marking on Main Street to be upgraded.

The construction phase of the project was completed in June 2014 and road line marking was upgraded by the end of February 2014 to comply with *AS1742.7-2007, Manual of Uniform Traffic Control, Part 7: Railway Crossings.*

Lidsdale Siding was non-compliant with train receival and unloading times during the reporting period.

Table G 1 presents the monthly tonnage of coal transported through Lidsdale Siding since the Project Approval was granted.

Table G 1: Records of coal transported from site 2013 – 2020 by month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2020													
Coal transported from site[12] (Tonnes)	56,897	72,275	68,360	87,320	75,605	125,758	68,483	78,513	99,005	73,272	99,799	93,154	**998,441**
Coal imported to site (Tonnes)	56,897	72,275	68,360	87,320	75,605	125,758	68,483	78,513	99,005	73,272	99,799	93,154	**998,441**
No. of trains departing site	14	19	18	23	20	33	20	24	28	21	31	27	**278**
2019													
Coal transported from site (Tonnes)	0	0	0	0	0	3458	0	3390	0	3726	71490	130348	**212412**
Coal imported to site (Tonnes)	0	0	0	0	0	0	0	0	0	3726	71490	130348	**205564**
No. of trains departing site	0	0	0	0	0	1	0	1	0	1	19	35	**57**
2018													
Coal transported from site (Tonnes)	9912	0	0	0	0	0	0	0	0	0	0	0	**9912**
No. of trains departing site	3	0	0	0	0	0	0	0	0	0	0	0	**3**
2017													
Coal transported from site (Tonnes)	118759	30484	0	0	0	0	90657	60697	78131	116708	71470	6697	**573603**
No. of trains departing site	34	9	0	0	0	0	27	18	23	33	21	2	**167**
2016													
Coal transported from site (Tonnes)	191250	160325	157283	98686	115423	13624	0	23989	0	95563	81887	94556	**1032586**
No. of trains departing site	56	47	46	29	34	4	0	7	0	28	24	28	**303**
2015													

[12] No coal export during reporting period

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Coal transported from site (Tonnes)	137183	184017	219070	142049	140961	200833	112960	79540	72021	40184	94962	115225	**1539005**
No. of trains departing site	40	54	64	42	41	59	33	23	21	12	28	34	**453**
2014													
Coal transported from site (Tonnes)	143029	128635	135864	142808	136383	109259	160330	169381	145485	213734	129928	213362	**1828198**
No. of trains departing site	42	38	40	42	40	32	47	50	43	63	38	63	**538**
2013													
Coal transported from site (Tonnes)	176028	88414	115606	106636	88216	58928	93988	33512	124434	116341	58874	150016	**1210993**
No. of trains departing site	52	26	34	31	26	17	28	10	37	34	17	44	**356**

Table G 1 provides the dates and times during the 2019 and 2020 reporting periods when trains at LS:

- Arrived on site
- Began unloading coal
- Finished unloading coal, and
- Departed site

No coal was loaded onto trains at LS during the reporting period.

Also shown in Table G 2, is the compliance status with PA 08_0223, Schedule 2, Condition 8A approved limits of:

- *The Proponent may receive and unload trains only during the day period.*

With the ‘day period’ defined as:

- *The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays*

Identified non-compliances are detailed in Appendix R.

Table G 2: LS Train Times

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	30/12/2019 12:59	30/12/2019 13:30	30/12/2019 16:45	6/01/2020 8:28	Y	Y	
LS03	5/01/2020 16:50			6/01/2020 8:28	Y	Y	No unloading as the train was empty upon arrival
LS04	6/01/2020 13:54	6/01/2020 14:30	7/01/2020 8:30	7/01/2020 8:58	Y	Y	
LS04	7/01/2020 14:16	7/01/2020 14:30	7/01/2020 17:30	8/01/2020 8:27	Y	Y	
LS04	8/01/2020 13:32	8/01/2020 13:55	8/01/2020 17:10	9/01/2020 8:10	Y	Y	
LS04	9/01/2020 13:43	9/01/2020 14:05	9/01/2020 17:00	13/01/2020 9:11	Y	Y	
LS04	13/01/2020 16:28	13/01/2020 16:40	13/01/2020 17:50	14/01/2020 10:05	Y	Y	
LS04	14/01/2020 15:20	14/01/2020 15:30	15/01/2020 9:30	15/01/2020 10:00	Y	Y	
LS04	15/01/2020 15:45	15/01/2020 16:00	16/01/2020 9:00	16/01/2020 9:22	Y	Y	
LS04	16/01/2020 14:14	16/01/2020 15:20	16/01/2020 18:00	17/01/2020 8:47	Y	Y	
LS04	17/01/2020 13:46	17/01/2020 14:00	18/01/2020 8:45	18/01/2020 9:05	Y	Y	
LS04	18/01/2020 15:00	18/01/2020 15:20	18/01/2020 18:00	20/01/2020 17:51	Y	Y	
LS04	23/01/2020 11:03	23/01/2020 11:30	23/01/2020 14:00	28/01/2020 10:01	Y	Y	
LS04	28/01/2020 15:10	28/01/2020 15:49	29/01/2020 8:30	29/01/2020 9:25	Y	Y	
LS04	29/01/2020 14:38	29/01/2020 14:58	29/01/2020 17:50	30/01/2020 8:10	Y	Y	
LS04	30/01/2020 13:27	30/01/2020 13:45	30/01/2020 17:00	31/01/2020 8:10	Y	Y	
LS04	31/01/2020 15:44	31/01/2020 15:50	31/01/2020 18:00	31/01/2020 20:05	Y	Y	
LS04	11/02/2020 15:20	11/02/2020 15:30	12/02/2020 9:30	12/02/2020 10:20	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	12/02/2020 15:20	12/02/2020 15:30	12/02/2020 18:00	12/02/2020 18:30	Y	Y	
LS04	13/02/2020 11:39	13/02/2020 11:50	13/02/2020 14:50	13/02/2020 15:16	Y	Y	
LS06	13/02/2020 20:00	14/02/2020 7:30	14/02/2020 10:30	14/02/2020 10:59	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS04	14/02/2020 16:16	15/02/2020 7:30	15/02/2020 10:30	15/02/2020 10:50	Y	Y	
LS04	15/02/2020 17:20	17/02/2020 7:30	17/02/2020 10:30	17/02/2020 10:47	Y	Y	
LS04	18/02/2020 10:26	18/02/2020 11:10	18/02/2020 14:30	18/02/2020 14:56	Y	Y	
LS04	19/02/2020 7:55	19/02/2020 8:05	19/02/2020 12:10	19/02/2020 12:53	Y	Y	
LS04	20/02/2020 7:00	20/02/2020 7:35	20/02/2020 10:05	20/02/2020 11:05	Y	Y	
LS06	20/02/2020 16:25	20/02/2020 16:30	21/02/2020 8:00	21/02/2020 8:31	Y	Y	
LS06	21/02/2020 17:04	21/02/2020 17:04	22/02/2020 17:30	22/02/2020 17:55	Y	Y	
LS04	23/02/2020 7:25	23/02/2020 7:30	23/02/2020 10:15	23/02/2020 10:39	N	N	Train could not be stowed on track due to rail network requirements for approved train paths
LS06	23/02/2020 15:08	23/02/2020 15:15	23/02/2020 17:20	23/02/2020 18:05	Y	Y	
LS04	24/02/2020 10:45	24/02/2020 11:00	24/02/2020 14:10	24/02/2020 14:30	Y	Y	
LS04	25/02/2020 6:50	25/02/2020 7:00	25/02/2020 10:15	25/02/2020 10:35	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS06	25/02/2020 15:40	25/02/2020 16:00	26/02/2020 11:30	26/02/2020 12:00	Y	Y	
LS06	26/02/2020 17:15	26/02/2020 17:25	27/02/2020 11:05	27/02/2020 11:55	Y	Y	
LS06	27/02/2020 18:30	28/02/2020 8:00	28/02/2020 10:00	4/03/2020 9:00	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS06	4/03/2020 14:39	4/03/2020 14:45	4/03/2020 17:30	4/03/2020 17:45	Y	Y	
LS04	5/03/2020 7:20	5/03/2020 7:30	5/03/2020 16:20	5/03/2020 16:45	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	6/03/2020 7:00	6/03/2020 7:00	6/03/2020 10:45	6/03/2020 11:15	Y	Y	
LS06	6/03/2020 17:13	6/03/2020 17:30	7/03/2020 10:40	7/03/2020 11:01	Y	Y	
LS04	9/03/2020 7:05	9/03/2020 7:15	9/03/2020 10:15	9/03/2020 10:43	Y	Y	
LS06	9/03/2020 15:55	9/03/2020 16:00	10/03/2020 8:30	10/03/2020 9:08	Y	Y	
LS06	10/03/2020 14:01	10/03/2020 14:15	11/03/2020 10:15	11/03/2020 10:37	Y	Y	
LS06	11/03/2020 15:30	15/03/2020 9:25	15/03/2020 13:00	15/03/2020 13:36	Y	Y	
LS04	16/03/2020 7:23	16/03/2020 7:40	16/03/2020 12:15	16/03/2020 12:42	Y	Y	
LS04	17/03/2020 7:06	17/03/2020 7:30	17/03/2020 11:30	17/03/2020 11:47	Y	Y	
LS06	17/03/2020 16:55	17/03/2020 17:10	18/03/2020 10:15	18/03/2020 10:44	Y	Y	
LS06	18/03/2020 15:35	18/03/2020 15:45	19/03/2020 9:20	19/03/2020 9:47	Y	Y	
LS06	19/03/2020 14:50	19/03/2020 14:55	19/03/2020 17:15	20/03/2020 8:50	Y	Y	
LS06	20/03/2020 14:21	20/03/2020 14:40	20/03/2020 17:00	20/03/2020 17:26	Y	Y	
LS04	21/03/2020 6:33	21/03/2020 7:15	21/03/2020 10:15	21/03/2020 10:35	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS06	21/03/2020 15:36	21/03/2020 16:00	22/03/2020 9:00	22/03/2020 9:09	Y	Y	
LS06	22/03/2020 14:12	22/03/2020 14:30	22/03/2020 17:30	23/03/2020 8:23	Y	Y	
LS06	30/03/2020 9:06	30/03/2020 9:30	30/03/2020 12:30	30/03/2020 12:38	Y	Y	
LS06	1/04/2020 9:26	1/04/2020 9:40	1/04/2020 12:00	1/04/2020 12:16	Y	Y	
LS04	7/04/2020 8:10	8/04/2020 7:15	8/04/2020 10:15	8/04/2020 11:35	Y	Y	
LS06	8/04/2020 16:49	9/04/2020 7:15	9/04/2020 10:15	9/04/2020 11:11	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	9/04/2020 16:51	10/04/2020 8:15	10/04/2020 11:15	10/04/2020 12:30	Y	Y	
LS04	10/04/2020 17:40	11/04/2020 8:15	11/04/2020 11:15	11/04/2020 13:54	Y	Y	
LS04	11/04/2020 17:25	12/04/2020 8:15	12/04/2020 10:45	12/04/2020 11:09	Y	Y	
LS04	12/04/2020 16:18	13/04/2020 8:15	13/04/2020 10:45	13/04/2020 11:17	Y	Y	
LS04	13/04/2020 16:58	15/04/2020 9:00	15/04/2020 12:00	16/04/2020 8:44	Y	Y	
LS04	16/04/2020 15:09	17/04/2020 8:20	17/04/2020 10:30	17/04/2020 10:42	Y	Y	
LS04	17/04/2020 15:55	18/04/2020 7:10	18/04/2020 9:20	18/04/2020 9:43	Y	Y	
LS04	18/04/2020 15:01	19/04/2020 8:00	19/04/2020 10:08	19/04/2020 10:30	Y	Y	
LS04	19/04/2020 16:07	20/04/2020 7:10	20/04/2020 9:55	20/04/2020 10:48	Y	Y	
LS04	20/04/2020 15:14	21/04/2020 7:10	21/04/2020 9:30	21/04/2020 9:59	Y	Y	
LS04	21/04/2020 14:20	22/04/2020 7:15	22/04/2020 10:00	22/04/2020 10:16	Y	Y	
LS04	22/04/2020 15:22	23/04/2020 7:15	23/04/2020 11:20	23/04/2020 11:35	Y	Y	
LS04	23/04/2020 16:30	24/04/2020 7:15	24/04/2020 10:15	24/04/2020 11:01	Y	Y	
LS04	24/04/2020 15:34	25/04/2020 8:00	25/04/2020 10:30	25/04/2020 10:45	Y	Y	
LS04	25/04/2020 15:35	26/04/2020 8:28	26/04/2020 11:30	26/04/2020 12:00	Y	Y	
LS04	26/04/2020 17:45	27/04/2020 7:40	27/04/2020 10:40	27/04/2020 11:10	Y	Y	
LS04	27/04/2020 16:30	27/04/2020 16:45	28/04/2020 8:55	28/04/2020 9:30	Y	Y	
LS04	28/04/2020 16:08	28/04/2020 16:11	29/04/2020 8:30	29/04/2020 9:05	Y	Y	
LS04	29/04/2020 15:35	29/04/2020 15:45	29/04/2020 18:00	30/04/2020 7:30	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	30/04/2020 13:23	30/04/2020 13:35	30/04/2020 17:00	30/04/2020 17:25	Y	Y	
LS04	1/05/2020 7:25	1/05/2020 7:30	1/05/2020 13:15	2/05/2020 9:07	Y	Y	
LS04	2/05/2020 14:45	2/05/2020 14:50	3/05/2020 9:45	3/05/2020 10:06	Y	Y	
LS04	3/05/2020 15:45	3/05/2020 16:00	4/05/2020 8:10	4/05/2020 8:45	Y	Y	
LS04	4/05/2020 15:59	4/05/2020 14:25	4/05/2020 18:00	5/05/2020 10:40	Y	Y	
LS04	5/05/2020 15:41	5/05/2020 15:46	6/05/2020 9:40	6/05/2020 10:20	Y	Y	
LS04	6/05/2020 15:31	6/05/2020 15:35	6/05/2020 18:00	8/05/2020 10:16	Y	Y	
LS04	8/05/2020 15:20	9/05/2020 7:15	9/05/2020 10:45	9/05/2020 11:06	Y	Y	
LS04	9/05/2020 16:06	10/05/2020 8:15	10/05/2020 12:45	10/05/2020 13:00	Y	Y	
LS04	10/05/2020 17:35	11/05/2020 7:30	11/05/2020 10:30	18/05/2020 10:23	Y	Y	
LS04	18/05/2020 17:19	19/05/2020 7:15	19/05/2020 10:40	19/05/2020 10:45	Y	Y	
LS04	19/05/2020 16:58	20/05/2020 7:15	20/05/2020 10:30	20/05/2020 11:02	Y	Y	
LS04	20/05/2020 16:46	21/05/2020 7:15	21/05/2020 10:15	21/05/2020 12:03	Y	Y	
LS04	21/05/2020 17:01	22/05/2020 7:15	22/05/2020 10:30	22/05/2020 10:56	Y	Y	
LS04	22/05/2020 16:17	25/05/2020 7:15	25/05/2020 10:30	25/05/2020 10:55	Y	Y	
LS04	25/05/2020 16:44	26/05/2020 7:10	26/05/2020 9:30	26/05/2020 9:43	Y	Y	
LS04	26/05/2020 15:23	27/05/2020 7:15	27/05/2020 9:40	27/05/2020 9:58	Y	Y	
LS04	27/05/2020 15:11	28/05/2020 7:05	28/05/2020 11:16	28/05/2020 12:05	Y	Y	
LS04	28/05/2020 16:35	29/05/2020 7:15	29/05/2020 10:30	29/05/2020 11:00	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	29/05/2020 16:00	30/05/2020 7:20	30/05/2020 10:00	30/05/2020 10:42	Y	Y	
LS04	30/05/2020 15:20	1/06/2020 7:15	1/06/2020 10:30	1/06/2020 10:58	Y	Y	
LS04	1/06/2020 15:41	2/06/2020 7:15	2/06/2020 11:00	2/06/2020 12:02	Y	Y	
LS04	3/06/2020 11:16	3/06/2020 11:30	4/06/2020 11:30	4/06/2020 12:30	Y	Y	
LS04	4/06/2020 17:37	5/06/2020 7:15	5/06/2020 14:00	6/06/2020 10:29	Y	Y	
LS04	6/06/2020 15:04	7/06/2020 7:15	7/06/2020 12:07	7/06/2020 12:34	Y	N	The Sunday curfew of 08:00 am start was not applied due to rail network requirements for approved train paths
LS04	7/06/2020 16:52	9/06/2020 7:15	9/06/2020 9:40	9/06/2020 10:12	Y	Y	
LS04	9/06/2020 15:55	10/06/2020 7:15	10/06/2020 9:45	10/06/2020 10:11	Y	Y	
LS04	10/06/2020 14:40	11/06/2020 7:15	11/06/2020 10:15	11/06/2020 10:57	Y	Y	
LS04	11/06/2020 16:09	12/06/2020 7:15	12/06/2020 10:15	12/06/2020 10:39	Y	Y	
LS04	12/06/2020 15:49	13/06/2020 7:15	13/06/2020 10:15	13/06/2020 10:36	Y	Y	
LS04	13/06/2020 15:36	14/06/2020 8:20	14/06/2020 11:20	14/06/2020 11:49	Y	Y	
LS04	14/06/2020 16:29	15/06/2020 7:15	15/06/2020 11:00	15/06/2020 11:39	Y	Y	
LS04	15/06/2020 17:02	16/06/2020 7:15	16/06/2020 9:45	16/06/2020 10:16	Y	Y	
LS04	16/06/2020 15:02	16/06/2020 15:45	16/06/2020 18:00	17/06/2020 7:20	Y	Y	
LS04	17/06/2020 12:34	17/06/2020 12:45	17/06/2020 15:30	17/06/2020 15:50	Y	Y	
LS04	18/06/2020 7:00	18/06/2020 7:10	18/06/2020 10:00	18/06/2020 10:25	Y	Y	
LS04	18/06/2020 15:06	18/06/2020 15:30	18/06/2020 18:00	19/06/2020 8:46	Y	Y	
LS04	19/06/2020 14:12	20/06/2020 7:45	20/06/2020 11:50	20/06/2020 12:20	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS04	20/06/2020 17:06	20/06/2020 17:15	21/06/2020 12:00	21/06/2020 12:38	Y	Y	
LS04	21/06/2020 17:30	23/06/2020 7:15	23/06/2020 10:00	23/06/2020 10:20	Y	Y	
LS06	23/06/2020 11:18	23/06/2020 11:30	23/06/2020 14:30	23/06/2020 15:06	Y	Y	
LS04	23/06/2020 15:50	23/06/2020 16:00	24/06/2020 8:03	24/06/2020 8:35	Y	Y	
LS06	24/06/2020 9:23	24/06/2020 10:00	24/06/2020 12:30	24/06/2020 13:01	Y	Y	
LS04	24/06/2020 14:03	24/06/2020 14:03	24/06/2020 17:25	25/06/2020 7:20	Y	Y	
LS06	25/06/2020 7:57	25/06/2020 8:00	25/06/2020 11:30	25/06/2020 11:51	Y	Y	
LS04	25/06/2020 12:25	25/06/2020 12:30	25/06/2020 15:15	26/06/2020 13:27	Y	Y	
LS06	26/06/2020 14:17	26/06/2020 14:30	26/06/2020 17:30	27/06/2020 7:10	Y	Y	
LS06	27/06/2020 12:03	27/06/2020 12:15	27/06/2020 15:15	27/06/2020 15:45	Y	Y	
LS08	27/06/2020 7:45	27/06/2020 8:00	27/06/2020 11:00	27/06/2020 11:30	Y	Y	
LS04	27/06/2020 16:05	28/06/2020 7:15	28/06/2020 10:15	28/06/2020 11:03	Y	N	The Sunday curfew of 08:00 am start was not applied due to rail network requirements for approved train paths
LS06	28/06/2020 11:30	28/06/2020 11:45	28/06/2020 14:15	28/06/2020 15:02	Y	Y	
LS06	29/06/2020 7:09	29/06/2020 7:20	29/06/2020 10:30	30/06/2020 13:28	Y	Y	
LS04	30/06/2020 15:56	1/07/2020 7:00	1/07/2020 8:45	1/07/2020 9:16	Y	Y	
LS04	1/07/2020 14:20	1/07/2020 14:30	2/07/2020 7:30	2/07/2020 7:40	Y	Y	
LS04	2/07/2020 12:26	2/07/2020 12:40	2/07/2020 15:20	3/07/2020 7:45	Y	Y	
LS04	3/07/2020 13:01	3/07/2020 13:20	3/07/2020 15:50	3/07/2020 17:50	Y	Y	
LS06	4/07/2020 9:15	4/07/2020 9:30	4/07/2020 12:00	5/07/2020 8:42	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	5/07/2020 13:54	5/07/2020 14:05	5/07/2020 17:00	6/07/2020 7:36	Y	Y	
LS06	6/07/2020 12:38	6/07/2020 13:00	6/07/2020 15:30	7/07/2020 7:27	Y	Y	
LS06	7/07/2020 12:38	7/07/2020 12:45	7/07/2020 15:15	8/07/2020 7:25	Y	Y	
LS06	8/07/2020 13:45	8/07/2020 13:50	8/07/2020 16:10	9/07/2020 7:24	Y	Y	
LS06	9/07/2020 12:38	9/07/2020 12:45	9/07/2020 15:05	9/07/2020 15:10	Y	Y	
LS06	11/07/2020 15:18	11/07/2020 15:30	11/07/2020 17:50	12/07/2020 9:00	Y	Y	
LS06	12/07/2020 13:20	12/07/2020 13:30	12/07/2020 16:00	12/07/2020 16:51	Y	Y	
LS06	18/07/2020 8:15	18/07/2020 8:30	18/07/2020 11:30	19/07/2020 9:40	Y	Y	
LS06	19/07/2020 15:30	19/07/2020 15:40	20/07/2020 8:00	20/07/2020 8:27	Y	Y	
LS06	20/07/2020 15:01	20/07/2020 15:10	21/07/2020 8:00	21/07/2020 9:20	Y	Y	
LS06	21/07/2020 14:20	21/07/2020 14:30	22/07/2020 8:00	22/07/2020 9:45	Y	Y	
LS06	22/07/2020 14:27	22/07/2020 14:40	23/07/2020 12:00	23/07/2020 12:18	Y	Y	
LS06	23/07/2020 17:08	24/07/2020 7:30	24/07/2020 11:00	24/07/2020 11:25	Y	Y	
LS06	24/07/2020 17:14	25/07/2020 7:15	25/07/2020 11:45	25/07/2020 12:34	Y	Y	
LS06	25/07/2020 17:17	26/07/2020 8:00	26/07/2020 11:00	26/07/2020 11:46	Y	Y	
LS06	1/08/2020 7:40	1/08/2020 8:00	1/08/2020 11:00	2/08/2020 9:45	Y	Y	
LS06	2/08/2020 14:40	2/08/2020 14:50	2/08/2020 17:50	3/08/2020 8:36	Y	Y	
LS06	3/08/2020 13:25	3/08/2020 13:45	3/08/2020 16:45	4/08/2020 7:45	Y	Y	
LS04	4/08/2020 7:50	4/08/2020 8:00	4/08/2020 11:00	4/08/2020 11:10	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	4/08/2020 12:48	4/08/2020 13:00	4/08/2020 16:00	5/08/2020 7:56	Y	Y	
LS04	5/08/2020 11:56	5/08/2020 12:10	5/08/2020 15:10	5/08/2020 15:35	Y	Y	
LS06	5/08/2020 16:03	5/08/2020 16:15	6/08/2020 9:00	6/08/2020 9:24	Y	Y	
LS04	6/08/2020 10:27	6/08/2020 10:40	6/08/2020 13:00	6/08/2020 13:19	Y	Y	
LS06	6/08/2020 17:20	7/08/2020 7:15	7/08/2020 9:50	7/08/2020 10:00	Y	Y	
LS06	7/08/2020 15:04	7/08/2020 15:08	8/08/2020 7:30	8/08/2020 7:44	Y	Y	
LS06	8/08/2020 14:04	8/08/2020 14:15	8/08/2020 17:15	9/08/2020 8:20	Y	Y	
LS06	9/08/2020 13:05	9/08/2020 13:30	9/08/2020 16:30	10/08/2020 7:21	Y	Y	
LS06	10/08/2020 12:36	10/08/2020 12:45	10/08/2020 15:45	11/08/2020 7:13	Y	Y	
LS06	11/08/2020 12:04	11/08/2020 12:20	11/08/2020 15:30	12/08/2020 7:17	Y	Y	
LS06	12/08/2020 12:10	12/08/2020 12:30	12/08/2020 15:30	13/08/2020 7:21	Y	Y	
LS06	13/08/2020 12:03	13/08/2020 12:15	13/08/2020 15:30	14/08/2020 7:25	Y	Y	
LS06	14/08/2020 12:10	14/08/2020 12:30	14/08/2020 15:30	15/08/2020 7:10	Y	Y	
LS06	15/08/2020 12:10	15/08/2020 12:30	15/08/2020 15:30	16/08/2020 8:15	Y	Y	
LS06	16/08/2020 12:28	16/08/2020 12:40	16/08/2020 15:40	17/08/2020 7:10	Y	Y	
LS06	17/08/2020 12:27	17/08/2020 12:40	17/08/2020 15:40	17/08/2020 16:06	Y	Y	
LS06	22/08/2020 9:20	22/08/2020 9:25	22/08/2020 12:20	23/08/2020 9:11	Y	Y	
LS06	23/08/2020 14:14	23/08/2020 14:20	23/08/2020 17:00	24/08/2020 7:10	Y	Y	
LS06	24/08/2020 12:10	24/08/2020 12:30	24/08/2020 15:30	25/08/2020 10:08	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	25/08/2020 15:04	25/08/2020 15:15	26/08/2020 9:30	26/08/2020 10:10	Y	Y	
LS06	6/09/2020 13:01	6/09/2020 13:10	6/09/2020 16:30	7/09/2020 7:15	Y	Y	
LS04	7/09/2020 10:30	7/09/2020 10:40	7/09/2020 13:00	7/09/2020 13:21	Y	Y	
LS06	7/09/2020 13:50	7/09/2020 14:00	7/09/2020 17:00	8/09/2020 7:45	Y	Y	
LS04	8/09/2020 8:41	8/09/2020 8:50	8/09/2020 12:30	8/09/2020 12:59	Y	Y	
LS06	8/09/2020 15:25	8/09/2020 15:30	9/09/2020 9:20	9/09/2020 10:18	Y	Y	
LS04	9/09/2020 10:46	9/09/2020 11:00	9/09/2020 14:00	9/09/2020 15:00	Y	Y	
LS06	9/09/2020 15:42	9/09/2020 15:48	10/09/2020 8:09	10/09/2020 8:59	Y	Y	
LS04	10/09/2020 9:31	10/09/2020 9:45	10/09/2020 12:15	10/09/2020 13:37	Y	Y	
LS06	10/09/2020 14:23	10/09/2020 14:40	10/09/2020 17:40	11/09/2020 7:30	Y	Y	
LS04	11/09/2020 7:46	11/09/2020 8:00	11/09/2020 10:30	11/09/2020 11:12	Y	Y	
LS06	11/09/2020 12:08	11/09/2020 12:30	11/09/2020 15:30	12/09/2020 7:15	Y	Y	
LS06	14/09/2020 13:16	14/09/2020 13:30	14/09/2020 16:30	15/09/2020 7:15	Y	Y	
LS08	15/09/2020 7:47	15/09/2020 8:00	15/09/2020 10:30	15/09/2020 11:07	Y	Y	
LS06	15/09/2020 12:15	15/09/2020 12:30	15/09/2020 15:30	16/09/2020 7:40	Y	Y	
LS08	16/09/2020 8:17	16/09/2020 8:30	16/09/2020 11:00	16/09/2020 11:39	Y	Y	
LS06	16/09/2020 12:23	16/09/2020 12:40	16/09/2020 15:40	16/09/2020 17:10	Y	Y	
LS10	16/09/2020 17:37	17/09/2020 8:00	17/09/2020 10:30	17/09/2020 11:15	Y	Y	
LS08	17/09/2020 16:45	18/09/2020 7:00	18/09/2020 9:20	18/09/2020 9:34	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS08	18/09/2020 15:06	18/09/2020 15:10	19/09/2020 9:30	19/09/2020 10:36	Y	Y	
LS08	19/09/2020 14:48	19/09/2020 15:08	19/09/2020 17:28	19/09/2020 18:00	Y	Y	
LS08	20/09/2020 9:10	20/09/2020 9:20	20/09/2020 12:00	20/09/2020 12:18	Y	Y	
LS06	20/09/2020 12:41	20/09/2020 12:52	20/09/2020 15:47	21/09/2020 7:00	Y	Y	
LS08	21/09/2020 7:56	21/09/2020 8:08	21/09/2020 10:30	21/09/2020 13:06	Y	Y	
LS06	22/09/2020 10:46	22/09/2020 11:46	22/09/2020 14:45	23/09/2020 7:50	Y	Y	
LS04	23/09/2020 11:15	23/09/2020 11:30	23/09/2020 13:50	23/09/2020 15:39	Y	Y	
LS06	23/09/2020 16:03	23/09/2020 16:15	24/09/2020 8:38	24/09/2020 9:08	Y	Y	
LS06	24/09/2020 13:40	24/09/2020 14:00	24/09/2020 17:00	25/09/2020 7:08	Y	Y	
LS06	25/09/2020 12:08	25/09/2020 12:20	25/09/2020 15:20	28/09/2020 8:44	Y	Y	
LS05	1/10/2020 8:05			2/10/2020 10:34	Y	Y	No unloading as the train was empty upon arrival
LS06	2/10/2020 16:30	3/10/2020 7:00	3/10/2020 10:00	3/10/2020 10:45	Y	Y	
LS06	3/10/2020 16:03	3/10/2020 16:10	4/10/2020 10:10	4/10/2020 11:03	Y	Y	
LS06	4/10/2020 15:48	4/10/2020 16:00	5/10/2020 9:00	5/10/2020 9:49	Y	Y	
LS06	5/10/2020 15:22	5/10/2020 15:30	6/10/2020 8:30	6/10/2020 8:57	Y	Y	
LS06	13/10/2020 7:14	13/10/2020 7:30	13/10/2020 11:30	13/10/2020 12:09	Y	Y	
LS06	14/10/2020 7:20	14/10/2020 7:30	14/10/2020 10:30	14/10/2020 10:34	Y	Y	
LS04	14/10/2020 15:34	14/10/2020 16:00	15/10/2020 8:30	15/10/2020 8:48	Y	Y	
LS04	15/10/2020 14:25	15/10/2020 14:30	15/10/2020 17:30	15/10/2020 17:33	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	16/10/2020 7:21	16/10/2020 7:25	16/10/2020 10:15	16/10/2020 10:17	Y	Y	
LS06	17/10/2020 7:25	17/10/2020 7:30	17/10/2020 10:30	17/10/2020 11:06	Y	Y	
LS04	17/10/2020 16:21	17/10/2020 16:30	18/10/2020 9:30	18/10/2020 9:44	Y	Y	
LS06	18/10/2020 15:45	18/10/2020 15:50	18/10/2020 18:45	18/10/2020 19:03	Y	N	The Sunday curfew of 08:00 am start was not applied due to rail network requirements for approved train paths
LS08	23/10/2020 8:55	23/10/2020 9:23	23/10/2020 12:00	23/10/2020 13:03	Y	Y	
LS06	23/10/2020 13:57	23/10/2020 14:10	23/10/2020 17:10	23/10/2020 17:30	Y	Y	
LS06	24/10/2020 7:20	24/10/2020 7:30	24/10/2020 10:30	24/10/2020 11:40	Y	Y	
LS04	24/10/2020 17:28	24/10/2020 17:30	25/10/2020 11:00	25/10/2020 11:27	Y	Y	
LS06	25/10/2020 16:49	25/10/2020 17:00	25/10/2020 18:00	26/10/2020 16:34	Y	Y	
LS04	29/10/2020 7:28	29/10/2020 7:33	29/10/2020 10:25	29/10/2020 10:46	Y	Y	
LS04	29/10/2020 16:11	29/10/2020 16:20	30/10/2020 8:50	30/10/2020 9:05	Y	Y	
LS04	30/10/2020 14:29	30/10/2020 14:40	30/10/2020 17:40	30/10/2020 18:20	Y	Y	
LS06	31/10/2020 7:37	31/10/2020 7:50	31/10/2020 11:30	31/10/2020 11:50	Y	Y	
LS04	31/10/2020 16:32	31/10/2020 16:40	1/11/2020 9:30	1/11/2020 10:05	Y	Y	
LS06	1/11/2020 14:32	1/11/2020 15:10	1/11/2020 18:00	1/11/2020 18:10	Y	Y	
LS04	2/11/2020 7:17	2/11/2020 8:15	2/11/2020 11:00	2/11/2020 11:18	Y	Y	
LS06	2/11/2020 15:44	2/11/2020 16:00	3/11/2020 8:30	3/11/2020 8:46	Y	Y	
LS06	3/11/2020 13:50	3/11/2020 13:55	3/11/2020 16:45	3/11/2020 16:51	Y	Y	
LS04	4/11/2020 7:32	4/11/2020 7:40	4/11/2020 11:00	4/11/2020 11:32	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	4/11/2020 16:15	4/11/2020 16:30	5/11/2020 9:30	5/11/2020 9:51	Y	Y	
LS06	5/11/2020 15:07	5/11/2020 15:10	5/11/2020 18:00	5/11/2020 18:07	Y	Y	
LS06	7/11/2020 7:35	7/11/2020 7:40	7/11/2020 10:40	7/11/2020 10:47	Y	Y	
LS04	7/11/2020 16:10	7/11/2020 16:15	8/11/2020 10:45	8/11/2020 11:27	Y	Y	
LS06	8/11/2020 16:57	8/11/2020 17:10	9/11/2020 12:00	9/11/2020 12:43	Y	Y	
LS06	9/11/2020 18:25	10/11/2020 7:15	10/11/2020 10:15	10/11/2020 10:51	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS06	10/11/2020 16:12	10/11/2020 16:20	11/11/2020 10:00	11/11/2020 11:02	Y	Y	
LS06	11/11/2020 16:30	11/11/2020 16:40	12/11/2020 10:00	12/11/2020 10:40	Y	Y	
LS06	12/11/2020 16:47	12/11/2020 17:00	13/11/2020 10:15	13/11/2020 10:52	Y	Y	
LS06	13/11/2020 16:03	13/11/2020 16:15	14/11/2020 9:00	16/11/2020 8:50	Y	Y	
LS06	16/11/2020 15:08	16/11/2020 15:20	17/11/2020 8:00	17/11/2020 8:22	Y	Y	
LS06	17/11/2020 13:54	17/11/2020 14:10	17/11/2020 17:10	18/11/2020 7:23	Y	Y	
LS06	18/11/2020 12:32	18/11/2020 13:00	18/11/2020 16:00	19/11/2020 10:52	Y	Y	
LS06	19/11/2020 13:02	19/11/2020 13:30	19/11/2020 16:30	19/11/2020 18:05	Y	Y	
LS06	20/11/2020 11:12	20/11/2020 11:20	20/11/2020 14:20	21/11/2020 7:17	Y	Y	
LS06	21/11/2020 13:02	21/11/2020 13:30	21/11/2020 16:30	22/11/2020 8:38	Y	Y	
LS06	22/11/2020 14:30	22/11/2020 14:30	22/11/2020 17:30	23/11/2020 7:30	Y	Y	
LS06	23/11/2020 12:26	23/11/2020 12:30	23/11/2020 15:30	24/11/2020 7:20	Y	Y	
LS06	24/11/2020 12:26	24/11/2020 12:30	24/11/2020 15:30	25/11/2020 7:23	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	25/11/2020 12:43	25/11/2020 13:00	25/11/2020 16:00	26/11/2020 8:18	Y	Y	
LS06	26/11/2020 13:39	26/11/2020 13:50	26/11/2020 17:00	27/11/2020 7:21	Y	Y	
LS06	27/11/2020 14:19	27/11/2020 14:30	27/11/2020 17:30	28/11/2020 9:45	Y	Y	
LS06	28/11/2020 14:58	28/11/2020 15:00	28/11/2020 18:00	29/11/2020 9:00	Y	Y	
LS06	29/11/2020 14:10	29/11/2020 14:10	29/11/2020 17:08	30/11/2020 7:24	Y	Y	
LS06	30/11/2020 13:05	30/11/2020 13:15	30/11/2020 16:15	1/12/2020 7:24	Y	Y	
LS06	1/12/2020 12:40	1/12/2020 13:00	1/12/2020 16:00	2/12/2020 7:20	Y	Y	
LS06	2/12/2020 12:15	2/12/2020 12:30	2/12/2020 15:30	3/12/2020 7:19	Y	Y	
LS06	3/12/2020 12:37	3/12/2020 13:00	3/12/2020 16:00	3/12/2020 16:20	Y	Y	
LS04	4/12/2020 7:15	4/12/2020 7:15	4/12/2020 10:15	4/12/2020 10:26	Y	Y	
LS06	4/12/2020 15:35	4/12/2020 15:40	5/12/2020 8:00	5/12/2020 9:00	Y	Y	
LS06	5/12/2020 14:24	5/12/2020 14:30	5/12/2020 17:30	6/12/2020 9:10	Y	Y	
LS06	6/12/2020 13:40	6/12/2020 13:50	6/12/2020 16:50	7/12/2020 7:10	Y	Y	
LS06	8/12/2020 7:33	8/12/2020 7:40	8/12/2020 10:00	8/12/2020 10:14	Y	Y	
LS06	8/12/2020 15:40	8/12/2020 15:40	8/12/2020 18:00	9/12/2020 7:27	Y	Y	
LS06	9/12/2020 12:07	9/12/2020 12:30	9/12/2020 15:30	10/12/2020 7:41	Y	Y	
LS06	10/12/2020 12:39	10/12/2020 12:40	10/12/2020 14:45	10/12/2020 14:50	Y	Y	
LS04	11/12/2020 7:10	11/12/2020 7:15	11/12/2020 9:45	11/12/2020 10:20	Y	Y	
LS06	11/12/2020 14:51	11/12/2020 15:00	11/12/2020 17:30	12/12/2020 7:55	Y	Y	

Train	Arrival Datetime	Unload Start Datetime	Unload Finish Datetime	Departure Datetime	Arrived Compliant (Y/N)	Unload Compliant (Y/N)	Comment
LS06	12/12/2020 13:56	12/12/2020 14:10	12/12/2020 16:30	13/12/2020 8:03	Y	Y	
LS06	13/12/2020 12:32	13/12/2020 13:15	13/12/2020 15:45	13/12/2020 17:52	Y	Y	
LS04	14/12/2020 7:45	14/12/2020 8:00	14/12/2020 10:45	14/12/2020 11:12	Y	Y	
LS06	14/12/2020 15:41	15/12/2020 8:30	15/12/2020 11:00	15/12/2020 12:07	Y	Y	
LS06	15/12/2020 16:28	15/12/2020 16:45	16/12/2020 8:30	16/12/2020 8:43	Y	Y	
LS06	16/12/2020 13:24	16/12/2020 13:40	16/12/2020 16:10	16/12/2020 17:33	Y	Y	
LS04	17/12/2020 7:28	17/12/2020 7:45	17/12/2020 10:15	17/12/2020 10:50	Y	Y	
LS06	17/12/2020 15:33	17/12/2020 15:45	18/12/2020 8:30	18/12/2020 8:46	Y	Y	
LS06	18/12/2020 13:20	18/12/2020 13:30	18/12/2020 16:00	19/12/2020 9:00	Y	Y	
LS06	19/12/2020 15:18	19/12/2020 15:20	19/12/2020 17:20	19/12/2020 17:30	Y	Y	
LS04	20/12/2020 7:50	20/12/2020 11:20	20/12/2020 14:20	20/12/2020 15:13	N	Y	Train could not be stowed on track due to rail network requirements for approved train paths
LS04	21/12/2020 7:20	21/12/2020 9:25	21/12/2020 12:00	21/12/2020 12:23	Y	Y	
LS06	21/12/2020 16:47	22/12/2020 7:15	22/12/2020 9:35	22/12/2020 9:45	Y	Y	
LS06	22/12/2020 14:02	22/12/2020 14:20	22/12/2020 16:50	23/12/2020 7:35	Y	Y	
LS06	23/12/2020 12:05	23/12/2020 12:10	23/12/2020 14:20	11/01/2020 9:02	Y	Y	

Appendix H – Soil and Surface Water Information

Performance against Environmental Assessment

The recommended mitigation measures stated in the Environmental Assessment have been implemented and complied with as detailed below:

- Storage and use of contaminated water – Maintenance checks were conducted, and higher grades of mechanical equipment were utilised across the facility to reduce downtime and increase the efficiency of the water management system. The water management system is compliant with the Managing Urban Stormwater: treatment techniques (DECCW/EPA) and Managing Urban Stormwater: source control (DECCW) handbooks.
- Discharge of treated water from site – The installation of a weir in 2012 and automated sampling and/or notification equipment at the discharge point (LDP004).
- Storage and use of chemicals/ fuel on site – The management of chemicals, fuel and potential spills was undertaken in accordance with Technical Guidelines: Bunding and Spill Management (DECCW). Routine monitoring of water in the Triangle Pond was undertaken as per water quality monitoring schedule.
- Coal stockpiles and compacted coal reject – Sprinklers and water carts were used when necessary to manage dust impacts and excess water was used to maintain the water balance to reduce the incidence of licensed discharge.
- Coal spillage on ground (north-west side of rail) – The ground was maintained in a ‘clean’ state to enable raw water runoff. Bunding and drainage on-site diverts water into sediment and erosion control structures strategically located onsite to control dirty runoff towards the dirty water pond.
- The removal of invasive species (Willows) – Removal of crack Willows and weed management was undertaken.
- Visual, acoustic and water management bunds around site – A bund on the northern side of the rail siding was maintained to prevent coal fines escaping off-site and into perennial watercourses.
- Drainage lines were maintained.
- Ponds and Sediment Detention Basins were maintained in accordance with the LSWMP.

Surface and discharge water quality monitoring locations are identified in Appendix A.

Discharge Water

Discharge water quality is monitored monthly during discharge as per the requirements of EPL 5129 and the Lidsdale Siding Water Management Plan at Licenced Discharge Point (LDP) LDP004 (see Appendix A for the location of LDP004). For compliance with EPL 5129 conditions, the water is tested for pH, Total Suspended Solids (TSS), Electrical Conductivity (EC) and Oil and Grease.

LDP004 discharged on two occasions in May and August 2020 during the reporting period. The water quality sampling results from the discharge events are summarised in Table H 1.

Table H 1: LDP004 Water Quality Summary

Parameter	Unit of Measure	No. of samples required by the licence	No. of samples collected	Lowest sample value	Mean of sample	Highest sample value	EPL limit
pH	pH units	2	2	7.3	7.35	7.4	6.5-8.5
TSS	mg/L	2	2	8	10	12	30
EC	µS/cm	2	2	496	521	545	#
Oil & Grease	mg/L	2	2	<5	<5	<5	10

The flow summary for the 2020 reporting period for LDP004 is presented in Table H 2 and Figure H 1.

Table H 2: LDP004 2020 Flows

Unit of Measure	Frequency	No. of measurements made	Lowest result	Mean result	High result	Total discharge
Megalitres per day	Daily during any discharge	365	0	0.018 ML	3.37 ML	5.04 ML

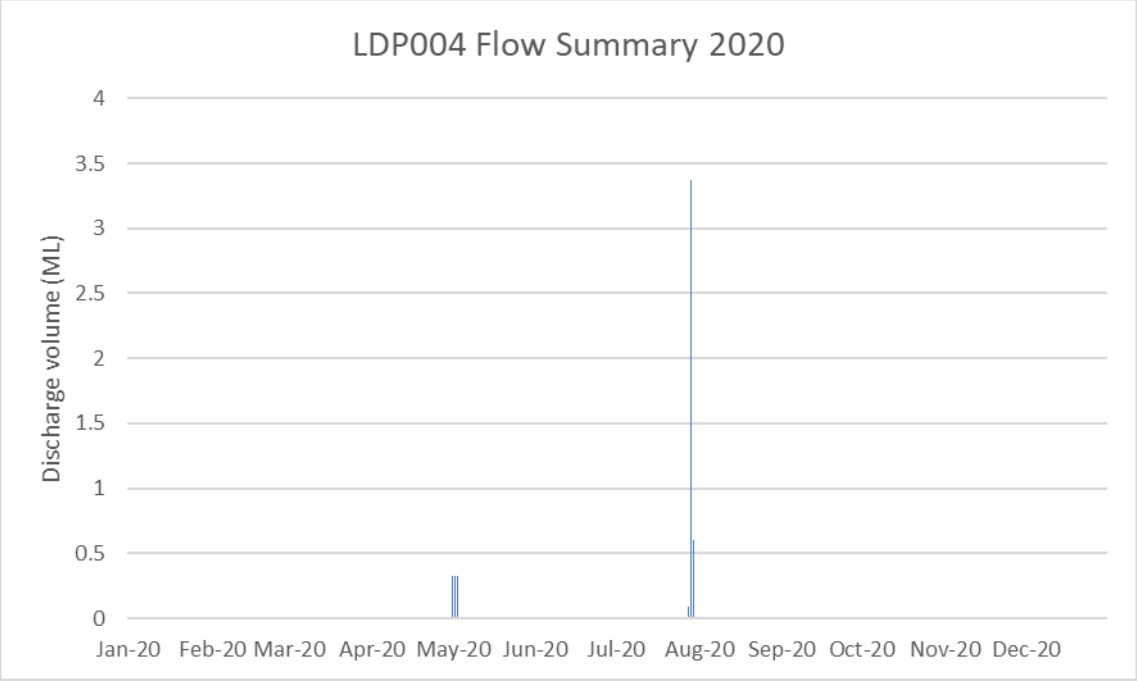

Figure H 1: 2020 daily flow summary for LDP004

Water Quality Data Representation and Analysis

The Lidsdale Siding Coal Loader Project Environmental Assessment undertaken in 2012 did not involve any significant changes to the site in terms of surface water drainage.

Water management on site remains broadly similar to before the upgrade with existing water control systems being adequate to cater for the current operations.

Figure H 2 to Figure H 5 show the results for pH, total suspended solids, electrical conductivity and oil and grease from 2011 to 2020. Trends remain static across the period. Data graphed is reflective of a site discharge event.

All discharge water from LDP004 remained within the EPL 5129 water quality concentration limits in 2020.

Electrical Conductivity (EC) measured at LDP004 in 2020 was consistent with historical results.

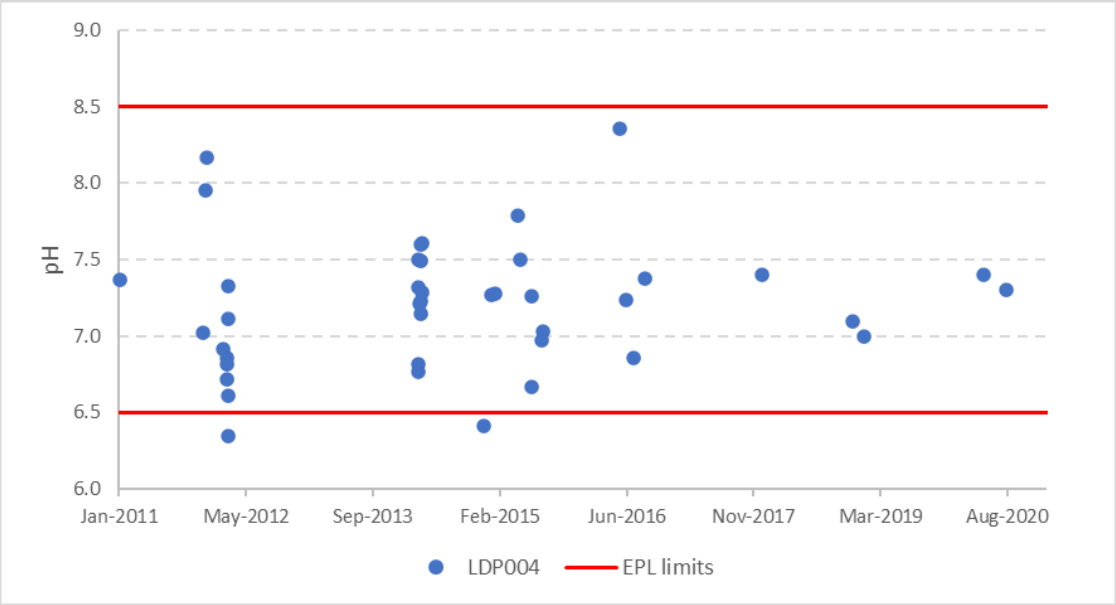

Figure H 2: Lidsdale Siding LDP004 pH 2011-2020

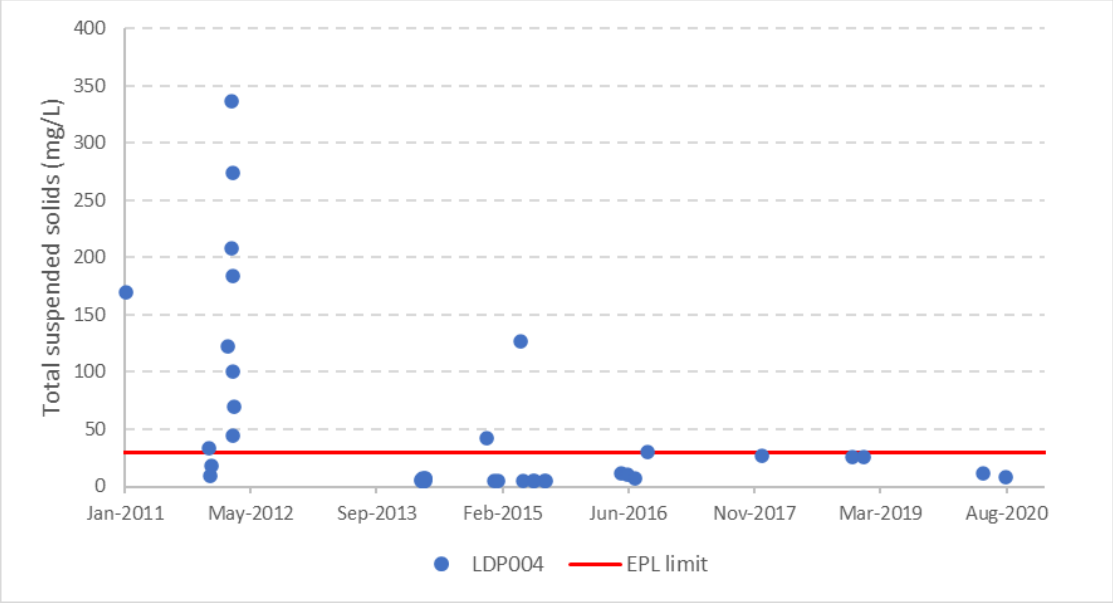

Figure H 3: Lidsdale Siding LDP004 Total Suspended Solids 2011-2020

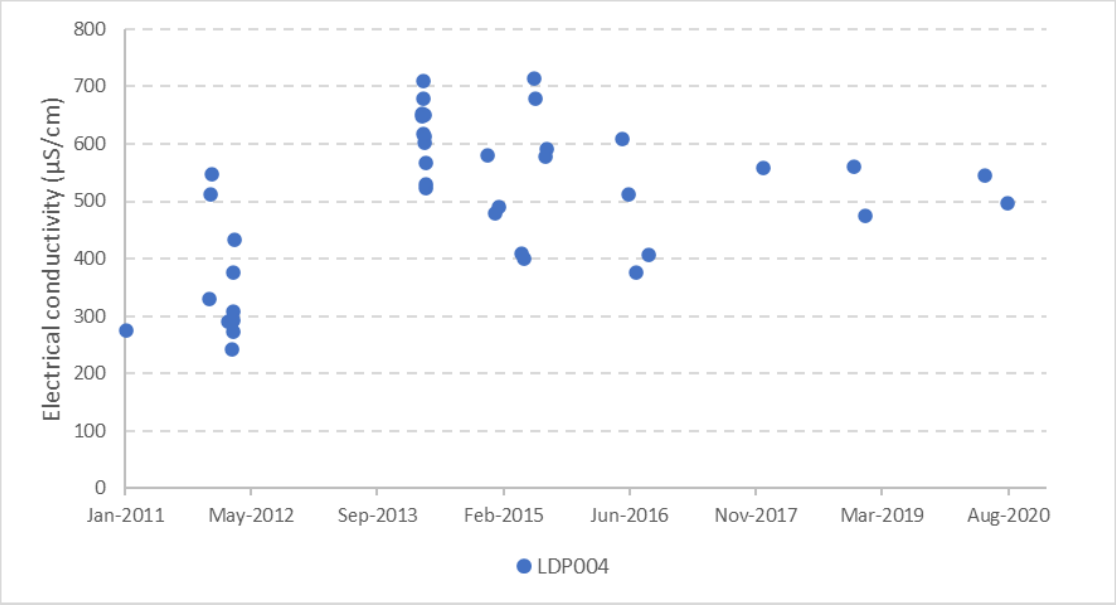

Figure H 4: Lidsdale Siding LDP004 Electrical Conductivity 2011-2020

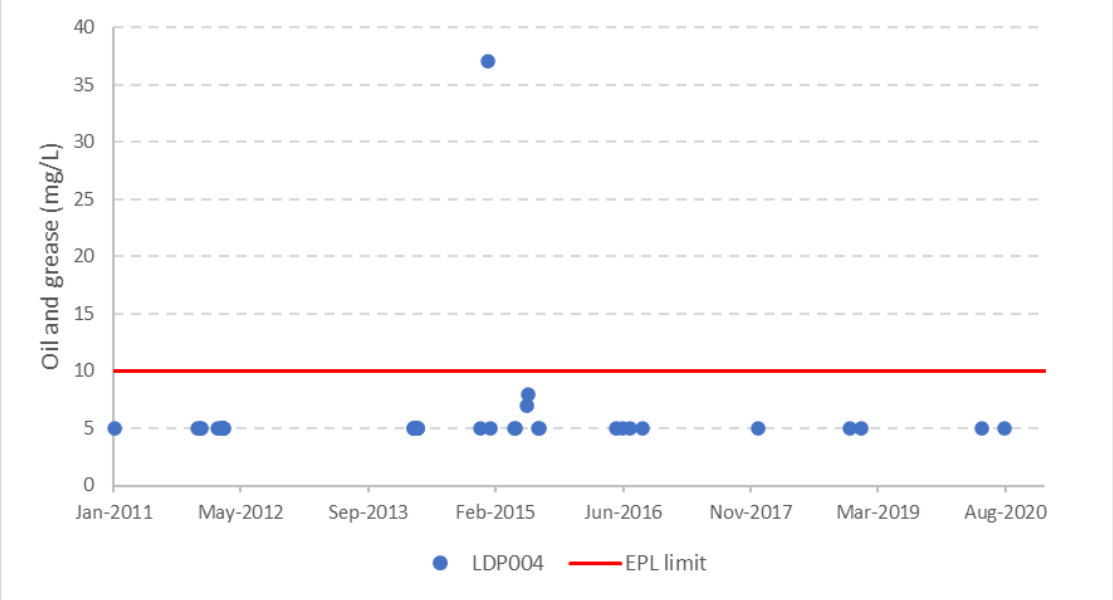

Figure H 5: Lidsdale Siding LDP004 Oil and Grease 2011-2020

Surface Water

Surface water quality is monitored at the following locations:

- Triangle Pond and Dirty Water Dam.
- MP1 – Pipers Flat Creek downstream of Wallerawang STP and upstream of Lidsdale Siding.
- Pipers Flat Creek U/S – Pipers Flat Creek upstream of LDP004 discharges, approximately 650 m upstream of the confluence with the Coxs River.
- Pipers Flat Creek D/S – Pipers Flat Creek downstream of LDP004 discharges, approximately 50 m upstream of the confluence with the Coxs River.

Plans in Appendix A present the locations of monitoring points for Lidsdale Siding and Table H 3 summarises the frequency and monitored parameters.

Table H 3: Surface water quality monitoring program

Location	Frequency	Parameters
Pipers Flat Creek U/S Pipers Flat Creek D/S	Quarterly During discharge from LDP004	**Physicochemical**: EC, pH, TSS, turbidity. **Nutrients**: nitrate, nitrite, nitrate + nitrite. **Major ions**: alkalinity (bicarbonate, carbonate, hydroxide, total), calcium, chloride, magnesium, potassium, sodium, sulphate. **Dissolved metals**: cadmium, copper, iron, manganese, nickel. **Other**: Benzene, toluene, ethylbenzene, xylene (BTEX), oil and grease, total recoverable hydrocarbons (TRHs).
Triangle Pond Dirty Water Dam MP1	Quarterly	

Figure H 6 to Figure H 30 display the surface water quality graphically for the location and parameters shown in Table H 3. Where applicable, Site Specific Guideline Values (SSGVs or triggers) for parameters are provided in graphs. SSGVs only apply to Pipers Flat Creek D/S in being the downstream water quality monitoring point.

SSGV Assessment – 2020

The SSGVs as presented in the LS WMP are shown in Table H 4.

Table H 4: Surface water SSGV derivation and recommended values

Parameter	Units	DGV (ANZECC 2000)	Pipers Flat Creek U/S 80th percentile	Recommended SSGV
Physicochemical				
EC	µS/cm	350	1,000	1,000
pH	pH units	6.5–9.0	7.1–7.5	6.5–9.0
TSS	mg/L	25	8.8	25
Turbidity	NTU	25	8.8	25

Parameter	Units	DGV (ANZECC 2000)	Pipers Flat Creek U/S 80th percentile	Recommended SSGV
Nutrients				
Ammonia	mg/L	0.9	–	0.9
Nitrate	mg/L	0.7	0.42	0.7
Total nitrogen	mg/L	0.2	–	0.2
Total phosphorus	mg/L	0.02	–	0.02
Dissolved metals				
Aluminium	mg/L	0.055	–	0.055
Arsenic	mg/L	0.024	–	0.024
Boron	mg/L	0.37	–	0.37
Cadmium	mg/L	0.0002	0.0001	0.0002
Chromium	mg/L	0.001	–	0.001
Cobalt	mg/L	0.0025	–	0.0025
Copper	mg/L	0.0014	0.001	0.0014
Iron	mg/L	0.3	0.24	0.3
Lead	mg/L	0.0034	–	0.0034
Manganese	mg/L	1.9	0.280	1.9
Mercury	mg/L	0.0006	–	0.0006
Nickel	mg/L	0.011	0.004	0.011
Selenium	mg/L	0.011	–	0.011
Silver	mg/L	0.00005	–	0.00005
Zinc	mg/L	0.008	–	0.008

Table H 5 shows when a result was above the SSGV and subsequent investigation into the potential cause of the trigger event.

Table H 5: SSGV assessment and investigation – 2020

Parameter	Occurrence	Investigation
Pipers Flat Creek D/S		
EC (µS/cm) Figure H 7	May (1,201)	EC measured upstream at Pipers Flat Creek U/S returned a result of 1,235 µS/cm, also above the trigger level of 1,000 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.
TSS (mg/L)	May (29)	More than 50 mm of rain was recorded over the two days leading up to the sampling event which would have caused sedimentation in Pipers Flat Creek and therefore increased TSS to cause the 29 mg/L result.
	July (31)	More than 50 mm of rain was recorded over three days leading up to the sampling event which would have caused sedimentation in Pipers Flat Creek and therefore increased TSS to cause the 31 mg/L result.
Nitrate (mg/L) Figure H 10	May (1.12)	Nitrate measured upstream at Pipers Flat Creek U/S returned a result of 1.12 mg/L, also above the trigger level of 0.07 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.
pH (pH units) Figure H 6	July (6.4)	pH measured upstream at Pipers Flat Creek U/S on the same day was also low at 6.5. More than 50 mm of rain fell over three days leading up to the sampling event which potentially caused the mild acidic conditions in Pipers Flat Creek.
	August (6.1)	pH measured upstream at Pipers Flat Creek U/S on the same day was also low at 6.1. Mildly acidic creek conditions upstream in Pipers Flat Creek potentially caused the low pH result.
Turbidity (NTU) Figure H 8	July (50)	More than 50 mm of rain was recorded over three days leading up to the sampling event which would have caused sedimentation in Pipers Flat Creek and therefore increased turbidity to cause the 50 NTU result.
Dissolved copper (mg/L) Figure H 24	July (0.002)	Dissolved copper measured upstream at Pipers Flat Creek U/S returned a result of 0.002 mg/L being equivalent to the trigger event. Therefore, the trigger event was likely caused by factors upstream of LS operations.
	August (0.002)	Dissolved copper measured upstream at Pipers Flat Creek U/S returned a result of 0.002 mg/L being equivalent to the trigger event. Therefore, the trigger event was likely caused by factors upstream of LS operations.
Dissolved iron (mg/L) Figure H 25	July (0.63)	Dissolved iron measured upstream at Pipers Flat Creek U/S returned a result of 0.61 mg/L, also above the trigger level of 0.3 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.
	August (0.4)	Dissolved iron measured upstream at Pipers Flat Creek U/S returned an equivalent result of 0.4 mg/L, also above the trigger level of 0.3 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.

Parameter	Occurrence	Investigation
Pipers Flat Creek D/S		
Dissolved nickel (mg/L) Figure H 27	May (0.068)	Dissolved nickel measured upstream at Pipers Flat Creek U/S returned a result of 0.62 mg/L, also above the trigger level of 0.011 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.
	August (0.03)	Dissolved nickel measured upstream at Pipers Flat Creek U/S returned a result of 0.028 mg/L, also above the trigger level of 0.030 mg/L. Therefore, the trigger event was likely caused by factors upstream of LS operations.

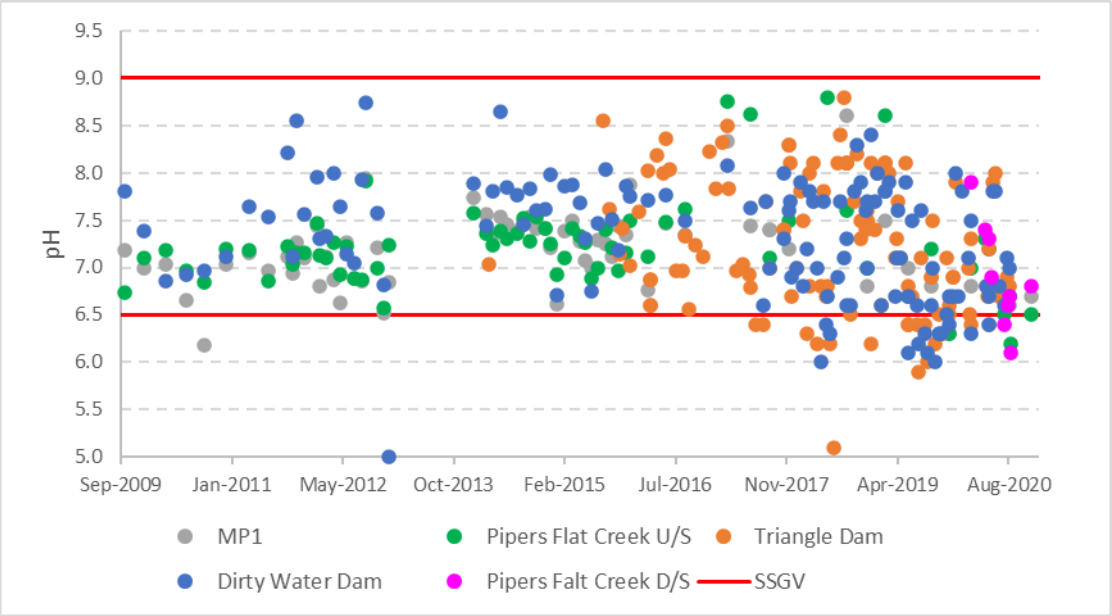

Figure H 6: Historical pH at surface water monitoring locations

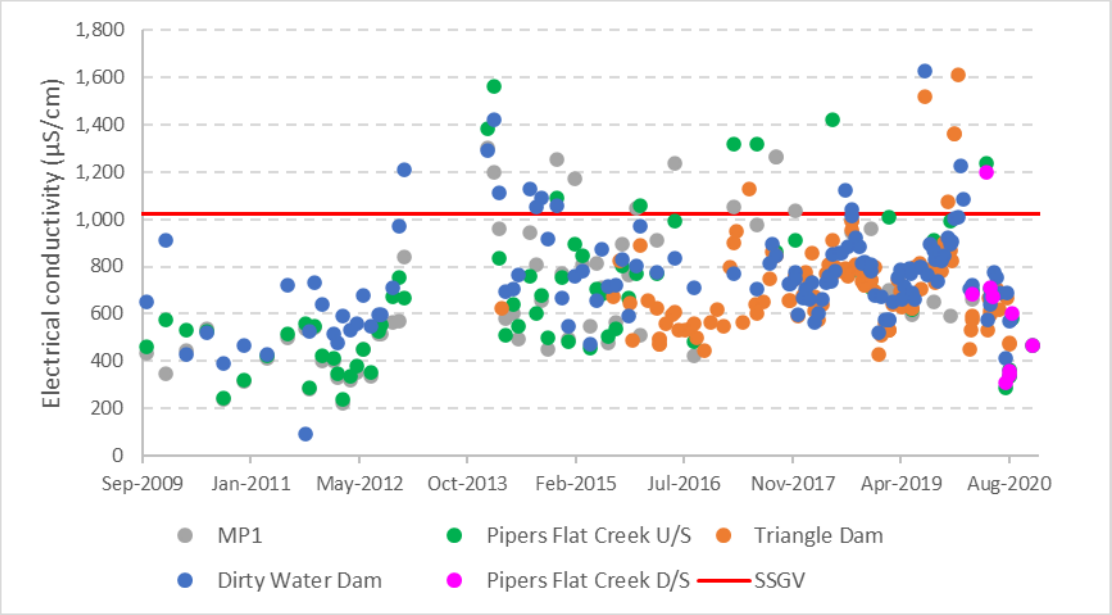

Figure H 7: Historical EC at surface water monitoring locations

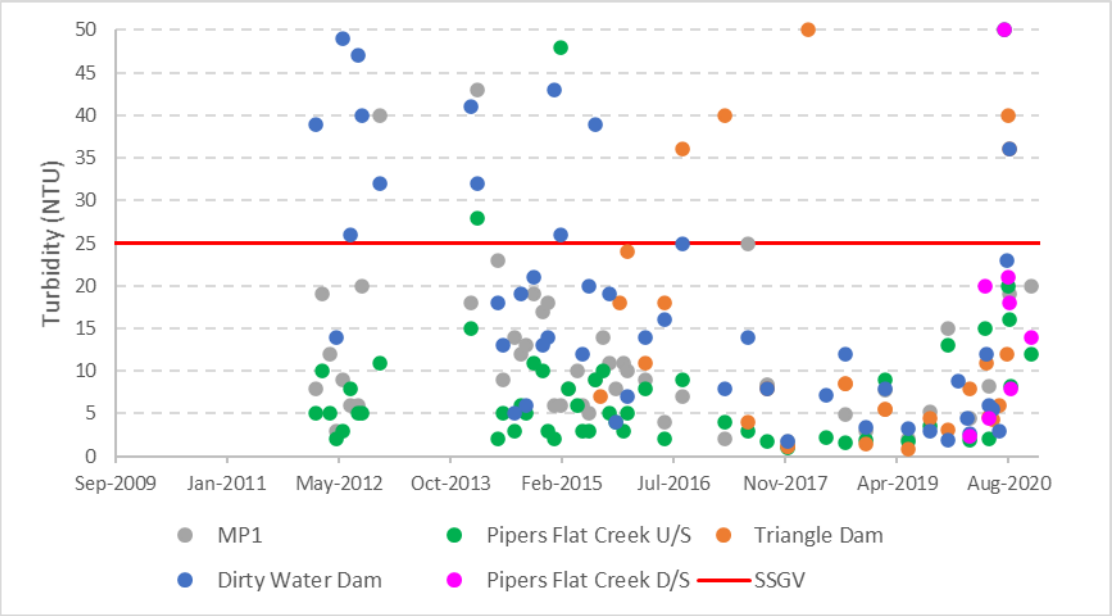

Figure H 8: Historical Turbidity at surface water monitoring locations

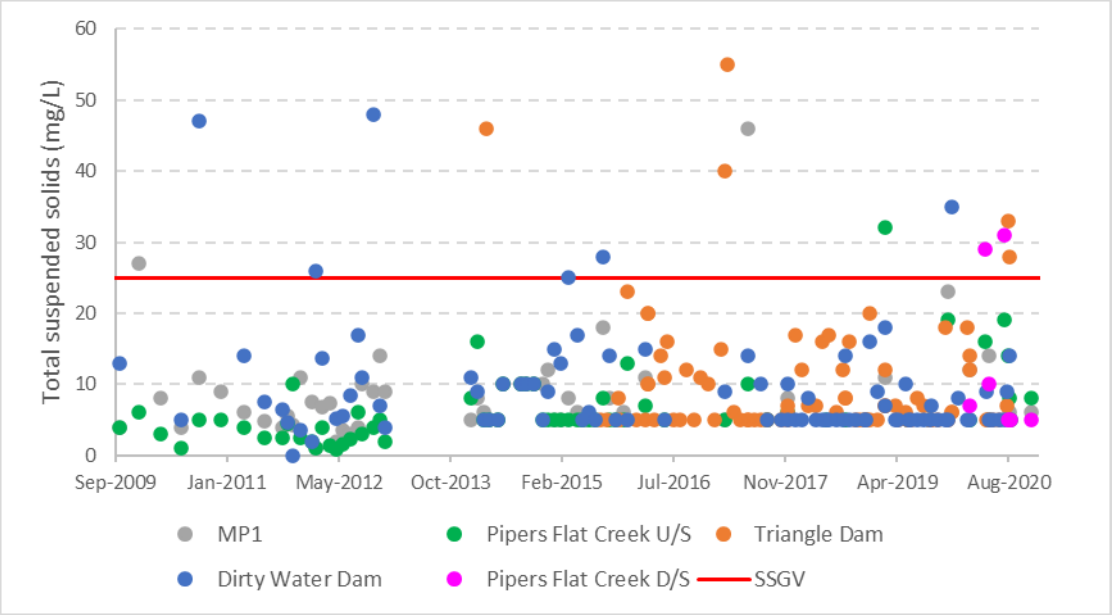

Figure H 9: Historical TSS at surface water monitoring locations

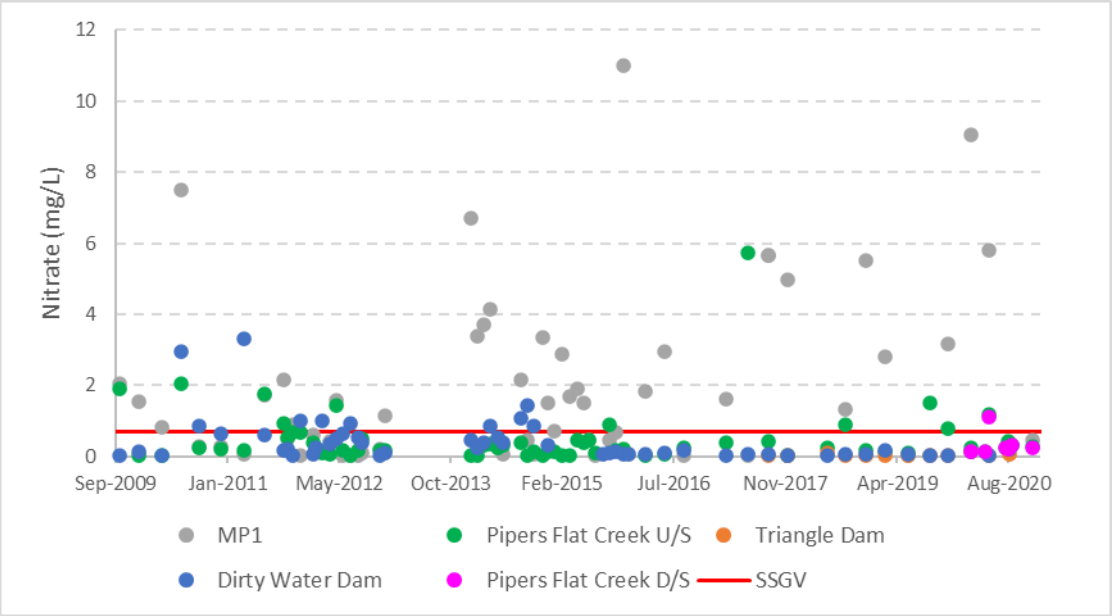

Figure H 10: Historical Nitrate at surface water monitoring locations

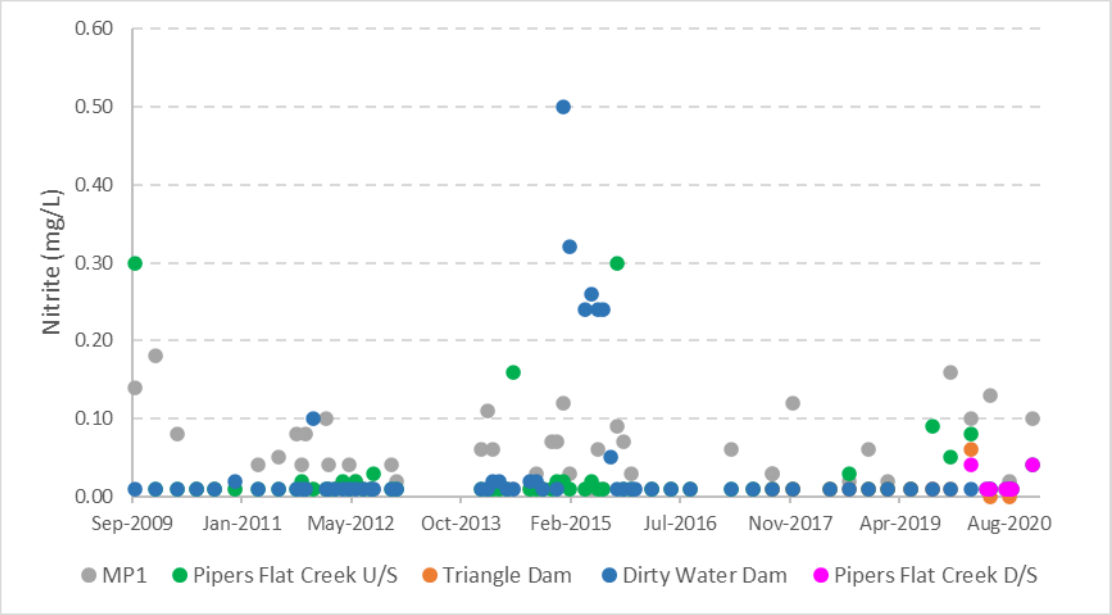

Figure H 11: Historical Nitrite at surface water monitoring locations

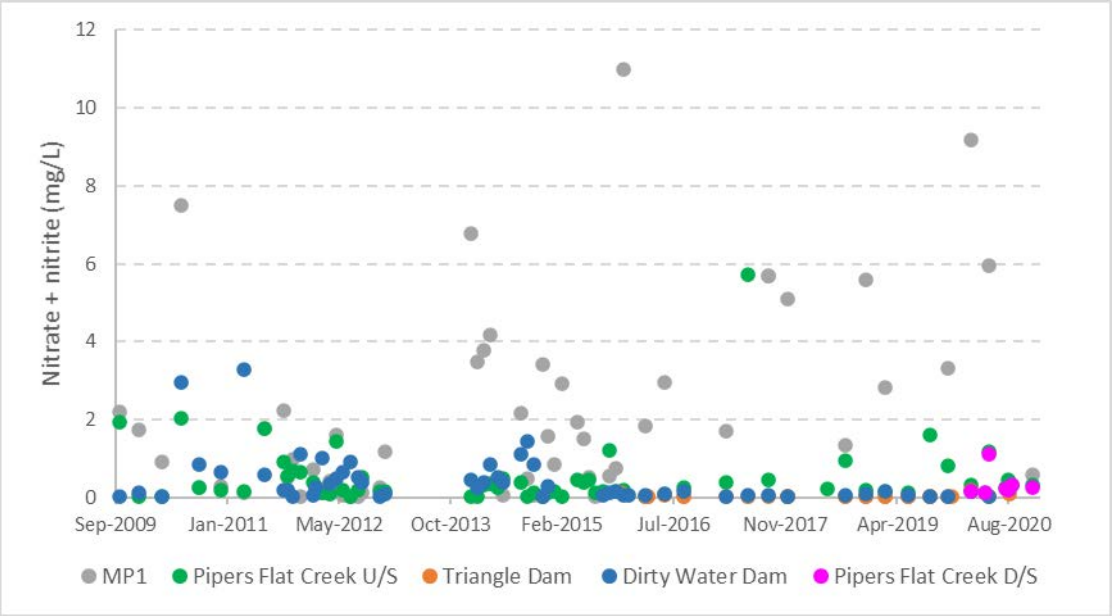

Figure H 12: Historical Nitrate + Nitrite at surface water monitoring locations

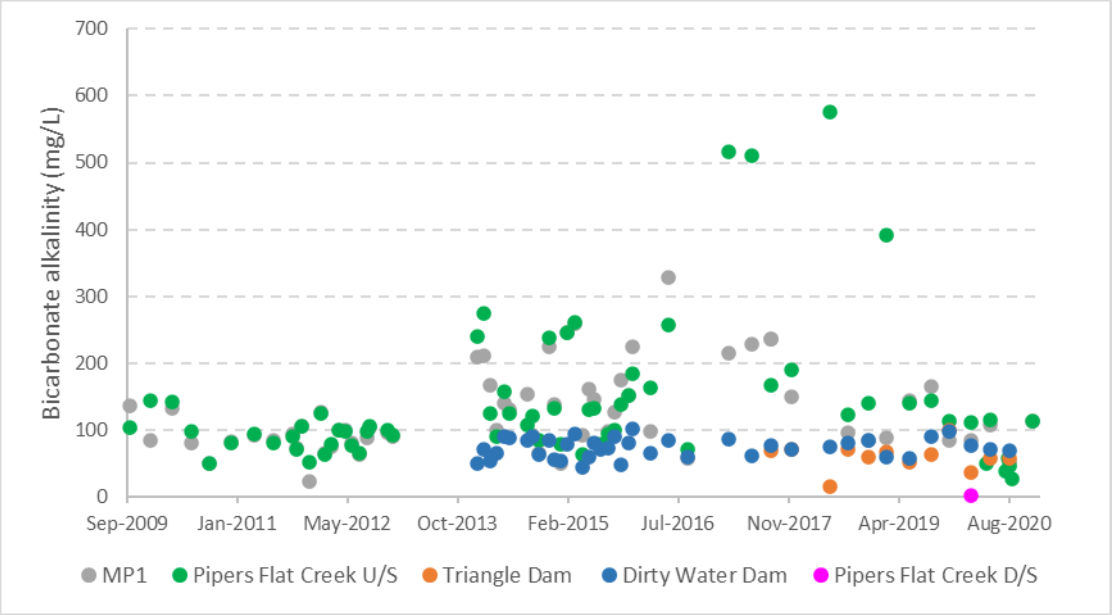

Figure H 13: Historical HCO Alkalinity at surface water monitoring locations

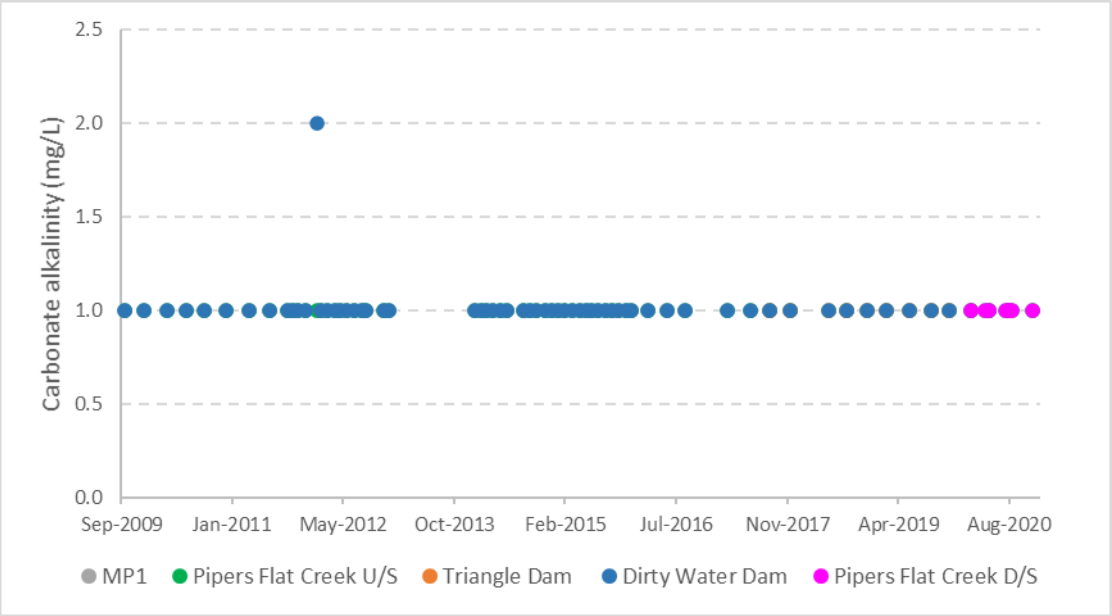

Figure H 14: Historical CO Alkalinity at surface water monitoring locations

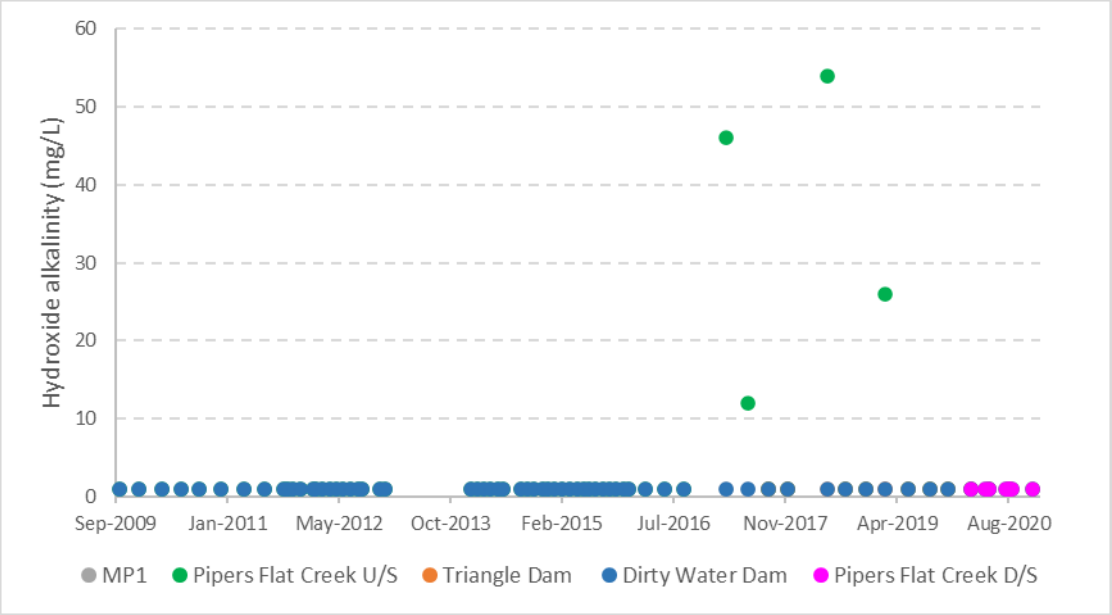

Figure H 15: Historical OH Alkalinity at surface water monitoring locations

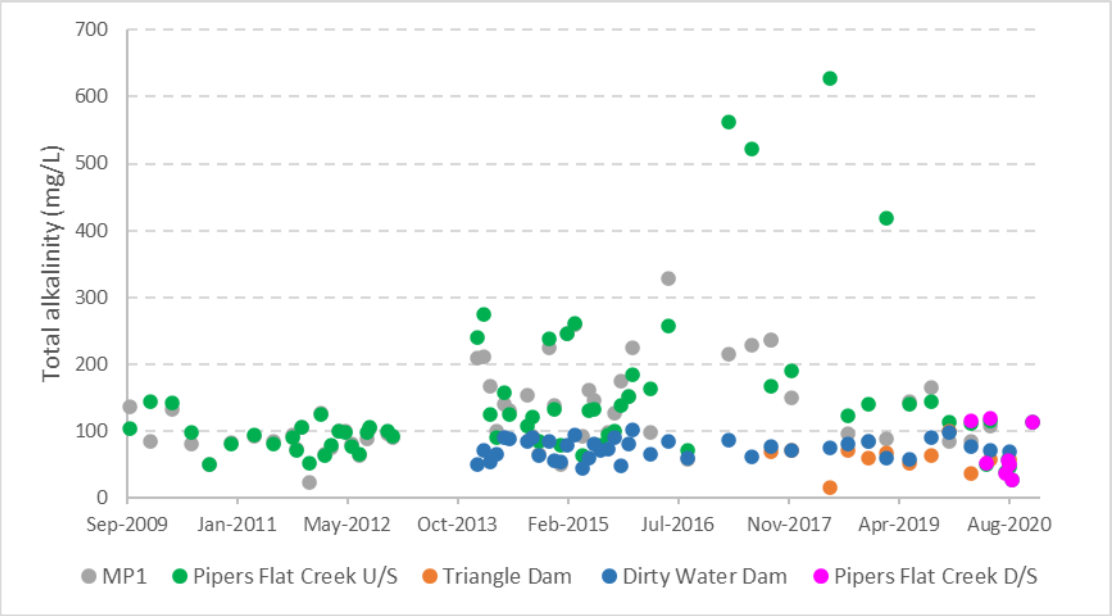

Figure H 16: Historical Total Alkalinity at surface water monitoring locations

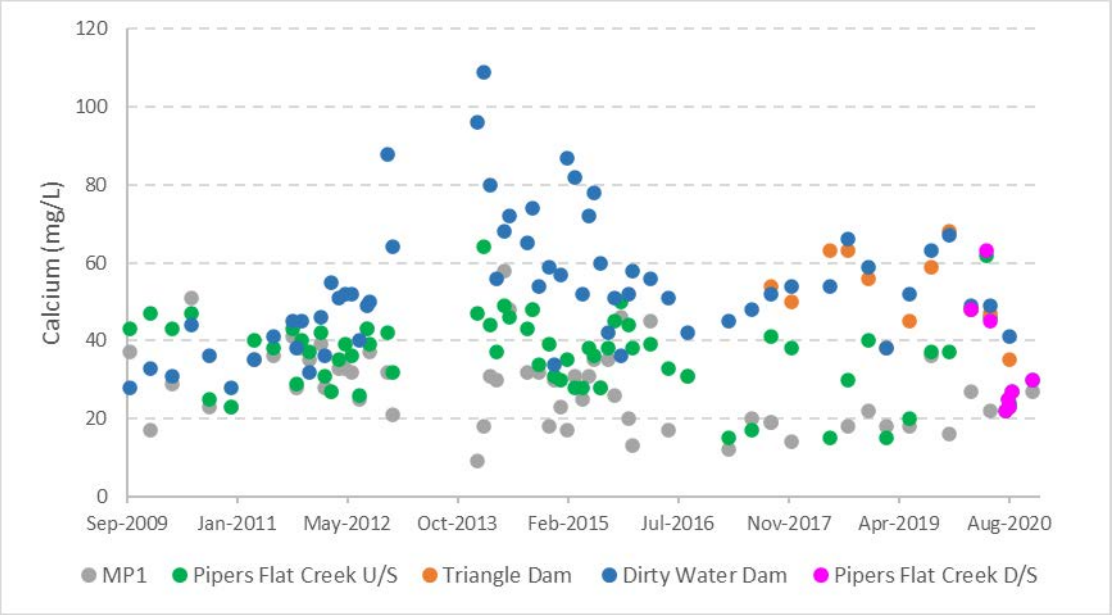

Figure H 17: Historical Calcium at surface water monitoring locations

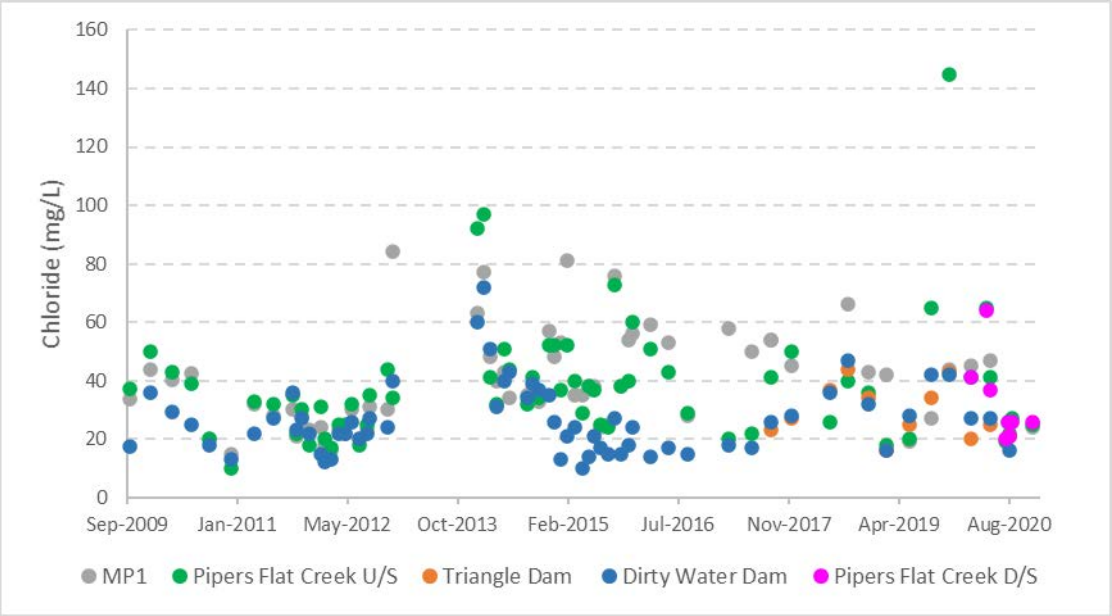

Figure H 18: Historical Chloride at surface water monitoring locations

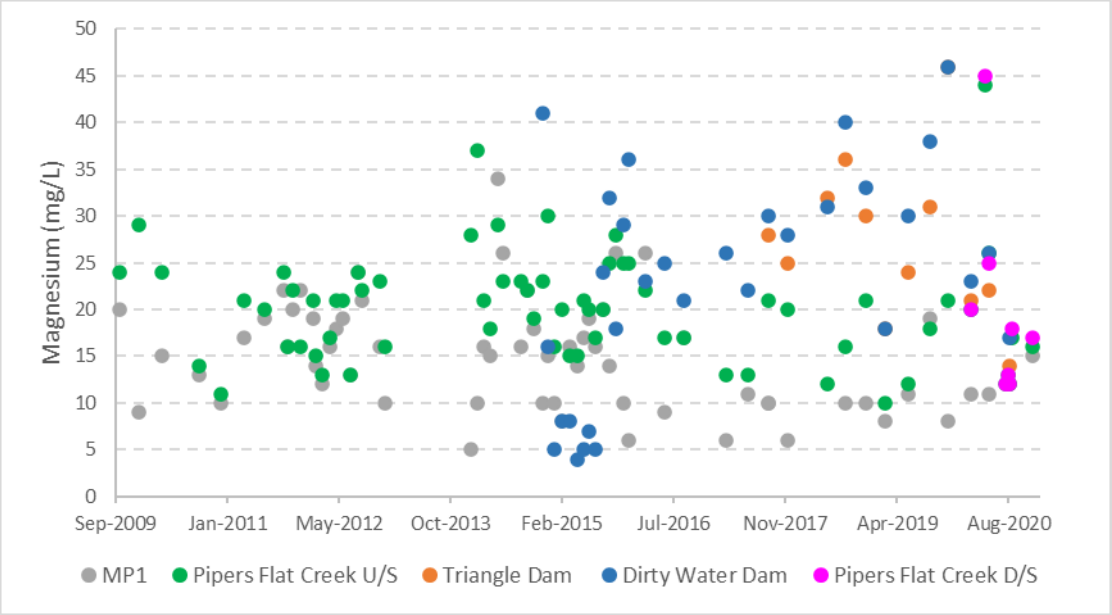

Figure H 19: Historical Magnesium at surface water monitoring locations

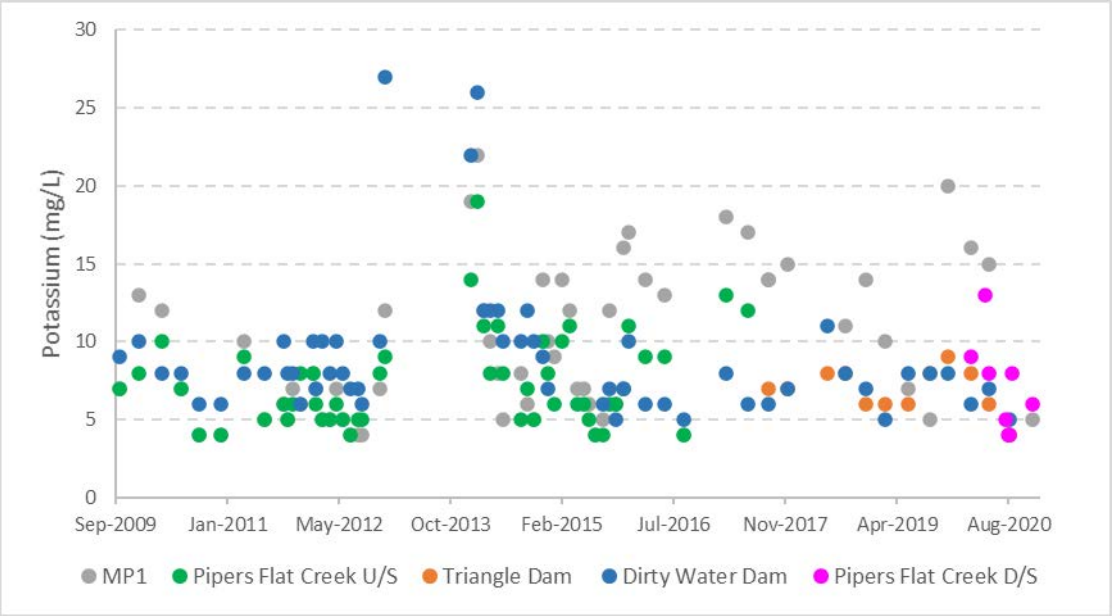

Figure H 20: Historical Potassium at surface water monitoring locations

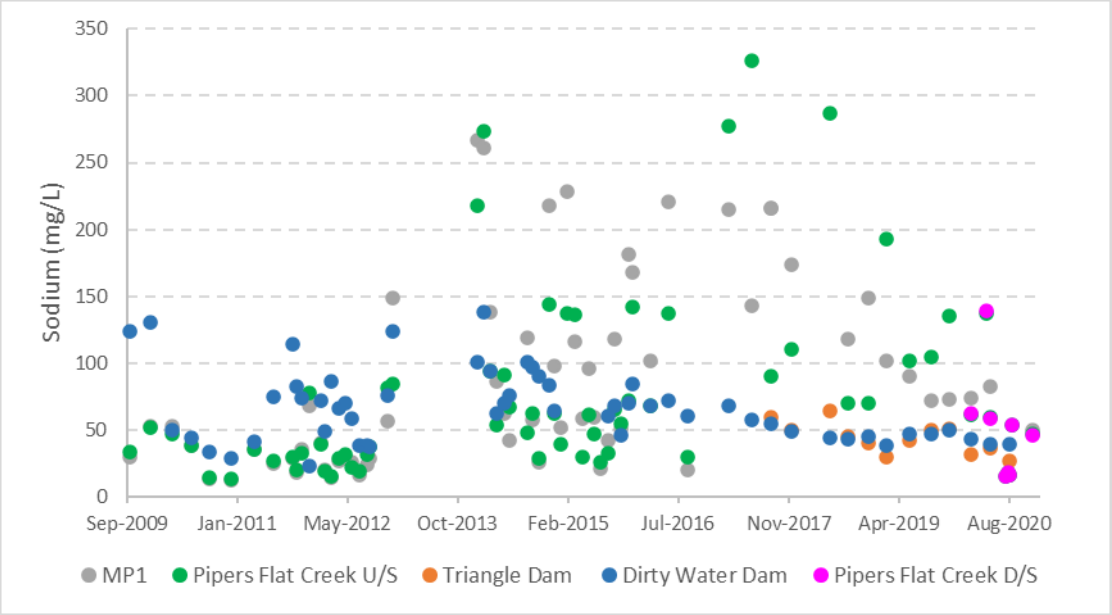

Figure H 21: Historical Sodium at surface water monitoring locations

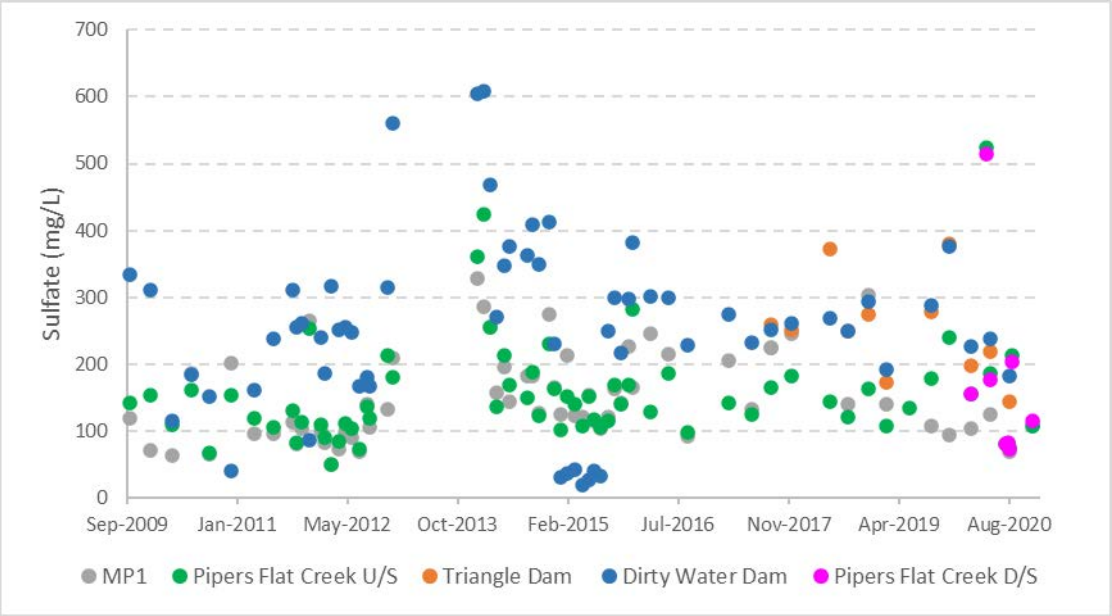

Figure H 22: Historical Sulfate at surface water monitoring locations

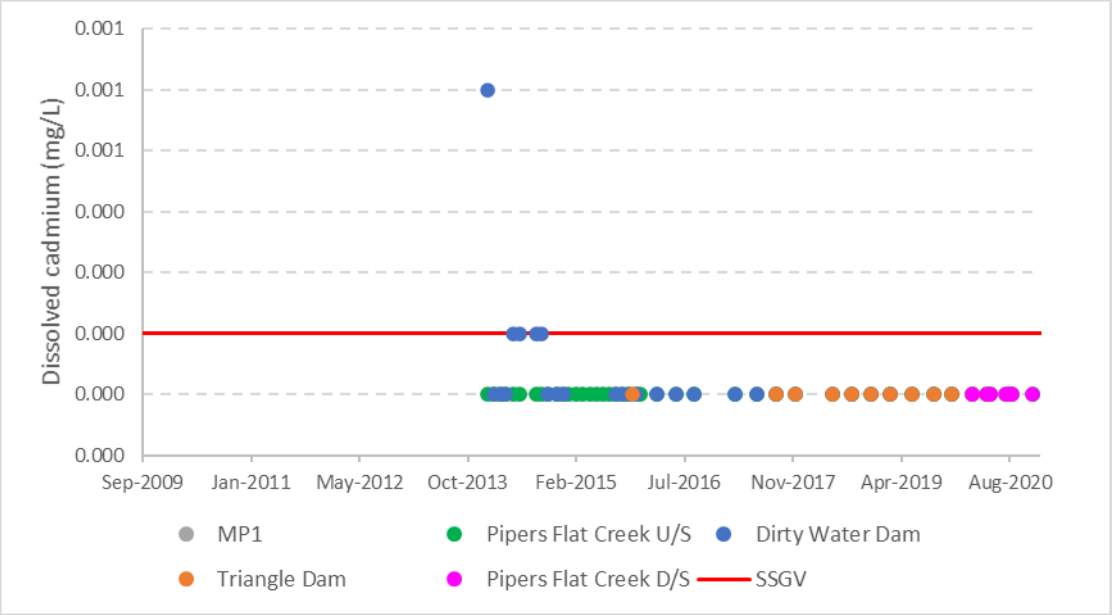

Figure H 23: Historical Dissolved Cadmium at surface water monitoring locations

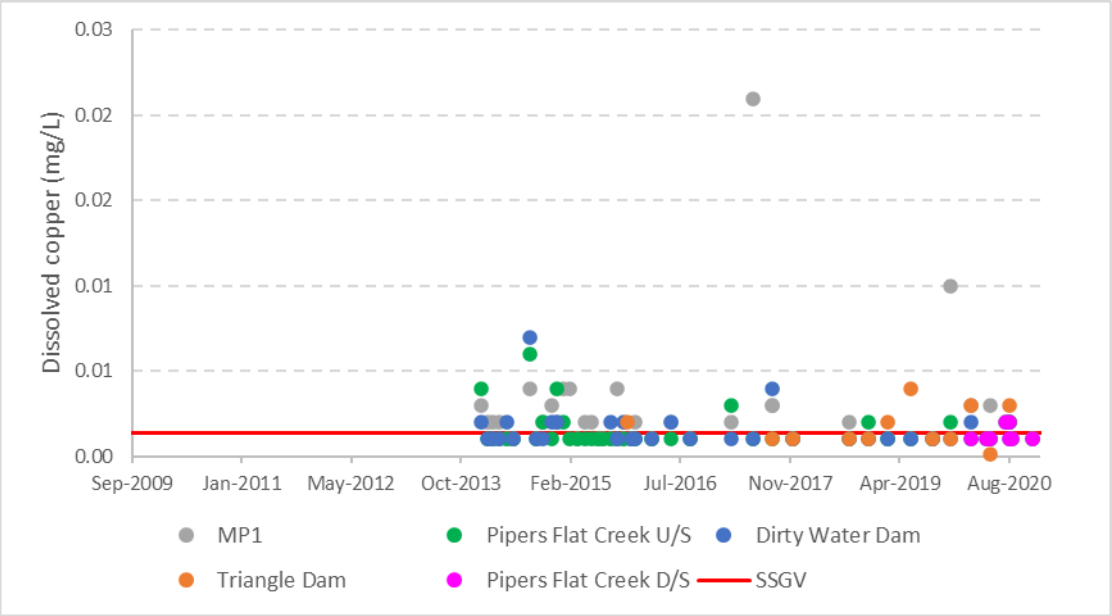

Figure H 24: Historical Dissolved Copper at surface water monitoring locations

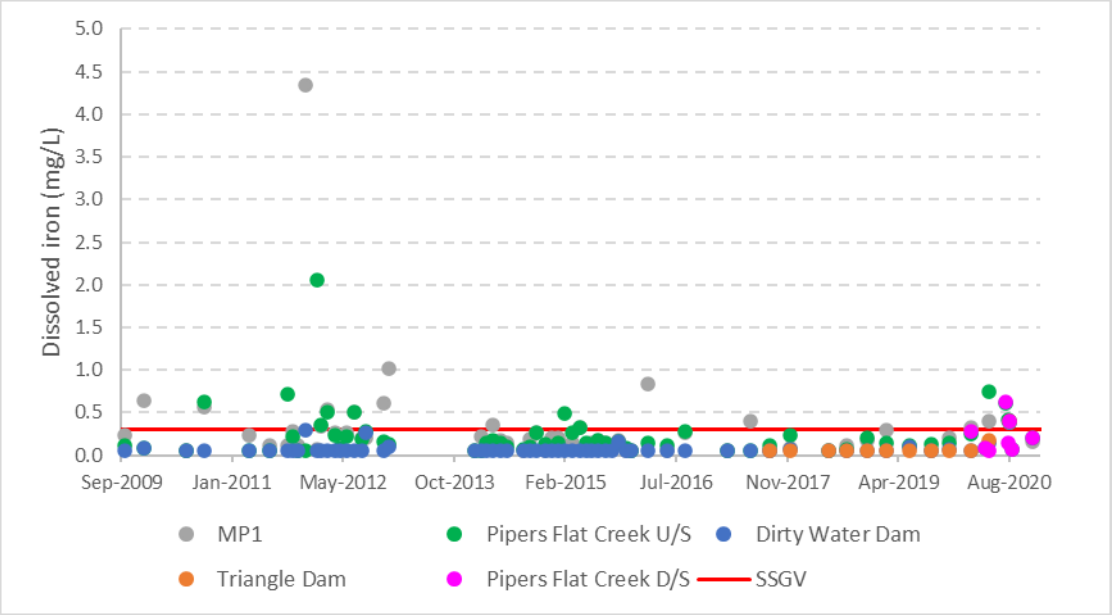

Figure H 25: Historical Dissolved Iron at surface water monitoring locations

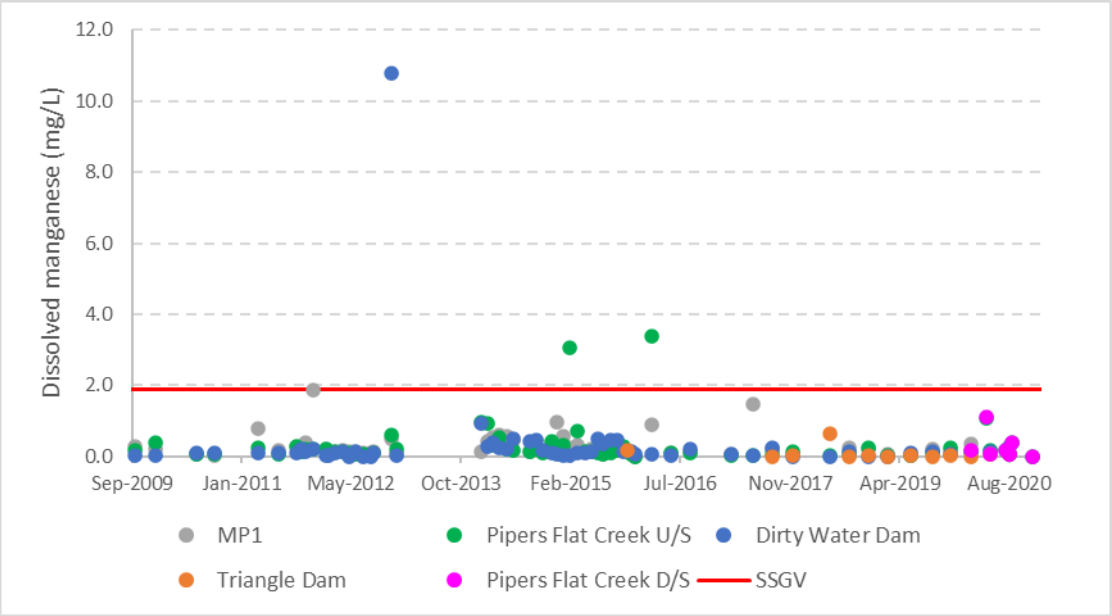

Figure H 26: Historical Dissolved Manganese at surface water monitoring locations

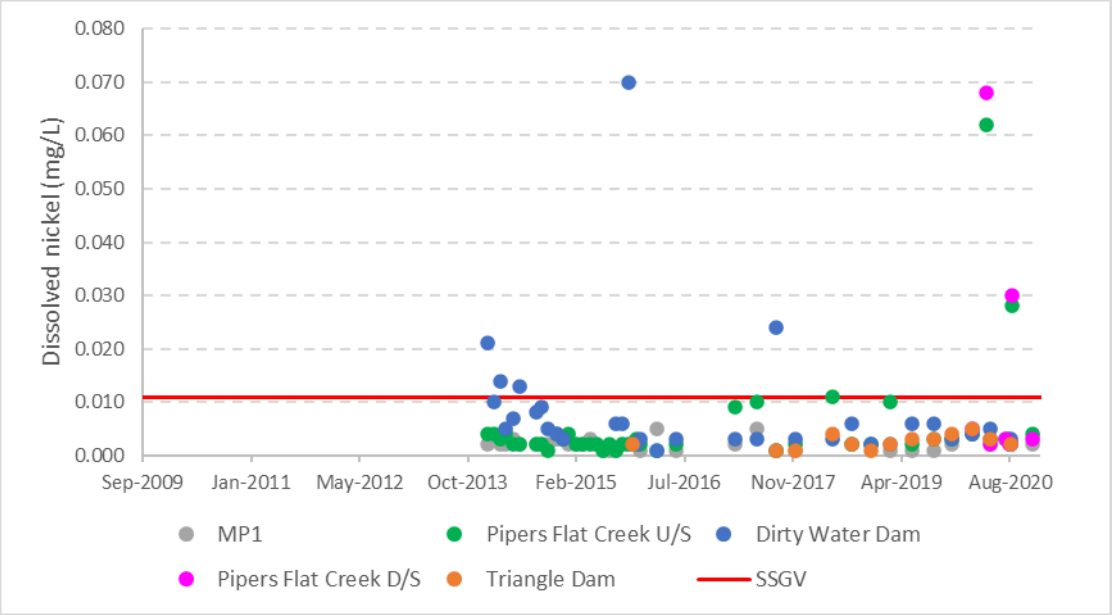

Figure H 27: Historical Dissolved Nickel at surface water monitoring locations

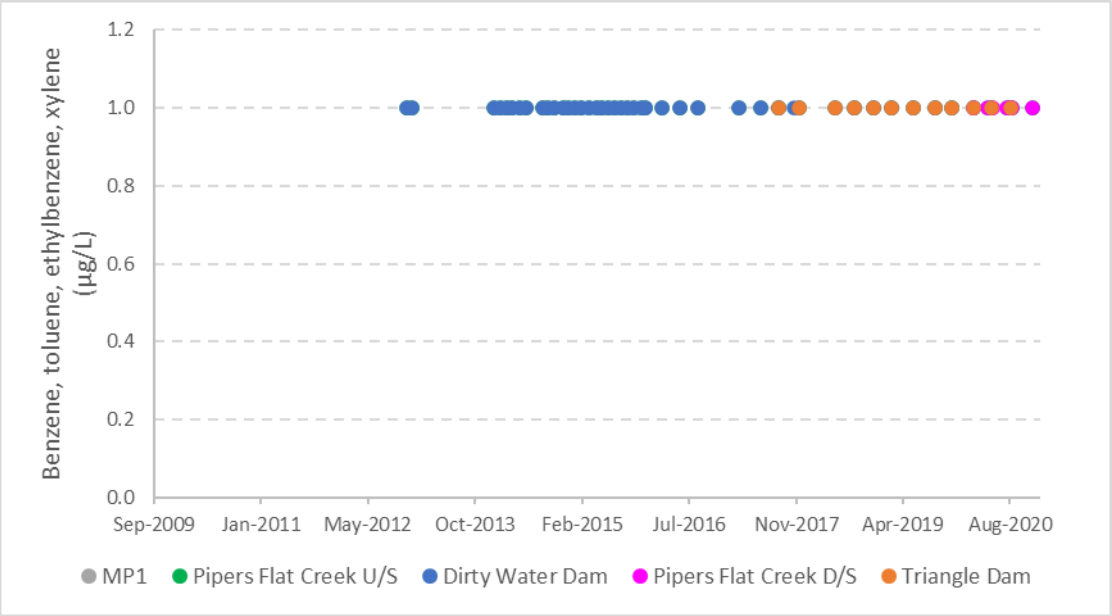

Figure H 28: Historical Sum of BTEX at surface water monitoring locations

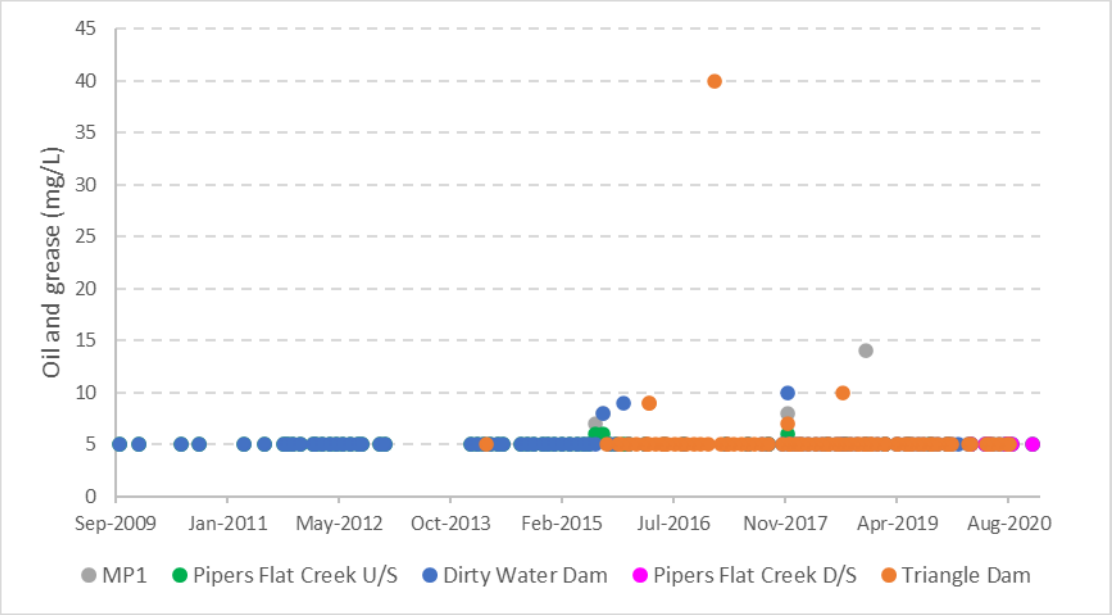

Figure H 29: Historical Oil and Grease at surface water monitoring locations

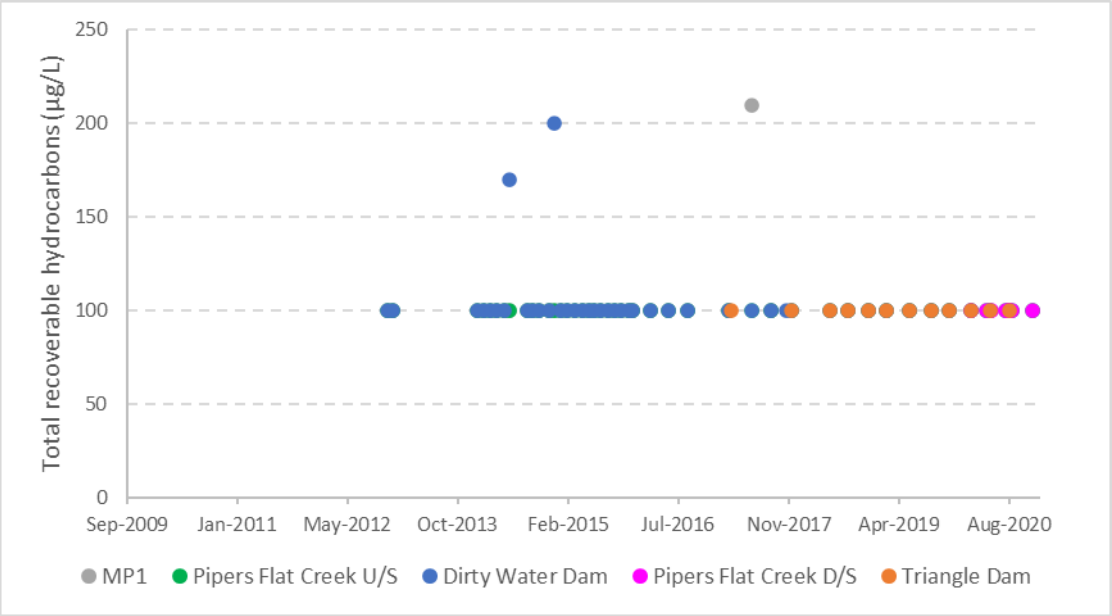

Figure H 30: Historical TRHs at surface water monitoring locations

Water Access

Table H 6 reports on the 'Water Year'. The Water Year is from 1 July to 30 June, not the calendar year.

Lidsdale Siding currently holds two WALs for the extraction of surface water and groundwater to supplement water supply to the site.

The WALs include specific extraction, monitoring, recording and reporting requirements.

WAL 25774 licenses the extraction of up to 1 ML/year of surface water from Pipers Flat Creek, however this water source is not currently used.

WAL 24362 licenses the extraction of up to 8.5 ML/year of groundwater from a production bore. The production bore was not used in the water year.

Table H 6: Water Take (ML)

Licence Number	Water Sharing Plan, source & management zone (as applicable)	Entitlement (ML)	Passive take/inflows (ML)	Active pumping (ML)	TOTAL (ML)
WAL 24362 (Work Approval 10WA116403 Groundwater (Production Bore)	Sydney Basin Coxs River Groundwater Source	**8.5**	**0**	**0**	**0**
WAL 25774 (Work Approval 10WA102993) Surface water	Upper Nepean And Upstream Warragamba Water Source	**1.0**	**0**	**0**	**0**

Water Year Reporting Period 1/07/2019 - 30/06/2020

(Note: Nil water take completed for the period 01/01/2020 – 31/12/2020)

Flood Study

Flood mitigations measures detailed in the Lidsdale Siding Flooding Assessment Report (Aurecon, 2014) were implemented during 2020. This mainly involves the removal of crack Willows at Lidsdale Siding which was completed in 2020 (see Appendix J). Implementation of flood mitigation measures is provided in Table H 7.

Table H 7: Flood mitigation measures at Lidsdale Siding

Mitigation measure	Detail	2020 Activities	2021 Proposed
Option 1: Removal of Willows – Pipers Flat Creek	There is a portion of significantly congested Willows growth in Pipers Flat Creek that could be thinned out to reduce peak water levels under a 100-year ARI event.	• GPS logging and recording of treated Willow tree locations • Poisoning (in accordance with the recommendations of the local weed authority regarding the herbicide use close to the waterway), removal (conducted where safe to do so without causing damage to riparian habitat), and in-situ mulching of Willows along Pipers Flat Creek catchment. • Maintenance of *Eucalyptus aggregata* and associated community plantings • Weed Control - Weeding & Spraying as required (Tree Guard Maintenance, Establishment and survival watering, Photographs & Reporting)	As per 2020 activities if required
Option 2: Local Bunding	Propose to remove a bund on the western side of the siding that elevates water levels during flood events.	• Nil	Nil
	Construct a new bund to the north of the rail siding to protect the siding during flood events.	• Bund maintenance and vegetation hydro-seeding	As per 2020 activities

Soil Disturbance Information

In the reporting period:

- No soils were disturbed.
- No ground disturbance undertaken outside previously disturbed active infrastructure areas or water management areas.
- No soils were removed or disturbed from within the identified hydrocarbon contaminated area.
- No soils were imported to the site.

Triangle Pond Upgrade Works

In the reporting period, upgrade of the Triangle Pond commenced. The objectives of the upgrade are:

- Increase retention volumes within the pond.
- Provide increased water residence time for treatment and management prior to discharge or reuse.
- Align volume storage capacity with the approved capacity in the LS WMP.
- Provide flexibility to maximise the recycling of water on-site to minimise off-site discharge events, minimise utilisation of town water and groundwater on site.

Works are proposed to be completed in quarter 2, 2021.

Appendix I – Groundwater Information

Groundwater sampling is undertaken in accordance with the LSWMP.

A groundwater monitoring telemetry system was installed in groundwater monitoring bores at Lidsdale Siding in August 2018. Work was ongoing during 2020 to improve the reliability and performance of the telemetry system.

2020 groundwater monitoring data indicates that:

- Groundwater at the site was generally acidic.
- Groundwater salinity ranges from fresh to slightly brackish.
- Groundwater levels generally increased throughout 2020 due to above average rainfall.
- Monitoring bores MW01 and MW03 were dry throughout 2020.
- Monitoring bore MW05 was dry on one occasion in May 2020.

The regular groundwater monitoring program is provided in Table I 1 with locations identified in Appendix A.

Table I 1: Groundwater monitoring program

Location	Frequency	Parameters
MW01 MW03 MW04 MW05 MW06 MW07 MW08 MW09 (ESMW01) MW10 (ESMW02)	Quarterly	Water level. **Physicochemical:** DO, EC, pH, TSS, turbidity, temperature. **Nutrients:** nitrate, nitrite, nitrate + nitrite. **Major ions:** alkalinity (bicarbonate, carbonate, hydroxide, total), calcium, chloride, magnesium, potassium, sodium, sulphate. **Dissolved metals:** cadmium, copper, iron, manganese, nickel. **Other:** BTEX, oil and grease, TRHs.

Information pertaining to groundwater hydrocarbon monitoring is detailed in Appendix B.

Groundwater Monitoring Telemetry System

A groundwater monitoring telemetry system is installed in select groundwater monitoring bores at LS and has been maintained and improved.

Groundwater level loggers and associated telemetry are installed in suitable groundwater monitoring bores.

The location of groundwater monitoring bores at LS is shown in Appendix A.

Work was ongoing during 2019 to improve the reliability and coverage of the telemetry system. This work continued during 2020 with telemetry devices serviced and replaced due to environmental impacts on infrastructure.

Groundwater telemetry device level and manually read level results are displayed in Figure I 1 to Figure I 5.

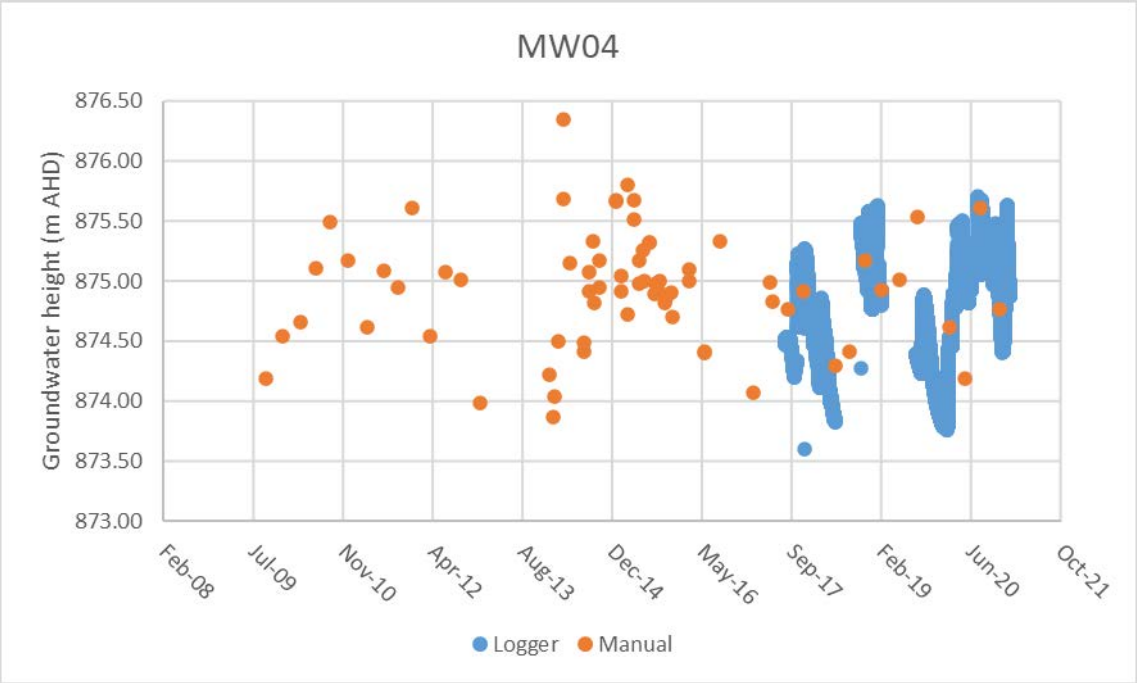

Figure I 1: MW04 groundwater height

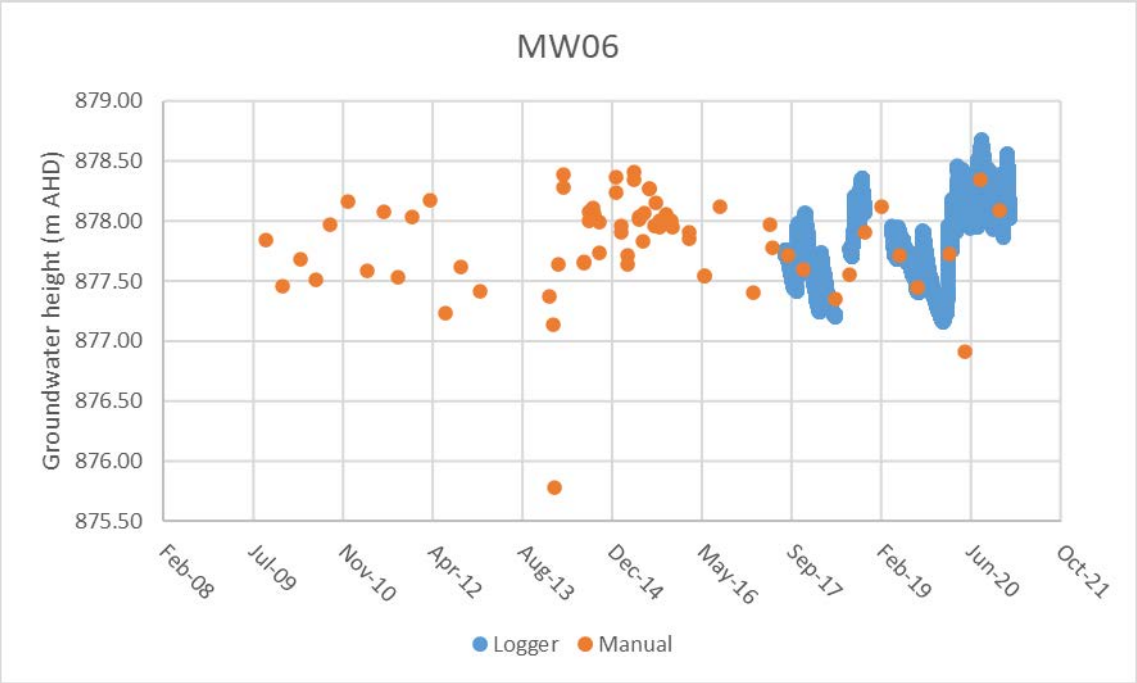

Figure I 2: MW06 groundwater height

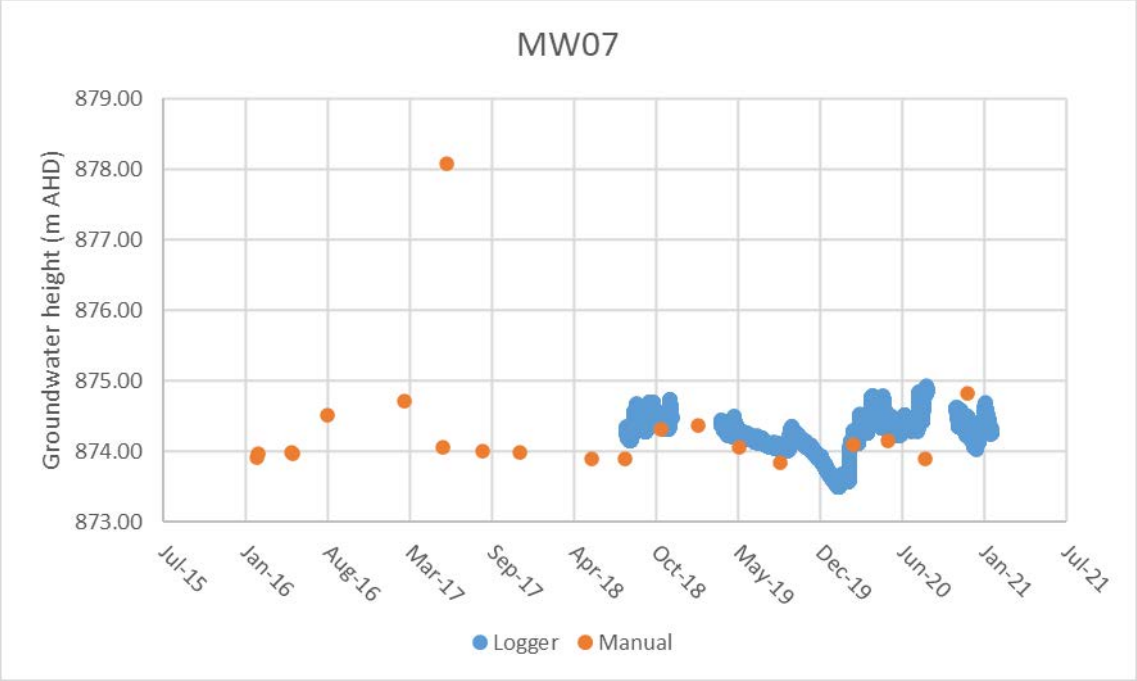

Figure I 3: MW07 groundwater height

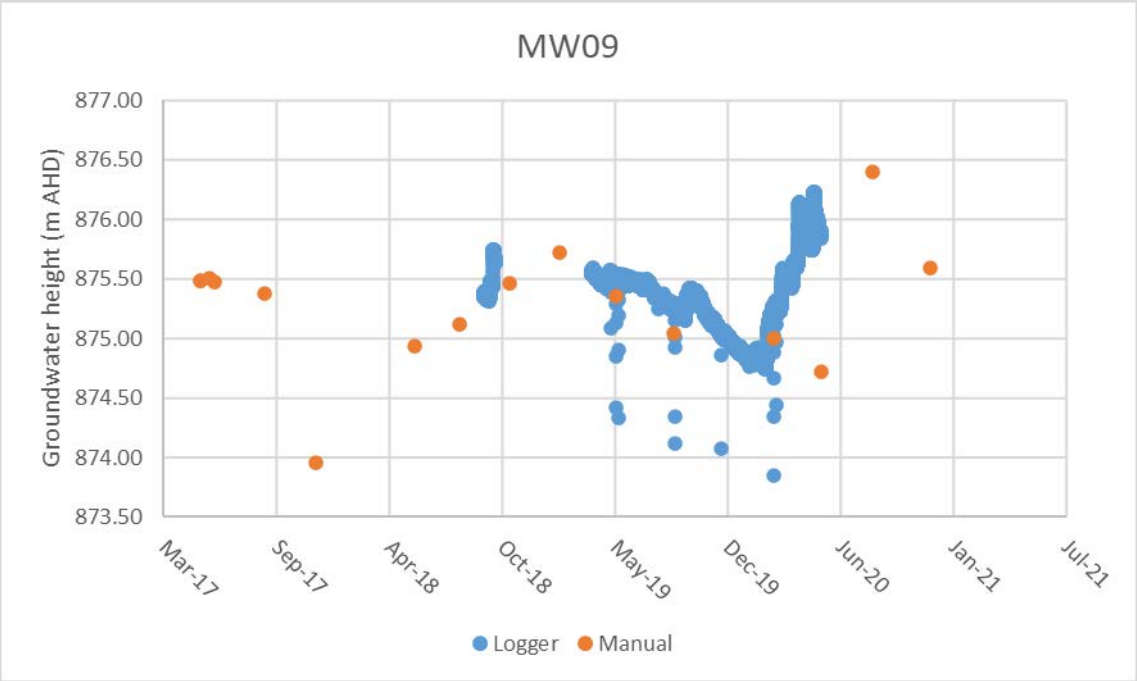

Figure I 4: MW09 groundwater height

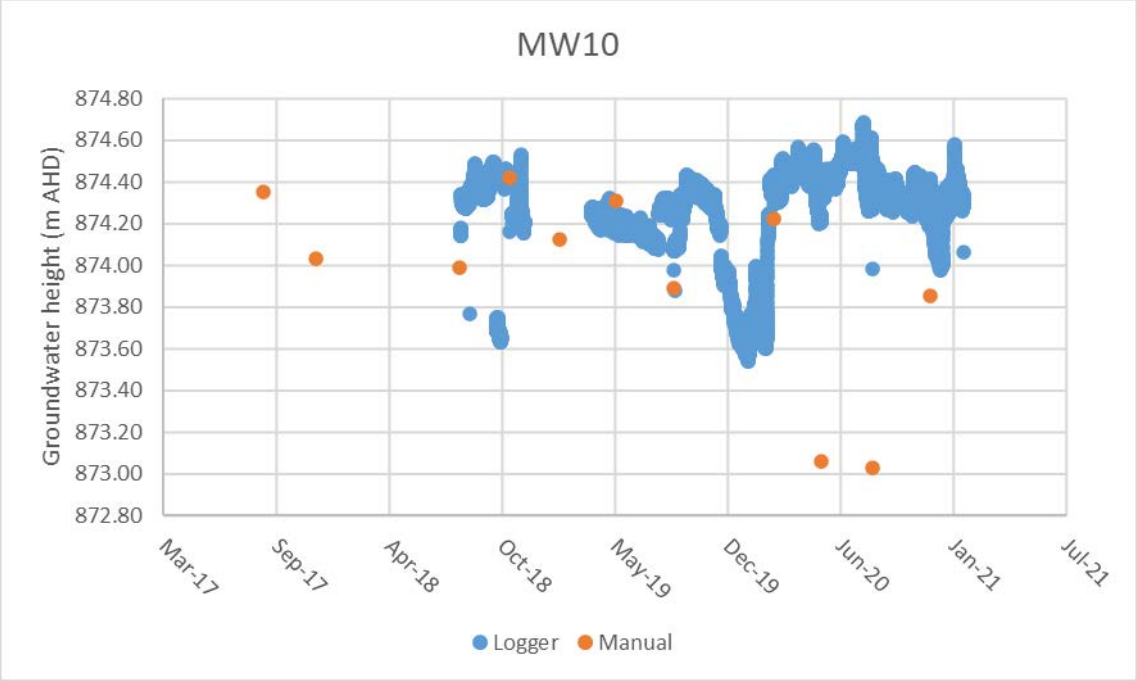

Figure I 5: MW10 groundwater height

Groundwater quality

Groundwater quality results are presented in Figure I 6 to Figure I 29.

Groundwater quality SSGVs from the LSWMP are presented in Table I 2. Groundwater quality trigger events, exceeding the SSGV criteria on two consecutive monitoring events, occurred during the reporting period.

Identified trigger events are displayed in Table I 3.

For each trigger event, LS personnel investigated the likely source of the trigger.

In each case it was determined that no triggers were the result of operational activities at LS.

Table I 2: Groundwater quality SSGVs criteria

Analyte	MW01	MW03	MW04	MW05	MW06
pH (pH units)	6.6	5.6	4.3	5.5	6.3
EC (µS/cm)	609	310	633	362	577
TSS (mg/L)	2185	2480	2600	2570	1660
Turbidity (NTU)	897	2865	1029	1730	1730
Dissolved cadmium (mg/L)	0.0001	0.0001	0.0002	0.0001	0.0001
Dissolved copper (mg/L)	0.002	0.004	0.003	0.003	0.002
Dissolved iron (mg/L)	35.3	0.12	0.38	0.07	0.05
Dissolved manganese (mg/L)	1.21	0.04	0.54	0.04	0.03
Dissolved nickel (mg/L)	0.001	0.002	0.041	0.024	0.002
Oil and Grease (mg/L)	8	5	5	5	5
TRHs (µg/L)	21600	100	100	100	100
BTEX (µg/L)	5	1	1	1	1

Note: pH is the lower pH range limit

Table I 3: SSGV trigger events in 2020

Monitoring bore	SSGV trigger event in 2020
MW01	• No trigger events.
MW03	• No trigger events.
MW04	• pH in February 2020 was 4.1 and pH in May 2020 was 4.1. • EC in February 2020 was 700 µS/cm and EC in May 2020 was 694 µS/cm.
MW05	• EC in August 2020 was 575 µS/cm and EC in November 2020 was 641 µS/cm.
MW06	• Dissolved copper in May 2020 was 0.011 mg/L and in August 2020 was 0.003 mg/L.

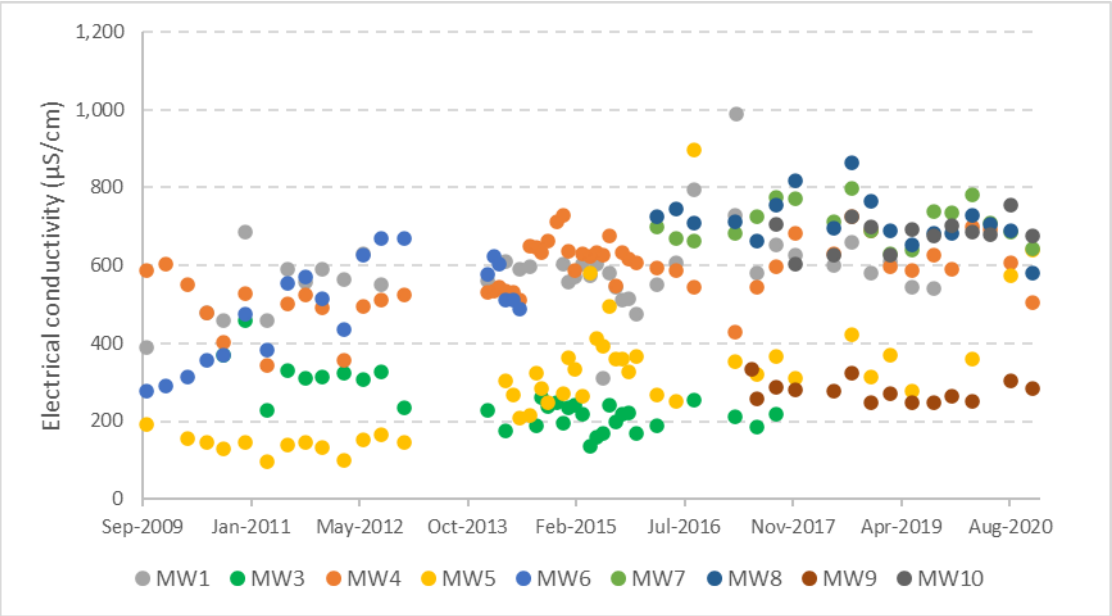

Figure I 6: Electrical conductivity monitored in groundwater

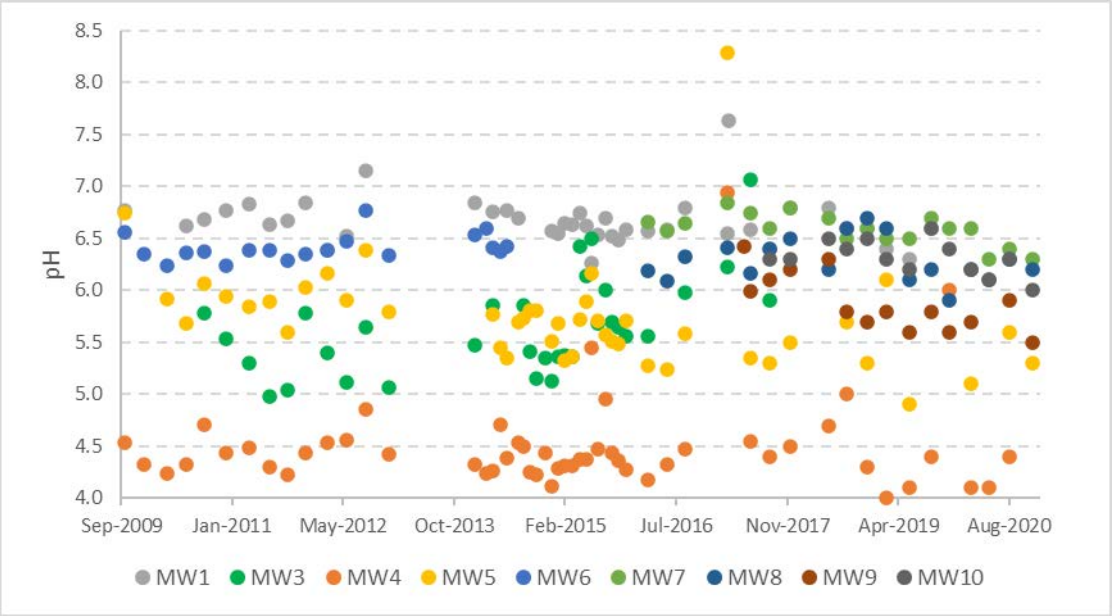

Figure I 7: pH monitored in groundwater

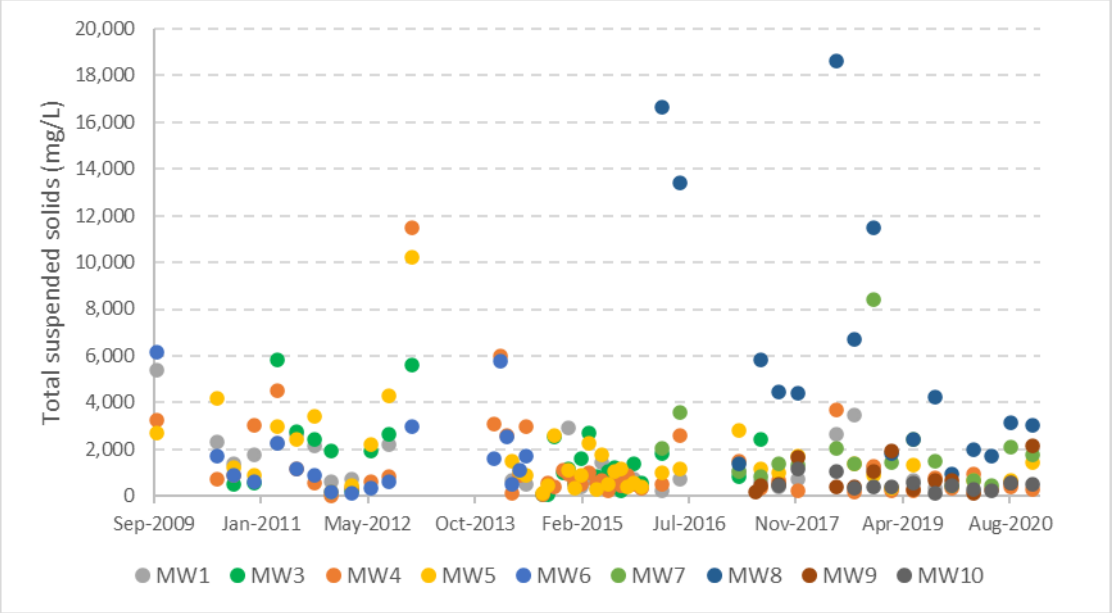

Figure I 8: TSS monitored in groundwater

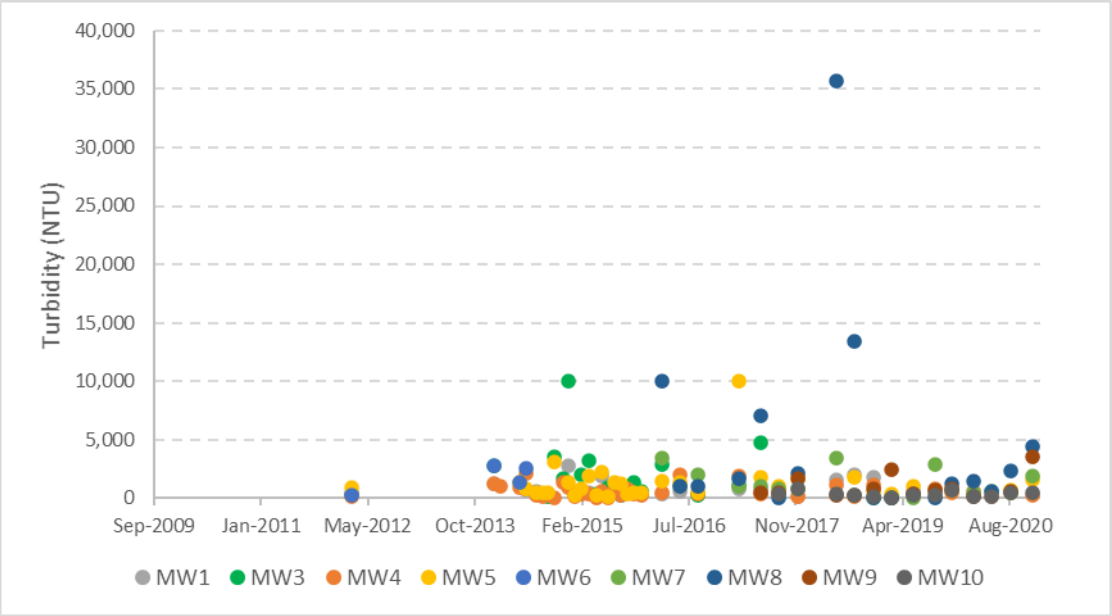

Figure I 9: Turbidity monitored in groundwater

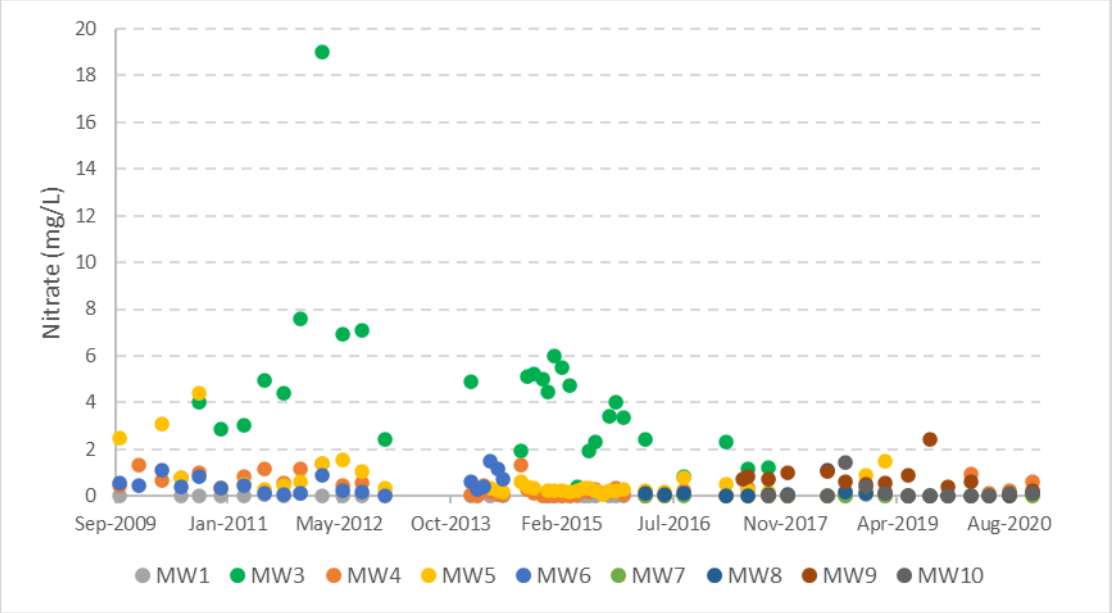

Figure I 10: Nitrate monitored in groundwater

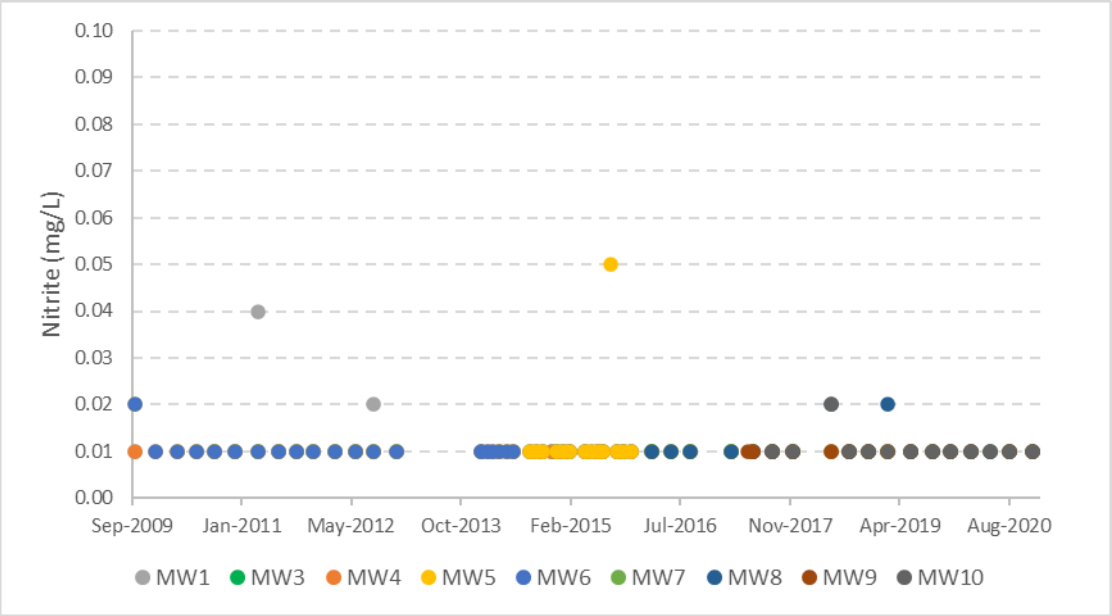

Figure I 11: Nitrite monitored in groundwater

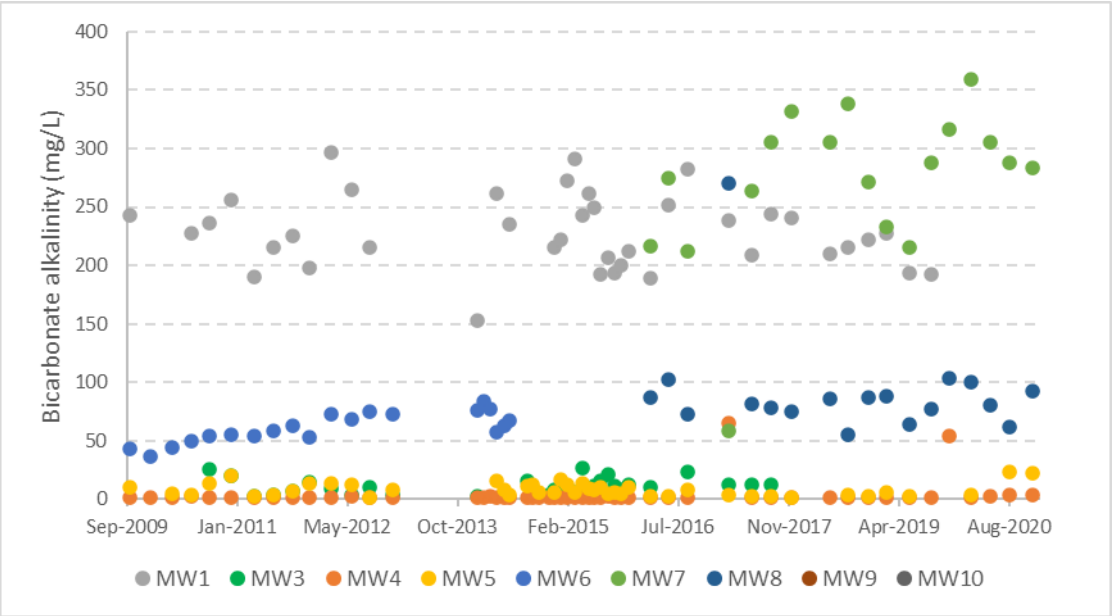

Figure I 12: HCO alkalinity monitored in groundwater

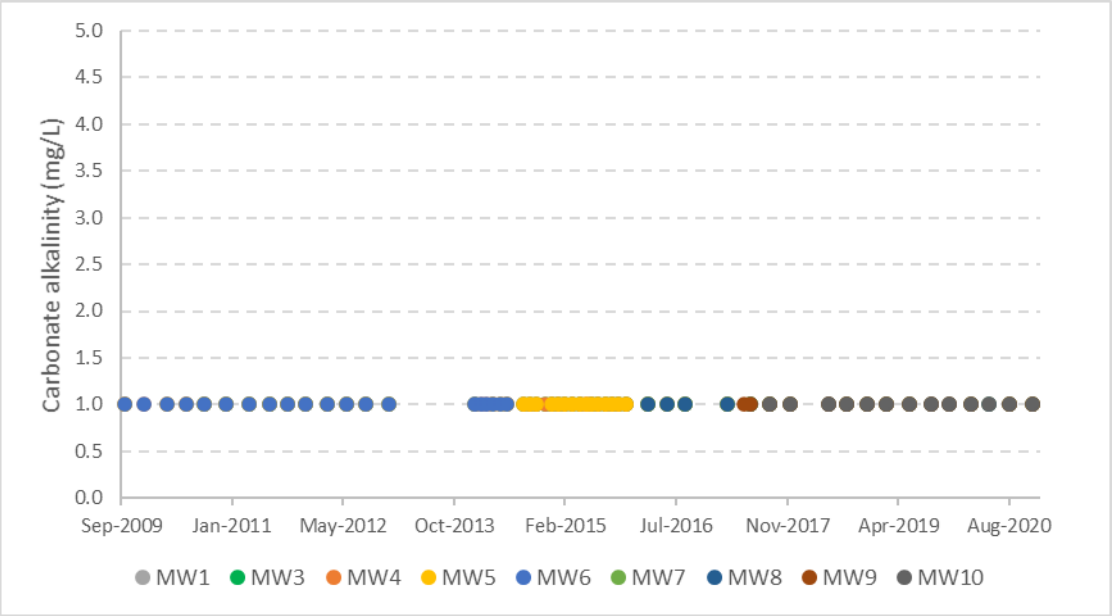

Figure I 13: CO alkalinity monitored in groundwater

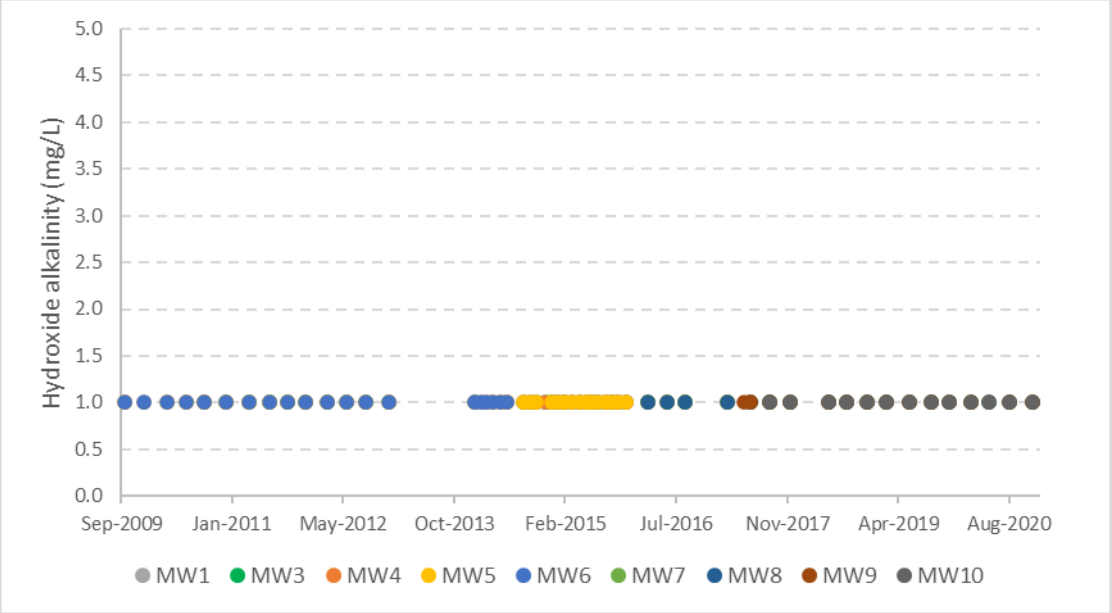

Figure I 14: OH alkalinity monitored in groundwater

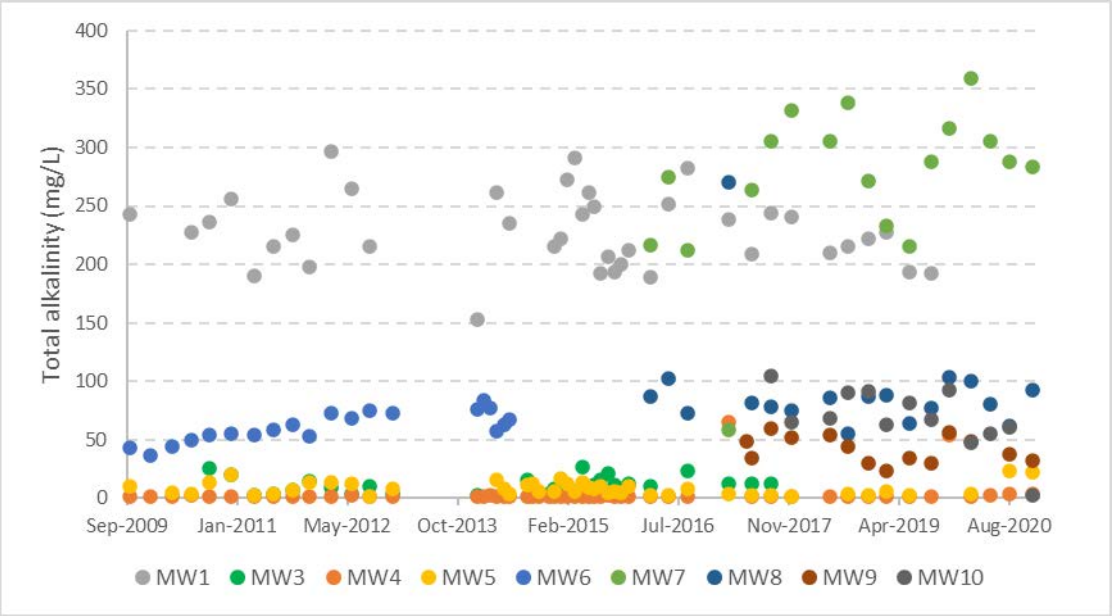

Figure I 15: Total alkalinity monitored in groundwater

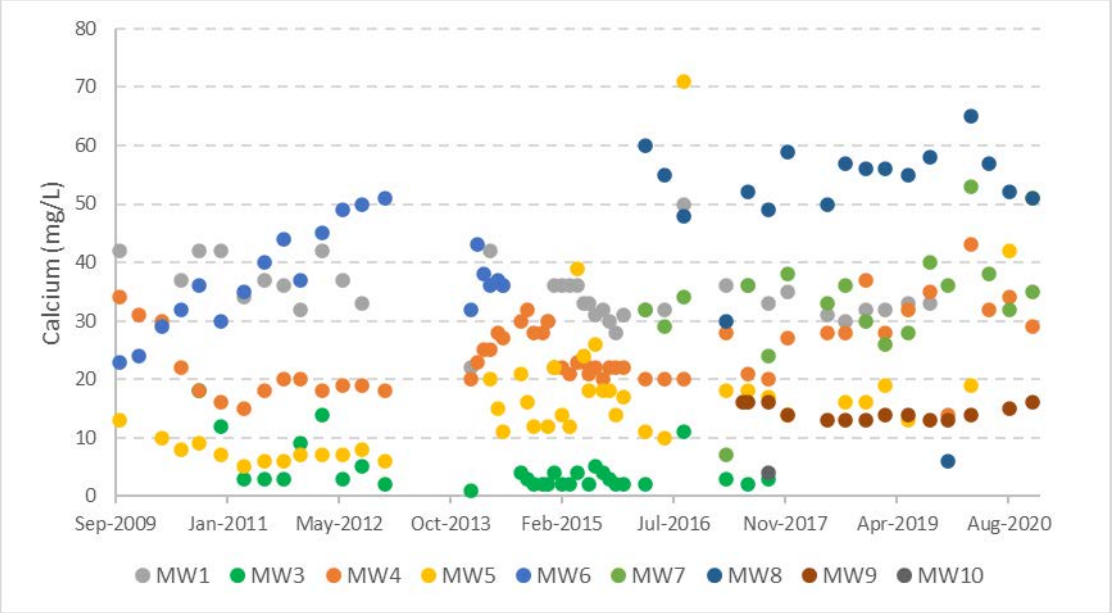

Figure I 16: Calcium monitored in groundwater

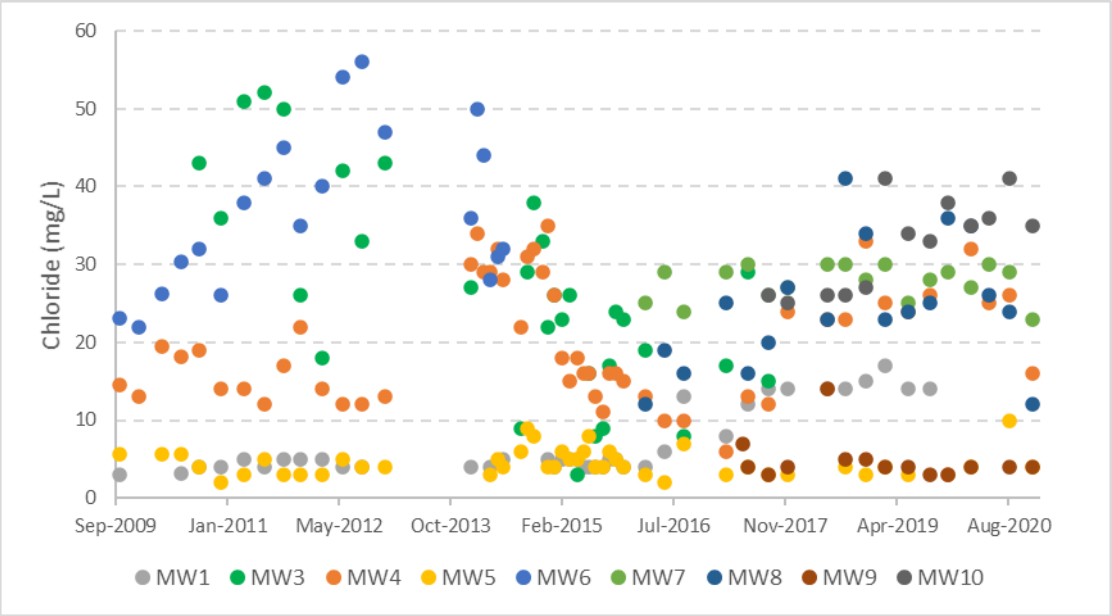

Figure I 17: Chloride monitored in groundwater

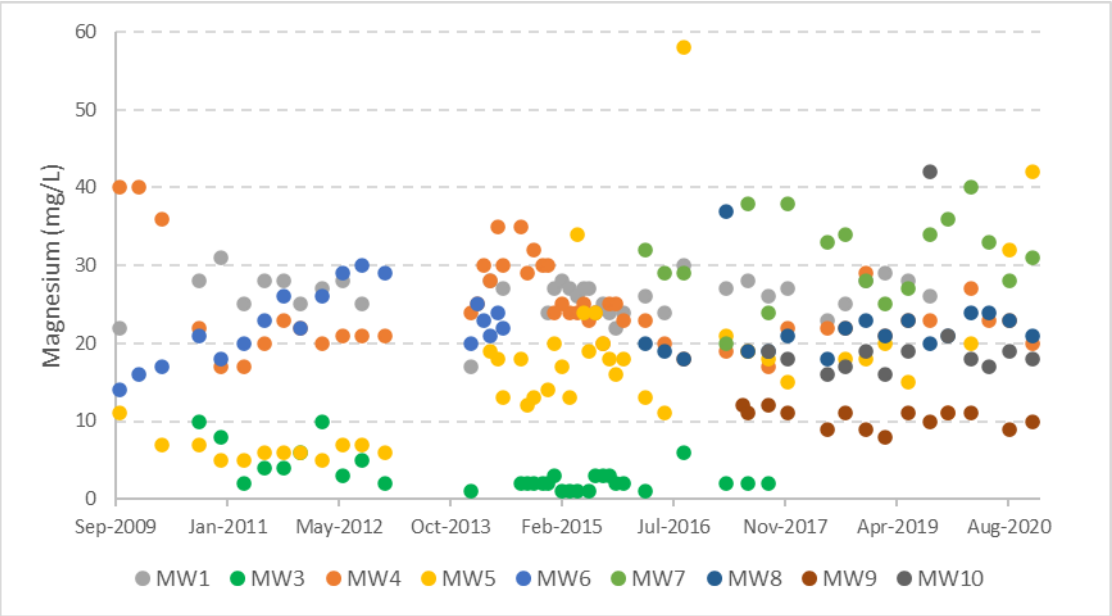

Figure I 18: Magnesium monitored in groundwater

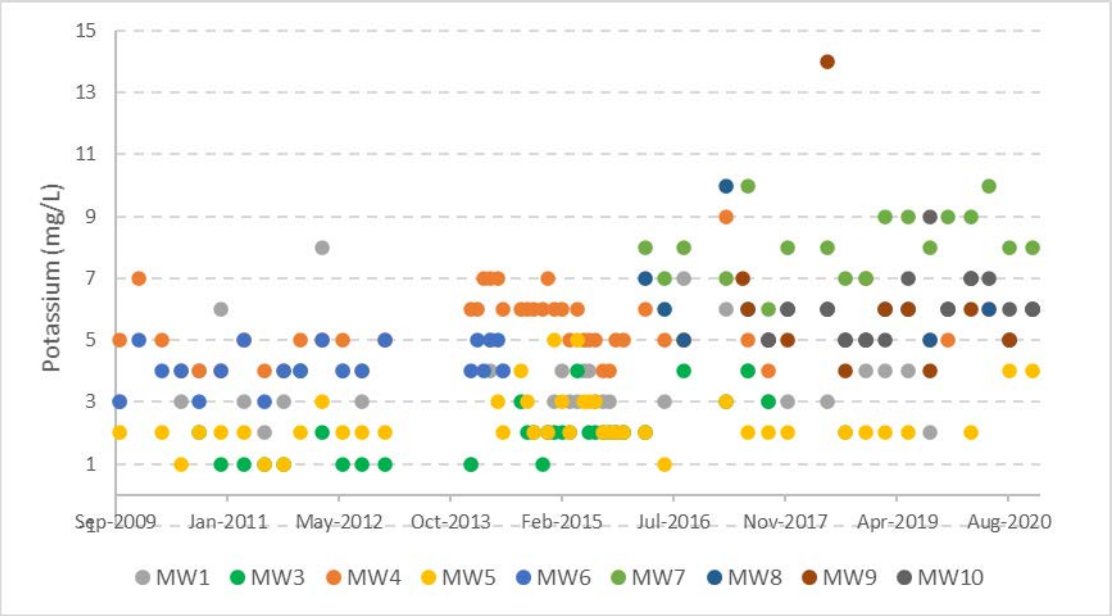

Figure I 19: Potassium monitored in groundwater

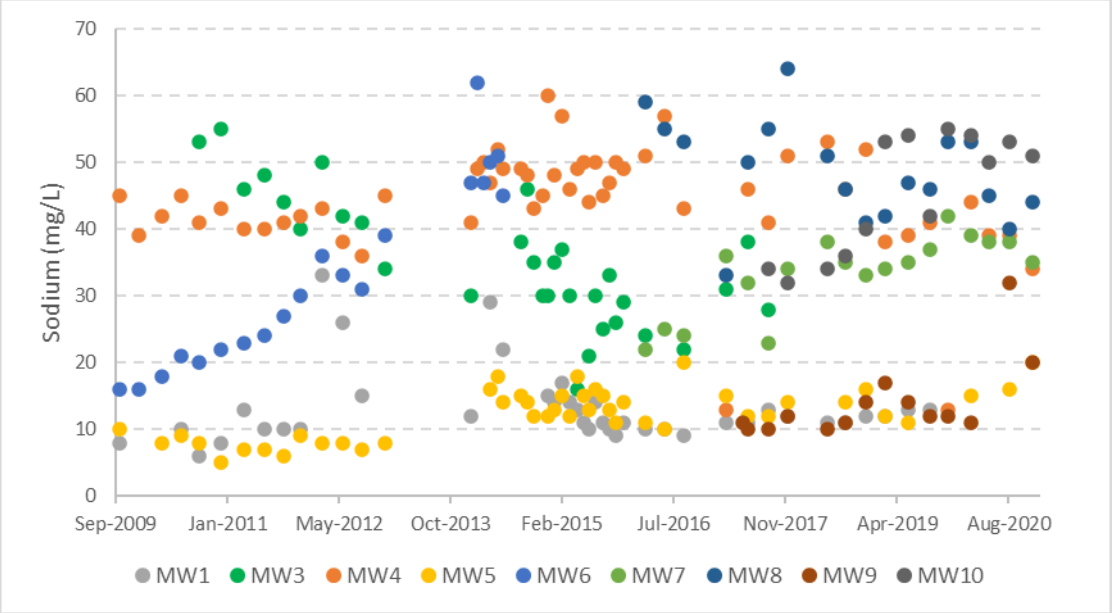

Figure I 20: Sodium monitored in groundwater

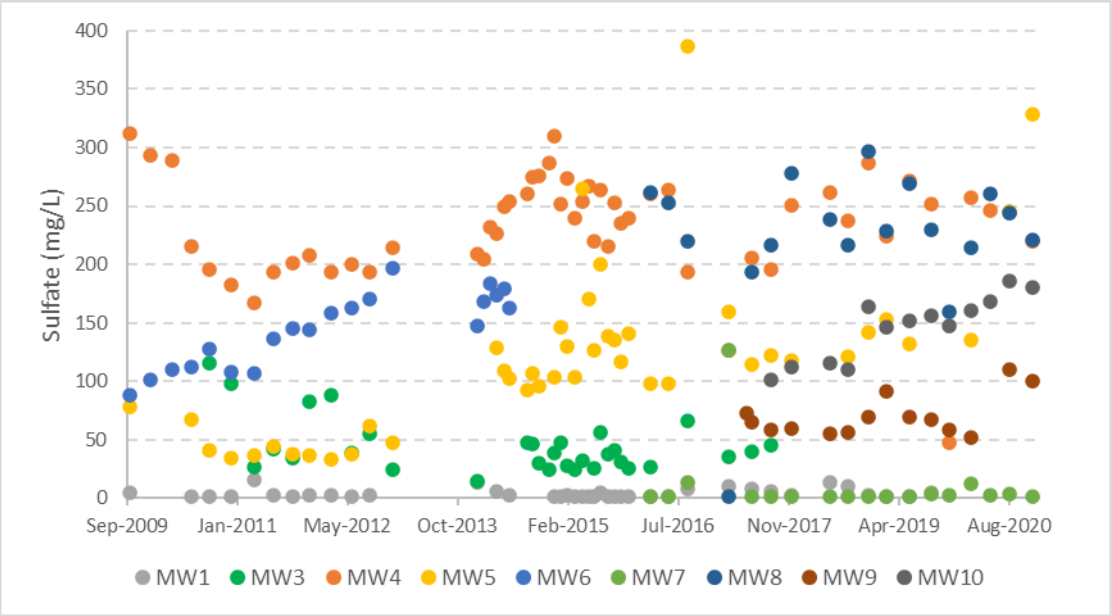

Figure I 21: Sulfate monitored in groundwater

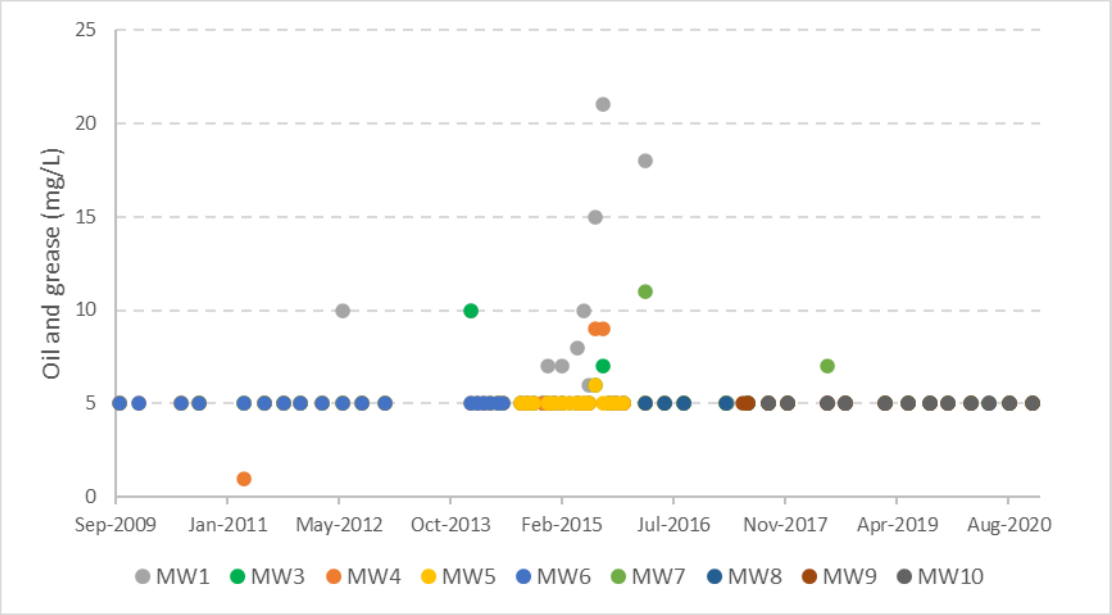

Figure I 22: Oil and grease monitored in groundwater

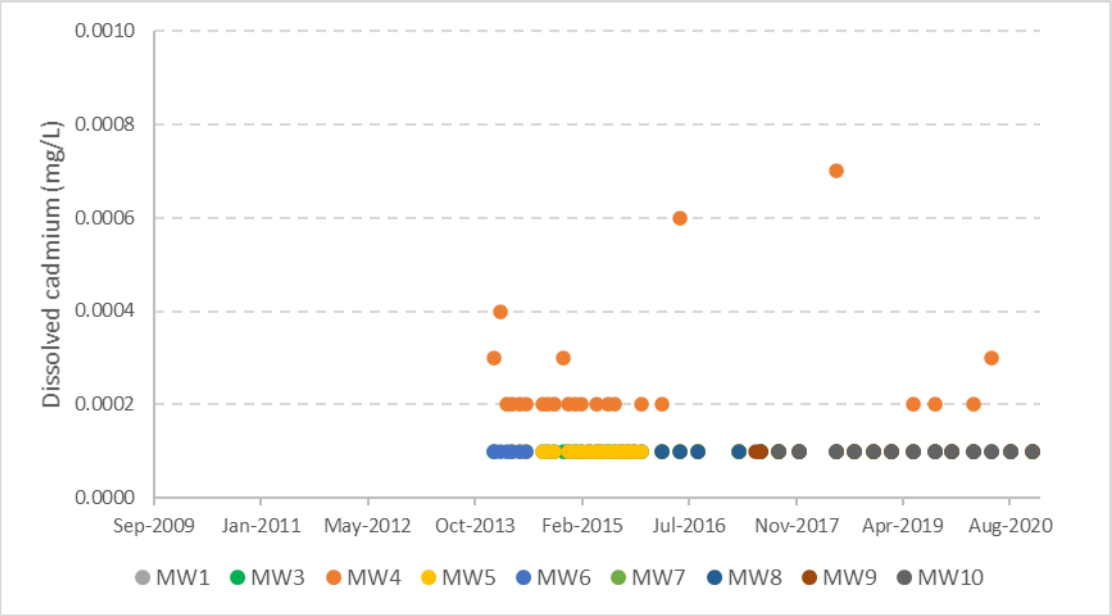

Figure I 23: Dissolved cadmium monitored in groundwater

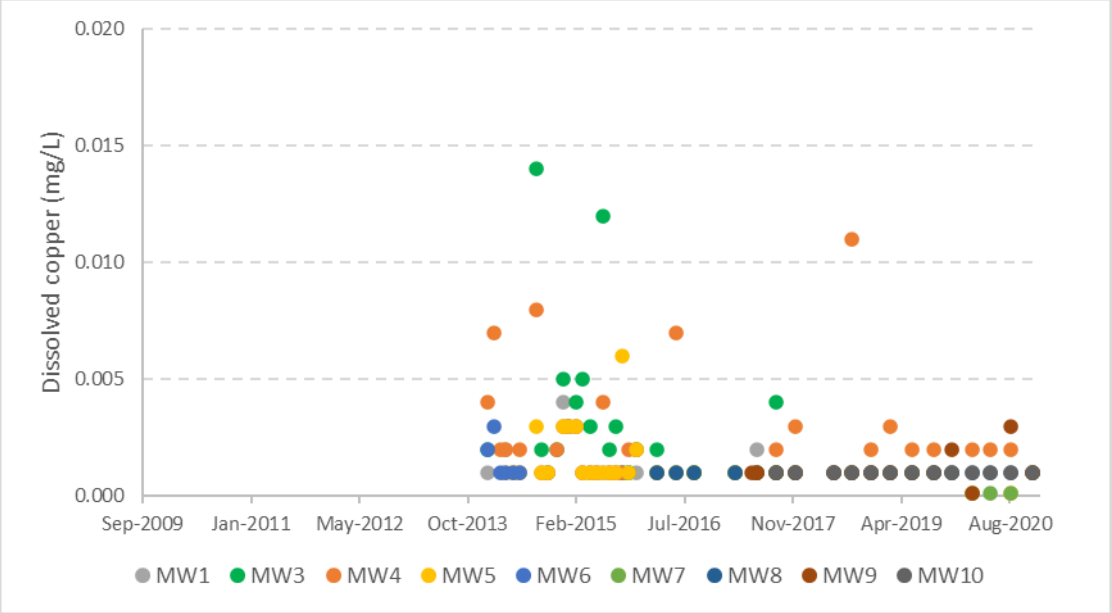

Figure I 24: Dissolved copper monitored in groundwater

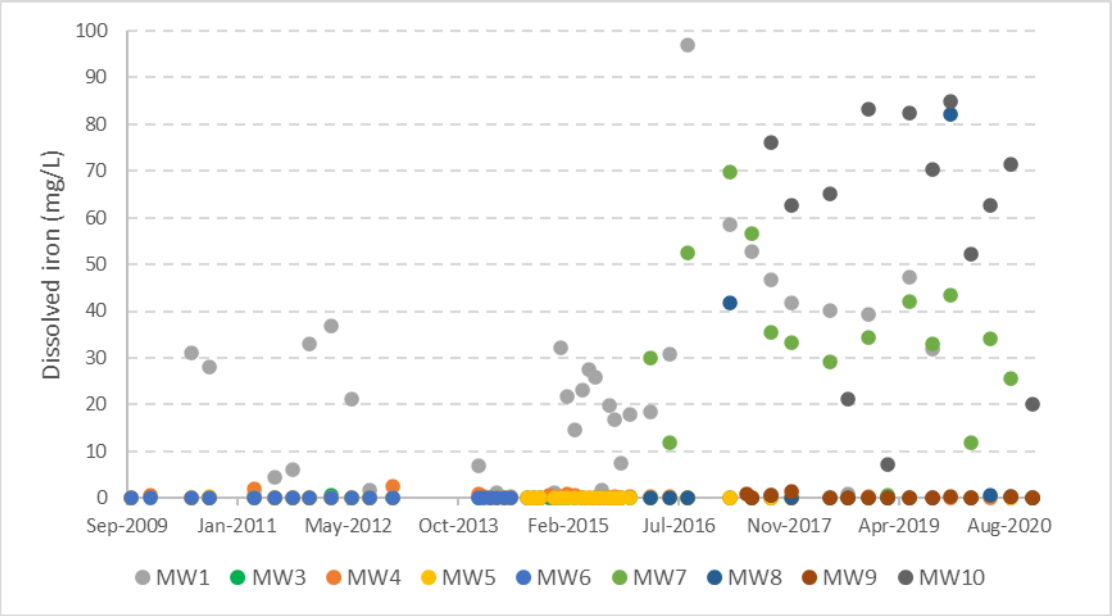

Figure I 25: Dissolved iron monitored in groundwater

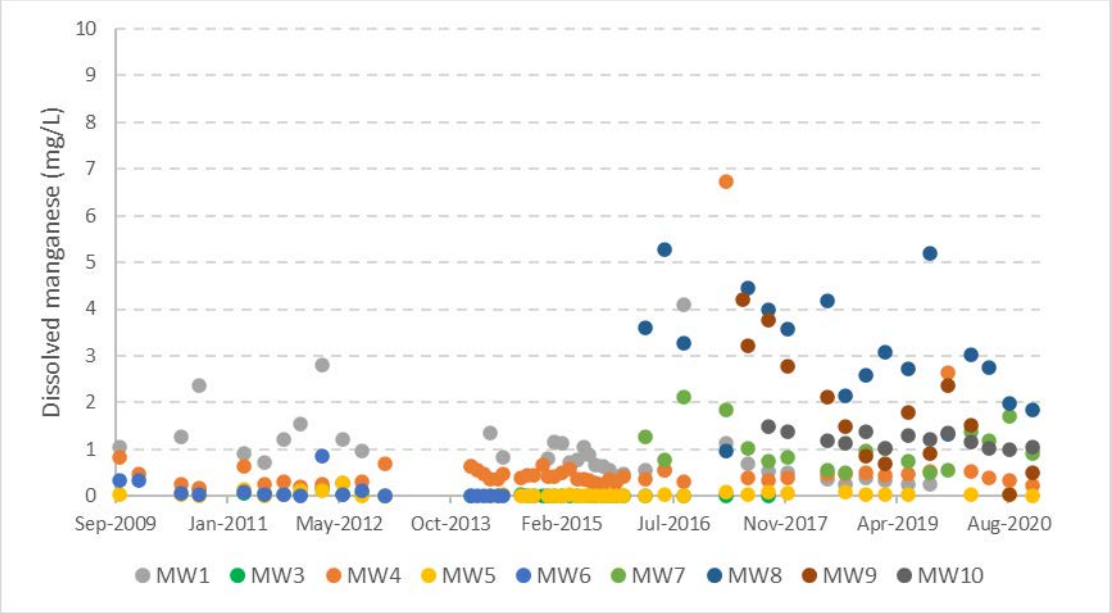

Figure I 26: Dissolved manganese monitored in groundwater

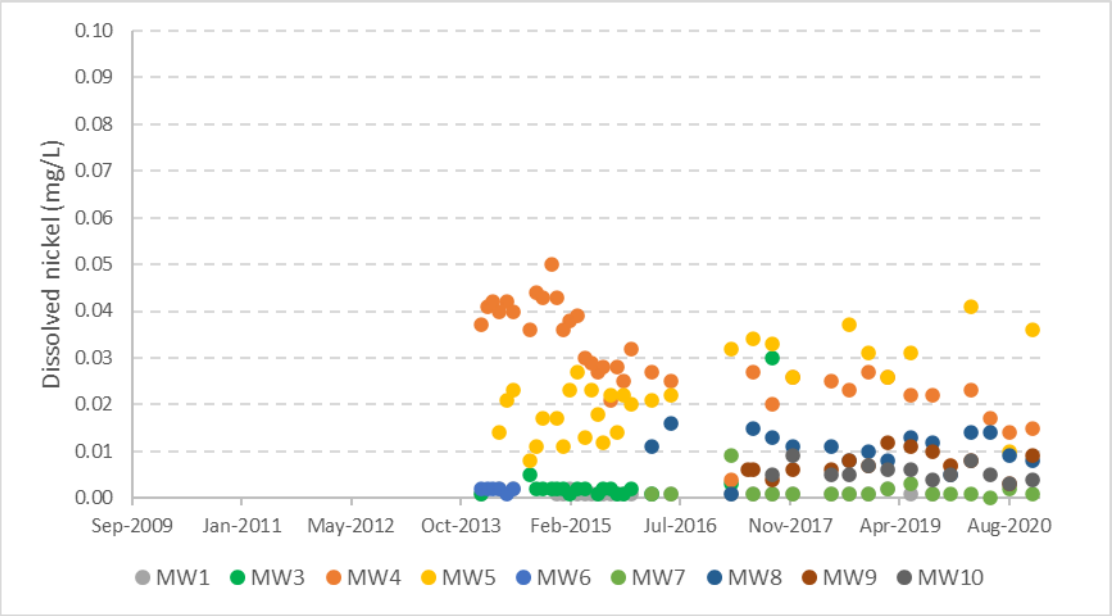

Figure I 27: Dissolved nickel monitored in groundwater

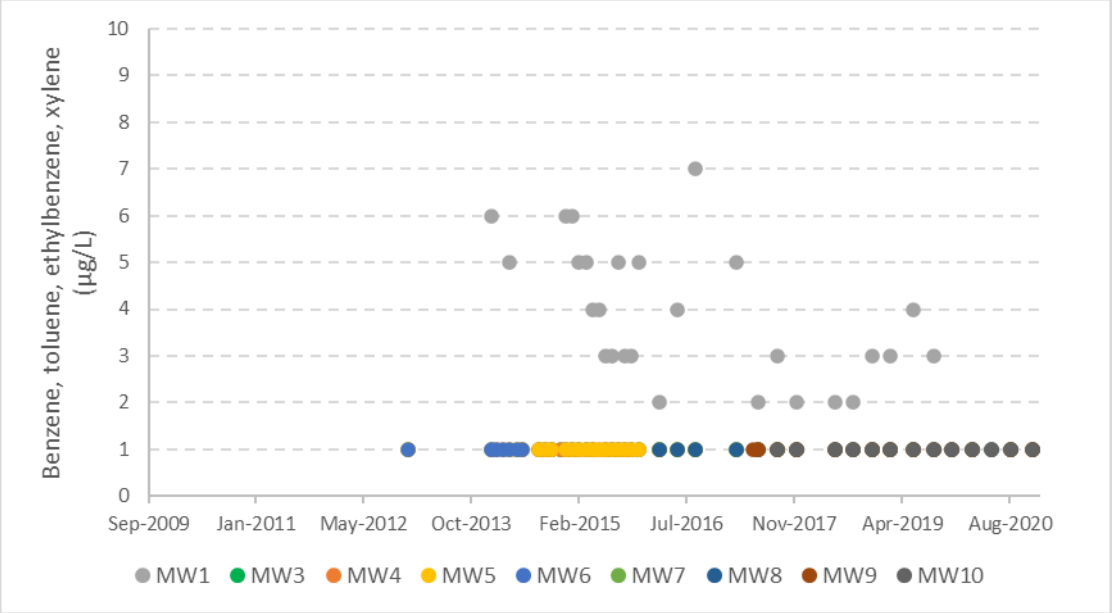

Figure I 28: BTEX monitored in groundwater

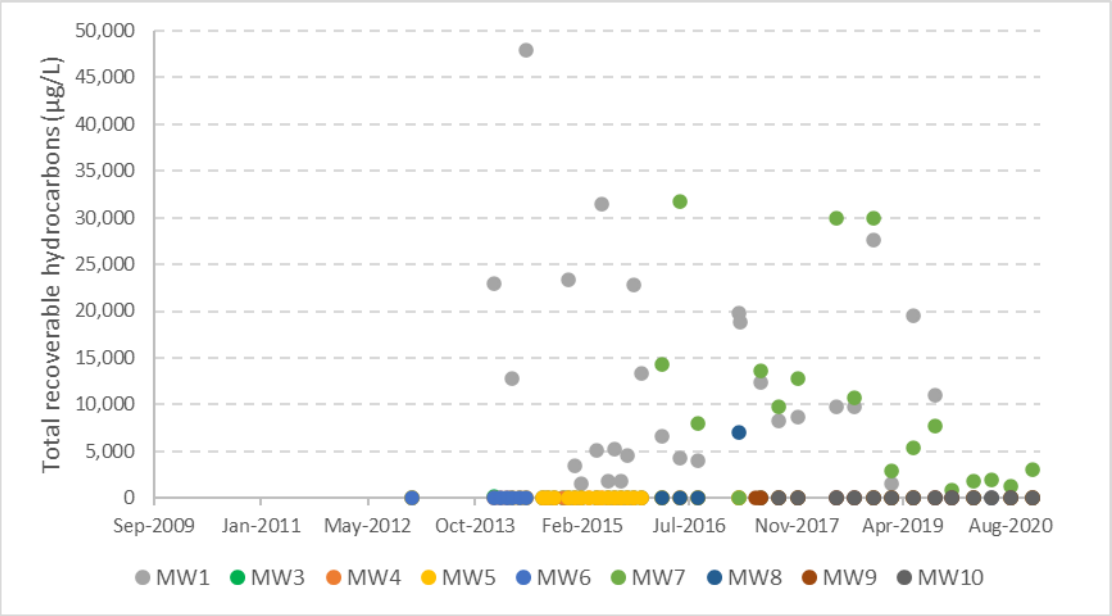

Figure I 29: TRH monitored in groundwater

Appendix J – Biodiversity Information

Performance against Environmental Assessment

The Environmental Assessment stated the operation would unlikely have a significant impact on the existing ecological value of the site and surrounds. The low potential for impact is due to the habitats of the Project area being heavily disturbed, providing limited opportunities for those threatened species considered to have potential to occur within the broader study area. The Project also includes progressive removal of invasive Willow species and other noxious weeds to assist in maintaining the ecological value of the surrounding area.

The recommended mitigation measures stated in the Environmental Assessment have been implemented and complied with. The following activities were undertaken during the reporting period to comply with ongoing recommendations discussed in the Environmental Assessment:

- Minimal clearing, particularly within those areas that contain *Eucalyptus aggregata*.
- Appropriate measures utilising Managing Urban Stormwater: Soils and Construction (Landcom) were implemented to minimise erosion and sedimentation impacts upon waterways and associated vegetation resulting during construction.
- Weed monitoring was undertaken and potential weed infestations were appropriately managed to ensure surrounding communities were protected from invasive species.
- Improvement of the clean water diversions around the site and collection of all site waters within the site.
- Progressive removal of Willow trees within the section of Pipers Flat Creek which passes through the site.

Upper Coxs River Catchment Aquatic Ecology 2020

The Coxs River catchment is a highly modified environment due to historical and current primary production and industrial activities.

In 2017, a coordinated, catchment-wide approach for aquatic ecology monitoring was implemented with the aim of understanding the overall health of the Upper Coxs River Catchment (UCRC). The monitoring program, known as the UCRC Aquatic Ecology Monitoring Program (AEMP) satisfies the aquatic ecology monitoring requirements of Centennial operations and the Springvale Upper Coxs River Action and Monitoring Program (UCRAMP).

The monitoring program allows for impacts (positive and negative) within the catchment to be identified. Lidsdale Siding aquatic ecology monitoring locations are identified in Appendix A.

Macroinvertebrate samples were collected by GHD during autumn 2020 (16/04/20-21/04/20) and spring 2020 (27/10/20-09/11/20) at the sites indicated in Table J 1, as part of the integrated Upper Coxs River (UCR) Aquatic Ecology Monitoring Program (AEMP). Water and sediment quality were tested in conjunction with macroinvertebrate monitoring.

Table J 1: Macroinvertebrate monitoring locations

Site	Easting MGA 56H	Northing MGA 56H	Description	Site Type	Dates Sampled
Coxs River					
CR0	229753	6309404	Upstream of all Centennial LDPs.	Background	16/04/20, 27/10/20
CR1	229828	6307311	Upstream of all Centennial LDPs.	Background	17/04/20, 03/11/20
CR4	228339	6302781	Located at the Maddox Lane road crossing downstream of Angus Place LDP001, Springvale LDP9 and SCSS LDP6.	Background	18/04/20, 02/11/20
CR5	228521	6300768	Located at the Main Street road crossing downstream of Angus Place LDP001 and Springvale LDP9, upstream of Pipers Flat Creek.	Impact	18/04/20, 04/11/20
CR6	228512	6297751	Coxs River downstream monitoring site located below Lake Wallace, on the downstream side of Rocky Waterhole Drive. Downstream of Pipers Flat Creek.	Recovery	17/04/20, 04/11/20
CR7	228926	6292637	Located in the Lidsdale State Forest approximately 5 km downstream of the Lake Wallace dam wall.	Recovery	19/04/20, 27/10/20
Pipers Flat Creek					
PFup	227730	6300755	Located around 650 m upstream of the confluence with the Coxs River.	Reference	21/04/20, 09/11/20
PFdn	228172	6300993	Located 90 m upstream of the confluence with Coxs River, where Lidsdale Siding LDP4 discharges into Pipers Flat Creek.	Impact	21/04/20, 09/11/20

The following macroinvertebrate metrics were calculated:

- Taxa richness: the number of different families/groups collected in a sample. This metric provides a measure of macroinvertebrate community diversity.
- EPT richness: the number of taxa belonging to the Ephemeroptera, Plecoptera and Trichoptera families. These groups of macroinvertebrates have been found to be particularly sensitive to changes in their environment (Karr and Chu 1999) and, therefore, can be used to assess impacts due to chemical and physical changes (Plafkin et al. 1989; Barbour et al. 1992).
- SIGNAL-2 Biotic Index: pollution sensitivity of the macroinvertebrates collected in a sample, expressed as an average (Chessman 2003). 1 = greatest pollution tolerance, 10 = greatest pollution sensitivity.

A graphical presentation of results is provided in Figure J 1 to Figure J 6.

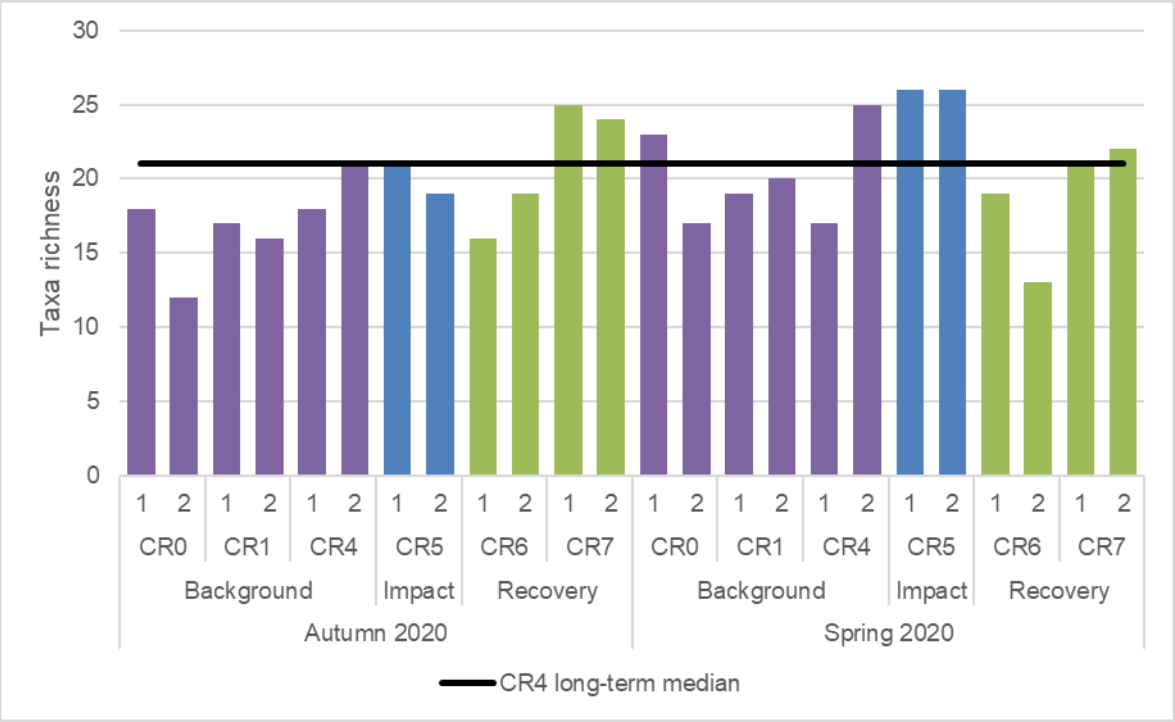

Figure J 1: Taxa richness in Coxs River samples associated with Lidsdale Siding in 2020

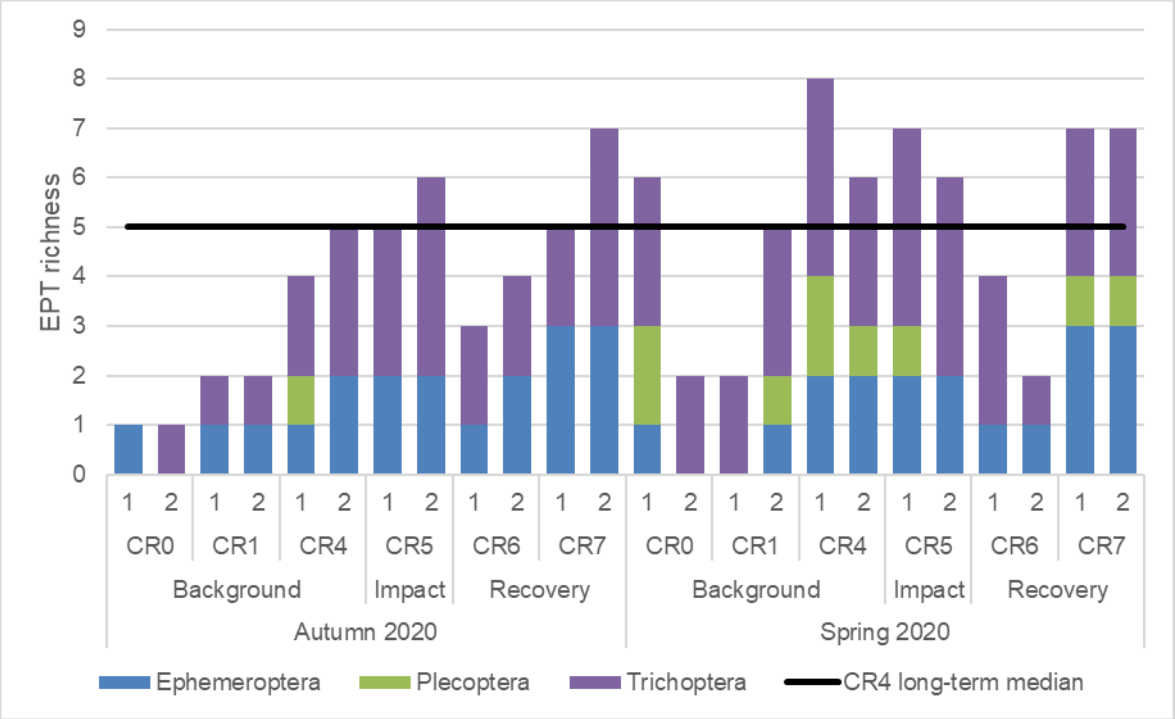

Figure J 2: EPT richness in Coxs River samples associated with Lidsdale Siding in 2020

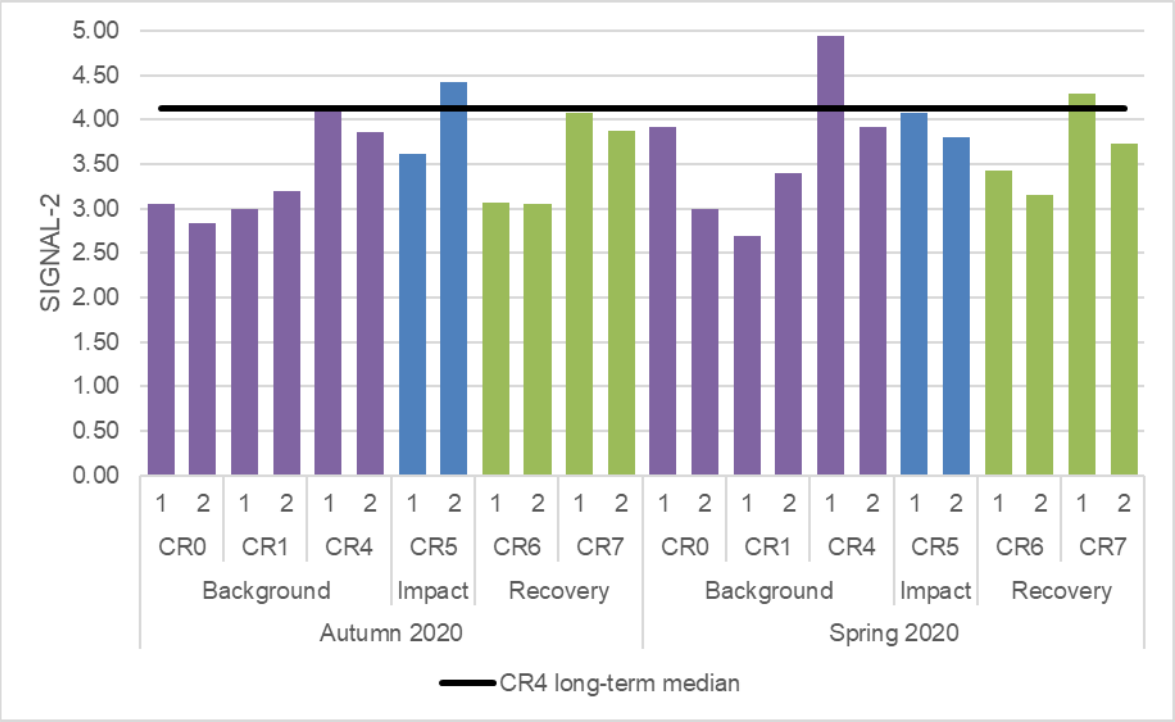

Figure J 3: SIGNAL-2 in Coxs River samples associated with Lidsdale Siding in 2020

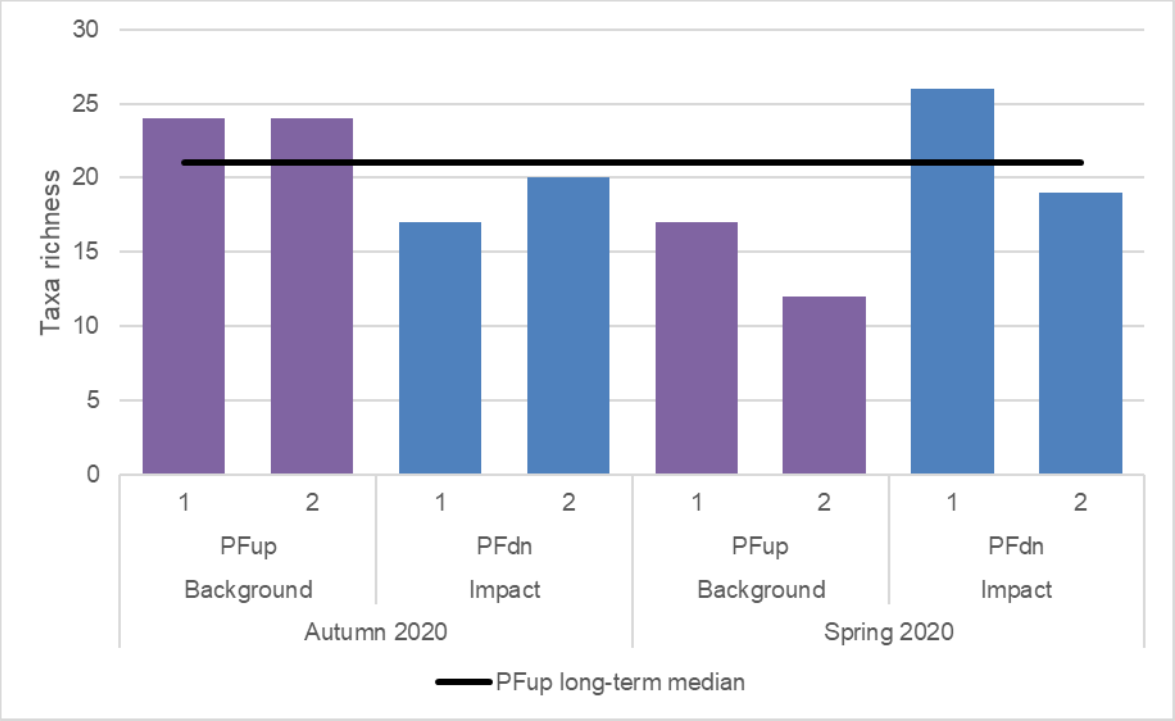

Figure J 4: Taxa richness in Pipers Flat Creek in 2020

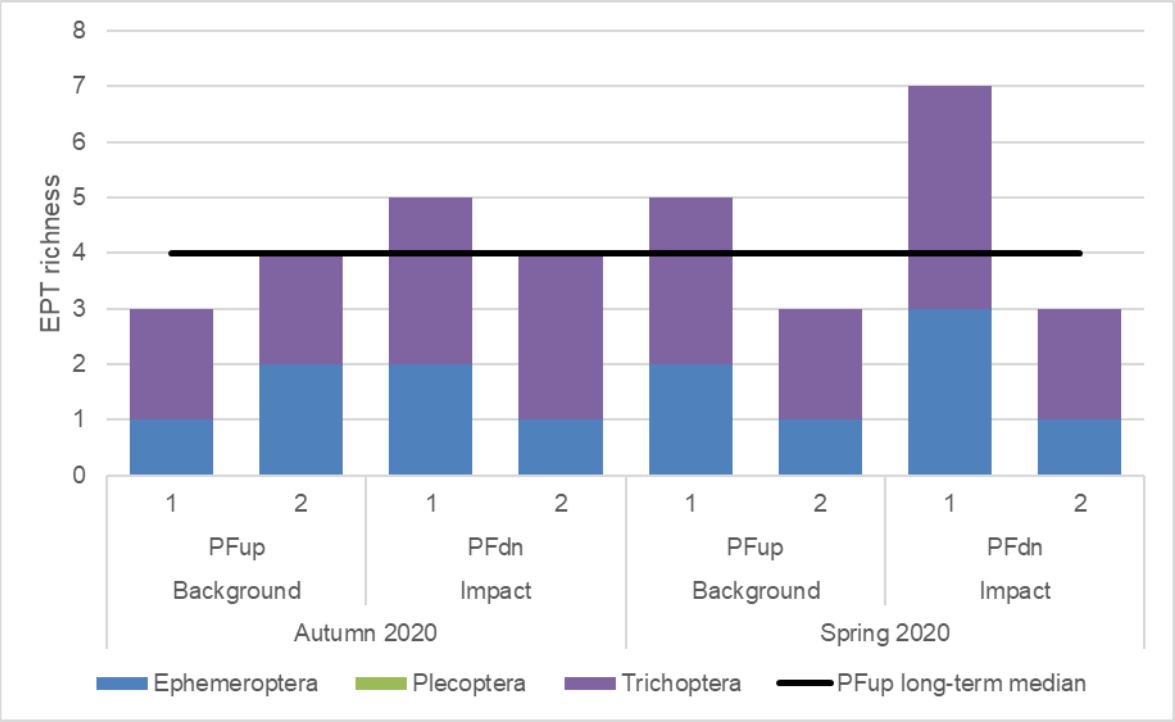

Figure J 5: EPT richness in Pipers Flat Creek in 2020

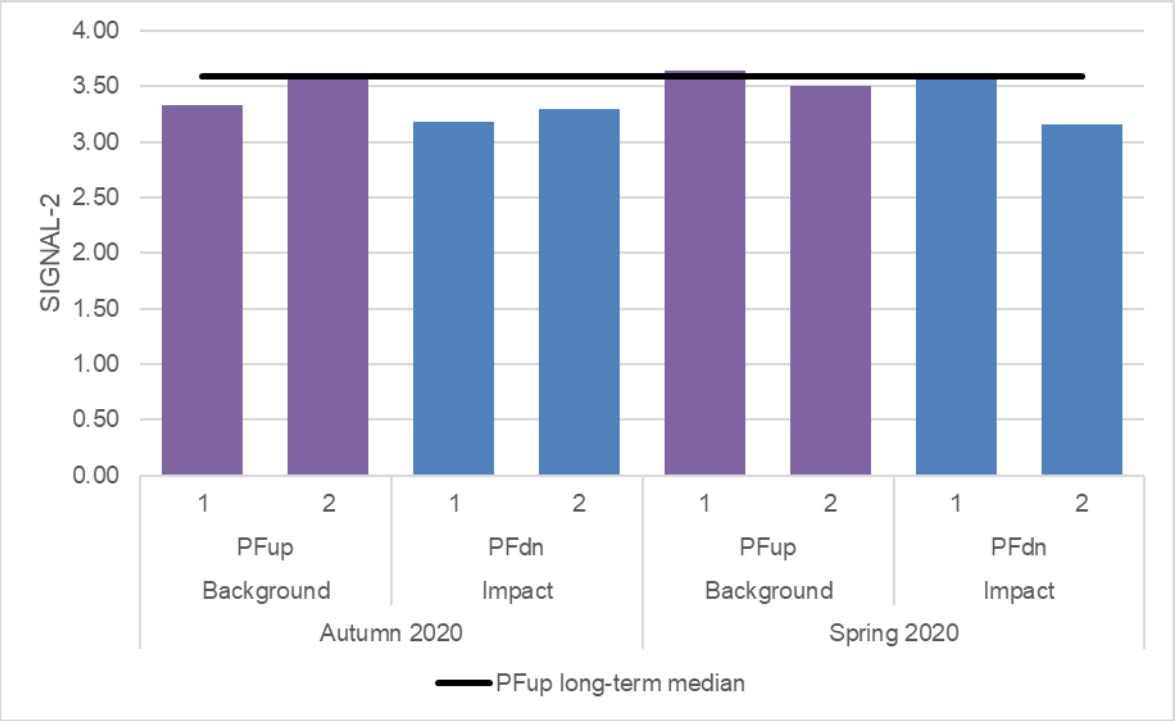

Figure J 6: SIGNAL-2 in Pipers Flat Creek in 2020

Taxa richness at Pipers Flat Creek sites varied between sampling events, with results at background site PFup higher in autumn, while results at impact site PFdn were higher in spring (Figure J 4). Taxa richness was higher than the long-term PFup median in both samples from PFup in autumn, and in one replicate sample from PFdn in spring only.

EPT richness results were similar between the background and impact sites on Pipers Flat Creek in 2020, with more inter-site than intra-site variability observed (Figure J 5). Ephemeroptera and Trichoptera taxa were collected in all Pipers Creek samples in 2020. EPT richness results were equal to or higher than the long-term PFup median result in five of the eight samples collected from Pipers Flat Creek in 2020, and in at least one replicate at each site during both sampling events.

SIGNAL-2 scores were slightly higher at PFup during both seasons, with results similar between seasons but variable between replicates (Figure J 6). Although, all SIGNAL-2 results were relatively similar, ranging from a low of 3.16 to a high of 3.65. SIGNAL-2 scores were below the long-term PFup median in one replicate sample in both seasons at PFup, and in all but one replicate sample from PFdn in spring.

Water and sediment quality were similar at PFup and PFdn during sampling in autumn and spring 2020. There was one discharge event from LDP004 into Pipers Flat Creek in late-July 2020, which totalled 4.06 ML. It is not expected that this discharge accounted for any of the differences observed in the macroinvertebrate community between sites upstream and downstream of the discharge point on Pipers Flat Creek. Any differences are instead likely to be attributable to differences in instream habitats between sites, and changes to habitat conditions at PFup between seasons caused by clearing of vegetation from the site (GHD 2021).

In 2020, taxa richness (Figure J 1), EPT richness (Figure J 2) and SIGNAL-2 results (Figure J 3) in the Coxs River were similar at sites upstream (CR4) and downstream (CR5) of the Pipers Flat Creek confluence in both autumn and spring. For taxa richness and EPT richness, spring results were higher than those in autumn, and results were equal to or above the long-term CR4 median in at least one replicate sample at both sites in both seasons. SIGNAL-2 results showed variability between replicates. Results of all macroinvertebrate metrics at CR5 were higher than those at Coxs River recovery site CR6.

Overall, the 2020 aquatic ecology monitoring does not indicate impacts of discharges from Lidsdale Siding on the aquatic ecology of Pipers Flat Creek or the Coxs River.

Willow Control and Black Gum Planting Works

The Lidsdale Siding Project Approval EIS Statement of Commitments proposed the following:

- Progressive removal of Willows within the section of Pipers Flat Creek which passes through the study area – a five-year program of works following completion of construction.

The Willows removal study area is illustrated in Appendix A along with a series of aerial photograph showing the progression of Willow removal over the five-year program.

The Lidsdale Siding Upgrade Project Approval 08_0223 requires Centennial to ensure that an approved Biodiversity Management Plan for the project includes a detailed description of measures that would be implemented over the life of the project to protect and conserve biodiversity specific to this proposed partner arrangement including:

- Management and enhancement of retained native vegetation, (particularly *Eucalyptus aggregata*) and habitat on site;
- A detailed program (both proposed works and timetable) for the removal of Willow trees from Pipers Flat Creek; and
- Measures to manage and control weeds.

History of Willow Control Works Completed in Pipers Flat Creek

The Willows Control Program was commenced in 2016 and was finalised in December 2020. The program was staged and undertaken in a progressive manner with the initial works undertaken in 2016 including site preparation to gain access to the banks of Pipers Flat Creek.

Centennial engaged various experienced contractors to complete this work over the four-year period. The progressive approach involved:

- Clearing and management of weeds to allow access to the Willows.
- Brush cutting and chain sawing of smaller Willows on the edge of infestation areas and application of herbicide.
- Subsequent removal of dead Willows using small plant excavators and bobcats and mulching.
- Stem injection using herbicide of large Willows on creek banks and within the channel of the creek.
- Removal after larger trees had died using larger excavators to minimise creek disturbance.
- Windrowing and mulching of all Willow debris.

Table J 2 provides the management actions undertaken in each period for the program.

Table J 2: Management actions for Willows

Management Period	Actions Undertaken
July - August 2016	• Commencement of initial control program including site preparation and initial chemical herbicide to small Willows
November - December 2016	• Cut, remove, chip and transport dead Willows from initial control works
April - May 2017	• Poison remaining Willows
October - November 2017	• GPS all Willows within the study area • Slash and brush cutting of weeds for access to the creek and Willows • Stem injection of all Willows in the study area • Total of 1054 Willows treated, and GPS locations recorded
October - November 2018	• Remove Willows from creek banks and accessible Willows in creek using chainsaws and small excavator / bobcat • Remove mulched Willow material
November - December 2019	• Slashing of weeds • Remove full Willow trees and root structures from watercourse and windrow for mulching • Remove additional debris i.e., cars and dumped concrete from operations area • Mulching of tree stumps and windrowed Willows • Application of herbicide to weeds
February 2020	• Site inspections for effectiveness of Willows control program – no additional works identified
January 2021	• Field assessment to inform Willows project completion report
Proposed 2021	• Completion of Willows project completion report • Additional monitoring and controls as identified

Appendix K – Heritage Information

Performance against Environmental Assessment

Indigenous Heritage Items

No Indigenous heritage items are located within the Lidsdale Siding site. The WRACHMP identifies four isolated finds and three artefact scatters in the broader study area. The Environmental Assessment states that five artefact scatters and isolated finds are located within the broader study area. During the reporting period, the following recommendations discussed in the Environmental Assessment were complied with:

- Artefact scatters and isolated finds to be protected by visible protection fencing in consultation with the Indigenous communities involved in the Cultural Heritage Assessment and included in any site inductions as necessary. The condition of the visible protection fencing will be monitored and maintained for the duration of the works.
- In the event that any work is to occur where the five identified sites are located, and there is no possibility of avoiding harm to the sites, a Section 90 Aboriginal Heritage Impact Permit (AHIP) will be sought to salvage the artefacts.
- Should a Section 90 permit be granted, the salvage program is to be undertaken by an experienced heritage consultant with the participation of Aboriginal stakeholder group representatives. The nominated keeping place for the salvaged artefacts is to be nominated by the Aboriginal stakeholder groups, but should be kept at a safe holding place (e.g. Lidsdale Siding) until a permanent storage facility is determined.
- Whilst impact on the five sites identified is not anticipated, a due diligence approach should be adopted to ensure sites would not be inadvertently impacted.

The recommendations were also applied to the additional indigenous heritage sites identified in the WRACHMP:

- Centennial hosted two Western Regional Aboriginal Cultural Heritage Committee meetings in May and October 2020.
- In each meeting, no specific issues or management actions were raised regarding Aboriginal Cultural Heritage items at Lidsdale Siding.

Non-indigenous Heritage Items

There are no heritage items or archaeological sites located within 50 metres of the Lidsdale Siding lease boundary. The statement of commitments required that measures be put in place to mitigate vibrational and visual impacts from operations at Lidsdale Siding on the St John Evangelist Church, located to the south. Results from a 3D laser scan determined that vibration caused by the project had no impact on the Church, therefore a Heritage management plan was not required as per the recommendation from the project approval.

Appendix L – Visual Information

Performance against Environmental Assessment

The recommended mitigation measures stated in the Environmental Assessment have been implemented and complied with.

The following ongoing visual impact management and mitigation measures discussed in the Environmental Assessment were undertaken during the reporting period:

- Progressive removal of Willows along the existing and previous alignment of Pipers Flat Creek. Where these Willows provide visual screening of the existing or future facilities, they will only be removed once replacement tree screening has been completed and is developing.
- Visual tree screening was maintained on southern lease boundary in 2020.

Field measurements and assessment undertaken in 2016/17 identified that illuminance at all viewpoints were well within the allowable criteria and that operations are meeting the requirements of the AS.4282.

As the unloading of trains is conducted during daytime hours only, there were no additional lighting impacts from the construction and use of the Lidsdale Siding rail unloader.

Appendix M – Waste Information

Performance against Environmental Assessment

Lidsdale Siding does not process coal or otherwise generate or dispose of coal waste. Waste generation is typical of a small workshop and office consisting of used oils, empty drums, packaging, scrap metal and office wastes.

Lidsdale Siding operates in accordance with a Waste Management Plan which provides for the correct handling, disposal and minimising of waste generation.

The monthly waste information for Lidsdale Siding for the reporting period is shown in Table M 1 and Figure M 1 - Figure M 2.

Table M 1: 2020 Waste Quantities by Stream

	Hazardous Recycled				Non-hazardous Recycled		Hazardous Disposed	Non-hazardous Disposed	Totals		
	Waste oil (kL)	Oily water (kL)	Oil filters (Tonne)	Effluent (kL)	Paper & cardboard (Tonne)	Scrap steel (Tonne)	Oily rags / absorbents (Tonne)	Mixed solid waste (Tonne)	Total waste (Tonne)	Recycled waste (Tonne)	Percent recycled (%)
Jan-20	-	-	-	-	-	10.311	-	0.140	10.45	10.31	99%
Feb-20	-	-	-	-	-	-	-	0.224	0.22	-	0%
Mar-20	-	-	-	-	-	-	-	0.110	0.11	-	0%
Apr-20	-	-	-	-	-	-	-	0.140	0.14	-	0%
May-20	-	-	-	-	0.018	-	-	0.850	0.87	0.02	2%
Jun-20	-	-	-	-	0.015	-	-	1.040	1.06	0.02	1%
Jul-20	-	-	-	-	-	-	-	1.020	1.02	-	0%
Aug-20	-	-	-	-	-	-	-	0.780	0.78	-	0%
Sep-20	-	-	-	-	0.020	-	-	0.550	0.57	0.02	4%
Oct-20	-	-	-	-	0.045	-	-	0.655	0.70	0.05	6%
Nov-20	-	-	-	-	-	-	-	0.600	0.60	-	0%
Dec-20	-	-	-	-	-	-	-	0.160	0.16	-	0%

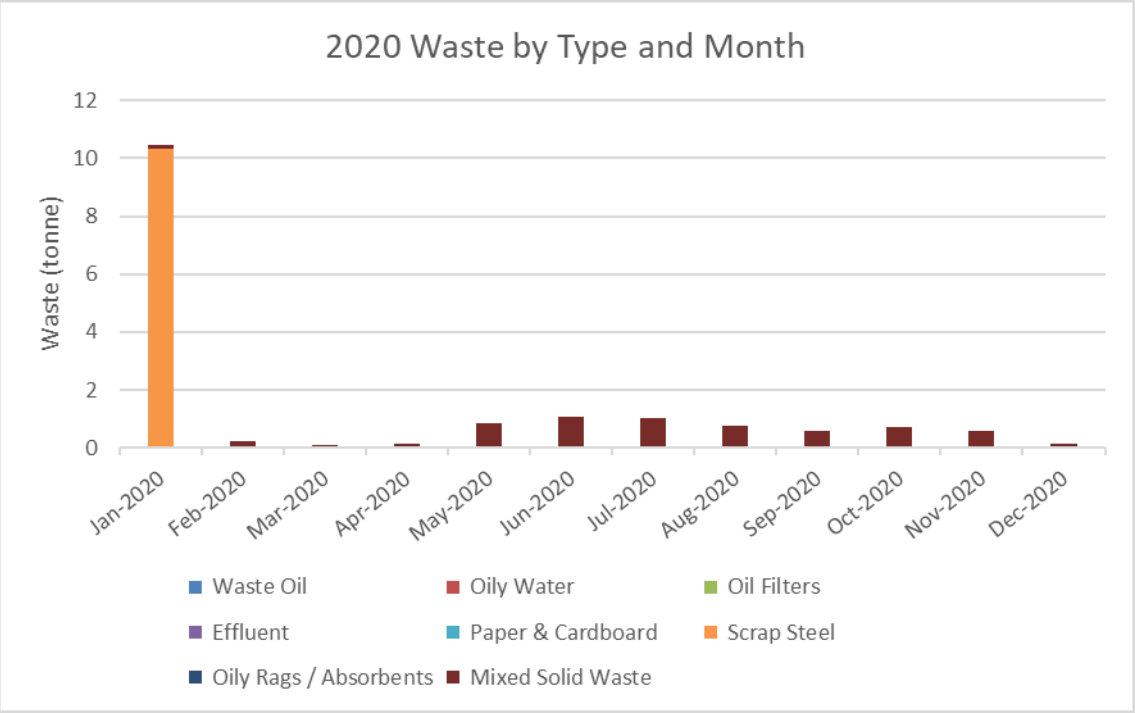

Figure M 1: Lidsdale Siding Waste by Type and Month for 2020

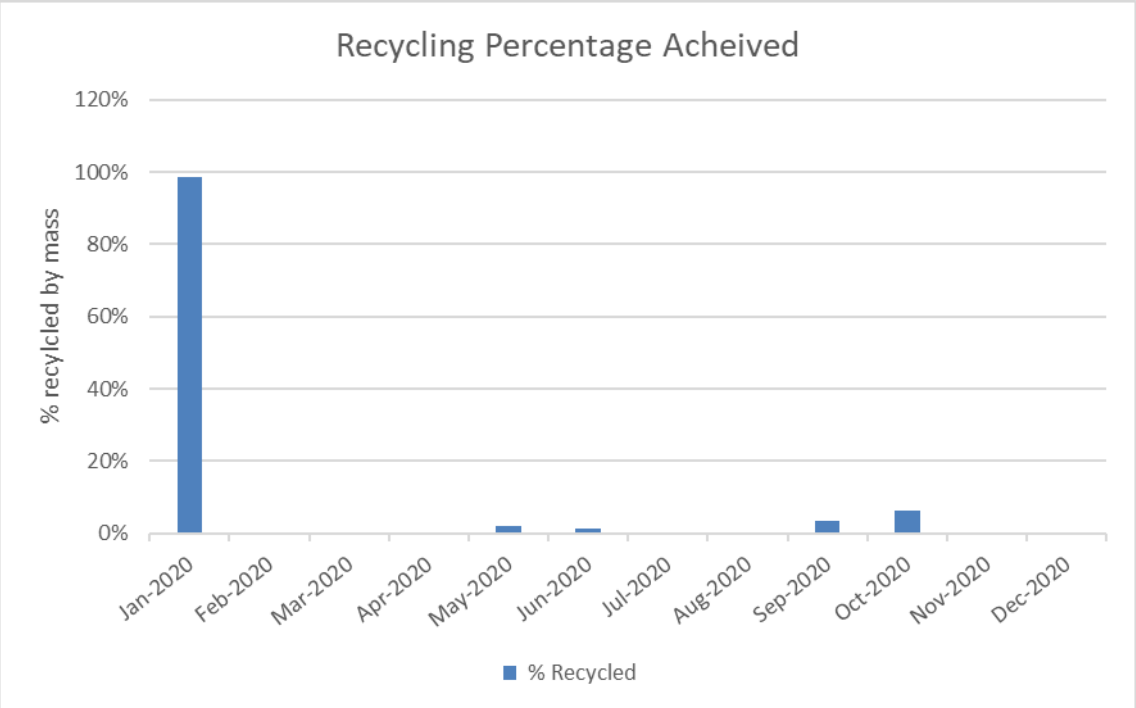

Figure M 2: Lidsdale Siding Recycling Percentage Received for 2020

Historical waste information for Lidsdale Siding is shown in Table M 2 and Figure M 3 - Figure M 5.

Table M 2: 2014 – 2020 Waste Quantities by Stream

	Hazardous Recycled				Non-hazardous Recycled		Hazardous Disposed	Non-hazardous Disposed	Totals		
	Waste oil (kL)	Oily water (kL)	Oil filters (Tonne)	Effluent (kL)	Paper & cardboard (Tonne)	Scrap steel (Tonne)	Oily rags / absorbents (Tonne)	Mixed solid waste (Tonne)	Total waste (Tonne)	Recycled waste (Tonne)	Percent recycled (%)
2014	1.80	-	0.93	157.50	0.22	14.96	0.19	108.11	283.70	175.41	62%
2015	-	-	-	-	0.07	-	-	1.87	1.94	0.07	4%
2016	-	-	-	-	-	-	-	2.48	2.48	-	0%
2017	3.50	1.00	-	-	0.03	-	-	9.60	14.13	4.53	32%
2018	-	-	-	-	-	-	-	3.81	3.81	-	0%
2019	-	-	-	-	0.56	29.96	-	3.67	34.19	30.52	89%
2020	-	-	-	-	0.10	10.31	-	6.27	16.68	10.41	62%

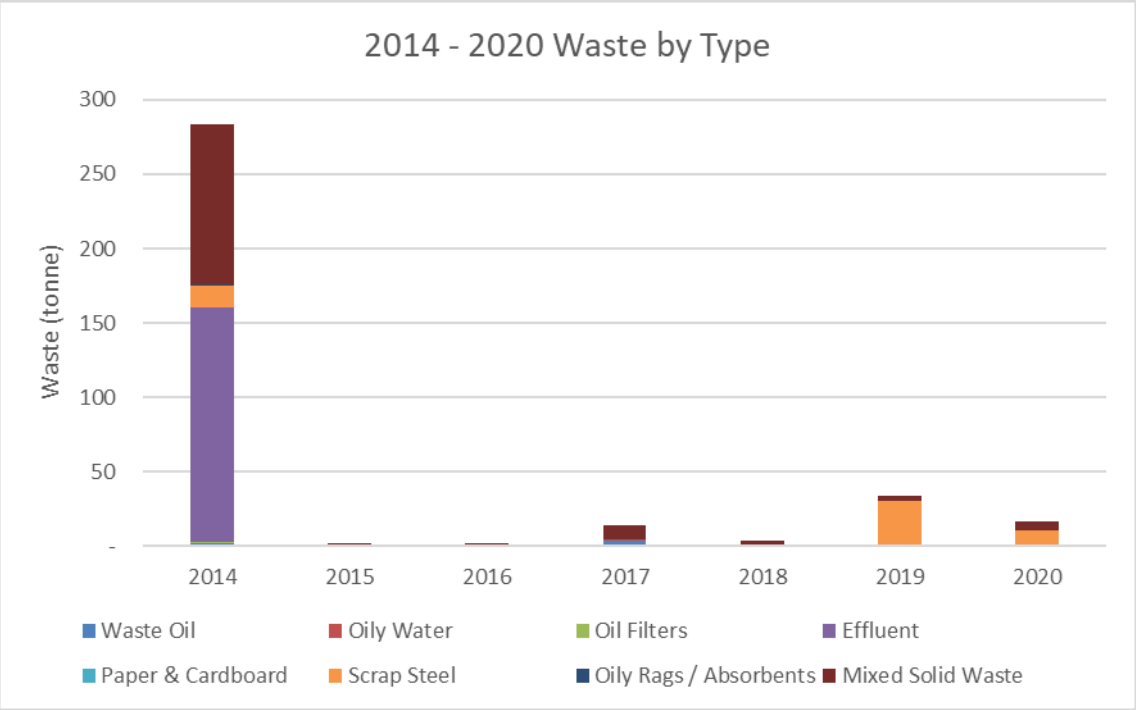

Figure M 3: Lidsdale Siding Waste by Type and Year for 2014 - 2020

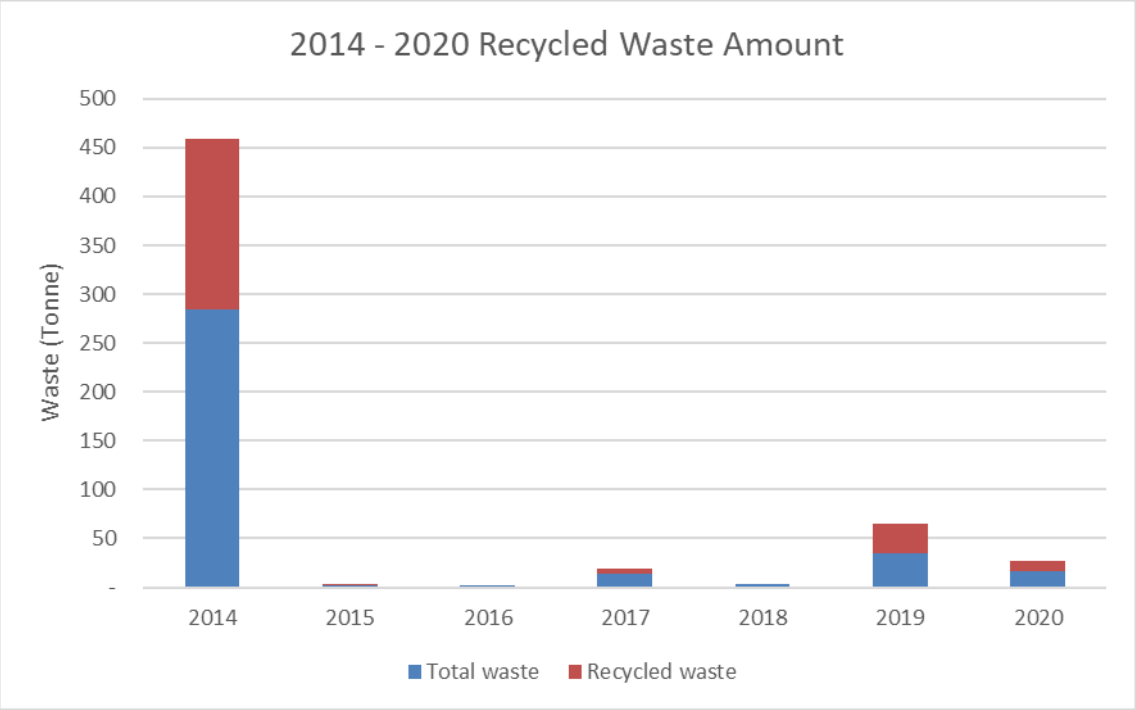

Figure M 4: Lidsdale Siding Recycled Waste Amount 2014 - 2020

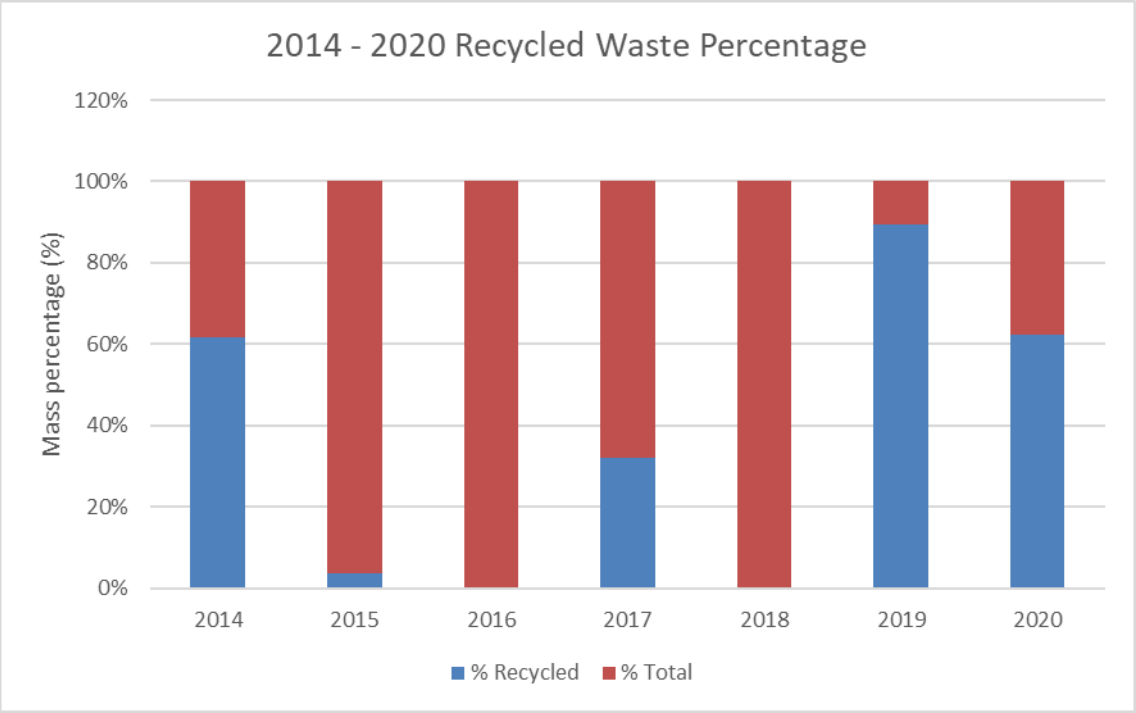

Figure M 5: Lidsdale Siding Recycled Waste Percentage 2014 - 2020

Table M 3 below outlines the Centennial Coal Western Disposal locations.

Table M 3: Centennial Coal Western Disposal Locations

REFERENCE	WASTE TYPE	TRANSPORT / DISPOSAL/ TREATMENT FACILITY
DL01	20L and 205L Drums/Aerosol Cans	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL01	Hydraulic Hoses	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL01	Oily Rags/Absorbents	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL01	Acids/Solvents/Paints/Degreaser	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL01	Hydrocarbons (Oil / Grease)	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL01	Adhesives/Resins	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL02	Batteries	Renewable Oil Services will transport to SIM's Metal for Recycling - Transport License: 12991 - SIMS Metal Recyclers Facility License: 11264
DL03	E-Waste	Matthews Metal Management - 20132
DL03	Cardboard	JR Richards & Sons - Transport Licence: L10415 Ophir Road Resource Recovery Centre - Facility License: 5956
DL03	Co-mingled Recyclables	JR Richards & Sons - Transport Licence: L10415 Ophir Road Resource Recovery Centre - Facility License: 5956
DL03	Paper	JR Richards & Sons - Transport Licence: L10415 Ophir Road Resource Recovery Centre - Facility License: 5956
DL03	Glass	JR Richards & Sons - Transport Licence: L10415 Ophir Road Resource Recovery Centre - Facility License: 5956
DL03	Plastic Packaging	JR Richards & Sons - Transport Licence: L10415 Ophir Road Resource Recovery Centre - Facility License: 5956
DL03	Asbestos	JR Richards & Sons - Transport Licence: L10415 Lithgow City Council Landfill Facility - Facility Licence: 6004
DL03	Contaminated Soil	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL04	Chemicals	Renewable Oil Services will transport to a licensed facility for disposal - Transport License 12991 - Hazmat Services Facility License: 13255
DL04	Radioactive Material	Antso - Australian Nuclear Science & Technology Organisation
DL05	Effluent	Bettergrow PTY LTD. Licence: 12529
DL05	Drilling Mud	Bettergrow PTY LTD. Licence: 12529
DL05	Oily Water	Bettergrow PTY LTD. Licence:12529
DL05	Wash Bay Sludge	Bettergrow PTY LTD. Licence:12529
DL05	Waste Coolant	Renewable Oil Services - Transport License: 12991 - Facility License: 13092
DL06	Green Waste	JR Richards & Sons - Transport Licence: L10415 Lithgow City Council Landfill Facility - Facility License: 6004
DL07	Medical/ Sanitary	ISS Washroom Facilities -
DL08	Oil Filters	Renewable Oil Services - Transport License: 11399 - Facility License: 11658
DL09	Printer Toner Cartridges	Close the Loop Recycling Services
DL10	Putrescible Waste	JR Richards & Sons - Transport Licence: L10415 Lithgow City Council Landfill Facility - Facility License: 6004
DL10	Wooden Pallets	JR Richards & Sons - Transport Licence: L10415 Lithgow City Council Landfill Facility - Facility License: 6004
DL11	Putrescible Waste	JR Richards & Sons - Transport Licence: L10415 Lithgow City Council Landfill Facility - Facility License: 6004
DL12	Scrap Metal	Sims Metal - Facility License : 11264
DL13	Secure Documents	Iron Mountain Secure Document destruction
DL14	Fluro Tubes	Dolomatrix Australia (Chemsal) - Facility License No: 12628
DL15	Tyres	C&R Tyre Recycling - Facility License No: 11686
DL16	Concrete	Dencol Sand & Soil Centre - Licence No: 20298
DL16	Conveyor Belt	Andromeda Industries
DL16	Diesel Particulate Filters - Contaminated	JR Richards & Sons - Transport Licence: L10415 Suez Resource Recovery Centre Kemps Creek - Facility Licence: 4068

Appendix N – Bushfire Management Information

Performance against Environmental Assessment

Bushfire was identified as a hazard for the Lidsdale Siding site in the Environmental Assessment but was considered a low risk due to the existing separation between vegetated areas to the north of the site.

There is also adequate separation between the facility and other industrial uses along Main Street. No additional mitigation strategies were considered warranted.

Firebreaks were maintained at Lidsdale Siding in 2020 as part of normal grounds maintenance activities.

Fire control equipment was inspected monthly as part of normal operational maintenance.

No fires occurred in the surrounding area that the Rural Fire Services and emergency services required assistance for.

No other activities related to bushfire management were undertaken in 2020.

Appendix O – Rehabilitation Information

Performance against Environmental Assessment

The Environmental Assessment stated that should no further use of the Lidsdale Siding site be found when operations cease, the site would be closed, decommissioned and rehabilitated.

Rehabilitation measures include:

- Removal of the rail spur line and shunt
- Removal of all infrastructure
- Removal of carbonaceous and contaminated materials
- Filling the reclaim tunnel and other physical features of the siding
- Rehabilitation of the remaining disturbed areas.

None of the above measures applied during the reporting period and will be implemented at closure.

The rehabilitation and closure objective for the site is to create stable, non-polluting post closure landforms that allow the achievement of the post closure land use.

Lidsdale Siding has approval to carry out coal handling and train loading operations on the site until 31 December 2042.

Appendix P – Community Information

Performance against Environmental Assessment

The social impacts discussed in the Environmental Assessment include noise, dust and visual impacts. These are addressed in their respective sections in this report.

Community Information Line

A community information line is available for Lidsdale Siding to receive calls from the local community. Lidsdale Siding's community information line (6355 9500) operates 24 hours a day, 7 days a week.

Community Consultation Committee Meetings

The Central Western Region Community Consultative Committee (CCC), was established in response to Project Conditions of Approval for Centennial Coal's mines and related activities in the Central West region of NSW. Since 2014, the CCC combines the previously established Angus Place, Springvale and Western Coal Services CCCs to facilitate a single channel of communication regarding current operations in the area.

The purpose of the CCC overall is to provide an independent forum for consultation between the community and mine representatives, as well as for sharing information and receiving feedback. The Committee aims to meet four times a year.

The committee is chaired by an Independent Chair. It is composed of:

- At least three representatives from the local community;
- One representative from Lithgow Council; and
- Four representatives from Centennial Coal, including the Environment and Community Officer.

Community Consultation Committee (CCC) meetings were held in April and November 2020. An extraordinary CCC meeting was held in August 2020 to provide an overview of the Angus Place Mine Extension. The April 2020 meeting had not been held in person due to COVID-19 precautions, but presentations had been distributed electronically.

No specific issues action or management actions were identified for Lidsdale Siding by the committee.

CCC meeting minutes for 2020 are uploaded to the Centennial Coal website and can be viewed at: https://data.centennialcoal.com.au/domino/centennialcoal/cc205.nsf/Published.xsp?site=Lidsdale%20Siding&type=Community%20Consultative%20Committee&date=All

Community Complaints

In accordance with Schedule 5, Condition 11A, Ivanhoe Coal Pty Ltd is required to make a complaints register available monthly on the Centennial website. Figure P 1 graphically presents community complaints by category from May 2013 to December 2020 (PA 08_0223 granted 3 May 2013).

No complaints were received relating to operations at Lidsdale Siding during the reporting period.

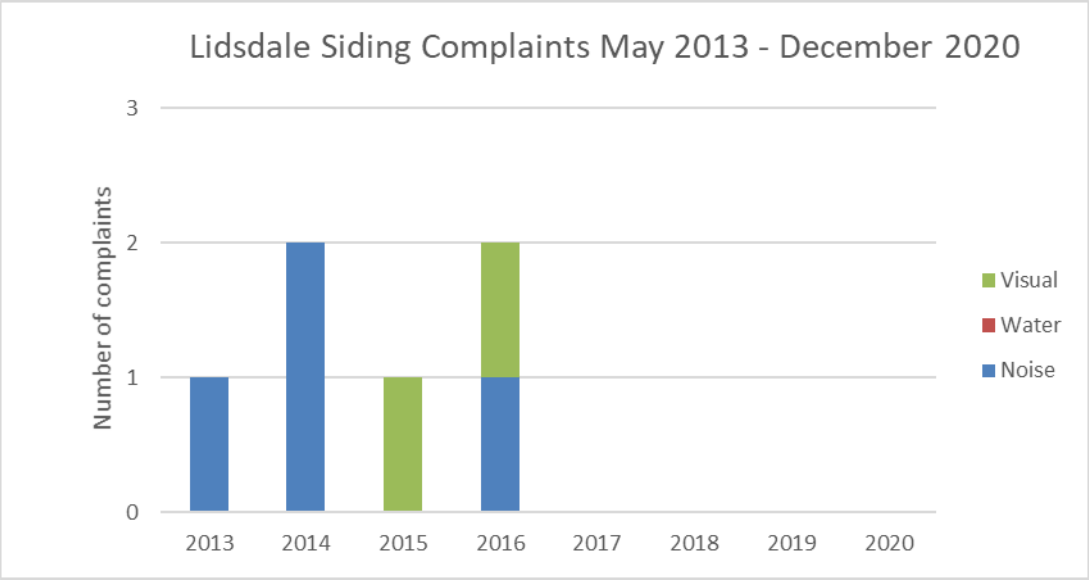

Figure P 1: Lidsdale Siding Historical Complaints

The community complaints register is provided in Table P 1 and can be viewed at https://data.centennialcoal.com.au/domino/centennialcoal/cc205.nsf/Published.xsp?site=Lidsdale%20Siding&type=Community%20Complaints%20Register&date=All.

Table P 1: Lidsdale Siding Community Complaints Register

Period	Complaint Reference Number	Complaint Date	Complaint Information	Springvale Coal PTY Limited Response
January 2020	-	-	Nil complaints received	-
February 2020	-	-	Nil complaints received	-
March 2020	-	-	Nil complaints received	-
April 2020	-	-	Nil complaints received	-
May 2020	-	-	Nil complaints received	-
June 2020	-	-	Nil complaints received	-
July 2020	-	-	Nil complaints received	-
August 2020	-	-	Nil complaints received	-
September 2020	-	-	Nil complaints received	-
October 2020	-	-	Nil complaints received	-
November 2020	-	-	Nil complaints received	-
December 2020	-	-	Nil complaints received	-

Appendix Q – Independent Audit Information

Schedule 5, Condition 9 of PA 08_0223 requires Ivanhoe to commission an IEA within 12 months of completion of the upgrade to the coal loader, and every three years thereafter.

MCW Environmental have conducted each of the first two IEAs in accordance with condition 9 schedule 5 of the Lidsdale Siding Upgrade PA 08_0223. These IEAs were completed on 15 December 2015 and 19 November 2018.

The IEAs assessed compliance with statutory requirements of PA 08_0223, EPL 5129, the Lidsdale Siding Upgrade Project statement of commitments, and relevant management plans.

For the 2018 audit, DPIE provided written approval of the IEA and the final audit report and Centennial response to audit recommendations were published to the internet in January 2019.

A Response Action Plan was maintained in 2020 to complete/address recommendations from the 2018 IEA.

Audit recommendations and the progression of Centennial's response/action as of 31 December 2020 are provided in Table Q 1 below.

When feedback and any further actions/information from the DPIE has been finalised and returned (in 2021), Centennial will publish the approved outcomes and reports.

The next LS IEA is planned for quarter 4 2021.

Table Q 1: Independent Audit Summary

Condition Number	REC #	Recommendation	Response	Timing
Project Approval PA 08_0223				
2.4	REC-2018-01	Follow up on the response to the DPE request in the 2015 Annual Review that was required to be submitted by 30 September 2016. Provide to DPE if required.	It is understood that no outstanding works or information is outstanding to the DPE from the 2015 Annual Return.	Completed.
3.5	REC-2018-02	Implement remaining recommendation from the Independent Noise Audit, i.e. a comparison of SWL measurements of plant and equipment, against the benchmark levels in the EA and report status of implementation in the 2018 Annual Review.	Sound power level (SPL) survey results for plant and equipment were included in the 2018 Lidsdale Siding Annual Review. Results were compared against historical SPLs and against assumed levels in the Lidsdale Siding Noise Impact Assessment (NIA, Hatch, 2012).	Completed.
3.7	REC-2018-03	Maintain training records for train drivers attending the project site with respect to noise management (when loading operations recommence).	Training and procedures for train drivers entering Lidsdale Siding are controlled and implemented by Pacific National. Training records are maintained by Pacific National.	Completed.
3.7	REC-2018-04	Undertake sound power level testing in 2018 and ensure the report compares it with benchmark levels used in the EA as required by PA Condition 3.7(d).	SPL testing completed in 2018 with report addressing recommendation.	Completed
3.8	REC-2018-05	Report progressive long-term PM10 and TSP results in monthly environmental monitoring data reports.	Implemented as recommended. Ongoing requirement.	Completed (Commenced - November 2018) ongoing requirement
3.9	REC-2018-06	Progressively stabilise exposed soil stockpiles and bunds using suitable techniques	Stabilisation works of bunds identified in audit were reshaped and stabilised with a hydro seeded grass mix with works completed in Q4 2018.	Completed
3.10	REC-2018-07	Obtain approval from EPA and DPE regarding proposed long-term changes to dust monitoring locations as outlined in the approved July 2018 AQGGMP.	Approval is obtained only when transitioning from STP to LTP.	N/A

Condition Number	REC #	Recommendation	Response	Timing
3.14	REC-2018-08	Confirm the works at the Main Street Wallerawang level crossing have been undertaken in consultation with, and to the satisfaction of Lithgow City Council and the relevant rail authority and/or its agent.	Confirmation on the proposed works at the Main Street Wallerawang level crossing was gained from: • LCC Group Manager Operations in an email dated 15/10/2013; and • John Holland (rail authority's agent) Project Engineer in an email dated 14/10/2013.	Completed
3.15	REC-2018-09	Ensure the 2018 Annual Review and the next revision of the Water Management Plan updates the name of water access licence, WAL25774 to 10AL2992.	The water access licence in question is known as WAL25774 and not 10AL2992. The name remained unchanged in the 2018 Annual Review and 2018 revision of the Lidsdale Siding Water Management Plan.	Completed
3.16	REC-2018-10		No recommendation listed	N/A
3.18	REC-2018-11	Confirm with the EPA the preferred remedial strategy for the site and implement the strategy.	The preferred remedial strategy was submitted in February 2020 with a response received from EPA in November 2020. The response is being considered and the EMP is to be updated accordingly.	Completed
3.20	REC-2018-12	Re-send the 2016 Flood Management Plan and 2014 Flood Study to DPE to request approval of the plan in accordance with Schedule 3 Condition 20.	The 2016 Flood Management Plan and 2014 Flood Study were submitted to DPIE as appendices to the 2019 Lidsdale Siding Water Management Plan.	Completed.
3.20	REC-2018-13	Undertake a review of the implementation status of Flood Mitigations outlined in the 2014 Flood Study and provide an updated implementation table in the 2018 Annual Review.	A flood mitigation measure implementation table was included in the 2018 Lidsdale Siding Annual Review. Two measures remain in relation to the removal of Willows at Pipers Flat Creek which will be ongoing.	Completed
3.21	REC-2018-14	Obtain approval for the 2017 WMP from DPE, in consultation with EPA, DPI Water and Water NSW.	The 2019 Lidsdale Siding WMP was submitted for consultation in May 2019. Consultation comments were received from DPIE and WaterNSW. Comments were addressed, the WMP revised and submitted to DPIE for review and approval.	Q1 2021.

Condition Number	REC #	Recommendation	Response	Timing
			The WMP was again submitted in Q1 2021 for regulatory approval.	
3.21	REC-2018-15	Investigate and implement measures to clear the area north-west of the rail of remaining coaly material and to maintain in a clean state to enable clean water runoff.	Stabilisation works of bunds identified in audit were reshaped and stabilised with a hydro seeded grass mix with works completed in Q4 2018. Clean and dirty water separation works implemented at identified area.	Completed
3.21	REC-2018-16	Investigate and implement measures to construct an appropriate bund and drain inside the western boundary fence to divert water into small sediment detention basins. Consult the Flood Study.	Stabilisation works of bunds identified in audit were reshaped and stabilised with a hydro seeded grass mix with works completed in Q4 2018. Clean and dirty water separation works implemented at identified area. The 2019 Lidsdale Siding WMP was submitted for consultation in May 2019. Consultation comments were received from DPIE and WaterNSW. Comments were addressed, the WMP revised and submitted to DPIE for review and approval.	Completed
3.21	REC-2018-17	Investigate and implement additional sediment controls and/or regular maintenance under the conveyor downgradient of the coal stockpile to minimise the amount of coal fines entering the dirty water dam.	Area was maintained with initiatives implemented to minimise sedimentation with works completed in Q4 2018. Clean and dirty water separation works implemented at identified area. The 2019 Lidsdale Siding WMP was submitted for consultation in May 2019. Consultation comments were received from DPIE and WaterNSW. Comments were addressed, the WMP revised and submitted to DPIE for review and approval.	Completed
3.21	REC-2018-65	Implement REC-2015-34 from 2015 IEA, including: A procedure for discharging via pump-out should be developed and implemented. The procedure should include sampling of water until results have been received.	The Lidsdale Siding WMP revision for 2018 included a dewatering method for site water storages following rainfall events. Sampling procedures are undertaken and pump out via LDP004 is carried out on the receipt of compliant water quality results.	Completed

Condition Number	REC #	Recommendation	Response	Timing
		Develop and implement an action plan with timeframes to track progress against outstanding mitigation measures in the Water Management Plan.		
3.22	REC-2018-18	Implement a documented Vegetation Disturbance Protocol for works located in areas of mapped EEC.	All works disturbing vegetation in mapped EEC are managed under the Ground Disturbance Permit Management System.	Completed
3.22	REC-2018-19	Review the methodology for Willow control works around Pipers Flat Creek in consideration of the method outlined in LLS letter (dated 16 March 2017) and requirements of the Flood Study. Update the BMP with the methodology to be implemented as a result of the review. Include an updated timetable for the Willow control works in the BMP.	Willow control works are in year 4 of a 5-year program and have been completed in conjunction with methodology and requirements of flood studies and LLS partnership advice and letters. 2018 and 2019 works program have been reviewed. Changes to methods have been updated in a revised BMP undertaken in accordance with the 2018 IEA and Annual Review Management Plan review processes. The WRBMP is yet to be approved.	Completed
3.23	REC-2018-20	Provide the current version of the WRACHMP to the Registered Aboriginal Parties.	Item formally tabled at CEY WRCHMC Regional Meeting October 2018.	Completed
3.23	REC-2018-21	Update the WRHHMP revision register to detail the changes made for each revision (similar to that noted in the Consultation Log Attachment 8).	The revision register has been included and will be shown upon the approval of the next revision of the WRHHMP.	Completed
3.23	REC-2018-22	Follow up on approval from DPE regarding the June 2018 revision of the WRHHMP.	CEY has dedicated approvals General Manager who has established joint workflow process with DPE for all CEY Management Plan Revision and submissions. LS is included in this process.	2021 – (to be aligned with PA 08_0223 Modification triggered Management Plan reviews)
3.23	REC-2018-23	Ensure the minutes for the Western Region Aboriginal Cultural Heritage Committee Meeting include Lidsdale Siding as a stand-alone site discussed.	Lidsdale Siding is reported under the operational heading of Springvale Coal Services Operations including the LS and WCS operations.	Completed

Condition Number	REC #	Recommendation	Response	Timing
			Item listed for consideration in continual improvement process.	
3.23	REC-2018-24	Update the WRACHMP to include site specific measures for Lidsdale Siding in line with SoC-11. Update figures to define the extent of the operational area, the heritage artefacts located inside the operational area and study area.	Statement of Commitments measures in the LS EIA have been included and addressed in the WRACHMP.	Completed
3.23	REC-2018-25	Update the WRACHMP to include a ground disturbance protocol, which includes a review of AHIMS sites prior to issue of permits for ground disturbing work Train staff in the protocol.	The WRACHMP includes a ground disturbance flowchart which requires an inspection by a suitably qualified archaeologist who will include a review of the AHIMS sites. All works disturbing vegetation in and potentially impacting AHIMS sites are managed under the Ground Disturbance Permit Management System.	Completed
3.26	REC-2018-26	Annual Reviews should compare total waste and % recycled year to year (going forward).	A series of tables and graphs have been included in the 2018 Lidsdale Siding Annual Review comparing total waste and recycled amounts.	Completed
3.29	REC-2018-27	Ensure Consultation with the CCC is undertaken in respect of the Rehabilitation and Closure Plan.	The Rehabilitation and Closure Plan was tabled at the CCC meeting in November 2019. The RCP was submitted to CCC for comment in September 2019.	Completed
3.29	REC-2018-28	Revise the Rehabilitation and Closure Plan (see suggestions in Schedule 3, Condition 29) and submit the revised Plan to DPE for approval.	The Rehabilitation and Closure Plan was revised and submitted to DPIE for comment in September 2019.	Completed
3.29	REC-2018-29	Follow up on DPE approval of the Rehabilitation and Closure Plan.	The Rehabilitation and Closure Plan was revised and submitted to DPIE for comment in September 2019. Consultation processes were ongoing through 2020 with a final RCP submitted for approval in January 2021.	Completed
3.31	REC-2018-30	Investigate compliance with Condition 3.31 for the 2015 IEA and review and revise the Rehabilitation bond to the satisfaction of the Secretary within 3 months of the 2018 IEA. Ensure the REC bond is in place to ensure compliance with Condition 3.30.	The Rehabilitation and Closure Plan was revised and submitted to DPIE along with the revised Rehabilitation Bond in September 2019.	Completed

Condition Number	REC #	Recommendation	Response	Timing
4.2	REC-2018-31	Ensure landholder notifications are undertaken for any future exceedances of noise and air quality criteria in accordance with PA condition 4.2.	Landholder notifications are completed for all exceedances of noise and air quality criteria in accordance with PA condition 4.2.	Completed – ongoing requirement
5.1	REC-2018-32	Provide a copy of the 2017 Strategy to DPE for information (noting that it is available on the Centennial website)	A revised version of the SCSO EMS was submitted to the Resources Regulator for approval in Q1 2021.	Completed
5.1	REC-2018-33	Update the EMS to reflect current arrangements i.e. construction complete (section 1) and WR CCC established (Section 5.3.3).	The EMS has been updated to reflect the current arrangements in the 2019 version.	Completed.
5.1	REC-2018-34	Update the EMS framework figure with current management plans used at the site.	All current management plans have been listed in Section 1 of the 2019 EMS.	Completed
5.1	REC-2018-35	Update the EMS – Appendix 3 - EPL date (current version is 11 August 2014).	Revised EPL versions have been included in Appendix 3 of the 2019 EMS.	Completed
5.1	REC-2018-36	Update the EMS - Appendix 4 – replace the 2012 version of the Centennial Environment and Community Policy. With the current policy dated 19 March 2018, as available on the Centennial website.	The current Centennial Environment and Community Policy has been included in Appendix 4 of the 2019 EMS.	Completed
5.1	REC-2018-37	Undertake annual reviews of objectives and targets and an annual operational environmental risk assessment as outlined in the EMS.	A risk assessment workshop was completed between Centennial Coal and GHD in 2017 and revised in 2018. The risk assessment is included as Appendix 5 in the 2019 EMS.	Completed
5.1	REC-2018-38	Maintain records of environmental training specific to Lidsdale.	Training records are maintained via PULSE system as part of SCSO Management.	Completed

Condition Number	REC #	Recommendation	Response	Timing
5.2	REC-2018-39	Implement REC-2015-35 from the 2015 IEA, including: • Ensure roles and responsibilities are clear for implementation of mitigation measures and monitoring requirements • Ensure all management plans provide a contingency plan to manage any unpredicted impacts and their consequences (BMP and WRACHMP)	Roles and responsibilities have been incorporated generally into the 2019 EMS. Management Plan summaries are provided with each management plan review as of December 2018 which outline: • Roles and responsibilities for SCSO staff • Monitoring requirements • Commitments • Review requirements • Reporting and update requirements	Completed
5.2	REC-2018-40	Review the periodic review schedule in all plans to ensure consistency (i.e. plans have conflicting schedules: annual, 3 yearly, and as per PA 5.5).	Different plans have different review schedules due to regulatory requirements and site preference. Review schedules will remain inconsistent.	Completed
5.2	REC-2018-41	Investigate the management plan review timeframes for the Western Region plans as outlined in the different project approvals for all the relevant sites. Identify efficiencies and develop a plan for meeting timeframes within all project approvals.	CEY has dedicated approvals General Manager who has established joint workflow process with DPE for all CEY Management Plan Revision and submissions. LS is included in this process.	Completed
5.2	REC-2018-66	Update the Plans / Figures appended to the PIRMP to clearly and legibly show the location of potential pollutants on the premises. Ensure the cross referencing of Figures correlates with those included in the PIRMP. Update the PIRMP Risk Assessment (dated 2012).	Figures and the risk assessment in the PIRMP have been updated and incorporated into the 2019 version.	Completed
5.2	REC-2018-69	Train relevant staff in the requirements of the PIRMP annually and maintain training records.	Training records are maintained via PULSE system as part of SCSO Management.	Completed – ongoing requirement
5.4	REC-2018-42	Consider amending (by modification) the due date of the Annual Review specified in Schedule 5 Condition 4, from the end of February to end March, to address DPE comments on the 2015 Annual Return and ensure consistency with other Centennial operations in the western region.	Consideration and application to align dates was completed in 2017/18. Advice from DPE was that dates remain as per PA. Item for consideration in any future MOD's.	Completed Triggered if LS MOD undertaken Requested to be included in LS Unloader

Condition Number	REC #	Recommendation	Response	Timing
				MOD but request denied (GM Approvals)
5.4	REC-2018-43	Continue to implement improvements to the Annual Review report in consultation with DPE.	Annual Reviews are completed to the Regulatory Guideline with suggestion and directions for improvement undertaken annually following response from DPE. Informal feedback from DPE Representatives is considered and implemented where beneficial and consistent.	Completed
5.5	REC-2018-44	Provide the revised Environmental Management Strategy and Rehabilitation and Closure Plan to DPE for approval within 3 months of this audit.	Final versions of the RCP and SCSO EMS were submitted for regulatory approval in Q1 2021 following reviews and consultation.	Completed
5.7	REC-2018-45	Ensure all incidents are recorded in ECD. Update ECD with missing incidents as per Appendix A of the 2018 IEA, Condition 7, Schedule 3.	All incidents are recorded in ECD. Reconciliation with ECD and recorded incidents is undertaken annually during the EPL Annual Return and Annual Review processes.	Completed – ongoing requirement
5.7	REC-2018-46	Ensure all incidents (as defined by the Project Approval) are reported to DPE and any other relevant agencies as soon as practicable.	All incidents are reported to DPE and other regulatory agencies as soon as practicable.	Completed – ongoing requirement
5.11	REC-2018-47	Upload the current approved AQGGMP (June 2018) version on the website.	Uploaded to CEY web.	Completed.
5.11	REC-2018-48	Remove Construction Environmental Management Plans from the website (as construction is complete).	Construction Plans revoked from webpage.	Completed
Environmental Protection Licence 5129				

Condition Number	REC #	Recommendation	Response	Timing
P1.1	REC-2018-49	Obtain approval from EPA and DPE regarding proposed long-term changes to dust monitoring locations as outlined in the approved July 2018 AQGGMP, should the long-term changes be implemented.	Approval is obtained only when transitioning from STP to LTP.	N/A
P1.1	REC-2018-50	Seek approval from DPE and EPA and EPL variation from the EPA for the relocation of the BAM to a sensitive receiver location as outlined in the approved July 2018 AQGGMP.	AQ monitoring and BAM location will be revised during reviews undertaken in accordance with the 2018 IEA and Annual Review Management Plan review processes.	2021 – (to be aligned WRAQGGMP review)
L4.5	REC-2018-51	Global Acoustics to review sampling locations to confirm compliance with EPL condition L4.5 and L4.6 or otherwise seek approval from DPE and EPA to modify this condition for required locations.	Noise monitoring locations were reviewed by GHD and are confirmed to be located as required by condition L4.5 of EPL 5129. It is relevant to note that permission to access each of the residential properties was not obtained and as such, all noise monitoring was conducted on the roadside/boundary fence of each assessment location nearest to Lidsdale Siding noise sources.	Completed
O1.1	REC-2018-52	Develop an environmental management training/induction module and undertake annual re-inductions for staff with responsibilities under environmental management plans for the site.	Induction process in place. The environmental management induction process is to be reviewed with SCSO staff for comment.	Completed – ongoing requirement
O1.1	REC-2018-67	Ensure all sumps are checked after heavy rainfall and pumped out if required to maintain capacity and prevent overflow.	The Lidsdale Siding WMP includes an inspection and pump out method required following heavy rainfall and/or the water storage device reaching designed capacity.	Completed
O3.2	REC-2018-53	Exposed soil stockpiles and bunds to be stabilised by hydroseeding or similar.	Stabilisation works of bunds identified in audit were reshaped and stabilised with a hydro seeded grass mix with works completed in Q4 2018.	Completed
O4.1	REC-2018-54	Install a marker level in the Triangle Dam to show the design storage capacity level that when reached, would trigger proactive pump out in accordance with EPL condition O4.1.	A water level marker was installed in 2019 in Triangle Pond. The LS WMP process for dewatering was updated including the proactive pumping trigger.	Completed
O4.3	REC-2018-55	Conduct a sediment basin capacity assessment to confirm the design storage capacity of the Triangle Dam is being maintained.	The LS WMP 2019 provides the maximum capacity of Triangle Pond at 5.1 ML. Dirty Water management	Completed

Condition Number	REC #	Recommendation	Response	Timing
			structures such as Triangle Pond are periodically desilted to maximise available storage capacity.	
M1.1	REC-2018-56	Include tabulated noise monitoring results in monthly environmental monitoring data reports on the website.	Tabulated noise monitoring results are included in monthly Lidsdale Siding Environmental Monitoring Reports as of January 2019.	Completed
M1.3	REC-2018-57	Ensure the name of the person who collected the sample is included in the Monthly Noise Reports.	The names of those conducting the noise monitoring are shown on GHD monthly noise monitoring reports for Lidsdale Siding.	Completed
M5.2	REC-2018-68	Ensure complaints records are completely closed out including remediation details, implementation process and implementation date. Ensure complaints records are completely closed out including remediation details, implementation process and implementation date.	Complaints records are closed out in ECD.	Completed – ongoing requirement.
M6.2	REC-2018-58	Update the Lidsdale Website with the correct complaints line telephone number.	Website telephone number has been updated.	Completed
G1.1	REC-2018-59	Ensure the EPL is printed and placed in a location outside of the site office.	EPL is available in accordance with licence requirement. Additional all-weather copy under consideration.	Completed.
G1.3	REC-2018-60	Ensure the EPL is printed and placed in a location outside of the site office.	EPL is available in accordance with licence requirement. Additional all-weather copy under consideration.	Completed.
SoC-1	REC-2018-61	Verify the sound power levels reported by Global Acoustics in 2016 and 2017 against the Hatch (2012) sound power levels to check for compliance with SoC-1.	Sound power levels from 2016 and 2017, and results from 2018 have been assessed against 2012 for SOC compliance and results are presented in Annual Review.	Completed
SoC-11	REC-2018-62	Induct staff and contractors on Aboriginal Heritage and No-Go Zones. Maintain induction records.	Specific induction and process in place for all works in proximity to no go zones with induction records maintained.	Completed

Condition Number	REC #	Recommendation	Response	Timing
SoC-11	REC-2018-63	Prior to any works (including Willow control and revegetation maintenance) in areas outside of the main operational area, implement physical and training measures to protect known Aboriginal heritage sites.	Specific controls and process in place for all works outside main operational area to protect AHIMS sites.	Completed

Appendix R – Incidents and Non-Compliances

There were non-compliances at Lidsdale Siding in 2020, all regarding the arrival and unloading of coal trains outside of the PA 08_0223 approved day period.

In total, there were 10 non-compliances which were all non-compliant with:

- PA 08_0223. Schedule 2, Condition 8A
    - *The Proponent may receive and unload trains only during the day period.*
- PA 08_0223. Schedule 5, Condition 7
    - *The Proponent must notify the Planning Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents associated with the project, the Proponent must notify the Planning Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Planning Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.*

Table R 1 provides a summary of all 10 non-compliances during the 2020 reporting period.

Table R 1: Non-compliance summary - PA 08_0223. Schedule 2, Condition 8A

Nature of the non-compliance	**PA 08_0223. Schedule 2, Condition 8A** Train receival and unloading
Date(s) of incident/ non-compliance (if known; if not known state not known)	13/02/2020, 23/02/2020, 25/02/2020, 27/02/2020, 21/03/2020, 07/06/2020, 28/06/2020, 18/10/2020, 09/11/2020, 20/12/2020 (Refer to Appendix G, Table G 2)
The location of the incident/ non-compliance (include a figure if appropriate), if known	Lidsdale Siding project approval boundary (Refer to Appendix A figures)
Detail the cause of the incident/non-compliance, including investigation findings	Receipt of trains before approved times: Train could not be stowed on track due to rail network requirements for approved train paths. Unloading of trains before approved times: The Sunday curfew of 08:00 am start was not applied due to rail network requirements for approved train paths.
Detail action that has been, or will be, taken to mitigate any adverse effects of the incident/ non-compliance	Train scheduling has been optimised to prevent the potential occurrence of trains arriving and/or unloading at LS outside of approved times. Train scheduling constraints have been communicated with the rail provider and are reviewed on a daily basis. Rail network scheduling approvals, delays for train paths and network delays resulted in trains received and unloaded at LS outside of approved times as they were unable to be stowed on the track due to rail network safety issues (for either the received train, or next train movement).

	No adverse effects of the non-compliances have been identified. No community complaints with regards to rail activities at LS were received in the reporting period.
Detail action that has been, or will be, taken to prevent recurrence of the incident/ non-compliance	Train scheduling has been optimised to prevent the potential occurrence of trains arriving and unloading at LS outside of approved times. Train scheduling constraints have been communicated with the rail provider and are reviewed on a daily basis. Rail network scheduling approvals, delays for train paths and network delays may result in trains needing to be received at LS as they are unable to be stowed on the tracks due to rail network safety issues.
Consultation with relevant agency (who, when and the response), or agencies if more than one	Information provided as per distribution of this Annual Review only.

Table R 2: Non-compliance summary - PA 08_0223. Schedule 5, Condition 7

Nature of the non-compliance	**PA 08_0223. Schedule 5, Condition 7** Incident reporting
Date(s) of incident/ non-compliance (if known; if not known state not known)	13/02/2020, 23/02/2020, 25/02/2020, 27/02/2020, 21/03/2020, 07/06/2020, 28/06/2020, 18/10/2020, 09/11/2020, 20/12/2020 (Refer to Appendix G, Table G 2)
The location of the incident/ non-compliance (include a figure if appropriate), if known	Lidsdale Siding project approval boundary (Refer to Appendix A figures)
Detail the cause of the incident/non-compliance, including investigation findings	Incidents (non-compliances) identified in Table R 1 were not reported as soon as practicable or in the form of a detailed incident report to DPIE within the required 7-day period.
Detail action that has been, or will be, taken to mitigate any adverse effects of the incident/ non-compliance	Incidents have been reported in this Annual Review. It is not anticipated that there will be any adverse effects on the environment arising from the non-compliance.
Detail action that has been, or will be, taken to prevent recurrence of the incident/ non-compliance	Future incidents to be reported by way of a detailed written report to the appropriate regulatory authority within 7-days of the incident occurring.
Consultation with relevant agency (who, when and the response), or agencies if more than one	Nil

Table R 3 shows correspondence received from regulatory agencies in regard to regulatory compliance with approvals and what action was taken. No correspondence was received from regulatory agencies during the reporting period, therefore Table R 3 is included for future Annual Reviews reference only.

Table R 3: Summary of Regulatory Actions

Compliance Type	Agency	Reference	Detail	Action
Caution Notices	Nil	Nil	Nil	Nil
Warning Letters	Nil	Nil	Nil	Nil
Penalty Notices	Nil	Nil	Nil	Nil
Prosecutions	Nil	Nil	Nil	Nil

Note: This table includes actions taken by DPIE, RR and the EPA during the reporting period.

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