HUNTER VALLEY
OPERATIONS

MONTHLY ENVIRONMENTAL MONITORING REPORT MARCH 2026

DOCUMENT NUMBER
HVOOC-1797567310-5591

STATUS
Approved

VERSION
1.0

EFFECTIVE
08/07/2026

REVIEW
[Planned Review Date]

OWNER
Superintendent - Environment and Community

TABLE OF CONTENTS

Table of Figures

1 | INTRODUCTION

This report has been compiled to provide a monthly summary of environmental monitoring results for Hunter Valley Operations (HVO). This report includes all monitoring data collected for the period 1 – 31 March 2025 (the 'Reporting Period').

2 | AIR QUALITY

2.1 | METEOROLOGICAL MONITORING

HVO maintains two meteorological stations: 'HVO Corporate' and 'Cheshunt' (refer to **Figure 4**).

2.1.1 | RAINFALL

Rainfall recorded at the HVO Corporate weather station during the period is summarised in **Table 1**. The 2024, 2025 and 2026 trends are shown in **Figure 1**.

Table 1 - Rainfall data for the reporting period

2026	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
March	32.8	149.8

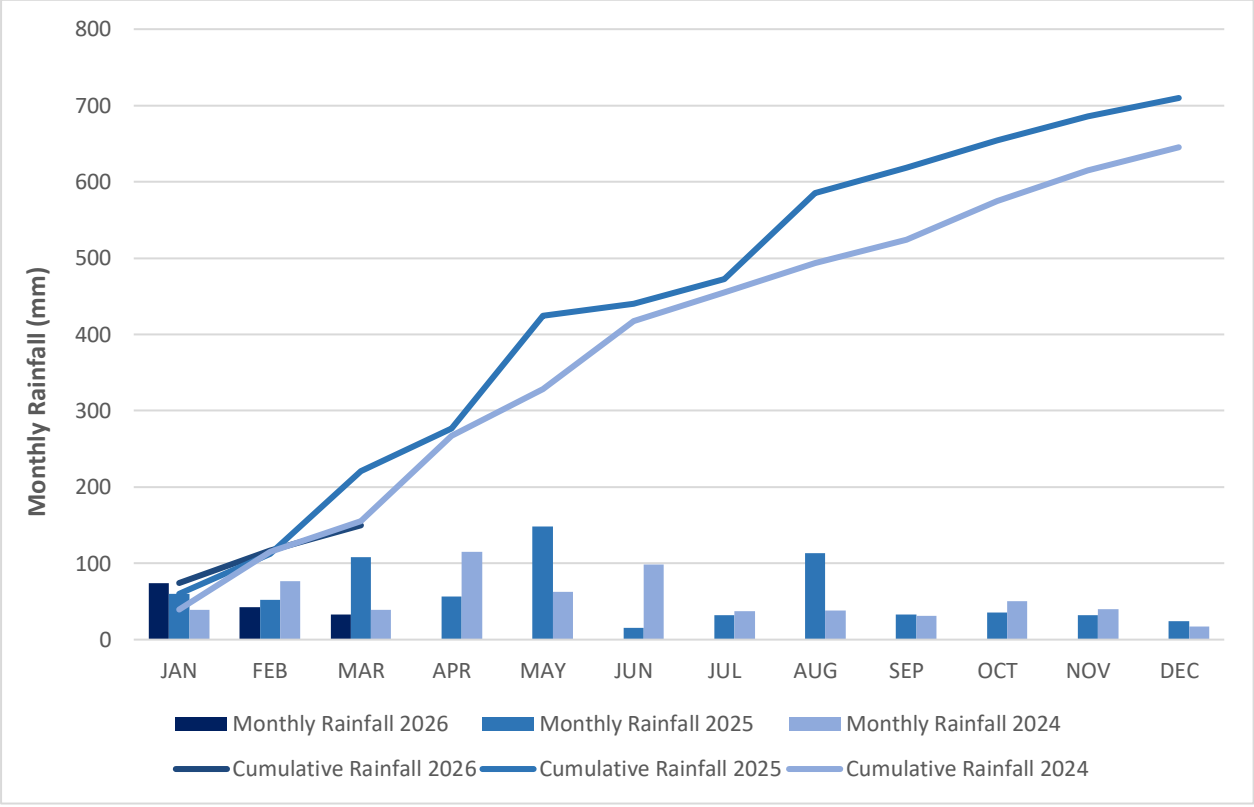

Figure 1 – Rainfall Summary 2024 – 2026

2.1.2 | WIND SPEED AND DIRECTION

The HVO Corporate station recorded winds from the east-southeast and southeast, while the Cheshunt station recorded winds ranging from the southeast and south-southeast as well as northwest during the reporting period as shown in **Figure 2** and **Figure 3**.

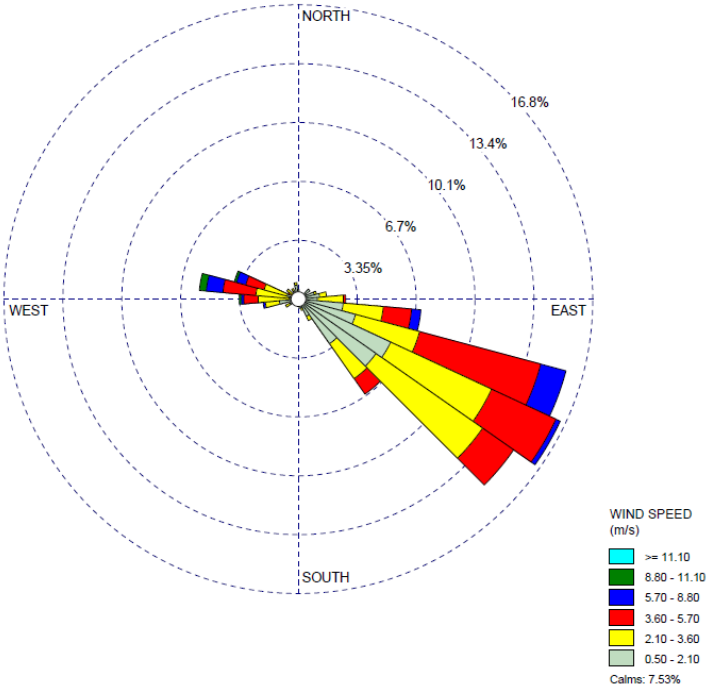

Figure 2 – HVO Corporate Wind Rose for the Reporting Period

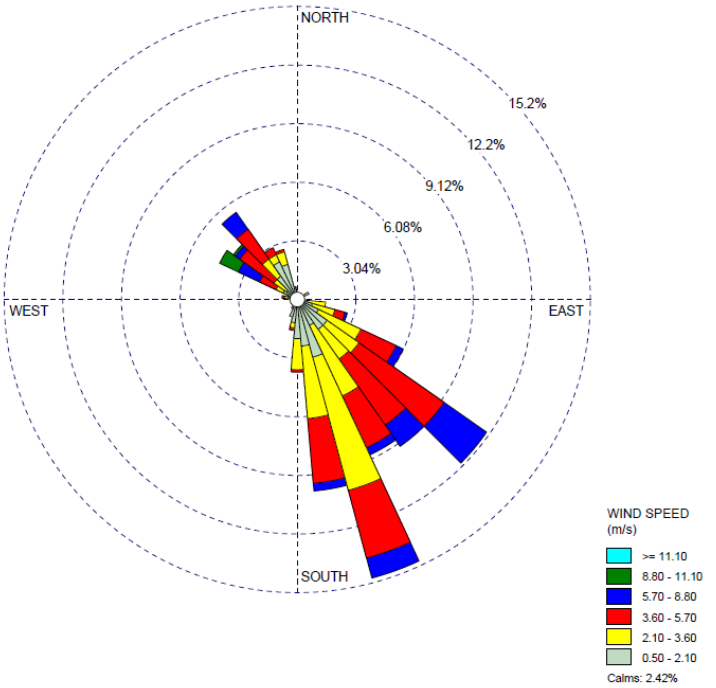

Figure 3 – HVO Cheshunt Wind Rose for the Reporting Period

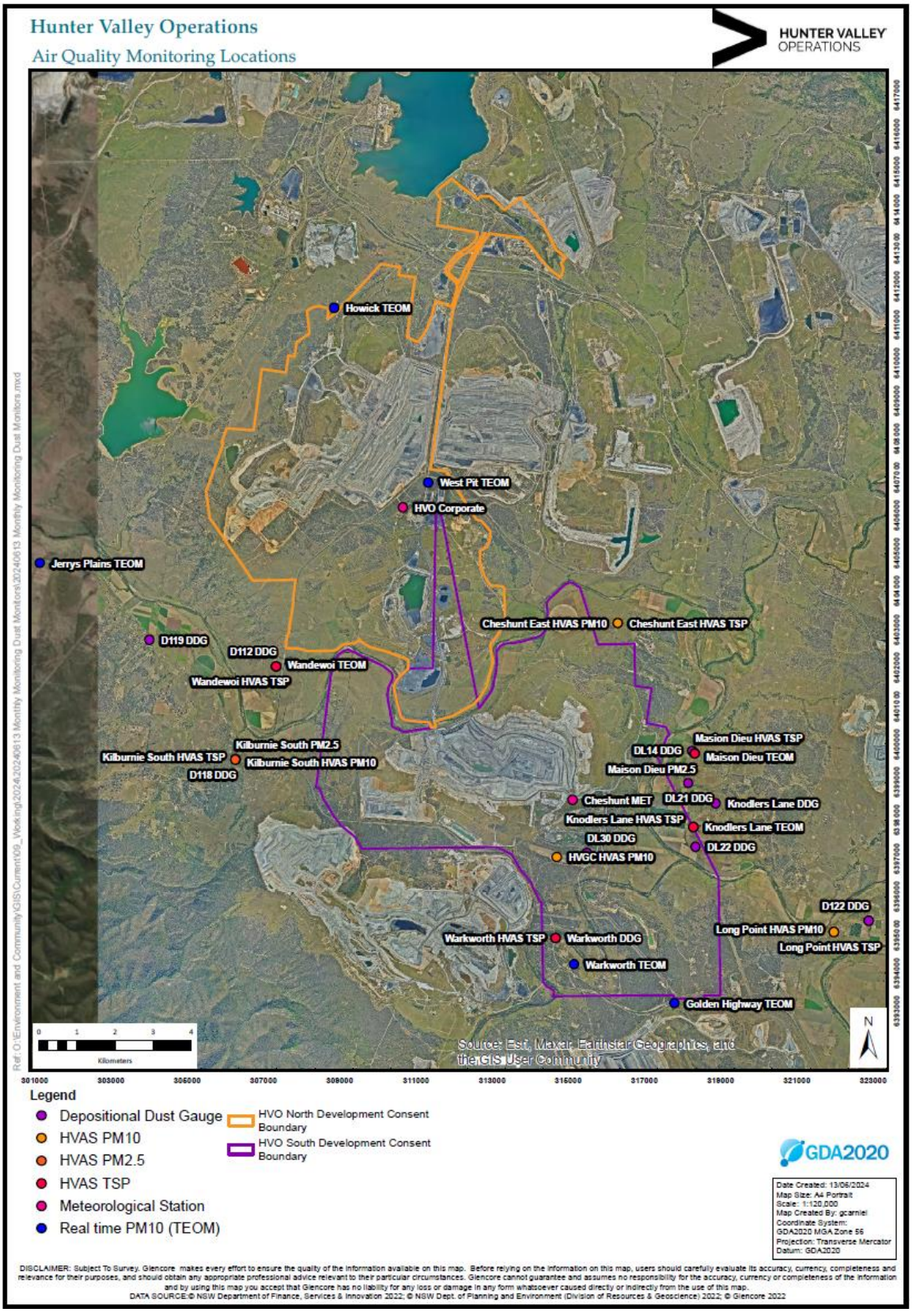

Figure 4 – Air Quality Monitoring Location Plan

2.2 | DEPOSITIONAL DUST

HVO operates and maintains a network of depositional dust gauges situated on private and mine owned land surrounding HVO to monitor regional air quality.

Figure 5 displays insoluble solids results from depositional dust gauges during the reporting period compared against the annual impact assessment criteria. Any monthly results deemed to be contaminated (due to presence of bird droppings, insects, etc.) are not displayed. An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2026 Annual Review.

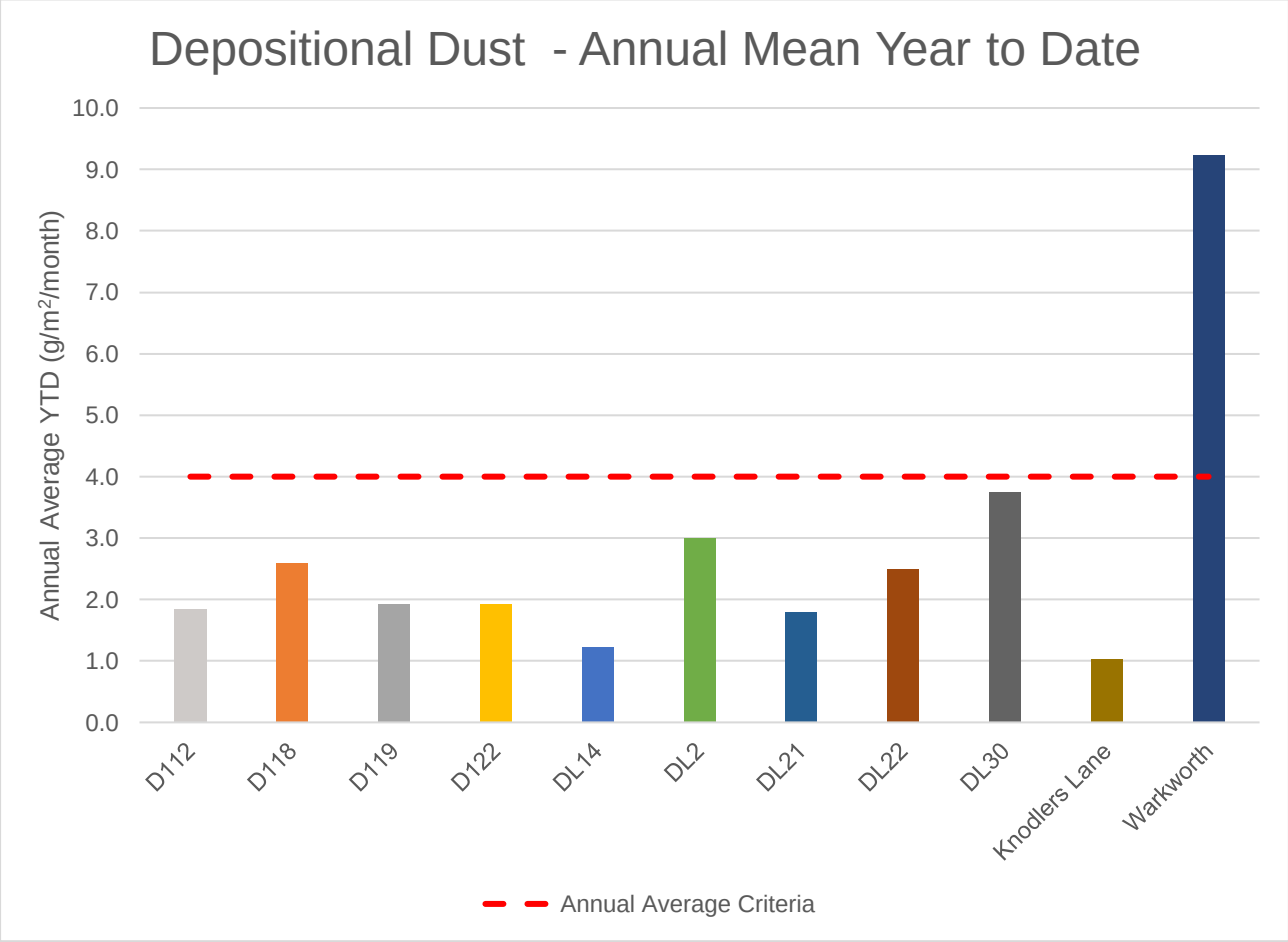

Figure 5 – Depositional Dust Results for the Reporting Period

2.3 | SUSPENDED PARTICLES

Suspended particles are measured by a network of High-Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter <10µm (PM_{10}). The Kilburnie South (Moses Crossing) and Maison Dieu HVAS also monitor Particulate Matter <2.5µm ($PM_{2.5}$). The location of these monitors is presented in **Figure 4**. Each HVAS runs for 24-hours on a six-day cycle.

2.3.1 | HVAS PM_{10} RESULTS

2.3.1.1 | PERFORMANCE AGAINST SHORT TERM IMPACT ASSESSMENT CRITERIA

Figure 6 shows individual PM_{10} results at each monitoring station against the short-term impact assessment criteria of 50µg/m^3. All monitors were below the short-term impact assessment criteria during the reporting period.

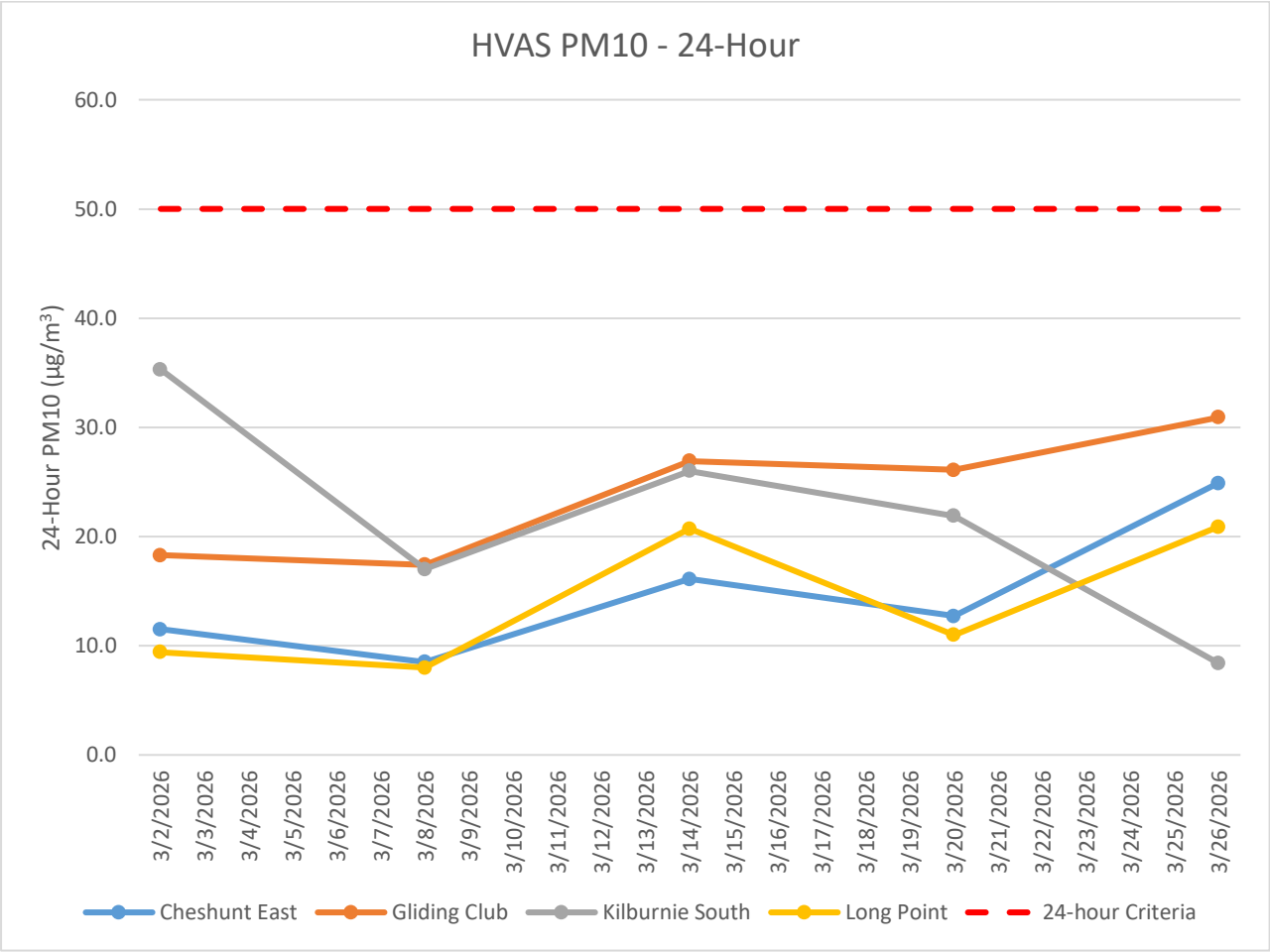

Figure 6 – Individual PM_{10} Results for the Reporting Period

2.3.1.2 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 7 shows the year-to-date annual average PM_{10} results. With the exception of the Cheshunt East being below the north annual average criteria, all monitors were above both the north and south relevant long term impact assessment criteria during the reporting period.

An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2026 Annual Review.

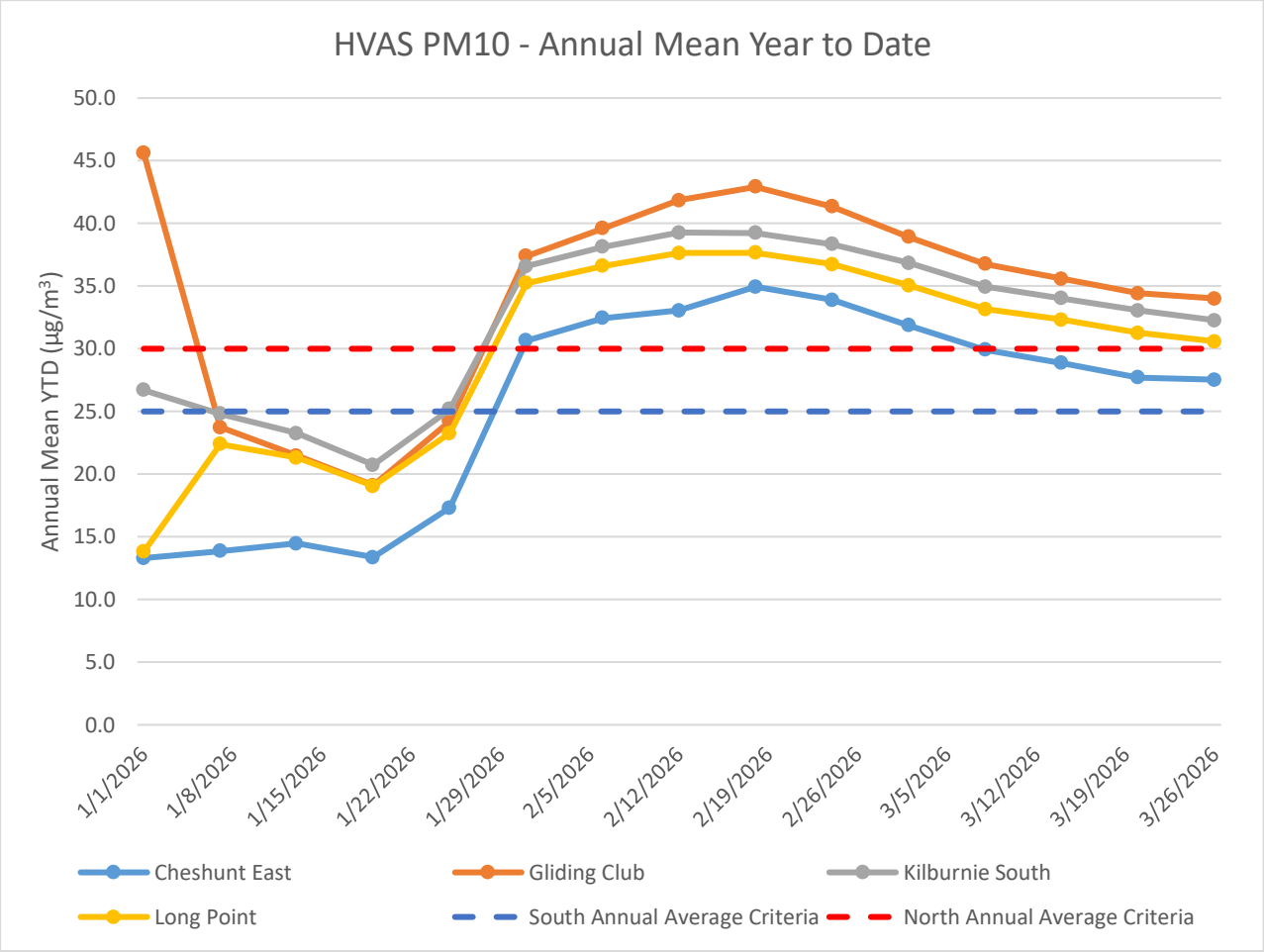

Figure 7 – Year to Date Average PM_{10} as at end of the Reporting Period

2.3.2 | HVAS $PM_{2.5}$ RESULTS

HVO monitors $PM_{2.5}$ at two HVAS locations, Kilburnie South (Moses Crossing) and Maison Dieu.

2.3.2.1 | HVAS $PM_{2.5}$ RESULTS

Figure 8 shows individual $PM_{2.5}$ results at each monitoring station against the HVO South short-term impact assessment criteria of 25µg/m^3. Both monitors were below the relevant short-term impact assessment criteria during the reporting period, with the exception of Kilburnie South on 2 March. These exceedances were investigated internally by HVO and it was found that the maximum calculated HVO contribution was below the compliance limit.

An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2026 Annual Review.

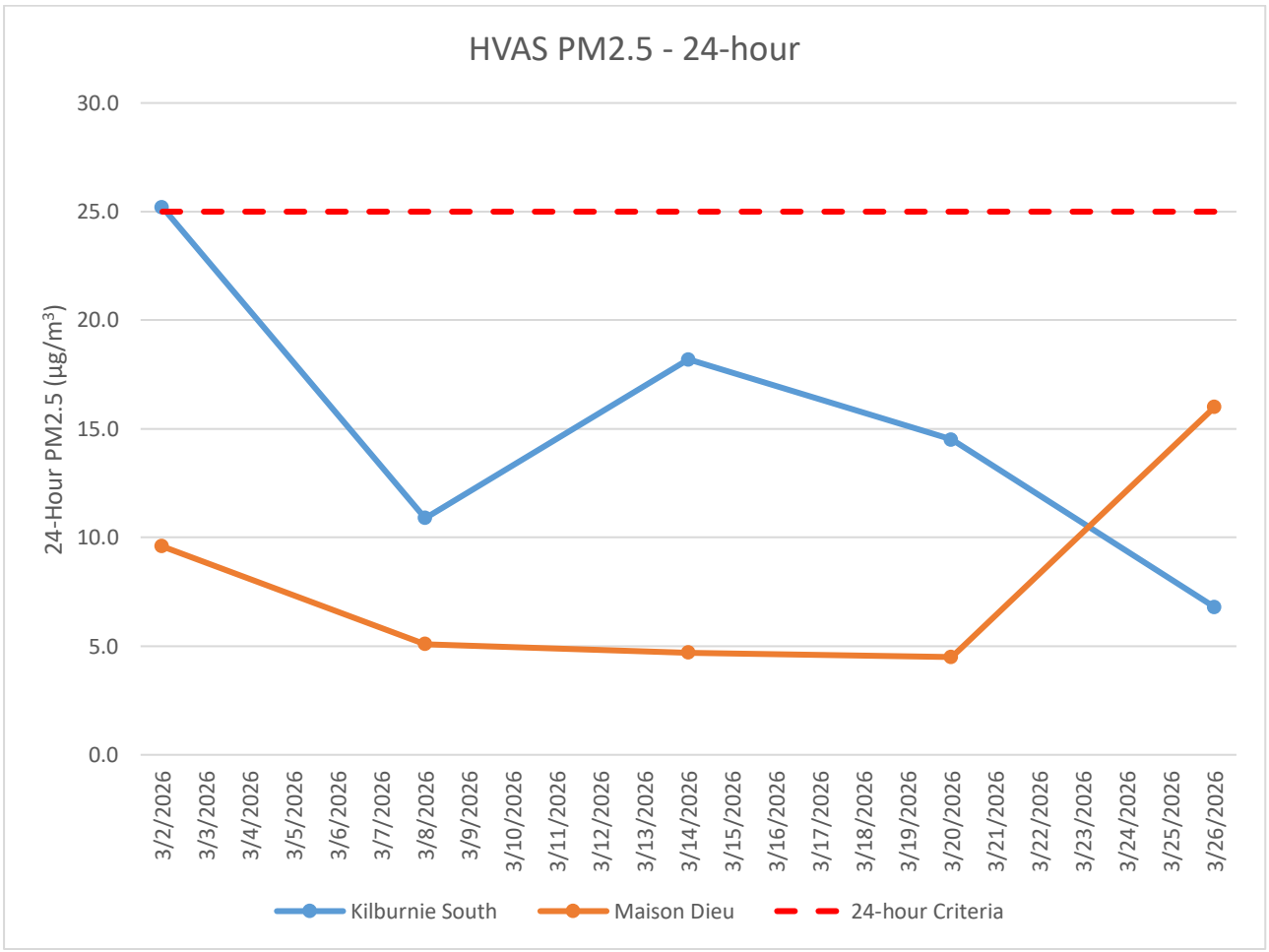

Figure 8 – Results for the Reporting Period

2.3.2.2 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 9 shows the year-to-date annual average $PM_{2.5}$ results. During the reporting period, the annual average year to date results show both Kilburnie South and Maison Dieu above the $PM_{2.5}$ annual rolling mean criteria of 8µg/m^3.

An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2026 Annual Review.

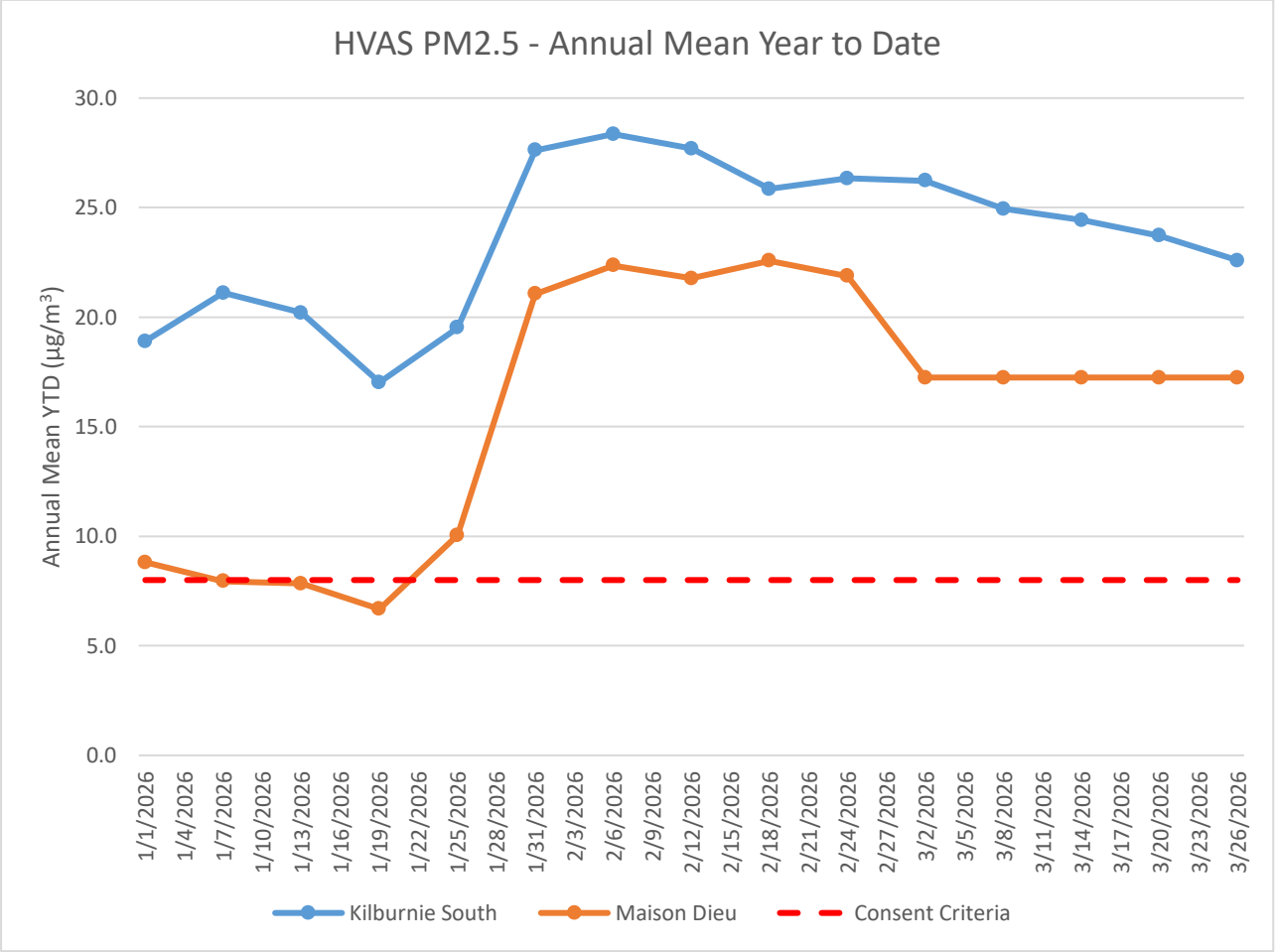

Figure 9 – Year to Date Average $PM_{2.5}$ as at end of the Reporting Period

2.3.3 | TSP RESULTS

2.3.3.1 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 10 shows the annual average TSP results compared against the long-term impact assessment criteria of 90µg/m^3.

With the exception the Kilburnie South, Knodlers Lane, Wandewoi and Warkworth monitor, all monitors were below the relevant long-term impact assessment criteria during the reporting period.

An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2026 Annual Review.

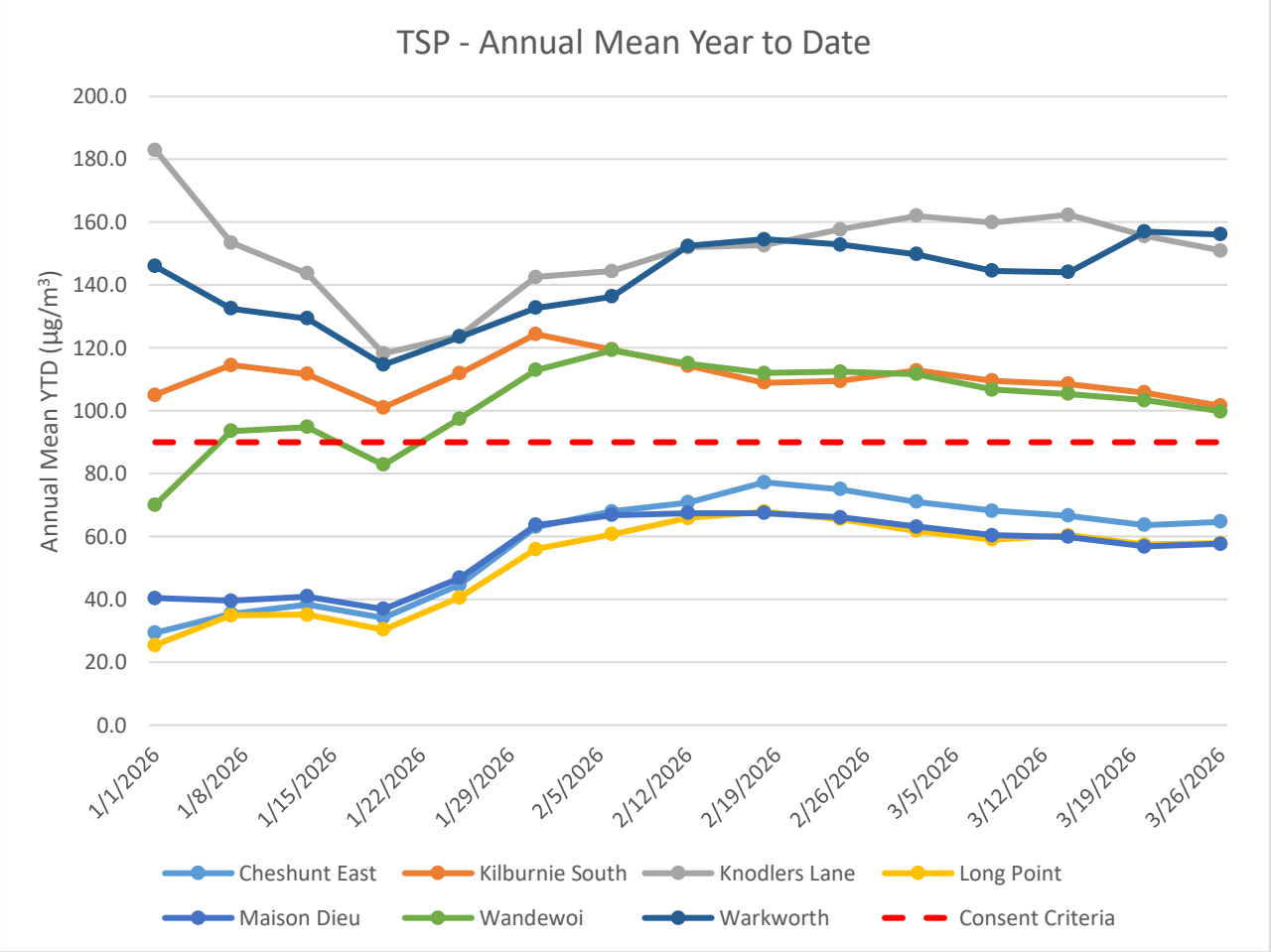

Figure 10 – Year to Date Average Total Suspended Particulates as at end of the Reporting Period

2.3.4 | REAL TIME PM_{10} RESULTS

HVO maintains a network of real time PM_{10} monitors. The real time air quality monitoring stations continuously record information and transmit data to a central database, generating alarms when particulate matter levels exceed internal trigger levels. Results from real time PM_{10} monitoring are used as a reactive measure to guide mining operations to help achieve compliance with the relevant conditions of the project approval.

Figure 11 shows the daily 24-hour average PM_{10} result from the real time monitoring sites. During the reporting period, daily results were below the 24-hr average criteria of 50µg/m^3 with the exception of:

- Warkworth on 17 and 18 March

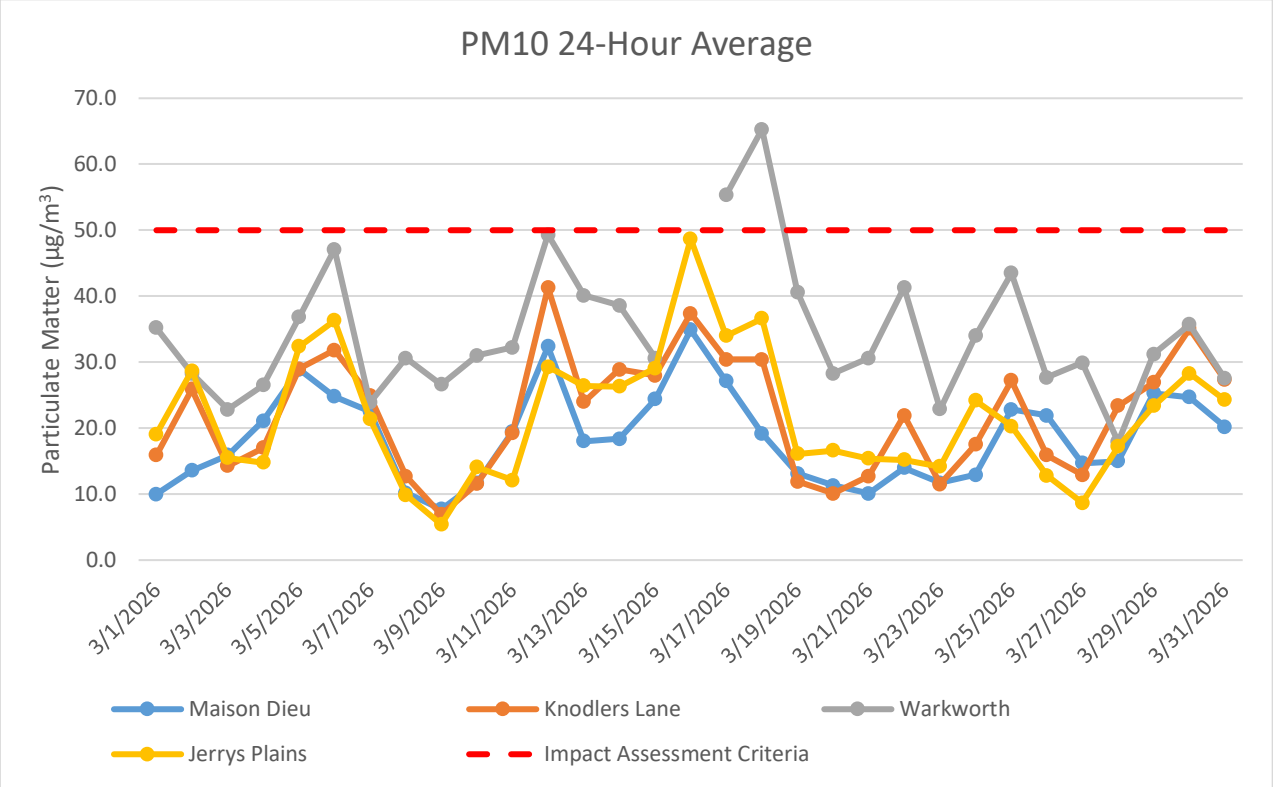

Figure 11 – Real Time PM_{10} 24hr for the Reporting Period

Figure 12 shows the annual rolling average PM_{10} results from the real time monitoring sites. All monitoring results were below the annual average for the relevant long-term impact assessment criteria for North

during the reporting period, with the exception of Warkworth. All monitoring results were below the annual average for the relevant long-term impact assessment criteria for South during the reporting period, with the exception of Warkworth and Jerrys Plains.

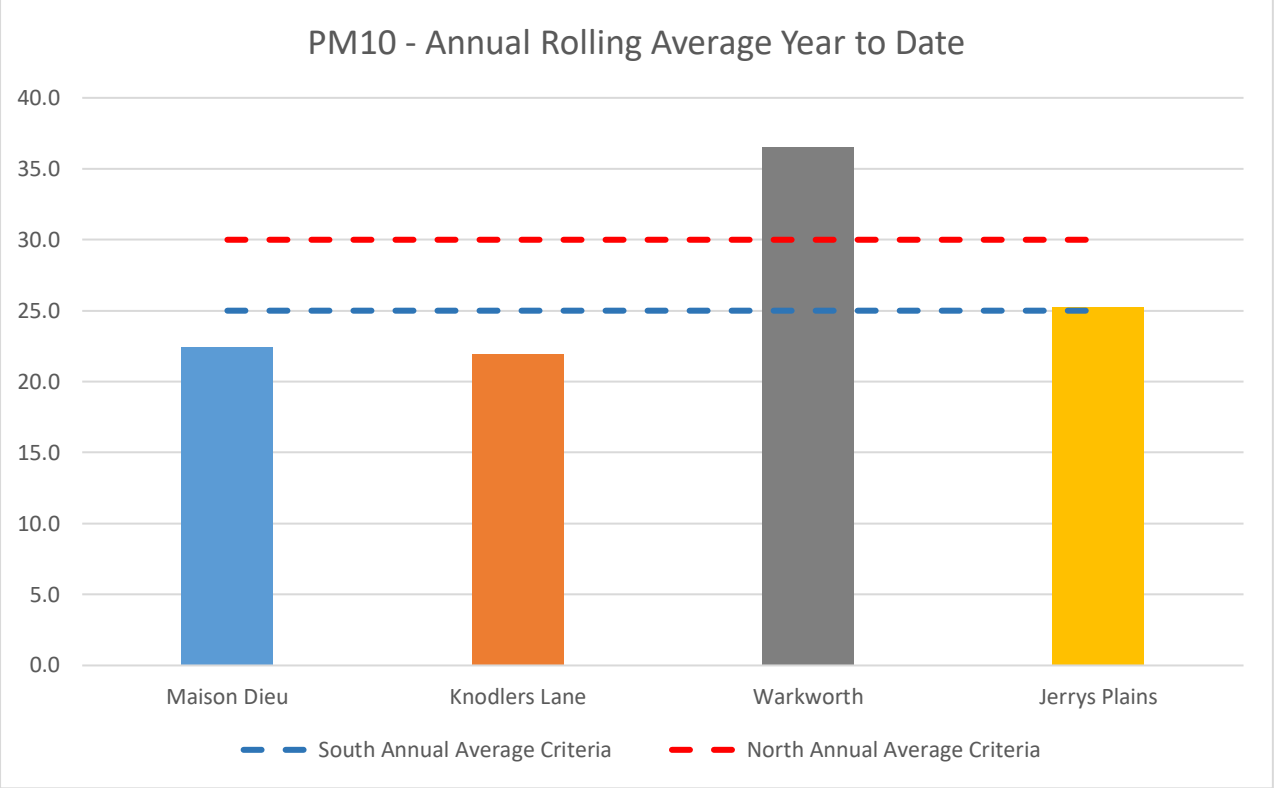

Figure 12: Real Time PM_{10} Annual Average for the Reporting Period

2.3.5 | REAL TIME ALARMS FOR AIR QUALITY

The real time monitoring system generated seventy-eight (78) automated air quality related alarms during the reporting period. Twelve (12) alarms related to adverse weather conditions (wind or rain) and sixty-six (66) alarms related to dust conditions.

3 | WATER QUALITY

HVO maintains a network of surface water and groundwater monitoring sites.

3.1 | SURFACE WATER

Surface watercourses are sampled on a quarterly sampling regime. Water quality is assessed through the parameters of pH, electrical conductivity (EC) and Total Suspended Solids (TSS). The location of surface water monitoring points across HVO is shown in **Figure 13.**

Results from monitoring on site dams, the Hunter River and other natural tributaries are provided in **Figure 14 to 25**.

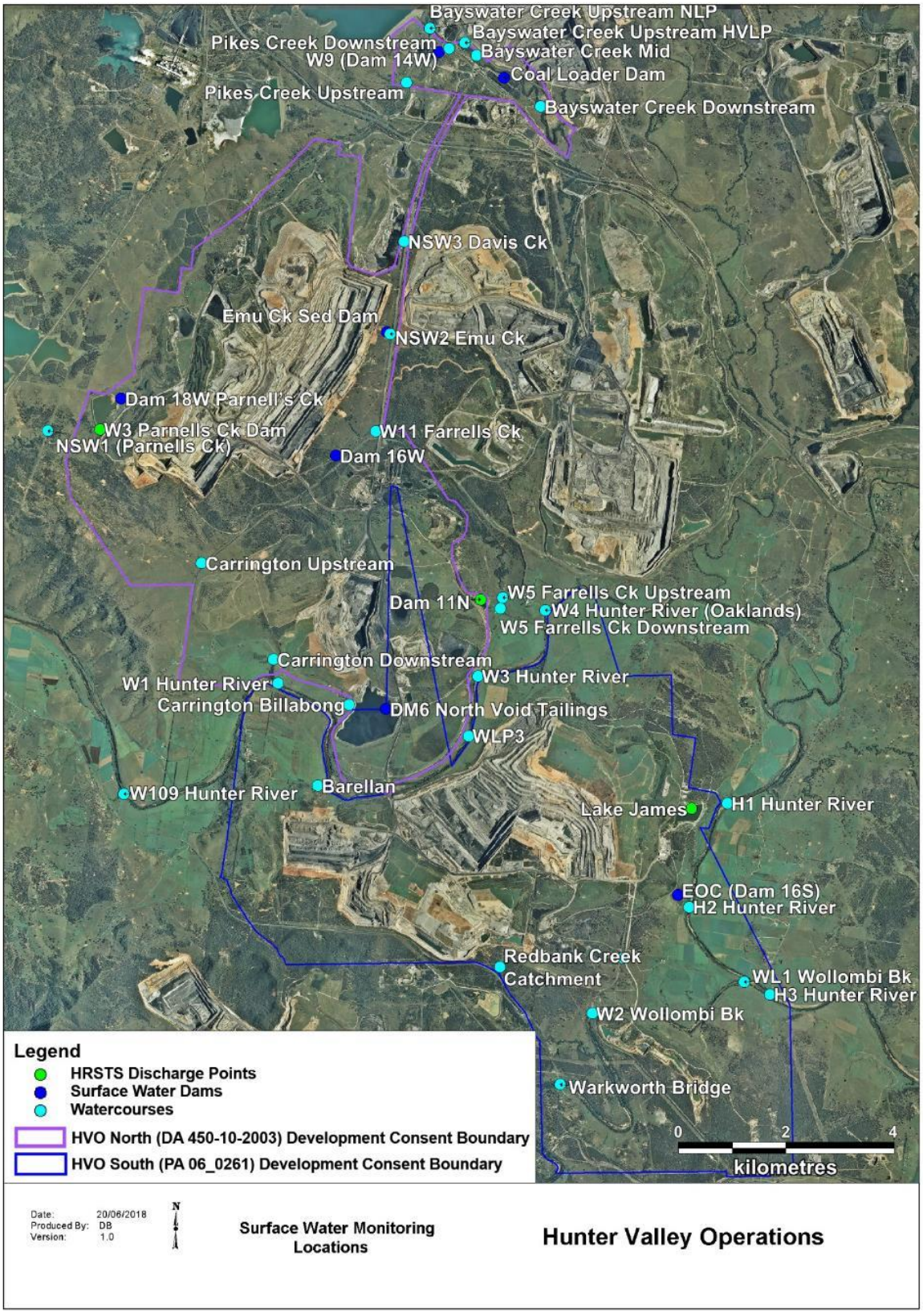

Figure 13 – HVO Surface Water Monitoring Locations

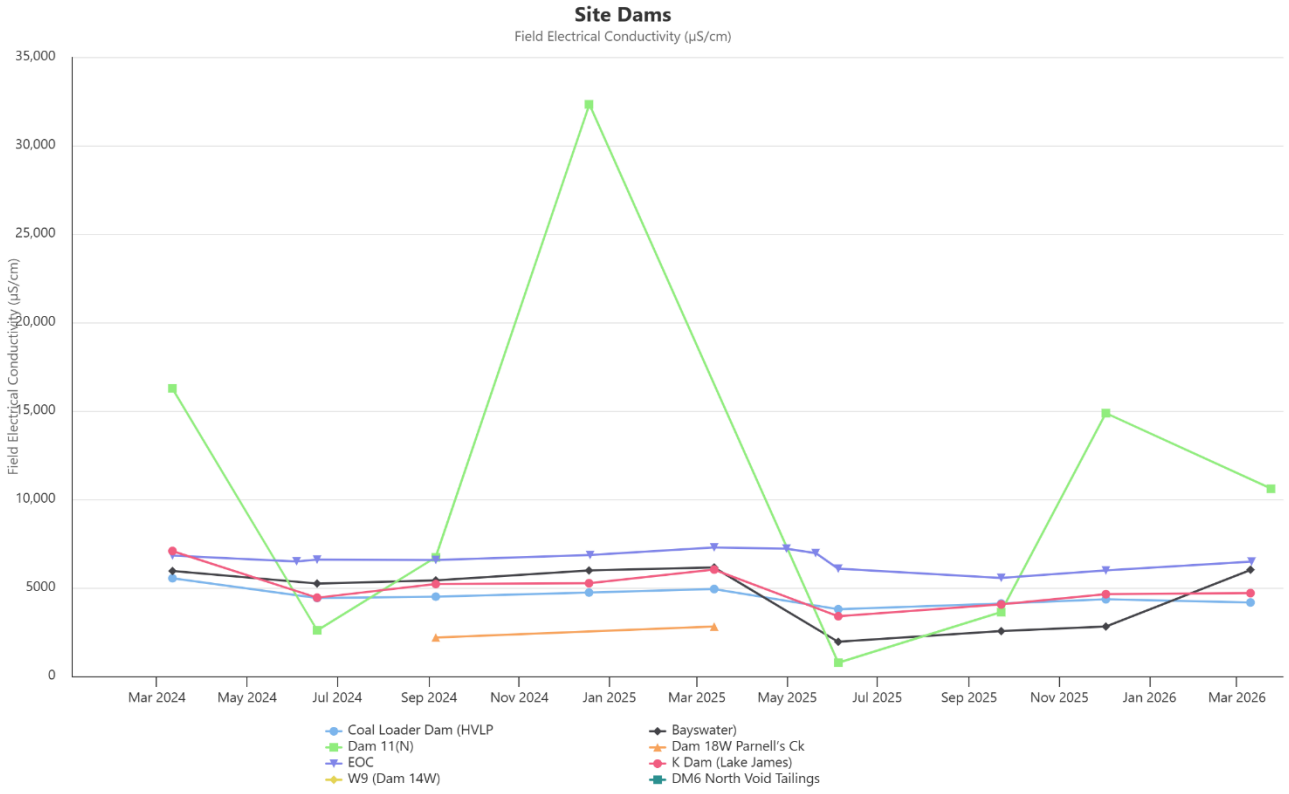

Figure 14 – Site Dams Electrical Conductivity – Q1 2026

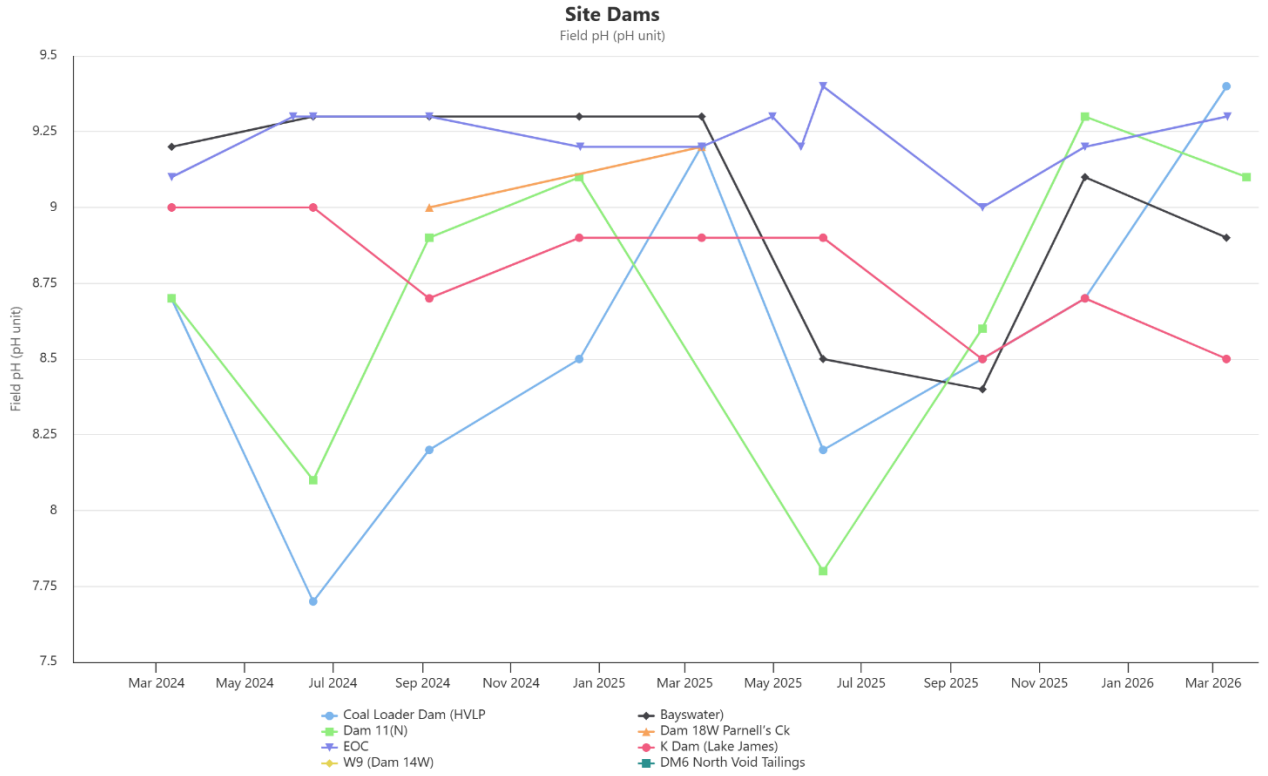

Figure 15 – Site Dams Field pH – Q1 2026

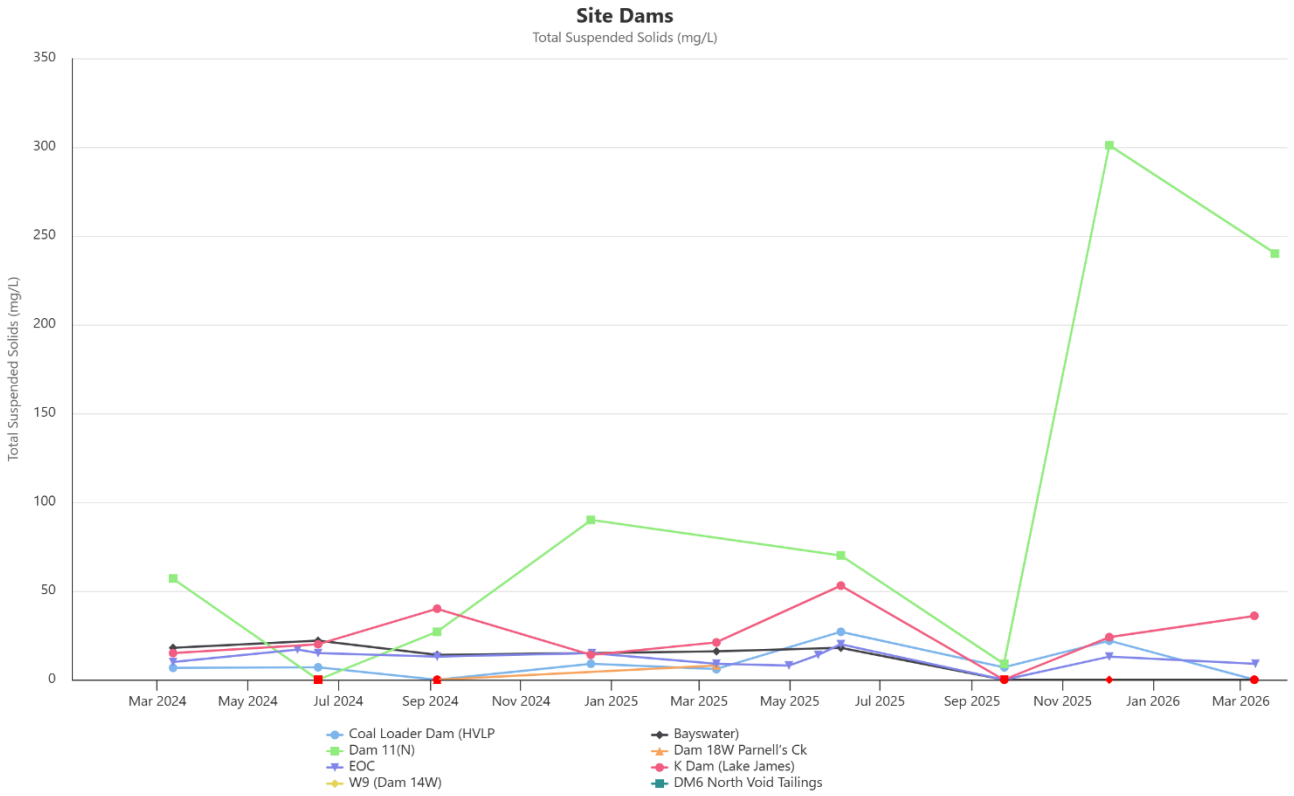

Figure 16 – Site Dams Total Suspended Solids – Q1 2026

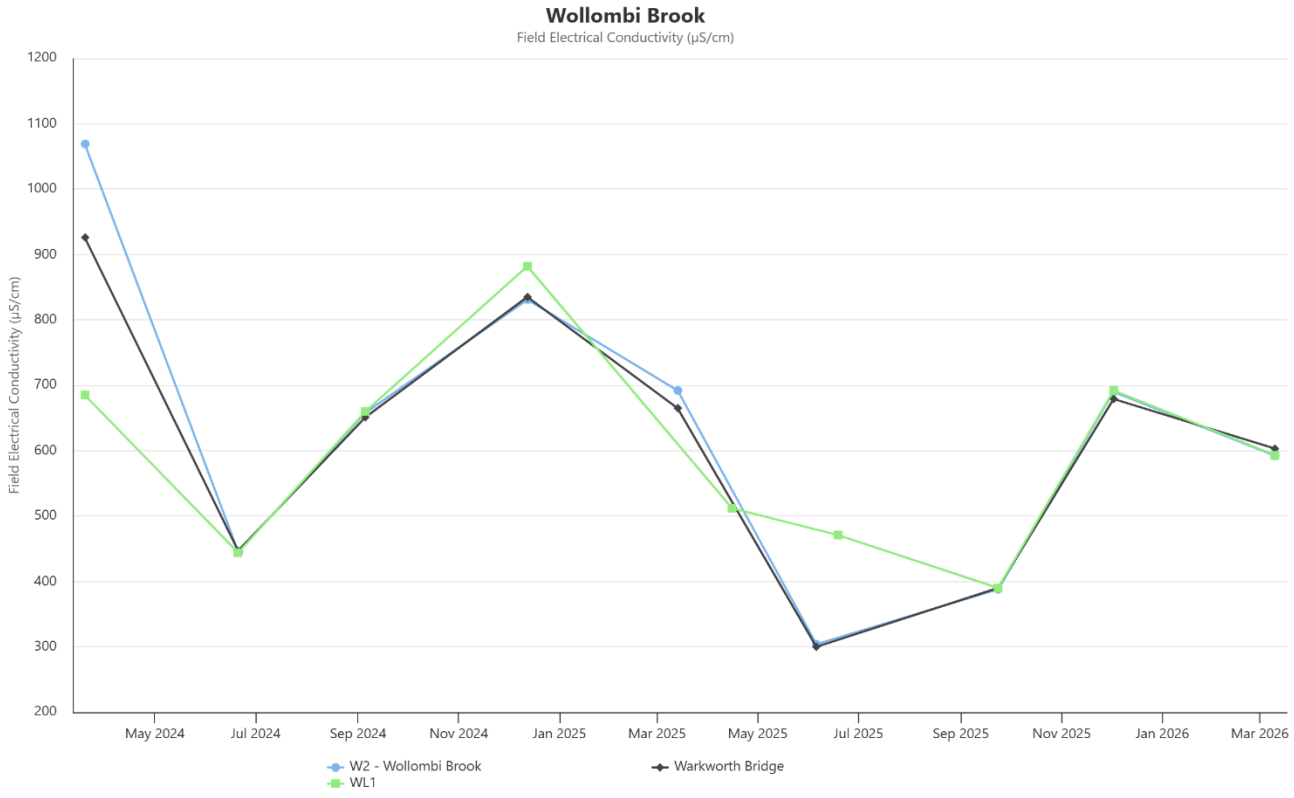

Figure 17 – Wollombi Brook Electrical Conductivity – Q1 2026

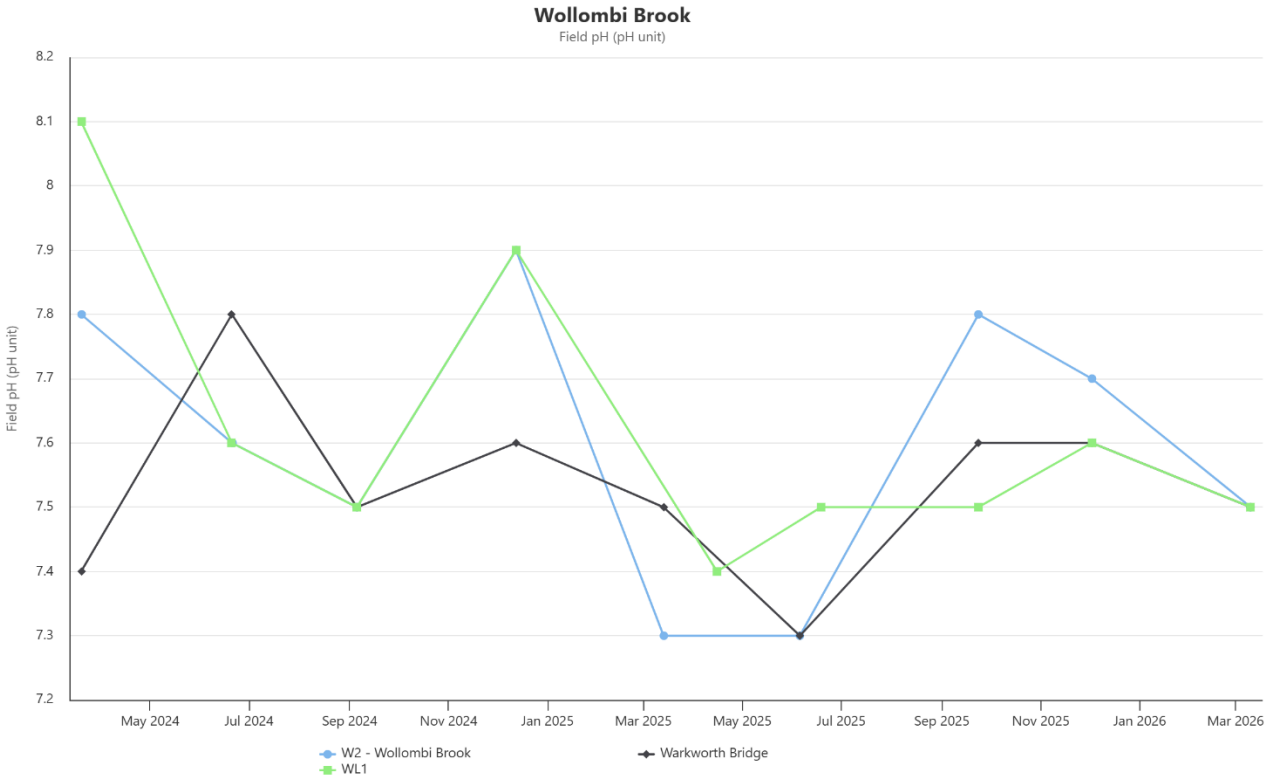

Figure 18 – Wollombi Brook Field pH – Q1 2026

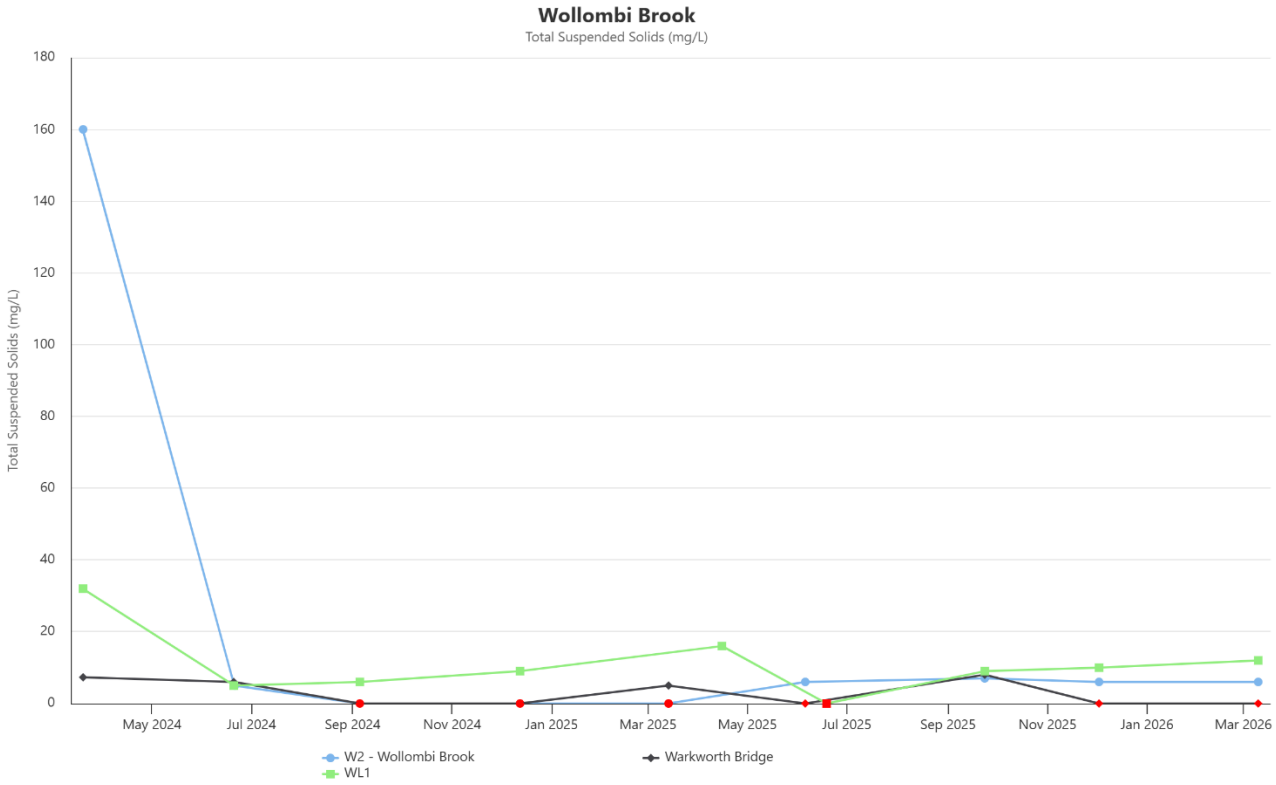

Figure 19 – Wollombi Brook Total Suspended Solids – Q1 2026

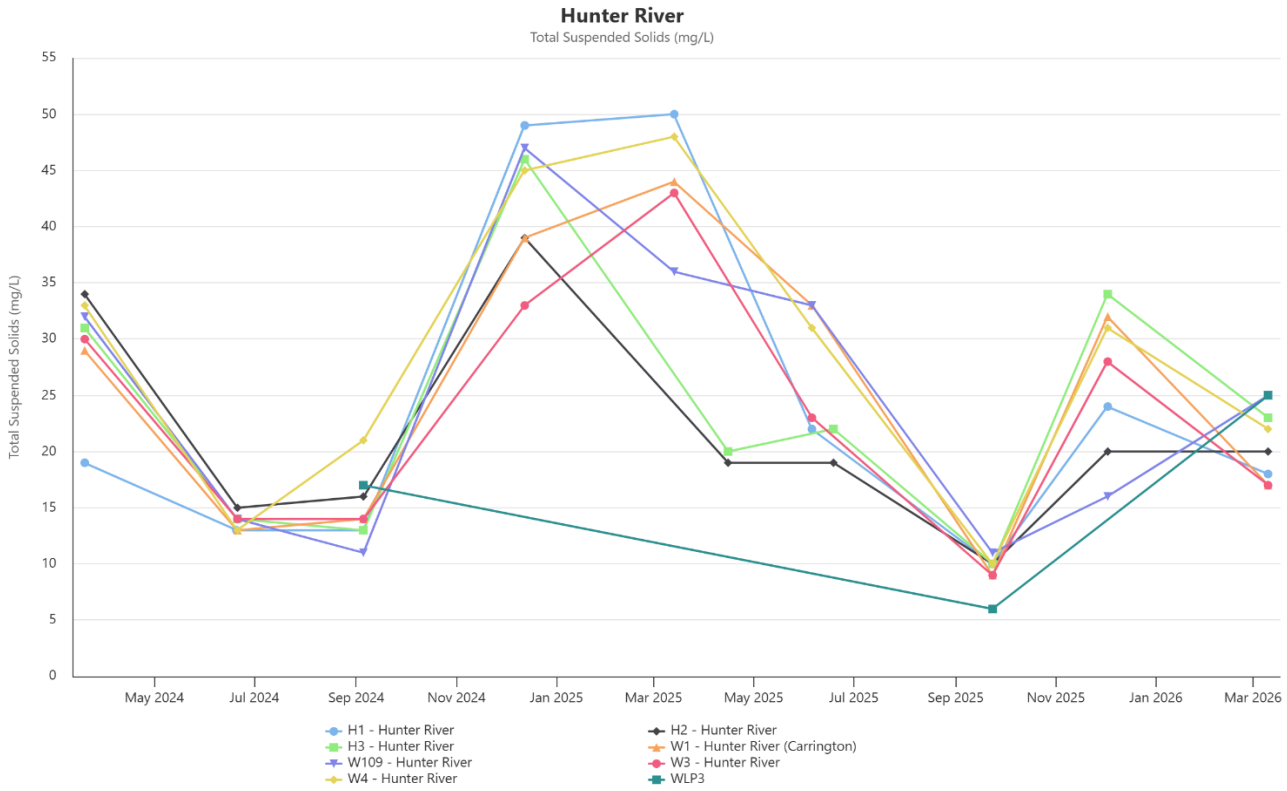

Figure 20 – Hunter River Electrical Conductivity – Q1 2026

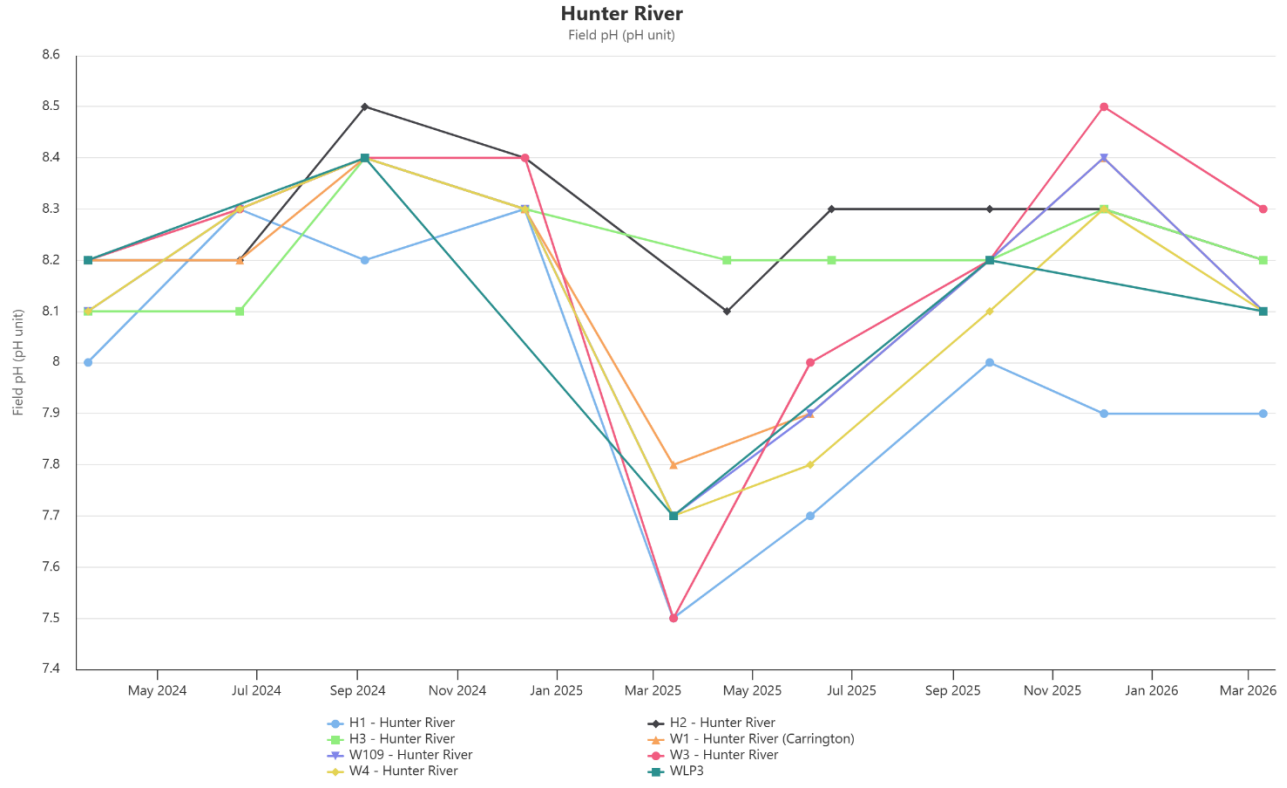

Figure 21 – Hunter River Field pH – Q1 2026

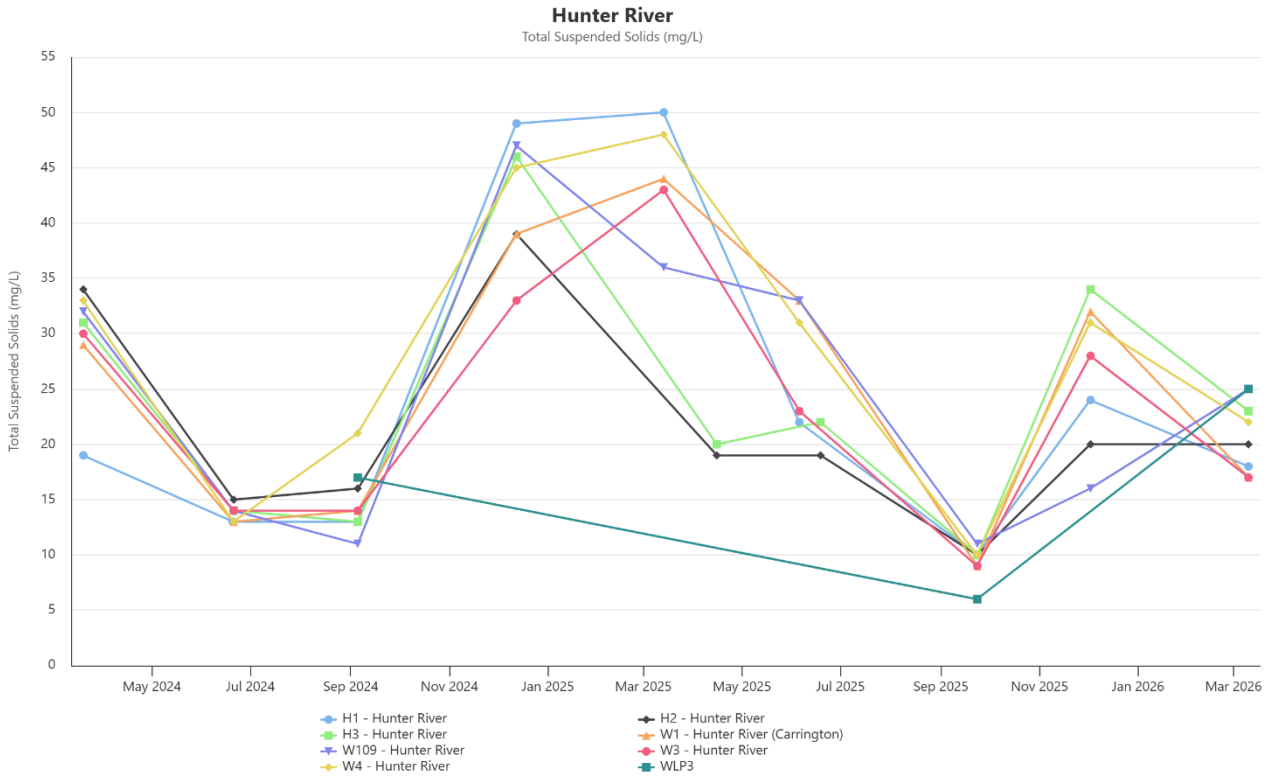

Figure 22 – Hunter River Field TSS – Q1 2026

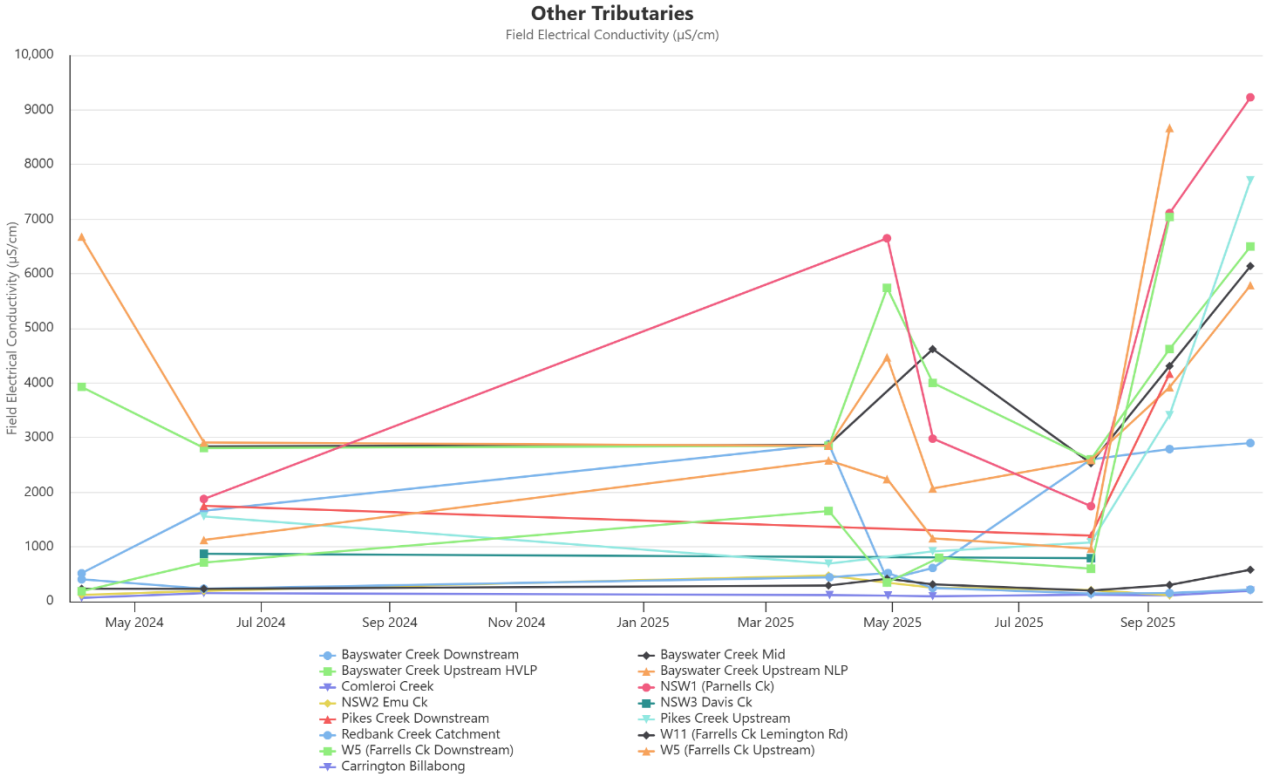

Figure 23 – Other Tributaries Electrical Conductivity – Q1 2026

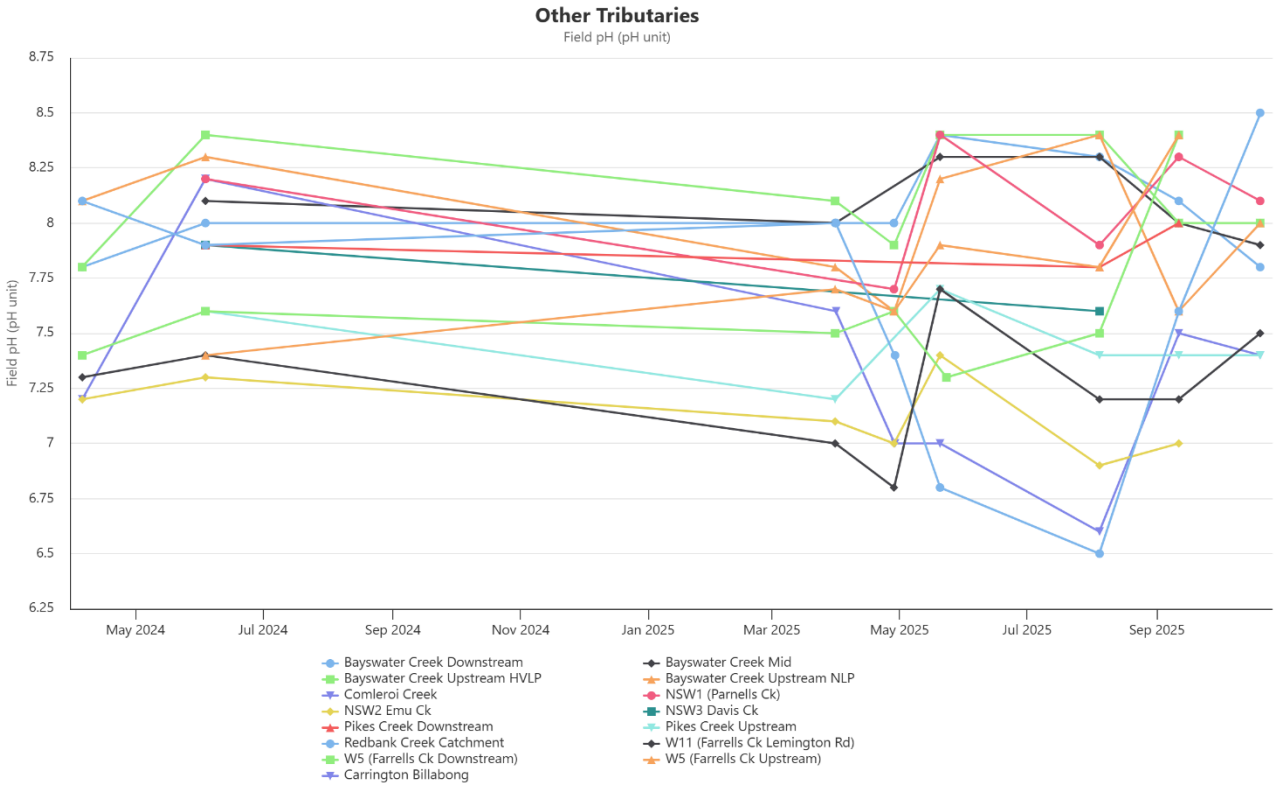

Figure 24 – Other Tributaries Field pH – Q1 2026

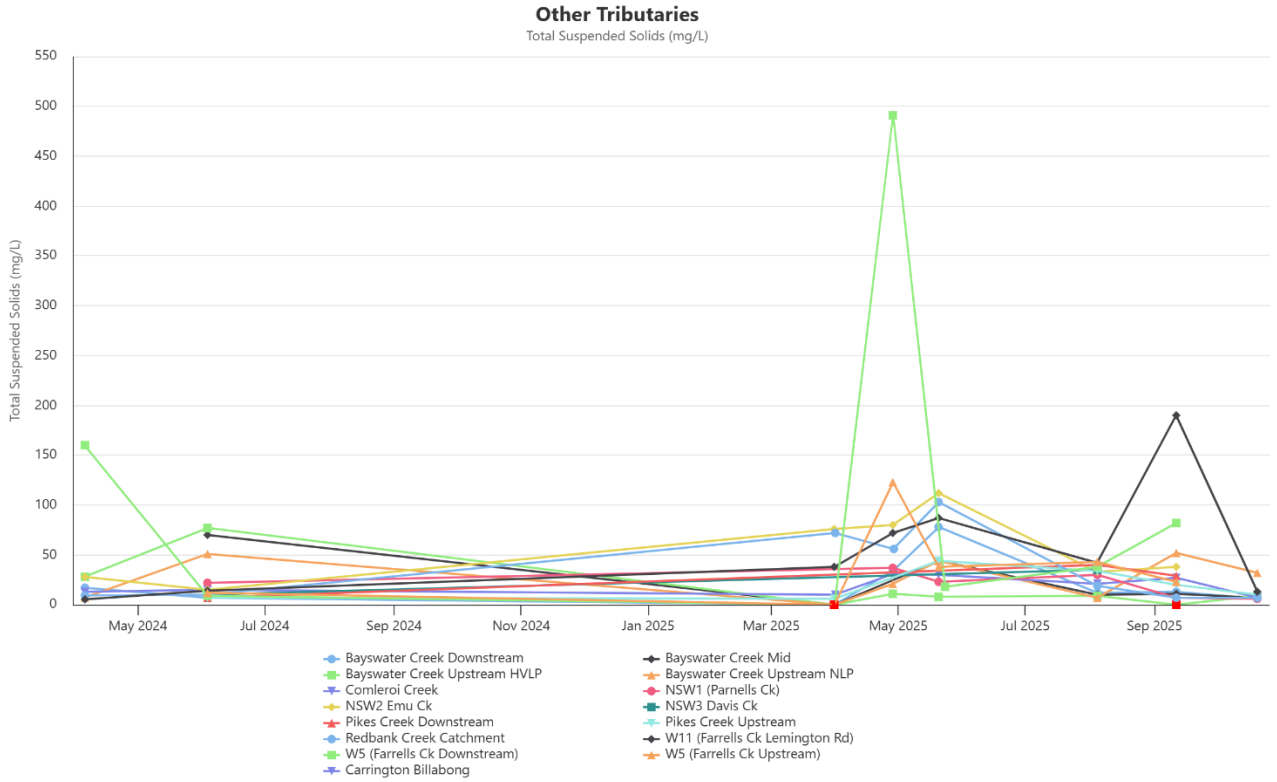

Figure 25 – Other Tributaries Total Suspended Solids – Q1 2026

3.1.1 | SURFACE WATER TRIGGER TRACKING

Internal trigger limits have been developed to assess monitoring data on an on-going basis and to highlight potentially adverse surface water impacts. The process for evaluating monitoring results against the internal triggers and subsequent responses are outlined in the HVO Water Management Plan.

Surface water trigger tracking results are summarised below in Table 2.

Table 2 - Surface Water Trigger Tracking – Q1 2026

Site	Date	Trigger Limit Breached	Response Action
W109 - Hunter River	10/03/2026	Electrical Conductivity (uS/cm)	Below maximum recorded result. No investigation required.
W4 - Hunter River	10/03/2026	Electrical Conductivity (uS/cm)	Below maximum recorded result. No investigation required.

3.2 | SITE WATER USE

HVO is permitted to extract water from the Hunter River under water allocation licenses issued by Water NSW.

HVO extracted approximately 1.84 ML from the Hunter River during the reporting period.

3.3 | HRSTS DISCHARGE

HVO participates in the Hunter River Salinity Trading Scheme (HRSTS), allowing discharge from licensed discharge points Dam 11N (to Farrell's Creek), Lake James (to the Hunter River) and Parnell's Dam (to Parnell's Creek). Discharges can only take place subject to HRSTS regulations.

Under the HRSTS, HVO did not discharge during the reporting period.

3.4 | GROUNDWATER MONITORING RESULTS

Groundwater monitoring is undertaken on a quarterly basis in accordance with the HVO Water Management Plan and Groundwater Monitoring Programme. The location of groundwater monitoring points across HVO are show in **Figure 26**.

Groundwater monitoring results are provided in **Figures 27 to 77**.

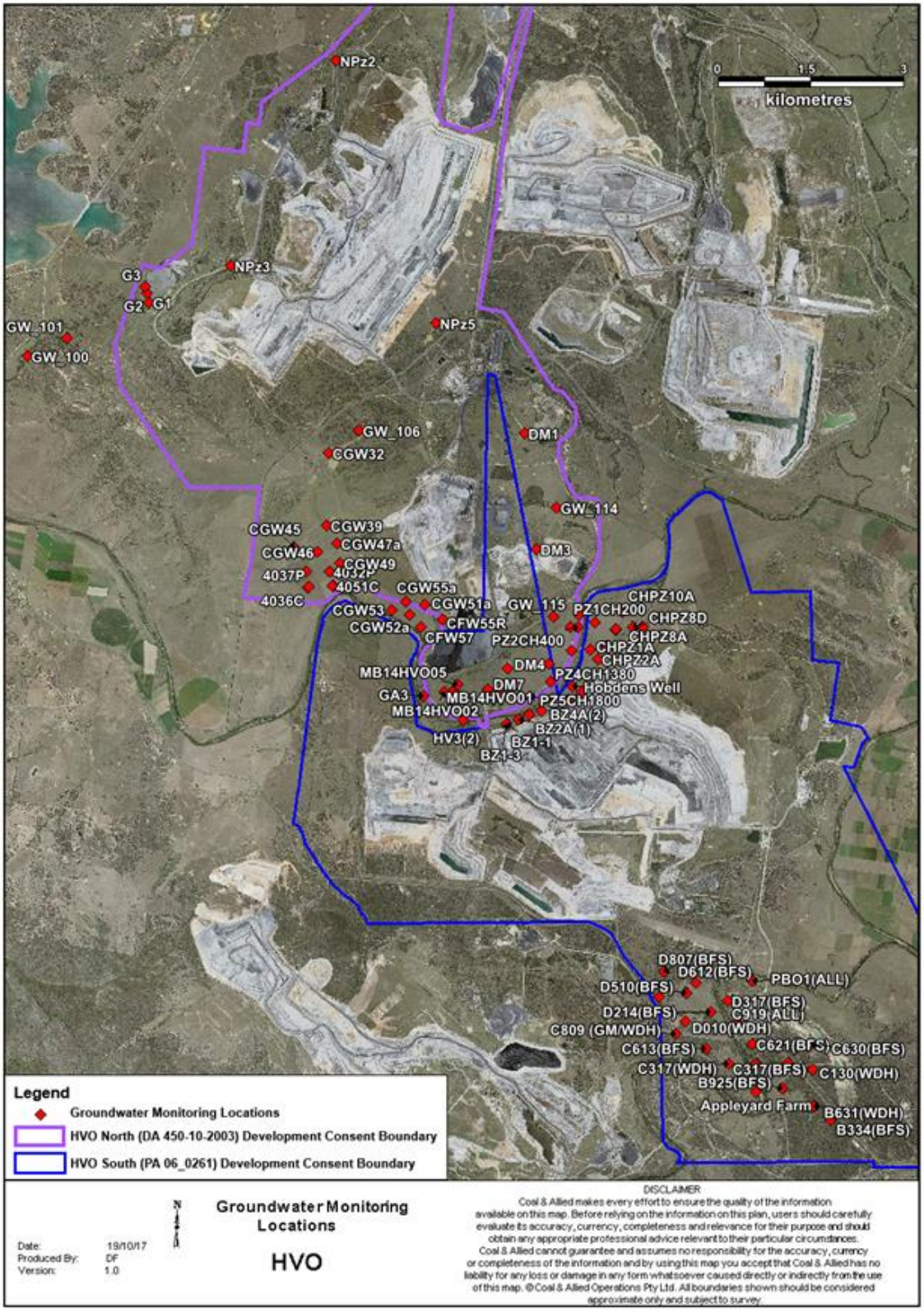

Figure 26: Groundwater Monitoring Locations at HVO

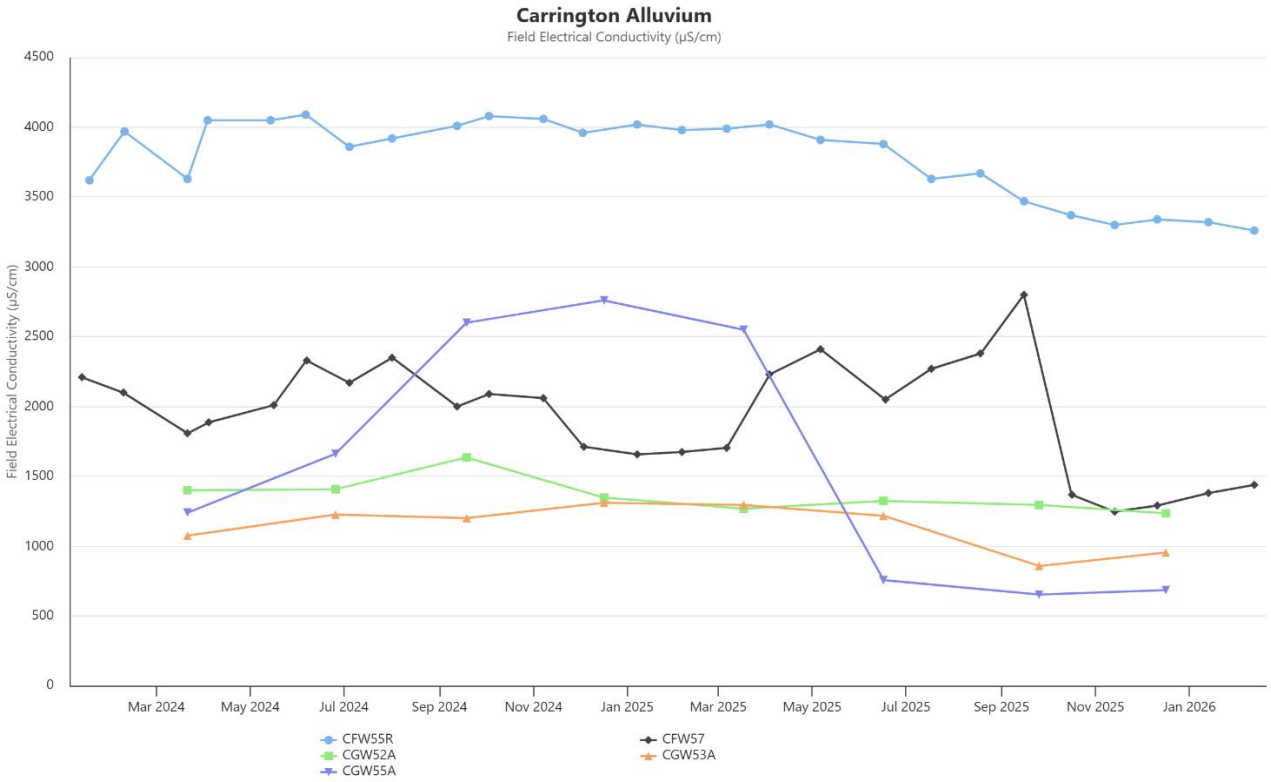

Figure 27 – Carrington Alluvium Electrical Conductivity Trend – Q1 2026

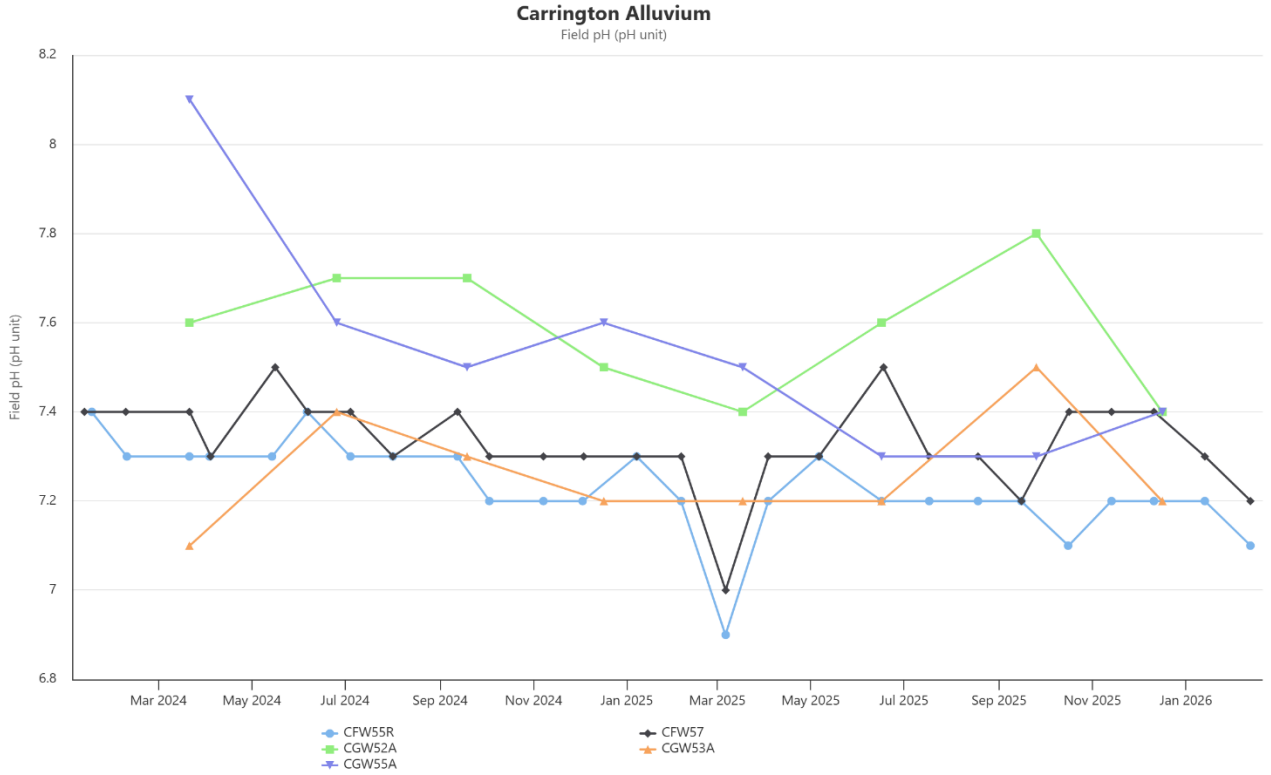

Figure 28 – Carrington Alluvium Field pH Trend – Q1 2026

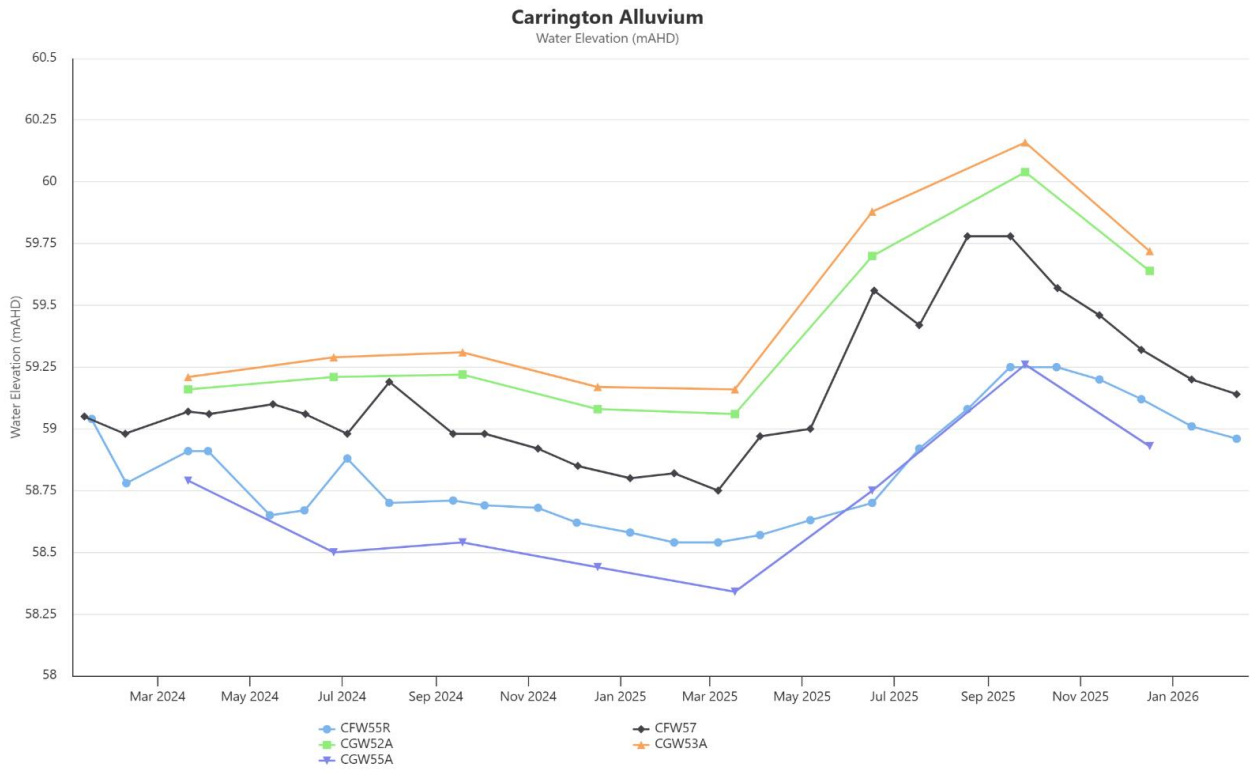

Figure 29 – Carrington Alluvium Water Elevation Trend – Q1 2026

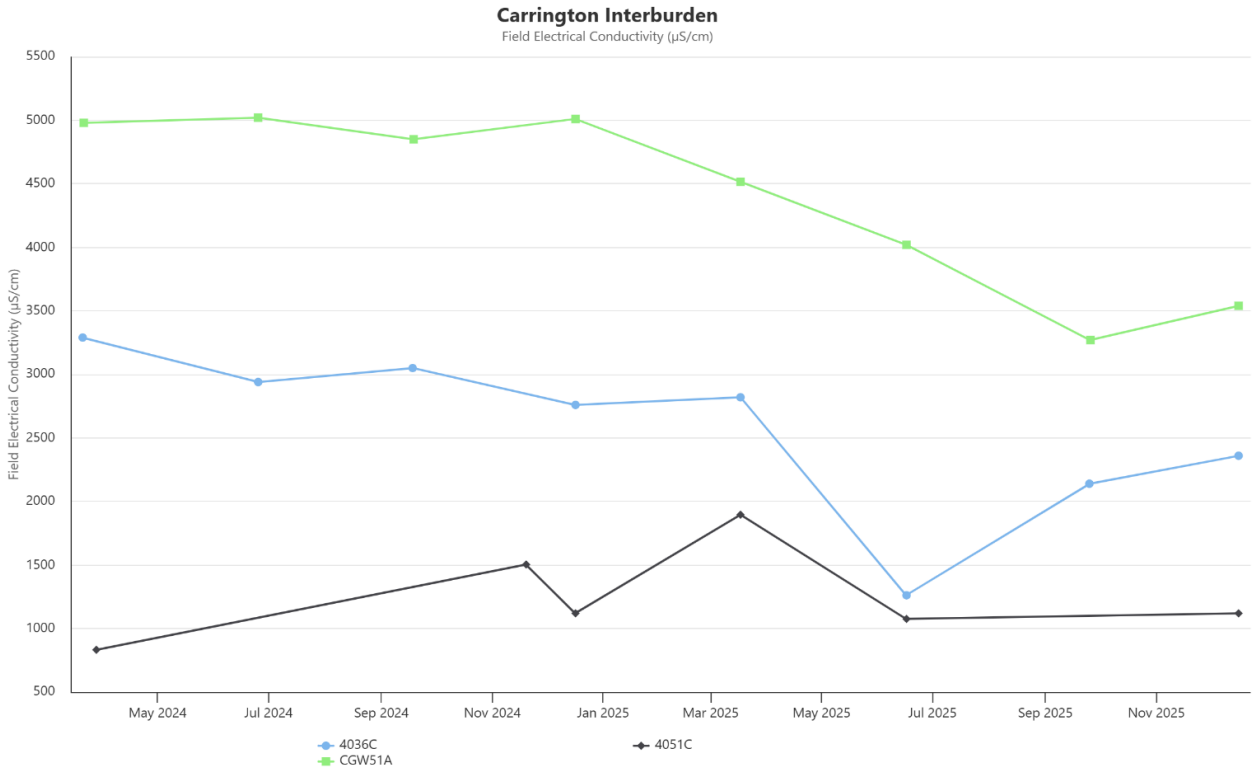

Figure 30 – Carrington Interburden Electrical Conductivity Trend – Q1 2026

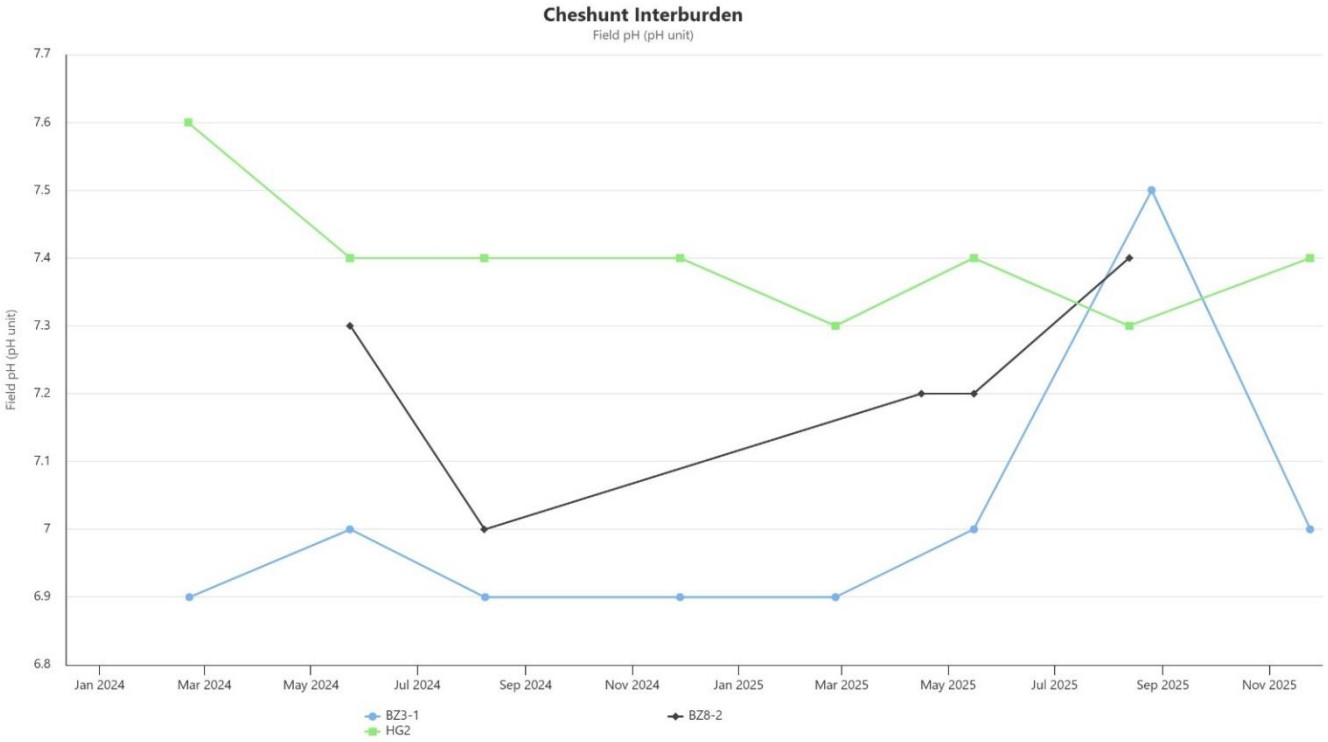

Figure 31 – Carrington Interburden Field pH Trend – Q1 2026

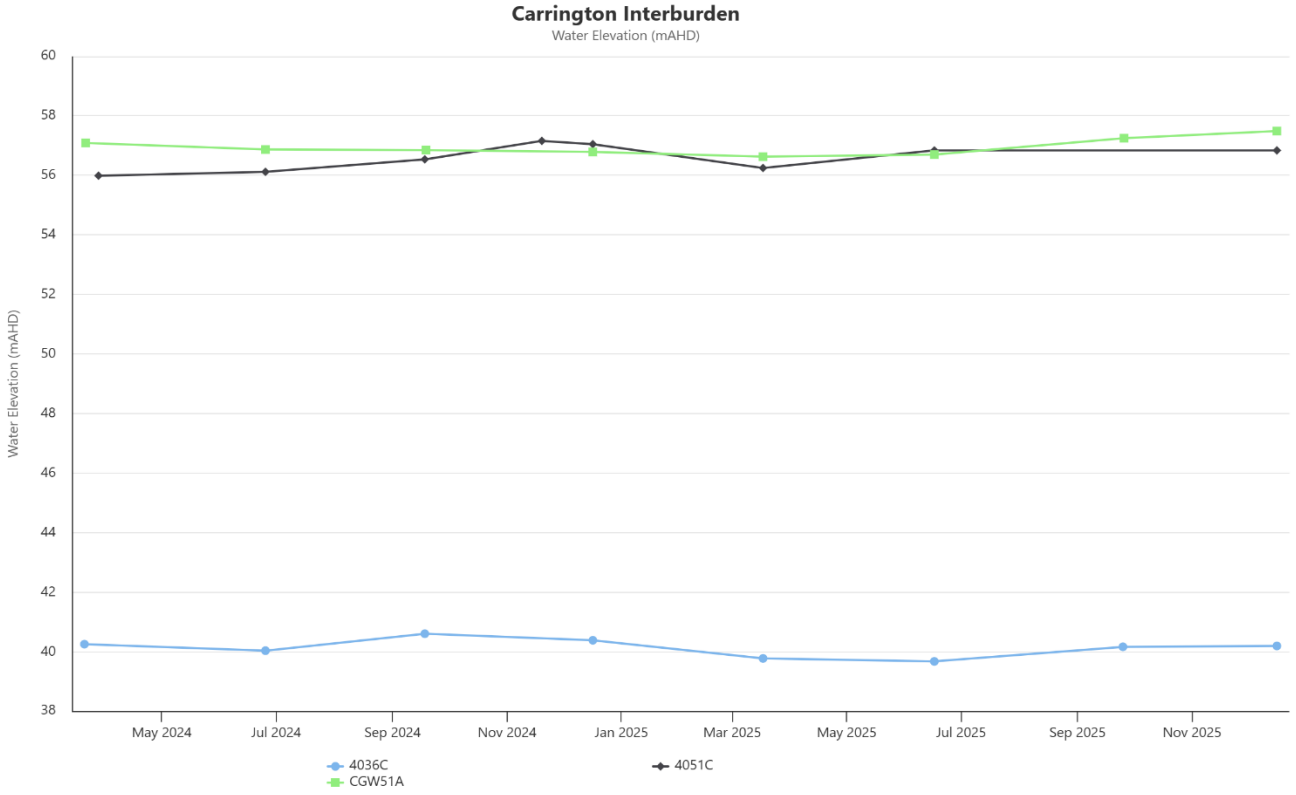

Figure 32 – Carrington Interburden Water Elevation Trend – Q1 2026

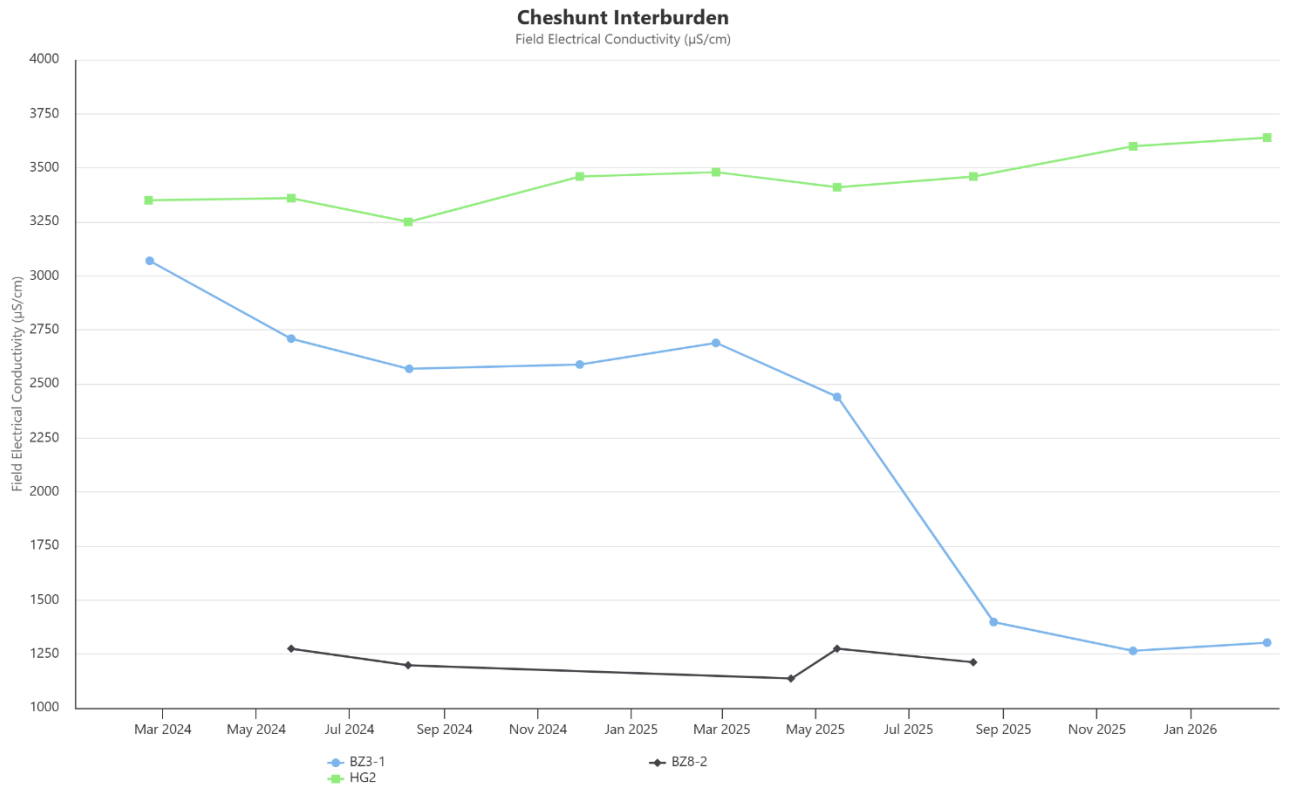

Figure 33 – Cheshunt Interburden Electrical Conductivity Trend – Q1 2026

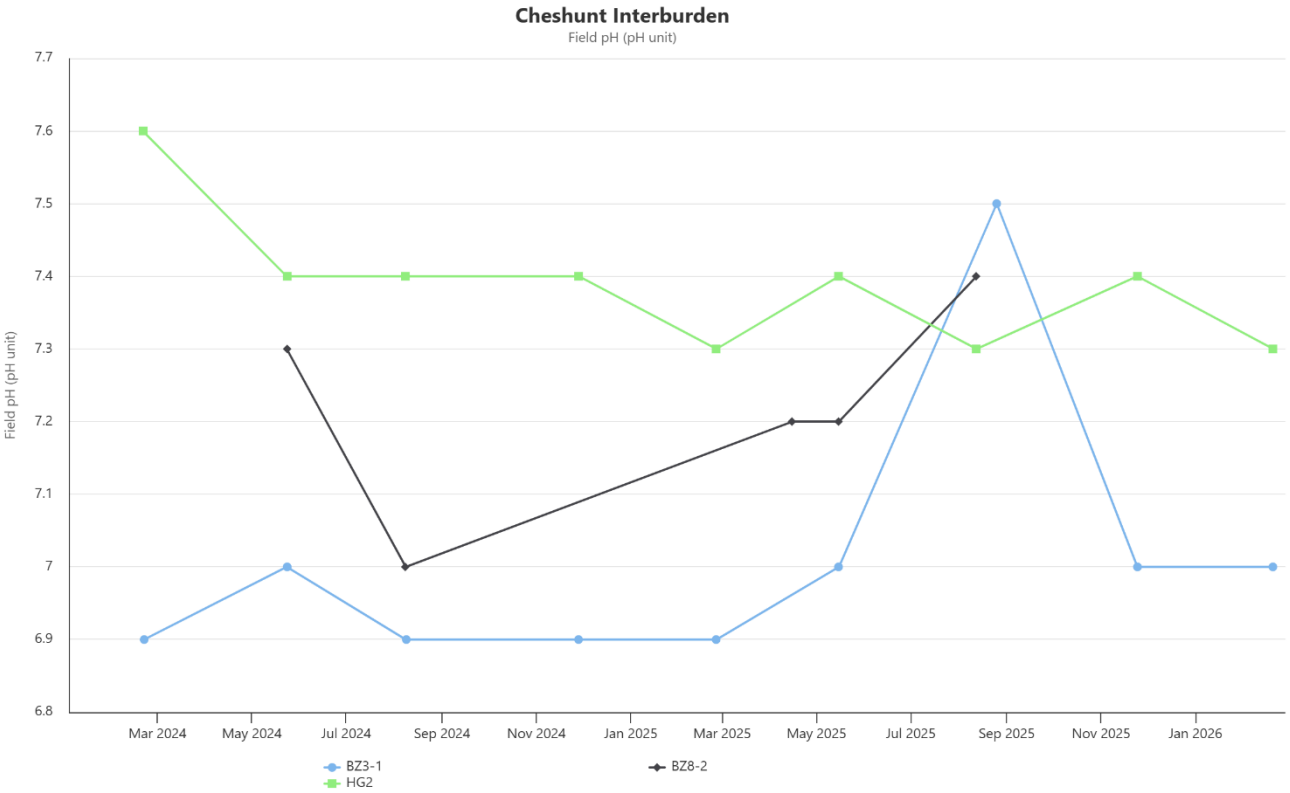

Figure 34 – Cheshunt Interburden Field pH Trend – Q1 2026

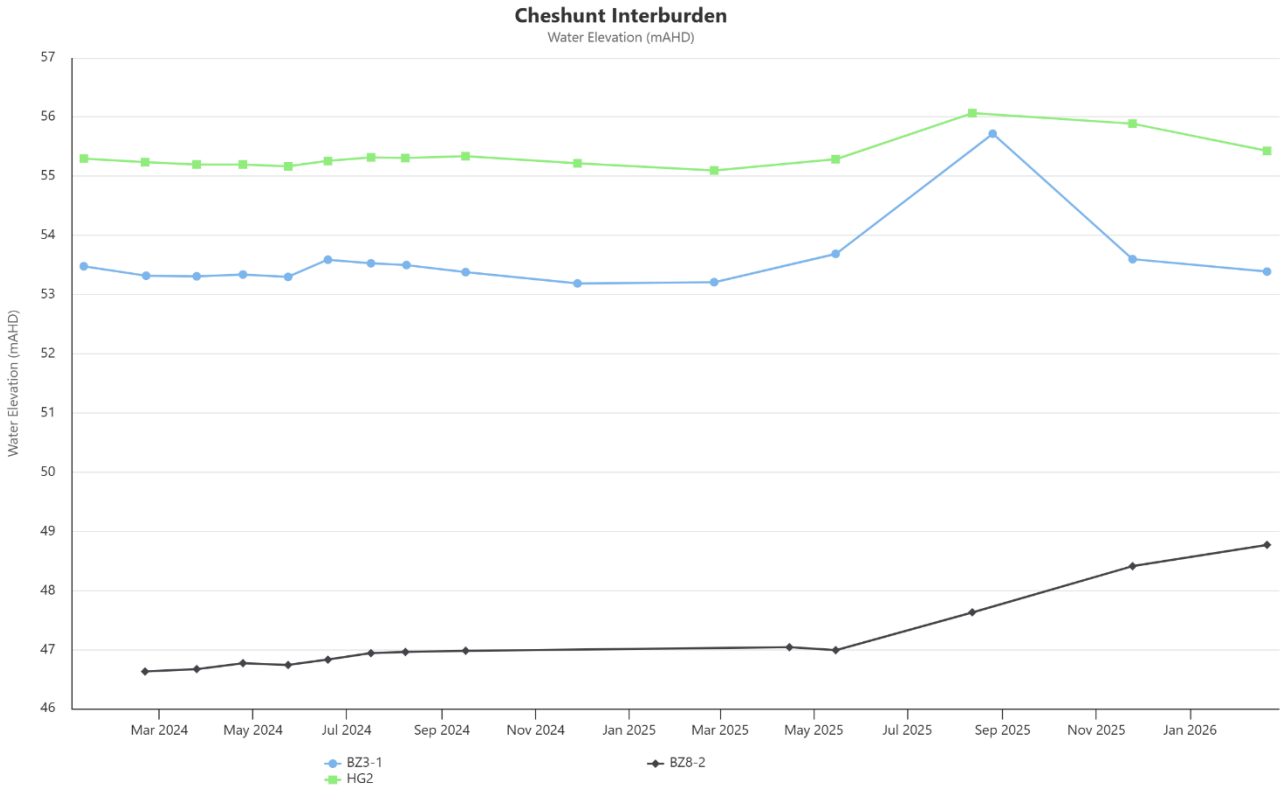

Figure 35 – Cheshunt Interburden Water Elevation Trend – Q1 2026

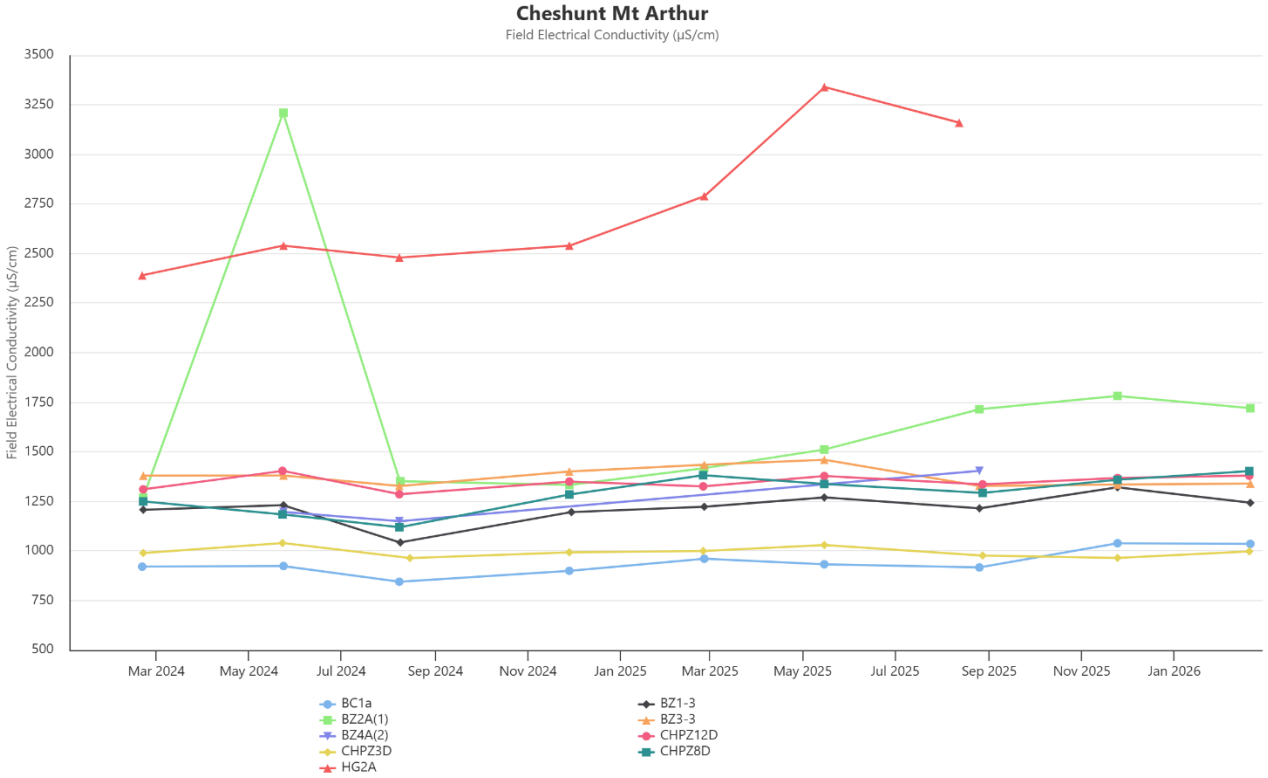

Figure 36 – Cheshunt Mt Arthur Electrical Conductivity Trend – Q1 2026

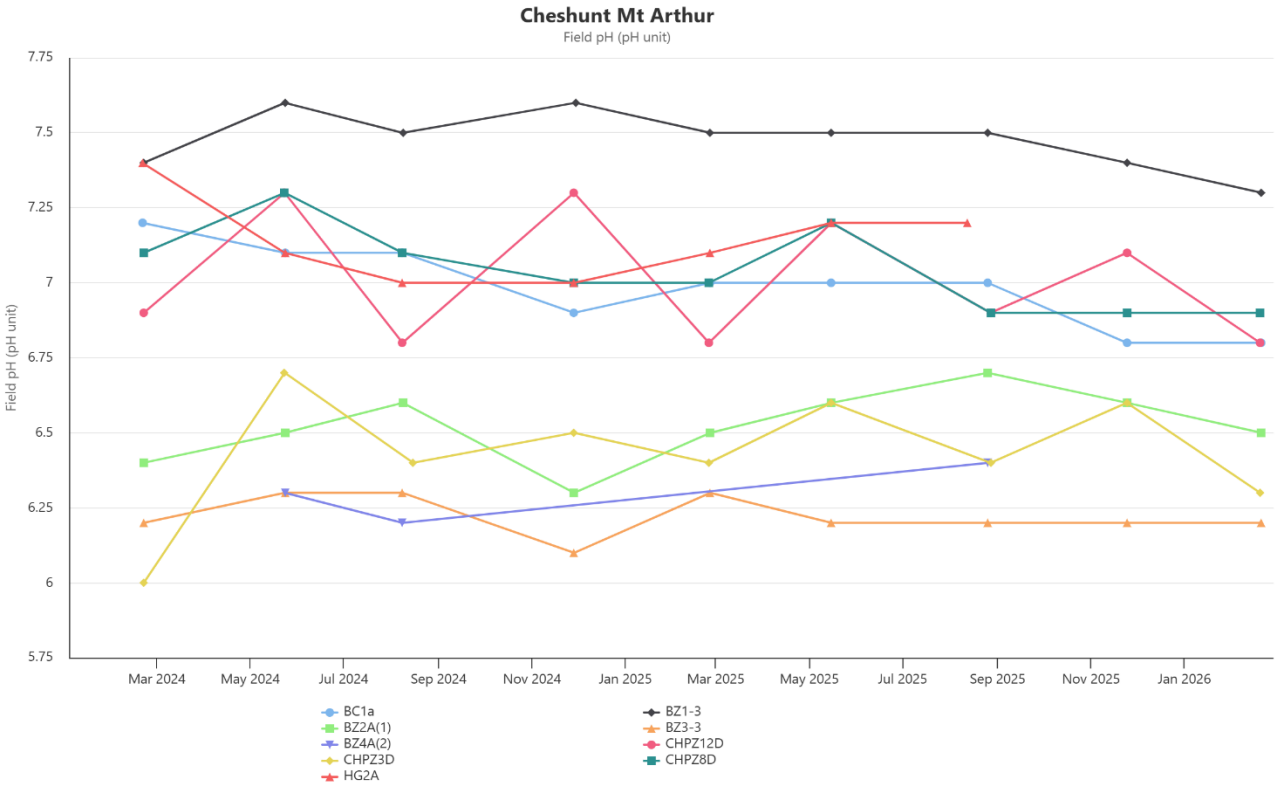

Figure 37 – Cheshunt Mt Arthur Field pH Trend – Q1 2026

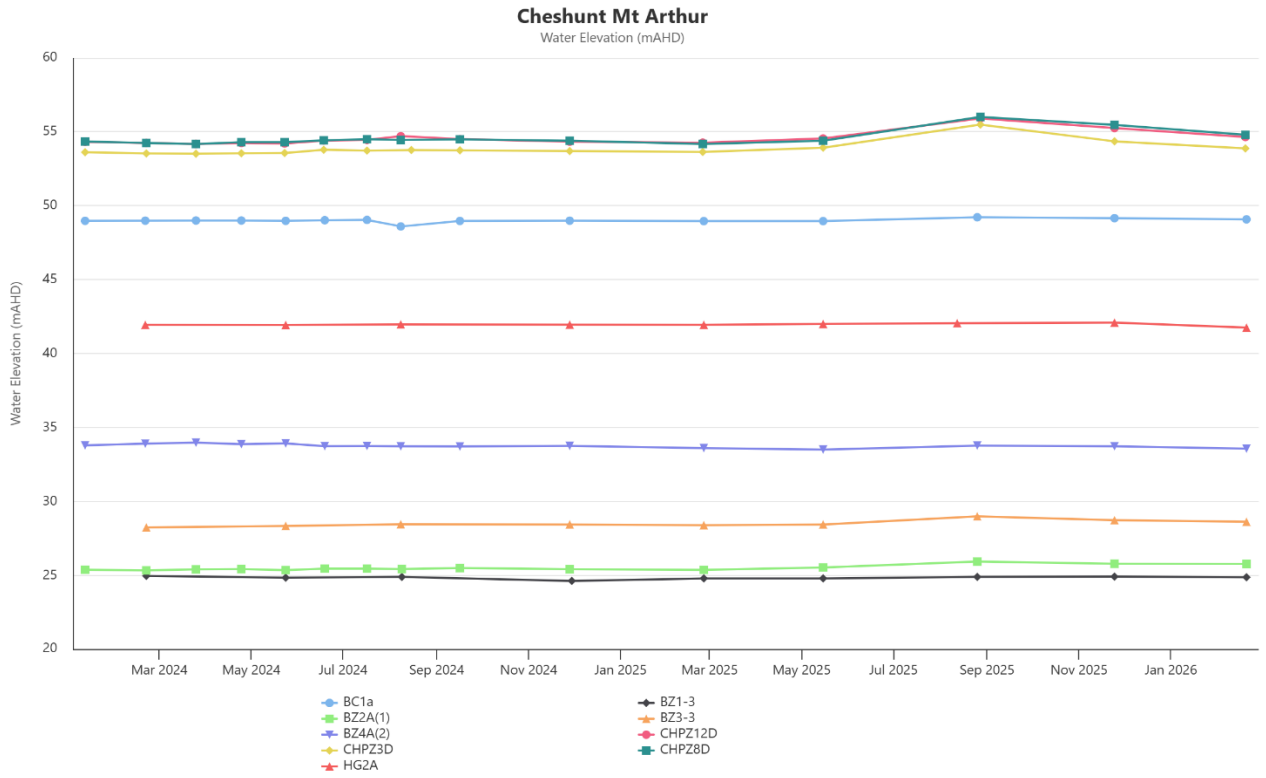

Figure 38 – Cheshunt Mt Arthur Water Elevation Trend – Q1 2026

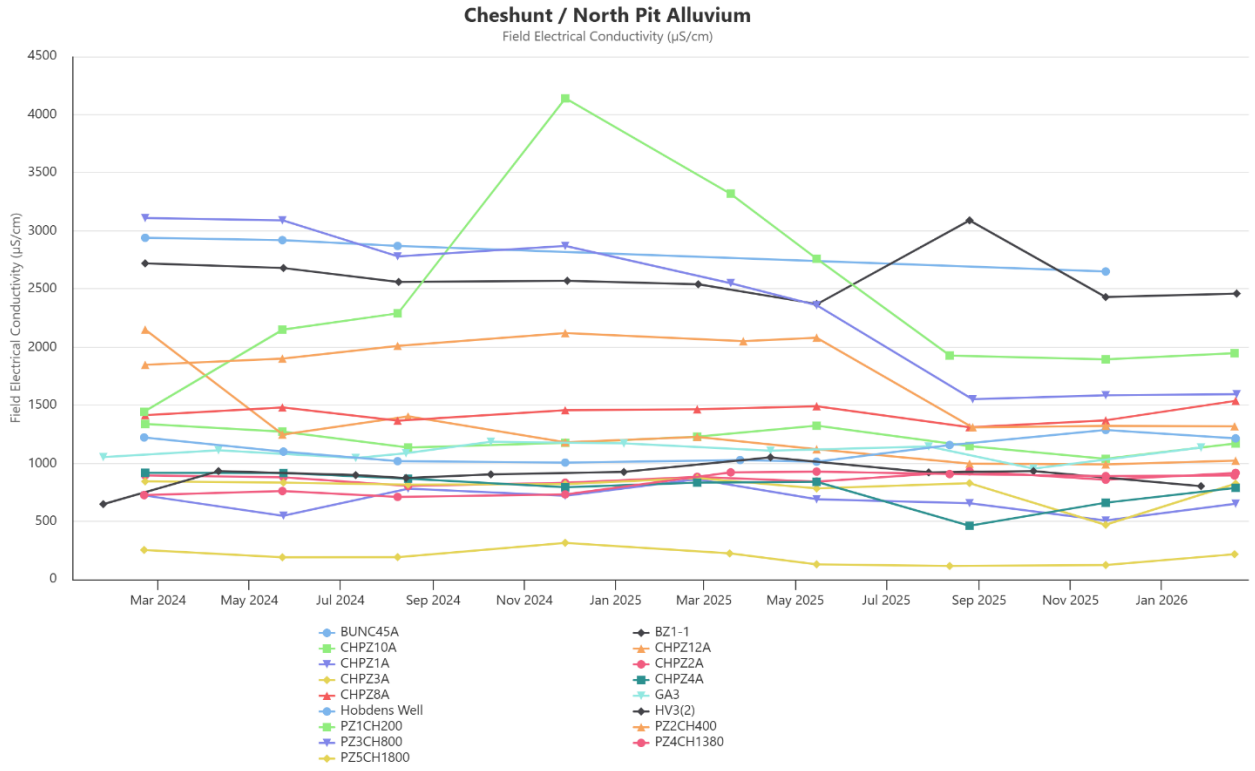

Figure 39 – Cheshunt North Pit Alluvium Electrical Conductivity Trend – Q1 2026

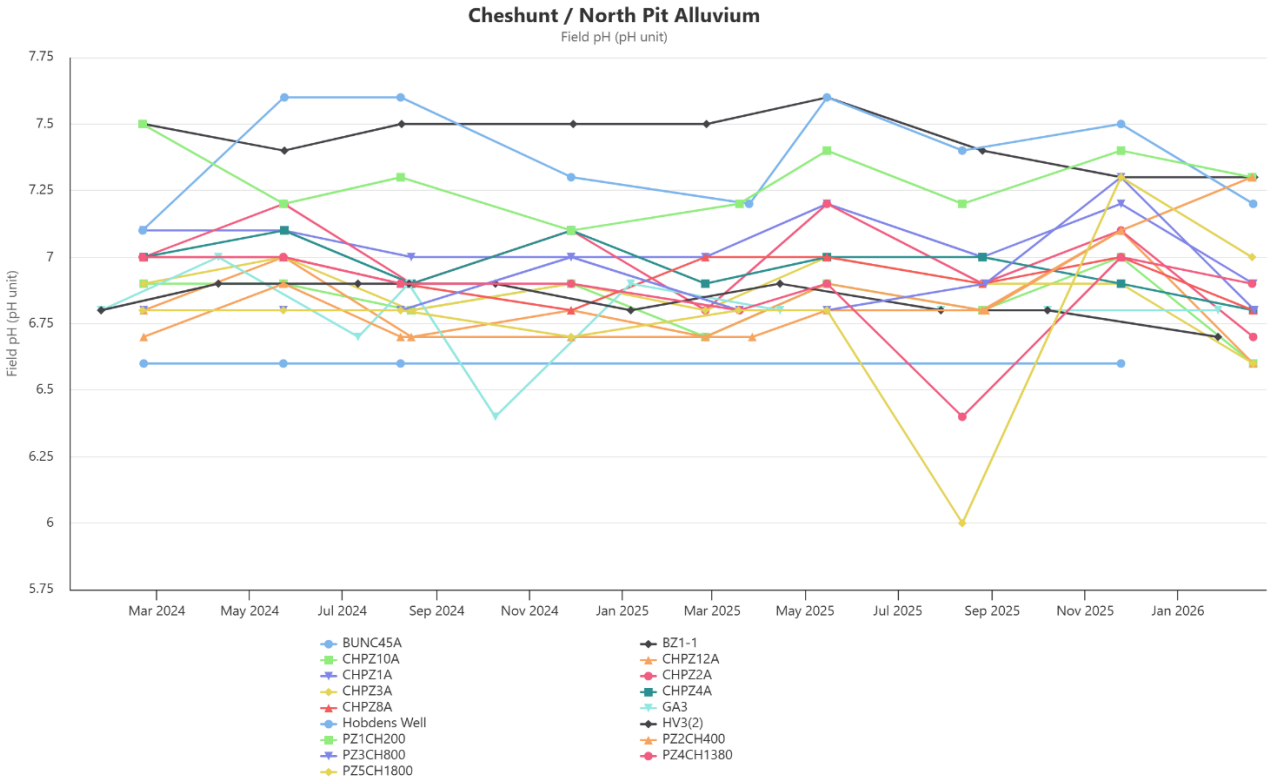

Figure 40 – Cheshunt North Pit Alluvium Field pH Trend – Q1 2026

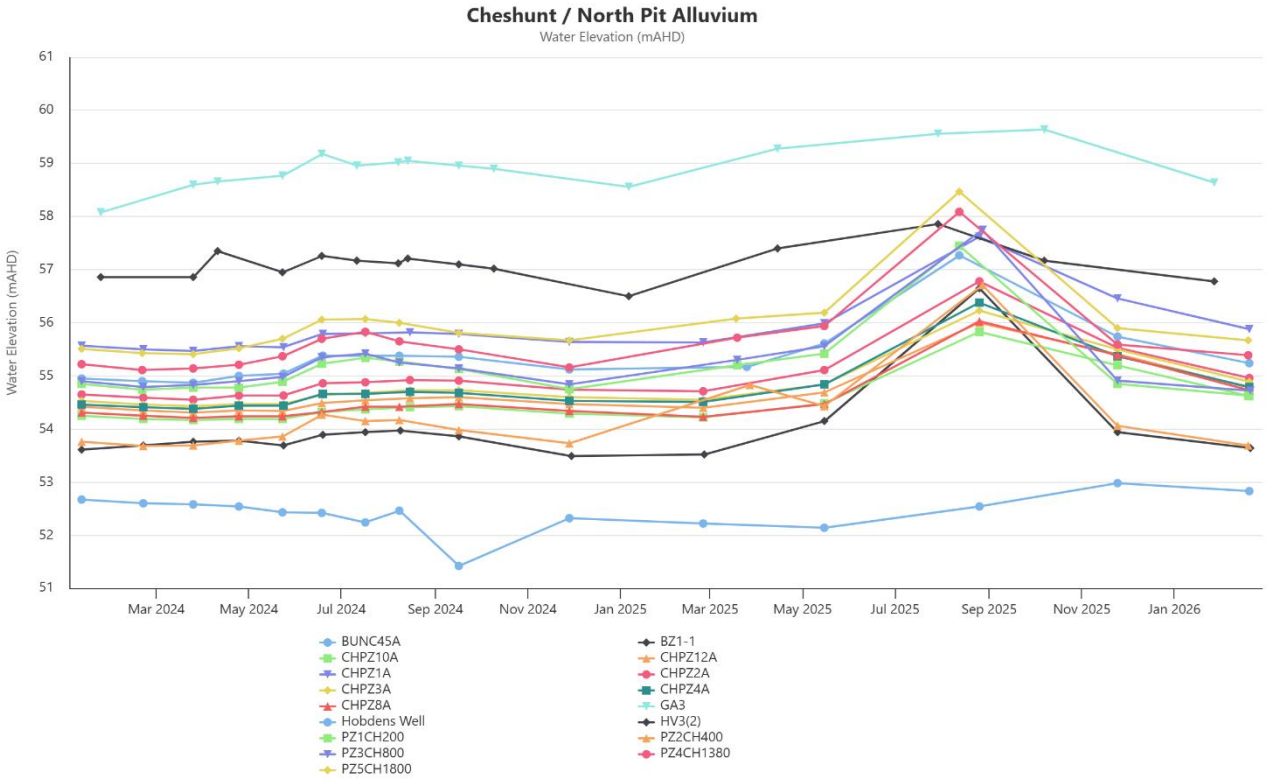

Figure 41– Cheshunt North Pit Alluvium Water Elevation Trend – Q1 2026

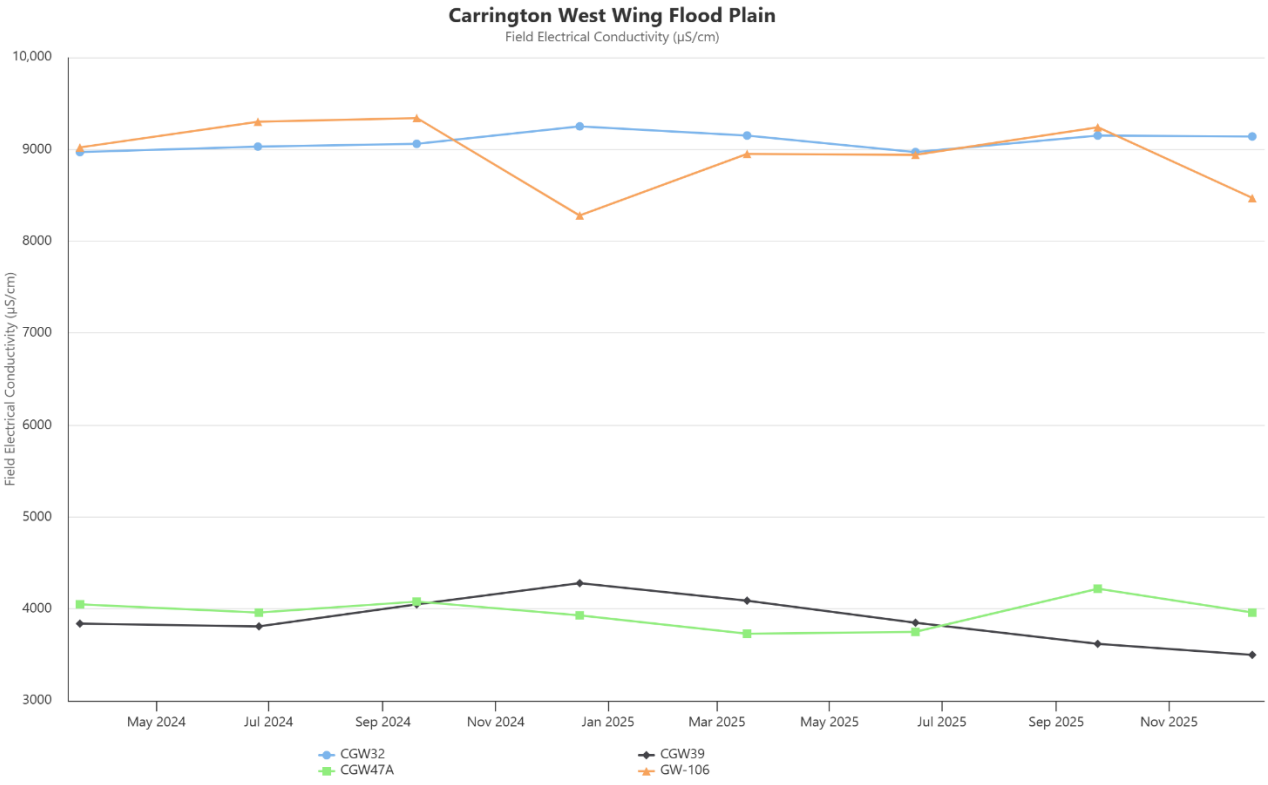

Figure 42 – Carrington West Wing Flood Plain Electrical Conductivity Trend – Q1 2026

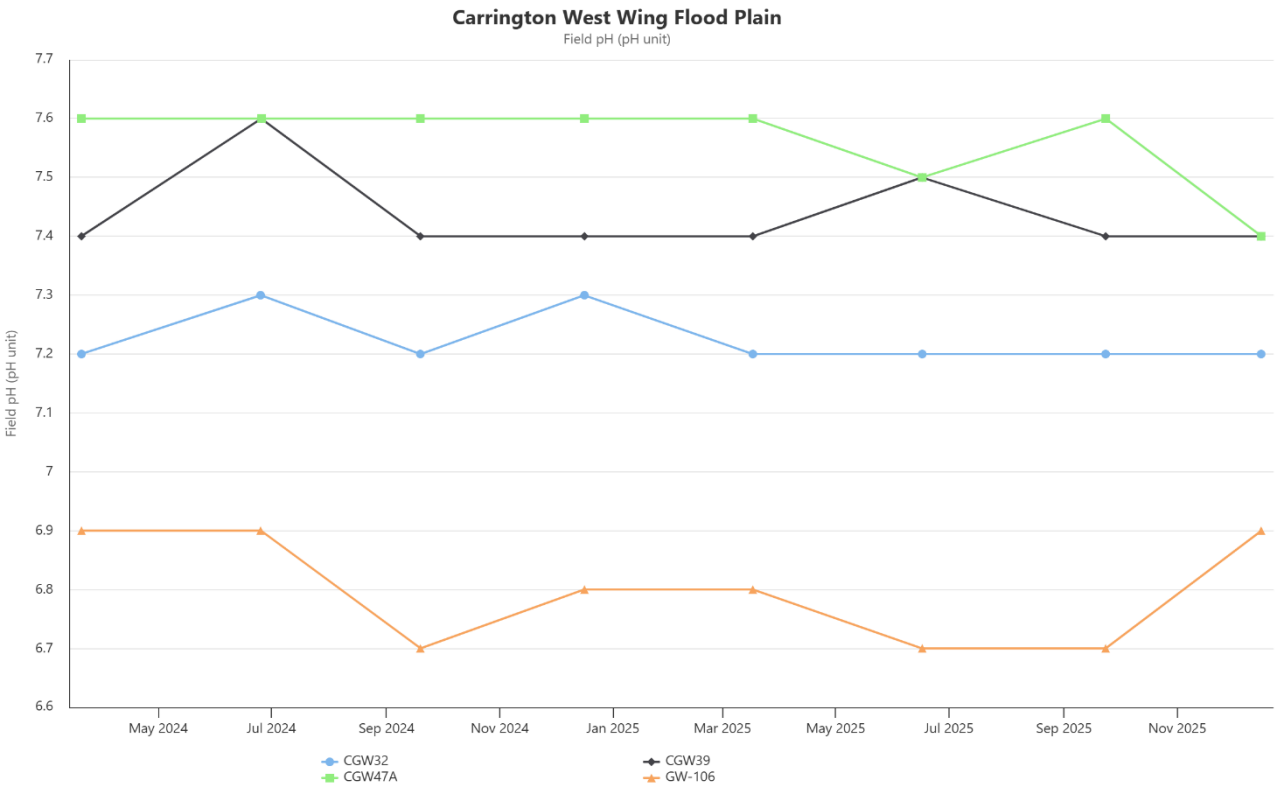

Figure 43 – Carrington West Wing Flood Plain pH Trend – Q1 2026

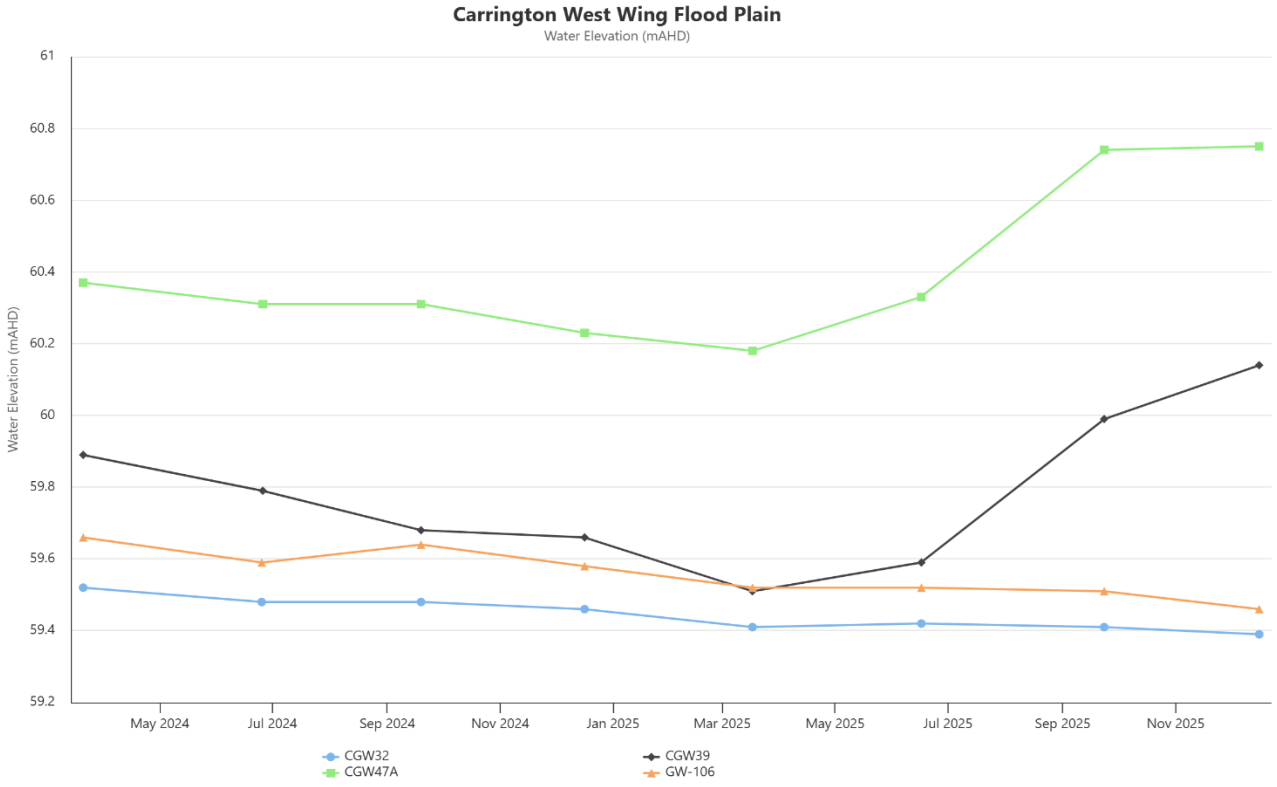

Figure 44 – Carrington West Wing Flood Plain Water Elevation Trend – Q1 2026

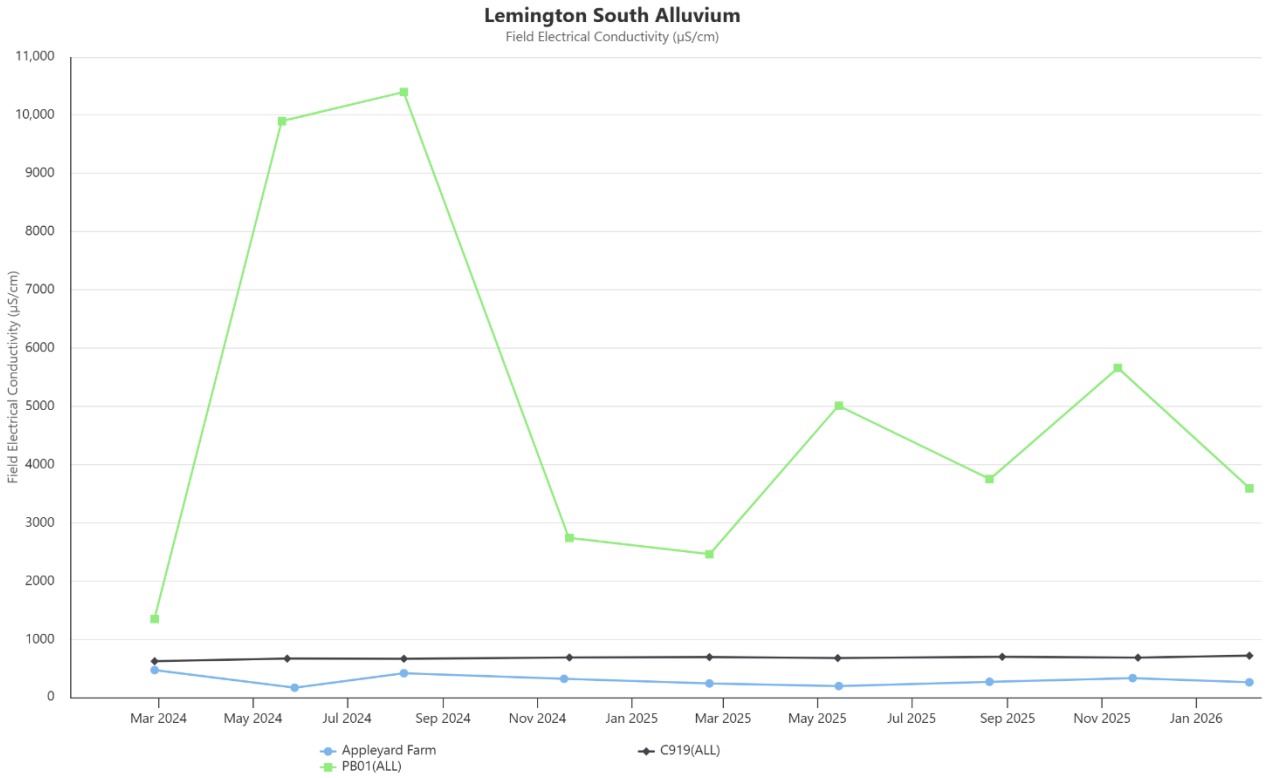

Figure 45 – Lemington South Alluvium Electrical Conductivity Trend – Q1 2026

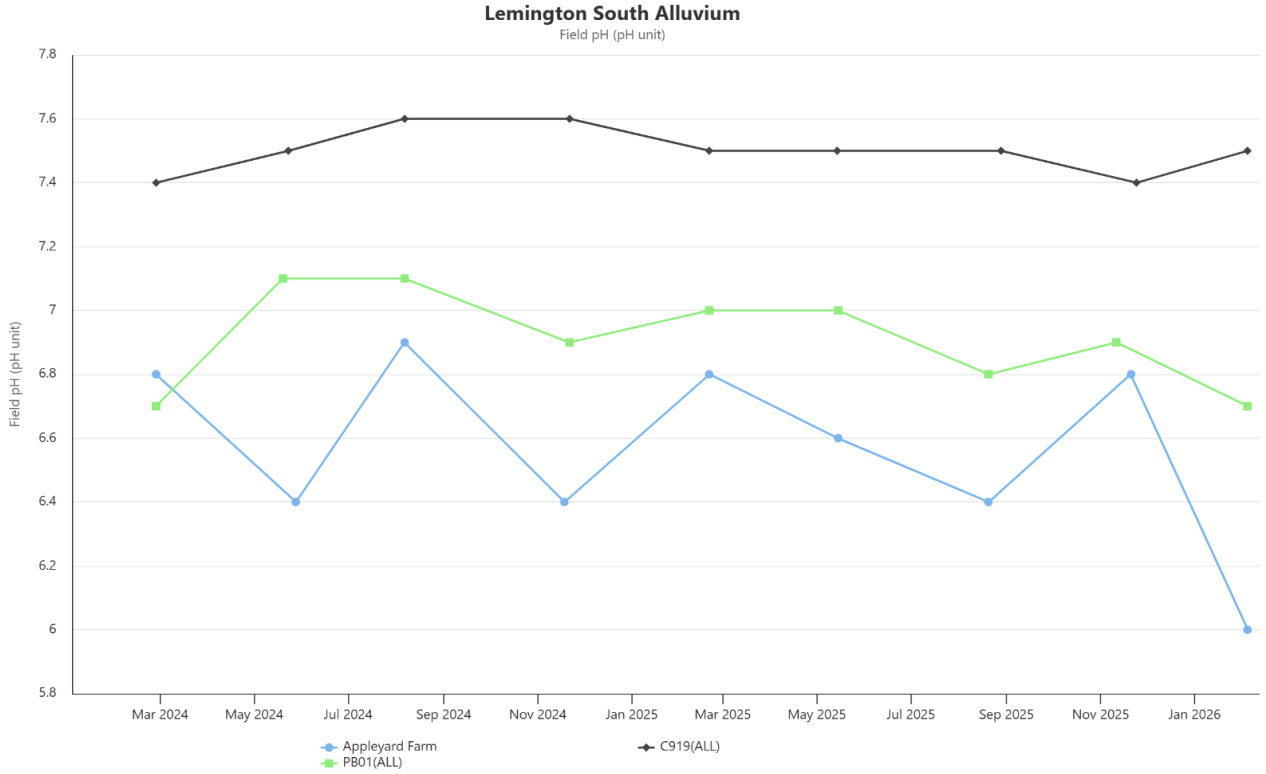

Figure 46 – Lemington South Alluvium Field pH Trend – Q1 2026

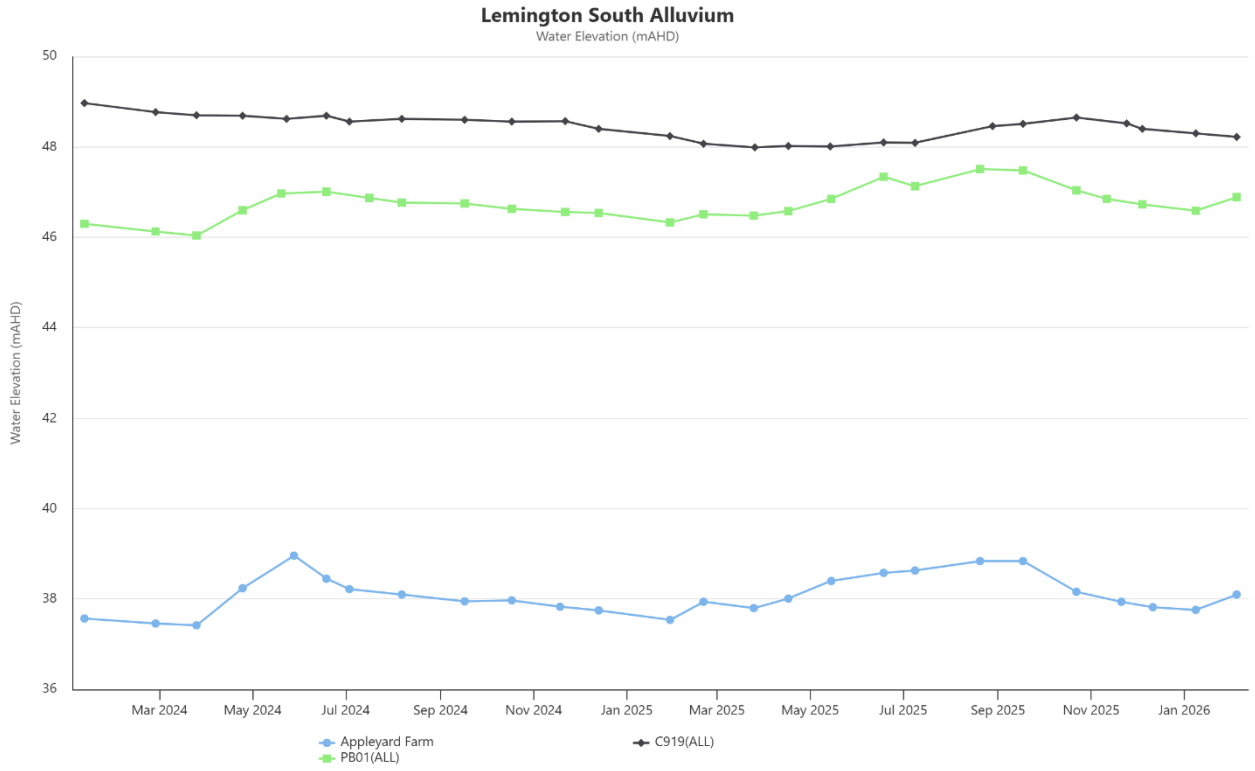

Figure 47 – Lemington South Alluvium Water Elevation Trend – Q1 2026

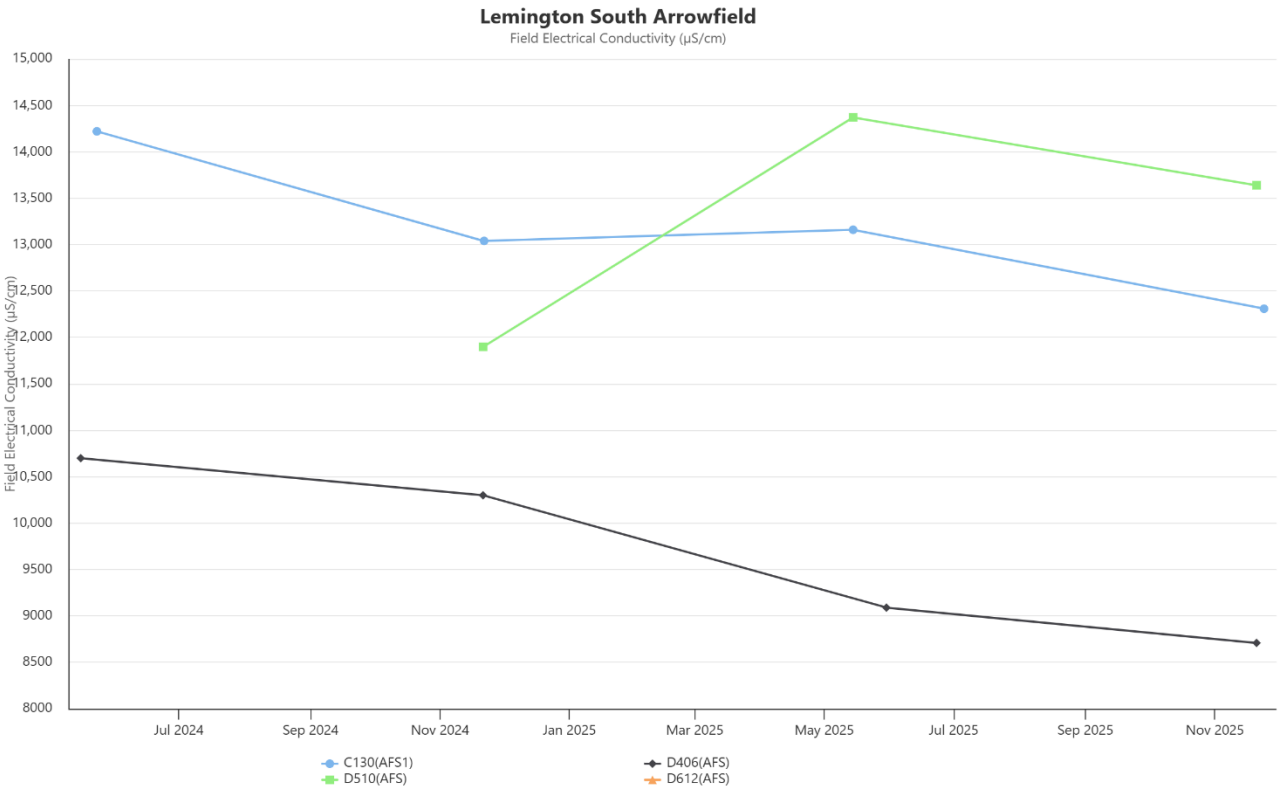

Figure 48 – Lemington South Arrowfield Electrical Conductivity Trend – Q1 2026

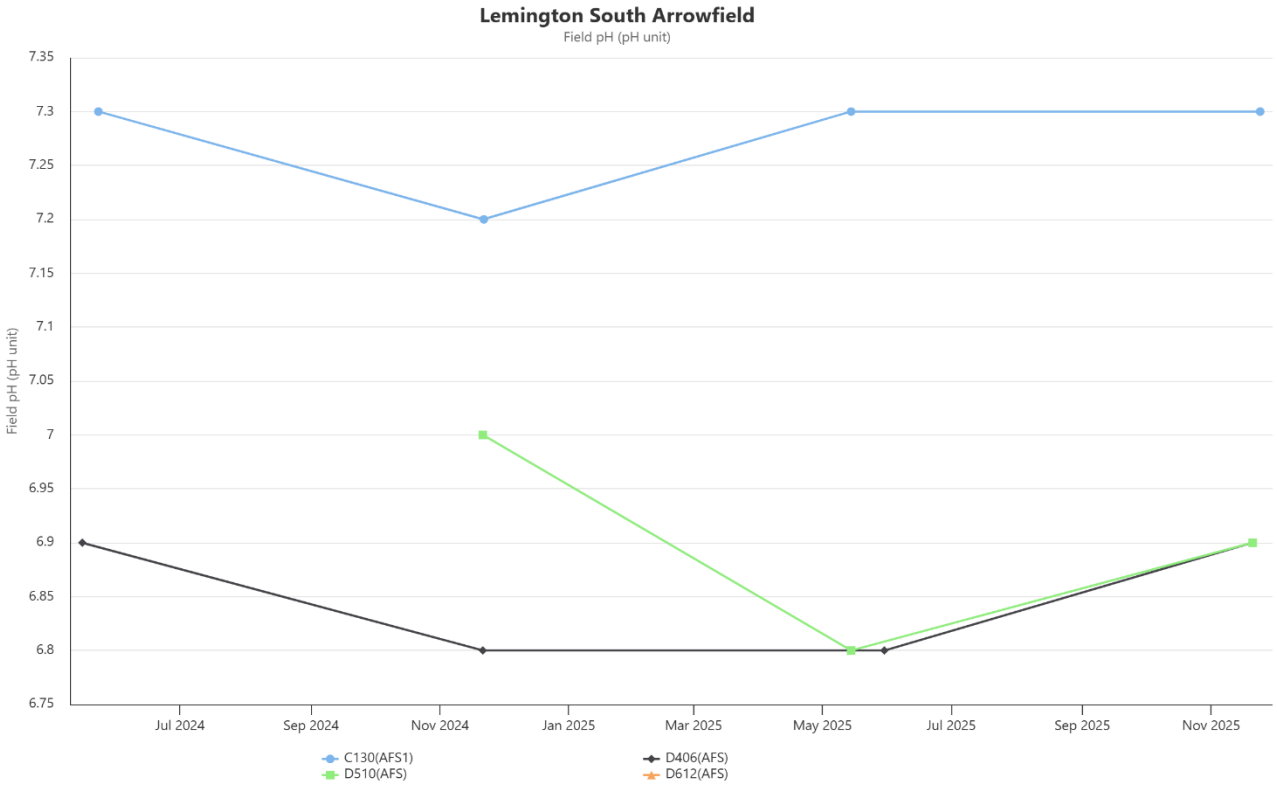

Figure 49 – Lemington South Arrowfield Field pH Trend – Q1 2026

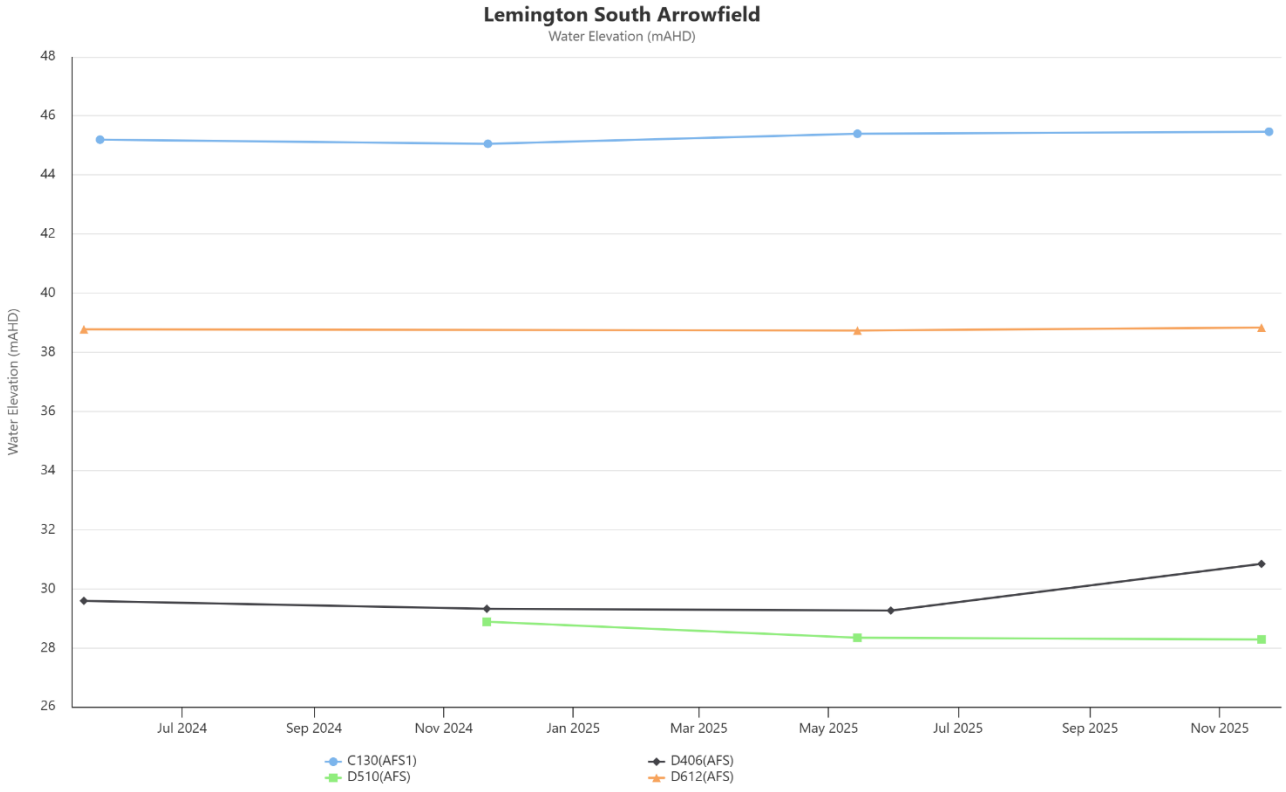

Figure 50 – Lemington South Arrowfield Water Elevation Trend – Q1 2026

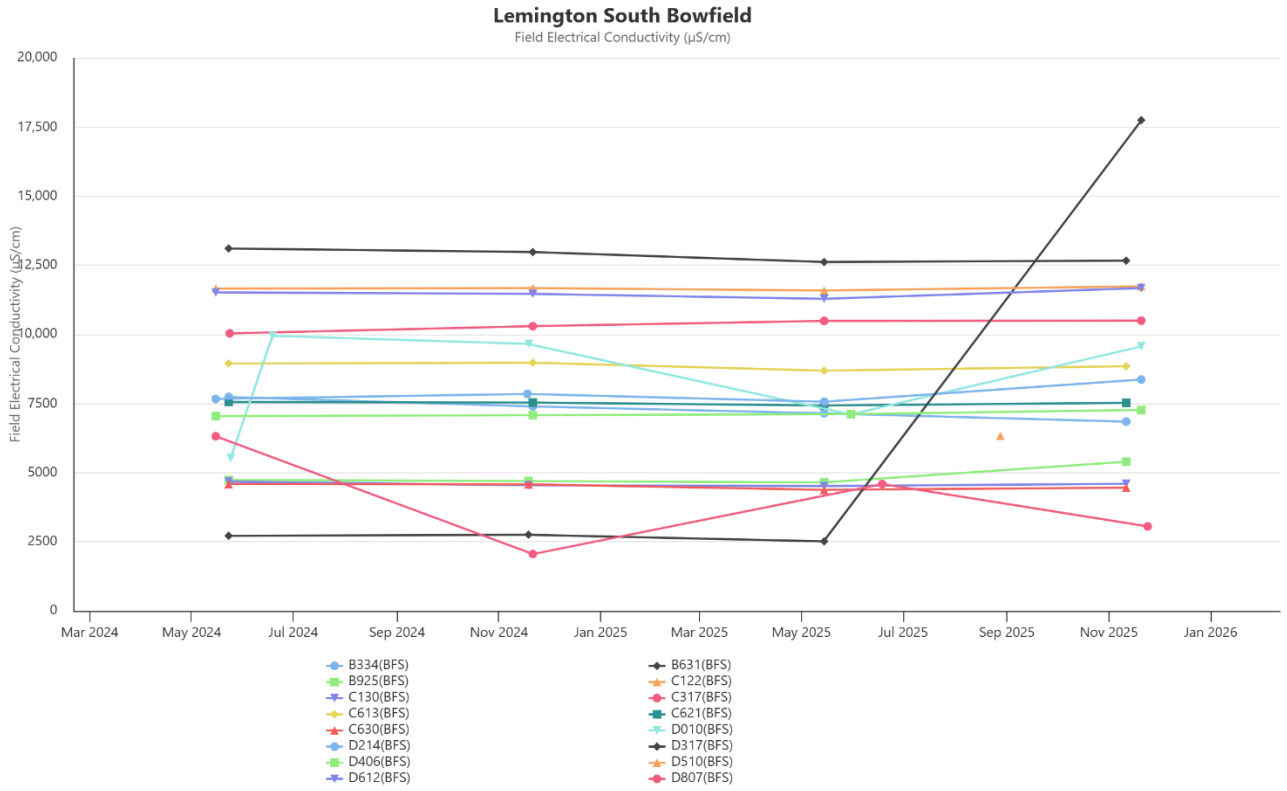

Figure 51 – Lemington South Bowfield Electrical Conductivity Trend – Q1 2026

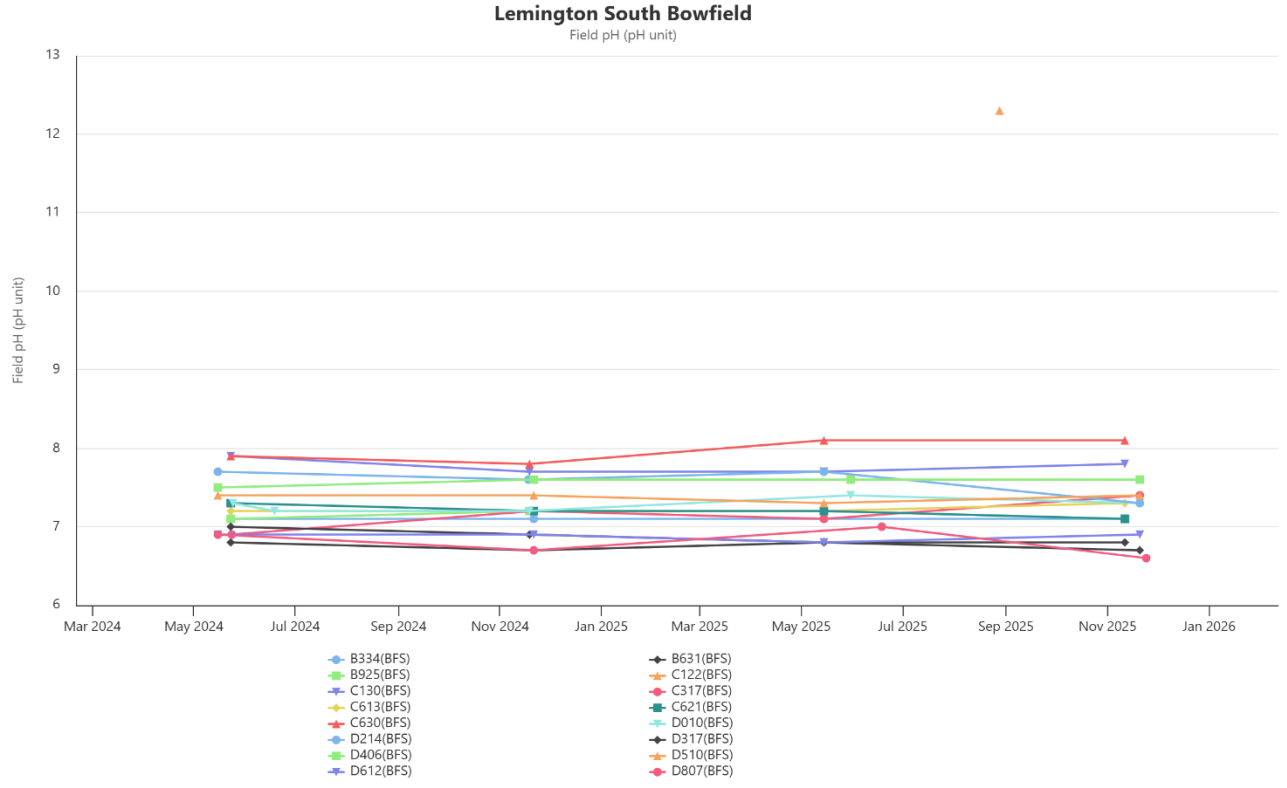

Figure 52 – Lemington South Bowfield pH Trend – Q1 2026

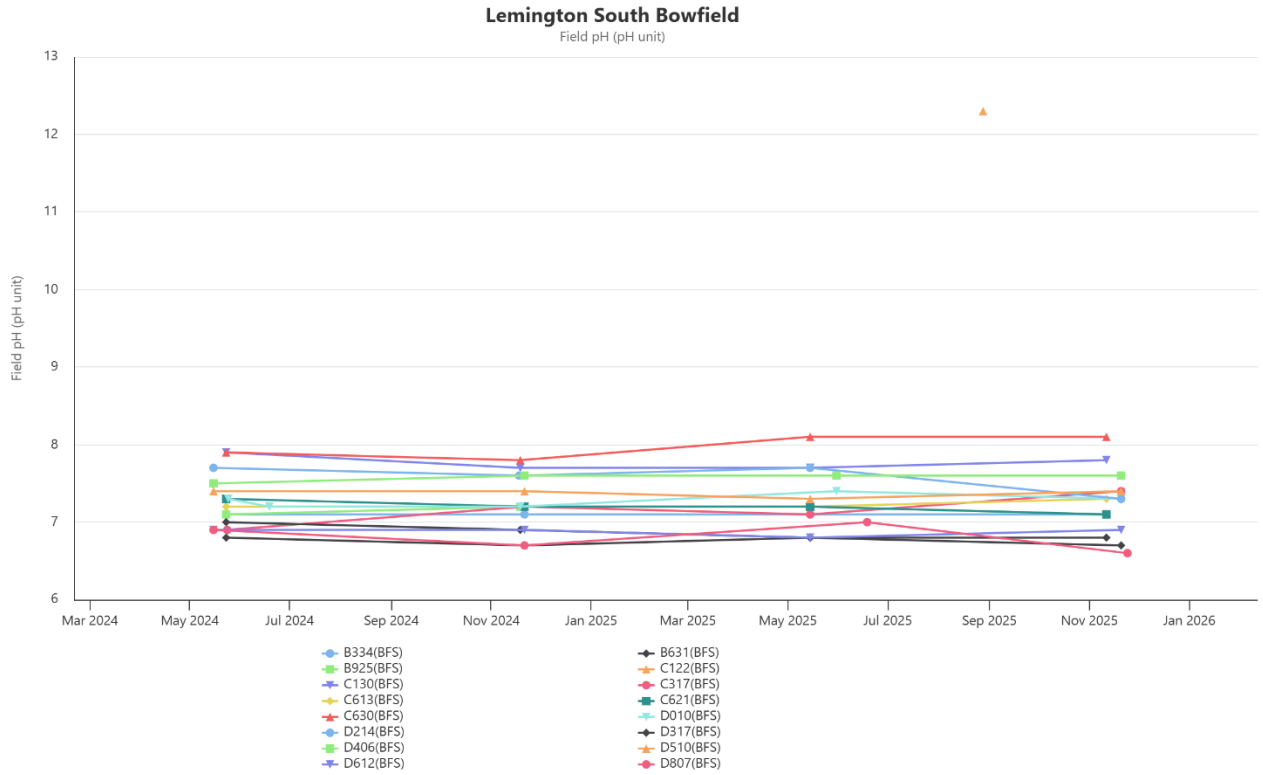

Figure 53 – Lemington South Bowfield Water Elevation Trend – Q1 2026

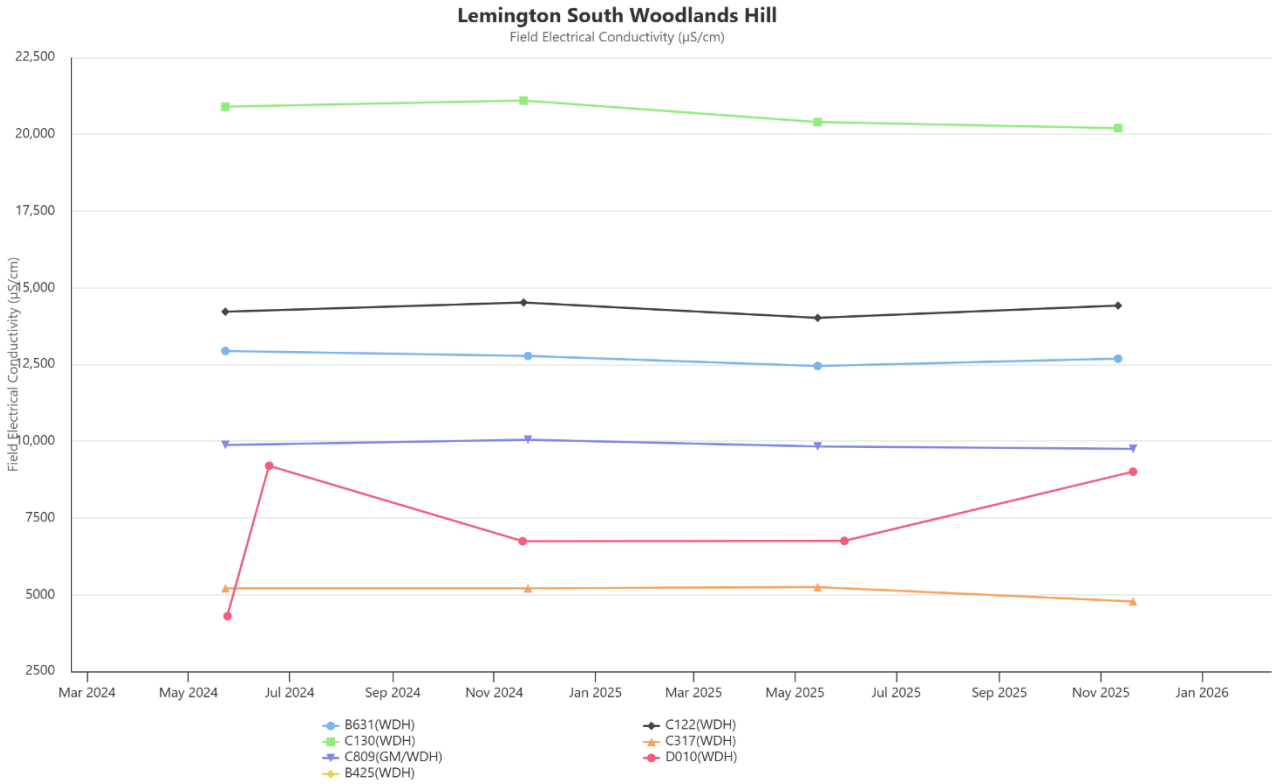

Figure 54 – Lemington South Woodlands Hill Electrical Conductivity Trend – Q1 2026

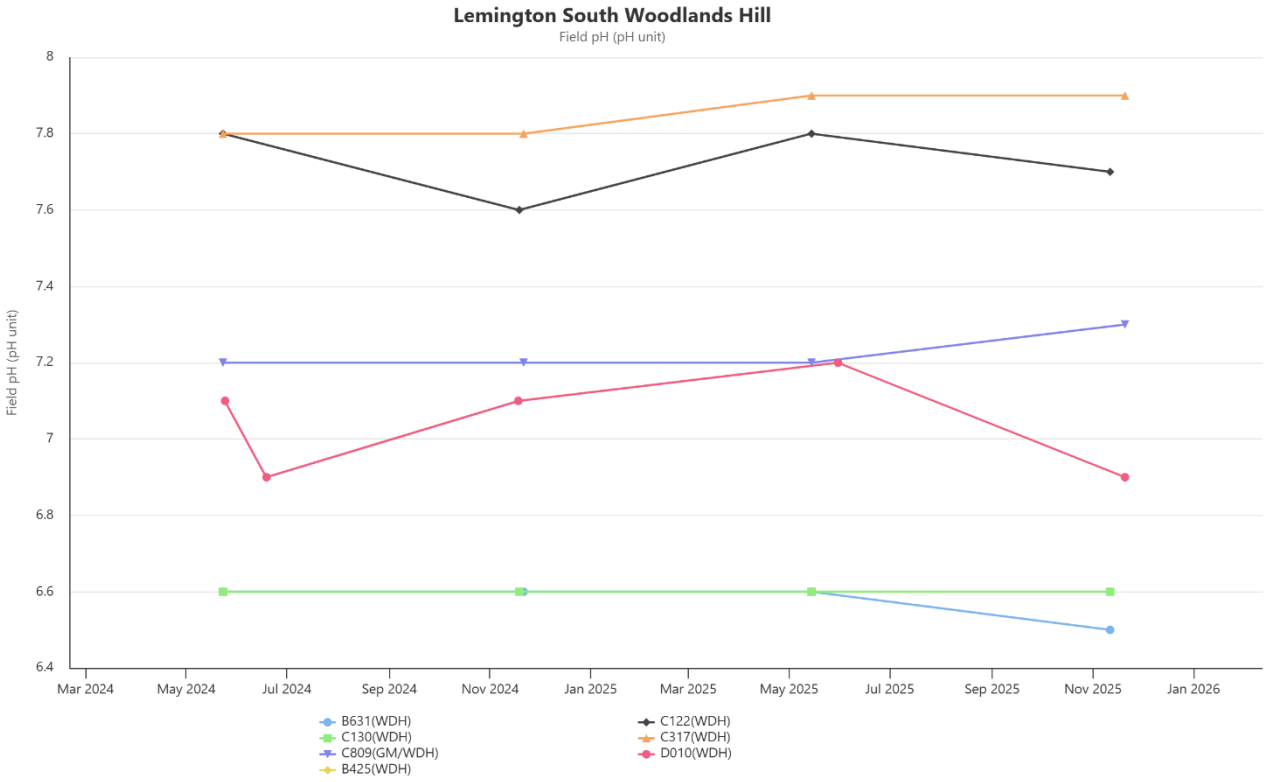

Figure 55 – Lemington South Woodlands Hill Field pH Trend – Q1 2026

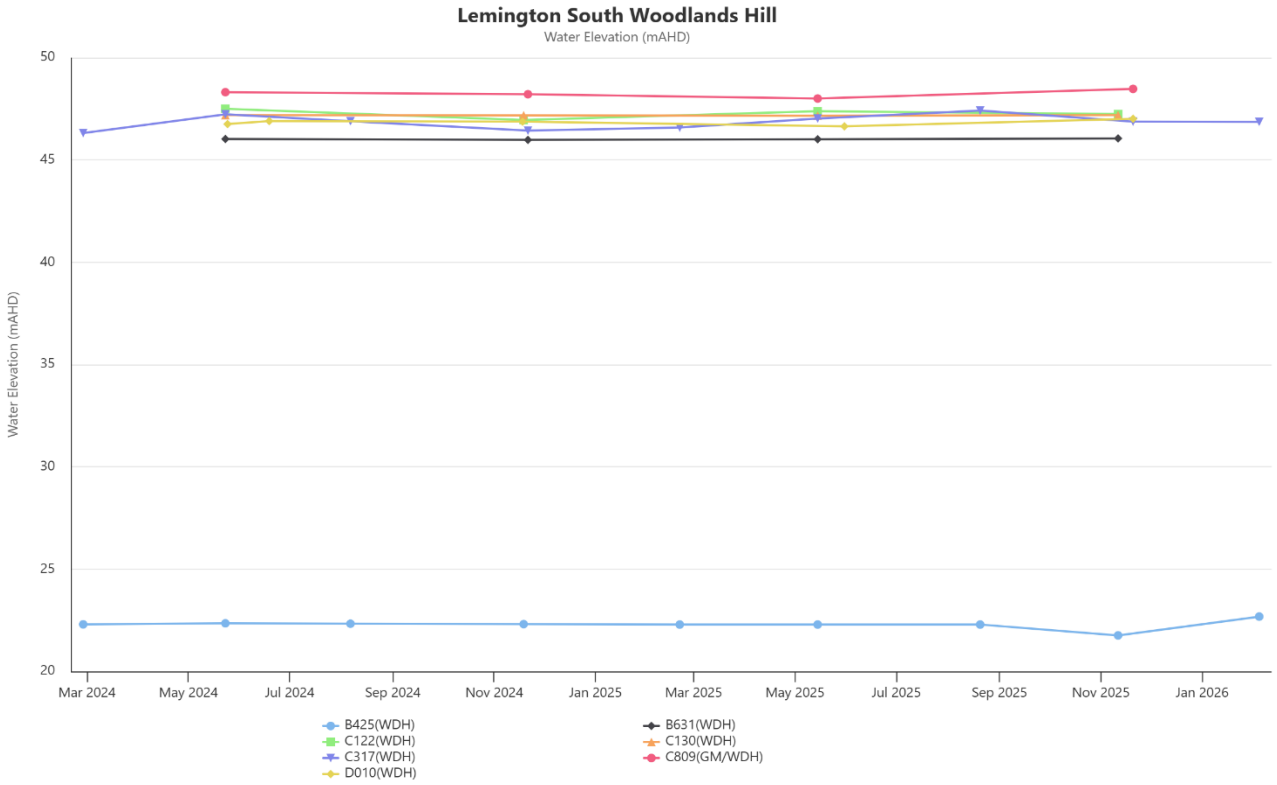

Figure 56 – Lemington South Woodlands Hill Water Elevation Trend – Q1 2026

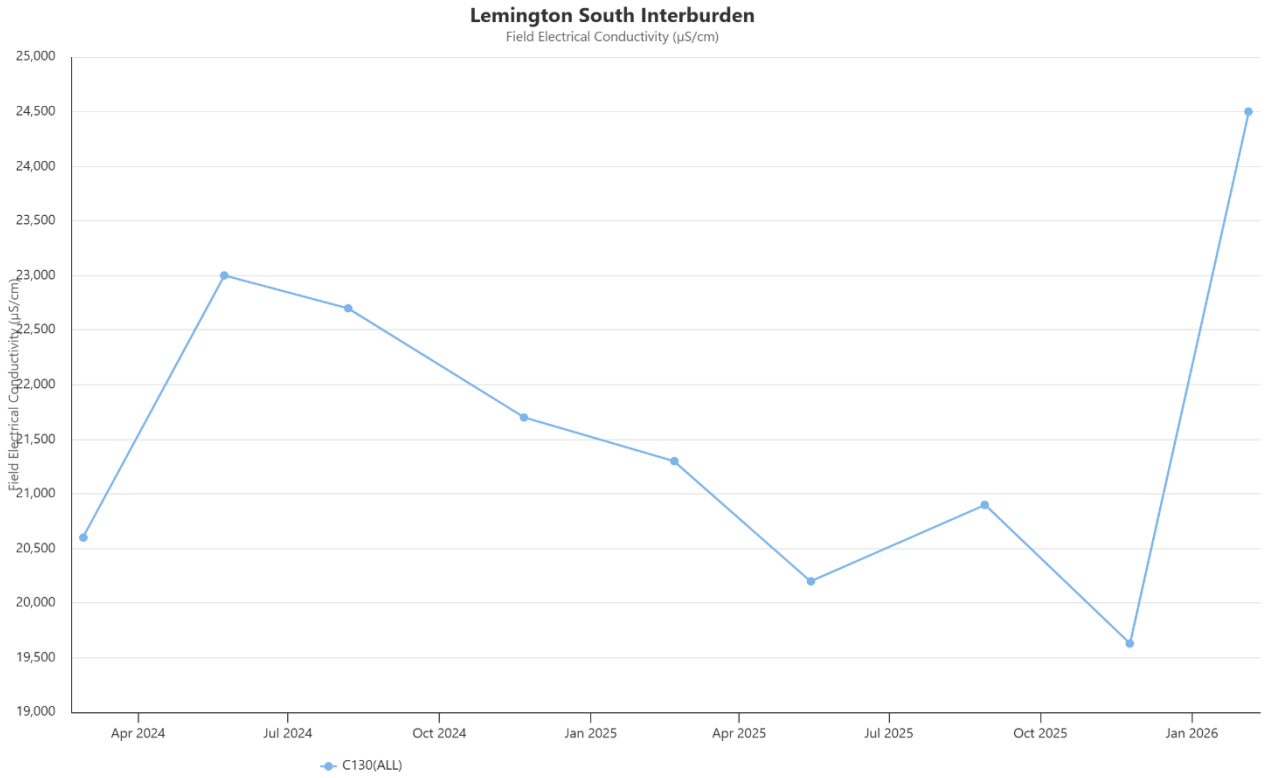

Figure 57 – Lemington South Interburden Electrical Conductivity Trend – Q1 2026

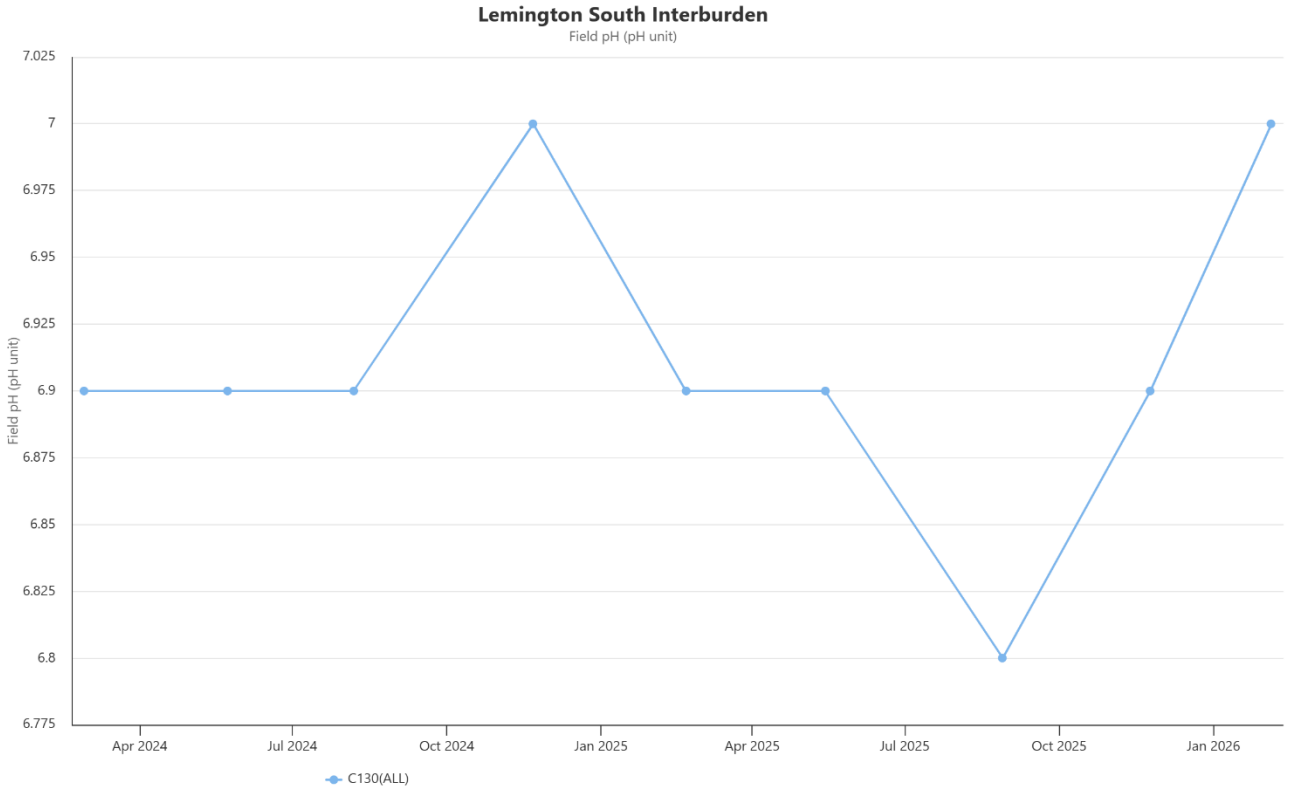

Figure 58 – Lemington South Interburden Field pH Trend – Q1 2026

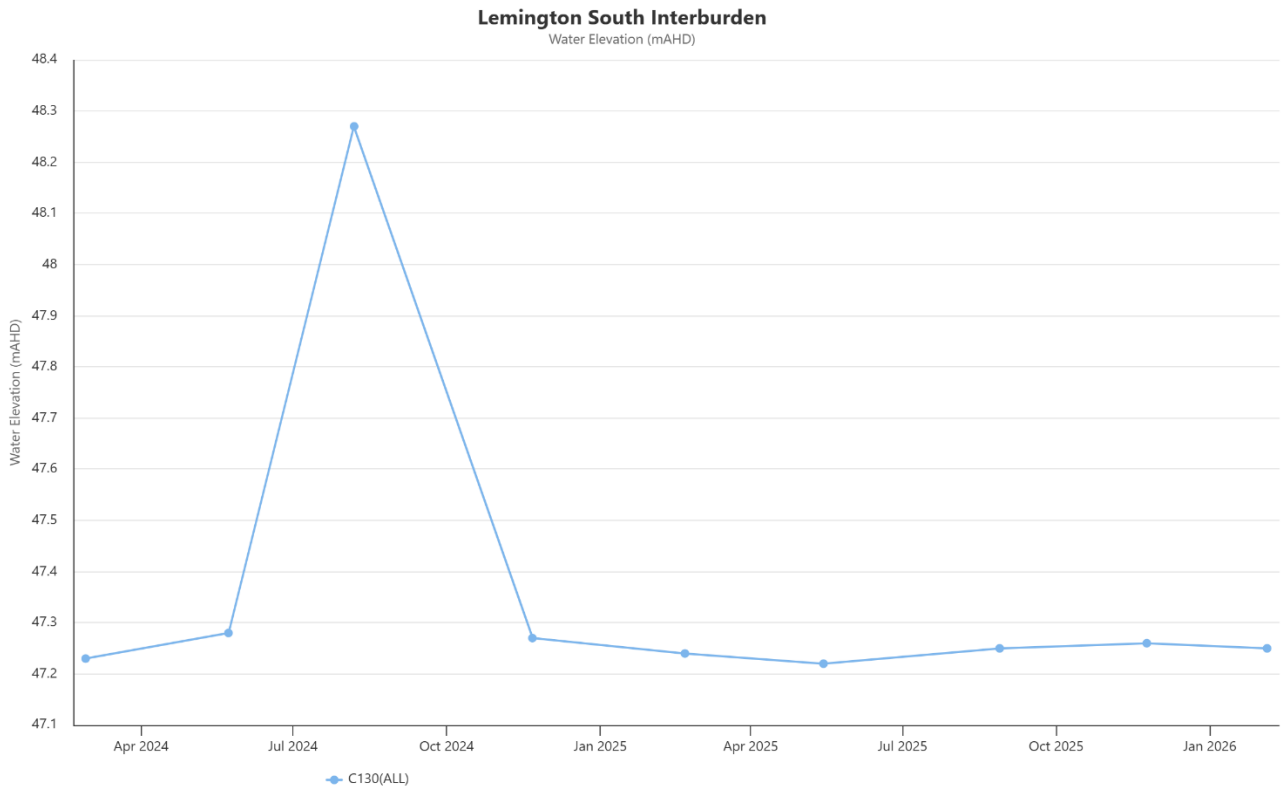

Figure 59 – Lemington South Interburden Water Elevation Trend – Q1 2026

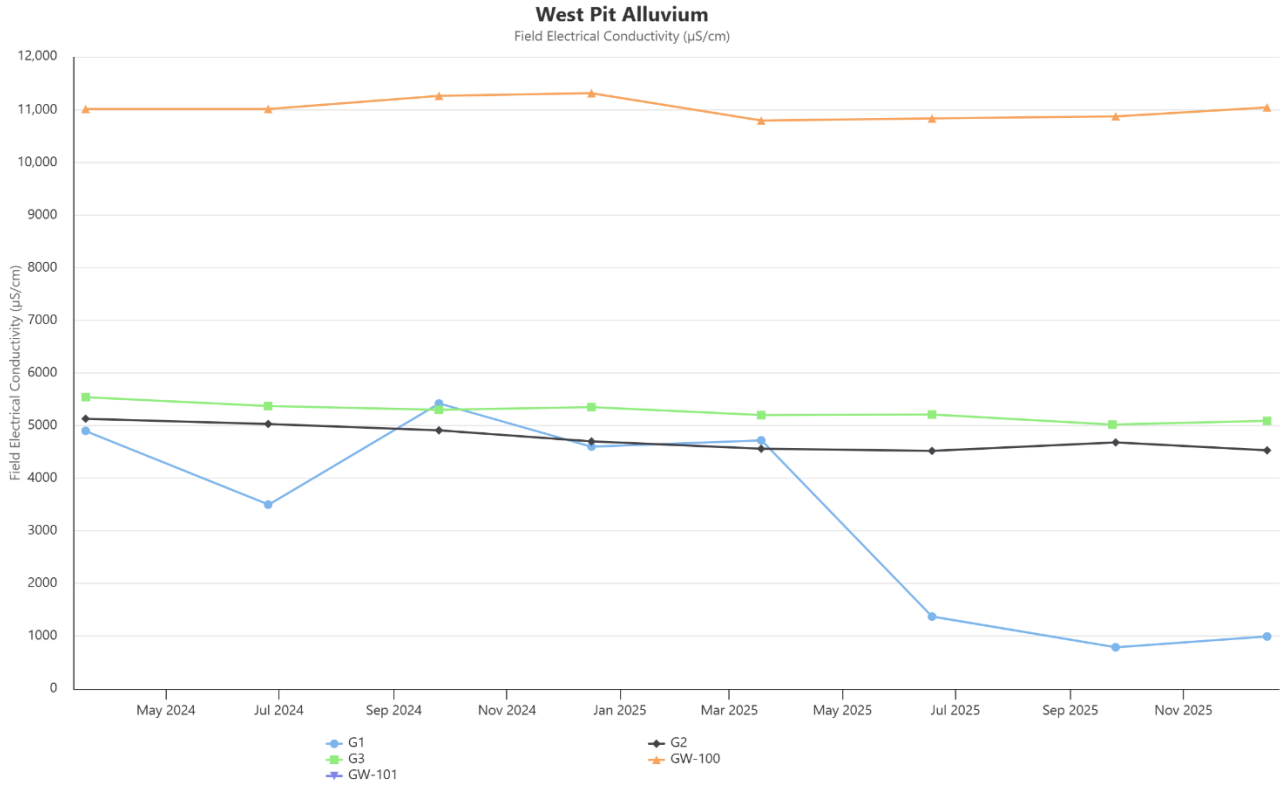

Figure 60 – West Pit Alluvium Electrical Conductivity Trend – Q1 2026

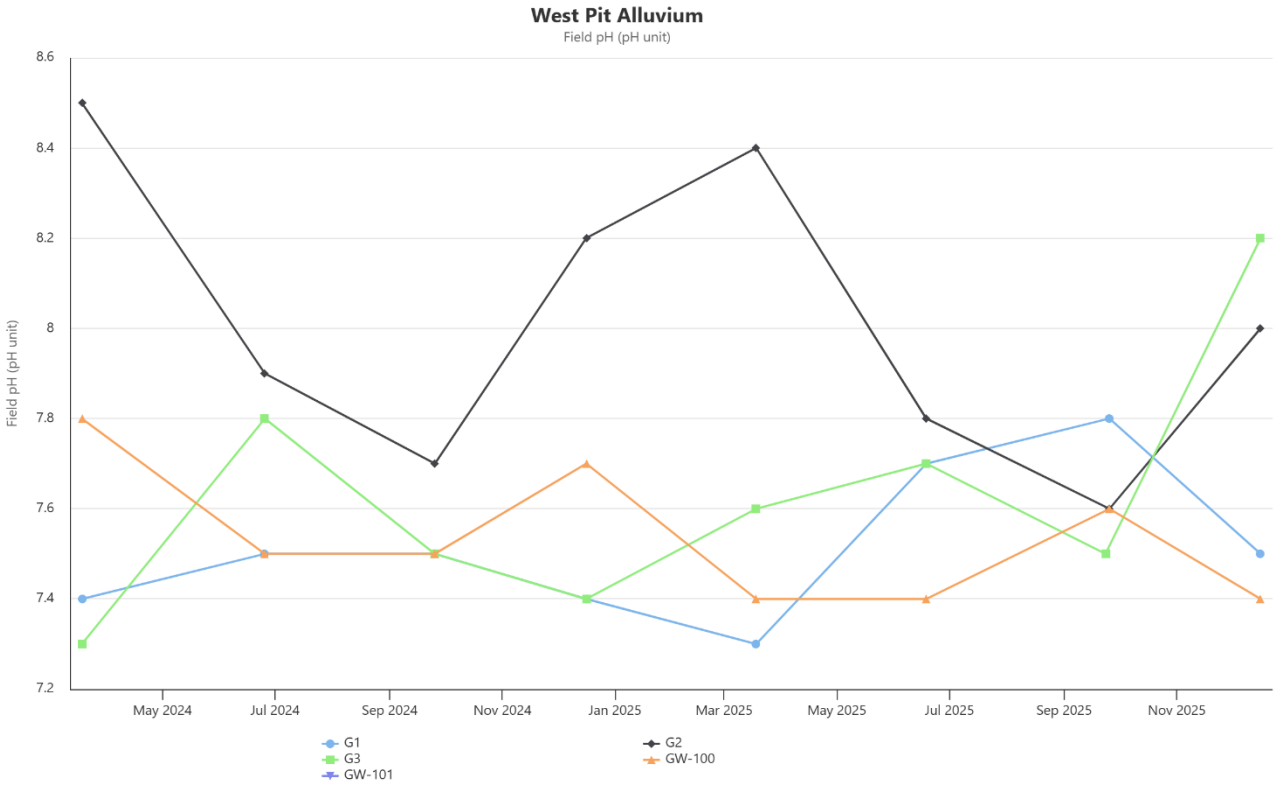

Figure 61 – West Pit Alluvium pH Trend – Q1 2026

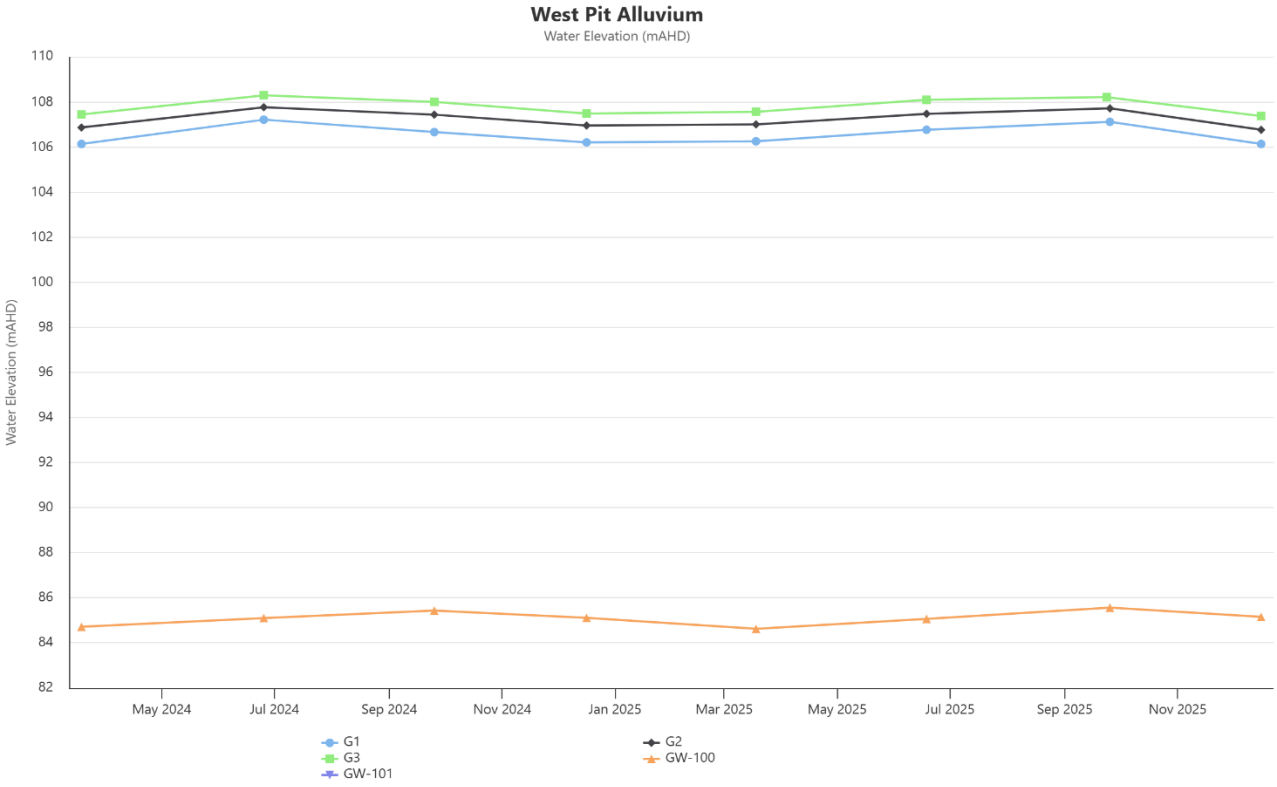

Figure 62 – West Pit Alluvium Water Elevation Trend – Q1 2026

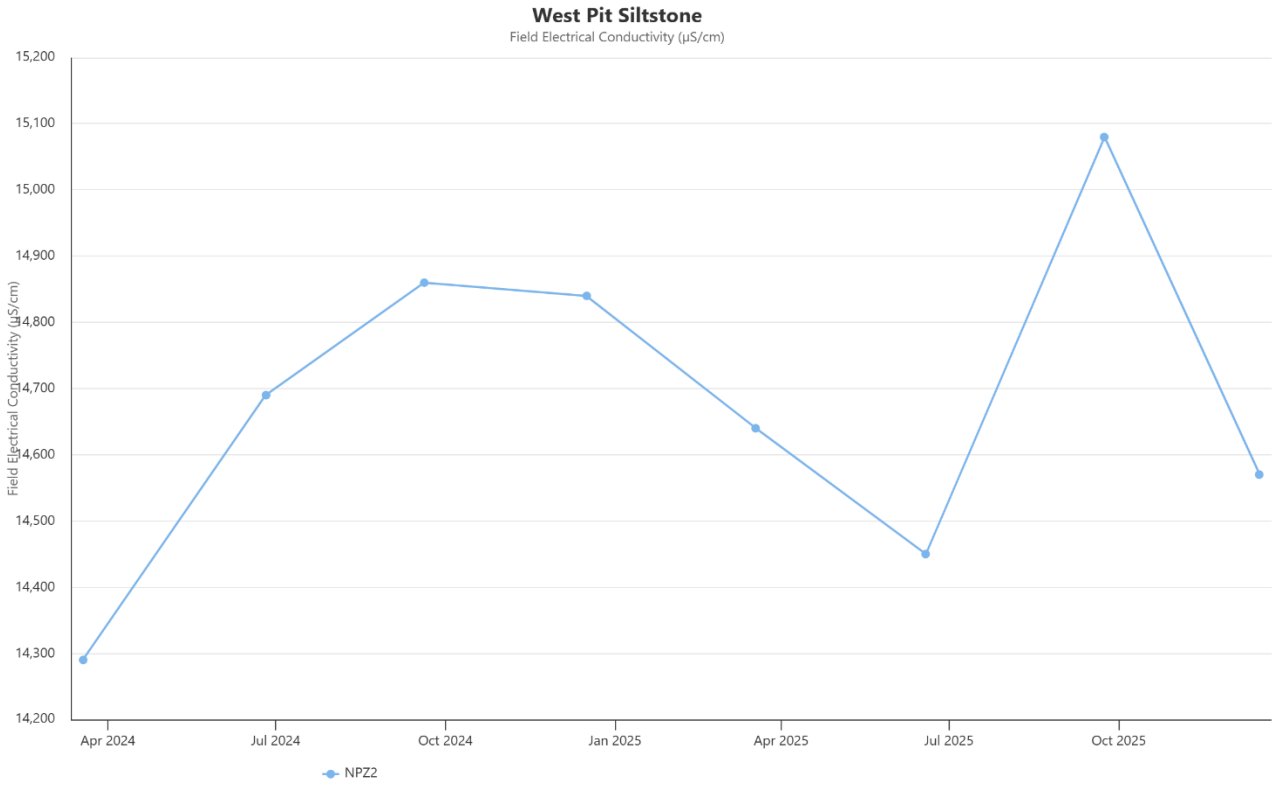

Figure 63 – West Pit Siltstone Electrical Conductivity Trend – Q1 2026

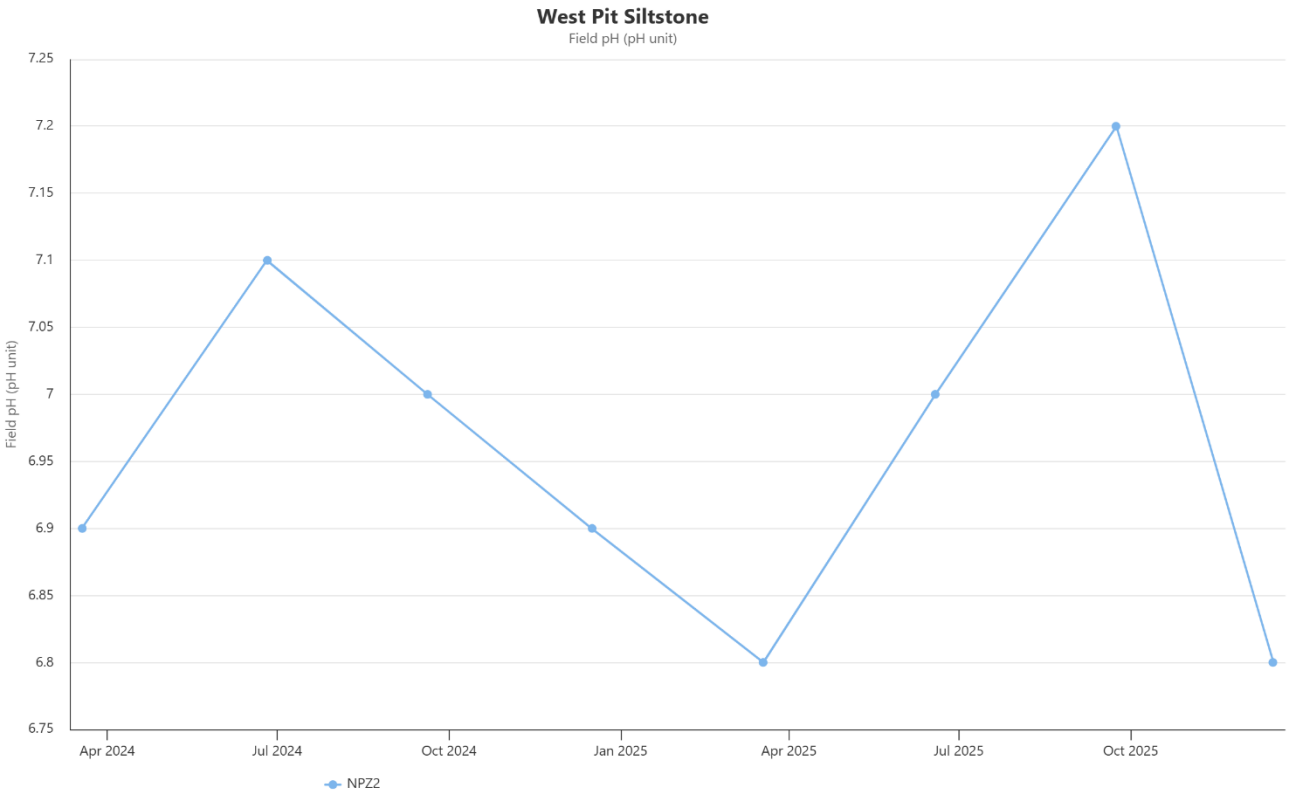

Figure 64 – West Pit Siltstone Field pH Trend – Q1 2026

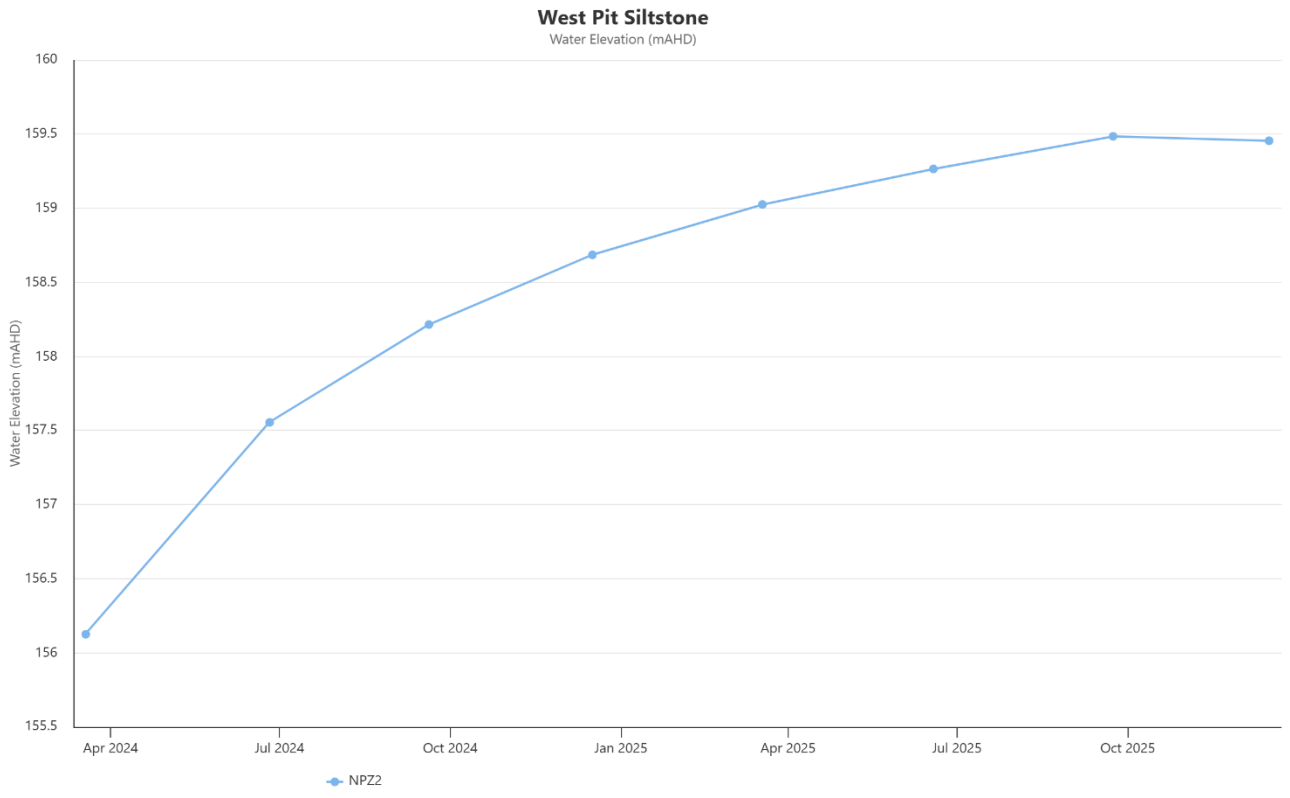

Figure 65 – West Pit Siltstone Water Elevation Trend – Q1 2026

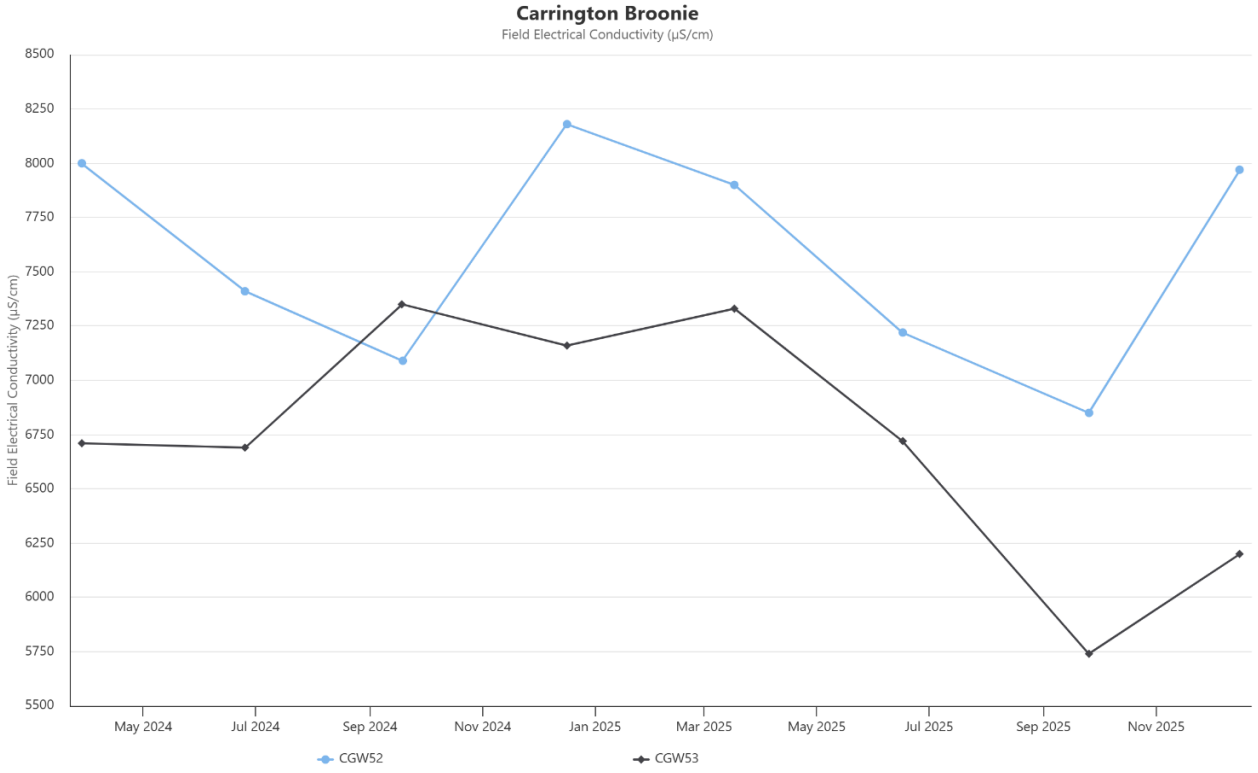

Figure 66 – Carrington Broonie Electrical Conductivity Trend – Q1 2026

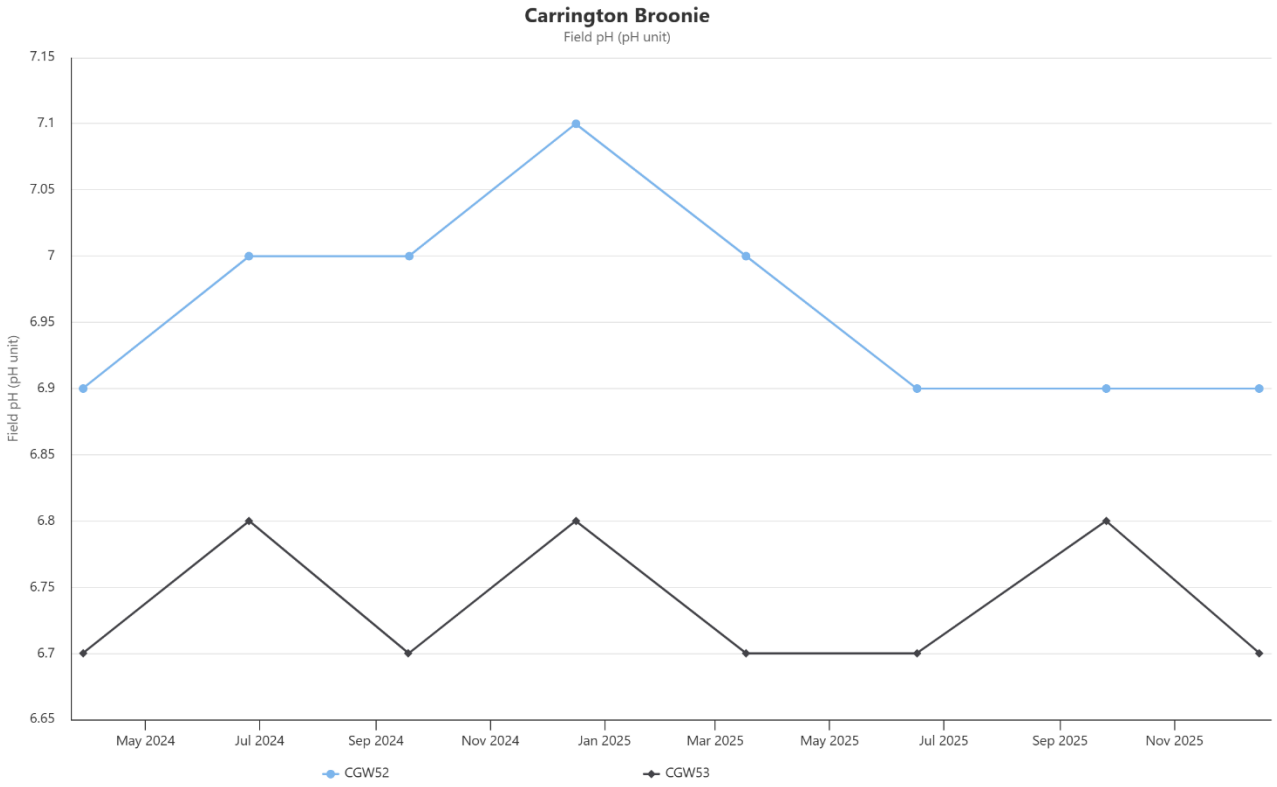

Figure 67 – Carrington Broonie Field pH Trend – Q1 2026

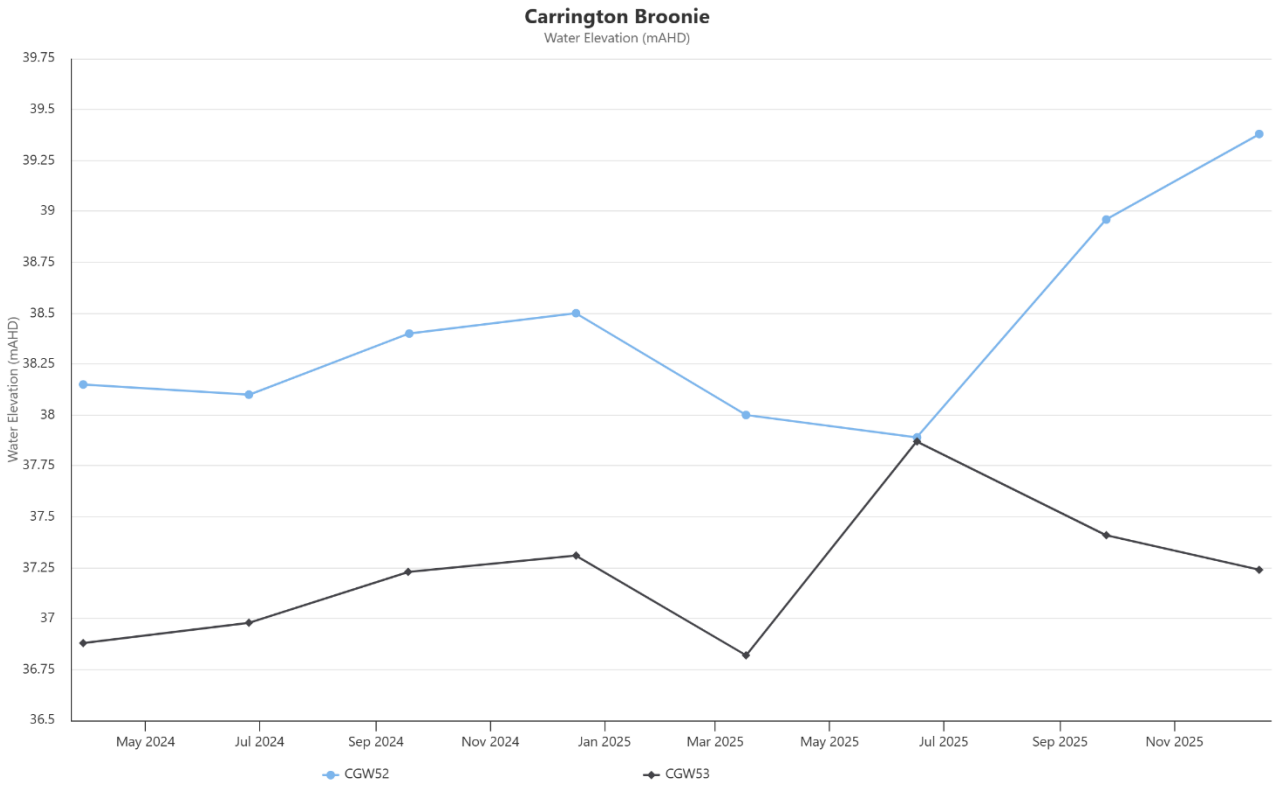

Figure 68 – Carrington Broonie Water Elevation Trend – Q1 2026

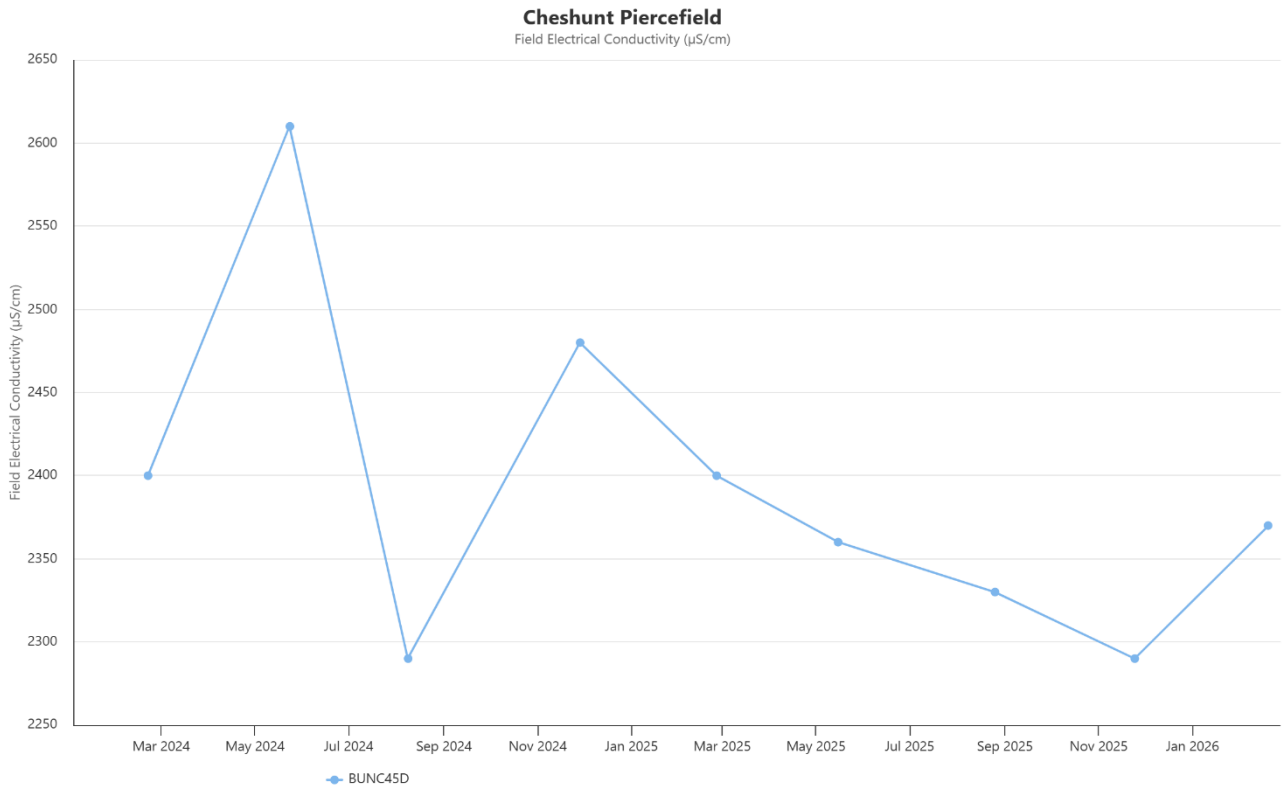

Figure 69 – Cheshunt Piercefield Electrical Conductivity Trend – Q1 2026

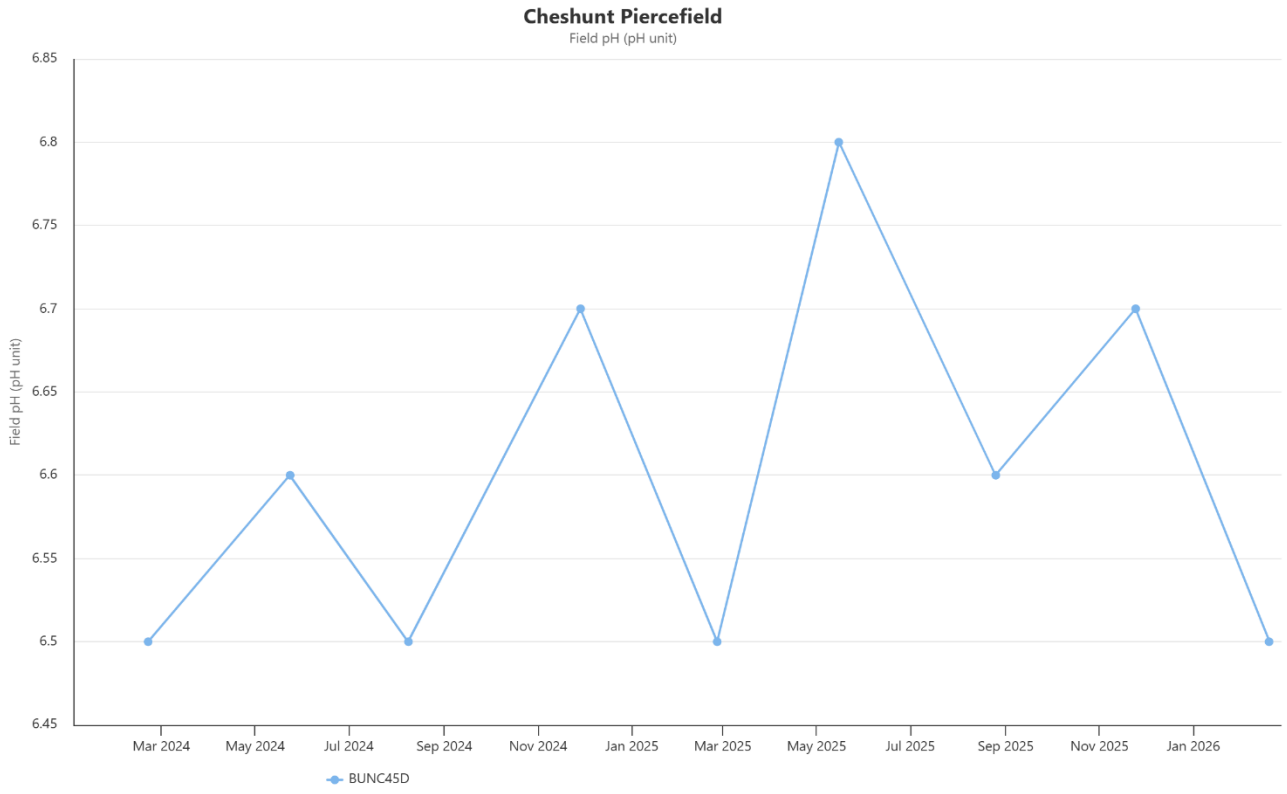

Figure 70 – Cheshunt Piercefield Field pH Trend – Q1 2026

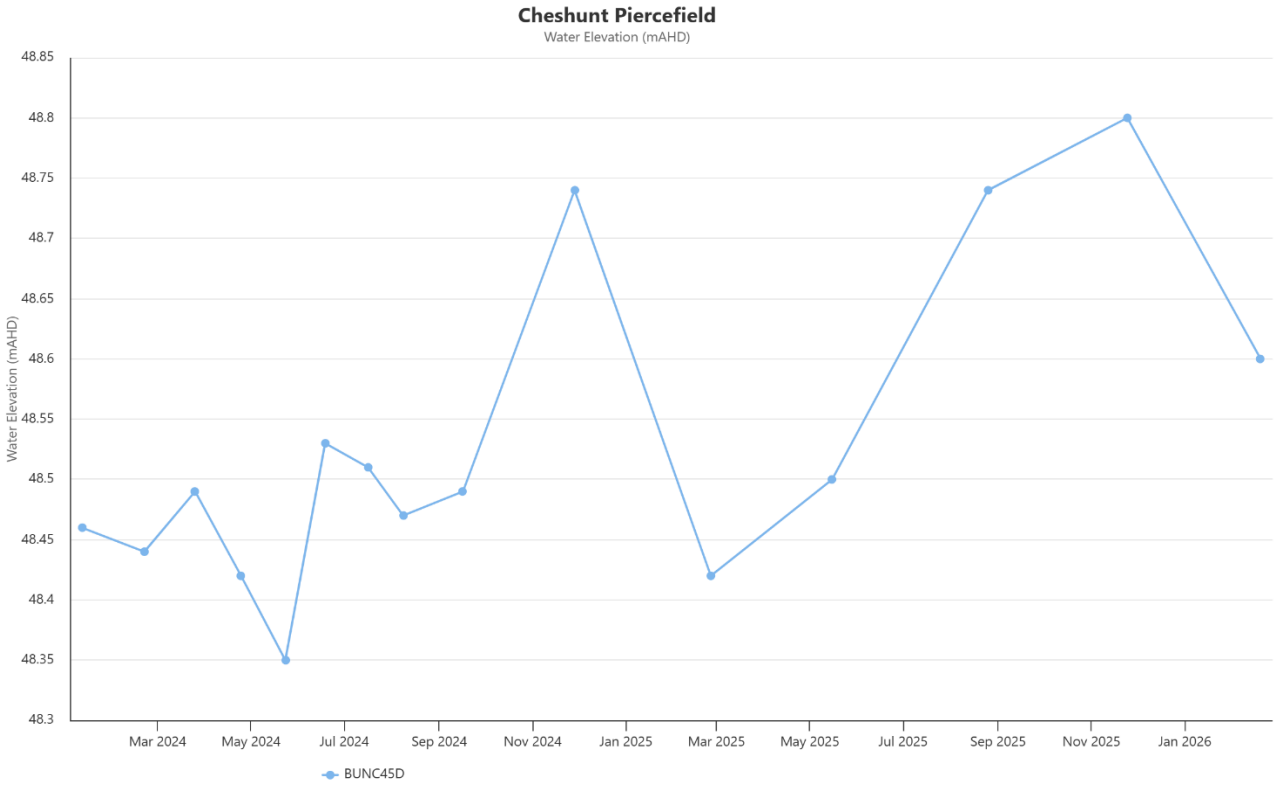

Figure 71 – Cheshunt Piercefield Water Elevation Trend – Q1 2026

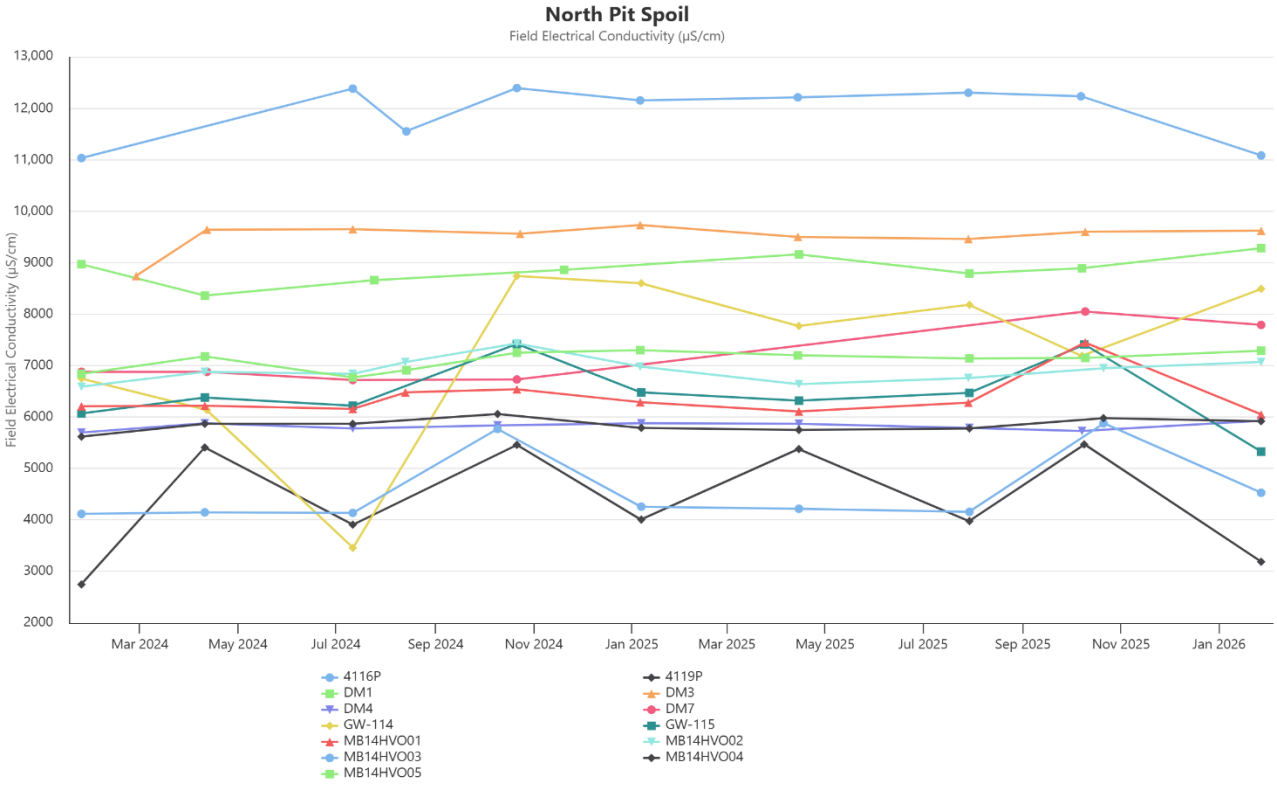

Figure 72 – North Pit Spoil Electrical Conductivity Trend – Q1 2026

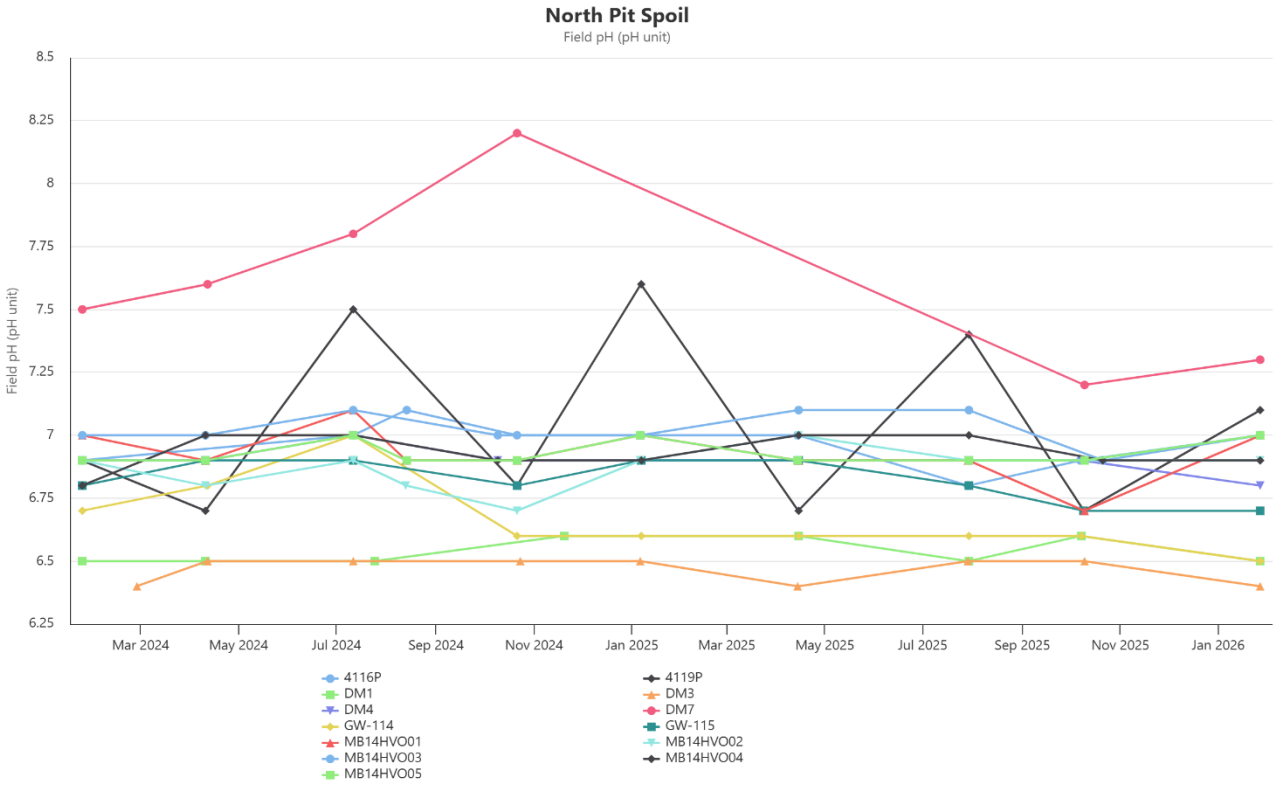

Figure 73 – North Pit Spoil Field pH Trend – Q1 2026

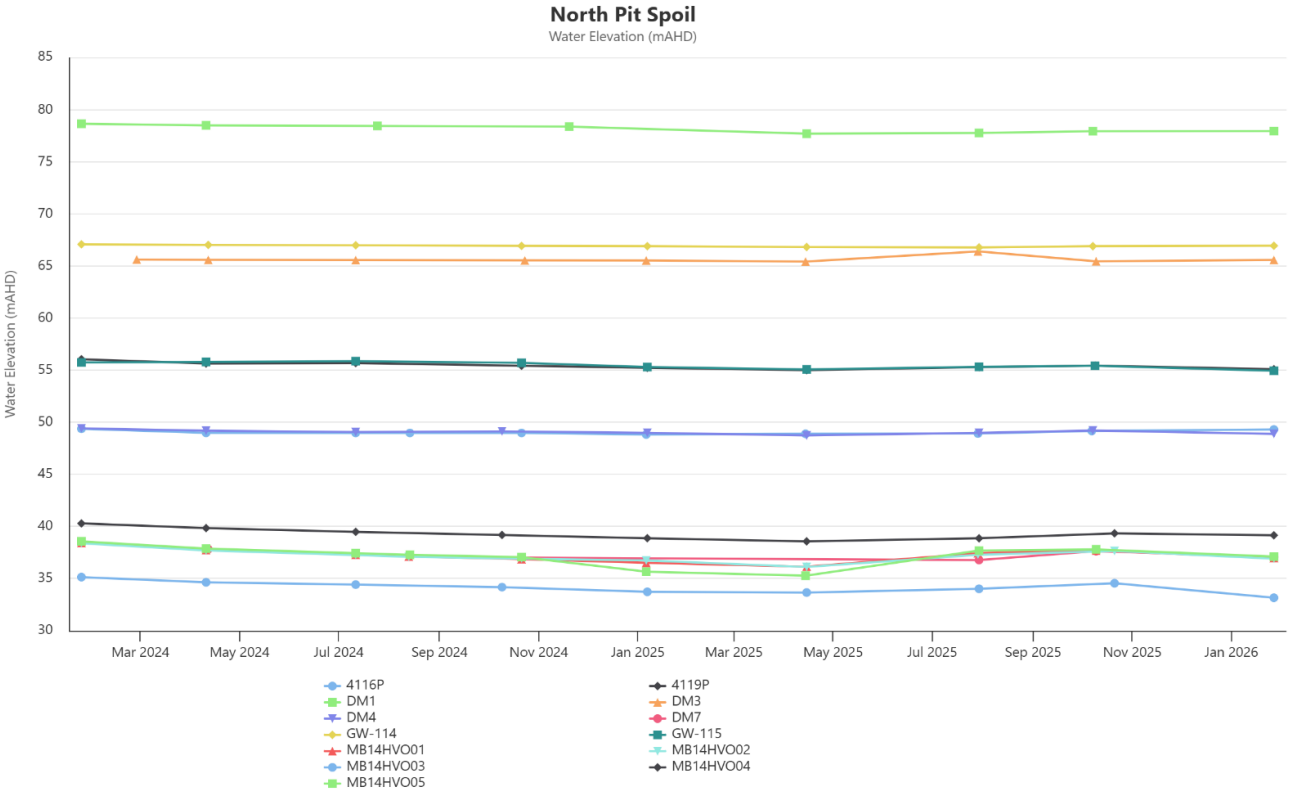

Figure 74 – North Pit Spoil Water Elevation Trend – Q1 2026

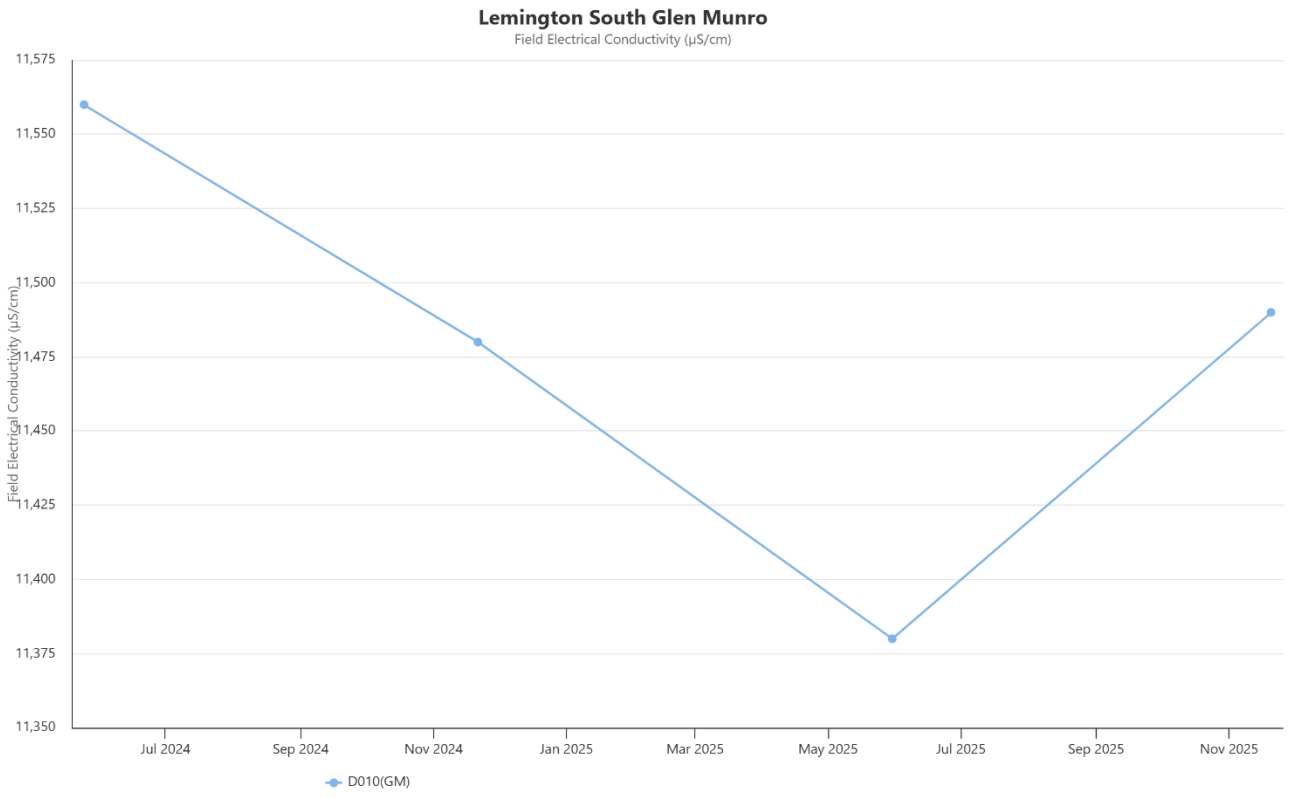

Figure 75 – Lemington South Glen Munro Electrical Conductivity Trend – Q1 2026

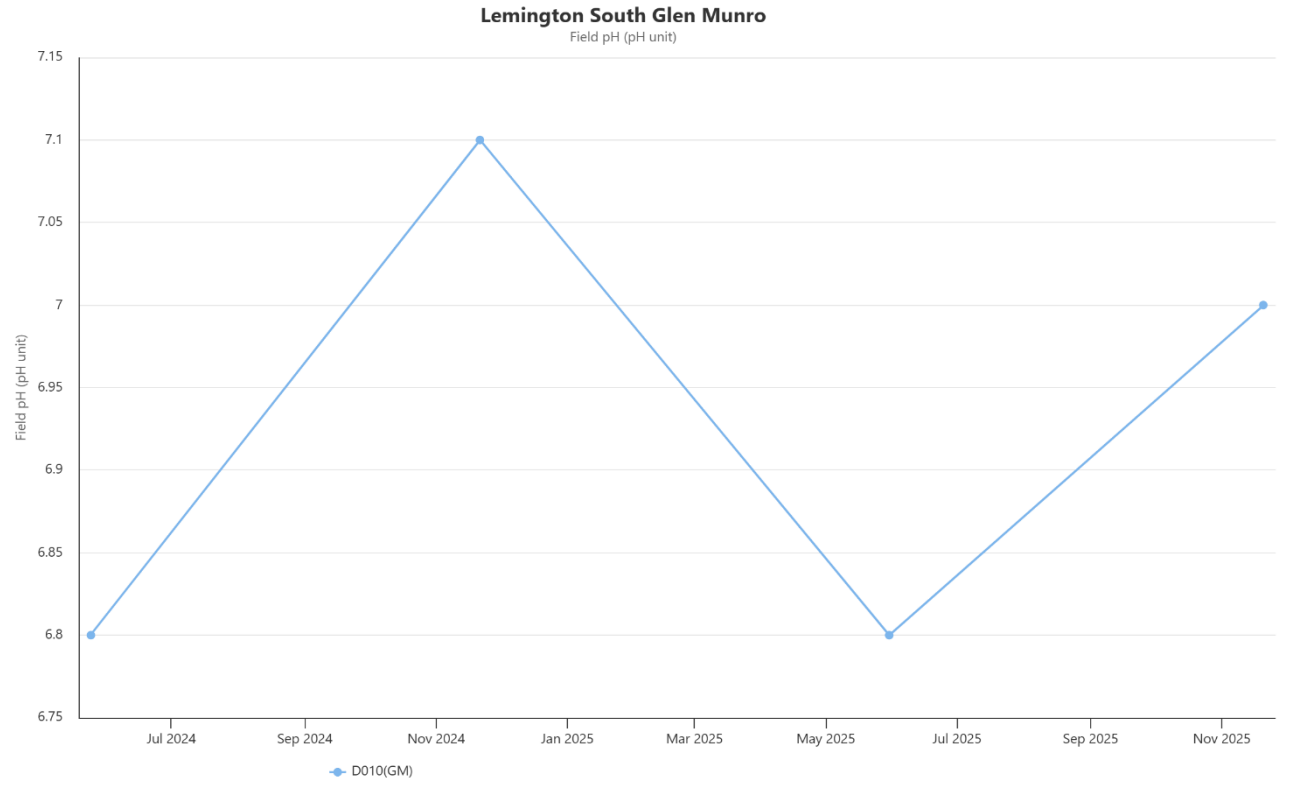

Figure 76 – Lemington South Glen Munro Field pH Trend – Q1 2026

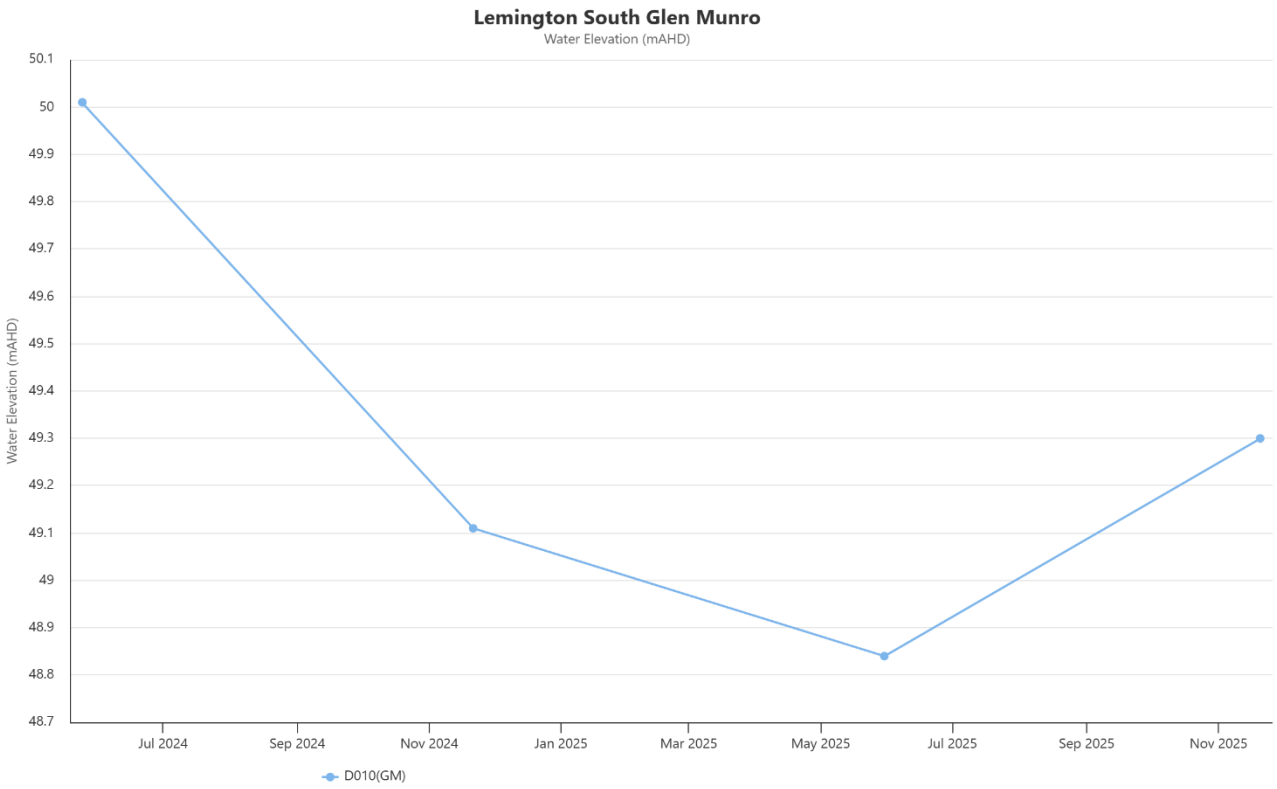

Figure 77 – Lemington South Glen Munro Water Elevation Trend – Q1 2026

3.4.1 | GROUNDWATER TRIGGER TRACKING

Internal trigger limits have been developed to assess monitoring data on an on-going basis and to highlight potentially adverse groundwater impacts. The process for evaluating monitoring results against the internal triggers and subsequent responses is outlined in the HVO Water Management Plan.

Groundwater trigger tracking results are summarised below in Table 3.

Table 3 - Groundwater Trigger Tracking Q1 2026

Site	Date	Trigger Limit Breached	Response Action
CGW53a	19/03/2026	Groundwater level trigger exceedance for water level, with consecutive readings above the trigger level of 59.19 mAHD.	Groundwater levels rose over 2025 in response to above average rainfall events from March to May and August. Water levels declined from September 2025 (60.16 mAHD) to March 2026 (59.39 mAHD), following declining rainfall trends. It is noted that the current groundwater trigger levels in these bores are based on observation data from around 2018 which does not reflect current climate trends due to the region experiencing several above average rainfall events since then. Groundwater levels have responded to these increased natural recharge events, raising the groundwater level during periods of higher rainfall. Trigger exceedances are attributed to significant rainfall events in recent years. An increase in EC has been recorded since water levels began declining, further indicating the rise in water levels is due to rainfall recharge
CGW55a	19/03/2026	Groundwater level trigger exceedance for water level, with consecutive readings above the trigger level of 58.43 mAHD.	Groundwater levels rose over 2025 in response to above average rainfall events from March to May and August. Water levels have declined from September 2025 (59.26 mAHD) to March 2026 (58.7 mAHD), following declining rainfall trends. It is noted that the current groundwater trigger levels in these bores are based on observation data from around 2018 which does not reflect current climate trends due to the region experiencing several above average rainfall events since then. Groundwater levels have responded to these increased natural recharge events, raising the groundwater level during periods of higher rainfall. Trigger exceedances are attributed to significant rainfall events in recent years. An increase in EC has been recorded since water levels began declining, further indicating the rise in water levels is due to rainfall recharge.

4 | BLASTING

HVO maintains a network of blast monitoring units located at nearby privately owned residences and function as regulatory compliance monitors. The location of these monitors can be found in Figure 78. Blasting criteria for HVO are summarised in Table 4.

Table 4 – Blasting Criteria

Airblast Overpressure (dBL)	Comments
115	5% of the total number of blasts in a 12-month period
120	0% of blasts
Ground Vibration (mm/s)	**Comments**
5	5% of the total number of blasts in a 12-month period
10	0% of blasts

4.1 | BLAST MONITORING RESULTS

Nineteen (19) blasts were initiated at HVO during the reporting period. Blast monitoring results for the period are shown in Table 5 and

Table 6.

Table 5 – Overpressure Blast Monitoring Results for the reporting period

Date and Time	Moses Crossing (dBL)	Jerrys Plains Village (dBL)	Maison Dieu (dBL)	Warkworth (dBL)	Knodlers Lane (dBL)
2/03/2026 11:13	96.96	101.34	89.63	92.72	90.96
2/03/2026 13:05	89.05	93.06	86.75	84.05	91.83
2/03/2026 13:11	90.03	92.72	93.58	85.93	86.21
5/03/2026 13:07	89.92	89.22	93.28	95.32	93.43
11/03/2026 17:21	96.31	90.82	106.87	105.11	105.17
12/03/2026 13:46	100.83	110.81	87.21	100.59	83.48
14/03/2026 15:05	102.64	99.58	90.06	96.38	97.08
17/03/2026 13:35	99.03	111.88	105.16	91.30	100.63
18/03/2026 13:45	88.39	98.53	100.13	81.56	96.77
19/03/2026 15:42	87.24	90.42	88.77	90.49	81.74
19/03/2026 15:43	89.56	85.82	78.96	90.06	85.53
21/03/2026 13:05	95.53	92.30	96.08	88.44	88.93
23/03/2026 13:15	86.52	86.13	97.22	84.43	89.92
23/03/2026 13:20	97.81	94.23	94.43	89.57	88.60
25/03/2026 13:12	88.98	90.34	92.10	94.05	94.31
26/03/2026 13:55	99.59	95.12	105.46	90.55	92.95
28/03/2026 12:57	87.20	85.14	88.61	82.57	90.34
28/03/2026 15:01	99.55	89.35	85.53	78.48	96.32
31/03/2026 13:03	98.86	101.70	92.80	94.68	95.09

Table 6 – Ground Vibration Blast Monitoring Results for the reporting period

Date and Time	Moses Crossing (mm/s)	Jerrys Plains Village (mm/s)	Maison Dieu (mm/s)	Warkworth (mm/s)	Knodlers Lane (mm/s)
2/03/2026 11:13	0.23	0.39	0.11	0.07	0.11
2/03/2026 13:05	0.12	0.12	0.20	0.15	0.13
2/03/2026 13:11	0.12	0.13	0.14	0.09	0.10
5/03/2026 13:07	0.09	0.12	0.13	0.41	0.11
11/03/2026 17:21	0.80	0.24	0.36	0.91	0.26
12/03/2026 13:46	0.19	0.18	0.18	0.60	0.11
14/03/2026 15:05	0.20	0.20	0.13	0.35	0.09
17/03/2026 13:35	0.12	0.17	0.11	0.52	0.10
18/03/2026 13:45	0.19	0.22	0.16	0.08	0.11
19/03/2026 15:42	0.08	0.10	0.10	0.39	0.10
19/03/2026 15:43	0.13	0.14	0.12	0.21	0.11
21/03/2026 13:05	0.20	0.17	0.12	0.07	0.12
23/03/2026 13:15	0.11	0.15	0.14	0.08	0.11
23/03/2026 13:20	0.09	0.12	0.09	0.06	0.10
25/03/2026 13:12	0.18	0.14	0.30	0.36	0.26
26/03/2026 13:55	0.20	0.28	0.13	0.07	0.12
28/03/2026 12:57	0.08	0.11	0.09	0.04	0.11
28/03/2026 15:01	0.13	0.14	0.15	0.31	0.17
31/03/2026 13:03	0.13	0.13	0.22	0.29	0.20

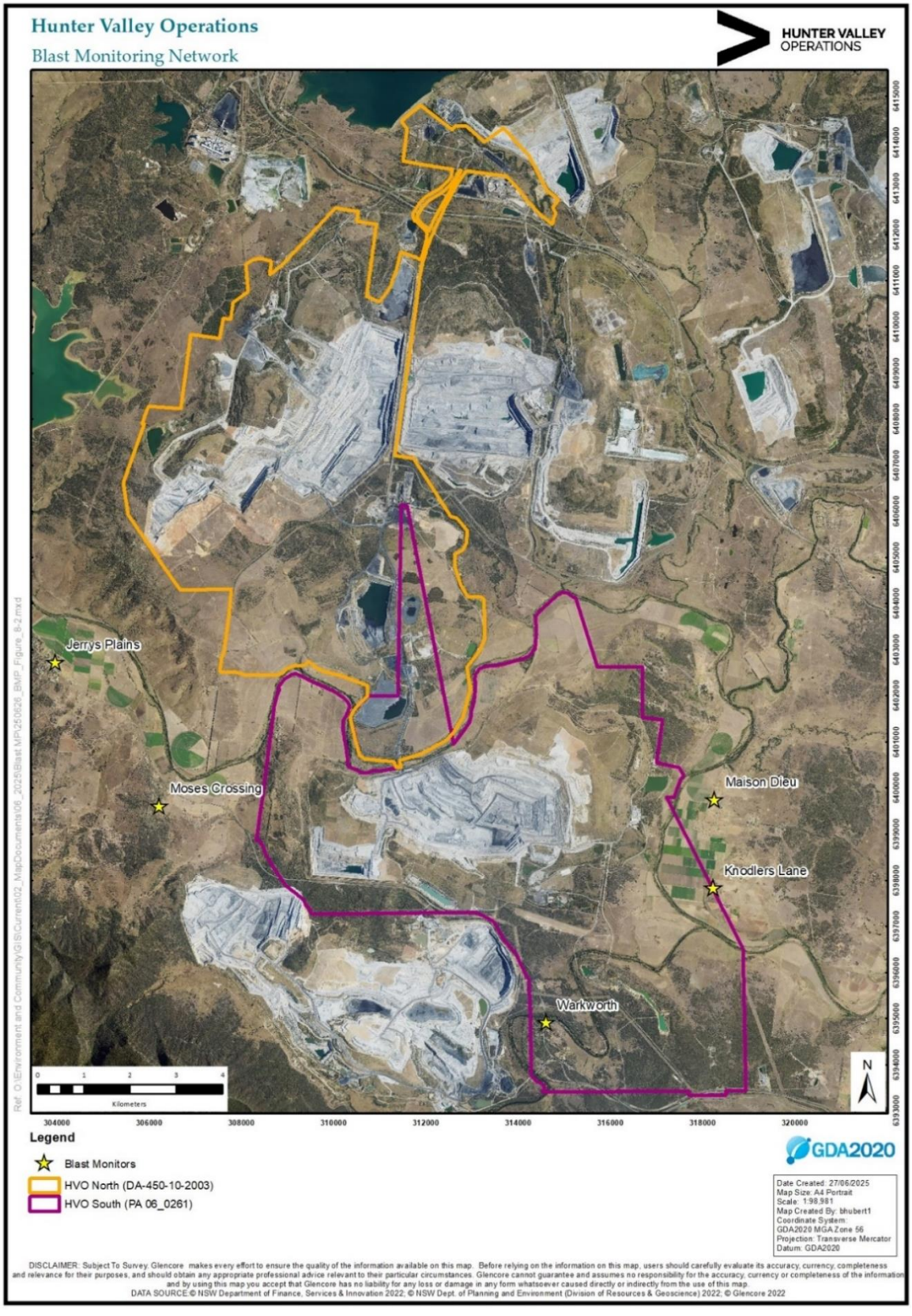

Figure 78 - Blast Monitoring Location Plan

5 | NOISE

Routine attended noise monitoring occurs at defined locations around HVO, as described in the HVO Noise Monitoring Programme. The noise monitoring aims to quantify and describe the acoustic environment around the site and compare results with specified limits. The attended noise monitoring locations are displayed in Figure 79.

5.1 | ATTENDED NOISE MONITORING RESULTS

Attended monitoring was conducted at receiver locations around HVO during the night period of the 19/20 March 2026.

Compliance with the HVO noise impact limits ensures compliance with the land acquisition criteria. Therefore, since no noise impact exceedances occurred for the reporting period the land acquisition assessment has not been presented. These will only be reported in instances of noise impact exceedances.

Monitoring results are detailed in Table 7 and Table 8.

Table 7 - LAeq,15minute and 1minute HVO North Against Impact Assessment Criteria for the Reporting Period

Location	Start date and time	Wind		Stability class	Limits apply? [1]	HVO North limits, dB		HVO North levels, dB [2,3]		Exceedances, dB [1]	
		Speed m/s	Direction [4]			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
Shearers Lane	19/03/2026 23:52	0.9	140	D	Yes	35	46	IA	IA	Nil	Nil
Knodlers Lane	20/03/2026 00:45	1.5	124	E	Yes	35	46	IA	IA	Nil	Nil
Maison Dieu	20/03/2026 00:17	1.8	142	D	Yes	35	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	19/03/2026 23:19	1.1	116	D	Yes	35	46	IA	IA	Nil	Nil
Moses Crossing	19/03/2026 23:49	0.9	140	D	Yes	39	46	IA	IA	Nil	Nil
Jerrys Plains East	19/03/2026 23:28	1.0	109	E	Yes	39	46	IA	IA	Nil	Nil
Jerrys Plains Village	19/03/2026 22:19	1.6	124	E	Yes	40	46	<25	<25	Nil	Nil
Jerrys Plains West	19/03/2026 22:00	1.8	128	E	Yes	40	46	<25	35	Nil	Nil

1. Noise emission limits are applicable if weather conditions were within parameters specified in monthly noise monitoring report. N/A in exceedance column indicates that limits were not applicable due to weather conditions.

2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.

3. Site-only LA1,1minute based on measured site-only LAmax as detailed in monthly noise monitoring report.

4. Degrees magnetic north, "-" indicates calm conditions.

Table 8 - LAeq,15minute and 1minute HVO South Against Impact Assessment Criteria for the Reporting Period

Location	Start date and time	Wind		Stability class	Limits apply? [1]	HVO South limits, dB		HVO South levels, dB [2,3]		Exceedances, dB [1]	
		Speed m/s	Direction [4]			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
Shearers Lane	19/03/2026 23:52	2.2	170	E	Yes	41	45	IA	IA	Nil	Nil
Knodlers Lane	20/03/2026 00:45	2.2	137	E	Yes	40	45	<25	31	Nil	Nil
Maison Dieu	20/03/2026 00:17	2.0	167	E	Yes	39	45	IA	IA	Nil	Nil
Long Point (Dights Crossing)	19/03/2026 23:19	1.4	124	E	Yes	37	45	IA	IA	Nil	Nil
Moses Crossing	19/03/2026 23:49	2.2	170	E	Yes	39	45	33	35	Nil	Nil
Jerrys Plains East	19/03/2026 23:28	1.6	141	F	Yes	38	45	26	30	Nil	Nil
Jerrys Plains Village	19/03/2026 22:19	2.1	144	E	Yes	35	45	IA	IA	Nil	Nil
Jerrys Plains West	19/03/2026 22:00	1.8	152	E	Yes	35	45	IA	IA	Nil	Nil
HVGC	20/03/2026 00:18	2.0	167	E	Yes	55	-	IA	IA	Nil	-

1. Noise emission limits are applicable if weather conditions were within parameters specified in monthly noise monitoring report. N/A in exceedance column indicates that limits were not applicable due to weather conditions.

2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.

3. Site-only LA1,1minute based on measured site-only LAmax as detailed in monthly noise monitoring report.

4. Degrees magnetic north, "-" indicates calm conditions.

5.2 | LOW FREQUENCY ASSESSMENT

In accordance with the requirements of the EPA's Noise Policy for Industry (NPfI), the applicability of the low frequency modification penalty has been assessed. No penalties were applied for monitoring undertaken through the reporting period. The assessments for the low frequency noise are shown in Table 9 and Table 10.

Table 9: Modifying Factor Assessment HVO North for the Reporting Period

Location	Start date and time	Measured HVO North L_{Aeq} dB	Limits apply? [1]	Intermittency modifying factor? [2]	Tonality modifying factor? [2]	Frequency of tonality	Low-frequency modifying factor? [2]	Exceedance of reference spectrum [2,3]	Total penalty dB [2,3]
Shearers Lane	19/03/2026 23:52	IA	Yes	No	No	N/A	No	N/A	Nil
Knodlers Lane	20/03/2026 00:45	IA	Yes	No	No	N/A	No	N/A	Nil
Maison Dieu	20/03/2026 00:17	IA	Yes	No	No	N/A	No	N/A	Nil
Long Point (Dights Crossing)	19/03/2026 23:19	IA	Yes	No	No	N/A	No	N/A	Nil
Moses Crossing	19/03/2026 23:49	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains East	19/03/2026 23:28	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains Village	19/03/2026 22:19	<25	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains West	19/03/2026 22:00	<25	Yes	No	No	N/A	No	N/A	Nil

1. Modifying factors are considered not applicable when noise limits are not applicable.

2. Yes/No denote modifying factor was or was not applied. N/A denotes assessment was 'not applicable' due to meteorological conditions or further assessment was not required.

3. Bold results indicate that application of NPfI modifying factor(s) is required.

Table 10 - Modifying Factor Assessment HVO South for the Reporting Period

Location	Start date and time	Measured HVO South LAeq dB	Limits apply? [1]	Intermittency modifying factor? [2]	Tonality modifying factor? [2]	Frequency of tonality [2]	Low frequency modifying factor? [2]	Exceedance of reference spectrum [2,3]	Total penalty dB [2,3]
Shearers Lane	19/03/2026 23:52	IA	Yes	No	No	N/A	No	N/A	Nil
Knodlers Lane	20/03/2026 00:45	<25	Yes	No	No	N/A	No	N/A	Nil
Maison Dieu	20/03/2026 00:17	IA	Yes	No	No	N/A	No	N/A	Nil
Long Point (Dights Crossing)	19/03/2026 23:19	IA	Yes	No	No	N/A	No	N/A	Nil
Moses Crossing	19/03/2026 23:49	33	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains East	19/03/2026 23:28	26	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains Village	19/03/2026 22:19	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains West	19/03/2026 22:00	IA	Yes	No	No	N/A	No	N/A	Nil
HVGC	20/03/2026 00:18	IA	Yes	No	No	N/A	No	N/A	Nil

1. Modifying factors are considered not applicable when noise limits are not applicable.

2. Yes/No denote modifying factor was or was not applied. N/A denotes assessment was 'not applicable' due to meteorological conditions or further assessment was not required.

3. Bold results indicate that application of NPfI modifying factor(s) is required.

5.3 | REAL TIME NOISE MONITORING

HVO utilises a network of real-time directional noise monitors to manage noise impacts on a continuous basis, shown in Figure 79. Noise alarms are in place at five monitoring locations (Knodlers Lane, Maison Dieu, Jerrys Plains, Moses Crossing and Long Point) which alert HVO staff to elevated noise levels that require investigation.

HVO investigates and responds to noise alarms with appropriate modification to operations. Changes in response to a noise alarm can include replacing equipment with alternative units, changing or relocating tasks, or shutting down equipment. It should be noted that this assessment does not compliment or conflict with attended noise monitoring detailed in **Section 5.1**. Real time monitoring data includes non-mine noise sources such as animals, road traffic and weather.

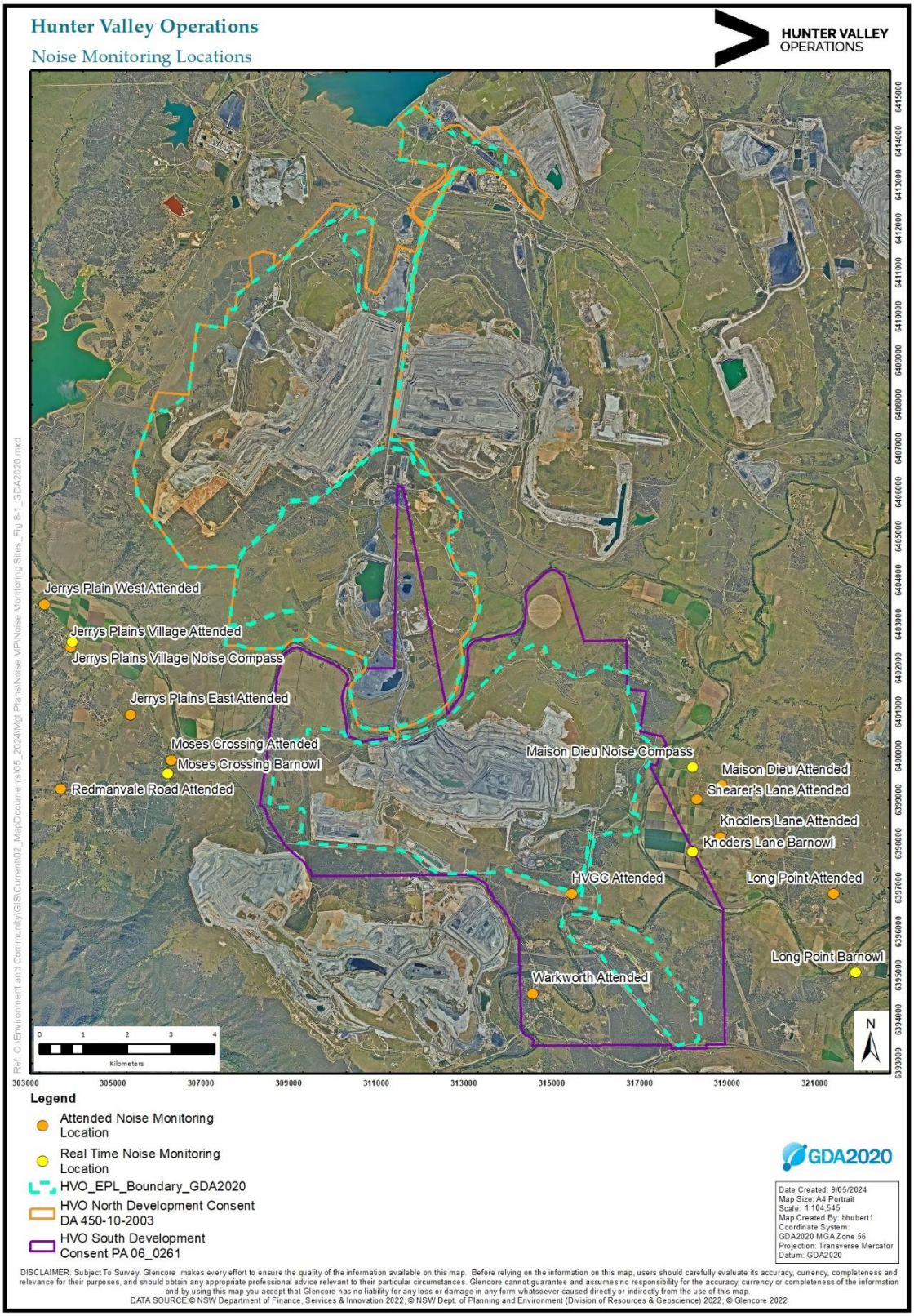

Figure 79 - Noise Monitoring Location Plan

6 | OPERATIONAL DOWNTIME

Real time monitoring and inspections for environmental factors recorded the following hours of equipment downtime during the reporting period:

- One hundred and ten point three (110.3) hours for dust, and
- Three point five (3.5) hours for noise.

Operational downtime by equipment type is show in Figure 80. Note that these delays are instances where operations were completely stopped and does not include occasions where operations were changed/modified but not stopped (e.g. changed from exposed dump to in-pit dump).

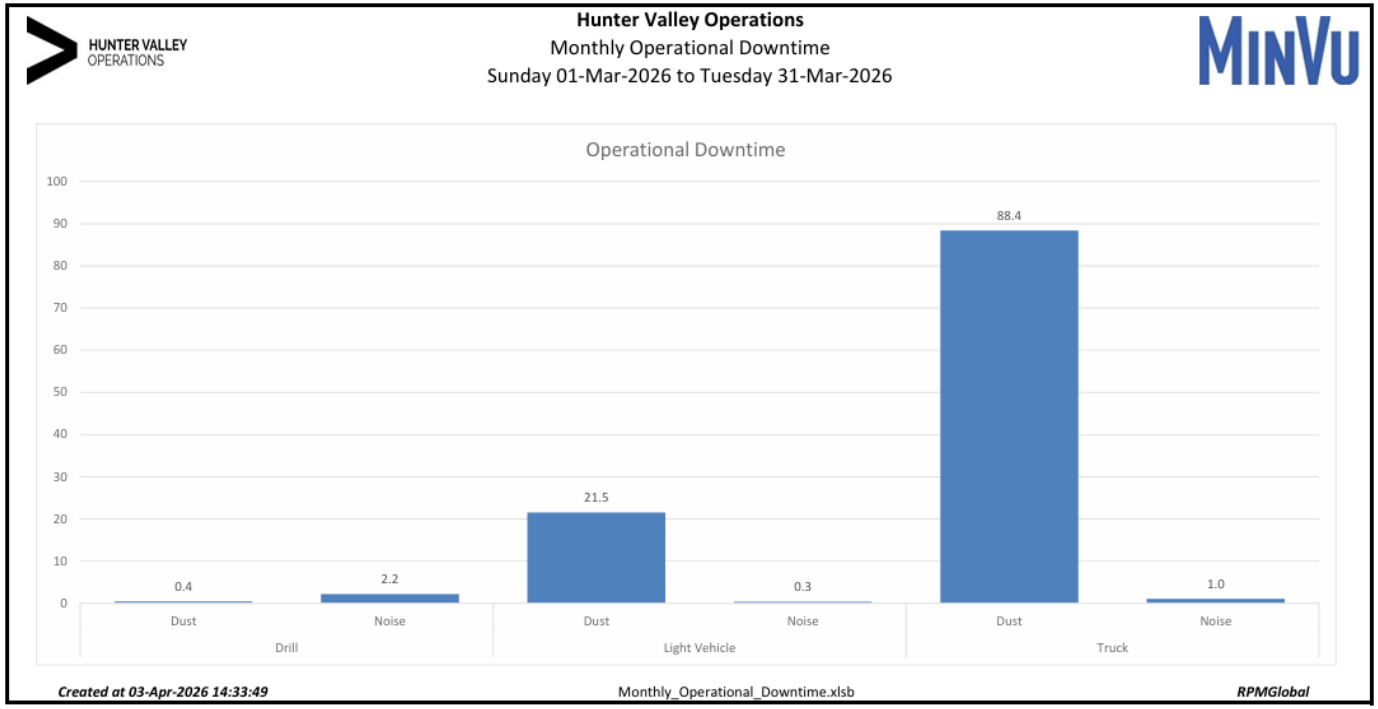

Figure 80 – Operational Downtime by Equipment Type for the Reporting Period

7 | REHABILITATION

The following activities related to rehabilitation were completed during the reporting period:

- 0.0 ha of land was released (became available for the application of topsoil);
- 0.0 ha of land was reshaped;
- 0.0 ha of land was topsoiled; and
- 0.0 ha of land was rehabilitated.

Year to date progress is shown in Figure 81.

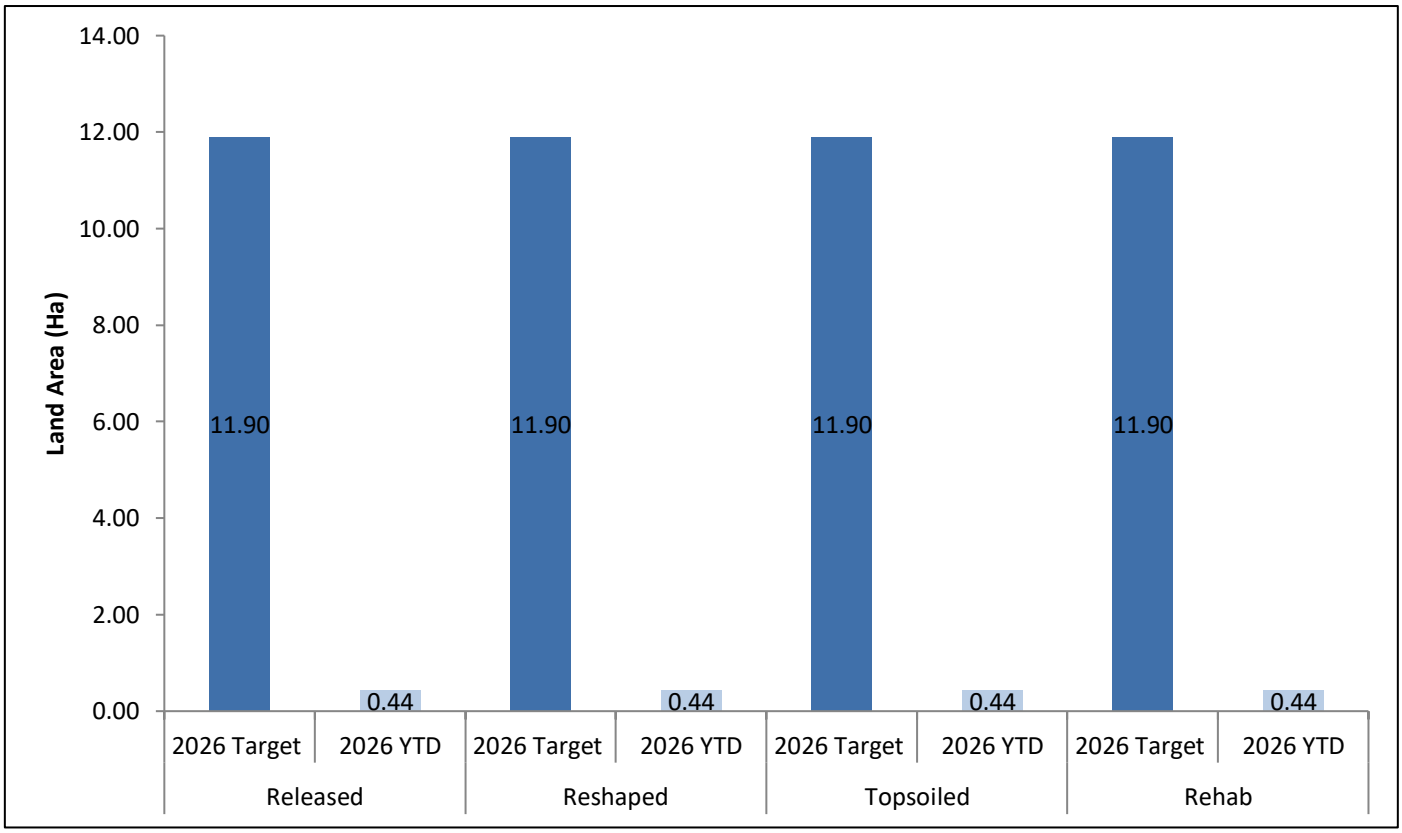

Figure 81 – Rehabilitation YTD March 2026

8 | COMPLAINTS

One (1) community complaint was received during the reporting period. Details of complaints received during 2026 are shown in **Table 11**.

Table 11 – Complaints Summary 2026

Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
No community complaints were received during January						
No community complaints were received during February						
1	5 March	7.33pm	1	Other	Community Hotline	• A member of the community called the Community Complaints Hotline at 7:33am regarding a traffic issue. • The near miss incident occured at the intersection of Comleroi Road and Golden Highway at Warkworth on the evening of 4 March 2026. A sedan exiting Comleroi Road failed to adequately give way at the intersection, resulting in vehicles veering to avoid collision. • An investigation was undertaken to identify the driver of the vehicle and a site-wide HCOM delivered to all employees and contractors regarding the importance of safe driving practices when driving to and from HVO.

9 | ENVIRONMENTAL INCIDENTS

No reportable environmental incident occurred during this reporting period.

APPENDIX A: METEOROLOGICAL DATA (HVO CORPORATE)

Date	Air Temp Max (°C)	Air Temp Min (°C)	Relative Humidity (Max %)	Relative Humidity (Min %)	Solar Radiation Maximum (W/Sq. M)	Average Wind Direction (°)	Average Wind Speed (m/sec)	Rainfall (mm)
1/03/2026	26.59	18.00	94.30	52.42	893.0	116.7	3.28	0.6
2/03/2026	31.03	19.26	86.40	35.16	920.0	113.9	2.24	0.0
3/03/2026	27.06	18.89	92.30	55.84	513.5	129.2	1.84	3.6
4/03/2026	26.27	20.97	91.30	62.61	318.1	255.6	1.16	1.8
5/03/2026	33.13	19.35	93.10	36.27	909.0	154.4	1.56	0.0
6/03/2026	34.08	20.59	86.00	31.61	911.0	108.9	2.21	0.0
7/03/2026	29.05	21.88	86.50	50.82	517.0	144.3	1.92	0.0
8/03/2026	23.79	18.55	93.90	61.07	346.8	123.1	3.50	5.4
9/03/2026	21.55	17.94	94.70	80.70	458.1	134.2	3.38	8.6
10/03/2026	28.01	18.79	90.70	45.74	840.0	118.5	2.70	0.0
11/03/2026	33.39	18.05	92.40	25.49	919.0	225.0	2.06	0.0
12/03/2026	34.35	20.43	71.70	20.81	917.0	200.4	3.53	0.0
13/03/2026	21.19	17.98	81.60	62.45	391.4	114.9	4.21	0.0
14/03/2026	24.39	14.92	75.04	39.99	859.0	120.1	3.36	0.0
15/03/2026	28.07	13.84	81.30	32.27	896.0	166.3	1.45	0.0
16/03/2026	31.21	15.82	84.00	25.95	798.7	176.5	1.64	0.0
17/03/2026	30.04	19.84	72.27	32.88	754.2	202.8	2.55	0.0
18/03/2026	28.11	20.70	83.20	46.40	587.5	112.1	3.70	0.0
19/03/2026	22.13	19.25	93.50	79.12	319.8	110.3	1.31	7.6
20/03/2026	26.56	17.77	95.30	51.00	778.6	126.0	2.03	0.0
21/03/2026	27.71	17.25	92.90	43.81	784.6	107.8	2.25	0.0
22/03/2026	26.79	18.05	88.50	35.44	738.4	116.6	2.69	0.0
23/03/2026	25.68	17.85	93.00	50.87	710.9	125.2	2.22	0.4
24/03/2026	26.59	16.75	92.00	38.16	822.0	113.1	3.43	0.0
25/03/2026	28.75	15.99	92.70	36.72	816.0	202.0	1.56	0.0
26/03/2026	31.00	17.11	86.60	28.07	811.0	283.4	3.19	4.8
27/03/2026	18.38	12.29	73.34	48.03	616.1	283.2	6.89	0.0
28/03/2026	20.50	11.84	65.81	38.48	746.3	192.9	2.86	0.0
29/03/2026	23.17	10.15	80.60	40.25	864.0	134.0	1.95	0.0
30/03/2026	24.43	13.23	90.80	37.87	782.4	154.3	2.17	0.0
31/03/2026	25.62	12.98	84.60	34.01	803.0	128.1	2.07	0.0