

**Report Period** 

1/04/2026

6/05/2026

**Monitoring Summary  
for Hodgson Quarries and Plant Pty Ltd  
Roberts Road Sand Quarry, Maroota,  
NSW**

# Site Monitoring Locations



## Groundwater Levels

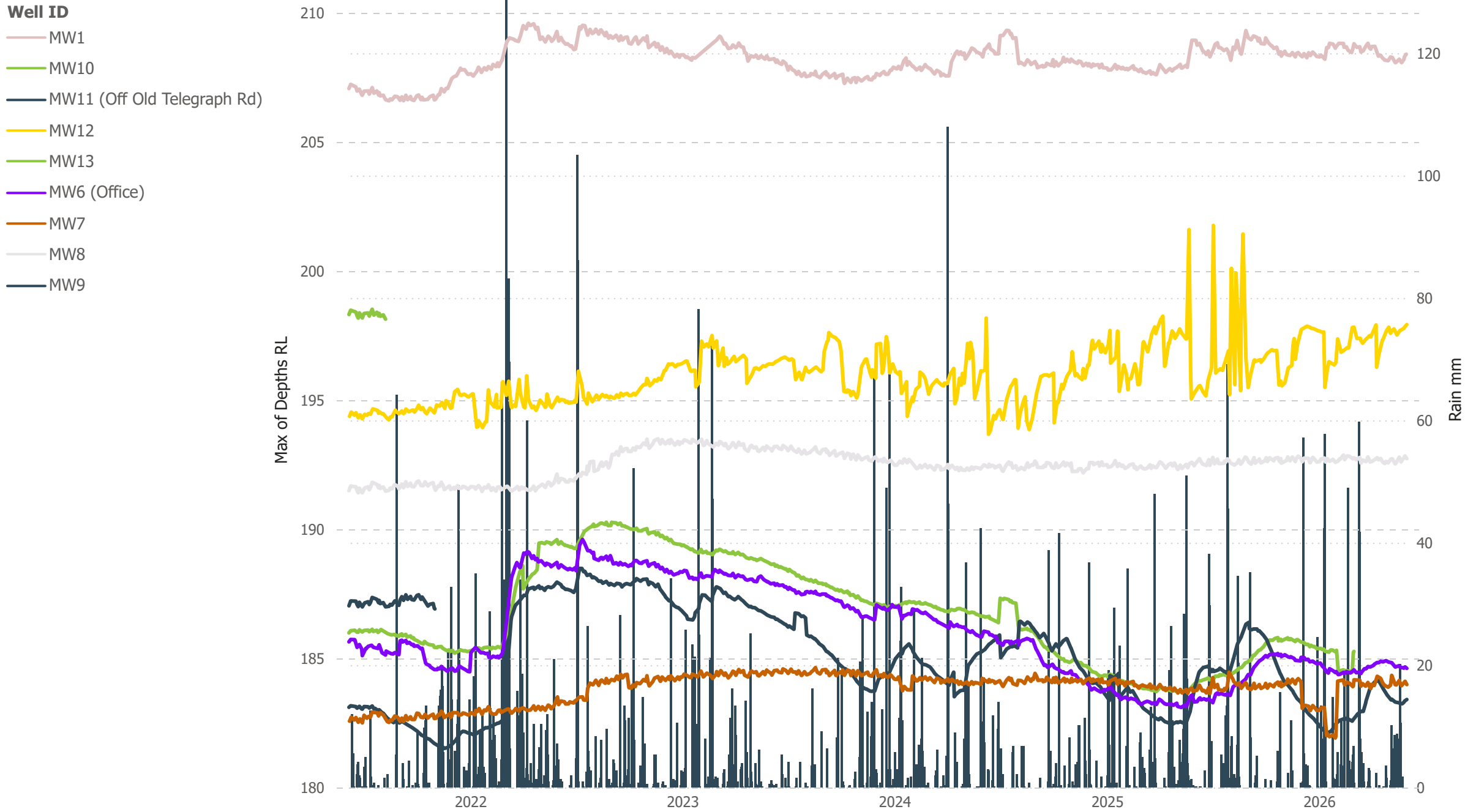
Groundwater levels are currently monitored in nine boreholes located on the site. Groundwater levels are manually measured for depth each month using a groundwater dipper. Data is downloaded from groundwater loggers where present. MW1 logger was installed prior to 2015; the remaining loggers were installed in 2017.

Graph 1 displays the depths as of January 2017. Graph 2 shows depths in the past month. Following anomalous readings from the MW5 logger, the bore was investigated and discovered to have collapsed. The logger was relocated to a functioning bore and the bore abandoned and replaced by nearby MW8.

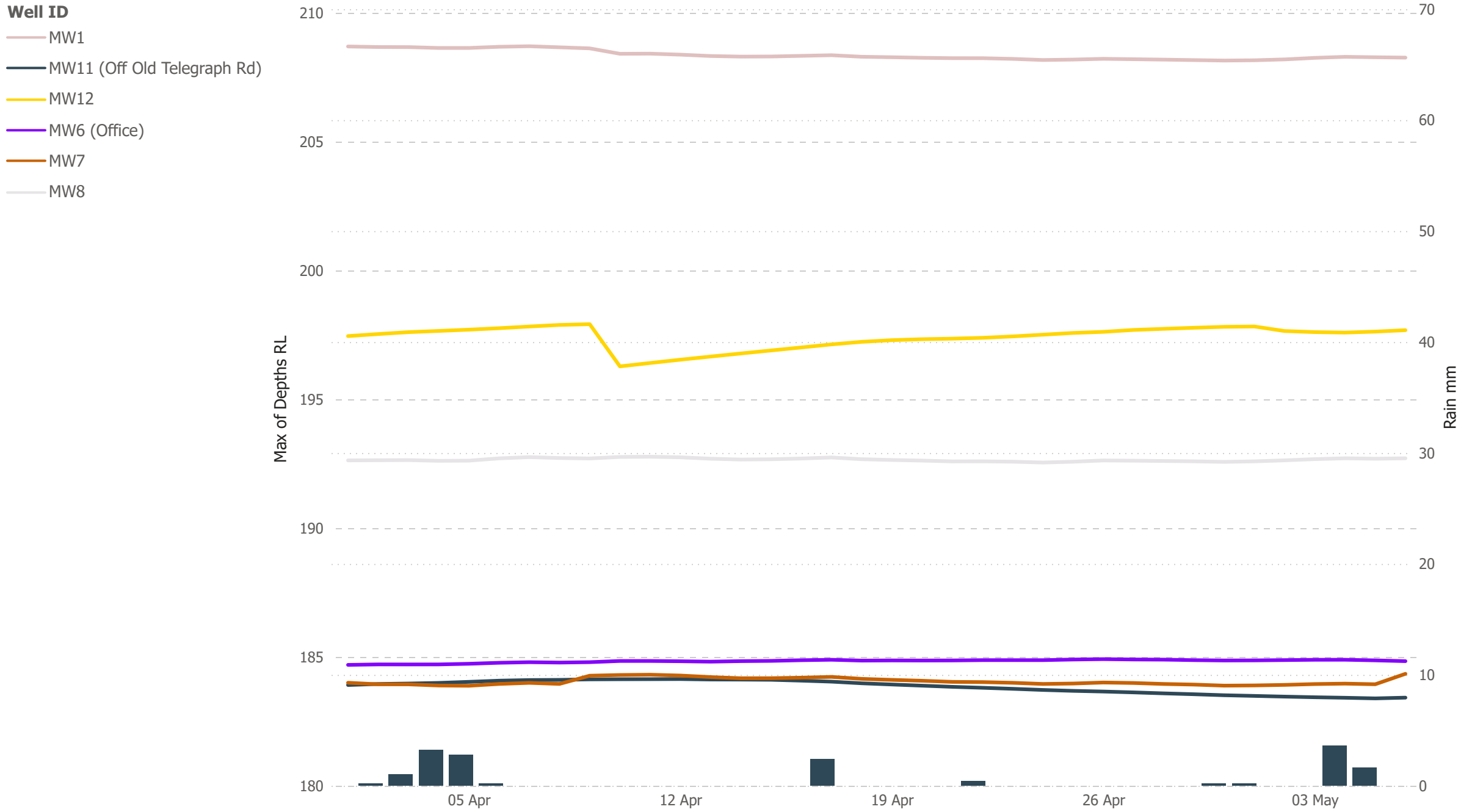
MW1 and MW12 were taken away for repairs during April 2018 and returned in October 2018, hence the gap in reporting on the following graphs.

Due to rain gauge malfunctions, rainfall was not recorded in 2020 until a new weather station was installed onsite 29th May 2020. Where available, daily rainfall received in the interim has been sourced from the Bureau of Meteorology.

# All Groundwater Depths with Rainfall from 01/01/2019



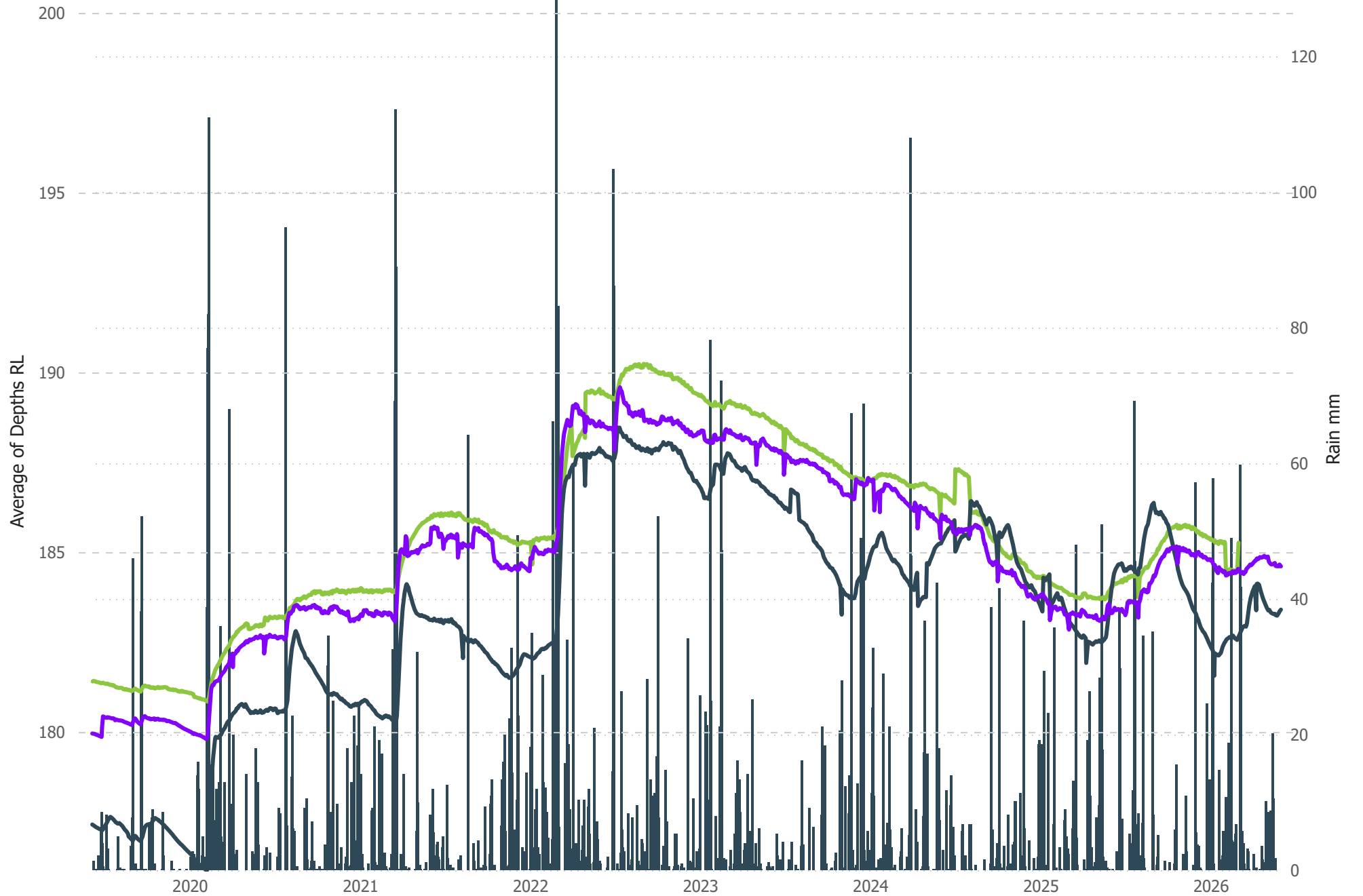
# All Groundwater Depths with Rainfall for this Report Period



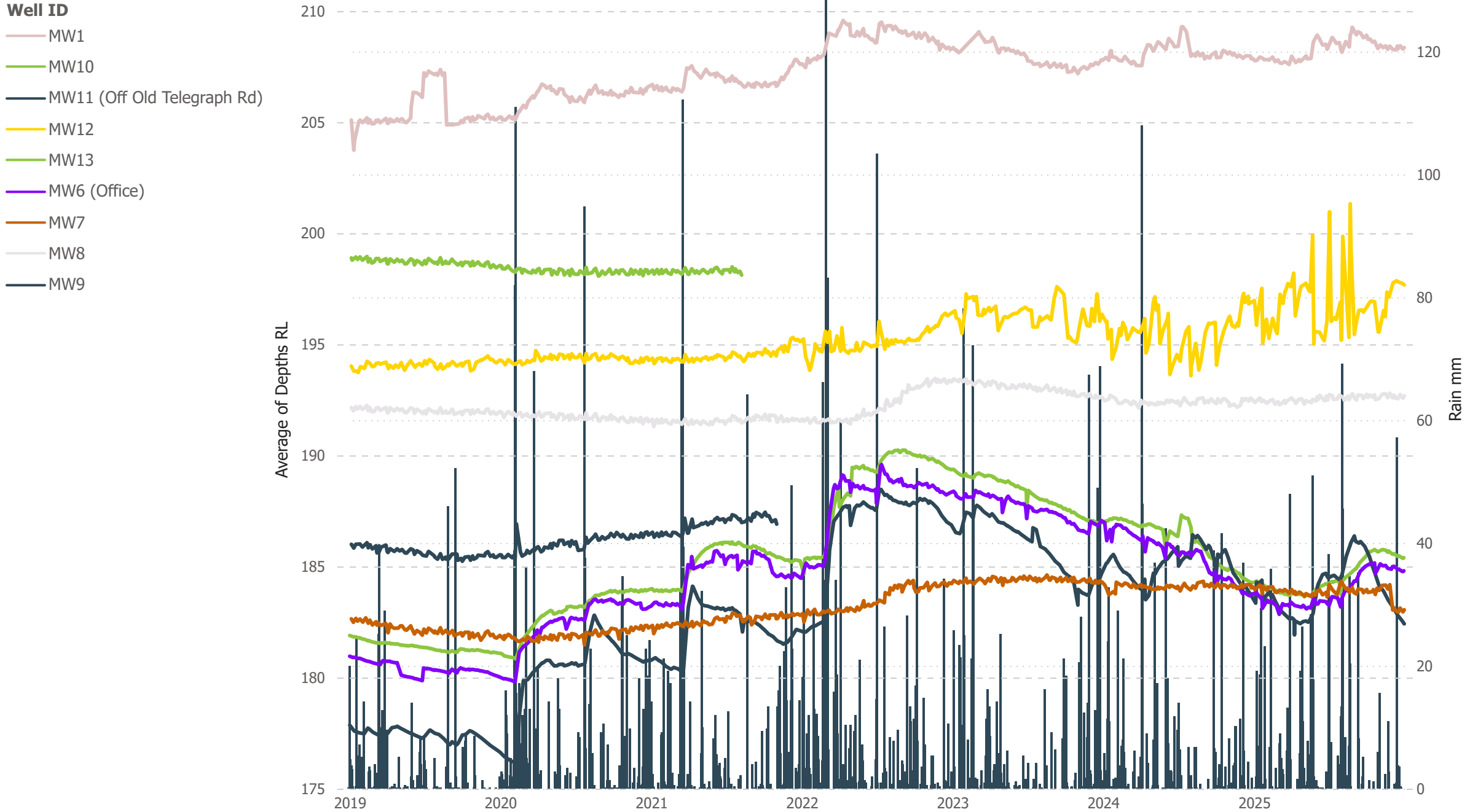
# All Groundwater Depths with Rainfall from 01/01/2019

## Well ID

- MW10
- MW11 (Off Old Telegraph Rd)
- MW6 (Office)



# All Groundwater Depths with Rainfall in Hawkesbury Sandstone



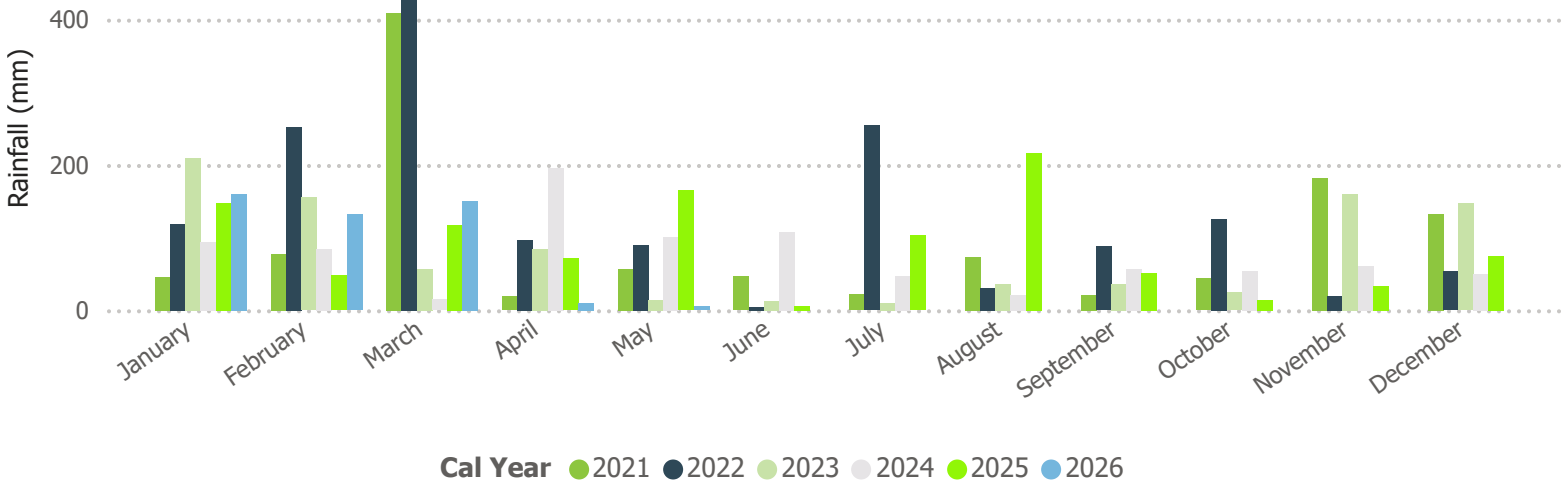
## **Weather Station Monitoring**

Due to gauge malfunctions, rainfall was not recorded in 2020 until a new weather station was installed onsite 29th May 2020. Where available, daily rainfall received in the interim was been sourced from the Bureau of Meteorology. Temperature monitoring during that period also shows gaps in the data. For modelling and reporting, Bureau of Meteorology averages were used

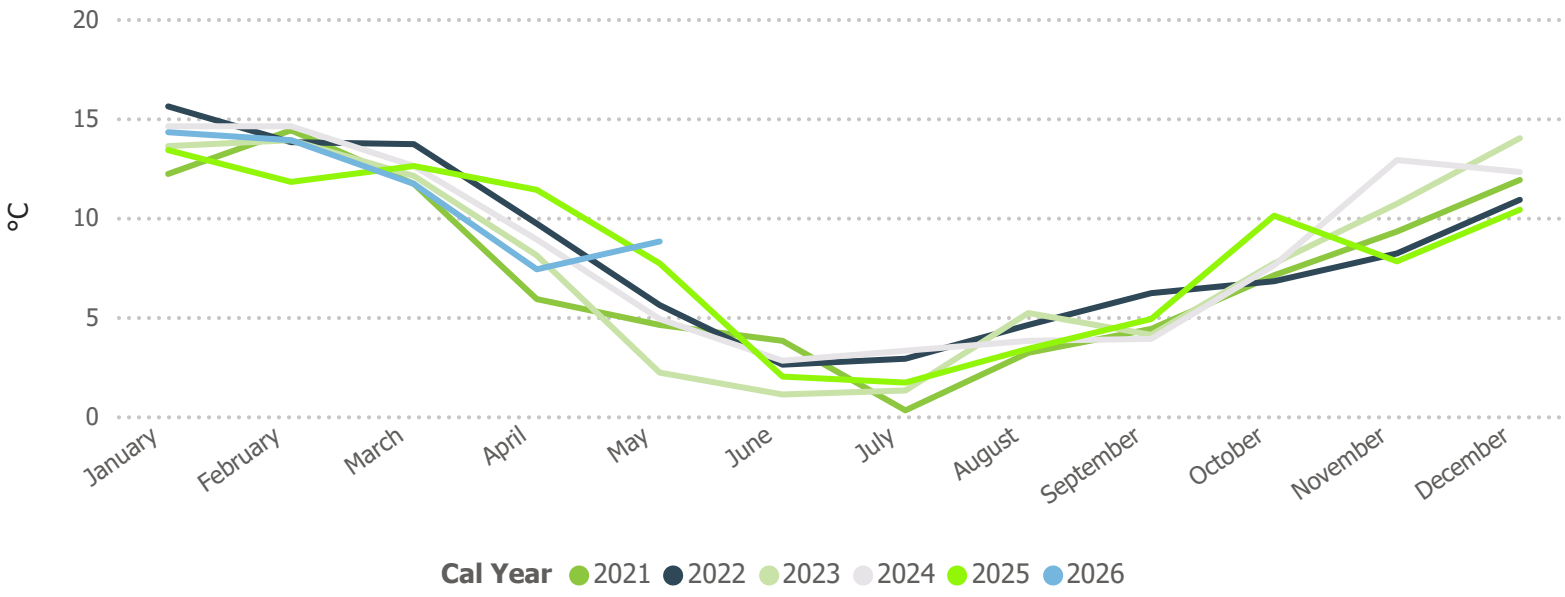
# Weather Trends

1/01/2021 6/05/2026

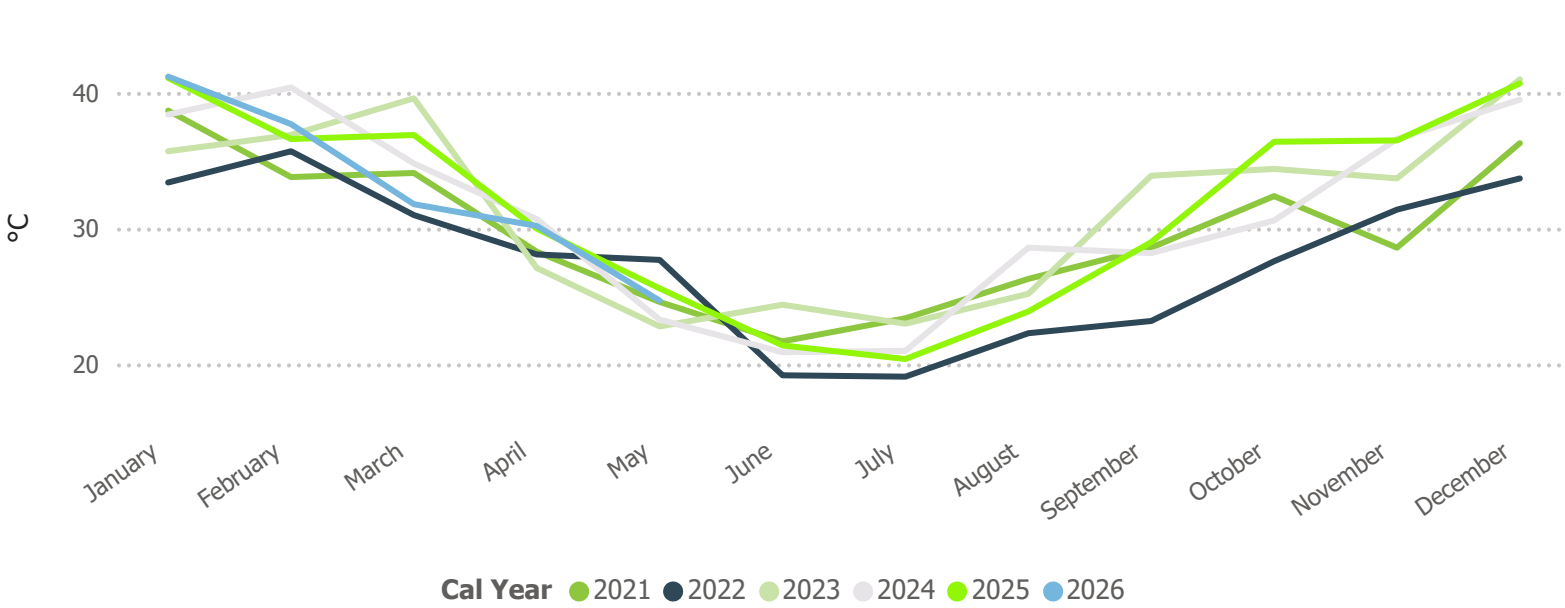
## Precipitation



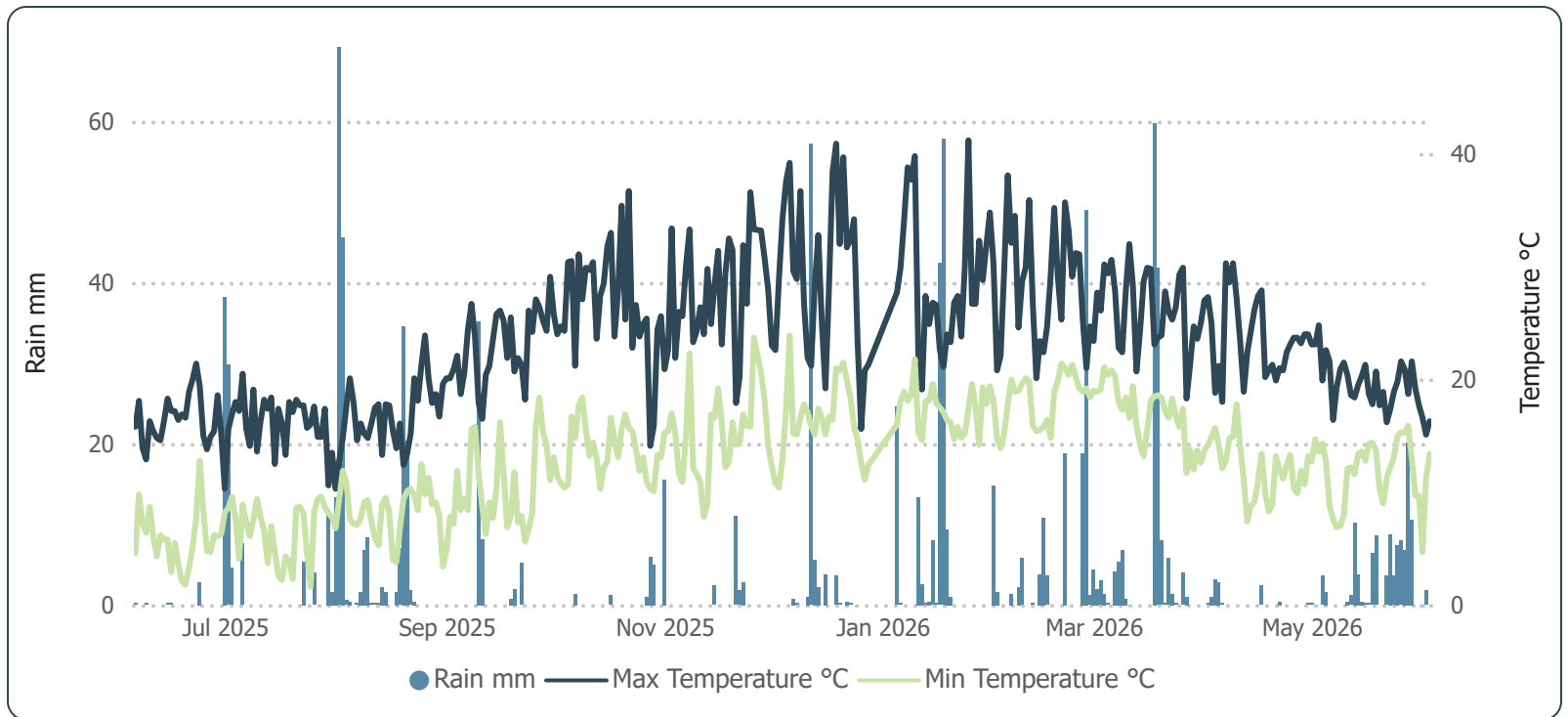
## Minimum Temperature



## Maximum Temperature



## Weather Detail in Report Period



### Precipitation mm

Year	January	February	March	April	May	June	July	August	September	October	November	December
2022	119.0	252.0	477.6	96.4	89.8	5.0	254.2	30.4	87.8	125.6	19.6	53.4
2023	210.0	155.2	57.0	84.2	13.8	12.8	10.4	36.4	35.8	24.4	160.2	146.8
2024	94.4	84.2	15.0	196.2	101.2	107.4	47.0	21.0	56.8	54.0	60.6	50.2
2025	147.8	48.0	117.8	71.4	165.0	5.8	103.0	216.4	51.4	14.6	33.6	75.2
2026	160.2	132.0	150.4	10.4	105.8	1.8						

### Minimum Temperature °C

Year	January	February	March	April	May	June	July	August	September	October	November	December
2022	15.6	13.8	13.7	9.7	5.6	2.6	2.9	4.6	6.2	6.8	8.2	10.9
2023	13.6	13.9	12.1	8.1	2.2	1.1	1.3	5.2	4.1	7.7	10.7	14.0
2024	14.6	14.6	12.6	8.9	4.9	2.8	3.3	3.8	3.9	7.6	12.9	12.3
2025	13.4	11.8	12.6	11.4	7.7	2.0	1.7	3.4	4.9	10.1	7.8	10.4
2026	14.3	13.9	11.7	7.4	6.9	4.8						

### Average Temperature °C

Year	January	February	March	April	May	June	July	August	September	October	November	December
2022	22.1	20.6	19.7	17.3	14.3	10.8	10.8	12.7	14.0	16.7	17.7	19.1
2023	21.0	22.1	21.6	16.5	12.6	11.7	12.4	13.1	16.6	18.1	19.4	22.4
2024	22.8	22.4	20.9	17.3	13.9	11.2	11.1	14.6	16.0	17.0	20.7	22.8
2025	21.5	22.1	21.3	18.3	14.8	10.8	11.1	12.0	16.3	19.5	20.3	21.9
2026	22.3	22.3	20.6	17.3	15.4	12.5						

### Maximum Temperature °C

Year	January	February	March	April	May	June	July	August	September	October	November	December
2022	33.4	35.7	31.0	28.1	27.7	19.2	19.1	22.3	23.2	27.6	31.4	33.7
2023	35.7	36.9	39.6	27.1	22.8	24.4	23.0	25.2	33.9	34.4	33.7	41.0
2024	38.4	40.4	34.8	30.7	23.3	20.9	21.0	28.6	28.2	30.6	36.6	39.5
2025	41.1	36.6	36.9	30.0	25.6	21.4	20.4	23.9	29.0	36.4	36.5	40.7
2026	41.2	37.7	31.8	30.2	24.7	16.5						

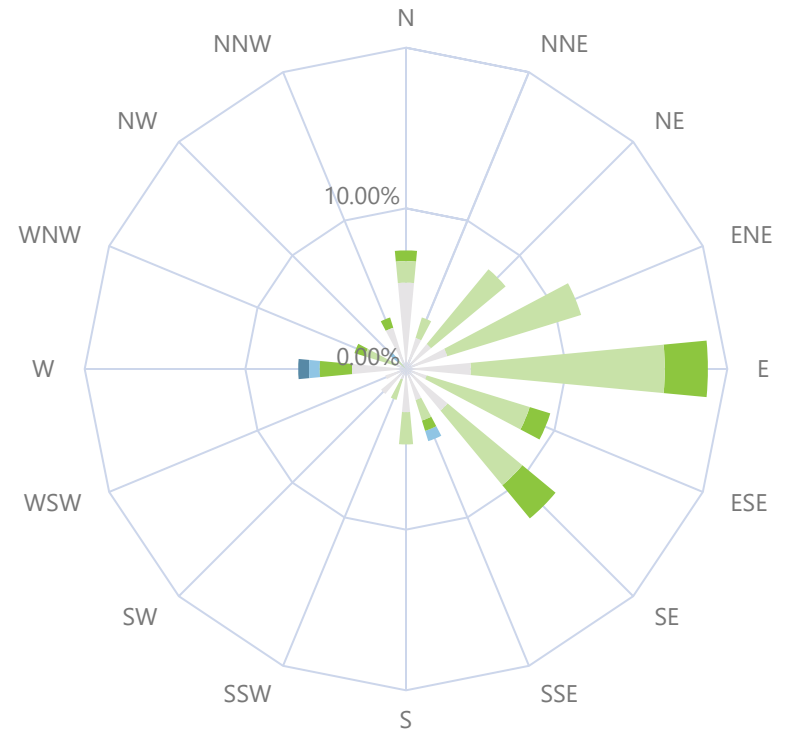
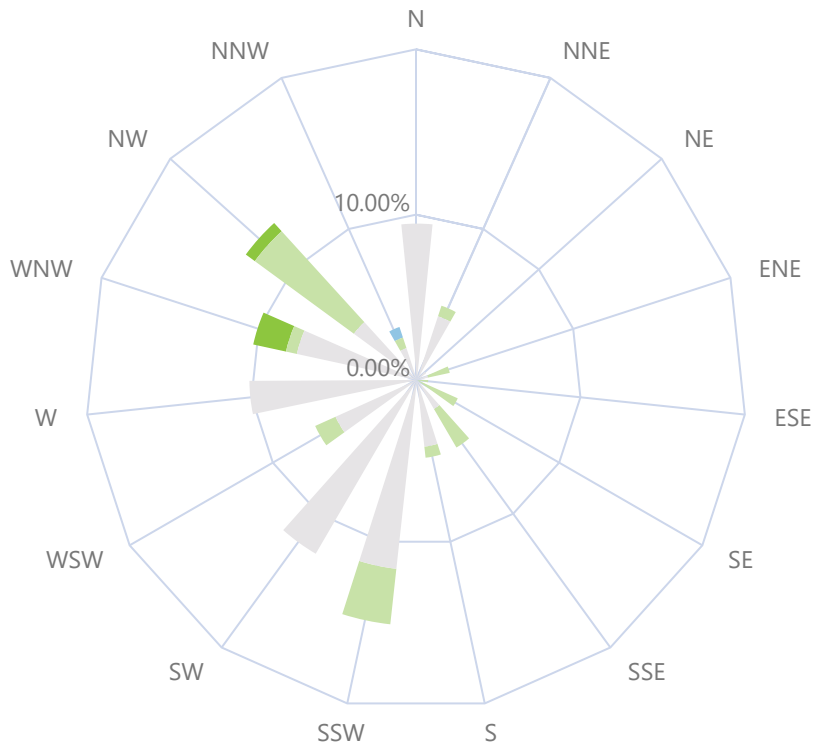
# Wind Rose for Report Period


9 am

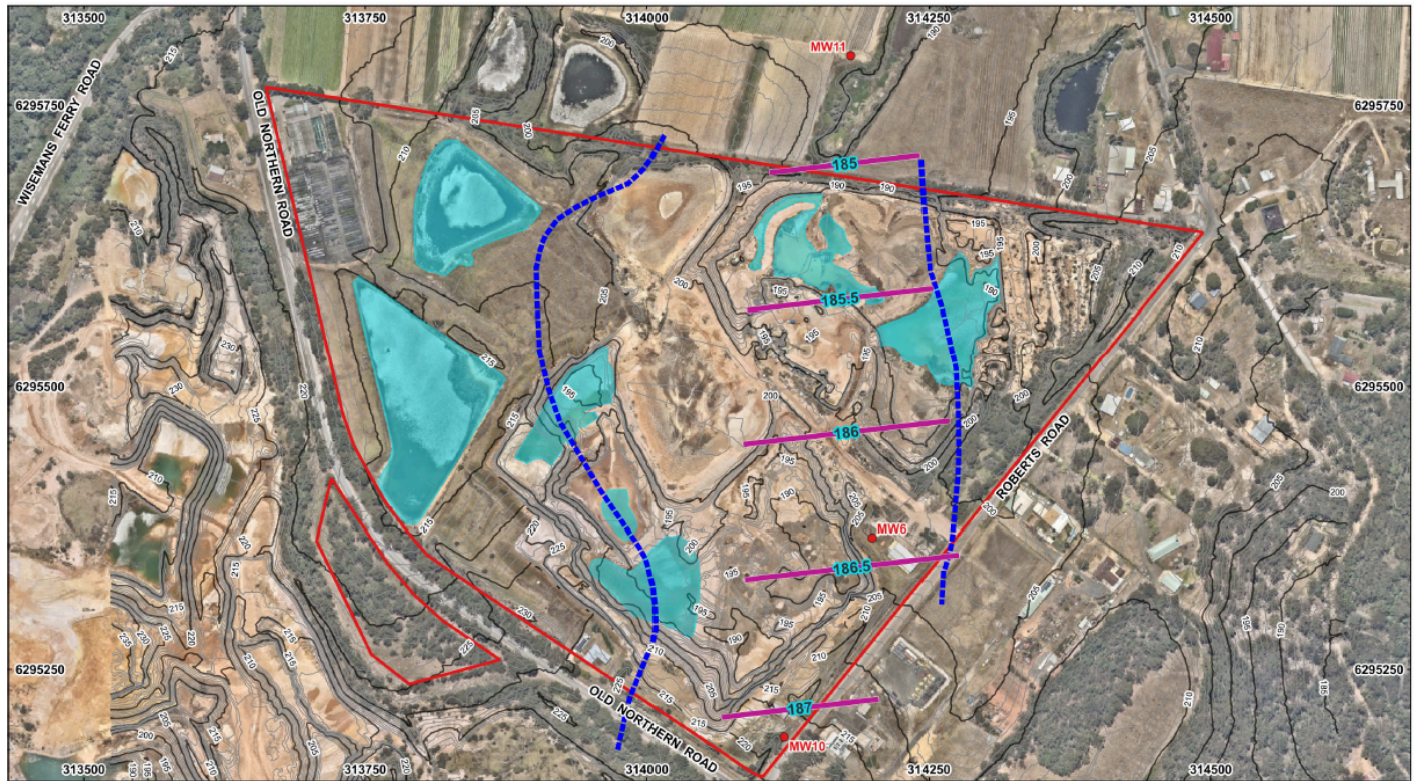
3 pm

Wind Speed Groups

> 0-5 km/h > 5-10 km/h > 10-15 km/h > 15-20 km/h > 20-25 Km/h > 25-30 Km/h > 30+ Km/h

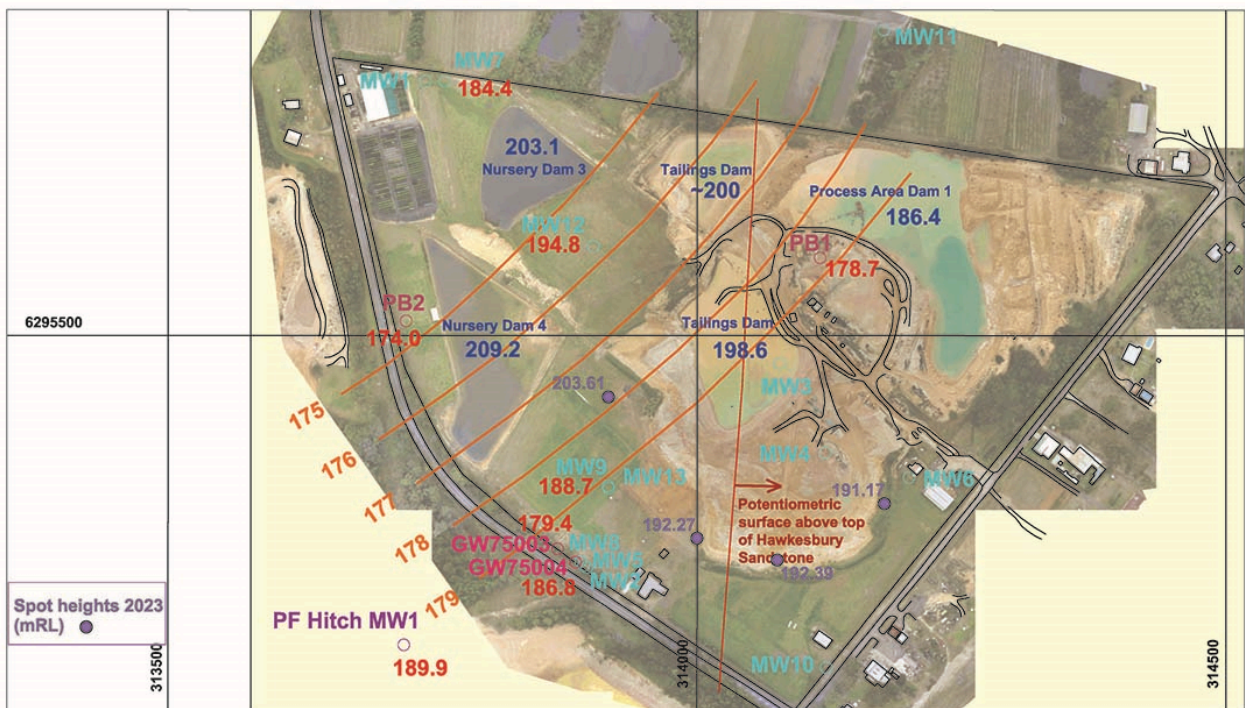
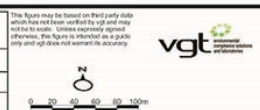


<b>Plan of:</b>	Roberts Road Maroota Sand Quarry - Wet Weather High Groundwater Level Maroota Sands	<b>Location:</b>	Maroota Quarry, Roberts Road, Maroota, NSW	<b>Source:</b>	rsamap - Image Date 09/12/2025 Zone MGA 56	<b>Plan By:</b>	SK
<b>Figure:</b>	ONE	<b>Council:</b>	Hills Shire Council	<b>Survey:</b>	Fyle Quarry Contours 24/02/2022 NSW Spatial Services ELVISDEM Surrounding Contours Dated May 2017.	<b>Project Manager:</b>	SK
<b>Version/Date:</b>	V0 25/03/2026	<b>Tenure:</b>	Not Applicable	<b>Projection:</b>	GDA2020/MGA Zone 56 EPSG:7856		
<b>Our Ref:</b>	12783_HMA_GWGeneral_Q008_V0_F1	<b>Client:</b>	Hodgson Quarries & Plant Pty Ltd	<b>Contour Interval:</b>	1m		



<b>Legend</b>	Property Boundary	Contours of Wet Weather High GW Level (mRL)	Edge of Saturated Maroota Sands
	Dam Areas	Groundwater Monitoring Well Location	

<b>Plan of:</b>	Annual Review & Compliance Report 2022 for Roberts Road Maroota Sand Quarry - Wet Weather High Groundwater Level Hawkesbury Sandstone (Feb 2018)	<b>Location:</b>	Maroota Quarry, Roberts Road, Maroota, NSW	<b>Source:</b>	Dundon Consulting Pty Ltd Figure 16 Dwg No. 06-0318-021d 08/03/2018	<b>Our Ref:</b>	12498_HMA_AR2022_C001_V0_F5B.cdr
<b>Figure:</b>	FIVE-B	<b>Council:</b>	Hills Shire Council	<b>Survey:</b>	Dundon Consulting Pty Ltd 08/03/2018	<b>Plan By:</b>	LT/JD/SK
<b>Sheet:</b>	1 of 1	<b>Tenures:</b>	N/A	<b>Projection:</b>	MGA	<b>Project Manager:</b>	LT
<b>Version/Date:</b>	V0 15/03/2023	<b>Client:</b>	Hodgson Quarries & Plant Pty Ltd	<b>Contour Interval:</b>	1m	<b>Office:</b>	Thornton



<b>LEGEND:</b>	Hodgson monitoring bore
	Hodgson production bore
	174.0 Hawkesbury Sandstone water level
	Contours of wet weather high GW level
	Potentiometric surface above top of HS

<b>DATE:</b>	8 March 2018	<b>SCALE:</b>	
<b>PROJECT NO:</b>	06-0318	<b>AUTHOR:</b>	PD
<b>DRAWING NO:</b>	06-0318-021d	<b>REVISION:</b>	D
<b>Dundon Consulting Pty Ltd</b>			

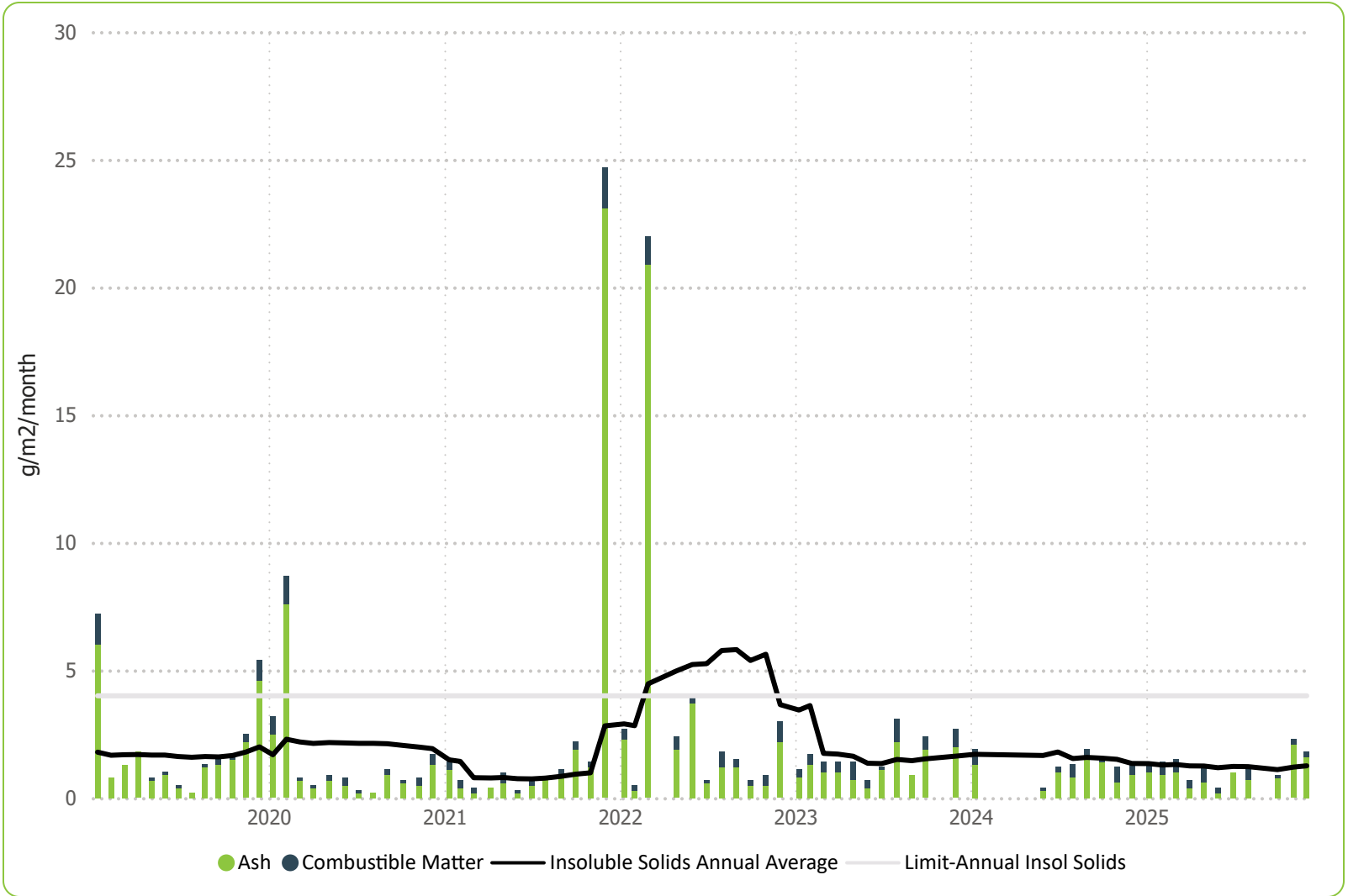
<b>Hodgson Quarry and Plant Pty Ltd</b>	
<b>ROBERTS ROAD MAROOTA SAND QUARRY</b>	
<b>Wet Weather High Groundwater Level</b>	
<b>Hawkesbury Sandstone (February 2018)</b>	
<b>Figure 16</b>	

# **Depositional Dust and Particulate Matter Monitoring**

# Depositional Dusts

D1 Gate ▼

**Insoluble Solids  
Annual Average  
g/m<sup>2</sup>/month**



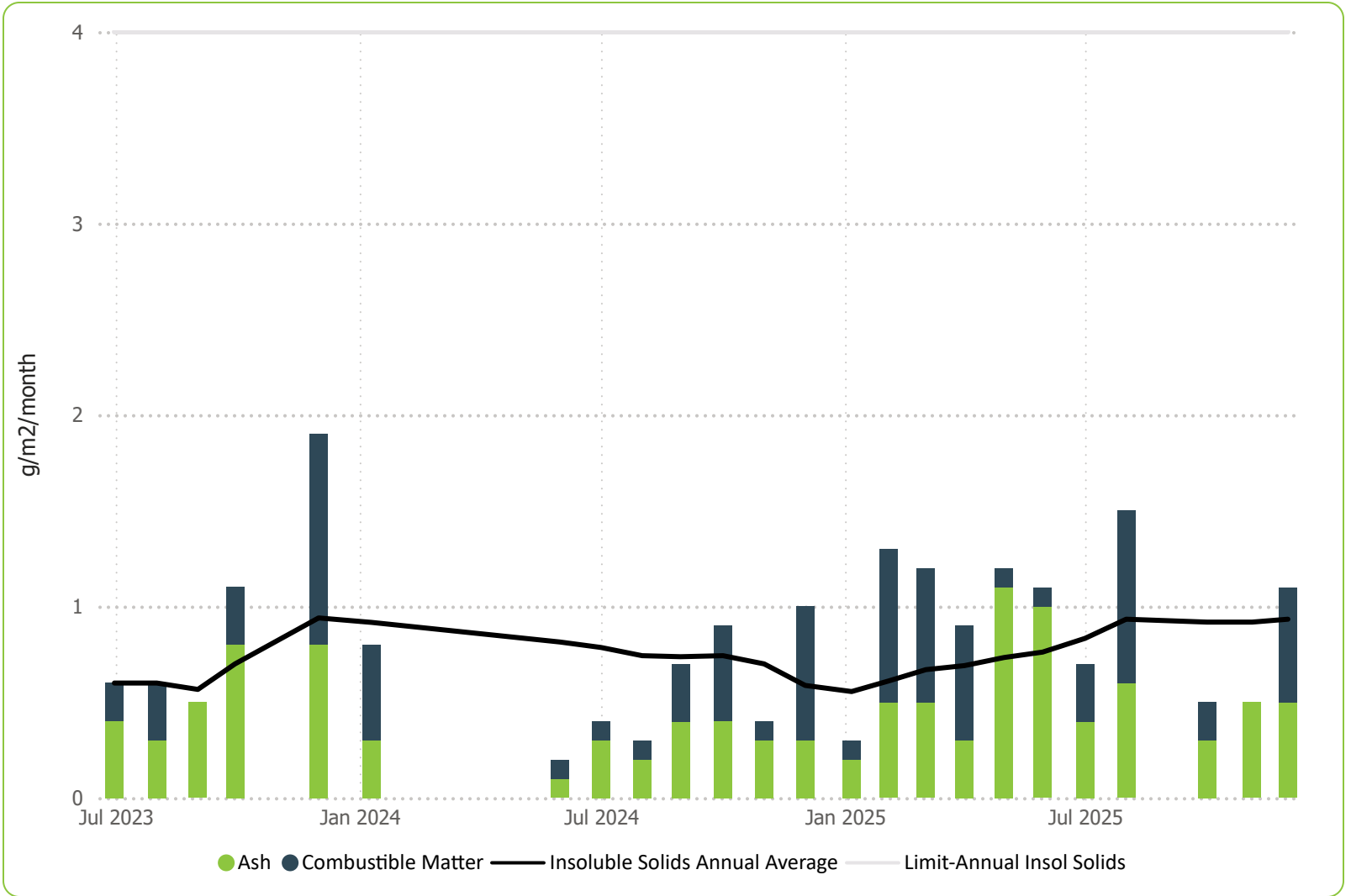
Date & Time On	Comments	Date Sampled	Days On	Insoluble Solids	Ash	Combustible Matter	Calculated Rain
1/05/2025		1/05/25	30	1.2	0.6	0.6	80
30/05/2025		30/05/25	28	0.4	0.2	0.2	115
1/07/2025		1/07/25	32	1.0	1.0	0.0	22
1/08/2025		1/08/25	63	1.2	0.7	0.5	215
2/09/2025		1/10/25	29	0.9	0.8	0.1	49
1/10/2025		4/11/25	28	2.3	2.1	0.2	30
4/11/2025		1/12/25	27	1.8	1.6	0.2	23
1/12/2025		12/01/26	28	2.2	1.6	0.6	115
12/01/2026		2/02/26	28	0.8	0.5	0.3	115
2/02/2026		2/03/26	28	0.8	0.7	0.1	30
2/03/2026		1/04/26	30	0.9	0.6	0.3	115
1/04/2026		6/05/26	35	1.3	0.9	0.4	23

# Depositional Dusts

D2a North East Corner



## Insoluble Solids Annual Average g/m<sup>2</sup>/month



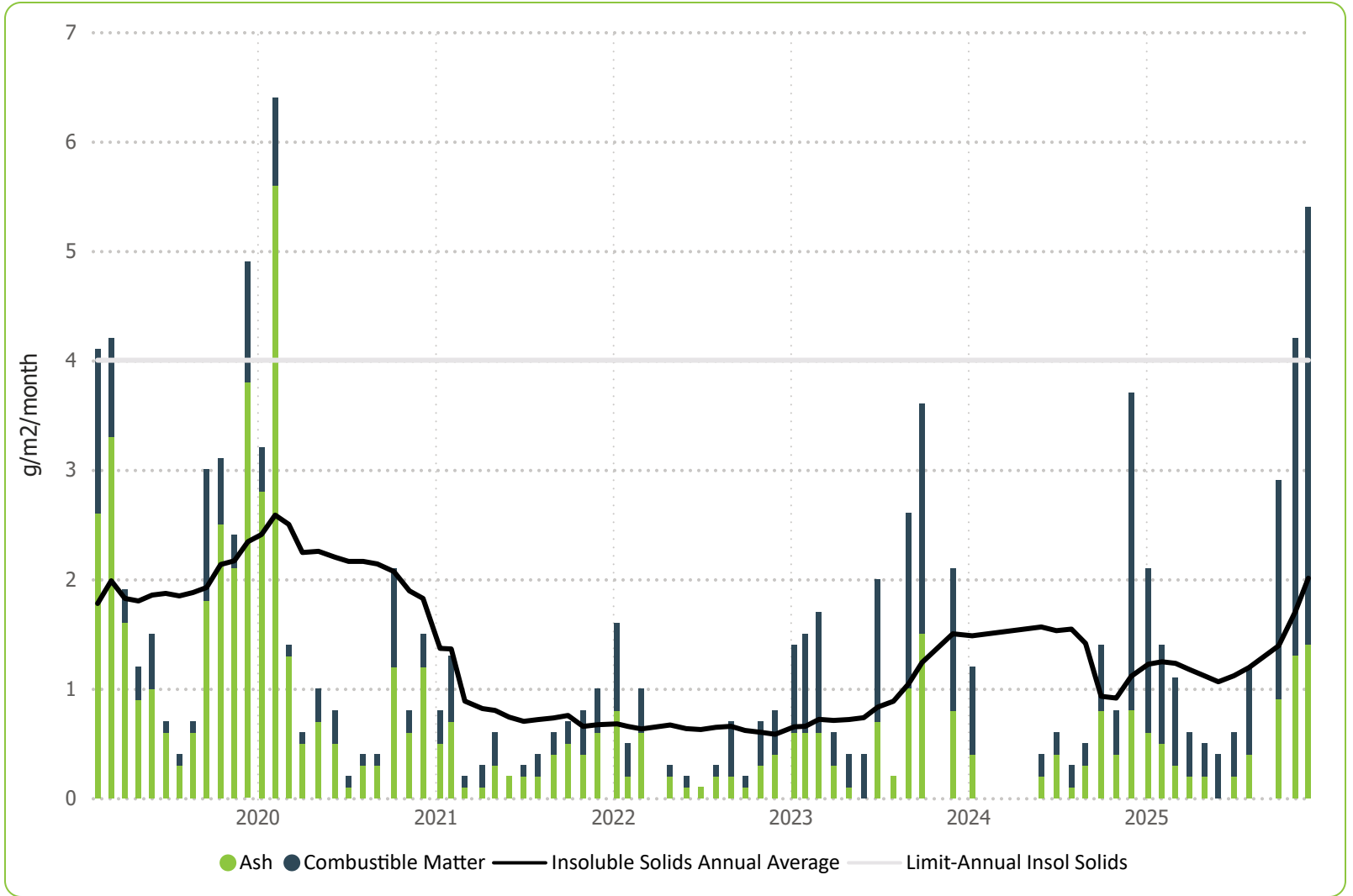
Date & Time On	Comments	Date Sampled	Days On	Insoluble Solids	Ash	Combustible Matter	Calculated Rain
1/05/2025		1/04/25	29	0.9	0.3	0.6	107
30/05/2025		1/05/25	30	1.2	1.1	0.1	78
1/07/2025		30/05/25	28	1.1	1.0	0.1	115
1/08/2025		1/07/25	32	0.7	0.4	0.3	14
2/09/2025		1/08/25	63	1.5	0.6	0.9	200
1/10/2025		1/10/25	29	0.5	0.3	0.2	42
4/11/2025		4/11/25	28	0.4	0.5	0.0	26
1/12/2025		1/12/25	27	1.1	0.5	0.6	11
12/01/2026		12/01/26	28	2.0	1.0	1.0	115
2/02/2026		2/02/26	28	0.4	0.3	0.1	114
2/03/2026		2/03/26	28	0.8	0.6	0.2	114
1/04/2026		1/04/26	30	0.4	0.3	0.1	114
		6/05/26	35	1.3	0.8	0.5	10

# Depositional Dusts

D3A Bundwall

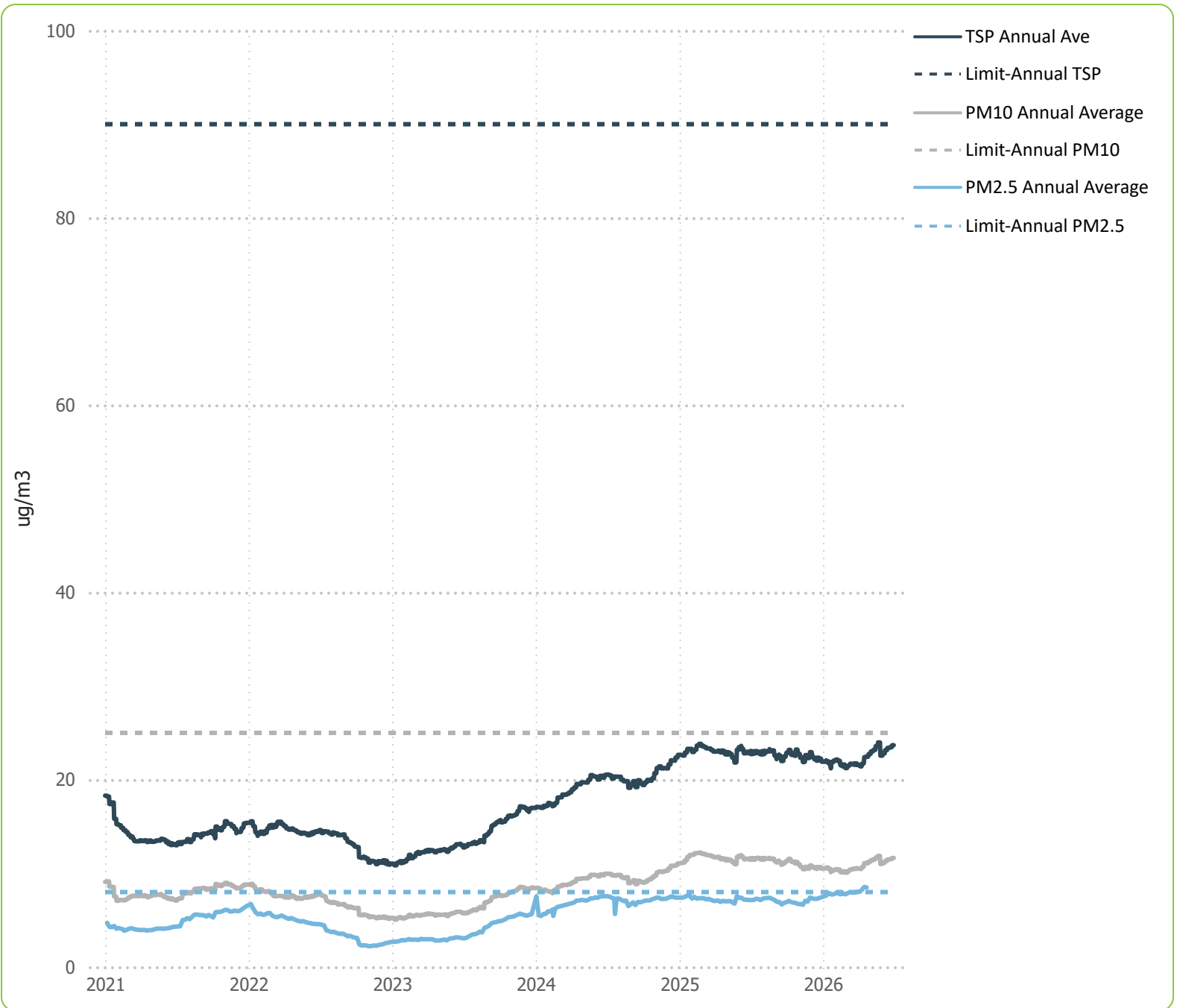
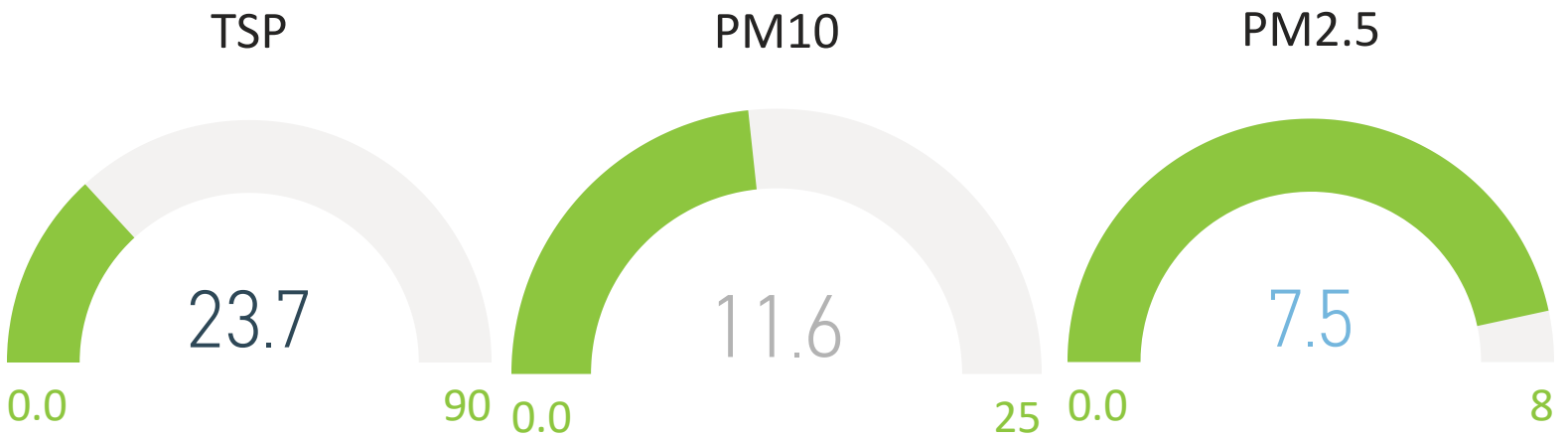


**Insoluble Solids  
Annual Average  
g/m2/month**

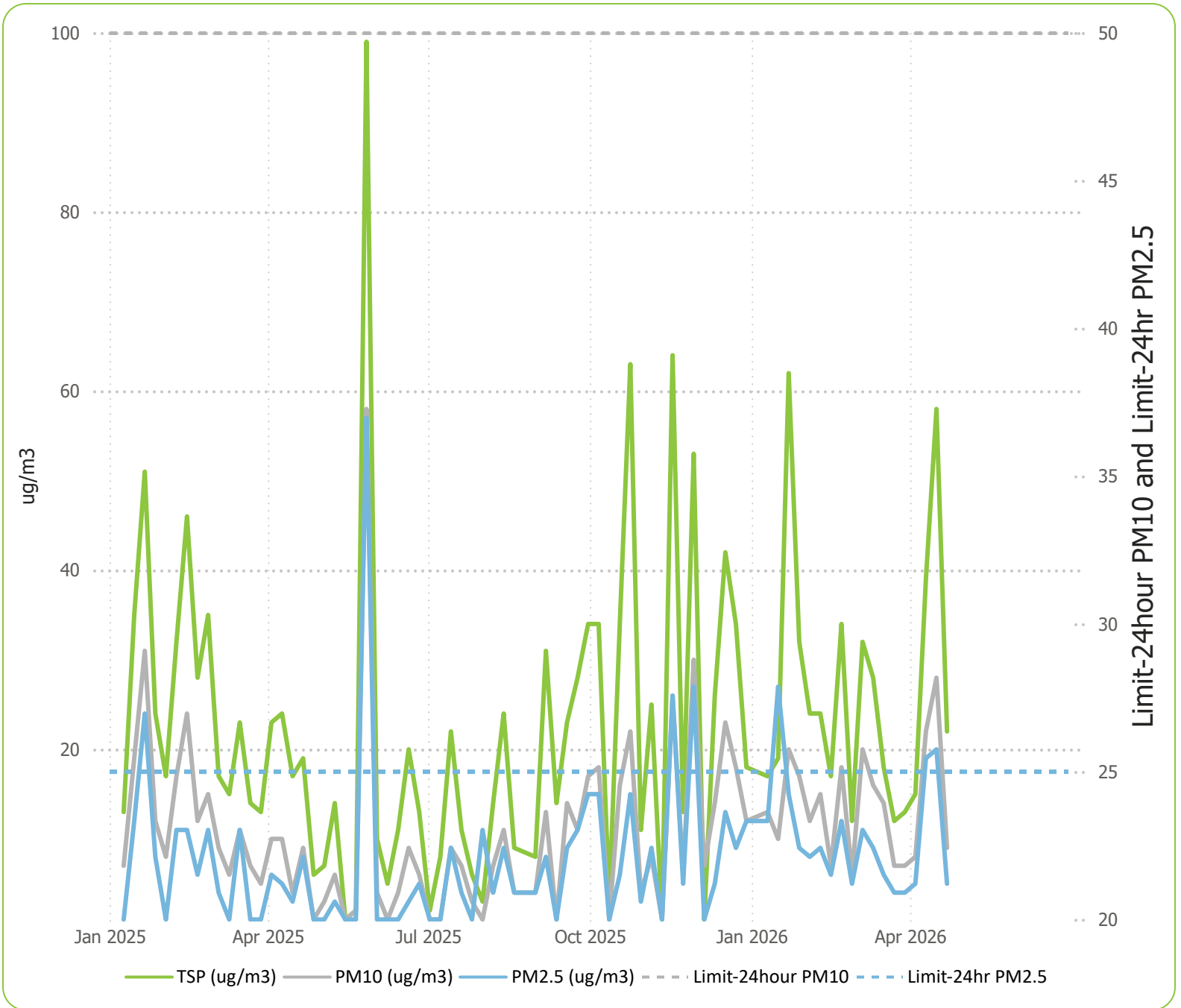


Date & Time On	Comments	Date Sampled	Days On	Insoluble Solids	Ash	Combustible Matter	Calculated Rain
1/05/2025		1/04/25	29	0.6	0.2	0.4	115
30/05/2025		1/05/25	30	0.5	0.2	0.3	80
1/07/2025		30/05/25	28	0.4	0.0	0.4	115
1/08/2025		1/07/25	32	0.6	0.2	0.4	21
2/09/2025		1/08/25	63	1.2	0.4	0.8	210
1/10/2025		1/10/25	29	2.9	0.9	2.0	51
4/11/2025		4/11/25	28	4.2	1.3	2.9	32
1/12/2025		1/12/25	27	5.4	1.4	4.0	22
12/01/2026		12/01/26	28	2.9	1.3	1.6	110
2/02/2026		2/02/26	28	0.8	0.2	0.6	115
2/03/2026		2/03/26	28	0.6	0.3	0.3	115
1/04/2026		1/04/26	30	0.7	0.3	0.4	110
		6/05/26	35	1.0	0.3	0.7	19

# Particulate Matter Annual Averages ( $\mu\text{g}/\text{m}^3$ )



# Particulate Matter 24 Hour Averages ( $\mu\text{g}/\text{m}^3$ )



Cal Year	Max of TSP ( $\mu\text{g}/\text{m}^3$ )	Max of PM10 ( $\mu\text{g}/\text{m}^3$ )	Max of PM2.5 ( $\mu\text{g}/\text{m}^3$ )
2025	99.00	58.00	57.00

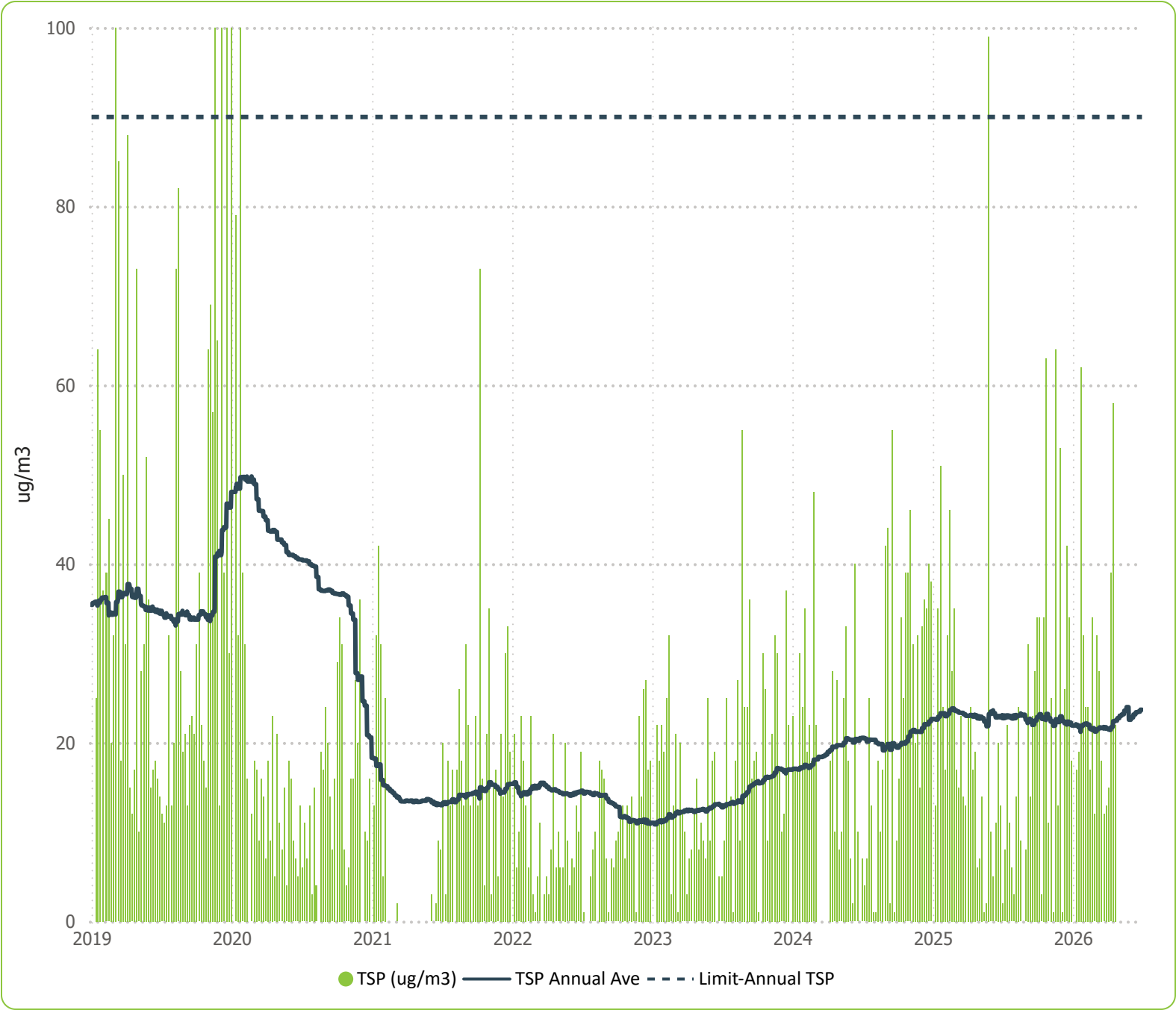
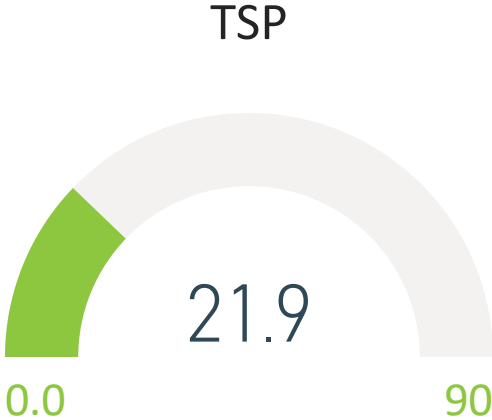
## PM10 24 hour exceedances ( $>50 \mu\text{g}/\text{m}^3$ )

Date	PM10 ( $\mu\text{g}/\text{m}^3$ )	Sampling Comments
27/05/25	58.00	SA Dust storm blew through during run

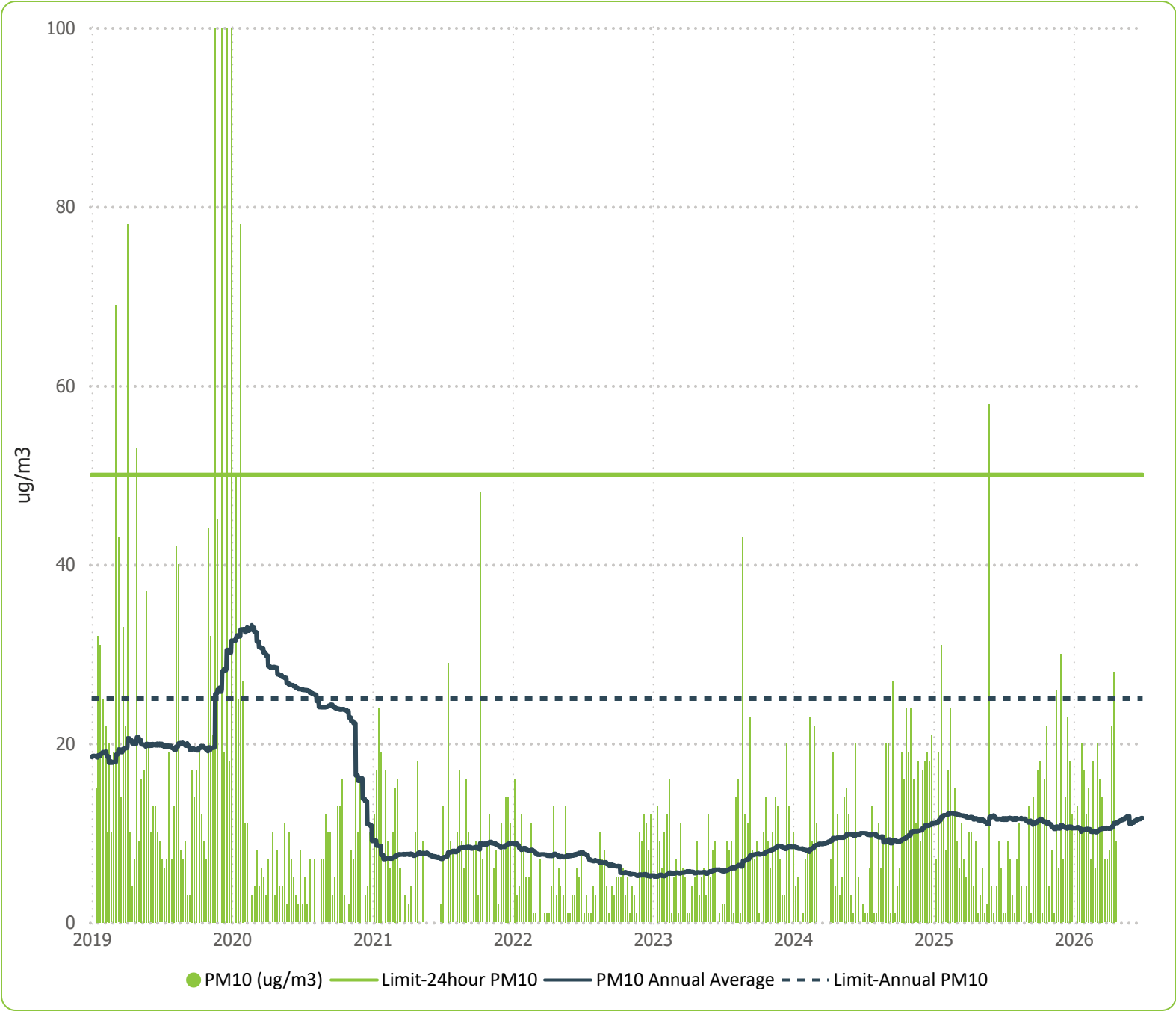
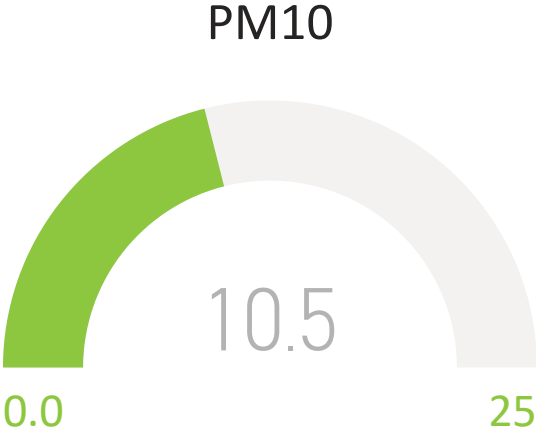
## PM2.5 24 hour exceedances ( $>25 \mu\text{g}/\text{m}^3$ )

Date	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sampling Comments
27/05/25	57.00	SA Dust storm blew through during run
17/11/25	26.00	
29/11/25	27.00	
16/01/26	27.00	Paper got wet and dirt spilt on it.

# Particulate Matter Annual Averages ( $\mu\text{g}/\text{m}^3$ )

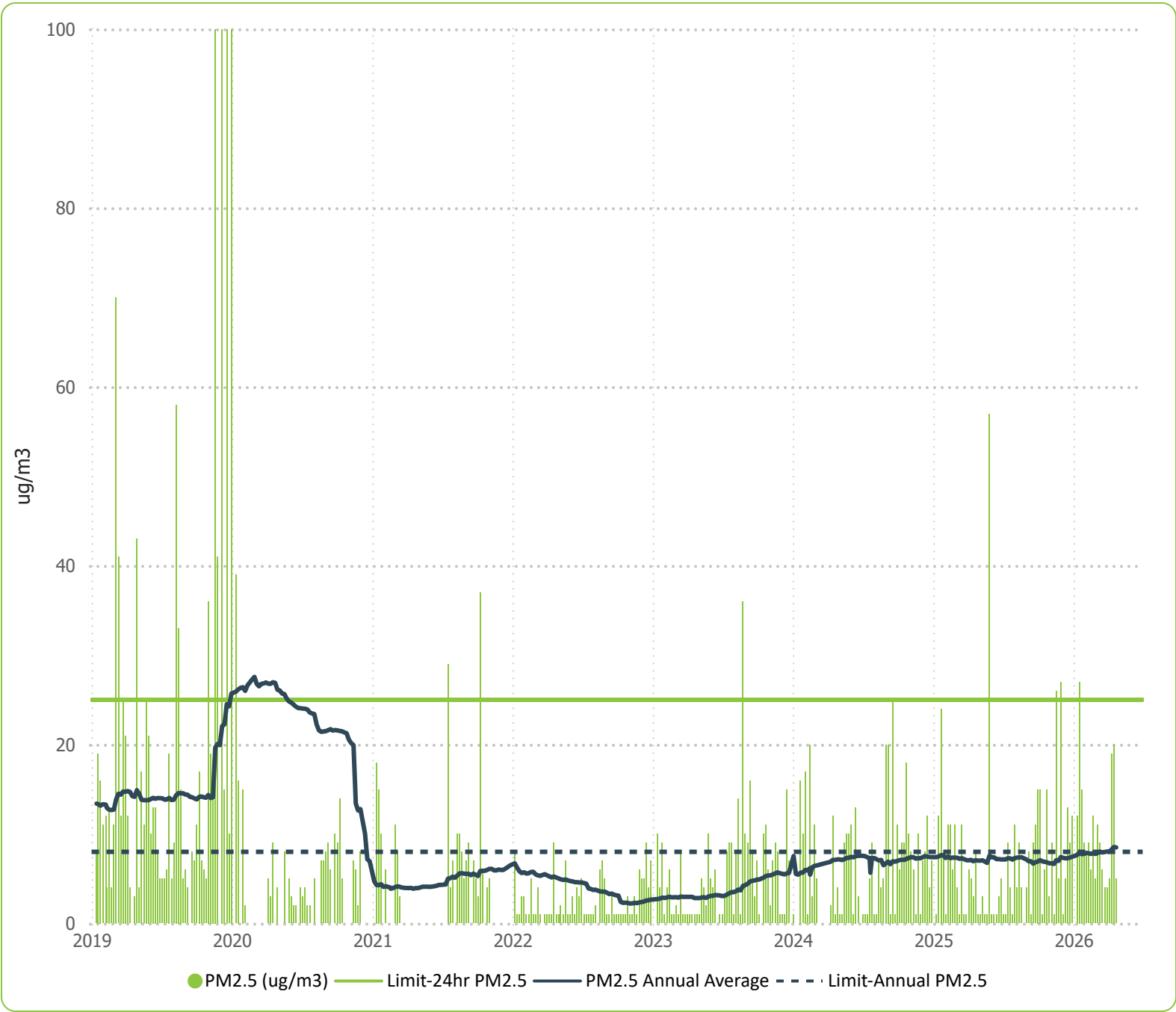


# Particulate Matter Annual Averages ( $\mu\text{g}/\text{m}^3$ )



# Particulate Matter Annual Averages ( $\mu\text{g}/\text{m}^3$ )

PM2.5



# Water Quality Tables

# Water Quality Tables - Surface Water

Sample Description Date	Dam 1 - Process											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	6.80	5.40	36.00	184.00	3.00	0.50	2.00	20.00	14.00	<5	110.00	26.00
22/10/25	5.70	4.00	36.00	181.00	3.00	0.28	2.00	17.00	16.00	<5	110.00	22.00
9/01/26	6.90	6.20	40.00	193.00	3.00	0.07	2.00	20.00	14.00	5.00	120.00	27.00
9/04/26	7.00	6.60	29.00	159.00	2.00	0.04	2.00	16.00	<1	10.00	99.00	26.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	5.70	4.00	29.00	159.00	2.00	0.04	2.00	16.00	<1	<5	99.00	22.00
Average	6.60	5.55	35.25	179.25	2.75	0.22	2.00	18.25	11.13	5.00	109.75	25.25
Max	7.00	6.60	40.00	193.00	3.00	0.50	2.00	20.00	16.00	10.00	120.00	27.00
Sample Description Date	Dam 2 - Tailings											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	4.00	1.00	66.00	264.00	5.70	1.40	1.00	31.00	3.00	<5	160.00	26.00
22/10/25	4.60	3.00	44.00	205.00	4.00	1.30	2.00	18.00	7.00	<5	130.00	24.00
9/01/26	5.80	5.60	46.00	207.00	4.00	0.67	2.00	24.00	11.00	<5	130.00	30.00
9/04/26	4.90	3.00	29.00	135.00	2.00	0.02	2.00	16.00	<1	<5	84.00	16.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.00	1.00	29.00	135.00	2.00	0.02	1.00	16.00	<1	<5	84.00	16.00
Average	4.83	3.15	46.25	202.75	3.93	0.85	1.75	22.25	5.38	<5	126.00	24.00
Max	5.80	5.60	66.00	264.00	5.70	1.40	2.00	31.00	11.00	<5	160.00	30.00

## Water Quality Tables - Surface Water

Sample Description Date	Dam 3 - Nursery											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	5.80	3.00	37.00	173.00	4.00	0.00	3.00	18.00	6.00	7.00	110.00	23.00
22/10/25	6.40	4.00	36.00	167.00	4.00	0.00	3.00	15.00	7.00	9.00	100.00	26.00
9/01/26	6.20	5.30	39.00	184.00	4.00	0.00	3.00	19.00	8.00	12.00	110.00	32.00
9/04/26	7.60	7.30	36.00	194.00	4.00	0.00	4.00	20.00	0.00	16.00	120.00	36.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	5.80	3.00	36.00	167.00	4.00	<0.005	3.00	15.00	<1	7.00	100.00	23.00
Average	6.50	4.90	37.00	179.50	4.00	<0.005	3.25	18.00	5.25	11.00	110.00	29.25
Max	7.60	7.30	39.00	194.00	4.00	<0.005	4.00	20.00	8.00	16.00	120.00	36.00
Sample Description Date	Dam 4 - Farm											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	6.10	3.00	24.00	123.00	3.00	<0.005	4.00	13.00	3.00	11.00	77.00	17.00
22/10/25	6.40	3.00	27.00	138.00	3.00	<0.005	4.00	13.00	4.00	14.00	86.00	20.00
9/01/26	6.30	4.00	32.00	176.00	4.00	<0.005	5.10	16.00	4.00	16.00	110.00	27.00
9/04/26	9.20	3.00	27.00	135.00	3.00	<0.005	3.00	15.00	0.00	11.00	84.00	21.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	6.10	3.00	24.00	123.00	3.00	<0.005	3.00	13.00	<1	11.00	77.00	17.00
Average	7.00	3.25	27.50	143.00	3.25	<0.005	4.03	14.25	2.75	13.00	89.25	21.25
Max	9.20	4.00	32.00	176.00	4.00	<0.005	5.10	16.00	4.00	16.00	110.00	27.00

# Water Quality Tables - Groundwater

Sample Description Date	MW1											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	4.50	6.50	47.00	305.00	11.00	9.80	4.00	20.00	16.00	<5	190.00	61.00
22/10/25	4.70	5.00	52.00	274.00	9.10	6.50	3.00	20.00	13.00	<5	170.00	50.00
9/01/26	4.70	9.50	44.00	338.00	16.00	15.00	6.10	20.00	20.00	<5	210.00	88.00
9/04/26	4.50	8.30	46.00	311.00	13.00	12.00	5.20	22.00	12.00	<5	190.00	74.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.50	5.00	44.00	274.00	9.10	6.50	3.00	20.00	12.00	<5	170.00	50.00
Average	4.60	7.33	47.25	307.00	12.28	10.83	4.58	20.50	15.25	<5	190.00	68.25
Max	4.70	9.50	52.00	338.00	16.00	15.00	6.10	22.00	20.00	<5	210.00	88.00
Sample Description Date	MW10											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	4.60	1.00	33.00	148.00	5.00	1.20	0.90	13.00	<1	<5	92.00	22.00
22/10/25	4.50	0.50	32.00	143.00	5.00	1.20	1.00	11.00	<1	<5	89.00	22.00
9/01/26	4.50	0.80	32.00	154.00	4.00	1.50	1.00	13.00	1.00	<5	96.00	19.00
9/04/26	4.40	0.01	26.00	108.00	3.00	1.20	0.80	11.00	1.00	<5	67.00	13.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.40	<0.5	26.00	108.00	3.00	1.20	0.80	11.00	<1	<5	67.00	13.00
Average	4.50	0.58	30.75	138.25	4.25	1.28	0.93	12.00	0.75	<5	86.00	19.00
Max	4.60	1.00	33.00	154.00	5.00	1.50	1.00	13.00	1.00	<5	96.00	22.00

# Water Quality Tables - Groundwater

Sample Description Date	MW11 (Off Old Telegraph Rd)											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	5.80	15.00	40.00	243.00	5.30	0.43	5.00	20.00	21.00	22.00	150.00	58.00
22/10/25	5.90	16.00	37.00	238.00	5.00	0.46	4.00	16.00	20.00	33.00	150.00	60.00
9/01/26	5.70	7.10	37.00	202.00	4.00	0.62	4.00	18.00	7.00	14.00	130.00	32.00
9/04/26	5.70	7.40	36.00	185.00	4.00	0.95	4.00	18.00	<1	16.00	120.00	34.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	5.70	7.10	36.00	185.00	4.00	0.43	4.00	16.00	<1	14.00	120.00	32.00
Average	5.78	11.38	37.50	217.00	4.58	0.62	4.25	18.00	12.13	21.25	137.50	46.00
Max	5.90	16.00	40.00	243.00	5.30	0.95	5.00	20.00	21.00	33.00	150.00	60.00

Sample Description Date	MW12											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	5.00	3.00	22.00	114.00	1.00	0.47	0.70	14.00	6.00	5.00	71.00	14.00
22/10/25	4.70	1.00	22.00	111.00	2.00	0.48	0.80	12.00	7.00	<5	69.00	11.00
9/01/26	5.00	3.00	23.00	125.00	2.00	0.74	0.70	14.00	8.00	<5	78.00	14.00
9/04/26	4.50	1.00	22.00	110.00	1.00	0.62	0.60	14.00	<1	<5	69.00	9.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.50	1.00	22.00	110.00	1.00	0.47	0.60	12.00	<1	<5	69.00	9.00
Average	4.80	2.00	22.25	115.00	1.50	0.58	0.70	13.50	5.38	3.13	71.75	12.00
Max	5.00	3.00	23.00	125.00	2.00	0.74	0.80	14.00	8.00	5.00	78.00	14.00

# Water Quality Tables - Groundwater

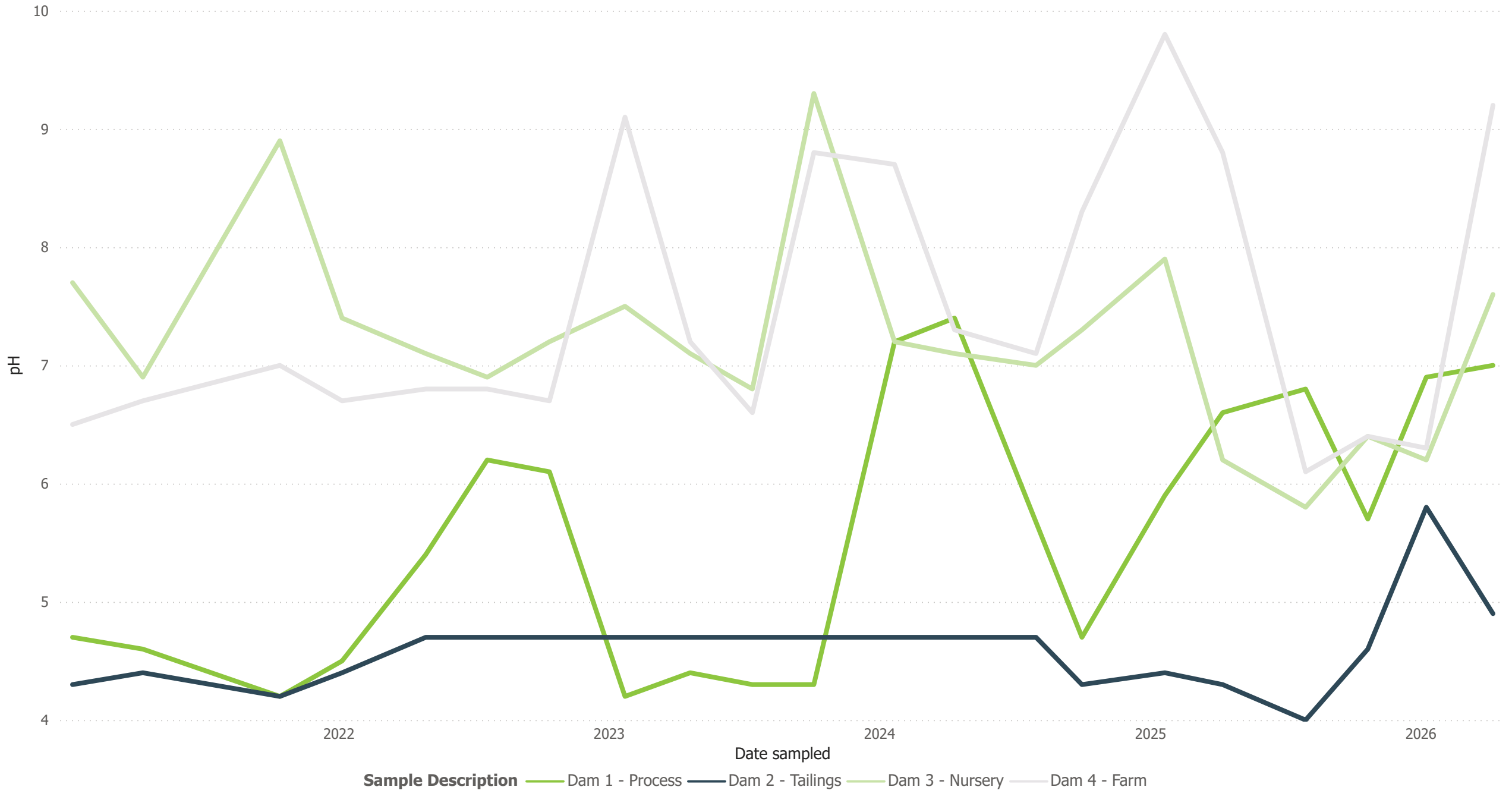
Sample Description Date	MW6 (Office)											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	8.20	4.00	78.00	323.00	3.00	0.03	2.00	46.00	<1	30.00	200.00	23.00
22/10/25	8.00	4.00	69.00	292.00	4.00	0.06	2.00	37.00	<1	31.00	180.00	26.00
9/01/26	7.90	5.00	61.00	275.00	4.00	0.08	2.00	38.00	<1	35.00	170.00	29.00
9/04/26	8.50	4.00	64.00	265.00	3.00	0.03	2.00	40.00	<1	30.00	170.00	20.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	7.90	4.00	61.00	265.00	3.00	0.03	2.00	37.00	<1	30.00	170.00	20.00
Average	8.15	4.25	68.00	288.75	3.50	0.05	2.00	40.25	<1	31.50	180.00	24.50
Max	8.50	5.00	78.00	323.00	4.00	0.08	2.00	46.00	<1	35.00	200.00	29.00
Sample Description Date	MW7											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	4.80	6.30	48.00	235.00	4.00	4.30	1.00	29.00	6.00	5.00	150.00	32.00
22/10/25	5.20	3.00	30.00	176.00	3.00	3.80	0.80	19.00	5.00	9.00	110.00	20.00
9/01/26	5.30	5.40	33.00	207.00	4.00	4.00	0.90	23.00	5.00	13.00	130.00	28.00
9/04/26	5.30	2.00	30.00	158.00	1.00	2.90	0.80	25.00	3.00	11.00	99.00	11.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.80	2.00	30.00	158.00	1.00	2.90	0.80	19.00	3.00	5.00	99.00	11.00
Average	5.15	4.18	35.25	194.00	3.00	3.75	0.88	24.00	4.75	9.50	122.25	22.75
Max	5.30	6.30	48.00	235.00	4.00	4.30	1.00	29.00	6.00	13.00	150.00	32.00

## Water Quality Tables - Groundwater

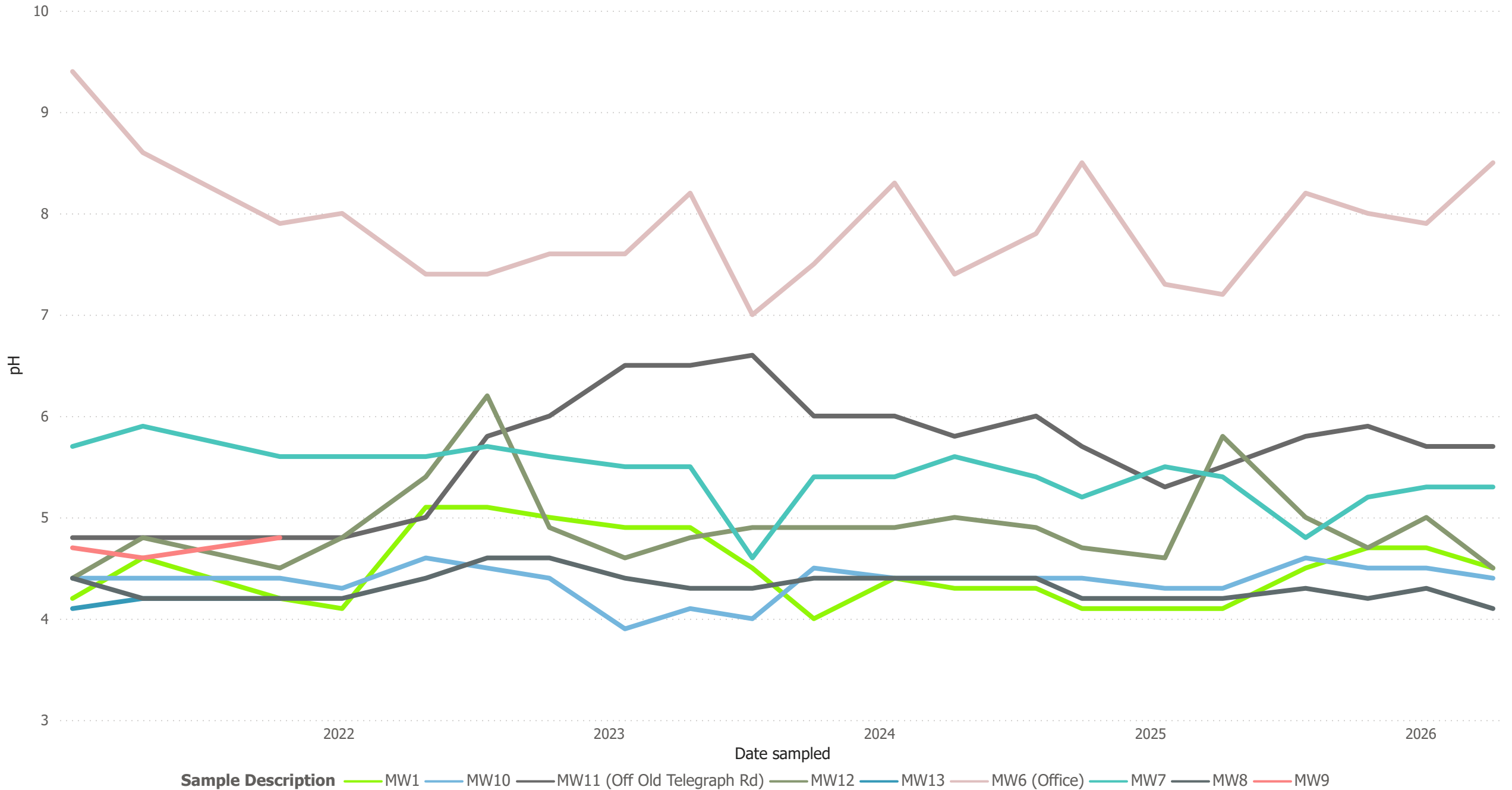
Sample Description Date	MW8											
	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids by EC (mg/L)	Total Hardness (mg/L)
30/07/25	4.30	2.00	60.00	246.00	3.00	0.97	0.01	27.00	1.00	<5	150.00	19.00
22/10/25	4.20	0.80	60.00	244.00	3.00	1.10	0.01	25.00	1.00	<5	150.00	14.00
9/01/26	4.30	2.00	61.00	260.00	4.00	0.88	0.01	28.00	2.00	<5	160.00	22.00
9/04/26	4.10	0.70	68.00	264.00	4.00	0.54	0.01	32.00	<1	<5	160.00	18.00
Statistic	pH (pH units)	Calcium (mg/L)	Chloride (mg/L)	Electrical Conductivity (uS/cm)	Magnesium (mg/L)	Nitrate (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Alkalinity (mg/L)	Total Dissolved Solids By EC (mg/L)	Total Hardness (mg/L)
Min	4.10	0.70	60.00	244.00	3.00	0.54	<0.5	25.00	<1	<5	150.00	14.00
Average	4.23	1.38	62.25	253.50	3.50	0.87	<0.5	28.00	1.13	<5	155.00	18.25
Max	4.30	2.00	68.00	264.00	4.00	1.10	<0.5	32.00	2.00	<5	160.00	22.00

# Water Quality Trends

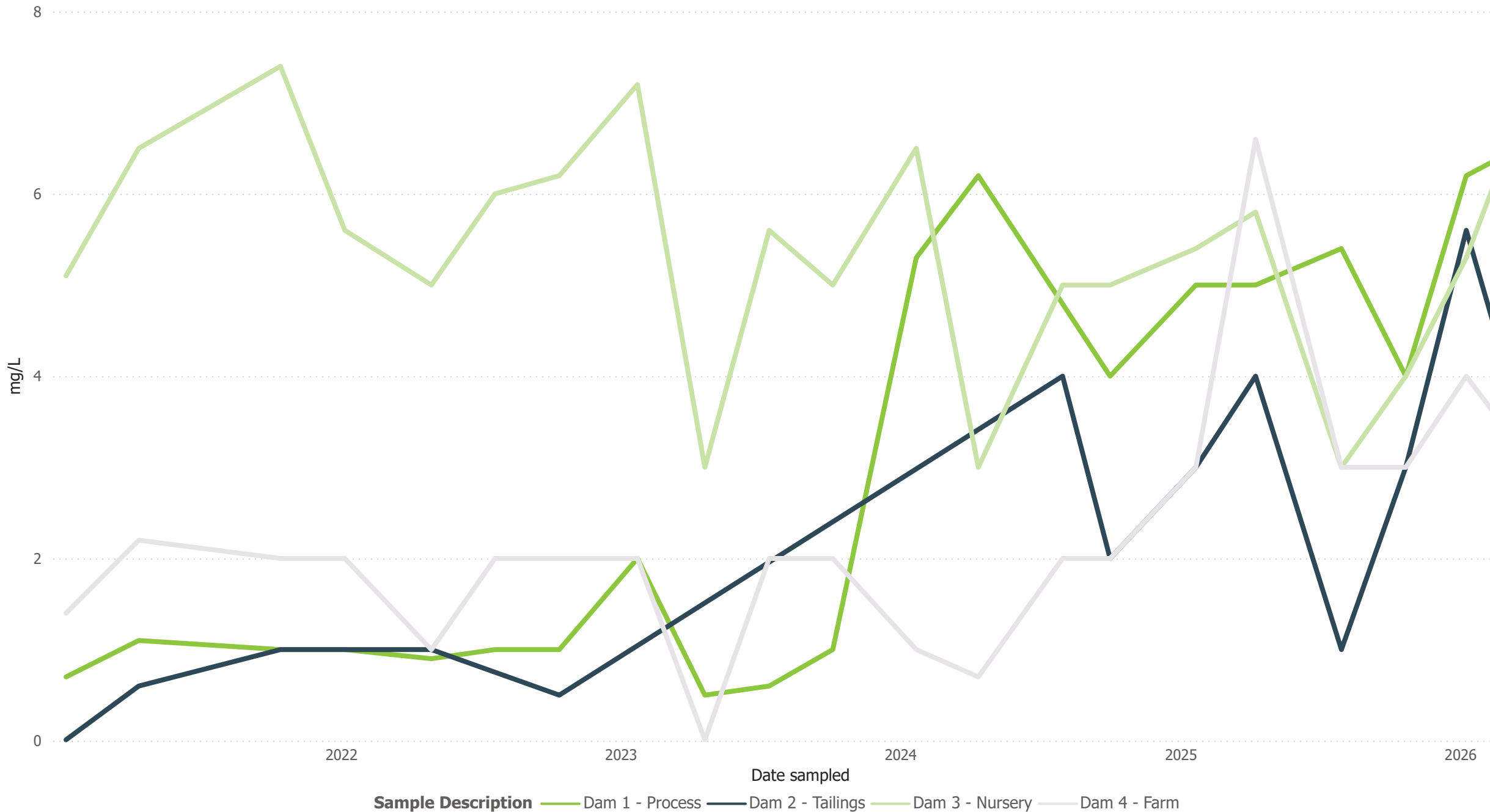
# pH - Surface Water



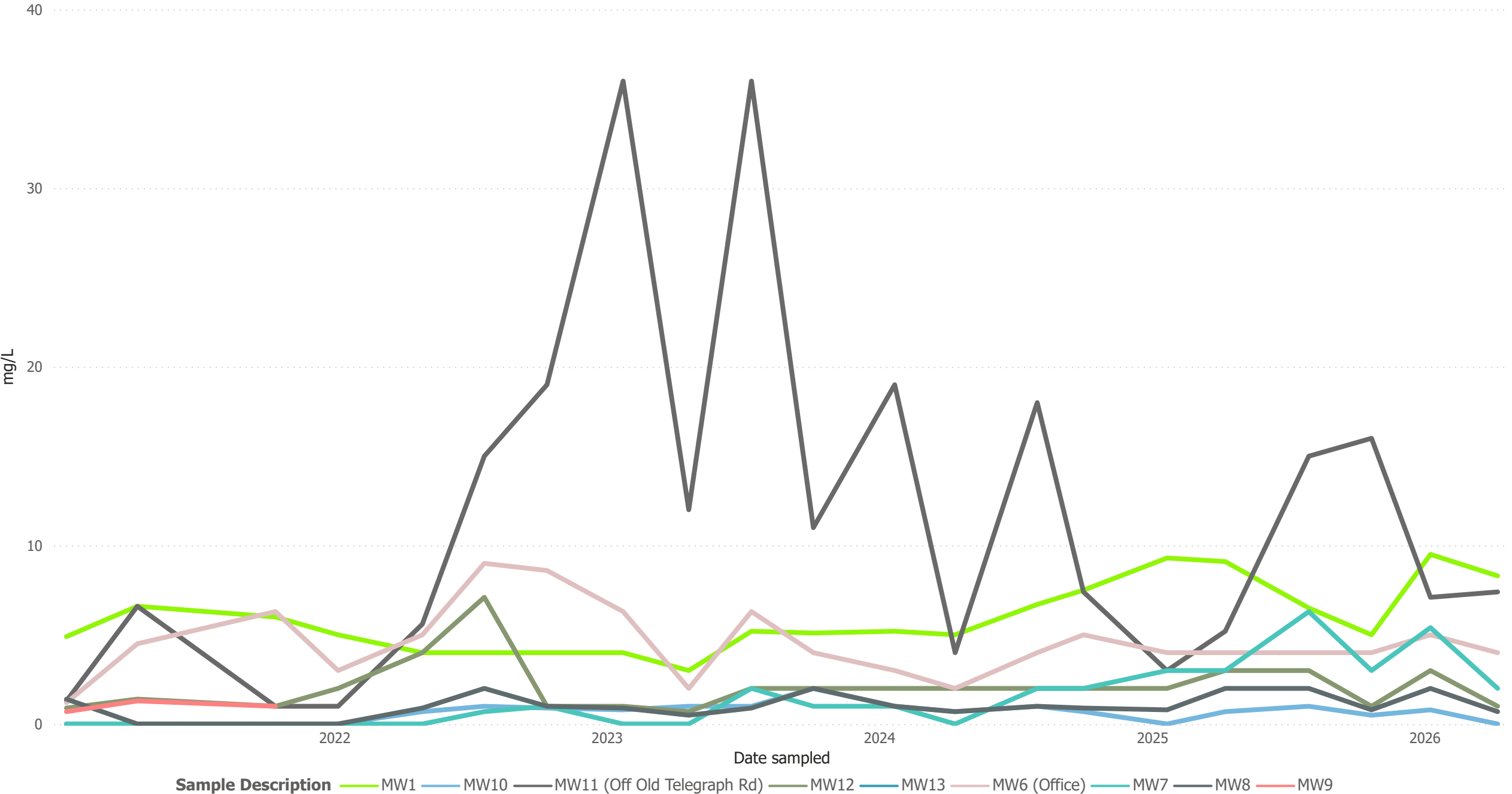
# pH - Groundwater



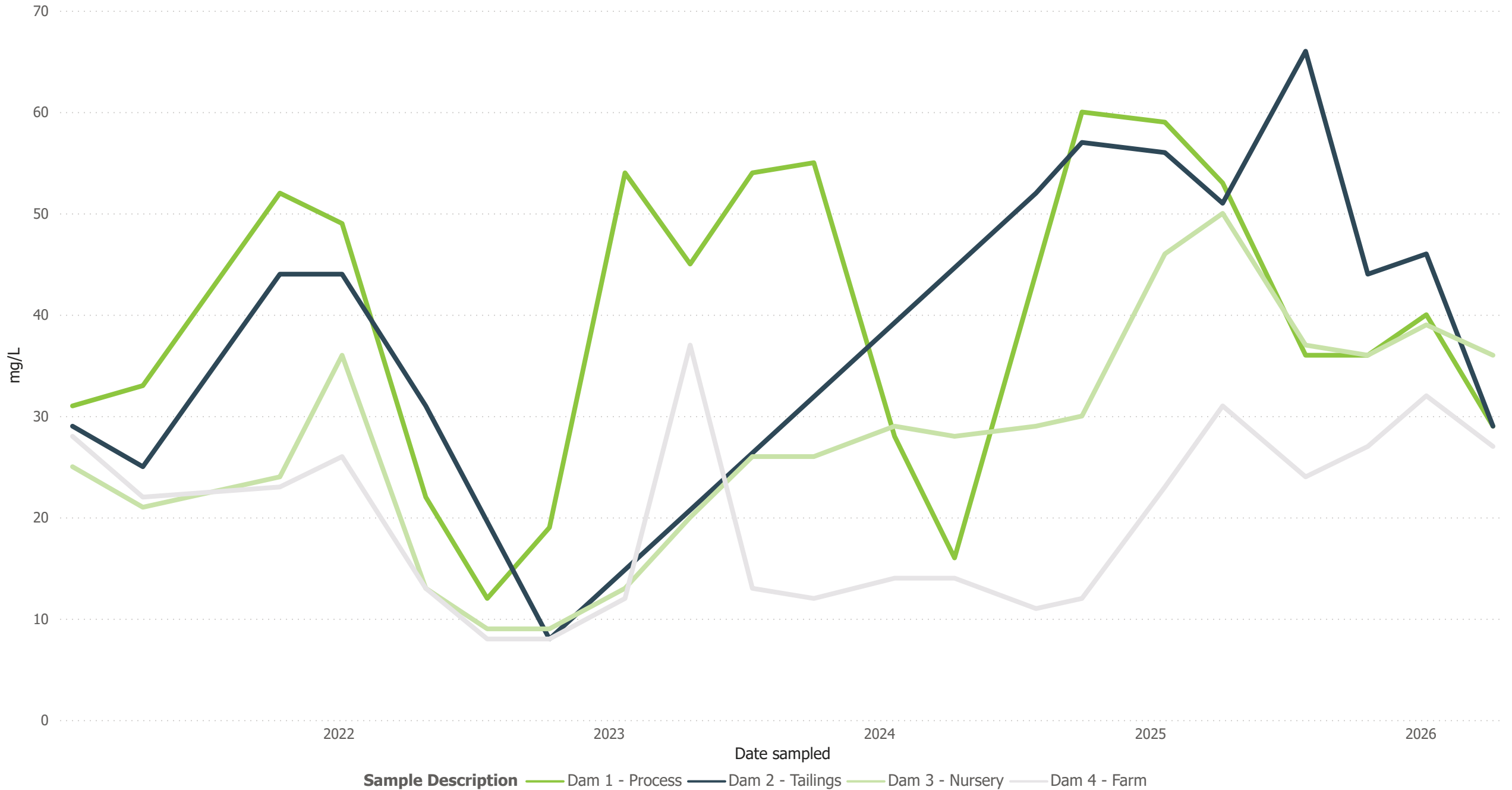
# Calcium - Surface Water



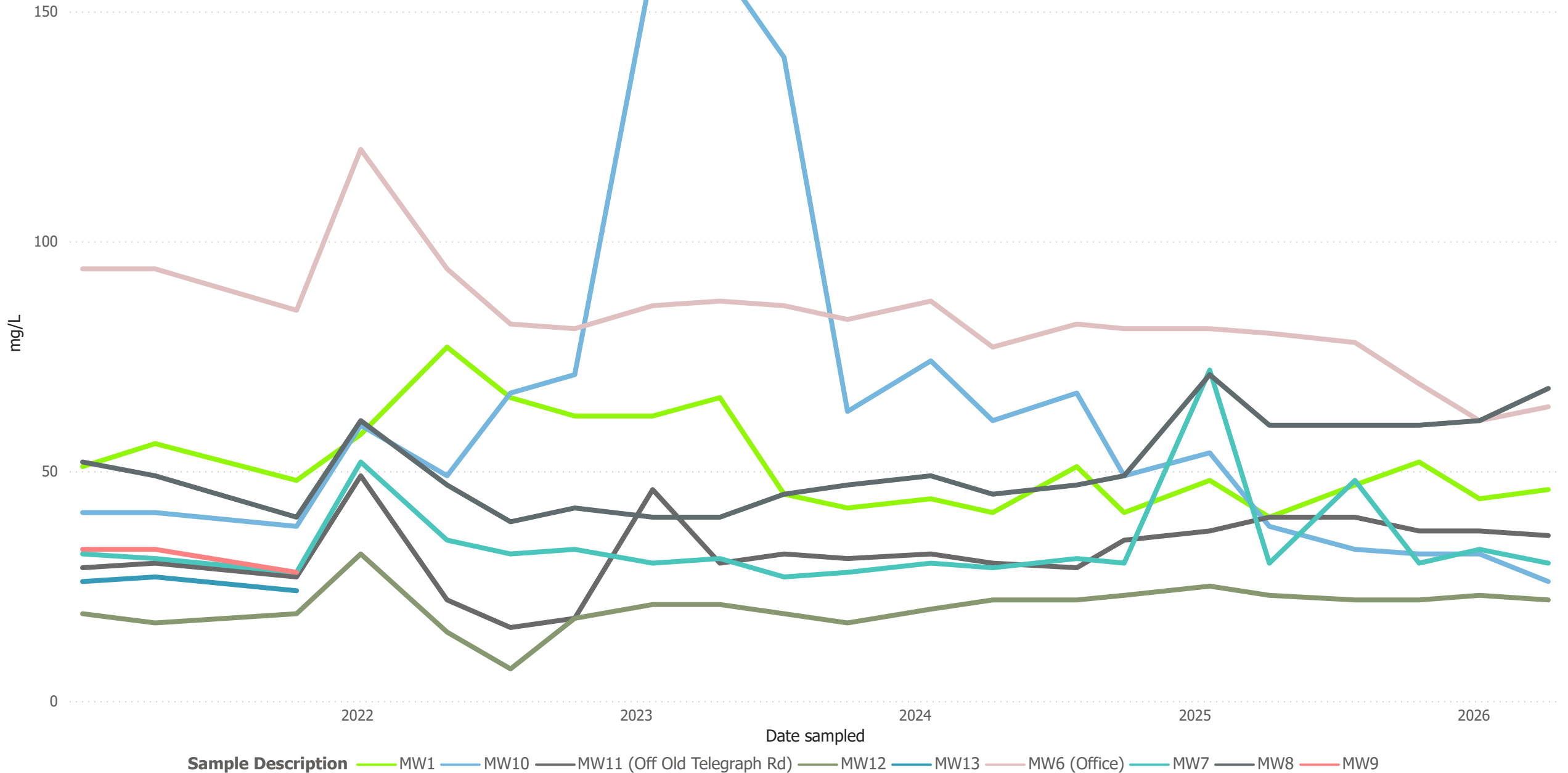
# Calcium - Groundwater



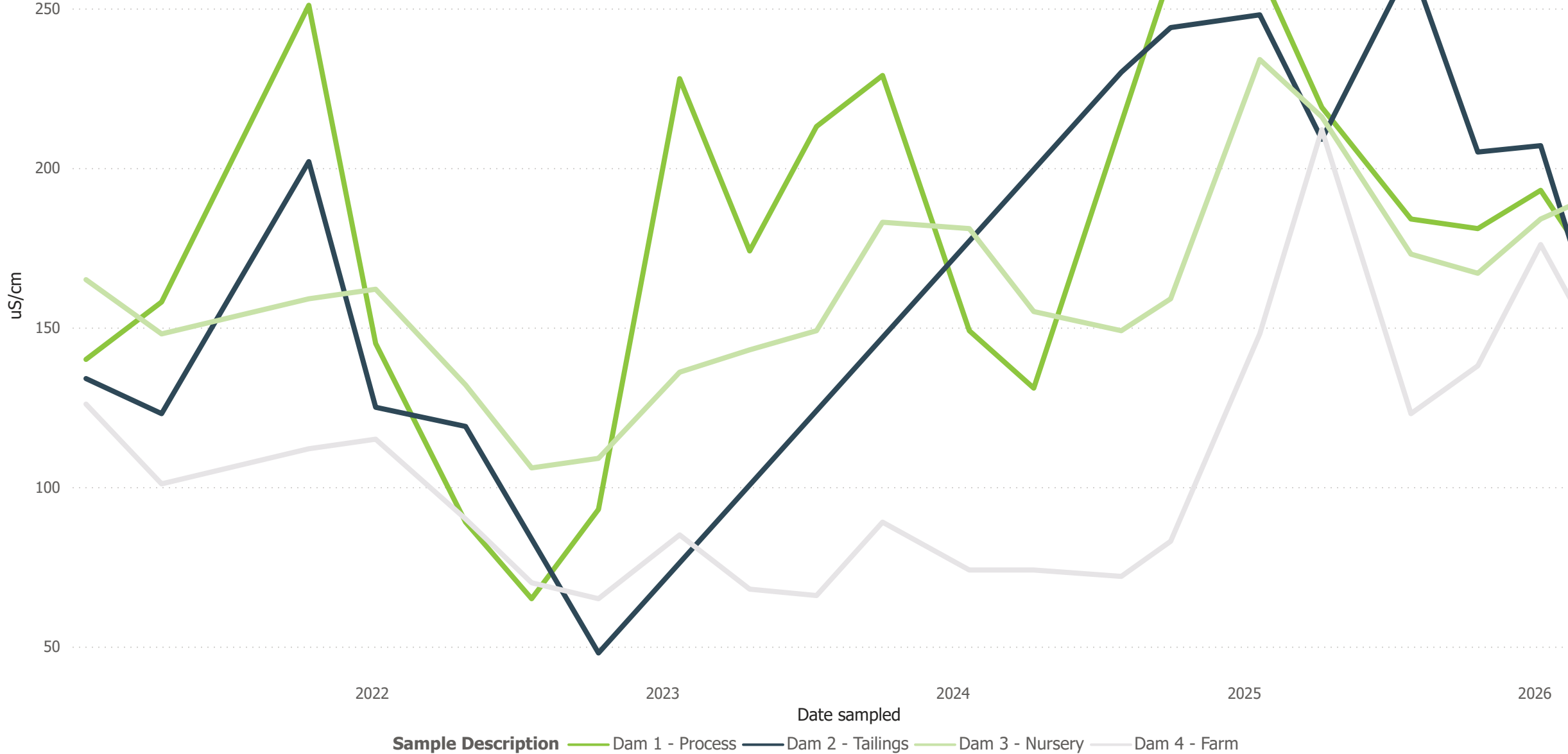
# Chloride - Surface Water



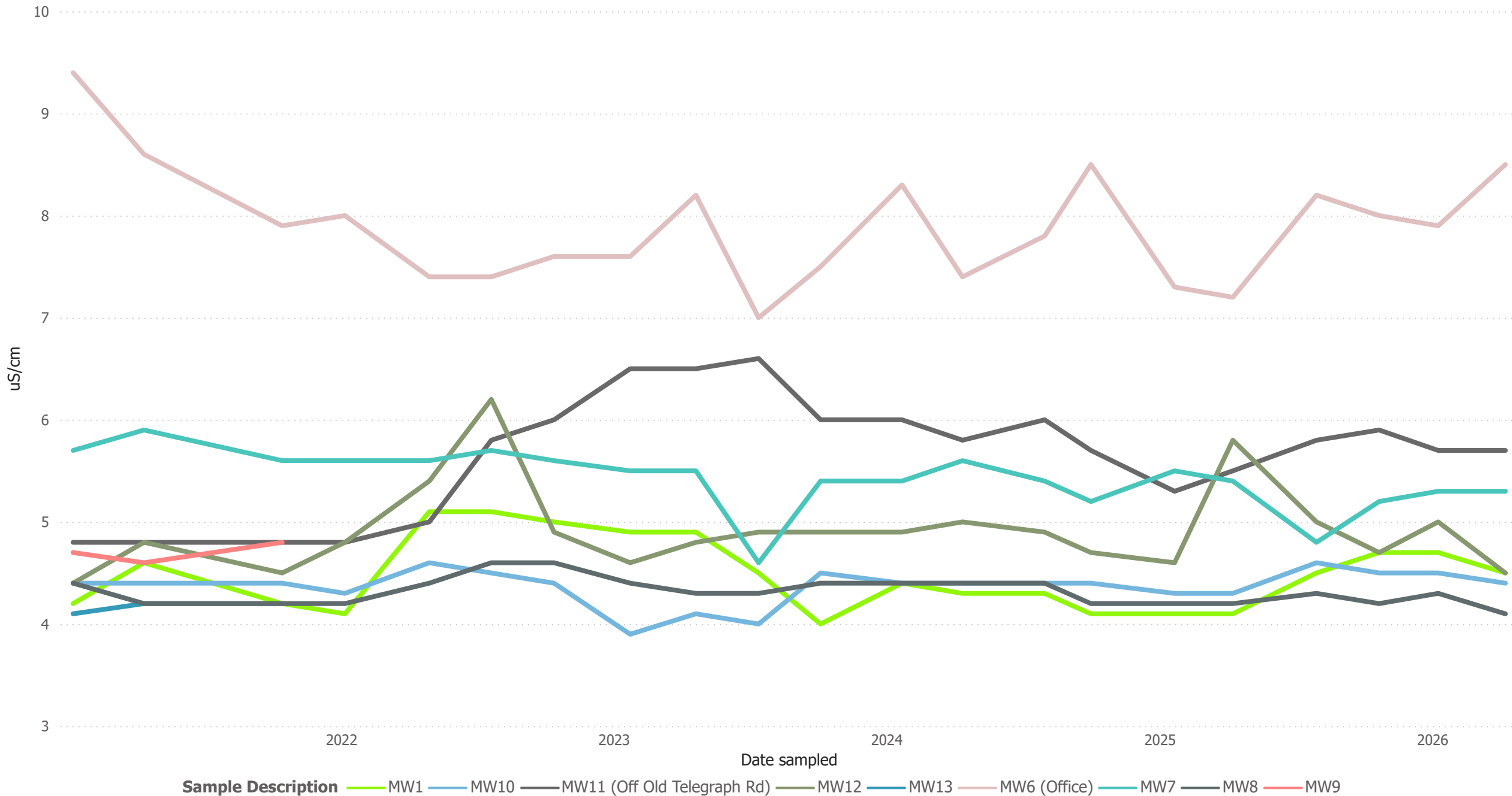
# Chloride - Groundwater



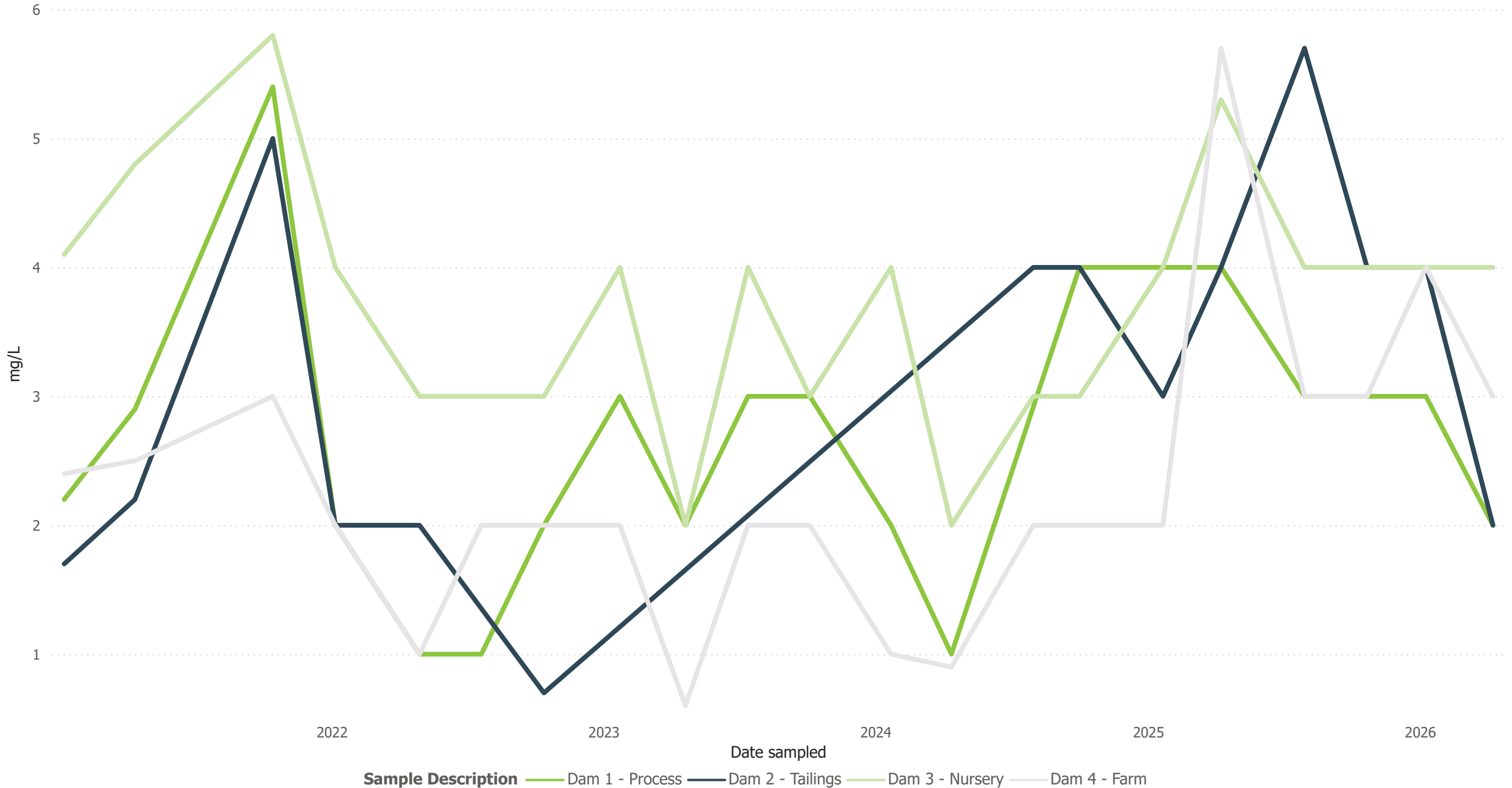
# Electrical Conductivity - Surface Water



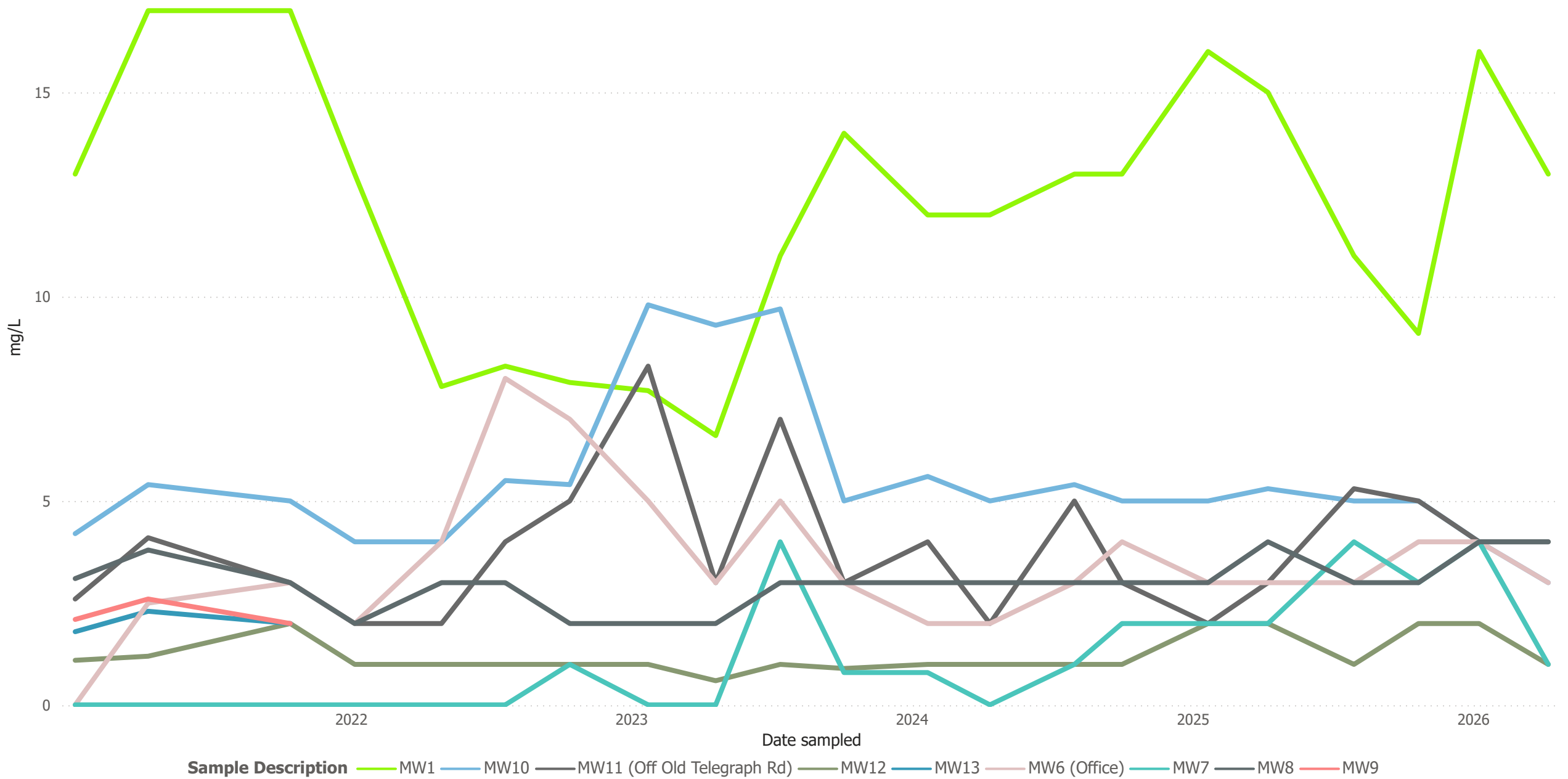
# Electrical Conductivity - Groundwater



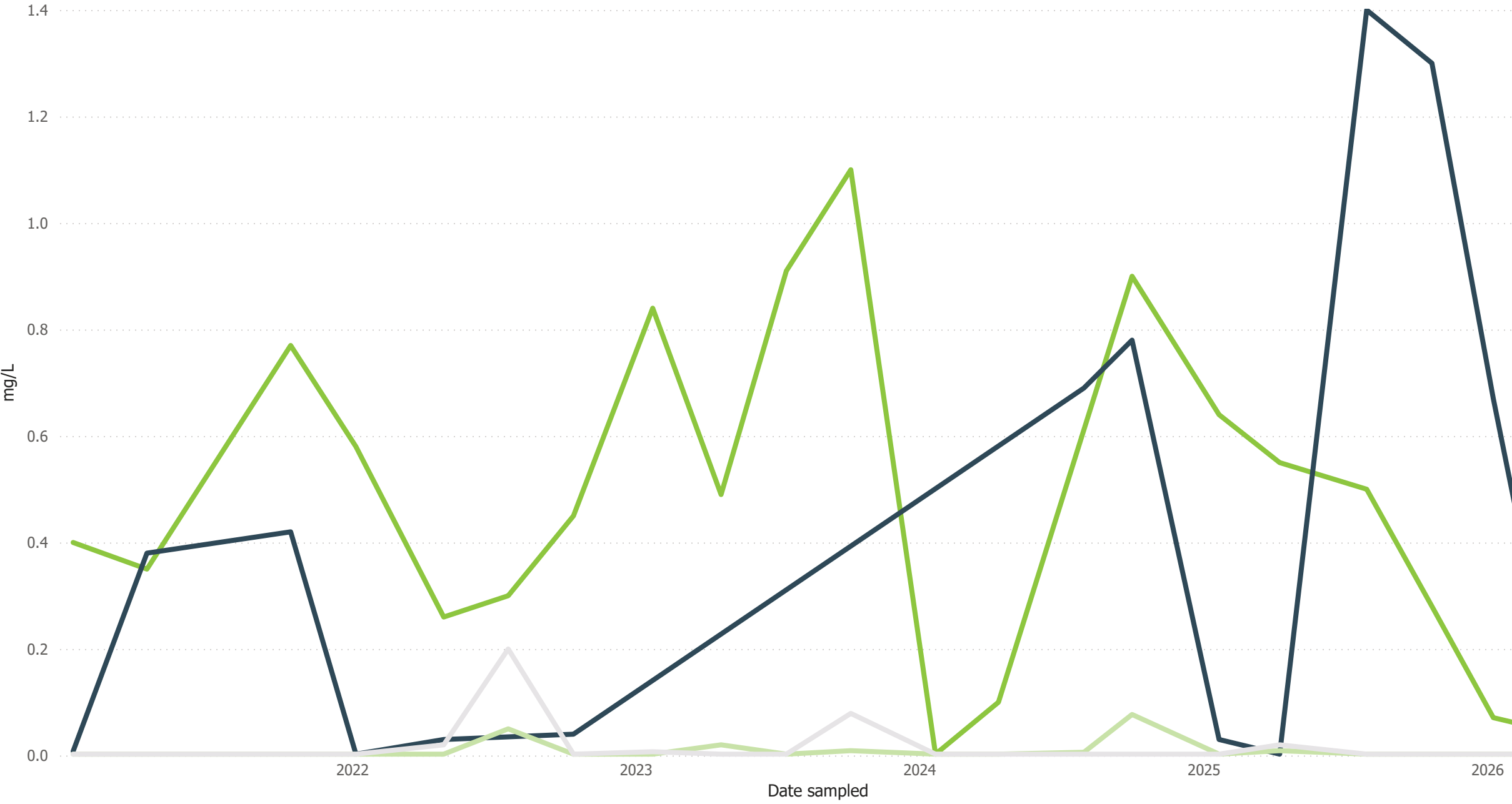
# Magnesium - Surface Water



# Magnesium - Groundwater

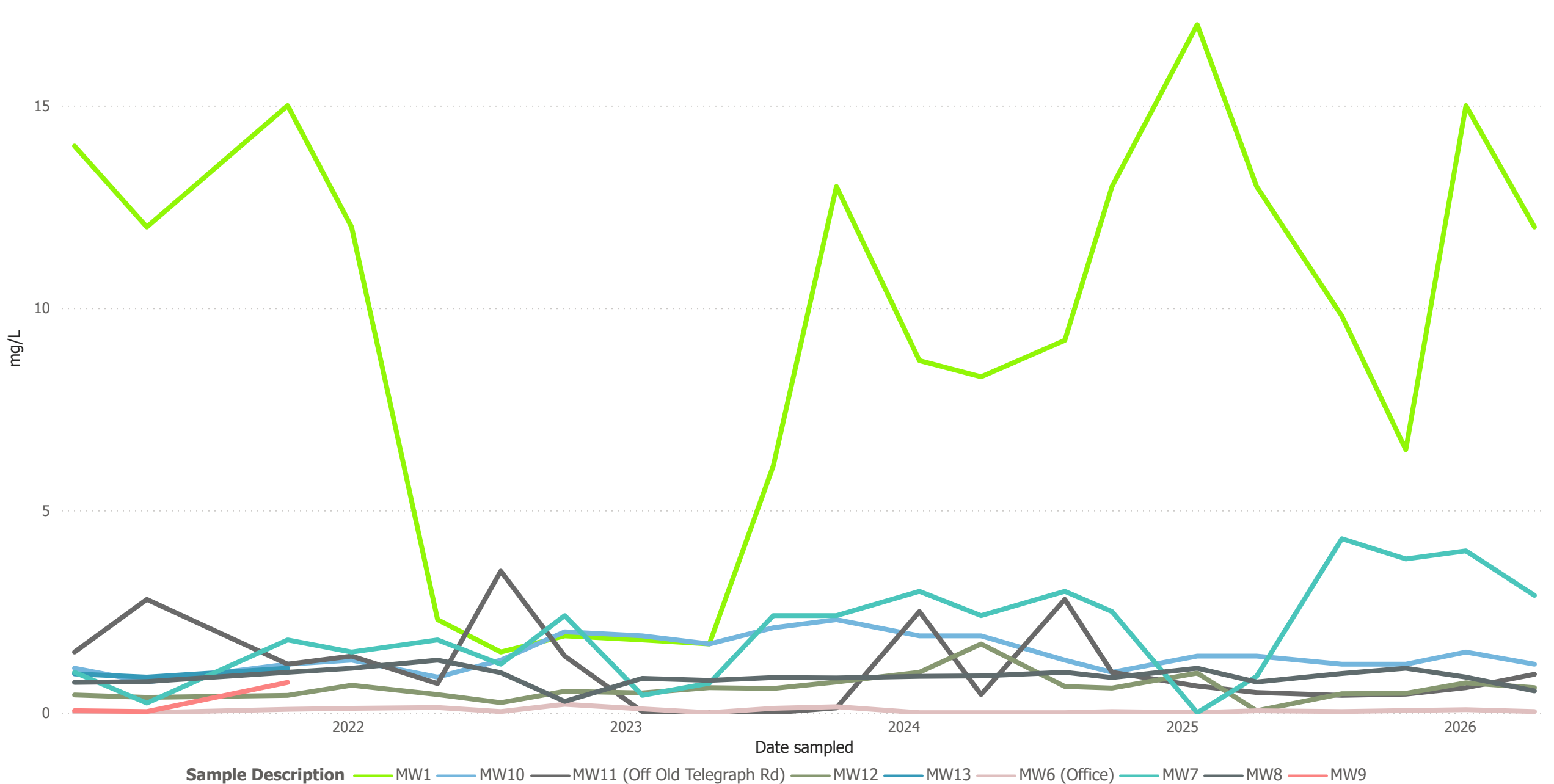


# Nitrate - Surface Water

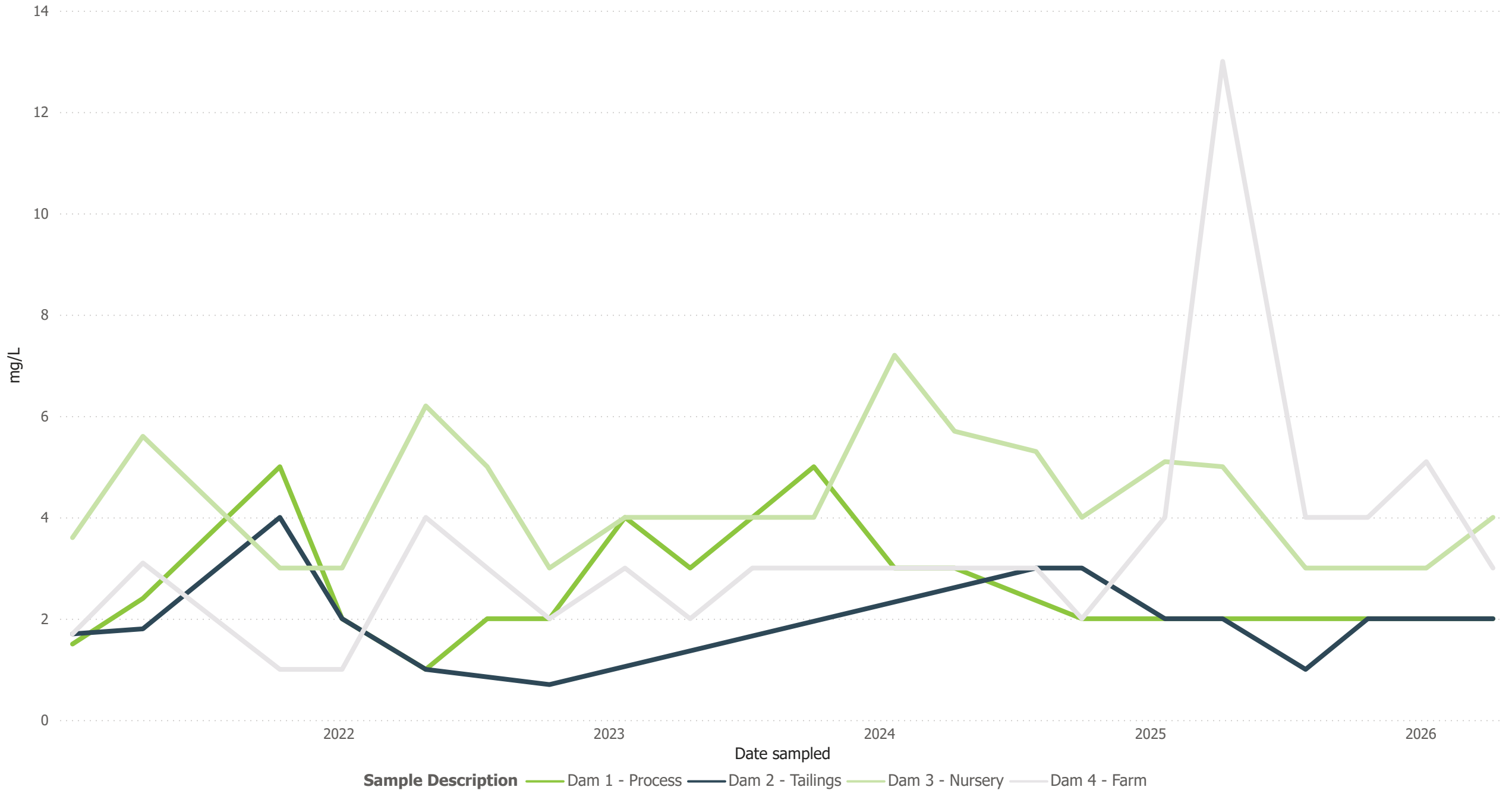


**Sample Description** — Dam 1 - Process — Dam 2 - Tailings — Dam 3 - Nursery — Dam 4 - Farm

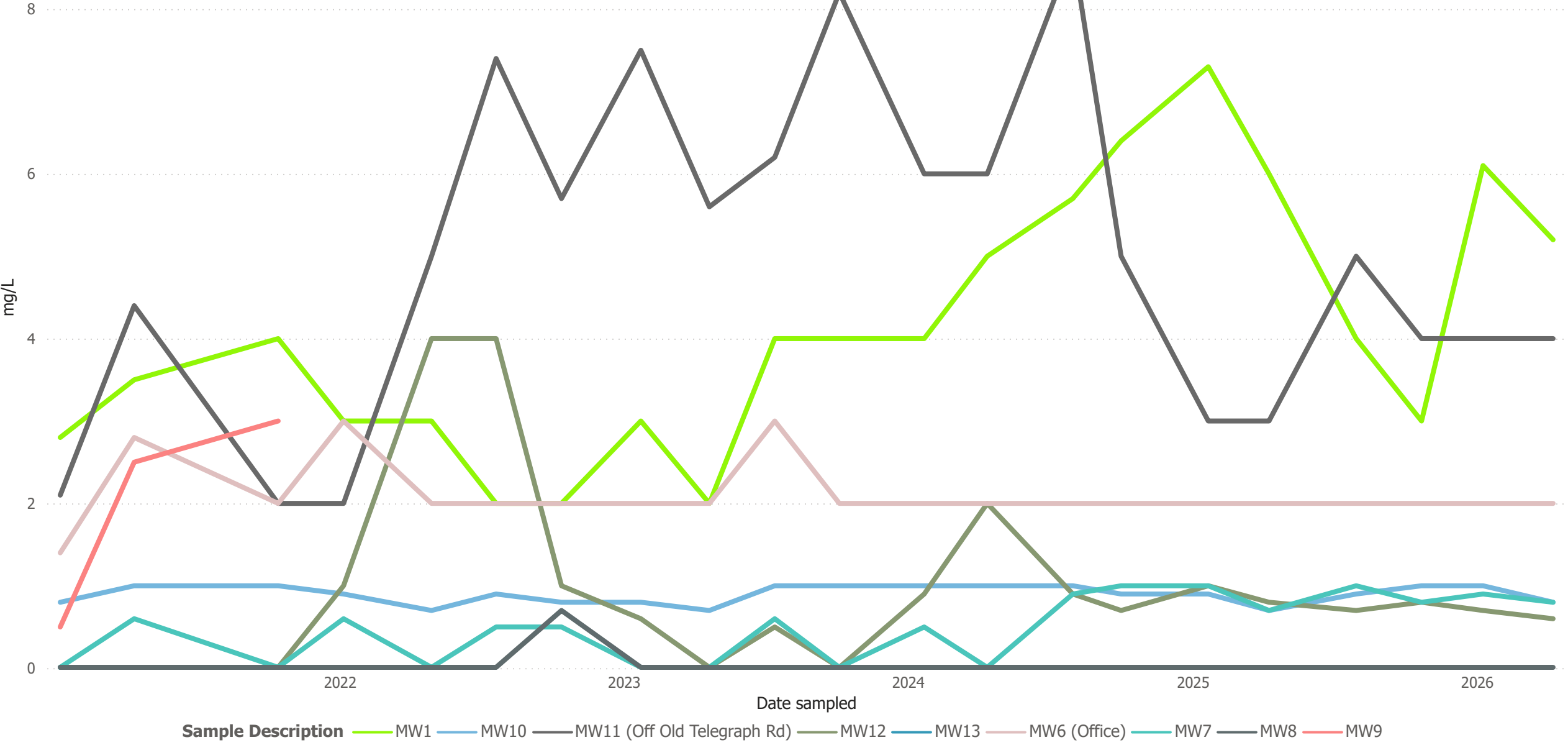
# Nitrate - Groundwater



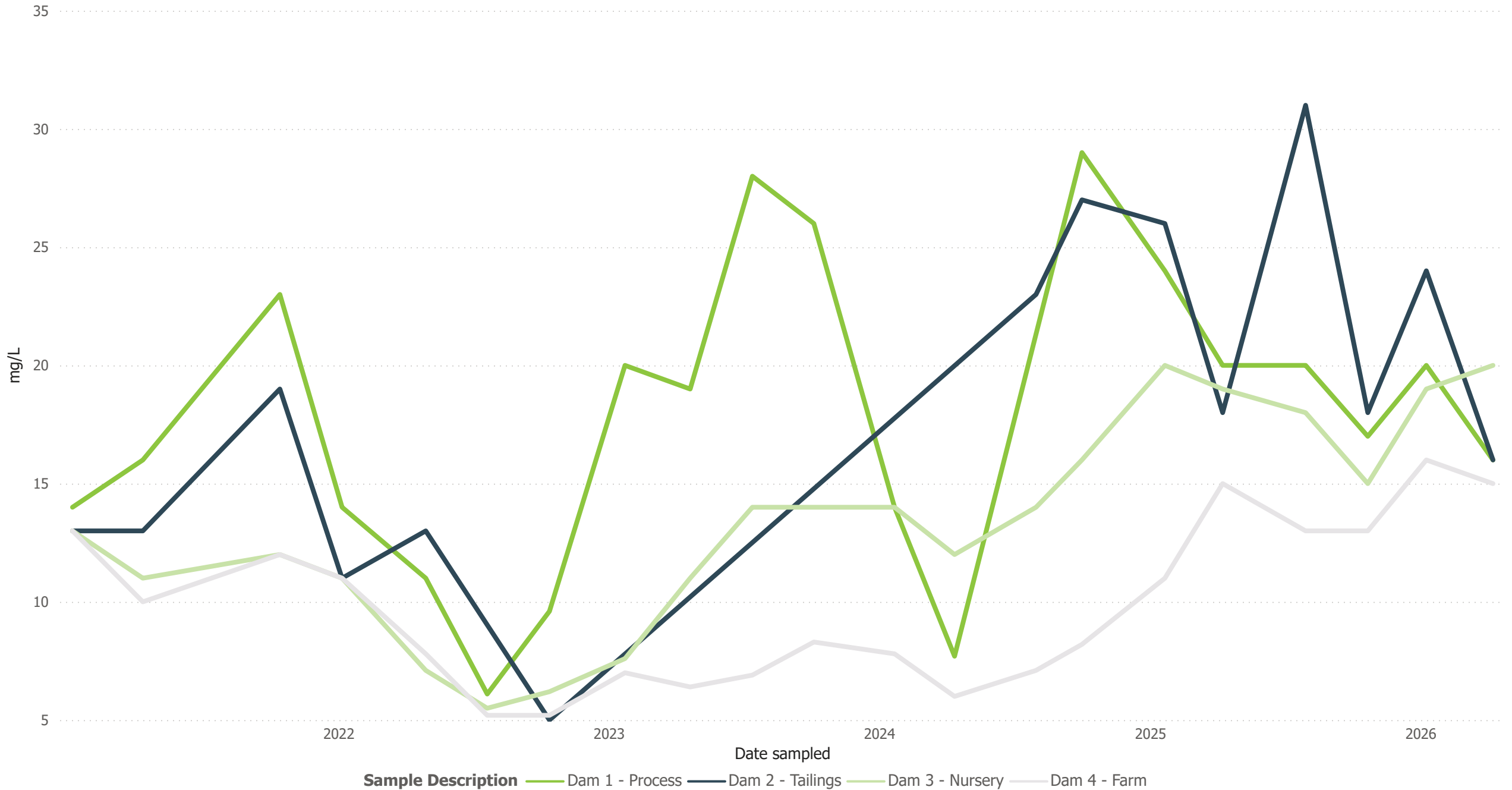
# Potassium - Surface Water



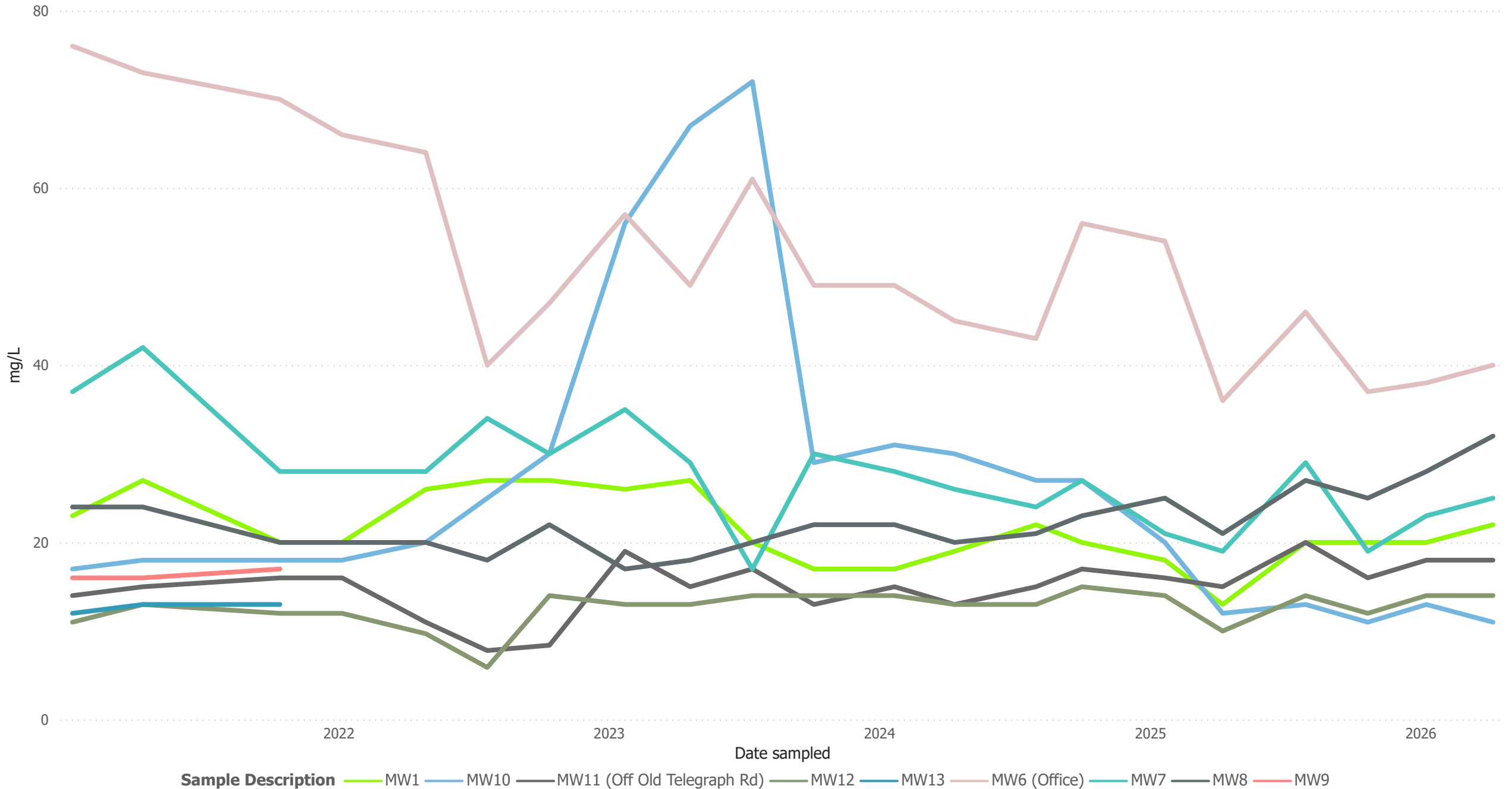
# Potassium - Groundwater



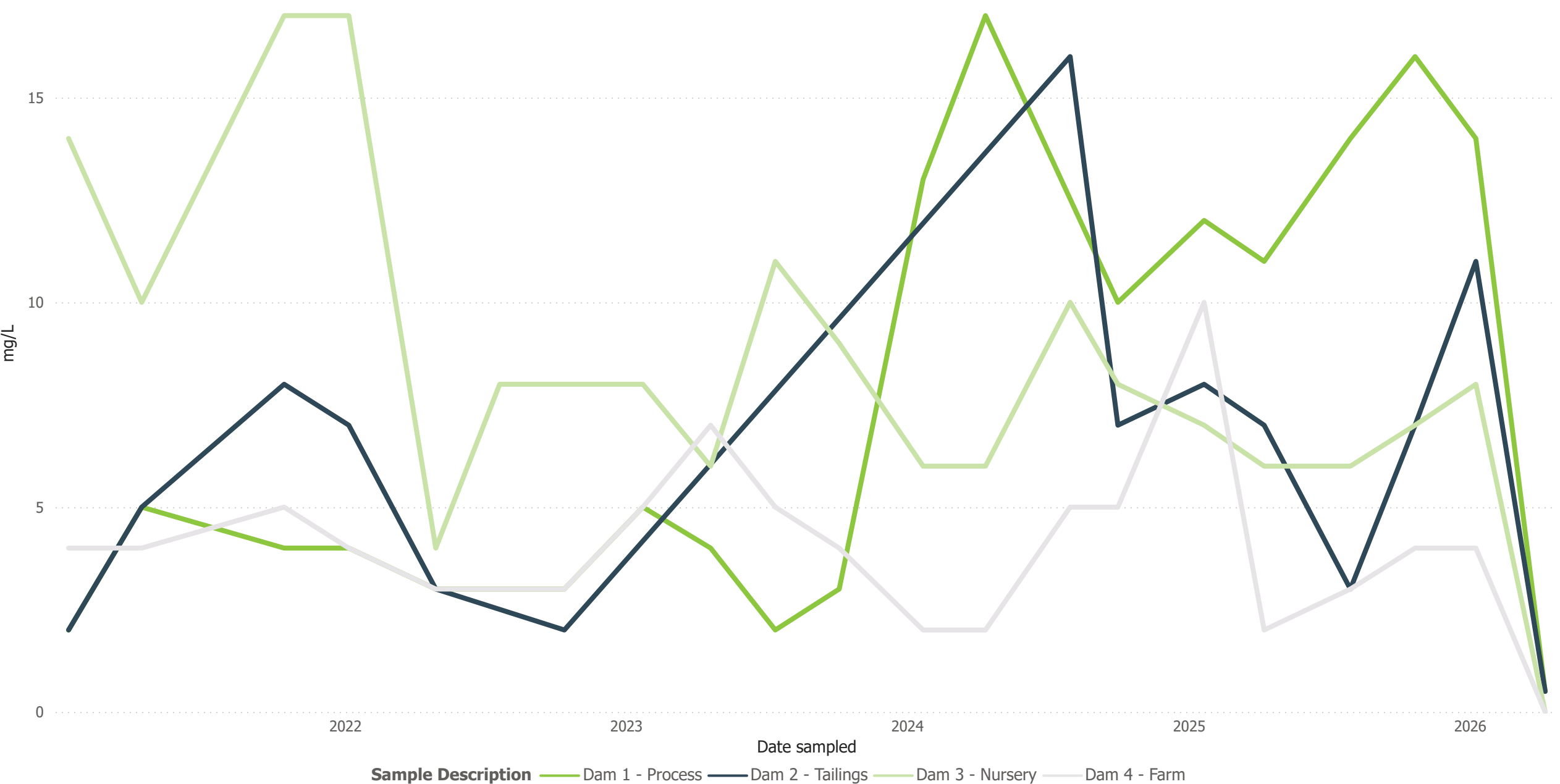
# Sodium - Surface Water



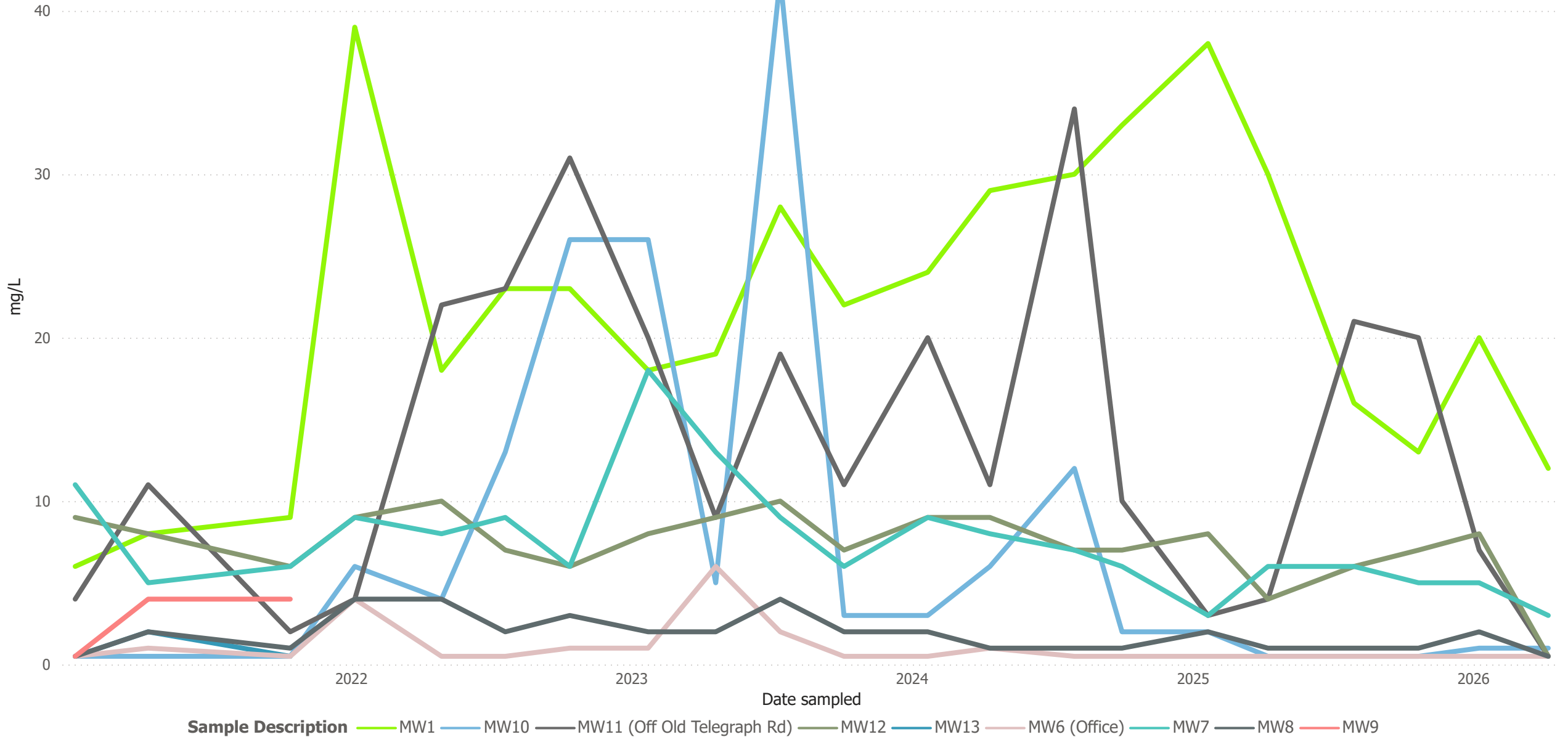
# Sodium - Groundwater



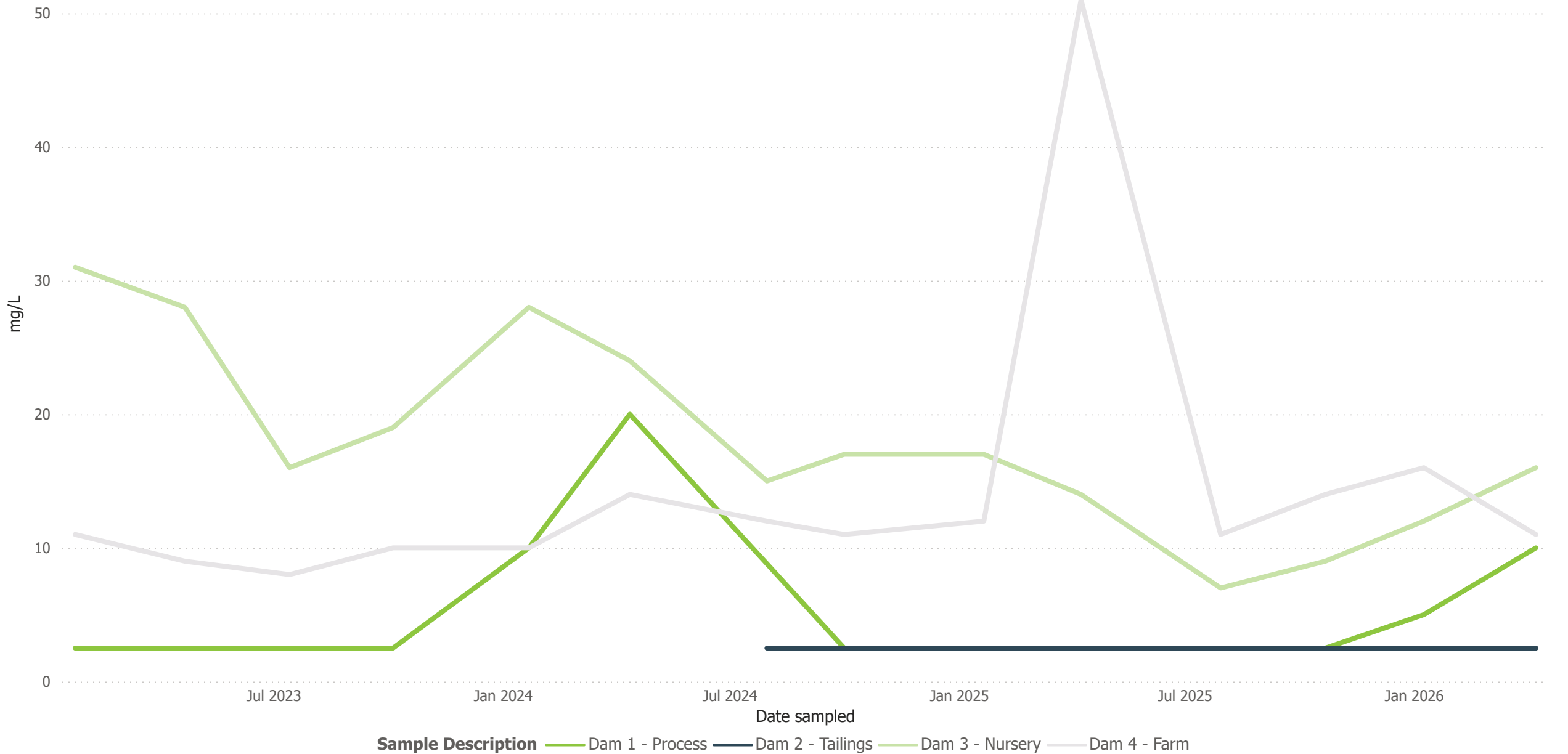
# Sulphate - Surface Water



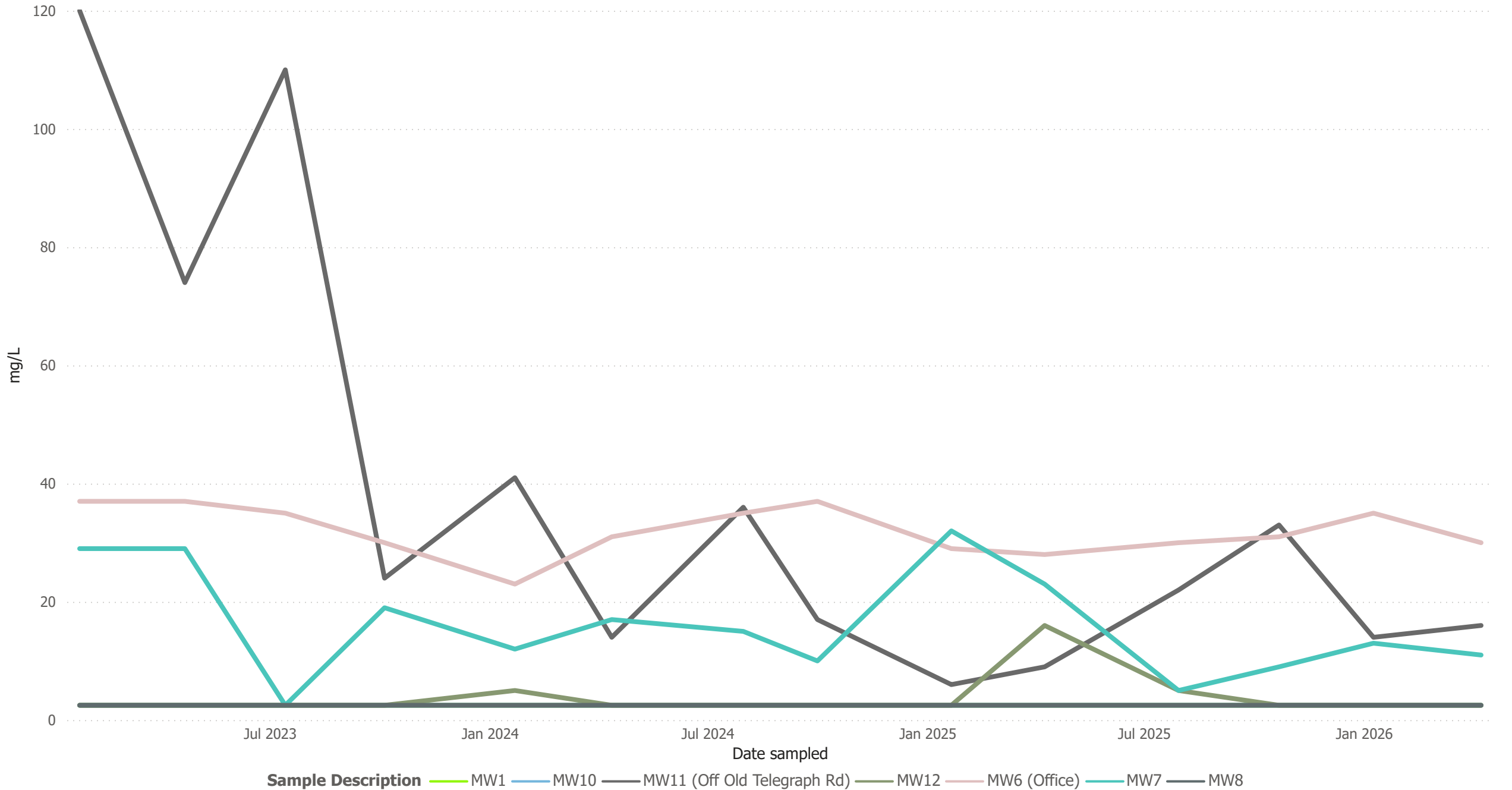
# Sulphate - Groundwater



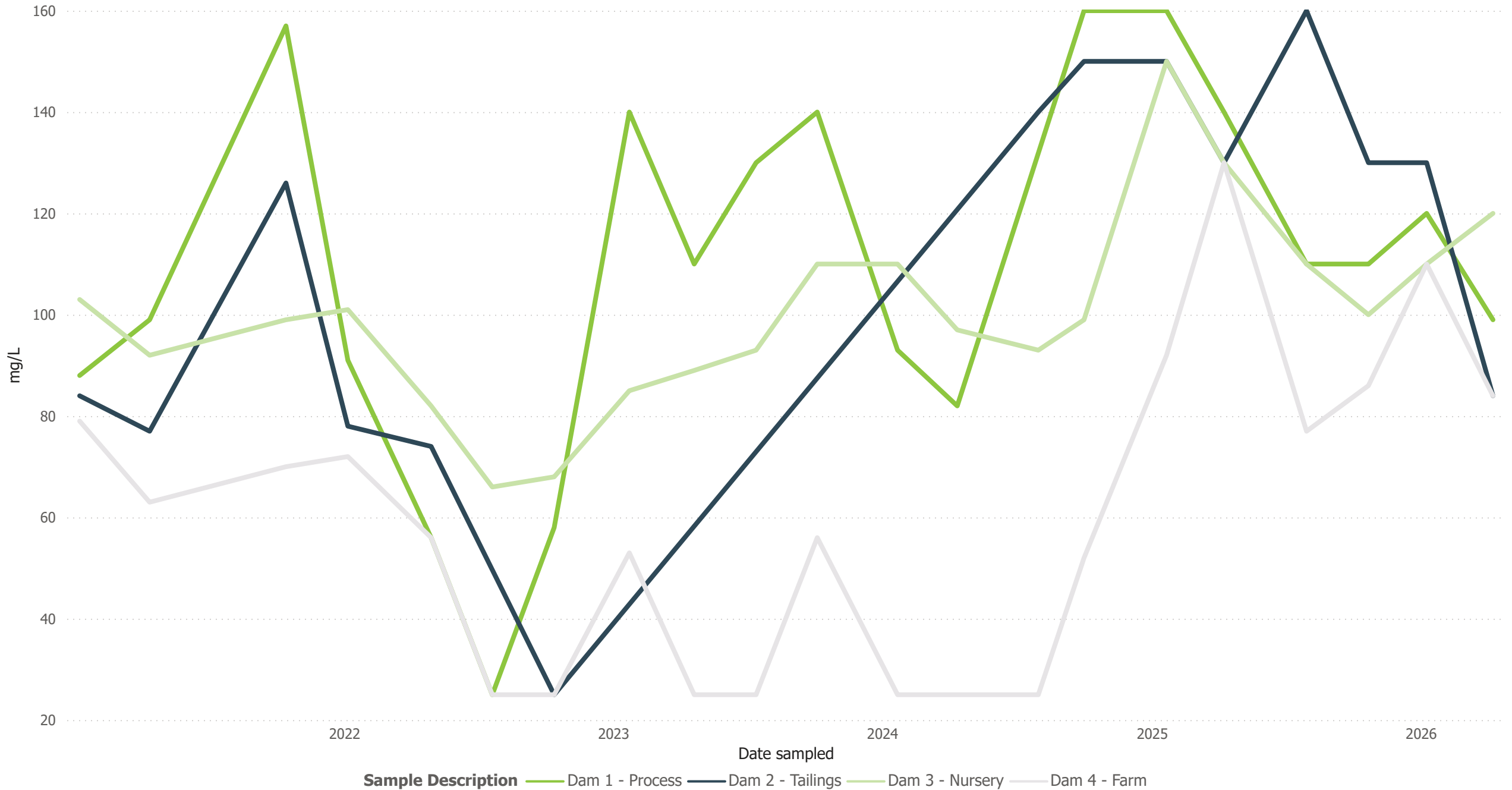
# Total Alkalinity - Surface Water



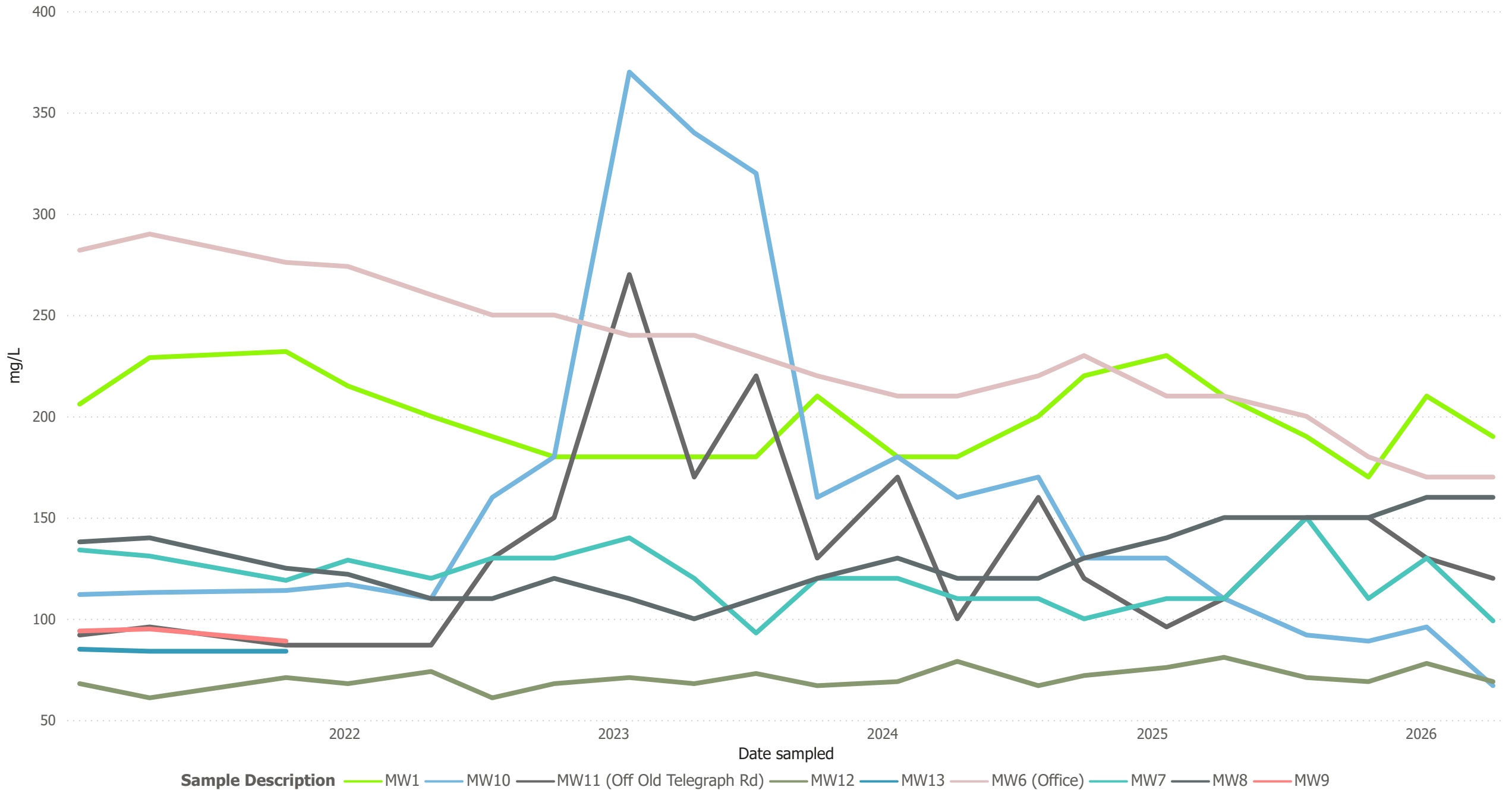
# Total Alkalinity - Groundwater



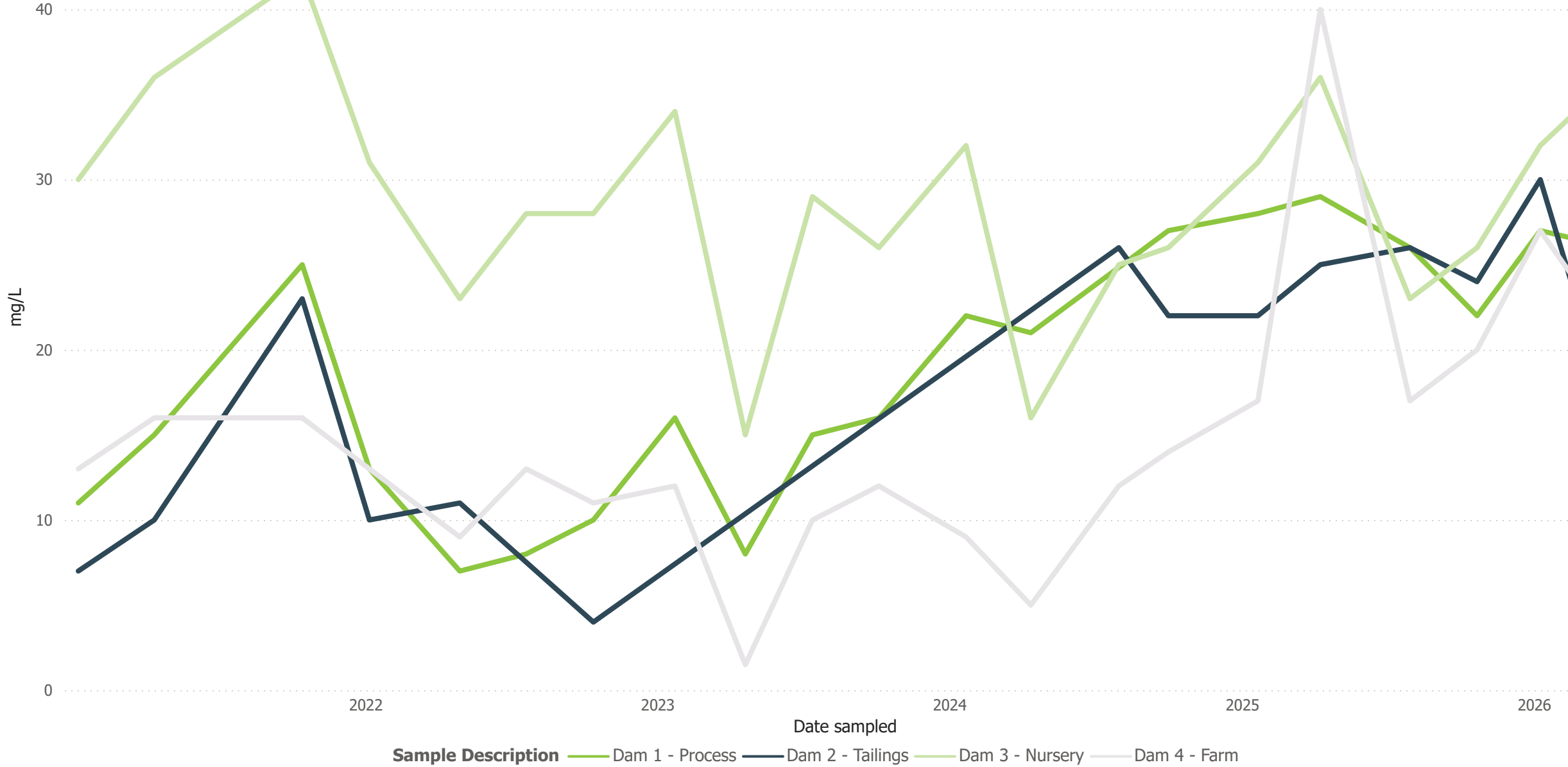
# Total Dissolved Solids - Surface Water



# Total Dissolved Solids - Groundwater



# Total Hardness - Surface Water



# Total Hardness - Groundwater

