

Permit Fact Sheet

General Information

Permit Number	WI-0061654-05-0
Permittee Name and Address	SELWOOD FARM POA 14115 Crestview Dr, Prairie du Sac, WI 53578
Permitted Facility Name and Address	Selwood Farm POA WWTF CRESTVIEW DRIVE, PRAIRIE DU SAC, WISCONSIN
Permit Term	October 01, 2026 to September 30, 2031
Discharge Location	SWQ, SWQ, SEC 20, T10N, R7E, WEST POINT TWP
Receiving Water	Groundwaters of the Lake Wisconsin Watershed (LW19) in the Lower Wisconsin River Basin in Columbia County
Stream Flow ($Q_{7,10}$)	N/A
Stream Classification	N/A
Discharge Type	Existing Continuous
Annual Average Design Flow (MGD)	0.0205 MGD
Industrial or Commercial Contributors	N/A
Plant Classification	A3 - Recirculating Media Filters; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

Selwood Farm Property Owners Association (POA) operates a wastewater treatment facility that serves 76 lots that make up the property owners association. Currently 75 homes have been built in the subdivision with a current population of approximately 175. Homes in the subdivision are served by shared wells (not a public drinking water system). The WWTF consists of a recirculating media filter system comprised of a collection system, a three chamber septic tank, a dosing chamber, a recirculating media filter and a 0.65-acre drip irrigation field.

The solids are settled out in the septic tank and the wastewater flows to the recirculating sand filter. Next, the effluent from the recirculating sand filter is routed back through a splitter basin which recycles a portion of the wastewater effluent back to the septic tank to pick up a carbon source which aids in the conversion of nitrate/nitrite to nitrogen gas. The remaining effluent is discharged to groundwater via the drip irrigation system consisting of six zones. The monthly maximum design flow of the system is 0.0205 MGD, with current effluent flow to the land treatment system averaging 0.0164 MGD from 2021 – 2025.

Groundwater at the site is monitored by a groundwater monitoring system consisting of a background well to assess ambient groundwater chemistry upgradient of the land treatment system and two downgradient wells to determine compliance with state groundwater standards (ch. NR 140, Wis. Adm. Code). Solids in the septic tank are handled as septage and requirements for septage management are determined in accordance with ch. NR 113, Wis. Adm. Code. Solids are removed from the septic tank compartments by a licensed septage hauler and land spread on approved fields.

Substantial Compliance Determination

Enforcement During Last Permit: Several notices of noncompliance (NONs) were sent in response to effluent chloride daily max violations over the previous permit term. Therefore, schedules will be required in this permit to ensure more consistent compliance with the limit and the groundwater monitoring network.

After a review of wastewater records and an onsite facility inspection on July 25, 2025, this facility was found to be in substantial compliance with their current WPDES permit. The permittee has had issues meeting effluent chloride daily max limits. Several notices of noncompliance (NONs) were sent in response to effluent chloride daily max violations over the previous permit term. A schedule will be required in this permit to ensure compliance with the chloride effluent limit and groundwater quality standards. On July 22, 2026, an additional site visit was performed by Tanner Connors (newly assigned compliance engineer) to further understand the treatment facility, collection system and the continued chloride issues.

Compliance determination made by Jordan Main on July 25, 2025.

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	N/A – Flow Not Measured	INFLUENT: Representative influent samples shall be collected from the inlet side of the septic tank.
001	6.99 MG/yr in 2025	EFFLUENT: Representative effluent samples shall be collected after the recirculating media filter and prior to discharge to the drip irrigation field.
990	N/A – Flow Not Measured	Solids from the septic tanks.

Sample Point Designation For Groundwater Monitoring System			
System	Sample Point Number	Well Name	Comments
Drip Irrigation Field	801	MW-3 (801)	Upgradient Background Monitoring Well, Non Point of Standards
	802	MW-2 (802)	Downgradient Monitoring Well, Non Point of Standards
	803	MW-1 (803)	Downgradient Monitoring Well, Point of Standards
	804	MW-4 (804)	Downgradient Monitoring Well, Point of Standards

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701 - INFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
BOD5, Total		mg/L	Monthly	Grab	
Suspended Solids, Total		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	Grab	
Nitrogen, Organic Total		mg/L	Monthly	Calculated	

1.1.1 Changes from Previous Permit:

Influent limitations and monitoring requirements were evaluated for this permit term and no changes were made.

1.1.2 Explanation of Limits and Monitoring Requirements

Monitoring of influent flow, BOD5, total suspended solids and nitrogen is required by s. NR 210.04(2), Wis. Adm. Code, to assess wastewater strengths and volumes and to demonstrate the percent removal requirements in s. NR 210.05, Wis. Adm. Code.

2 Land Treatment – Monitoring and Limitations

2.1 Sample Point Number: 001 - EFFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total	Monthly Avg	50 mg/L	Monthly	Grab	
Suspended Solids, Total		mg/L	Monthly	Grab	
Solids, Total Dissolved		mg/L	Monthly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
pH Field		su	Monthly	Grab	
Nitrogen, Total		mg/L	Monthly	Calculated	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	Grab	
Nitrogen, Organic Total		mg/L	Monthly	Calculated	
Nitrogen, Nitrite + Nitrate Total		mg/L	Monthly	Grab	
Phosphorus, Total		mg/L	Monthly	Grab	
Chloride	Daily Max	250 mg/L	Monthly	Grab	
Nitrogen, Max Applied on any Zone	Annual Total	400 lbs/ac/yr	Annual	Calculated	

2.1.1 Changes from Previous Permit:

Effluent limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

Monitoring of Total Phosphorus has been added to the monitoring requirements.

An annual total nitrogen limit of 400 lbs/ac/yr has been added.

2.1.2 Explanation of Limits and Monitoring Requirements

All requirements for land treatment of municipal wastewater are determined in accordance with ch. NR 206, Wis. Adm. Code. All categorical limits are based on s. NR 206.08 Wis. Adm. Code. Monitoring of Total Phosphorus added to assess how phosphorus is treated within the land treatment system and to determine how it migrates into groundwater and the nearby Wisconsin River. An annual total nitrogen limit of 400 lbs/ac/yr was added to restrict the quantity of nitrogen discharged to what can be treated by the soil and cover crop. More information on the limitations can be found in the Groundwater Evaluation dated July 13, 2026.

3 Groundwater – Monitoring and Limitations

3.1 Groundwater Monitoring System for Drip Irrigation Field

Location of Monitoring system: SWQ, SWQ, SEC 20, T10N, R7E, WEST POINT TWP

Groundwater Monitoring Well(s) to be Sampled: MW-3 (801), MW-2 (802), MW-1 (803), MW-4 (804)

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: MW-3 (801)

Groundwater Monitoring Well(s) Used for Point of Standards Application: MW-1 (803), MW-4 (804)

Parameter	Units	Preventative Action Limit	Enforcement Standard	Frequency
Depth To Groundwater	feet	N/A	N/A	Quarterly
Groundwater Elevation	feet MSL	N/A	N/A	Quarterly
Chloride Dissolved	mg/L	125	250	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	7.7	10	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Organic Dissolved	mg/L	2.2	N/A	Quarterly
pH Field	su	8.5	N/A	Quarterly
COD, Filtered	mg/L	N/A	N/A	Quarterly
Solids, Total Dissolved	mg/L	625	N/A	Quarterly
Phosphorus, Total Dissolved	mg/L	N/A	N/A	Quarterly

3.1.1 Changes from Previous Permit:

Groundwater limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

- New monitoring well MW-4 (804) to be installed within first year of permit term.
- Alternative concentration limit for nitrite + nitrate updated.
- Alternative concentration limit for chloride removed.
- Preventative action limit for pH, total dissolved solids and organic nitrogen updated.
- Chemical oxygen demand (COD) and dissolved phosphorus added to the monitoring requirements.
- Monitoring of total Kjeldahl nitrogen removed.

3.1.2 Explanation of Limits and Monitoring Requirements

Groundwater limits and requirements are determined in accordance with ch. NR 140, Wis. Adm. Code. Indicator parameter Preventive Action Limit (PAL) values are established per s. NR 140.20, Wis. Adm. Code. Alternative Concentration Limits as allowed under s. NR 140.28, Wis. Adm. Code, are established on a case-by-case basis.

For more information, please refer to the Groundwater Evaluation dated July 13, 2026.

4 Septage Management - Monitoring and Limitations

Septage management is required in accordance ch. NR 113, Wisconsin Administrative Code. Records must be kept and made available to the Department on request. Required record keeping includes volumes of septage pumped, dates when the septage was removed, land application site DNR number and method used to satisfy pathogen and vector control,

and/or the treatment plant where septage is disposed. Annual reporting is required when the permittee land applies the septage. Annual reporting is also required when the permittee disposes of septage at a designated treatment facility.

4.1 Sample Point Number: 990 - SEPTIC TANKS

4.1.1 Changes from Previous Permit:

No changes made.

Explanation of Limits and Monitoring Requirements

Requirements for septage management are determined in accordance with ch. NR 113, Wis. Adm. Code.

5 Schedules

5.1 Chloride Source Reduction Measures (SRMs) for Groundwater Discharges

Required Action	Due Date
Chloride Reduction Plan: The permittee shall complete and submit for Department review and approval a chloride reduction plan (CRP). The CRP is an initial step toward controlling chloride and ensuring compliance with chloride limits based on applicable groundwater standards. The CRP shall evaluate all applicable source reduction measures (SRMs) and establish appropriate implementation activities for the SRMs. The CRP shall include a schedule for implementing the selected SRMs.	01/31/2027
Annual Progress Report: Once the chloride reduction plan (CRP) is approved by the Department, the permittee shall submit an annual progress report, under the authority of s. NR 205.07(1)(h), Wis. Adm. Code. If a SRM implementation date of an approved CRP is not met, this may constitute a violation of the permit. Submittal of the first annual progress report is required by the Date Due.	01/31/2028
Second Annual Progress Report: Submit progress report in implementing the chloride reduction plan (CRP).	01/31/2029
Third Annual Progress Report: Submit progress report in implementing the chloride reduction plan (CRP).	01/31/2030
Fourth Annual Progress Report: Submit progress report in implementing the chloride reduction plan (CRP).	01/31/2031

5.1.1 Explanation of Schedule

Selwood Farms POA needs to reduce the amount of chloride discharged to the drip irrigation field. Selwood Farms POA should submit annual chloride reduction reports outlining the steps they have been and will be taking to address this problem.

5.2 Groundwater Monitoring Well - Installation

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for installation of downgradient monitoring	04/01/2027

well.	
Installation: Complete monitoring well installation in accordance with ch NR 141, Wisconsin Administrative Code. Documentation of well construction must be submitted to the Department within 60 days of well installation.	10/01/2027

5.2.1 Explanation of Schedule

The current groundwater monitoring system does not appear to be capturing the plume associated with the drip irrigation field. Selwood Farms POA should install a monitoring well that is downgradient of the discharge and within the plume.

5.3 Land Treatment Management Plan

Required Action	Due Date
Land Treatment Management Plan Submittal: Submit a management plan to optimize the land treatment system performance and demonstrate compliance with ch. NR 206, Wis. Adm. Code. The land treatment system shall be operated in accordance with the approved management plan.	10/01/2027

5.3.1 Explanation of Schedule

Per NR 206.07(2)(h)(1), Wis. Adm. Code, a land treatment management plan is required.

Attachments

NR 140 Groundwater Evaluation Report dated July 13, 2026, Zach Watson.

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Zach Watson Hydrogeologist

Date: July 27, 2026

CORRESPONDENCE/MEMORANDUM

DATE: July 13, 2026

TO: File

FROM: Zach Watson Hydrogeologist - SCR

SUBJECT: Groundwater Evaluation for Selwood Farm POA WWTF WI-0061654-04

General Information and Treatment System Description

Selwood Farm Property Owners Association (POA) operates a wastewater treatment facility that serves 76 lots that make up the property owners association. Currently 75 homes have been built in the subdivision with a current population of approximately 175. Homes in the subdivision are served by shared wells (not a public drinking water system). The WWTF consists of a recirculating media filter system comprised of a collection system, a three chamber septic tank, a dosing chamber, a recirculating media filter and a 0.65-acre drip irrigation field.

The solids are settled out in the septic tank and the wastewater flows to the recirculating sand filter. Next, the effluent from the recirculating sand filter is routed back through a splitter basin which recycles a portion of the wastewater effluent back to the septic tank to pick up a carbon source which aids in the conversion of nitrate/nitrite to nitrogen gas. The remaining effluent is discharged to groundwater via the drip irrigation system consisting of six zones. The monthly maximum design flow of the system is 0.0205 MGD, with current effluent flow to the land treatment system averaging 0.0164 MGD from 2021 – 2025.

Groundwater at the site is monitored by a groundwater monitoring system consisting of a background well to assess ambient groundwater chemistry upgradient of the land treatment system and two downgradient wells to determine compliance with state groundwater standards (ch. NR 140, Wis. Adm. Code). Solids in the septic tank are handled as septage and requirements for septage management are determined in accordance with ch. NR 113, Wis. Adm. Code. Solids are removed from the septic tank compartments by a licensed septage hauler and land spread on approved fields.

Table 1 – Monitoring Requirements and Limitations – Outfall 001 – Effluent to Drip Irrigation System

Parameter	Current and Proposed Permit WI-0061654-04 and WI-0061654-05		
	Limit Type	Limits and Units	Sample Frequency
Flow Rate		MGD	Total Daily
BOD5	Monthly Avg	50 mg/l	Monthly
Total Suspended Solids		mg/l	Monthly
pH Field		su	Monthly
Total Kjeldahl Nitrogen		mg/l	Monthly
Ammonia Nitrogen		mg/l	Monthly
Total Organic Nitrogen		mg/l	Monthly
Nitrite + Nitrate Nitrogen		mg/l	Monthly

Total Nitrogen		mg/l	Monthly
*Nitrogen, Max Applied on Any Zone	Total Annual	400 lbs/ac/yr	Annual
Total Dissolved Solids		mg/l	Monthly
Chloride	Daily Max	250 mg/l	Monthly
*Total Phosphorus		mg/l	Monthly

***Recommended changes for upcoming permit**

Table 2 – Groundwater Monitoring System for Drip Irrigation System

Sample Point	Well Name	Current Permit and Proposed WI-0061654-04 and WI-0061654-05	
		Well Location	Well Designation
801	MW-3	Upgradient Background	Non-Point of Standards
802	MW-2	Downgradient	Non-Point of Standards
803	MW-1	Downgradient	Point of Standards
*804	MW-4	Downgradient	Point of Standards

***Recommended changes for upcoming permit**

Table 3 – Drip Irrigation System Groundwater Standards

Parameter	Current Permit WI-0061654-04		Proposed Permit WI-0061654-05	
	PAL	ES	PAL	ES
Depth to Groundwater	N/A	N/A	N/A	N/A
Groundwater Elevation	N/A	N/A	N/A	N/A
Chloride Dissolved	150 mg/l	250 mg/l	*125 mg/l	250 mg/l
pH Field	6.4 – 8.4 su	N/A	*6.5 – 8.5 su	N/A
*Total Kjeldahl Nitrogen	N/A	N/A	N/A	N/A
Nitrite+Nitrate Dissolved	9.7 mg/l	10 mg/l	*7.7 mg/l	10 mg/l
Ammonia Dissolved	0.97 mg/l	9.7 mg/l	0.97 mg/l	9.7 mg/l
Organic Nitrogen Dissolved	2.2 mg/l	N/A	2.2 mg/l	N/A
Total Dissolved Solids	580 mg/l	N/A	*625 mg/l	N/A
*Chemical Oxygen Demand	N/A	N/A	N/A	N/A
*Dissolved Phosphorus	N/A	N/A	N/A	N/A

***Recommended changes for upcoming permit**

Hydrogeology

Bedrock underlying the drip irrigation field is the Cambrian-aged Trempealeau Formation sandstones. Surface soils are primarily the Lapeer fine sandy loam. Regional groundwater flow as shown on the Preliminary Water Table Elevation Map of Columbia County is to the northwest towards the Wisconsin River. The groundwater flow paths as observed at the groundwater monitoring system are generally consistent with the regional water table in that groundwater flows west towards the Wisconsin River. The water table elevations on the Water-table map of Columbia County, Wisconsin, 1974 suggest a water table elevation at the site to be approximately 780 feet above mean sea level. The water table elevations on the Preliminary Water Table Elevation Map of Columbia County, Wisconsin, 2012 suggest a water table elevation at the site of 820 feet above mean sea level. The top of casing elevations at the monitoring wells are 850 – 851 feet above mean sea level, depth to water is 70 – 84 feet below ground surface and the resulting groundwater elevations

range between 767 – 782 feet above mean sea level. The elevation of the Wisconsin River, which is approximately 700 feet from the nearest edge of the subsurface absorption system, is approximately 775 feet above mean sea level. The Wisconsin River elevation is representative of the water table along its shores. The water table is shown on both referenced water table maps to increase in elevation as you move away from the Wisconsin River. The water table elevations measured at the drip irrigation field are often below the elevation of the Wisconsin River. It is uncertain whether the monitoring wells are accurately capturing the water table at the drip irrigation field. The monitoring well construction forms and boring logs were unable to be located for review in this groundwater evaluation.

Groundwater elevations were inadvertently misreported using the incorrect top of casing elevation from 2013 – 2025. This reporting issue has been identified by the permittee and consultant and has been corrected starting with the second quarter 2026 reporting period.

Land Treatment Effluent Quality and Loading Rates

Discharge to the drip irrigation system ranged between 9,000 – 33,000 gallons per day for an annual total of 6.99 mg/yr in 2025. The drip irrigation field was loaded at rates of 22,000 – 30,000 gal/ac/day from 2021 – 2025. The concentration of chloride is elevated and has had average concentrations range from 433 – 517 mg/l during the past five years. The annual chloride load to the drip irrigation system ranged from 21,198 – 27,050 lbs/yr. Nitrogen speciation changes through the treatment process where the resulting effluent is a majority ammonia, lesser nitrite + nitrate and a smaller amount of organic nitrogen. The annual average concentration of ammonia ranged from 9.0 – 34.9 mg/l during the permit term. The annual average concentration of nitrite + nitrate ranged from 4.6 – 16.4 mg/l during the permit term. The annual total amount of nitrogen discharged to the drip irrigation field ranged 1,357 – 2,233 lbs/yr. BOD is generally low and annual average concentrations range between 12.7 – 24.9 mg/l.

Table 4 – Annual Average Effluent Results (mg/l)

Year	Chloride	Ammonia Nitrogen	Nitrite + Nitrate	Organic Nitrogen	BOD5
2021	507	34.0	4.6	5.9	18.9
2022	517	17.3	14.4	2.1	18.9
2023	488	9.0	16.4	1.0	12.7
2024	433	21.1	13.8	3.2	15.1
2025	464	24.7	12.8	7.5	24.9

Table 5 – Annual Drip Irrigation Loading Rates

Year	Annual Discharge (MG/yr)	Total Nitrogen (lbs/yr)	Chloride (lbs/yr)
2021	5.22	1,950	22,072
2022	5.75	1,602	24,793
2023	6.07	1,357	24,704
2024	5.87	1,826	21,198
2025	6.99	2,233	27,050

Background Groundwater Quality

Concentration plots for individual parameters are provided in the attachments. Background groundwater quality is defined by the results from samples collected at monitoring well MW-3. The results for chloride are generally low and averaged 19.7 mg/l during the current permit term. The results for nitrite+nitrate at MW-3 are elevated and averaged 5.3 mg/l. Total dissolved solids at MW-3 averaged 400 mg/l during the permit term. Ammonia was non-detect except for two samples during the permit term. Organic nitrogen is also mostly non-detect.

Downgradient Groundwater Quality

Downgradient groundwater quality is defined by the results from samples collected at MW-1 and MW-2. The results for chloride at these monitoring wells averaged 25 and 42 mg/l at MW-1 and MW-2, respectively. The results for nitrite + nitrate averaged 6.5 and 6.9 mg/l at MW-1 and MW-2, respectively. Total dissolved solids averaged 395 and 425 mg/l at MW-1 and MW-2, respectively. The results for organic nitrogen and ammonia are generally non-detect.

Treatment System Impact to Groundwater Quality

The drip irrigation field is undersized for hydraulic load that it receives (i.e., 5 – 7 MG/yr, 21,000 – 30,000 gallons/acre/day). While the site does provide adequate infiltration at these loading rates, the concentration of nitrogen and chloride are too high to be discharged at these volumes. Total nitrogen loading at approximately ~2,800 lbs/ac/yr will most likely cause an increase in nitrite + nitrate and ammonia in groundwater. At chloride concentrations of 400 – 500 mg/l and loading rates of approximately 37,000 lbs/ac/yr, the impact on the downgradient monitoring wells should be apparent in the concentration of chloride. The results for chloride at the downgradient monitoring wells (20 – 50 mg/l) are inconsistent with the known effluent concentrations and annual loading rates. This discrepancy in conjunction with groundwater elevations that are at times below the Wisconsin River indicate that the monitoring wells may not be appropriately located either vertically or horizontally relative to the drip irrigation field and are therefore not adequately characterizing the plume associated with the drip irrigation field. A new downgradient monitoring well should be installed that intersects the plume from the discharge for the assessment of compliance with NR 140 groundwater standards.

Indicator Parameter PALs

Indicator Parameter PALs are developed following the procedures described in s. NR 140.20(2), Wis. Adm. Code and “Calculating Preventive Action Limits and Evaluating Groundwater Quality Exemptions for Groundwater Dischargers”. Indicator parameters do not have Enforcement Standards. The PAL for an indicator parameter is a benchmark for evaluating site specific trends. When significant increases in the trends are observed, the facility and the department’s response action under s. NR 140.24 Wis. Adm. Code should be to investigate the source of the compound. The indicator PALs for this facility were calculated using whichever of the two following methods provides a greater PAL.

- $\sum [\text{Background groundwater quality} + (\text{Standard Deviation of results} \times 3)]$
- $\sum [\text{Background groundwater quality} + \text{Minimum Increase (NR 140.20 Table 3)}]$

Indicator parameter PALs for the current permit term were calculated using monitoring data from MW-3 during the prior permit term. The indicator parameter PALs for use in the upcoming permit WI-0061654-05 are presented in **Table 3** and were calculated using results MW-3 (January 1, 2021 – December 31, 2025).

Alternative Concentration Limits

Alternative concentration Limits (ACLs) can be developed and provided for a groundwater monitoring system to replace the PAL or ES (s. NR 140.28, Wis. Adm. Code). ACLs are provided if the conditions at the background monitoring well(s) indicate that it is appropriate. The methodology and considerations for

developing and providing ACLs are outlined in the guidance document “Calculating Preventive Action Limits and Evaluating Groundwater Quality Exemptions for Groundwater Dischargers”. ACLs were calculated and provided in **Table 3** for nitrite+nitrate using results from MW-3 (January 1, 2021 – December 31, 2025). The data used in the calculation of the nitrite+nitrate ACL is provided below in **Table 6**.

Table 6 – Alternative Concentration Limit Data and Calculation

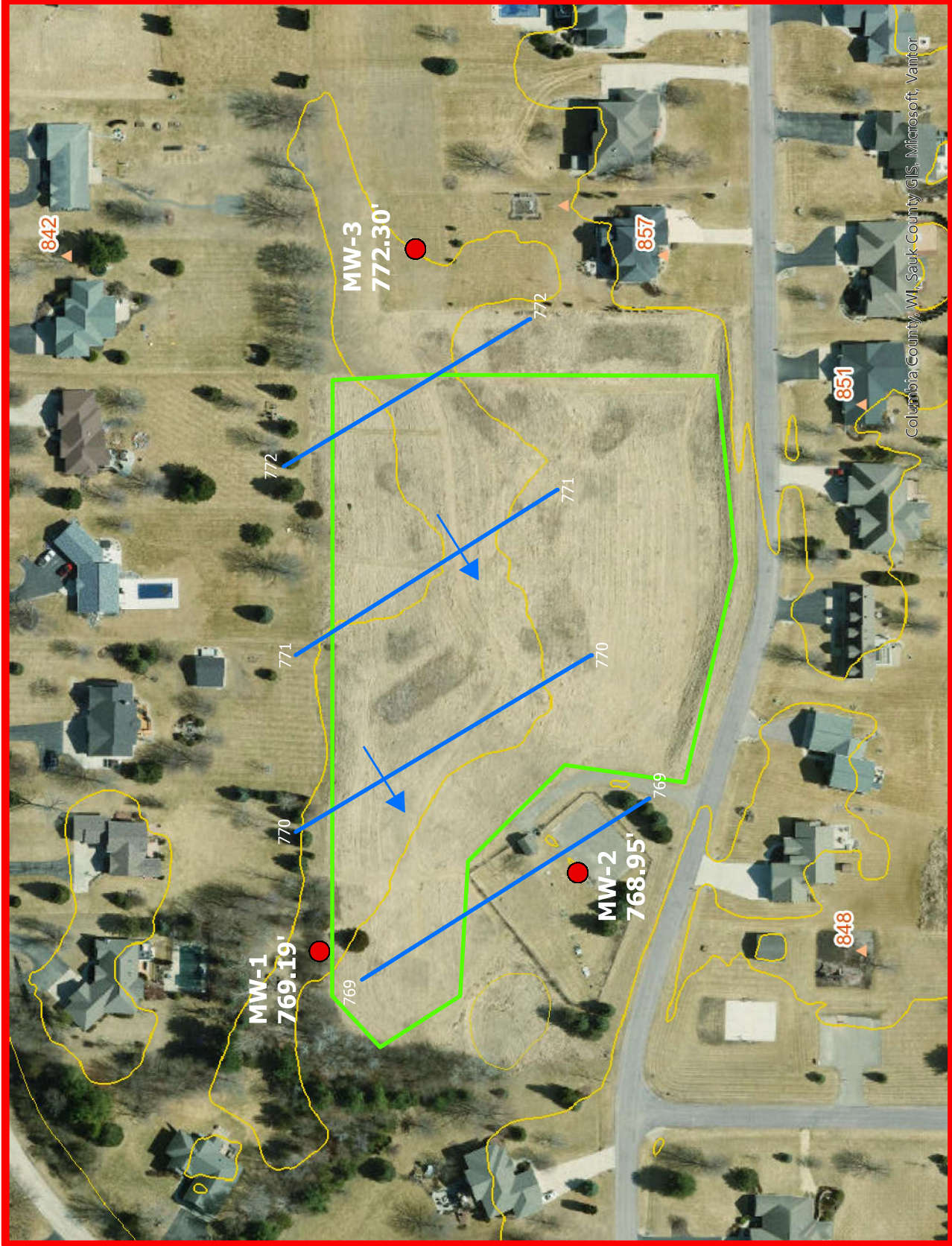
MW-3 (801)	
Date	Nitrite+Nitrate (mg/l)
3/18/21	3.1
6/16/21	3.7
9/22/21	3.0
12/1/21	4.3
2/16/22	4.4
6/10/22	5.3
7/27/22	5.4
12/2/22	5.5
3/8/23	5.1
6/15/23	5.3
8/30/23	4.9
11/29/23	5.0
2/20/24	5.3
6/27/24	6.0
9/30/24	7.2
12/11/24	7.3
3/11/25	6.9
6/12/25	5.9
9/5/25	5.8
12/8/25	6.8
Average (mg/l)	5.3
Standard Deviation (mg/l)	1.2
ACL (mg/l)	7.7

Conclusions, Recommendations and Schedule Requirements

- Selwood Farm POA WWTF does not currently have an approved land treatment management plan. Add a compliance schedule for development of a land treatment management plan in the upcoming permit.
- Add a Total Nitrogen limit on the drip irrigation field of 400 lbs/ac/yr.
- Add monitoring of total phosphorus in the effluent and dissolved phosphorus in groundwater to assess how phosphorus is treated and filtered out by the drip irrigation field.
- Remove monitoring of total Kjeldahl nitrogen in groundwater as ammonia and organic nitrogen are already reported.
- Add monitoring of chemical oxygen demand in groundwater to assess the overall oxygen demand.
- Include a compliance schedule for the installation of a new downgradient monitoring well that accurately captures the plume that is downgradient of the drip irrigation field.



Water Table Flow Map December 8, 2025 Selwood Farm POA WWTF (WI-0061654-04)



Site Location

14115 Crestview Dr.
Prairie Du Sac, WI 53578

Legend

Water Table Contour
(12/8/2025 - 1' FAMSL)

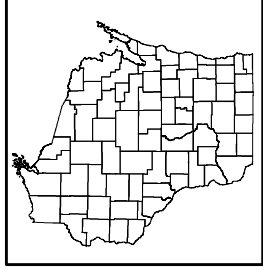
Groundwater Flow
Direction

Approximated
discharge area

Notes

Water table contours are hand drawn using the reported elevations in feet above mean sea level collected on December 8, 2025.

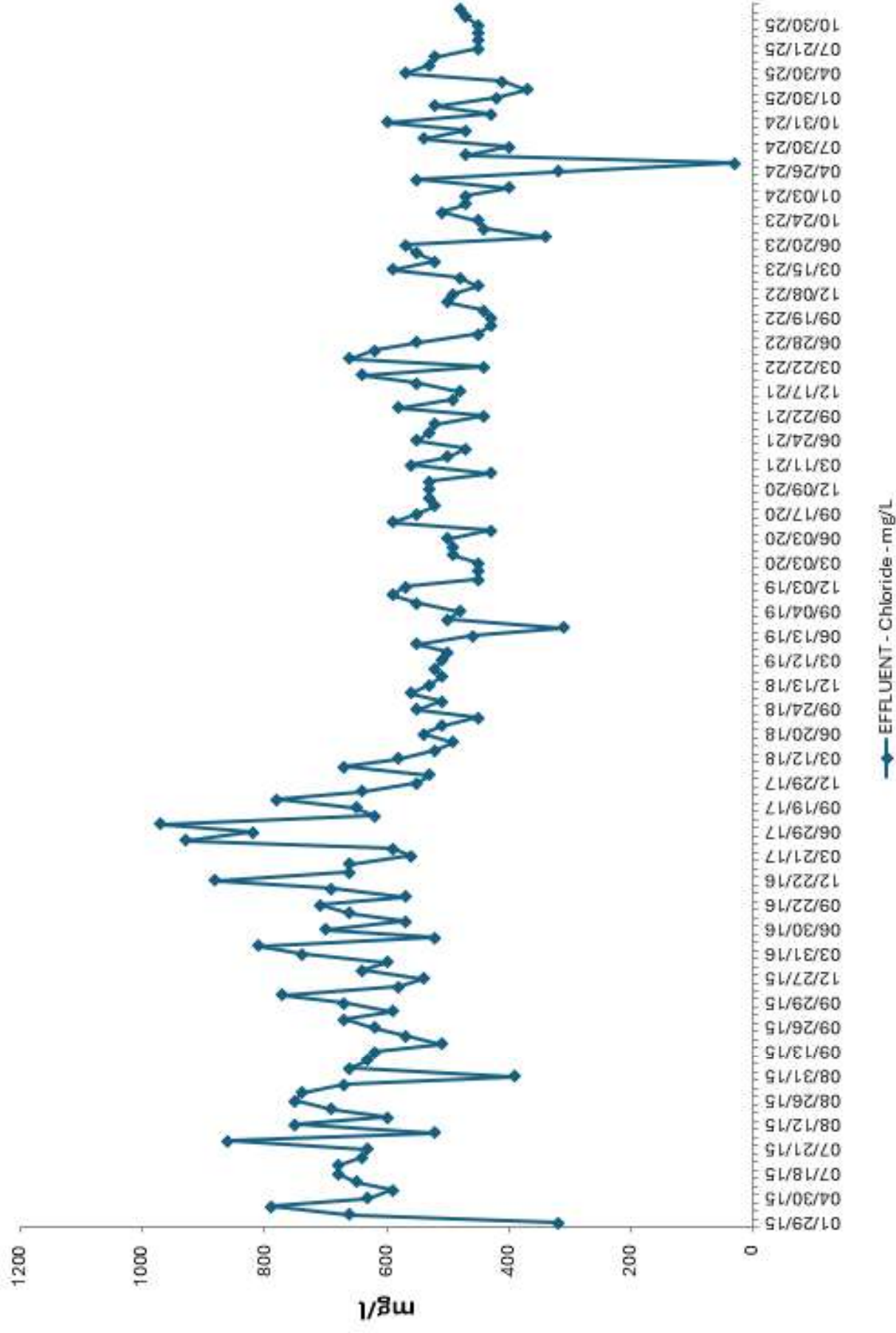
Created By: watsoz
Date: 7/14/2026



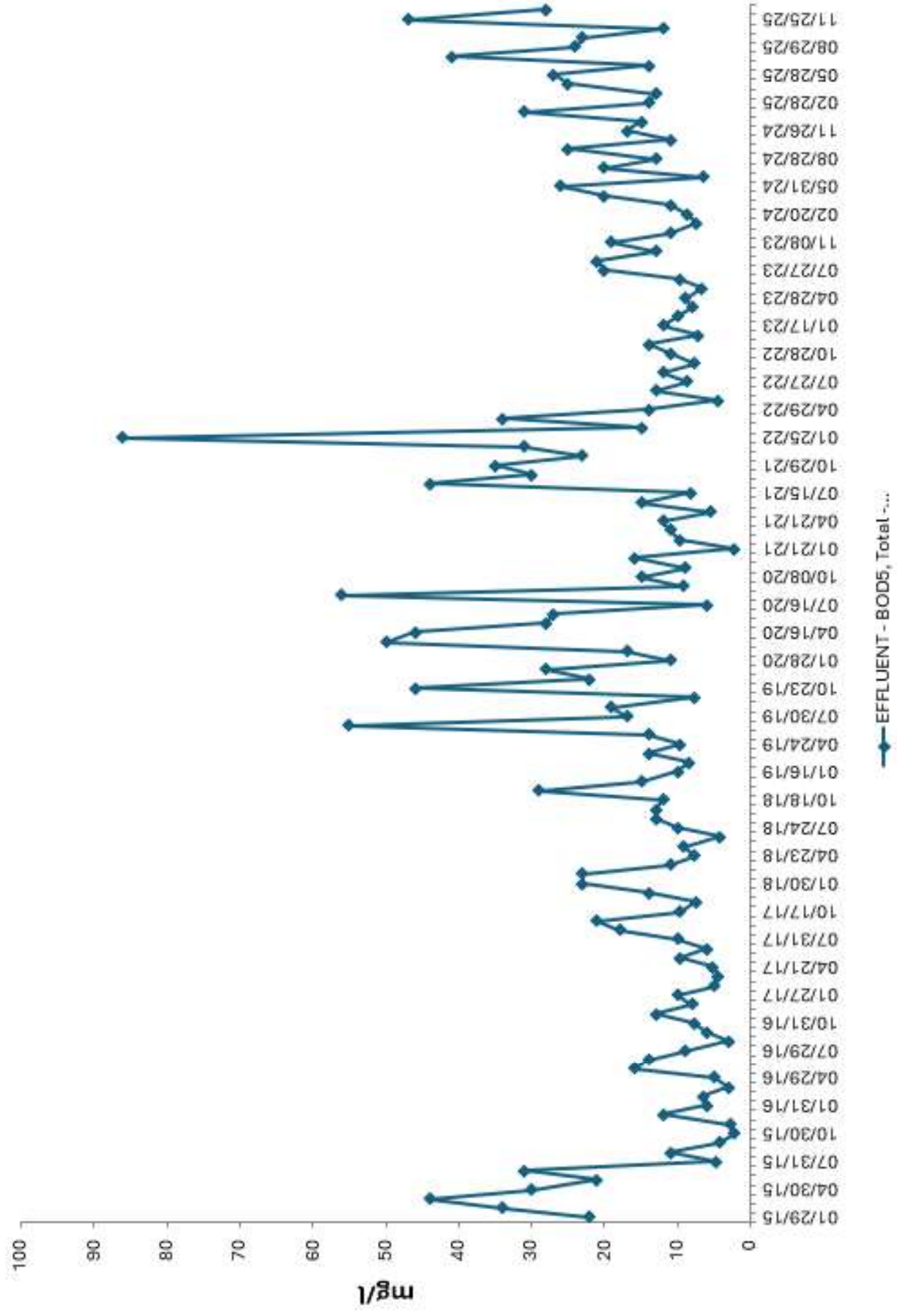
DISCLAIMER: This map is a user generated static output from the Wisconsin Department of Natural Resources. The contents herein are for reference purposes only and may or may not be accurate, current, or otherwise reliable. No liability is assumed for the data delineated herein either expressed or implied by the Wisconsin DNR or its employees. All land application must meet NR 113, NR 204, and NR 214 Wis. Adm. Code.

0 40 80 120 160 200 240 Feet
1:1,700

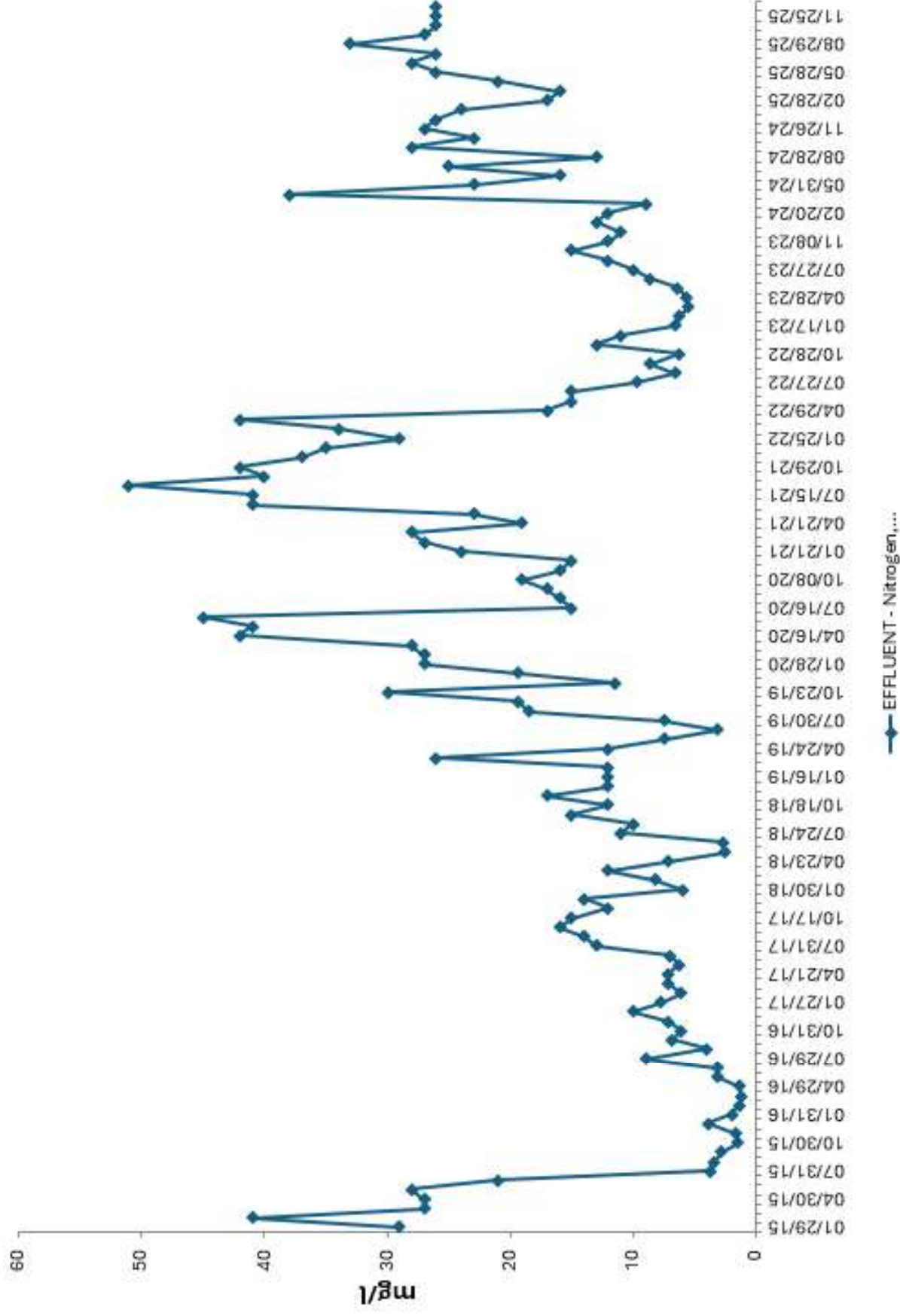
Selwood POA WWTF Effluent - Chloride



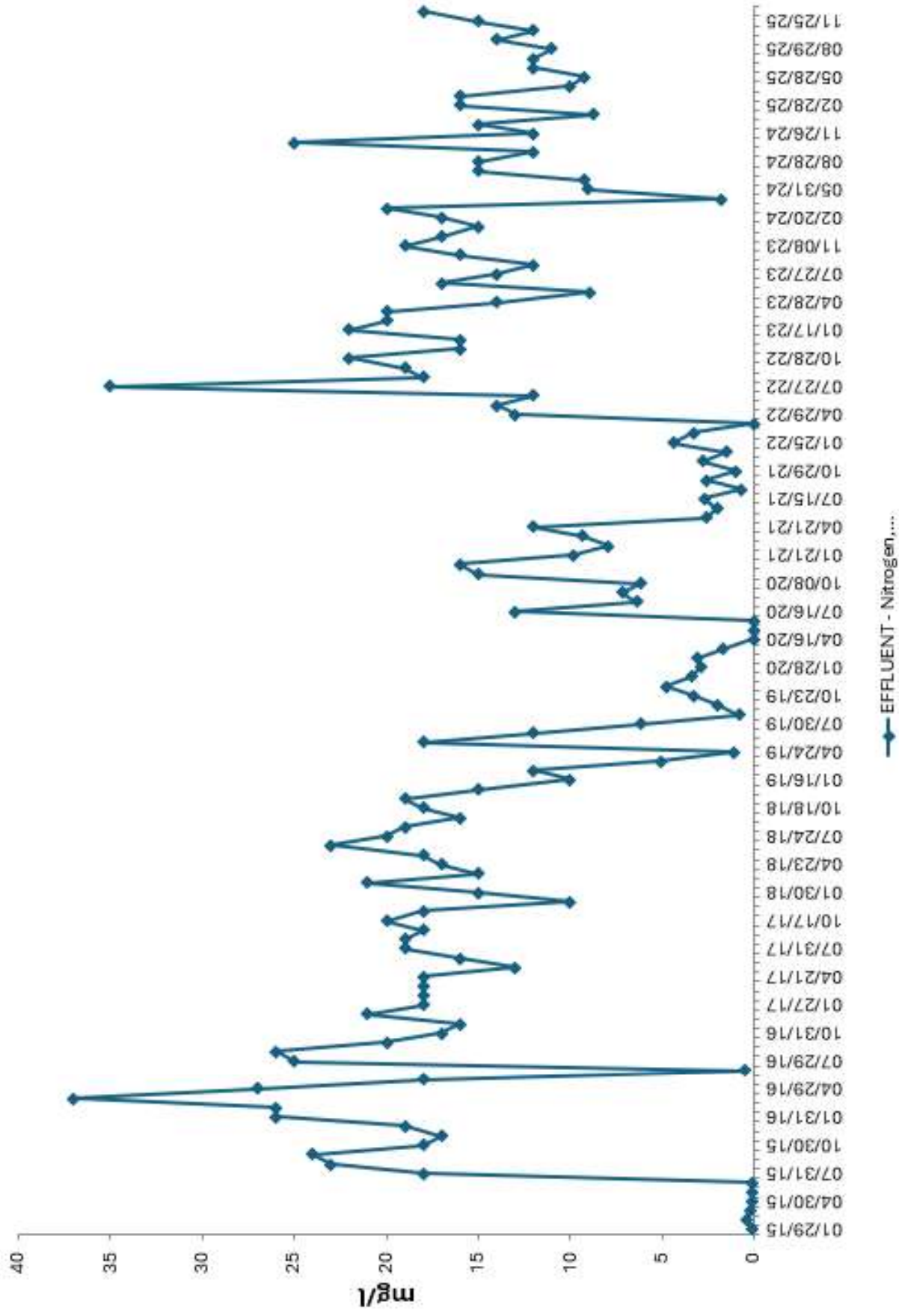
Selwood POA WWTF Effluent - BOD5



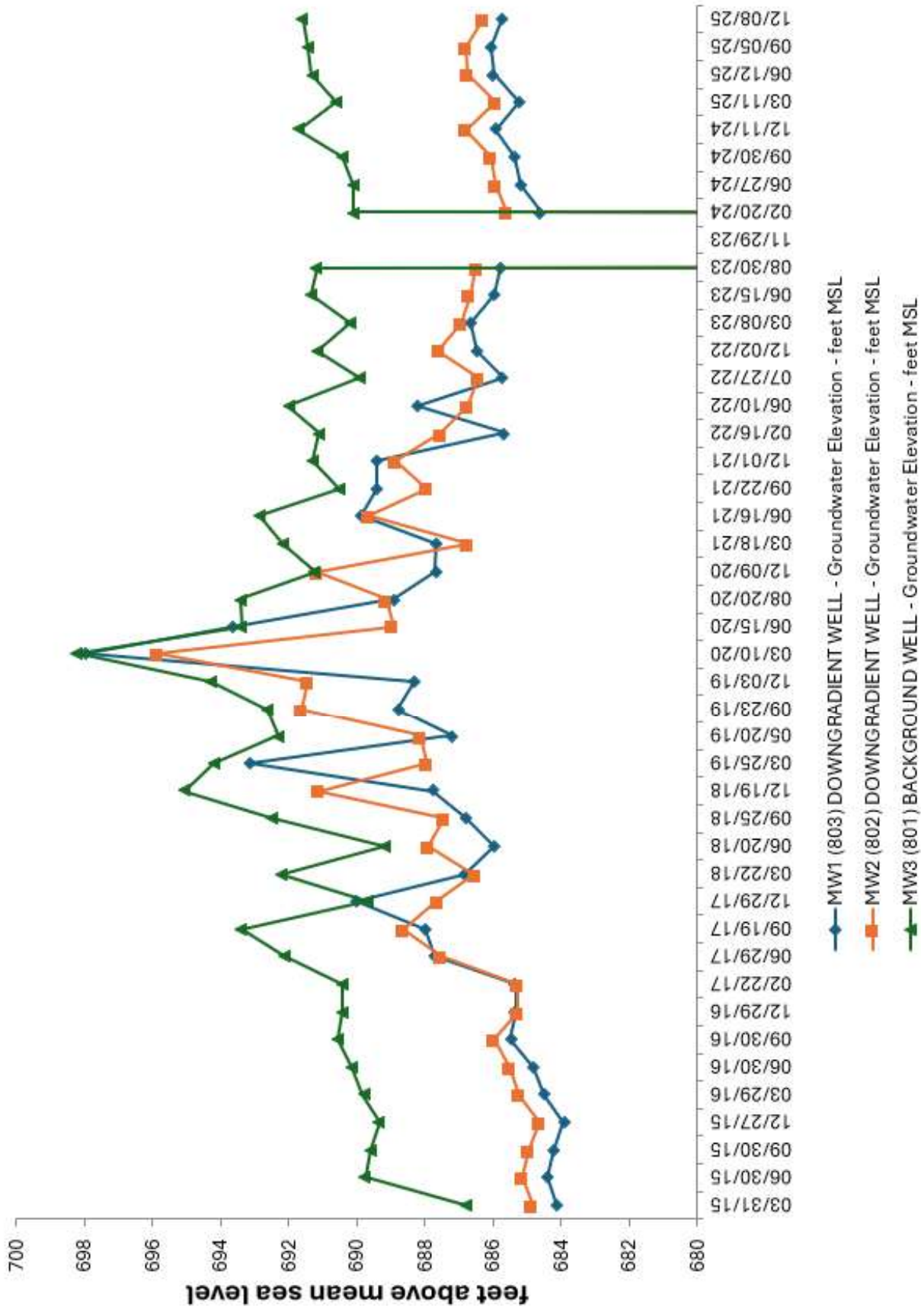
Selwood POA WWTF Effluent - Ammonia



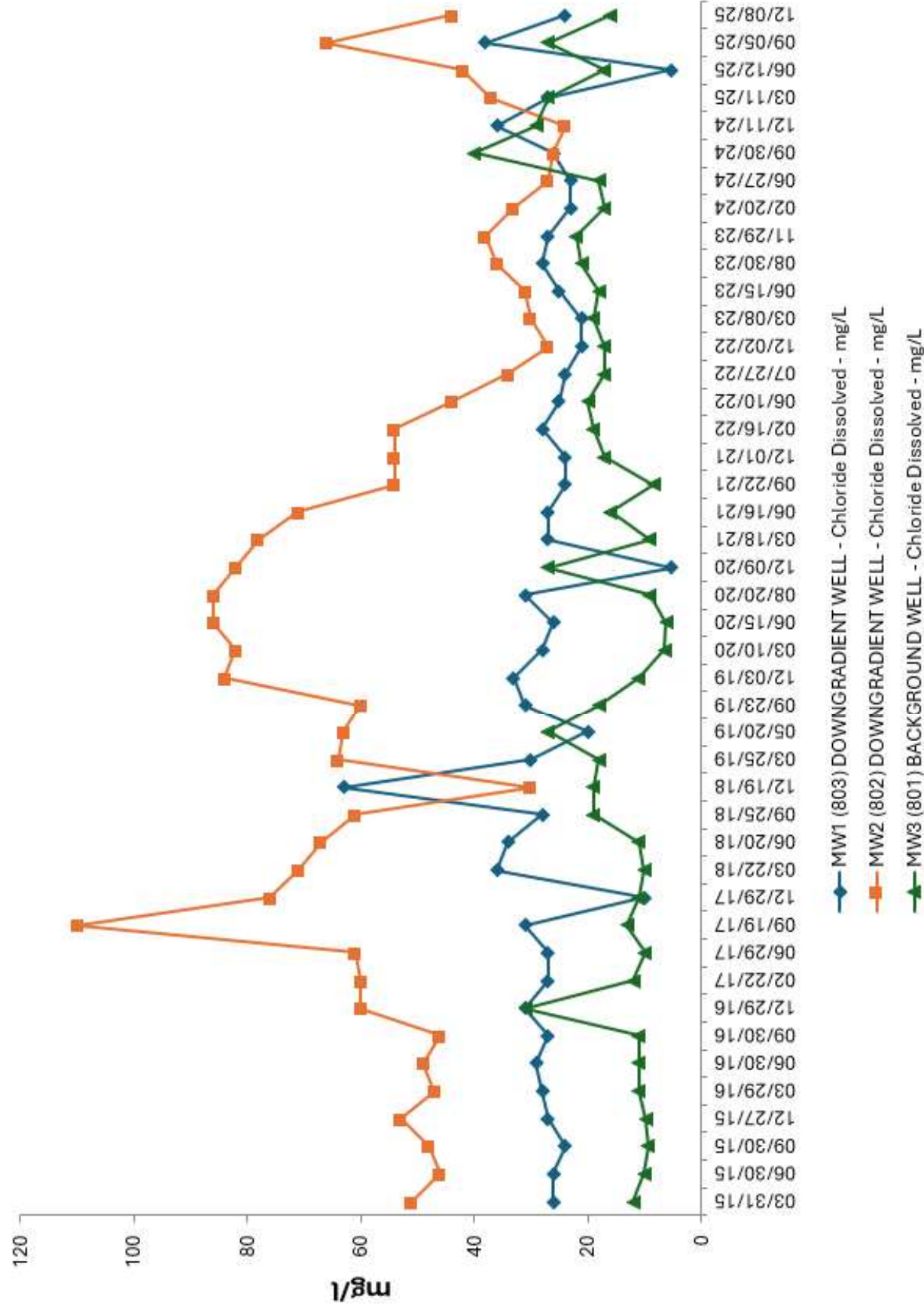
Selwood POA WWTF Effluent - Nitrite + Nitrate



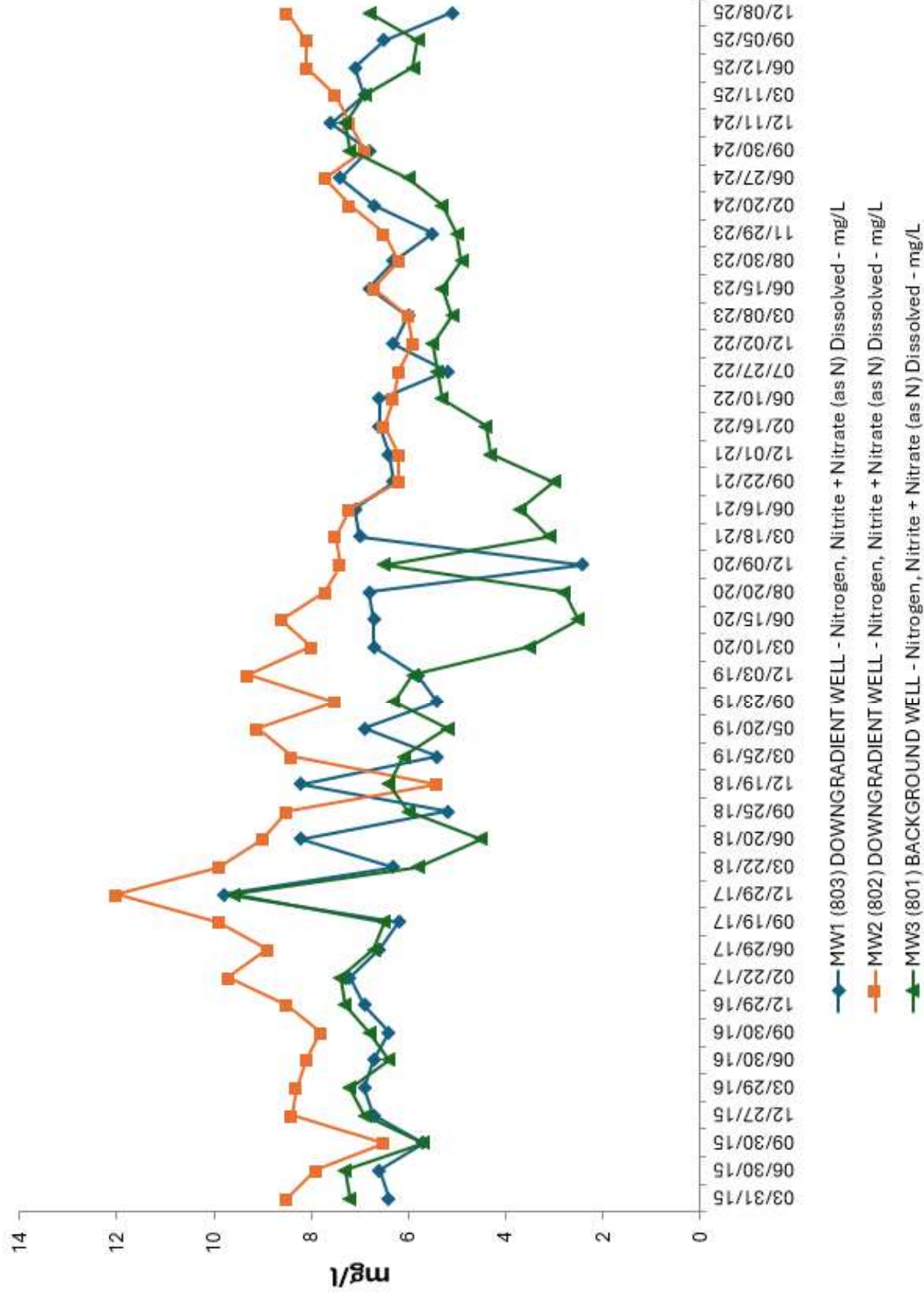
Groundwater Monitoring System - Groundwater Elevation



Groundwater Monitoring System - Chloride



Groundwater Monitoring System - Nitrite+Nitrate



Groundwater Monitoring System - Total Dissolved Solids

