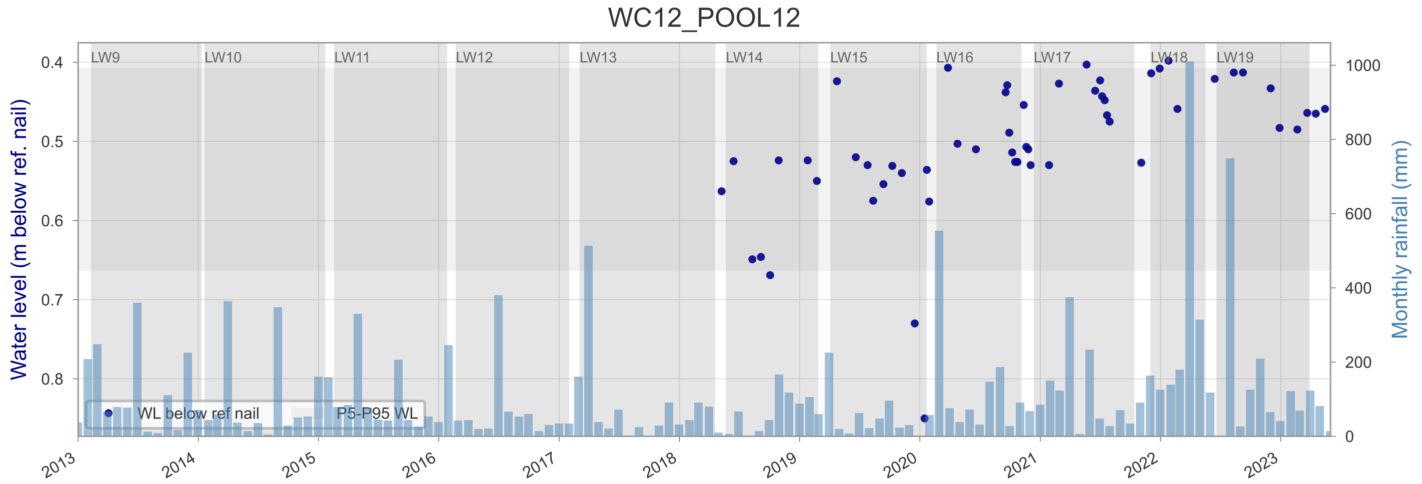
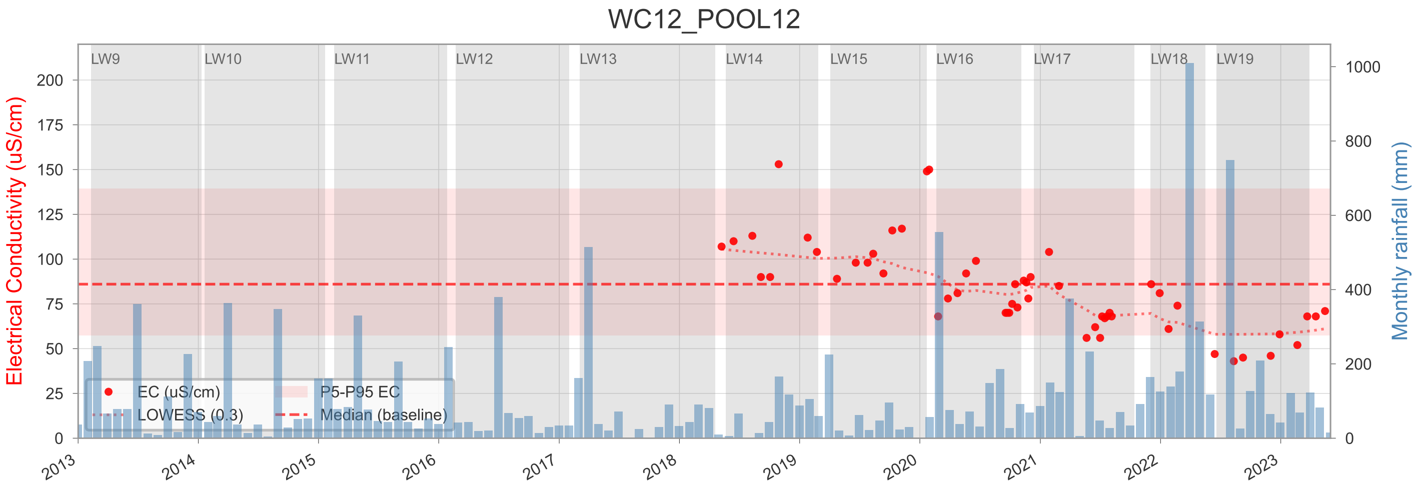
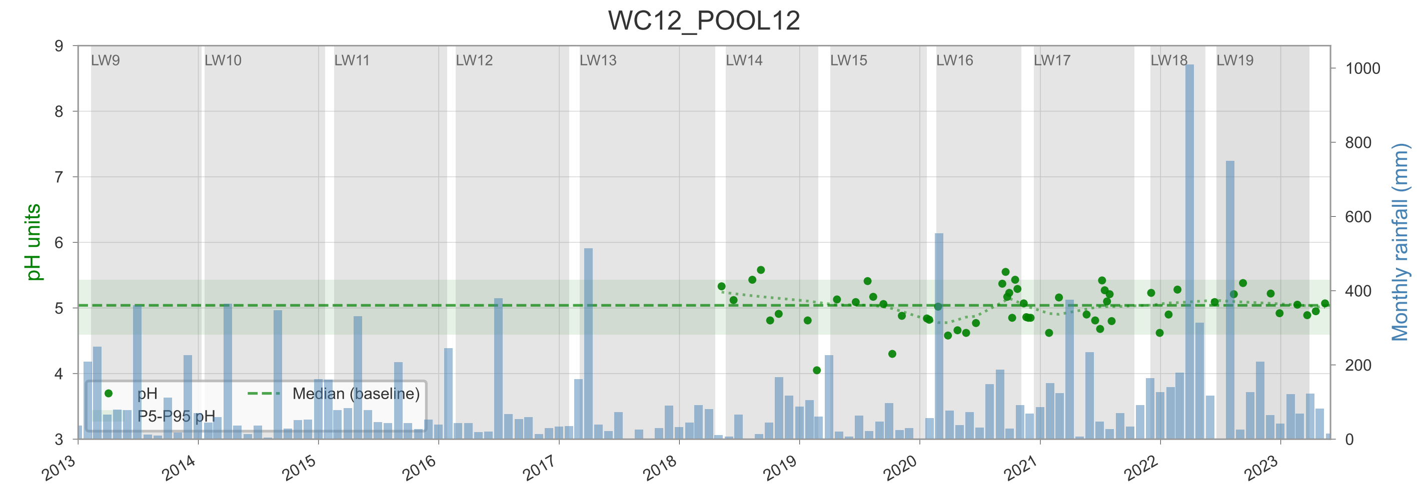
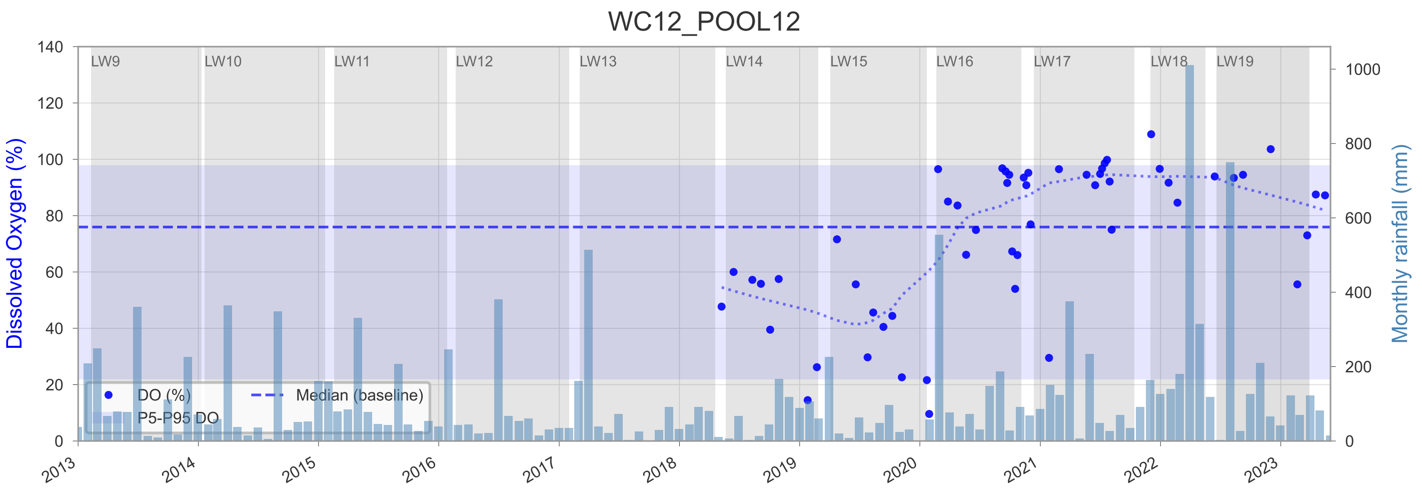
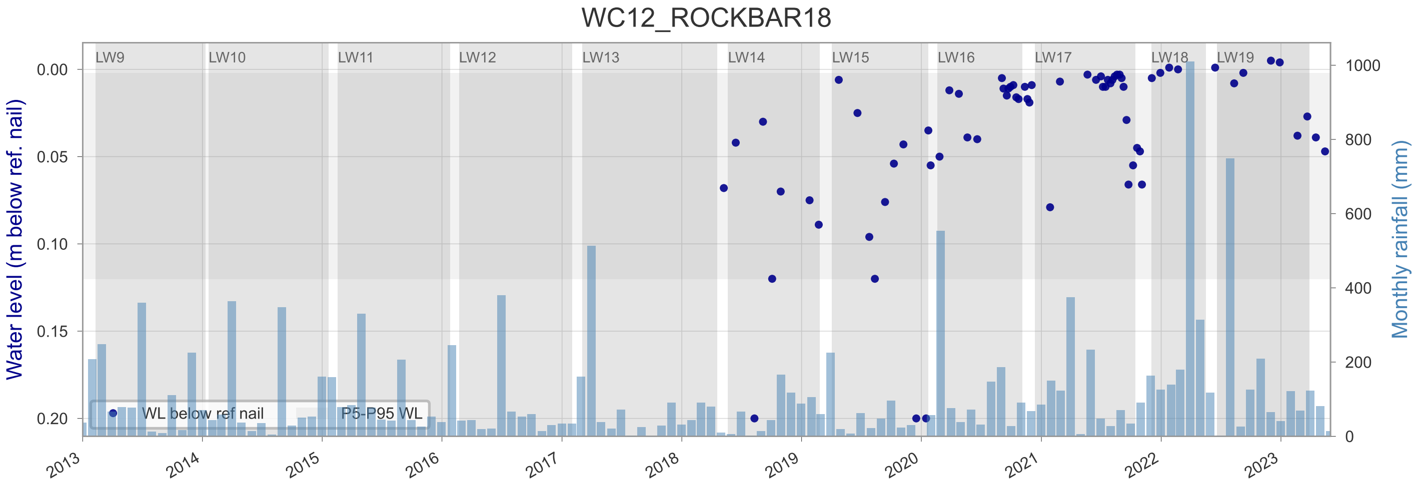
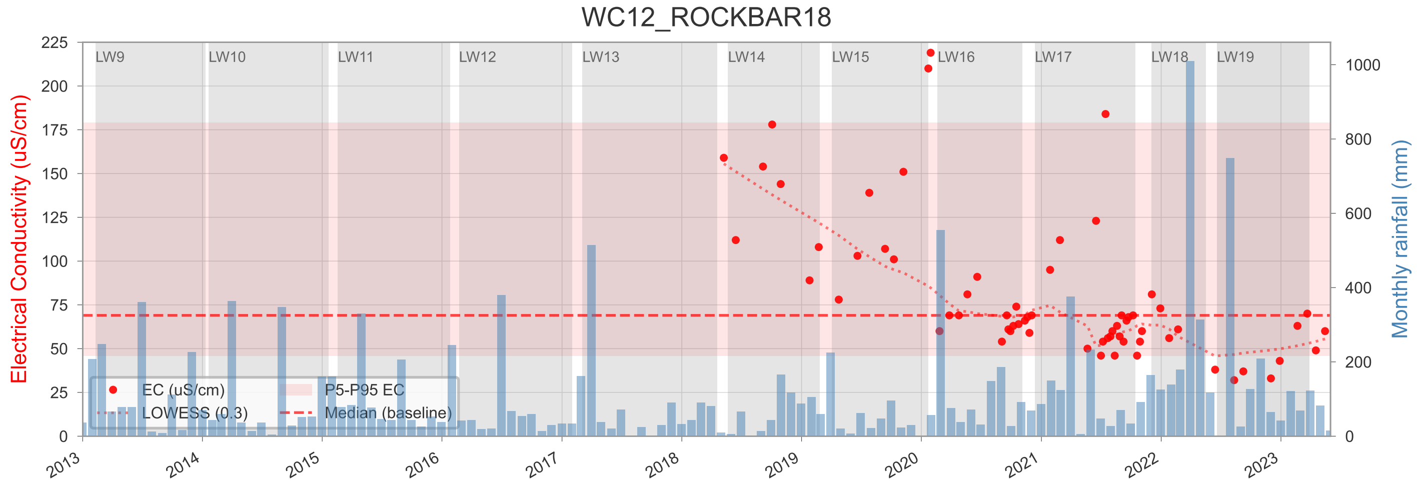

WC12_POOL12
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

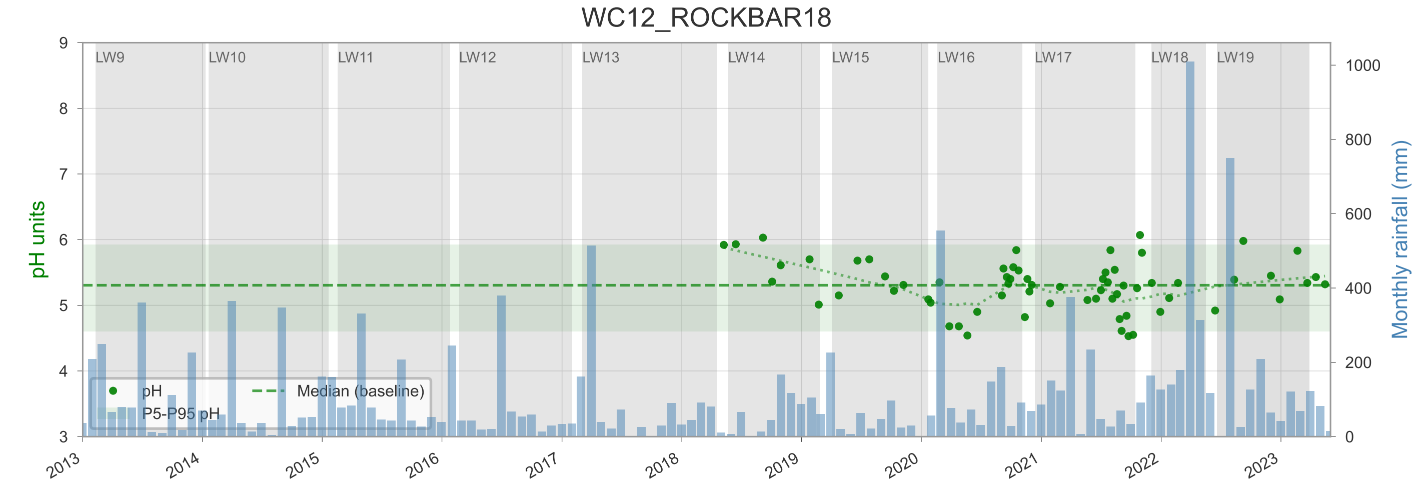

WC12_POOL12
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

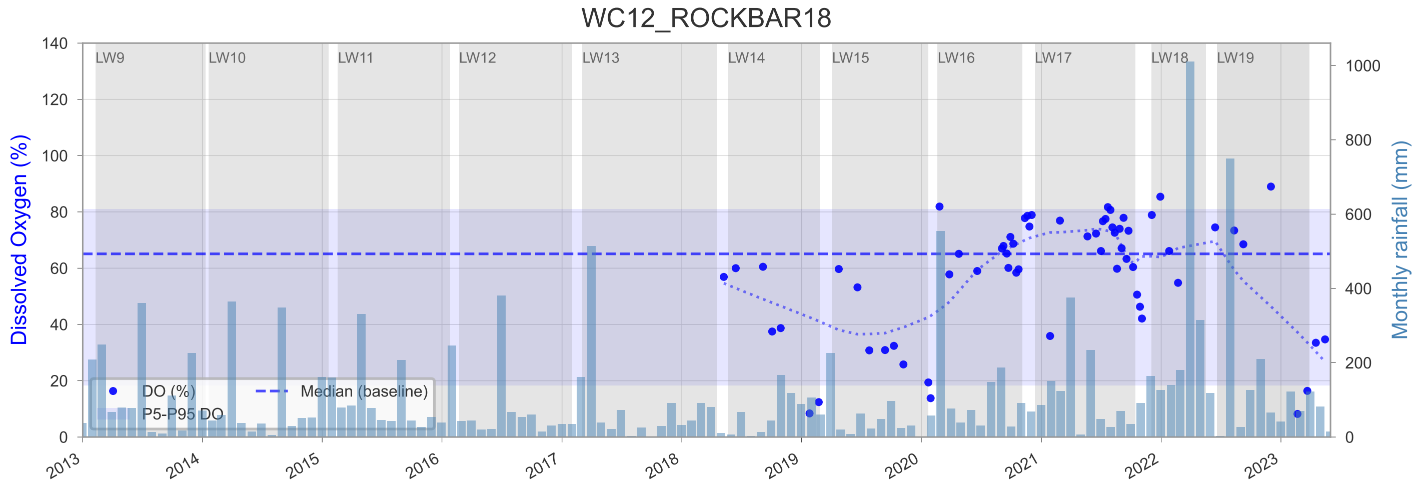

WC12_POOL12
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)

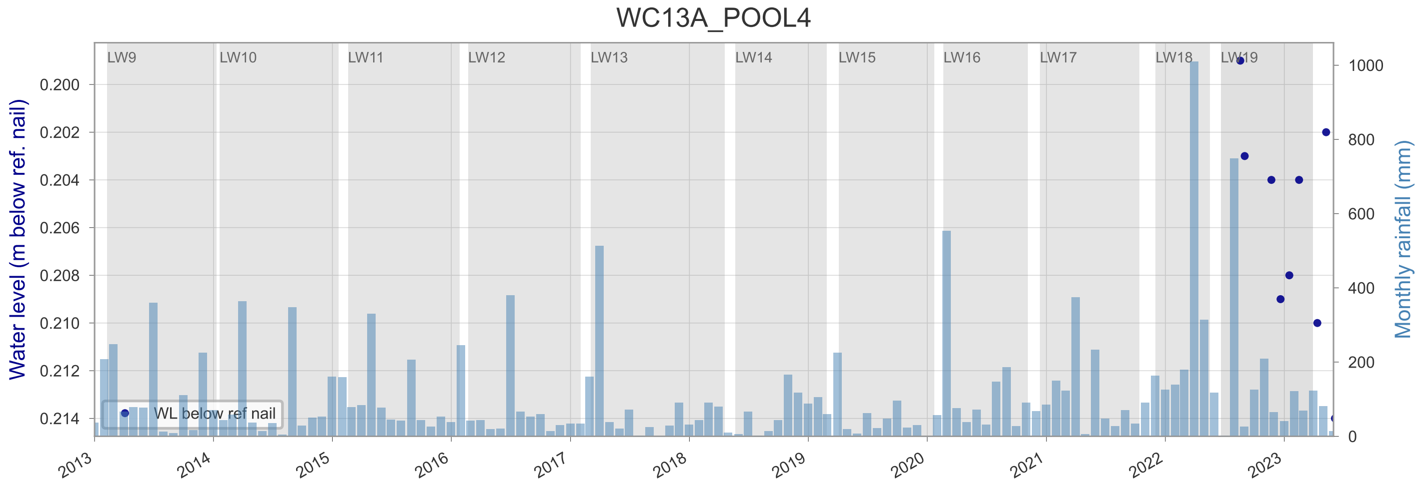

WC12_POOL12
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)

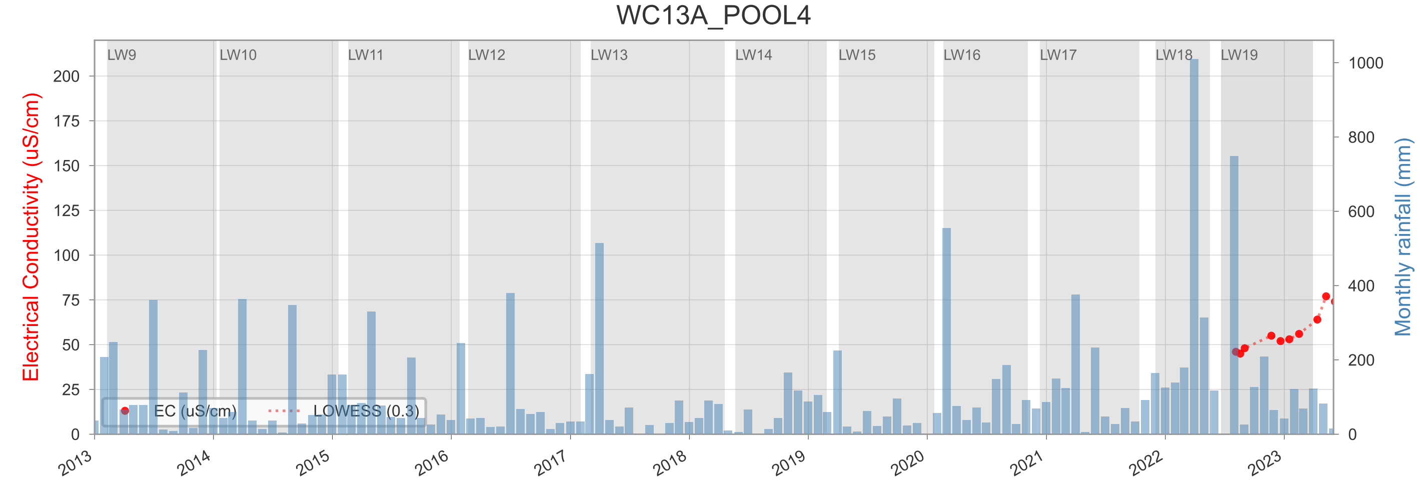

WC12_ROCKBAR18
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.00
0.05
0.10
0.15
0.20
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

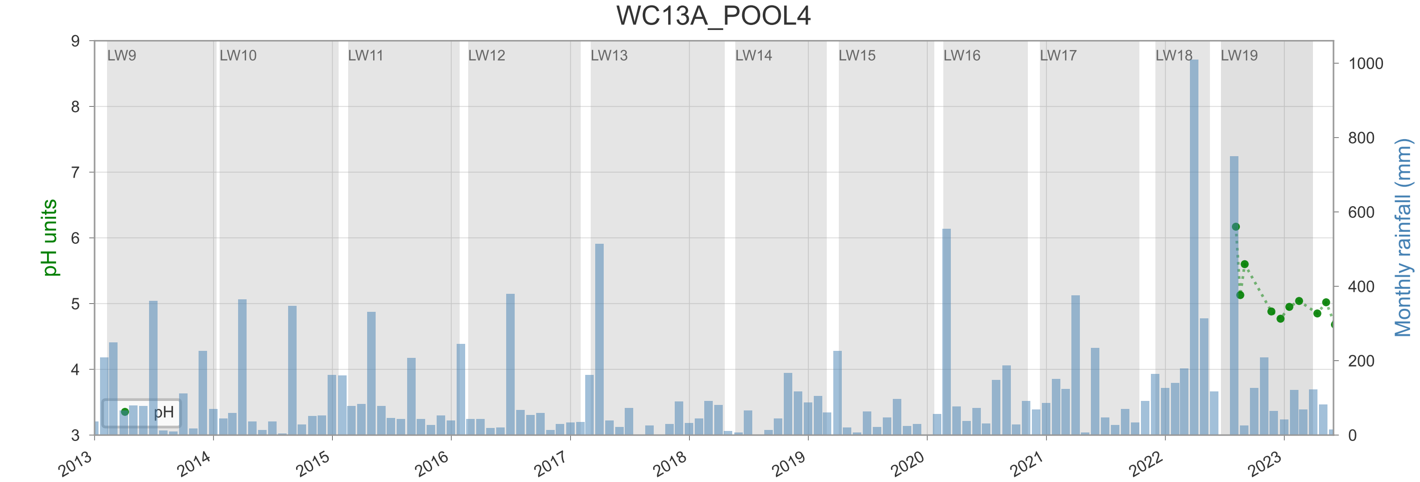

WC12_ROCKBAR18
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
225
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

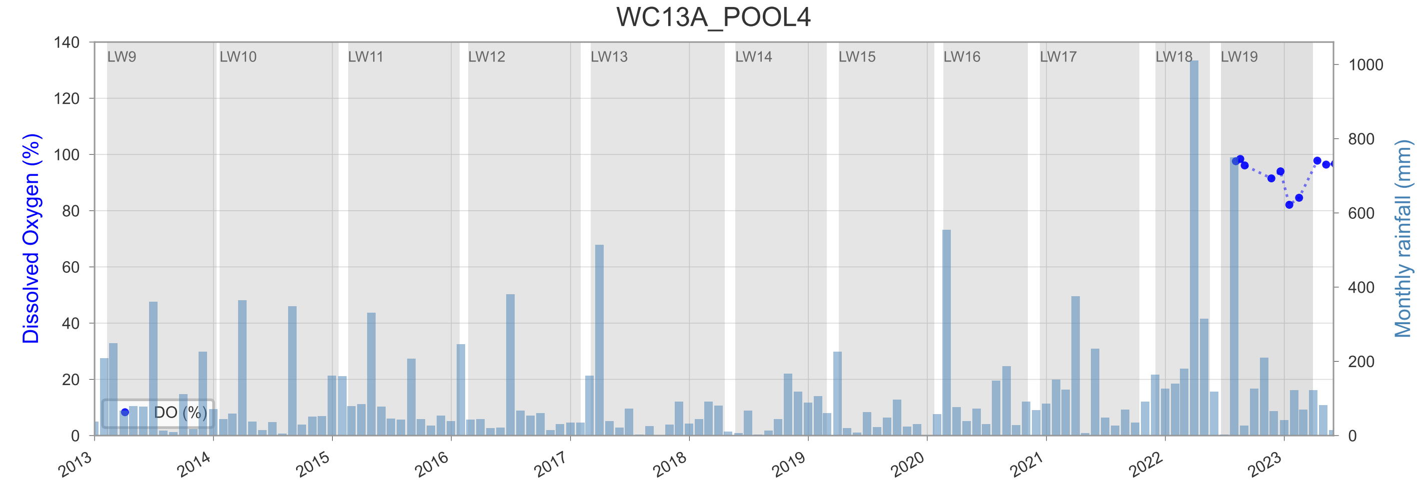

WC12_ROCKBAR18
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

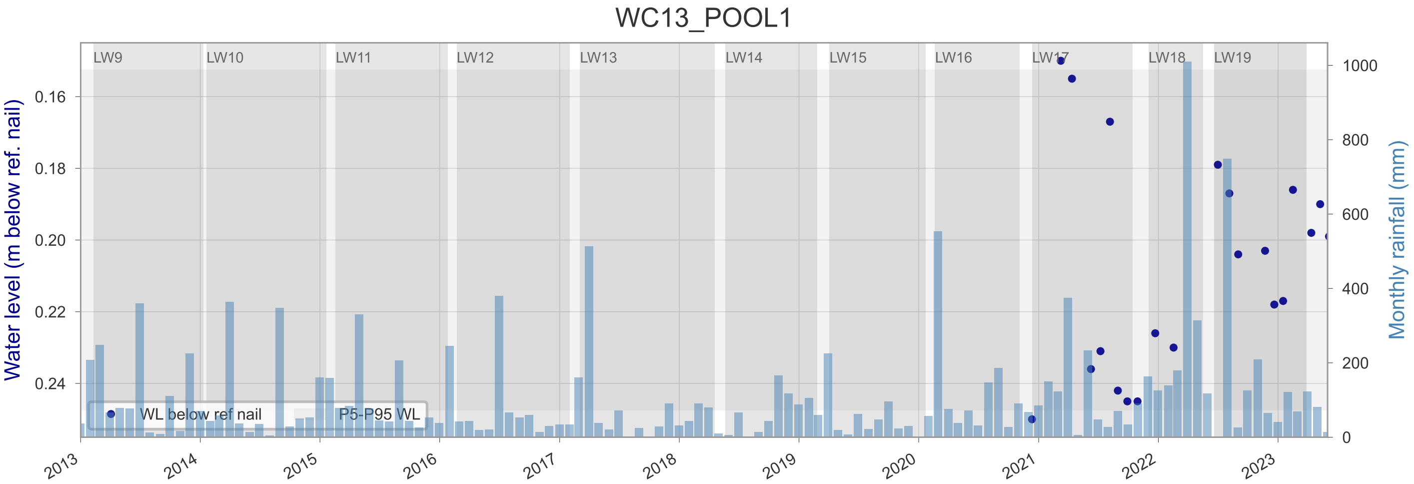

WC12_ROCKBAR18
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

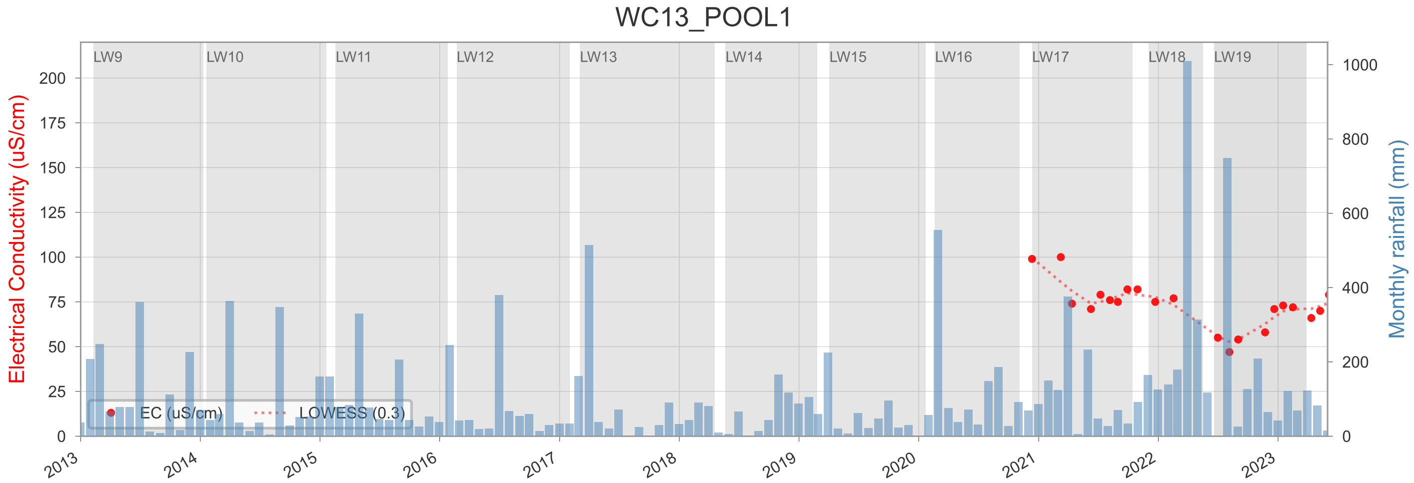

WC13A_POOL4
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.200 0.202 0.204 0.206 0.208 0.210 0.212 0.214
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

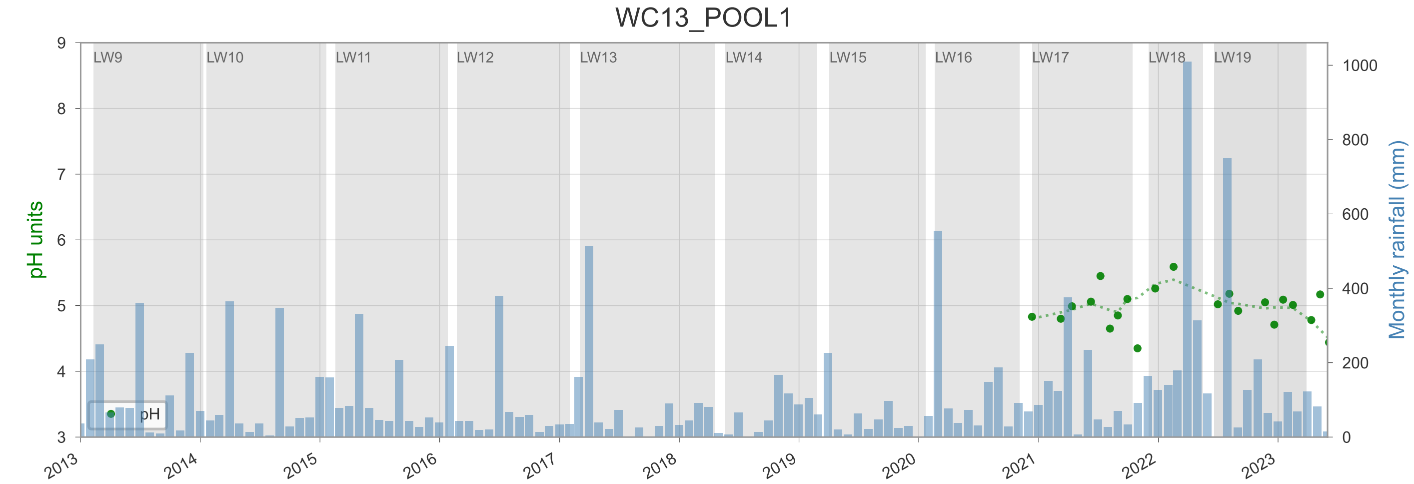

WC13A_POOL4
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 25 50 75 100 125 150 175 200
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

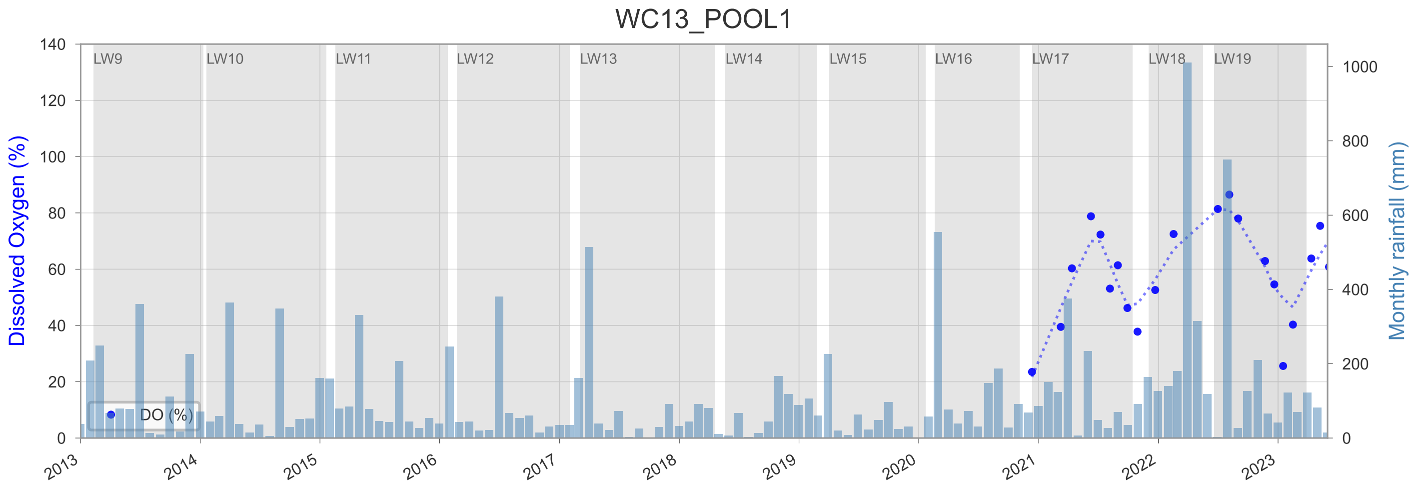

WC13A_POOL4
pH units
Monthly rainfall (mm)
pH
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
3 4 5 6 7 8 9
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

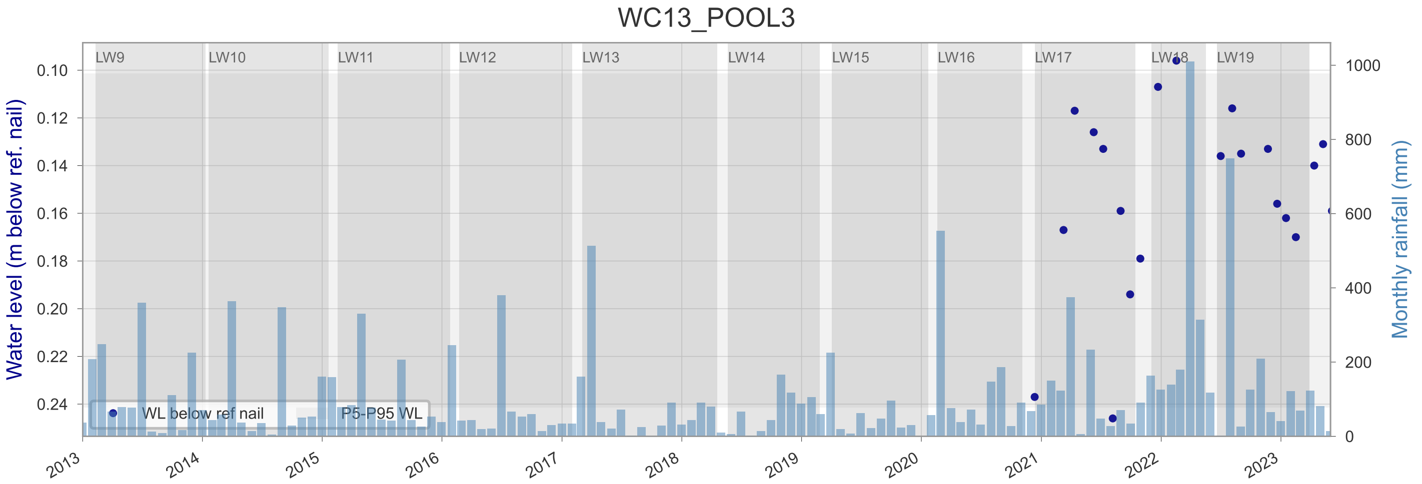

WC13A_POOL4
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 20 40 60 80 100 120 140
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

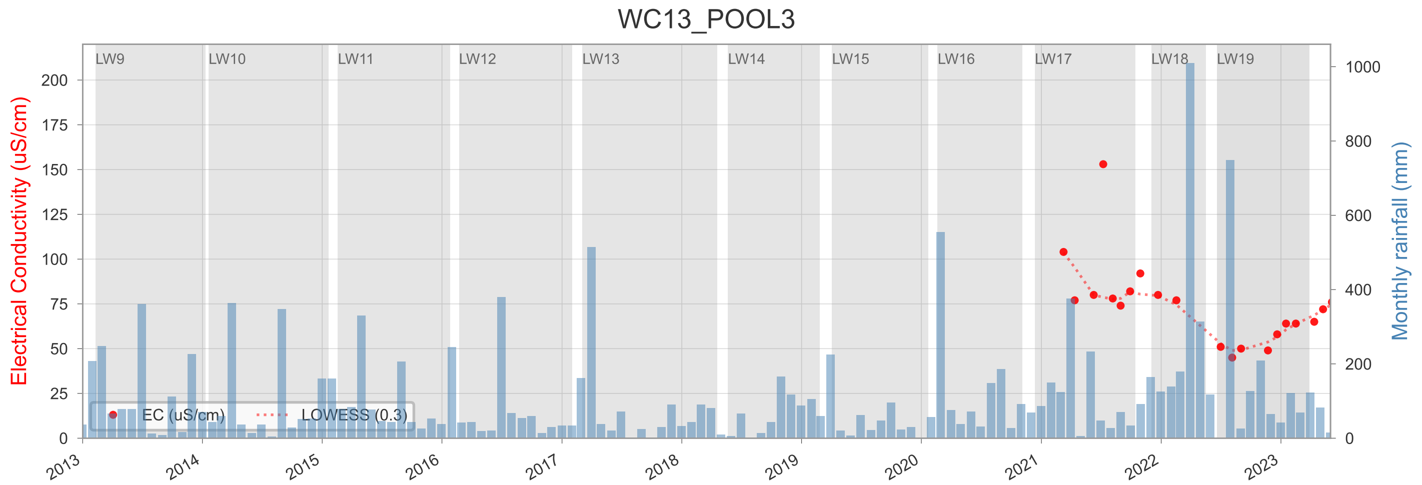

WC13_POOL1
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

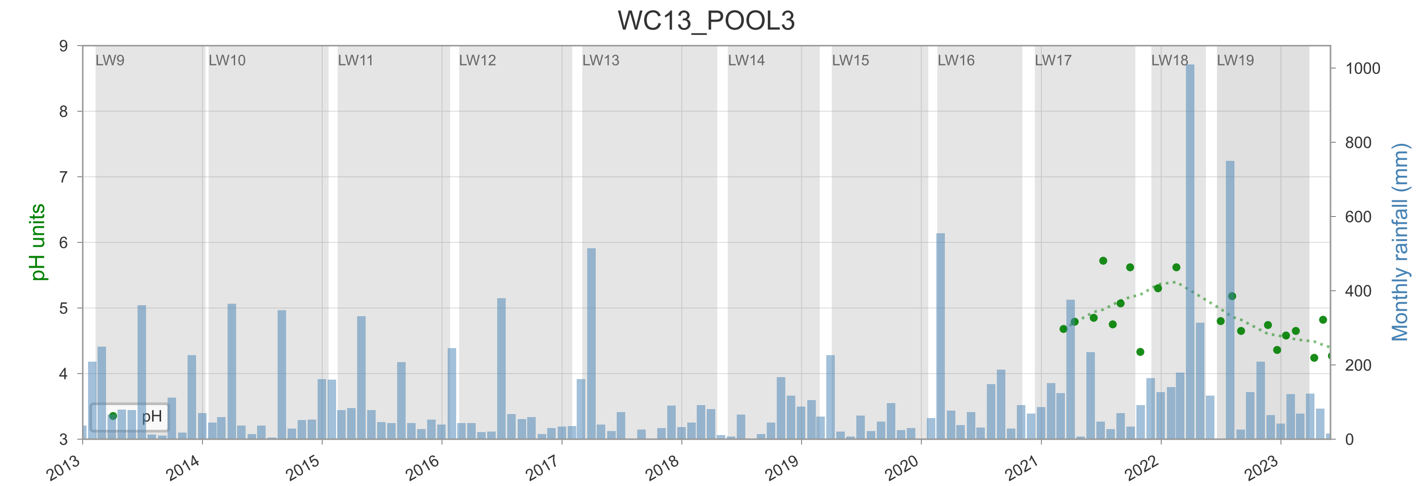

WC13_POOL1
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)

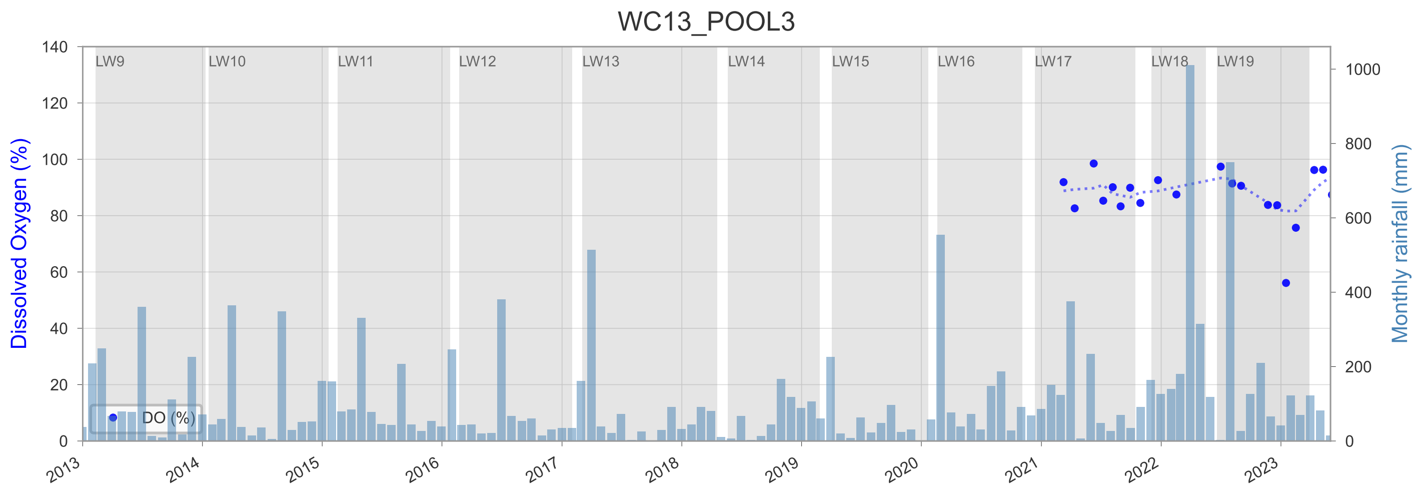

WC13_POOL1
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH

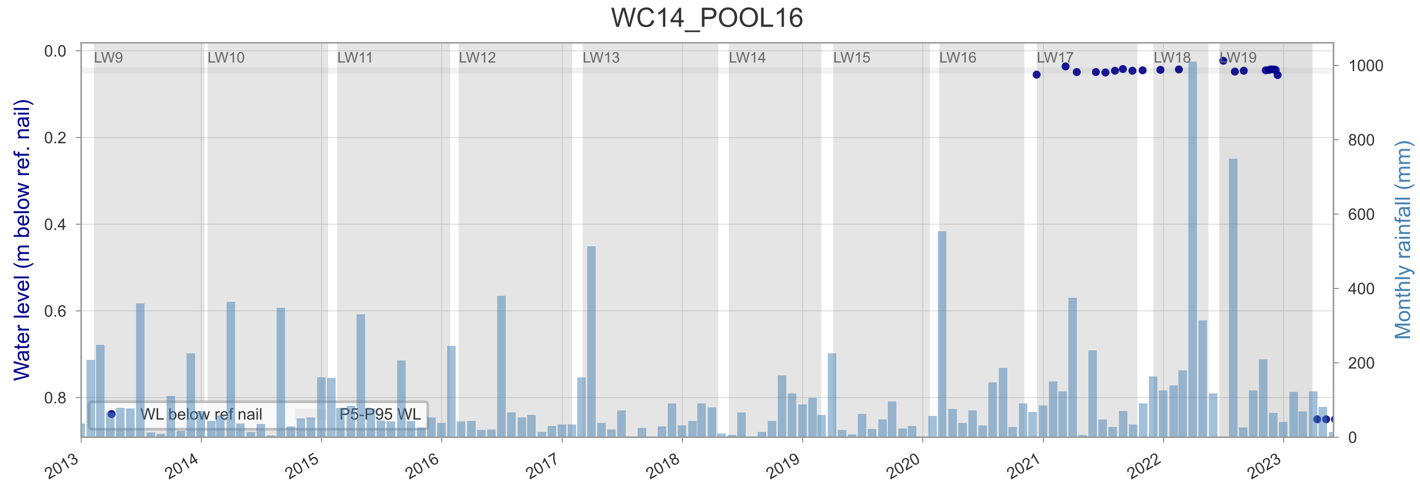

WC13_POOL1
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)

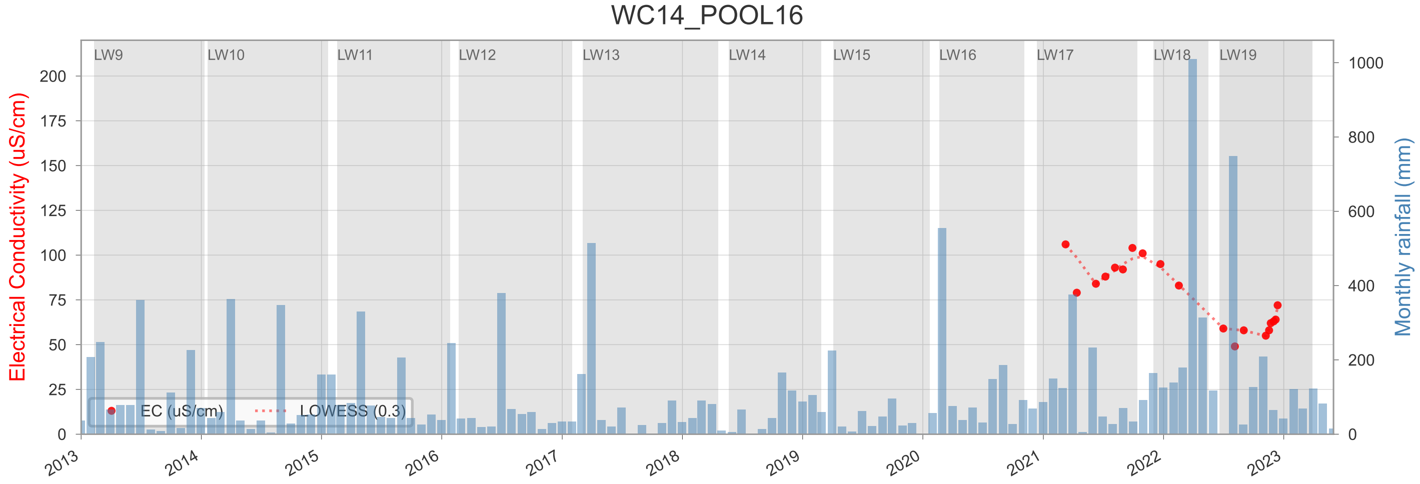

WC13_POOL3
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.10
0.12
0.14
0.16
0.18
0.20
0.22
0.24
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

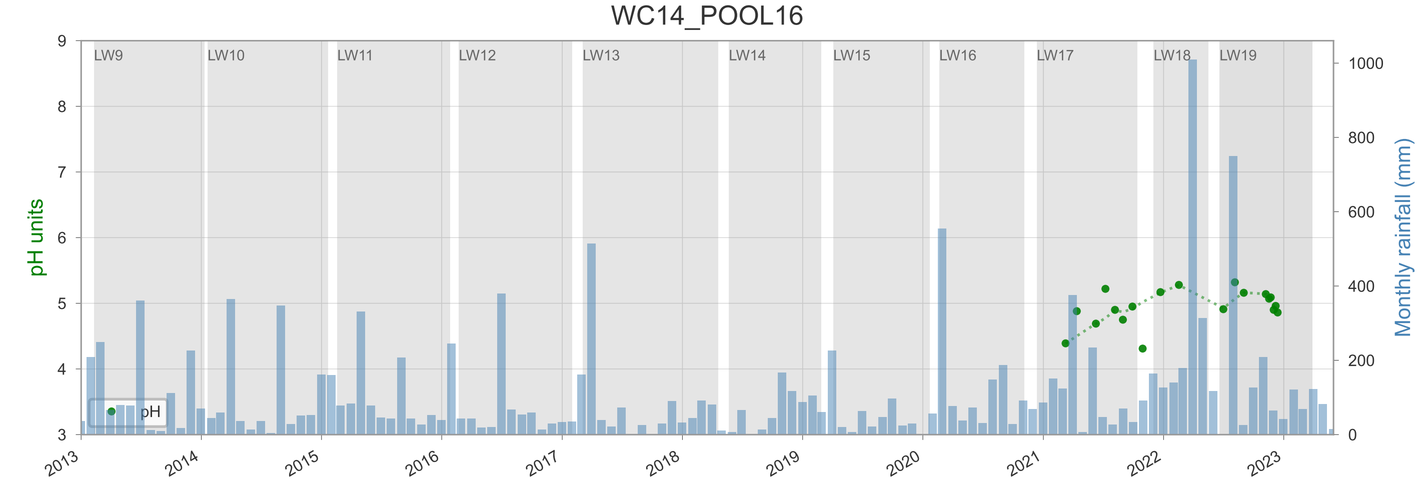

WC13_POOL3
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

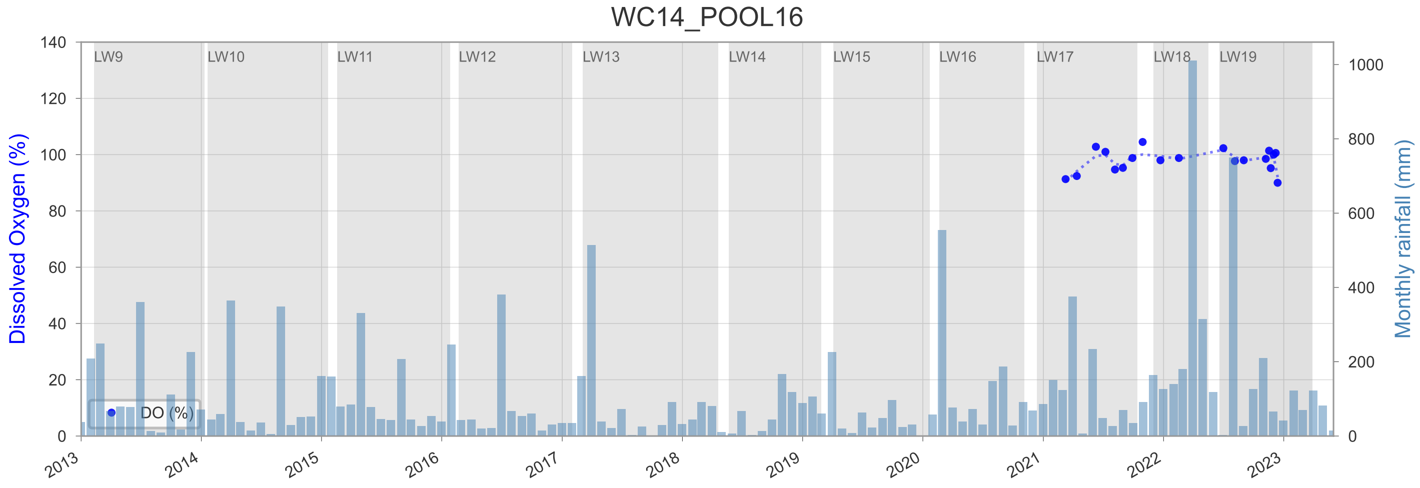

WC13_POOL3
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

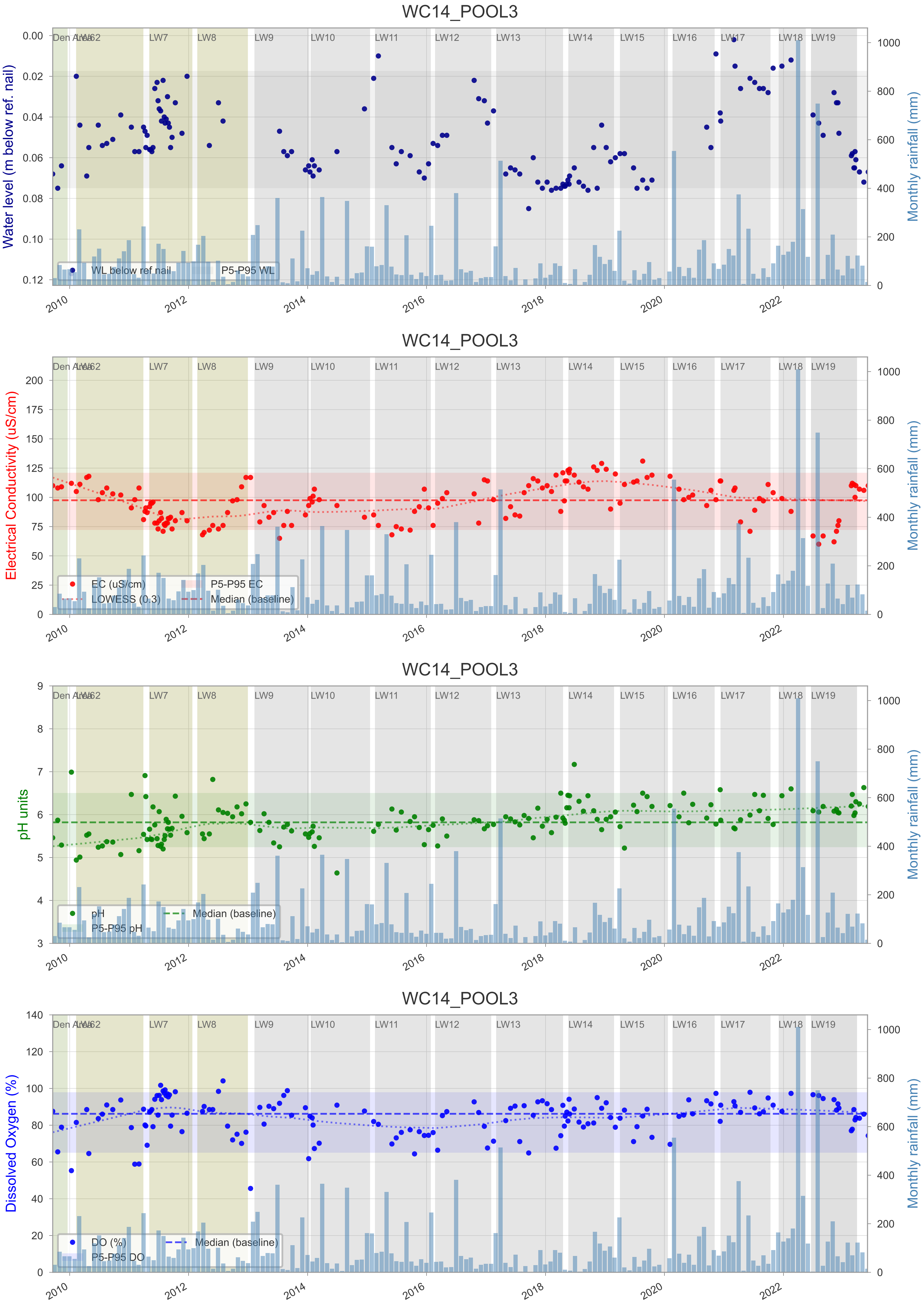

WC13_POOL3
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


WC14_POOL16
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

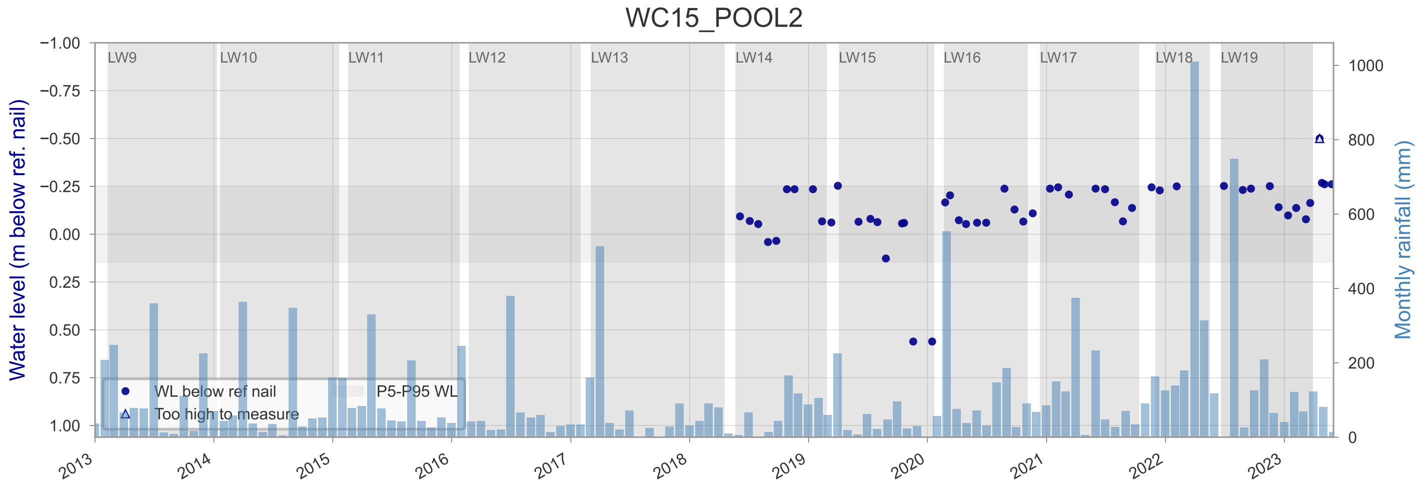

WC14_POOL16
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)

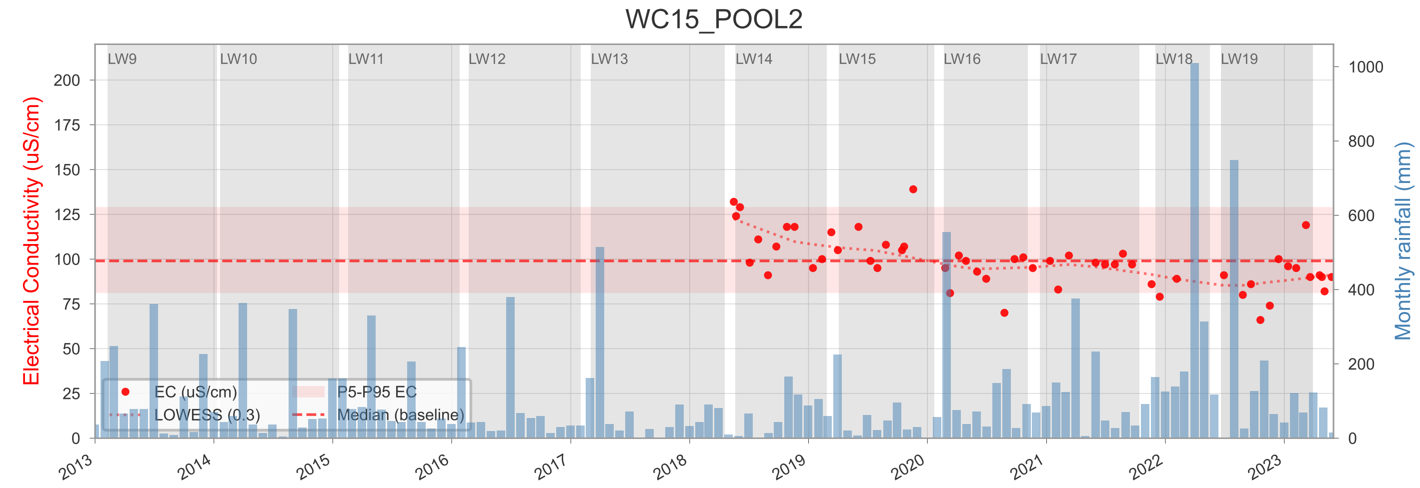

WC14_POOL16
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH

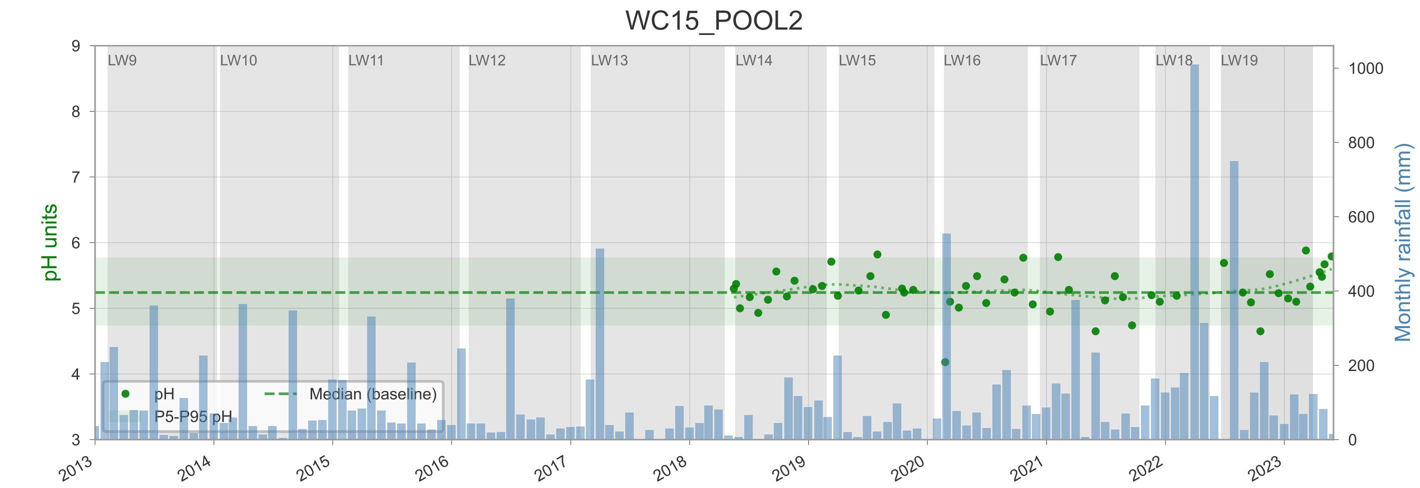

WC14_POOL16
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)

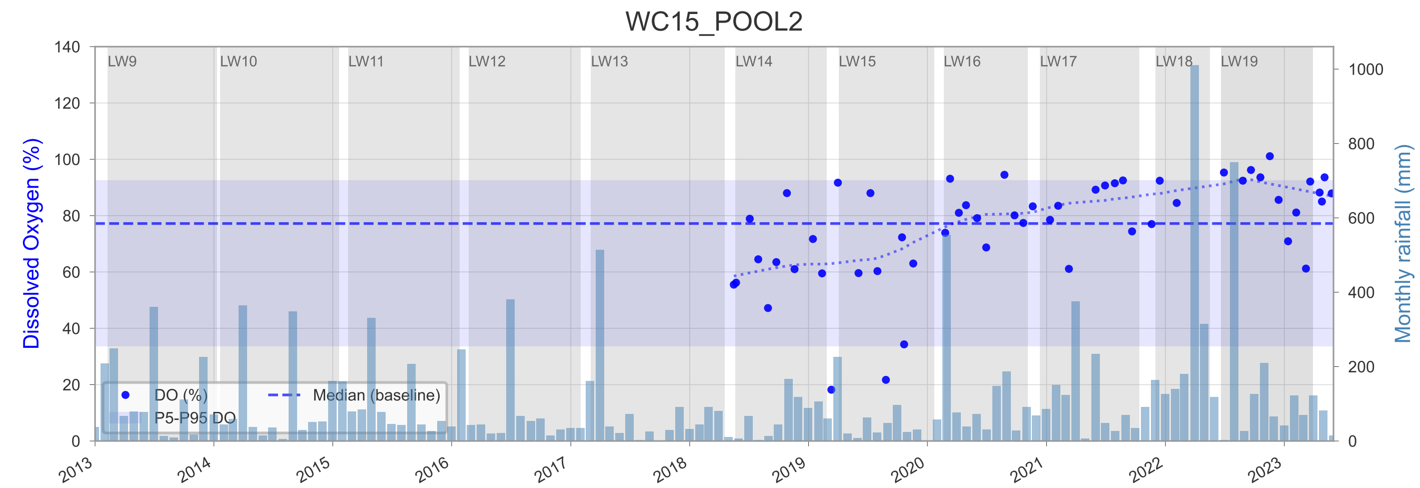


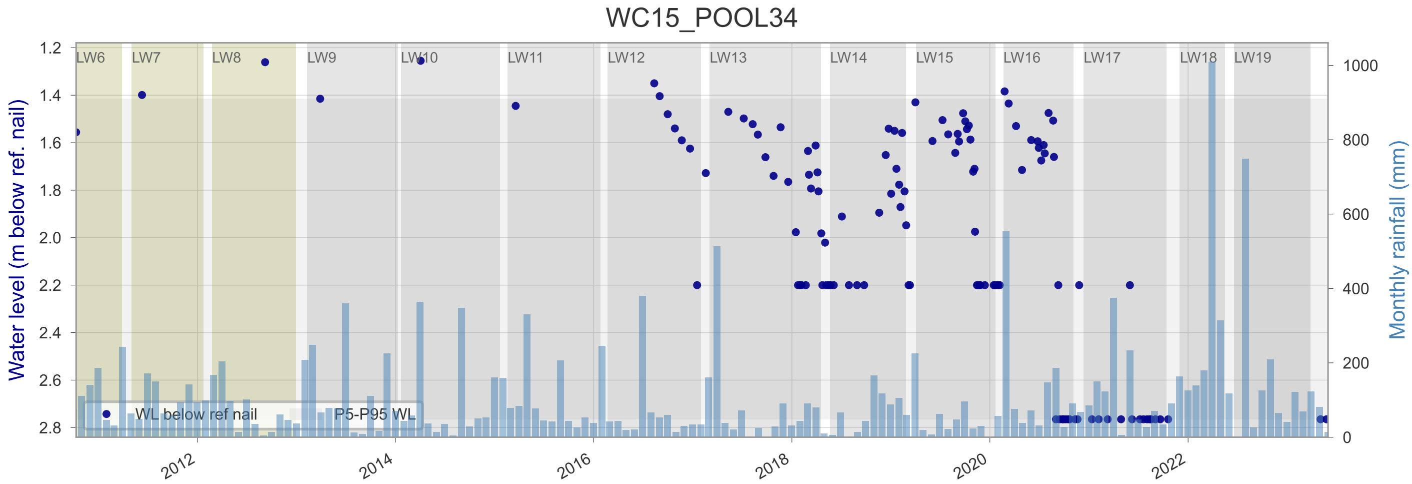
WC14_POOL3
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
WC14_POOL3
Electrical Conductivity (uS/cm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
WC14_POOL3
pH units
pH
P5-P95 pH
Median (baseline)
WC14_POOL3
Dissolved Oxygen (%)
DO (%)
P5-P95 DO
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

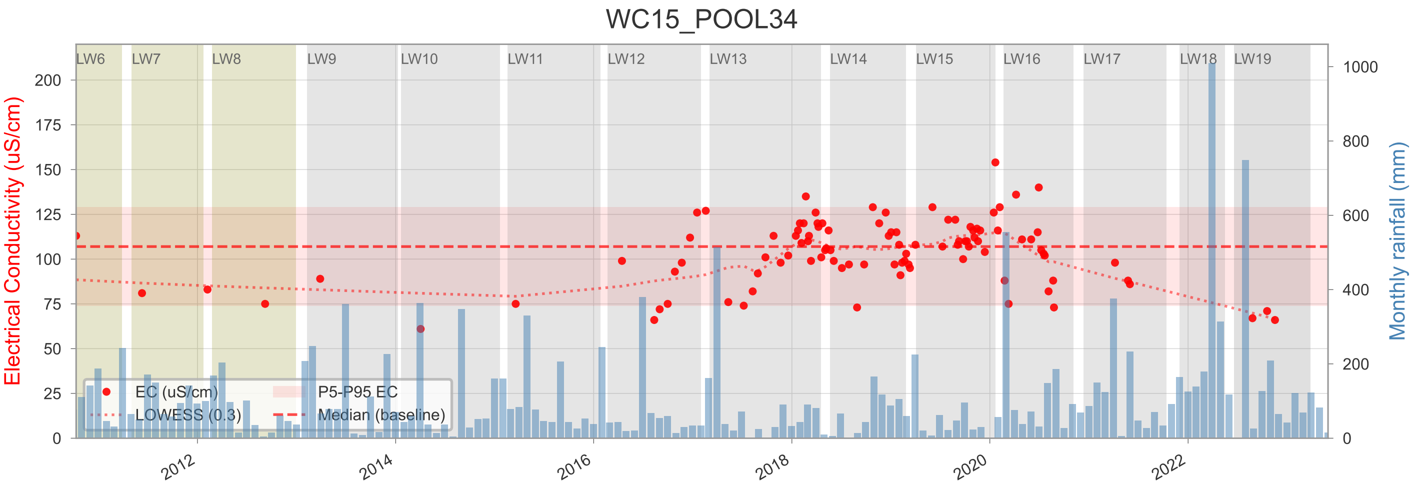

WC15_POOL2
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
Too high to measure
P5-P95 WL

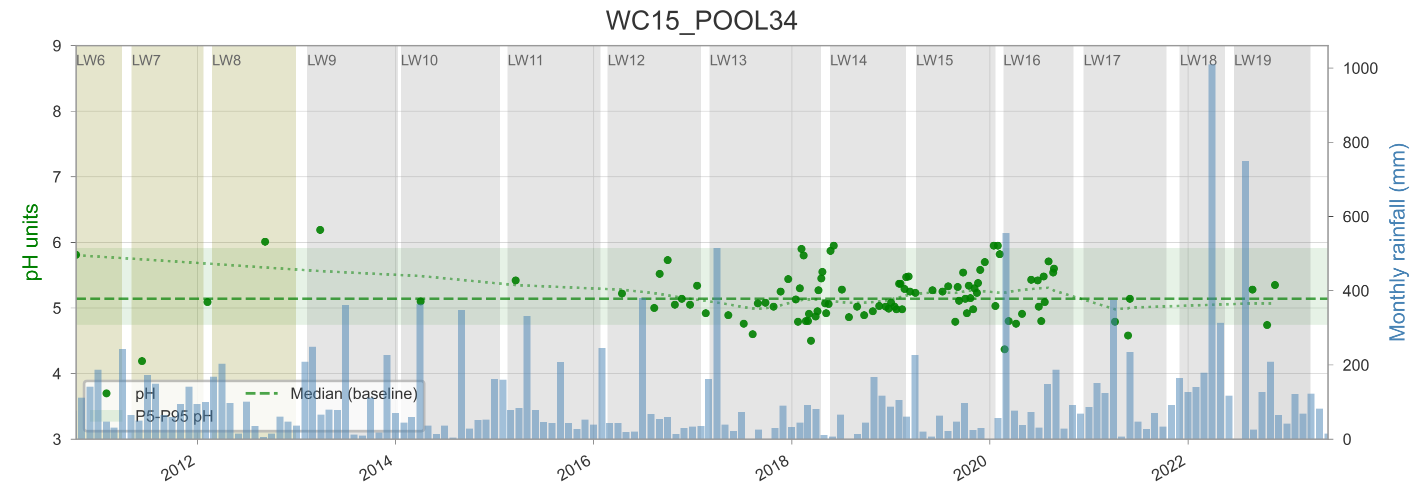

WC15_POOL2
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

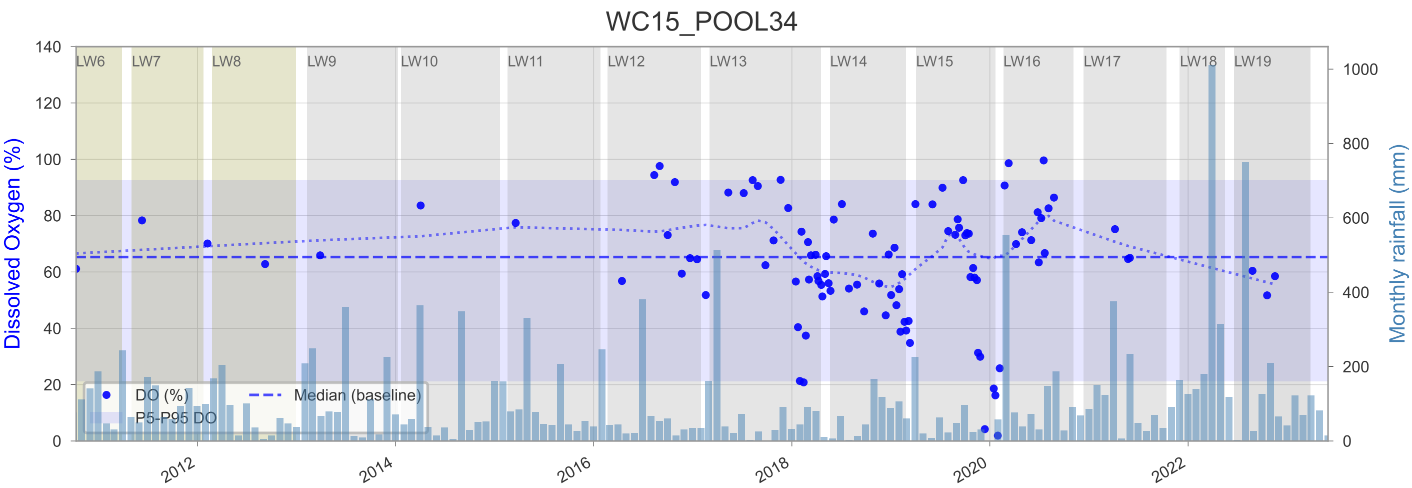

WC15_POOL2
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)

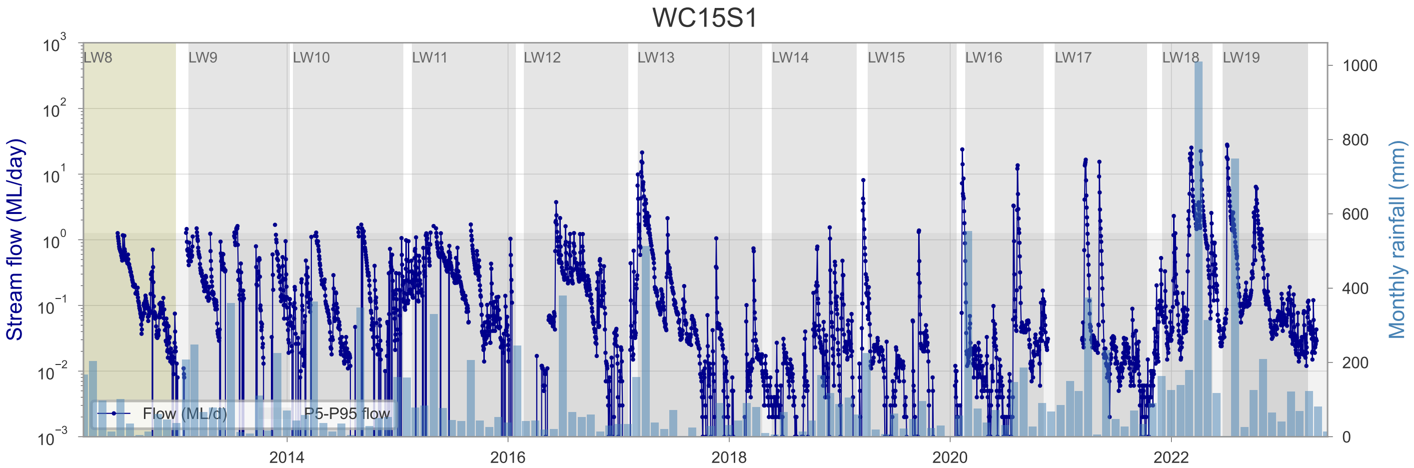

WC15_POOL2
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)

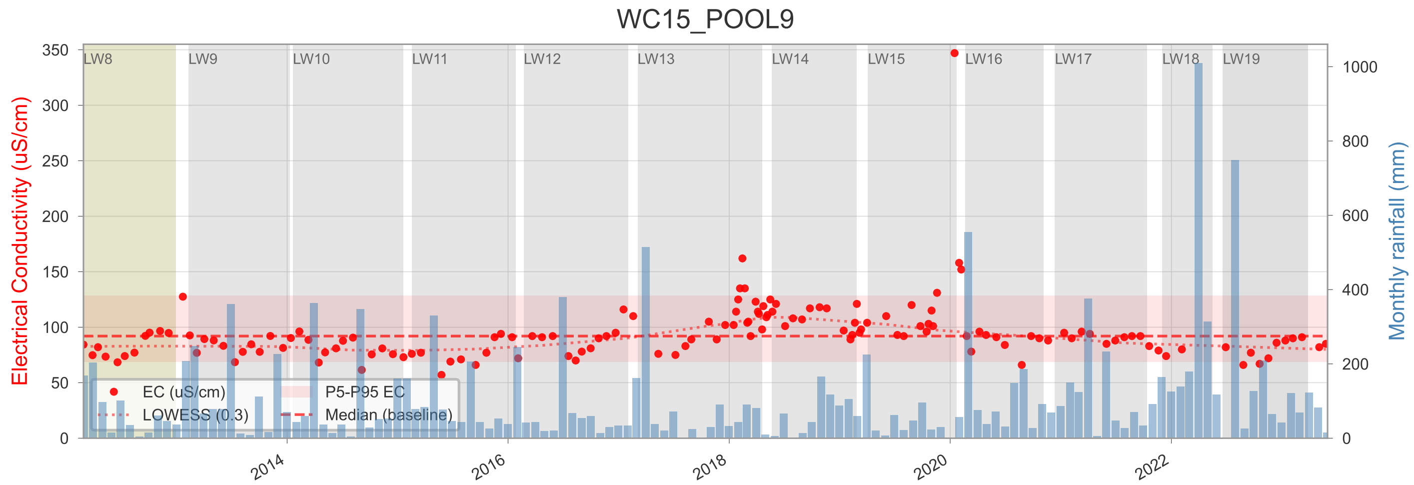

WC15_POOL34
Water level (m below ref. nail)
Monthly rainfall (mm)
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
WL below ref nail
P5-P95 WL
2012 2014 2016 2018 2020 2022

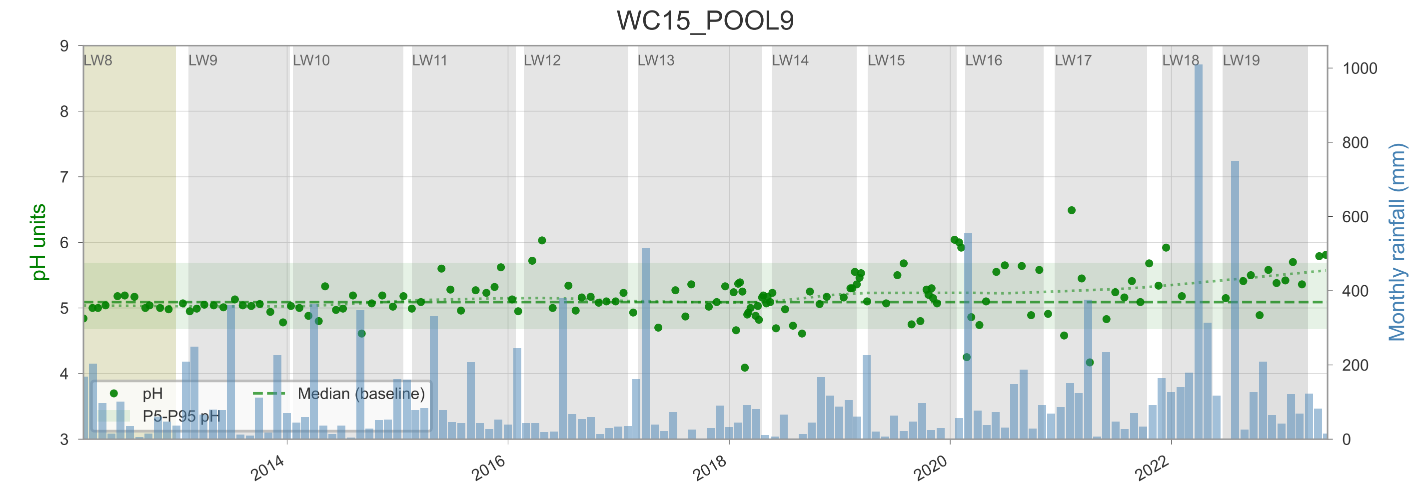

WC15_POOL34
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2012 2014 2016 2018 2020 2022

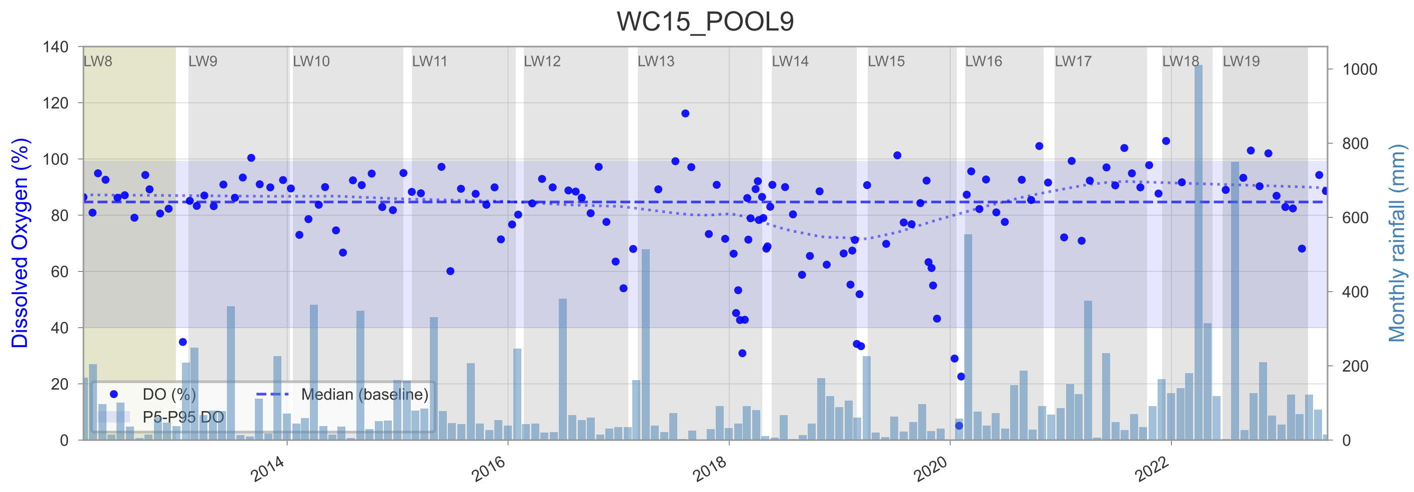

WC15_POOL34
pH units
Monthly rainfall (mm)
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH
P5-P95 pH
Median (baseline)
2012 2014 2016 2018 2020 2022

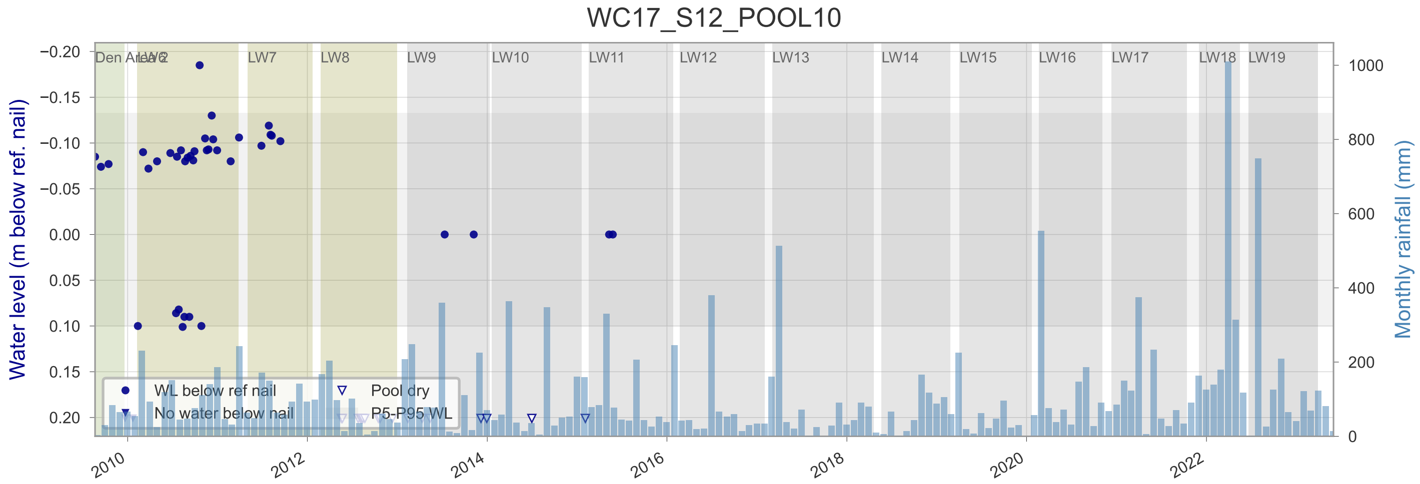

WC15_POOL34
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
DO (%)
P5-P95 DO
Median (baseline)
2012 2014 2016 2018 2020 2022


WC15S1
Stream flow (ML/day)
Monthly rainfall (mm)
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Flow (ML/d)
P5-P95 flow

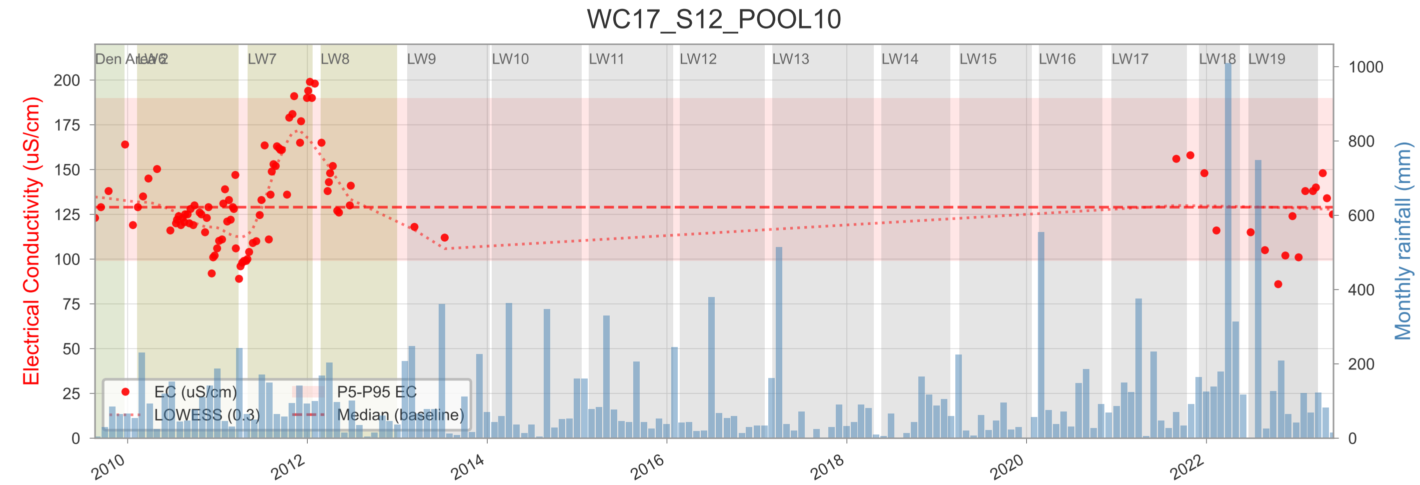

WC15_POOL9
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)


WC15_POOL9
pH units
Monthly rainfall (mm)
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH
P5-P95 pH
Median (baseline)

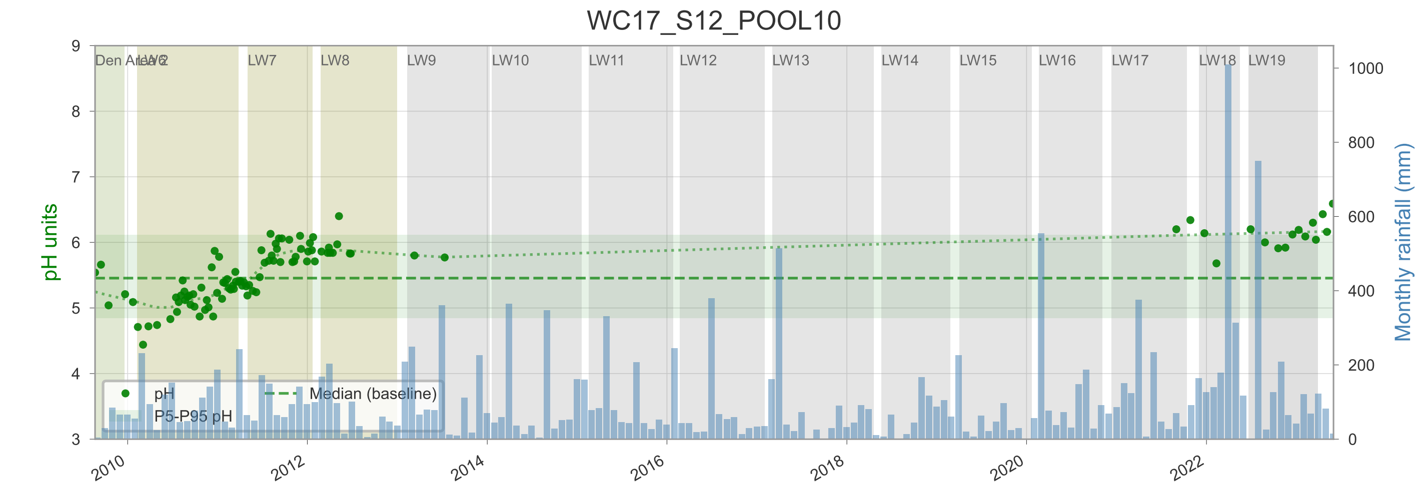

WC15_POOL9
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
DO (%)
P5-P95 DO
Median (baseline)



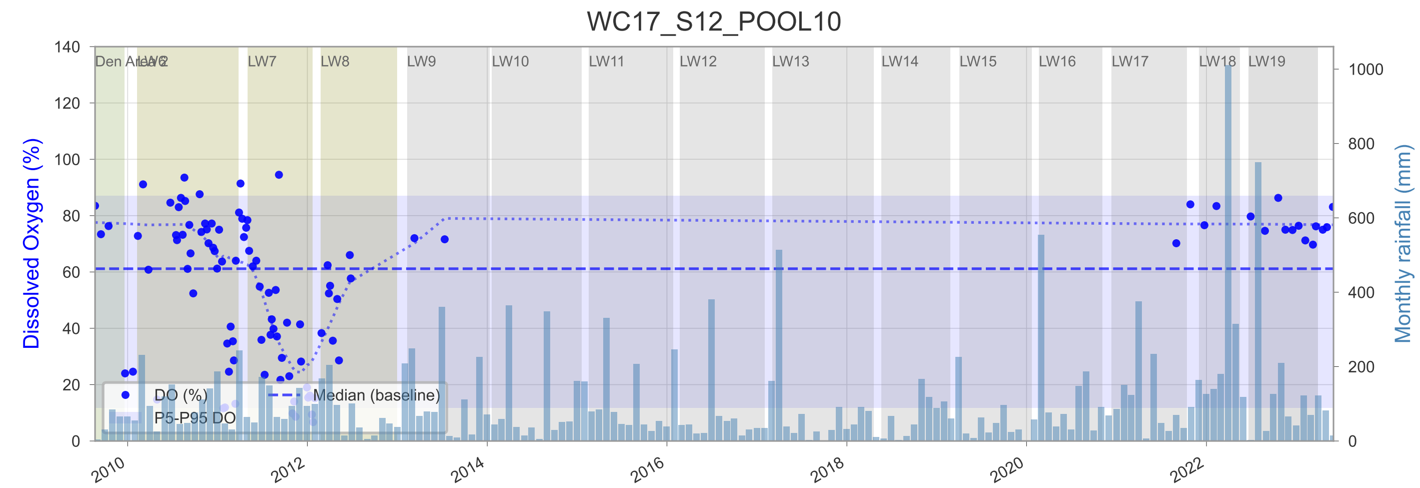
WC17_S12_POOL10
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
No water below nail
Pool dry
P5-P95 WL



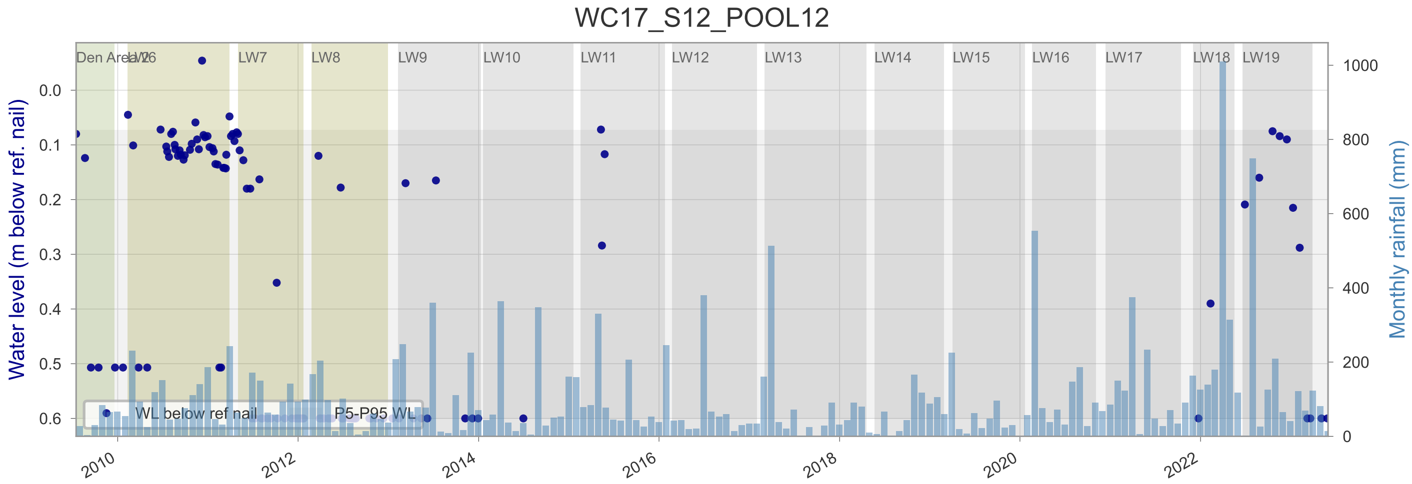
WC17_S12_POOL10
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

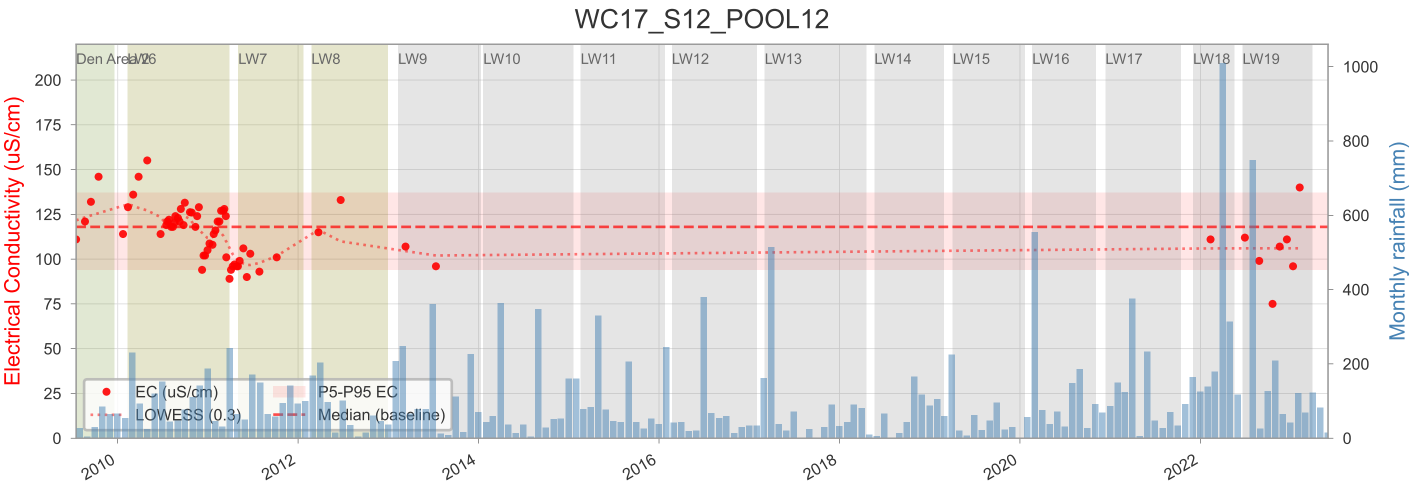


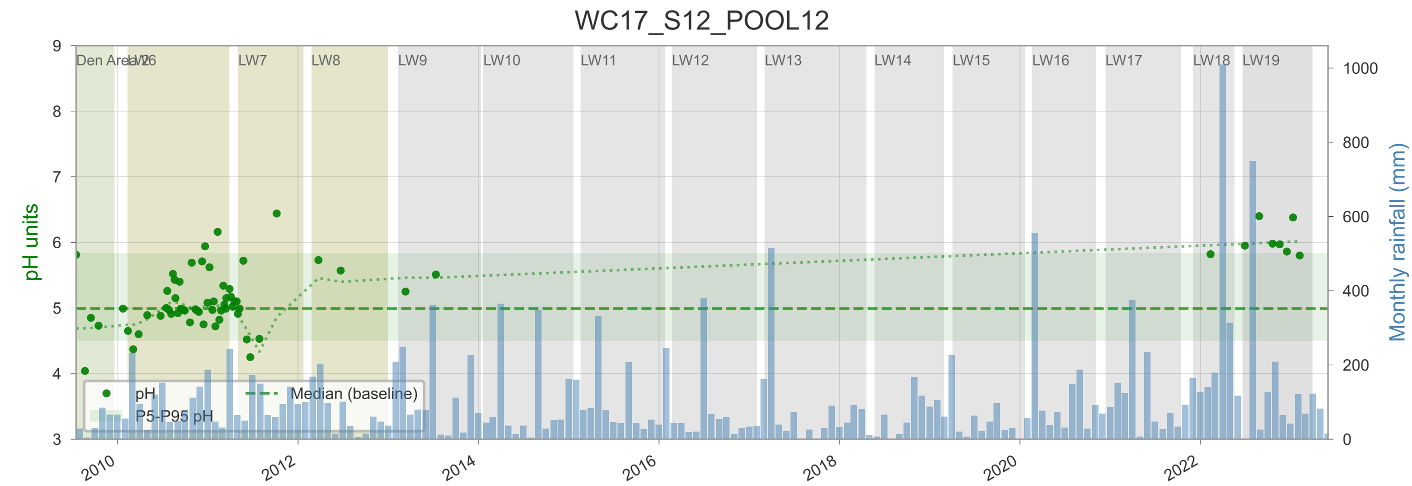
WC17_S12_POOL10
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

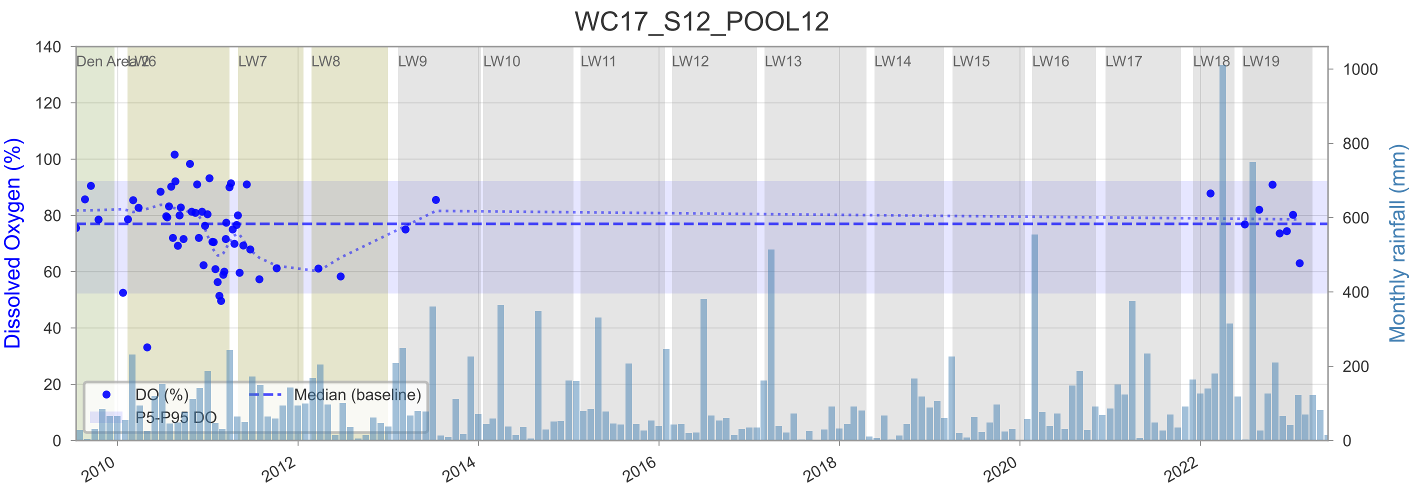


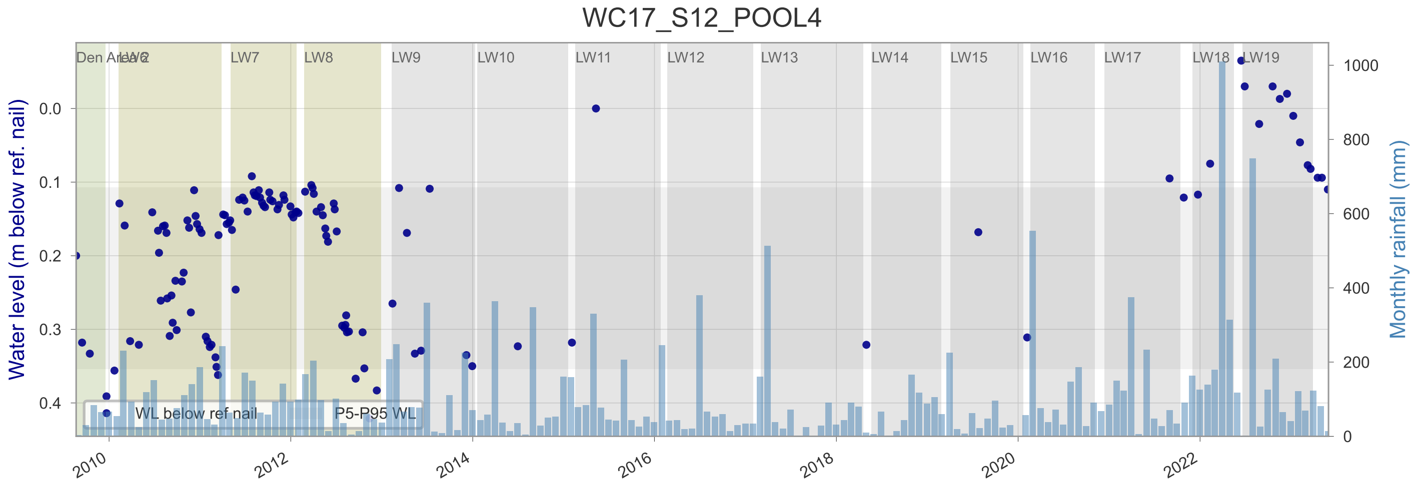
WC17_S12_POOL10
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

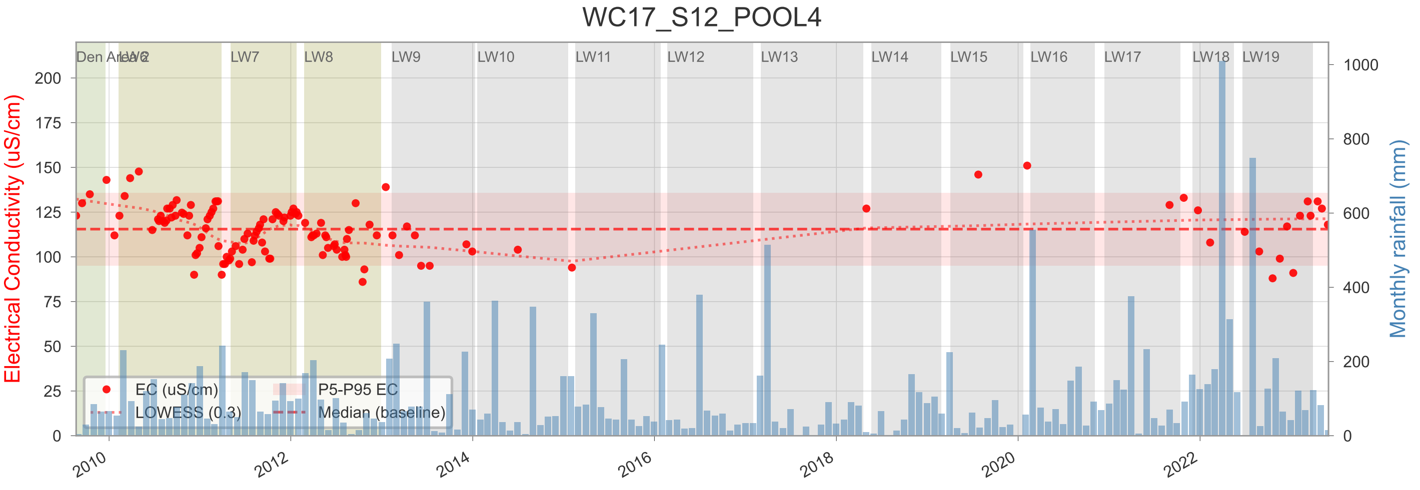

WC17_S12_POOL12
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

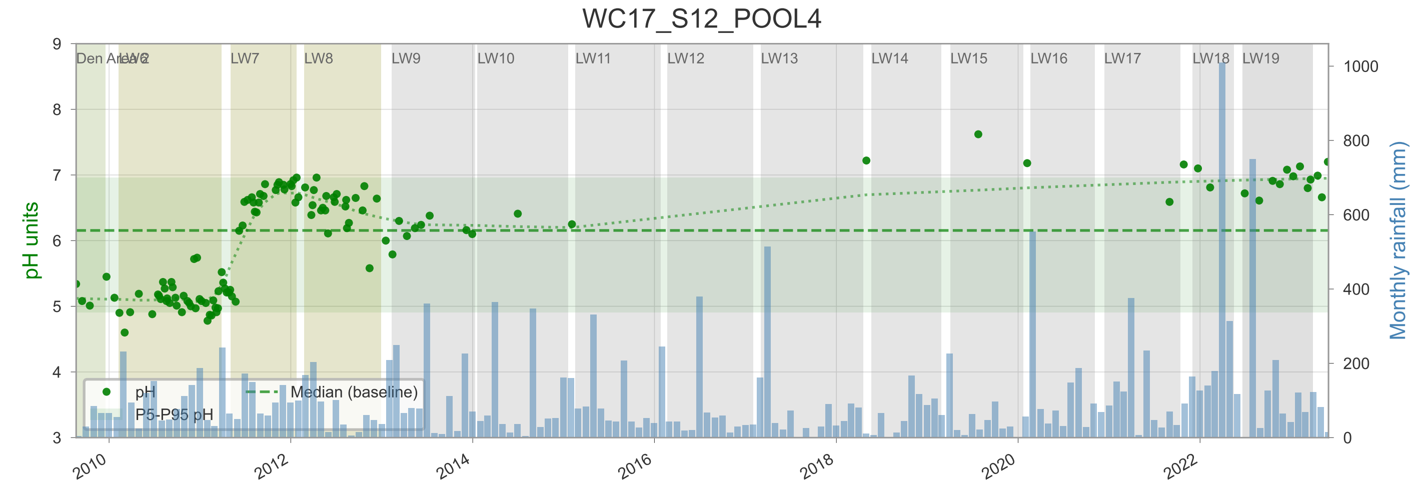

WC17_S12_POOL12
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

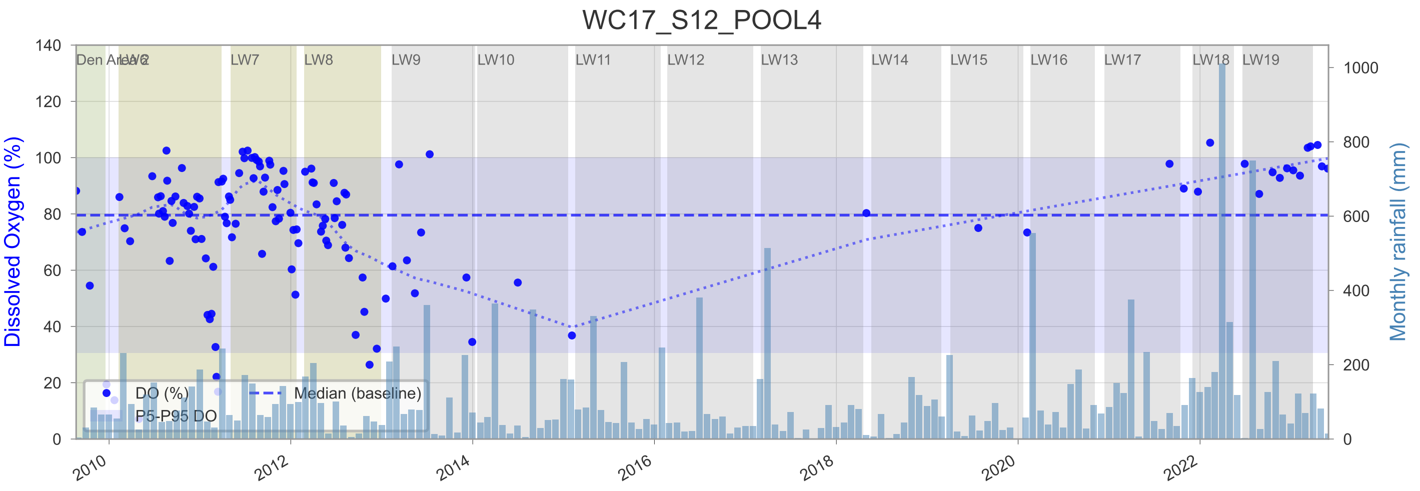

WC17_S12_POOL12
pH units
Monthly rainfall (mm)
Den Area LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

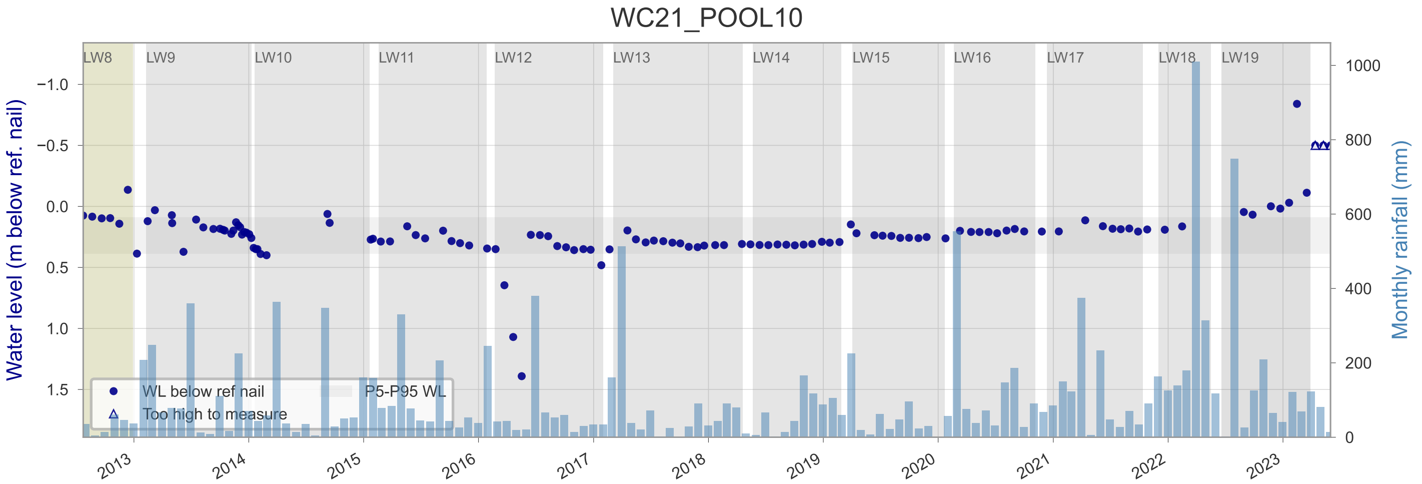

WC17_S12_POOL12
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

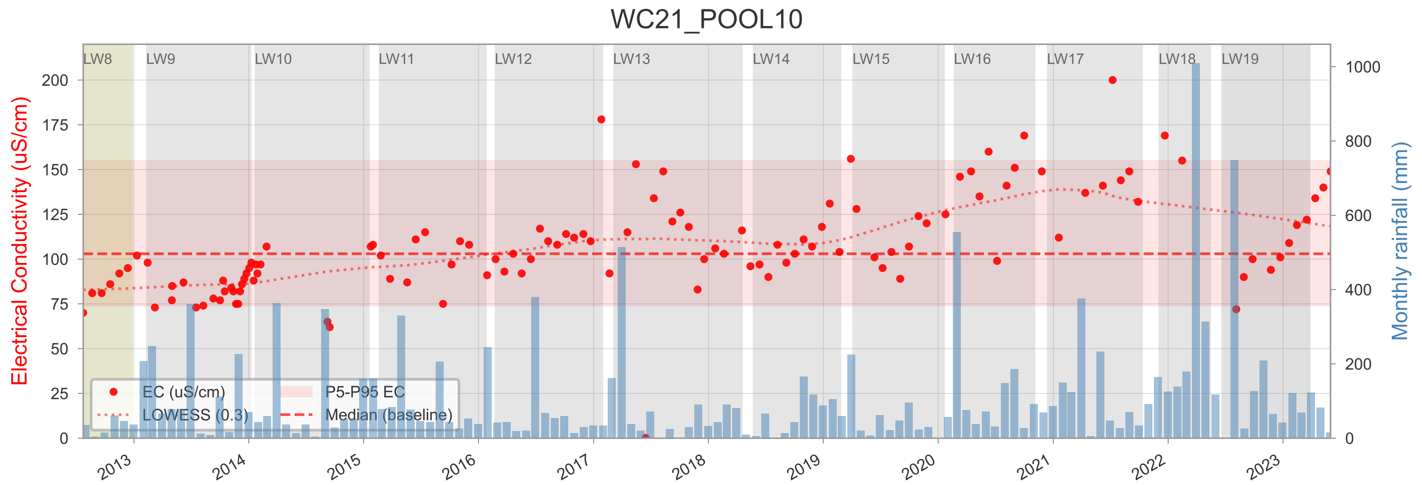

WC17_S12_POOL4
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL

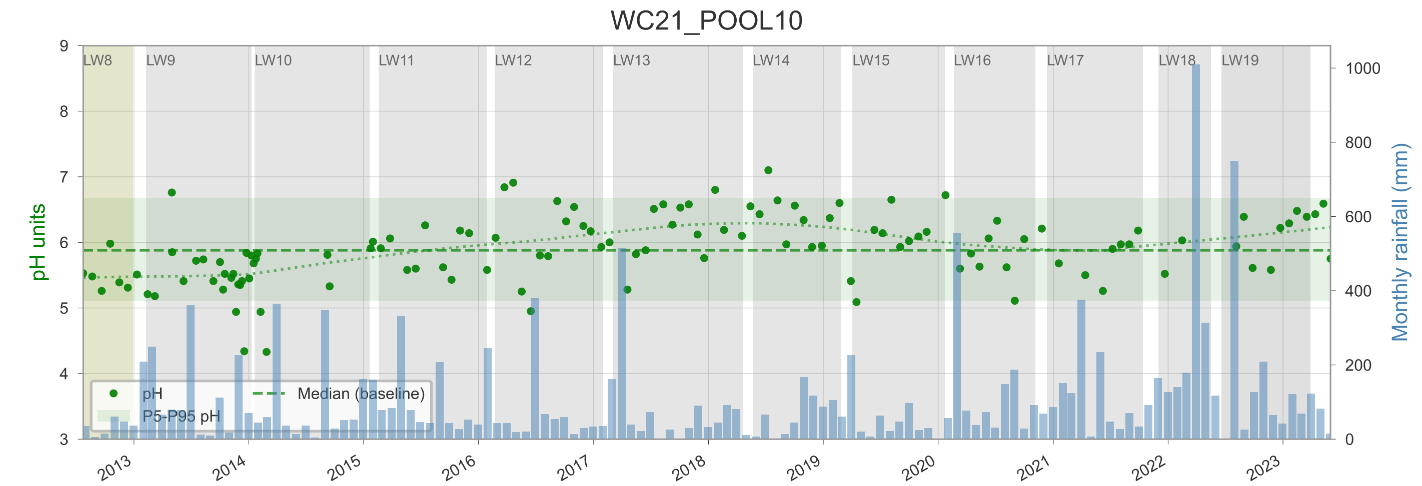

WC17_S12_POOL4
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

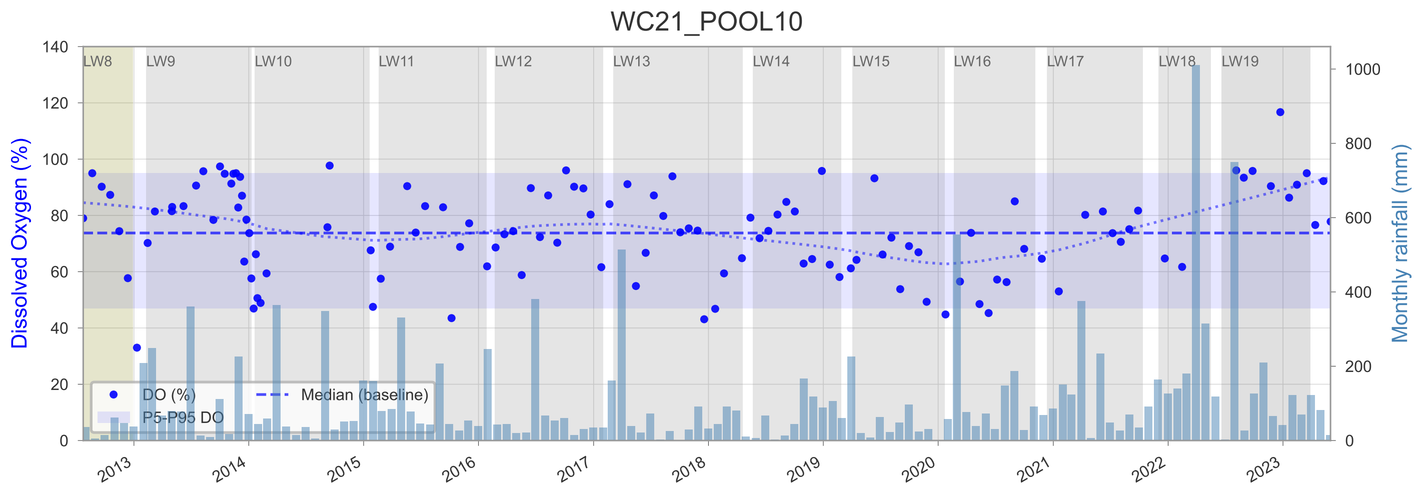

WC17_S12_POOL4
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

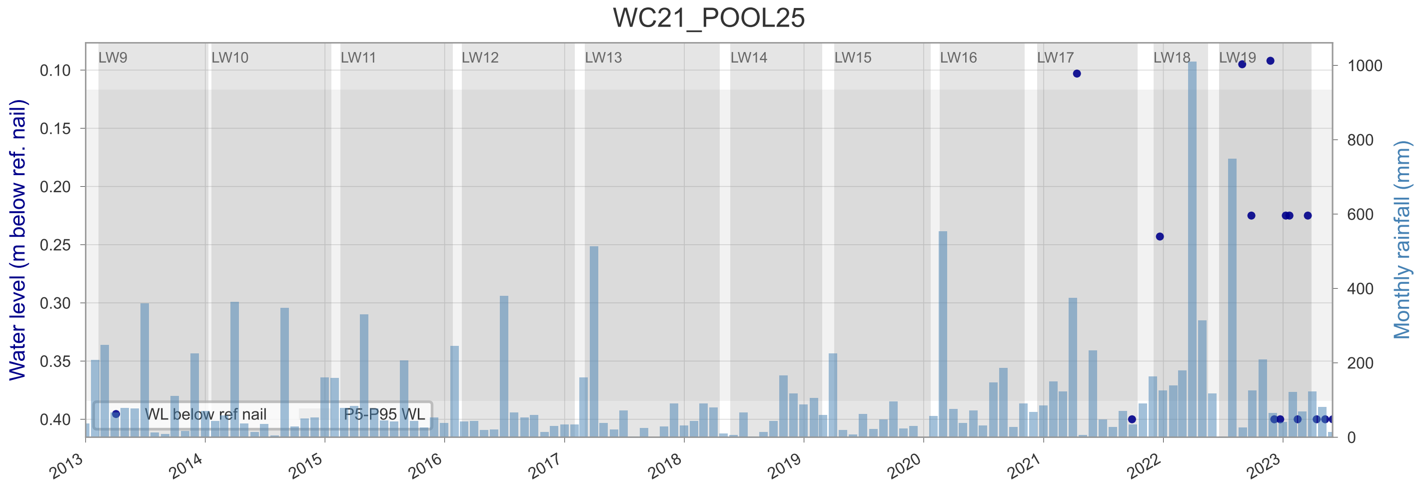

WC17_S12_POOL4
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

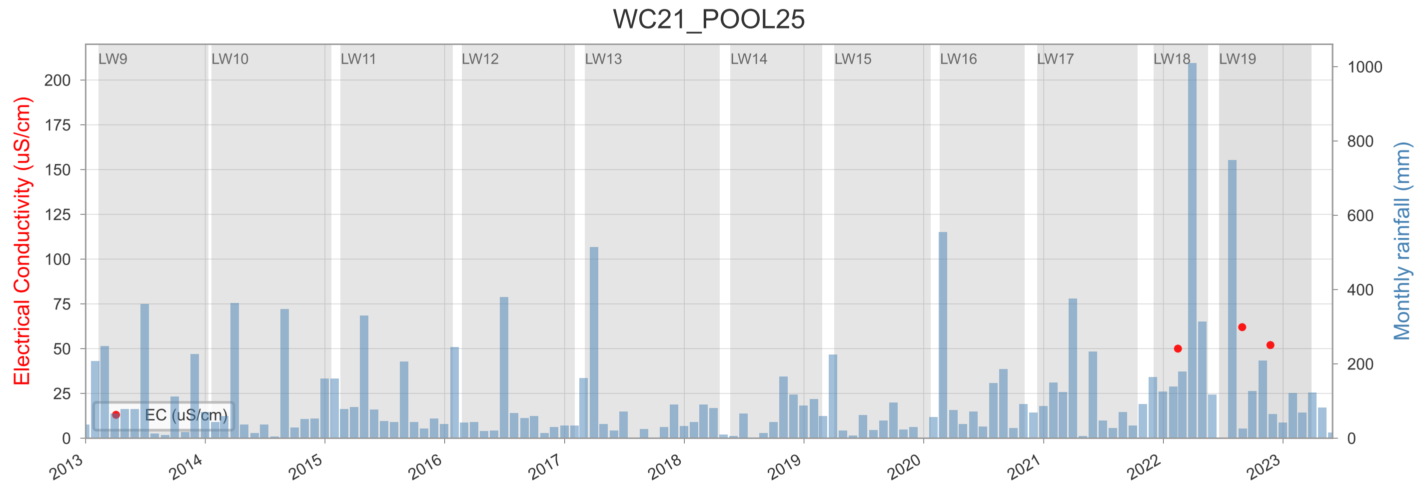

WC21_POOL10
Water level (m below ref. nail)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
Too high to measure
P5-P95 WL
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

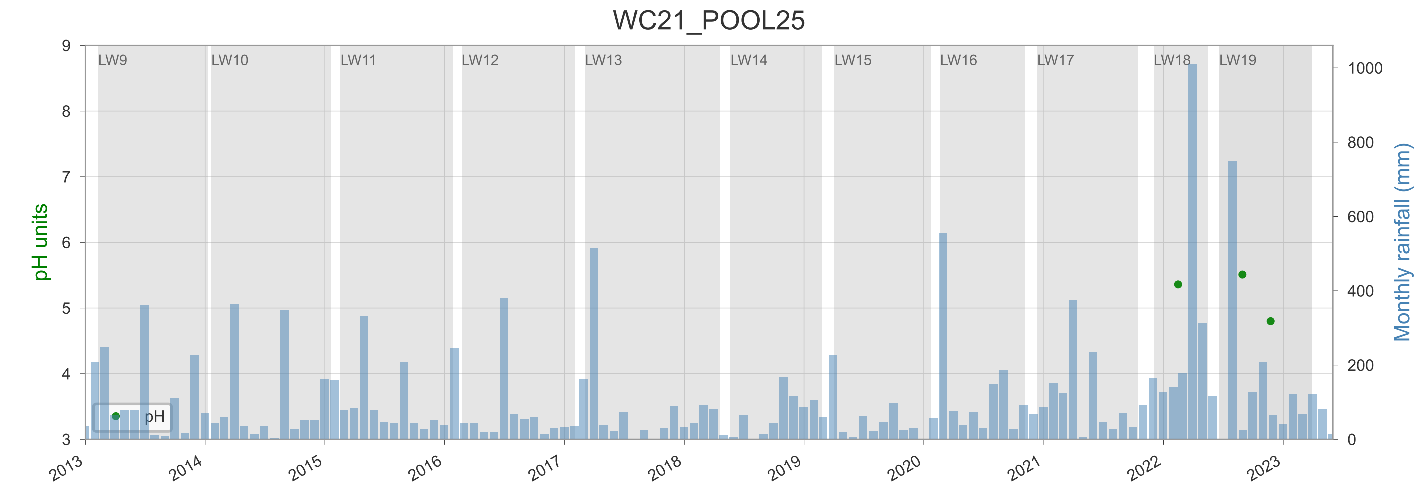

WC21_POOL10
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

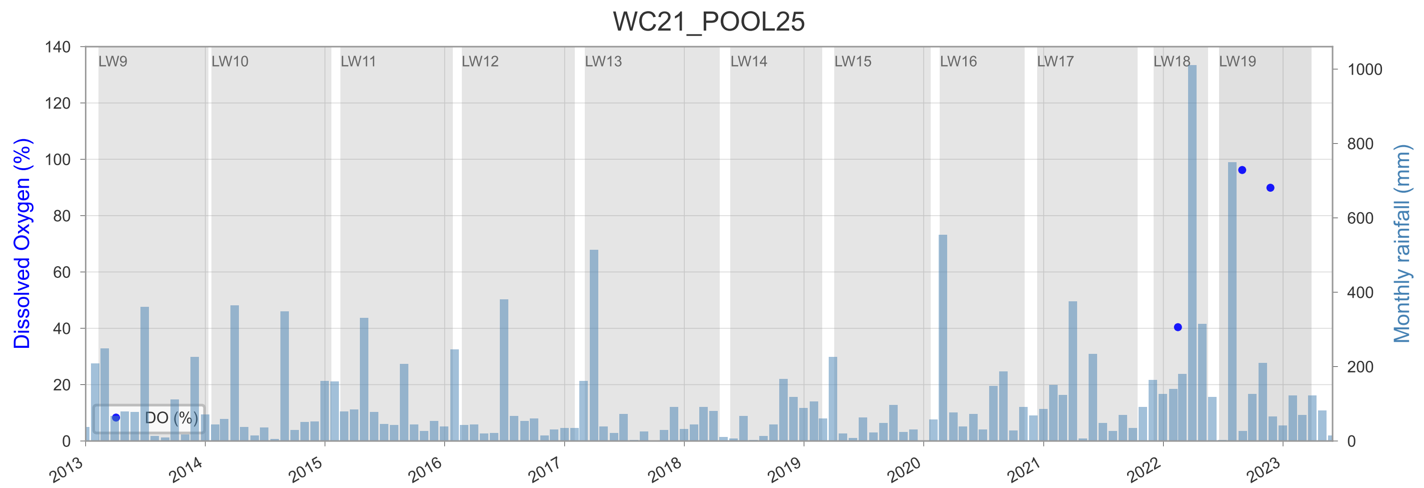

WC21_POOL10
pH units
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

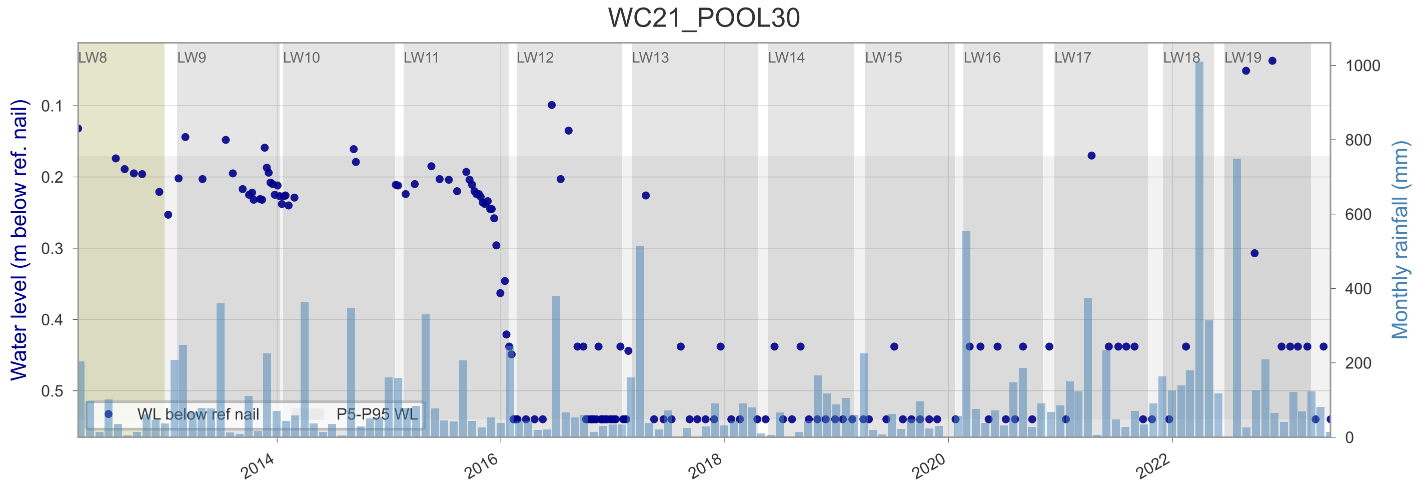

WC21_POOL10
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

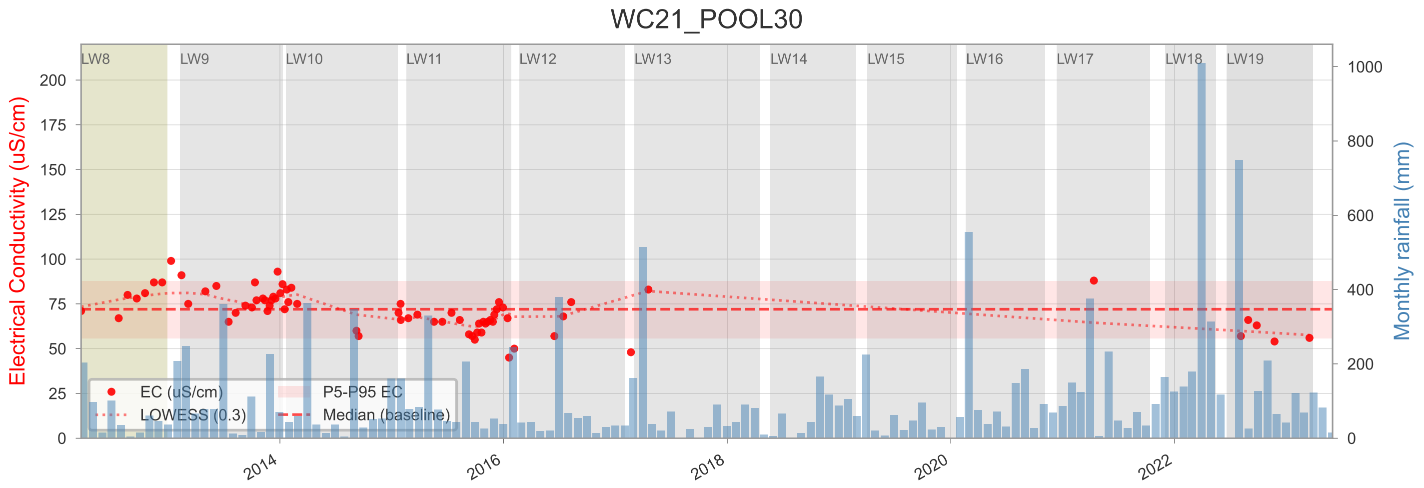

WC21_POOL25
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

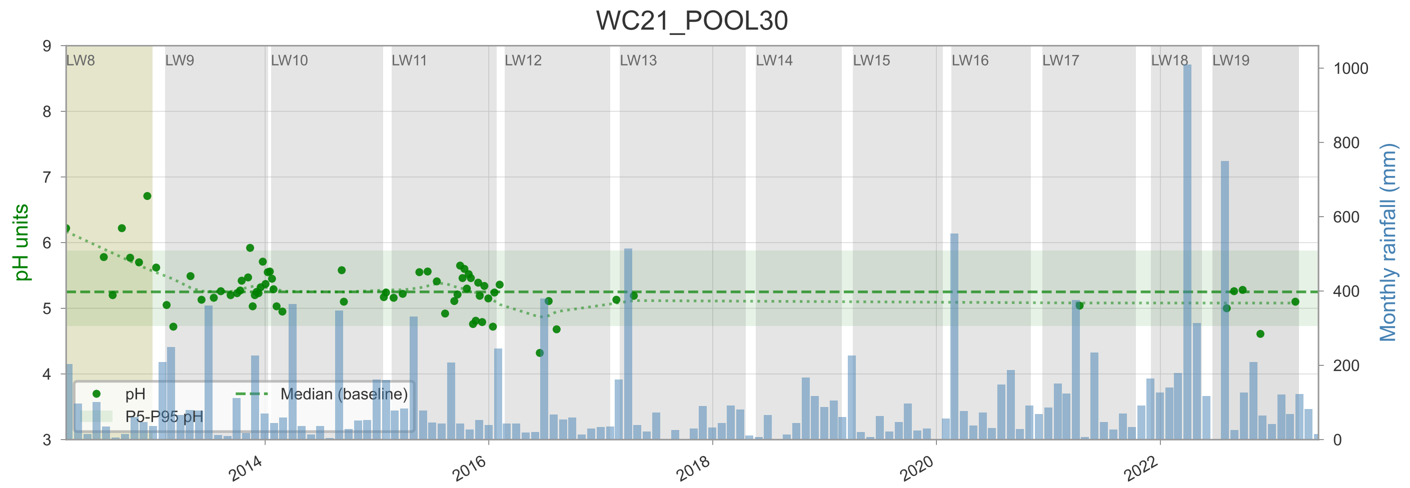

WC21_POOL25
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)

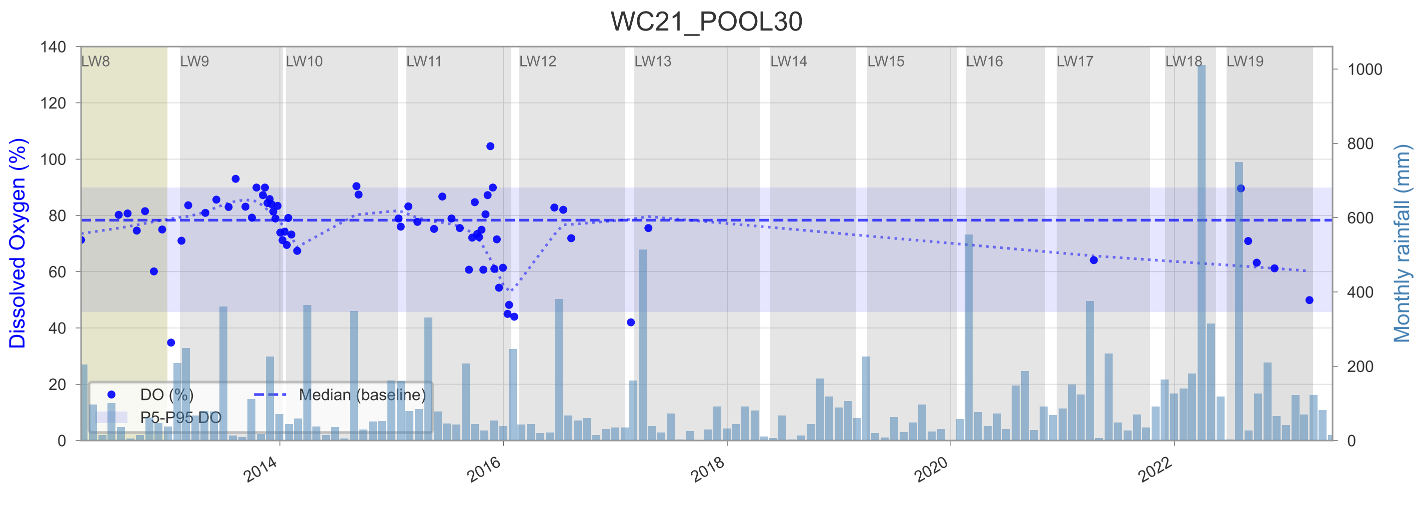

WC21_POOL25
pH units
Monthly rainfall (mm)
pH

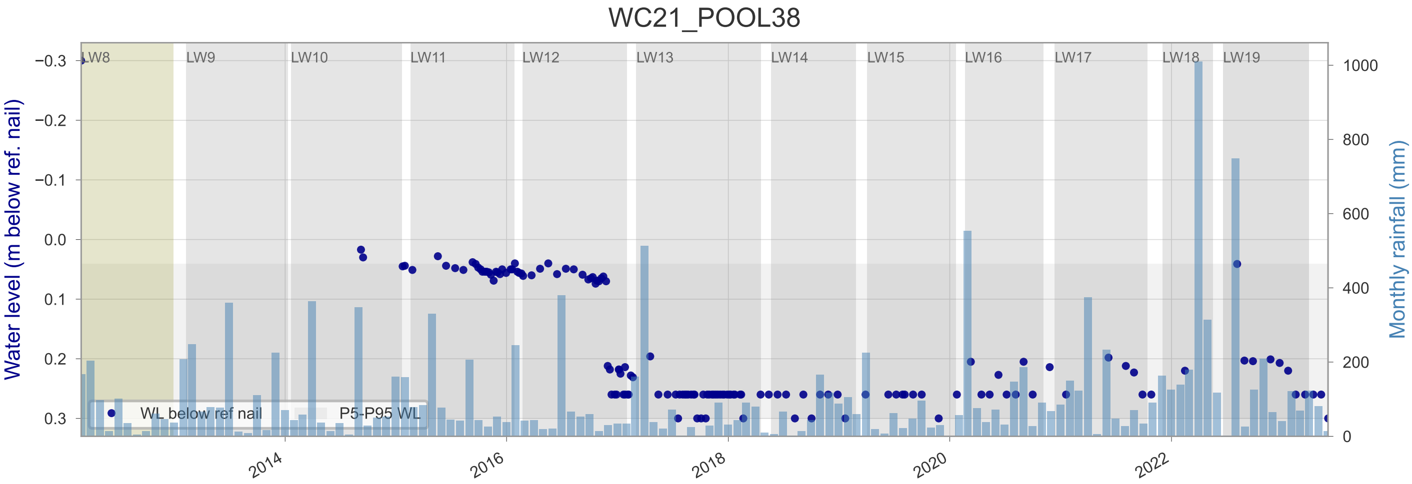

WC21_POOL25
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)

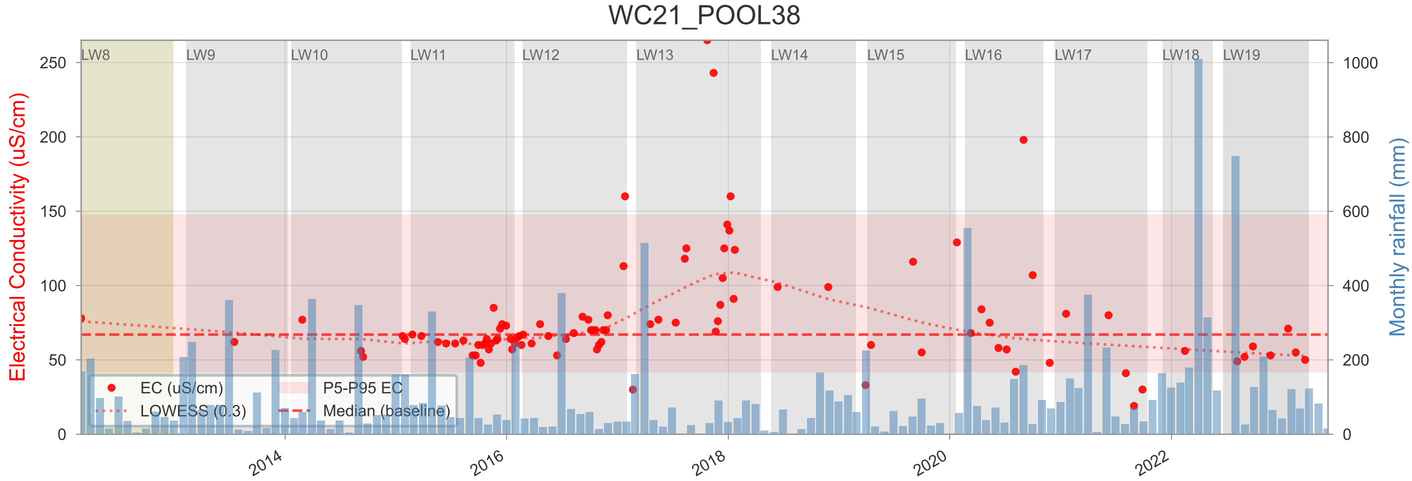

WC21_POOL30
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
2014 2016 2018 2020 2022

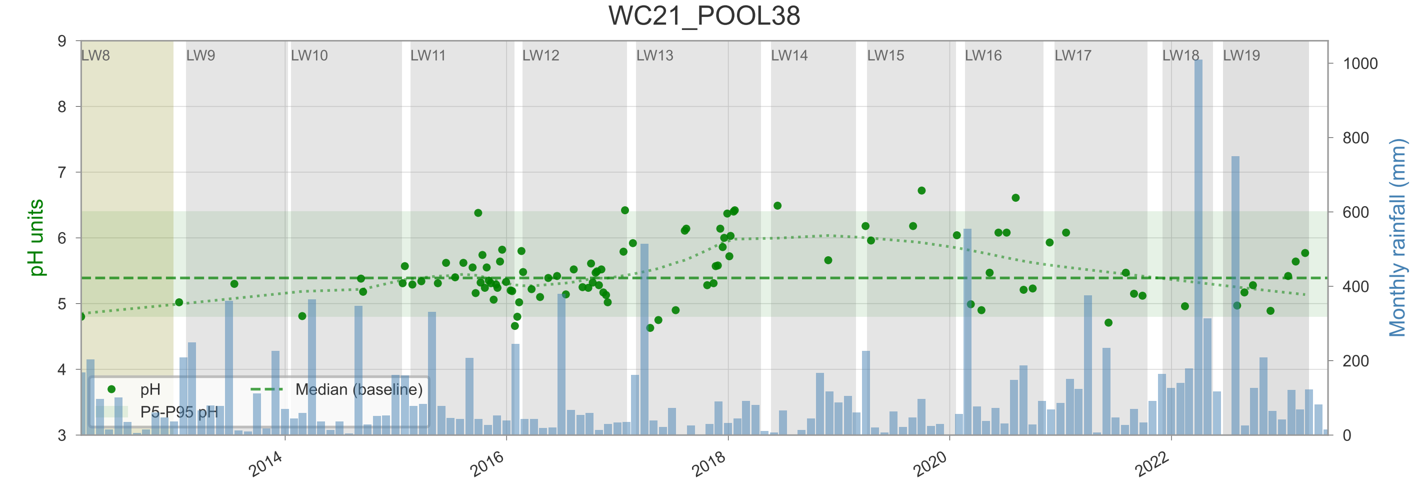

WC21_POOL30
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2014 2016 2018 2020 2022

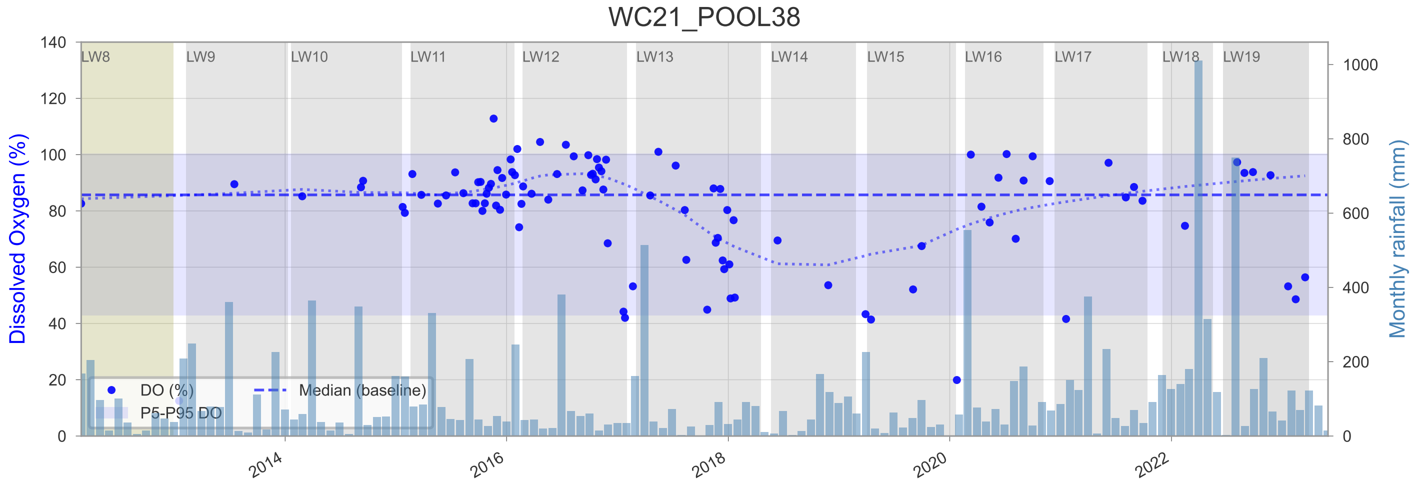

WC21_POOL30
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
2014 2016 2018 2020 2022

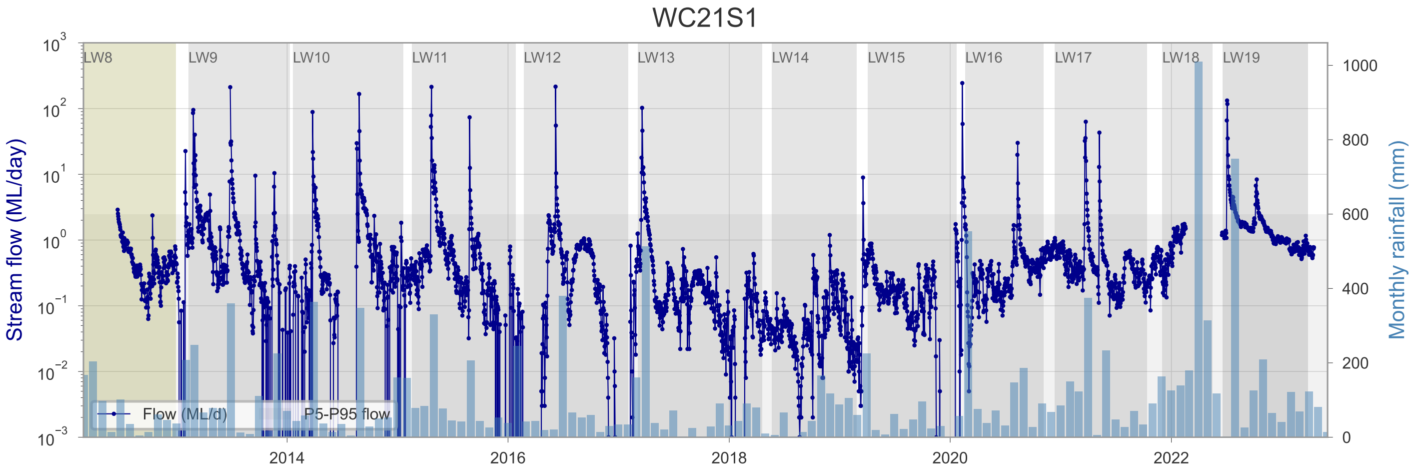

WC21_POOL30
LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
2014 2016 2018 2020 2022

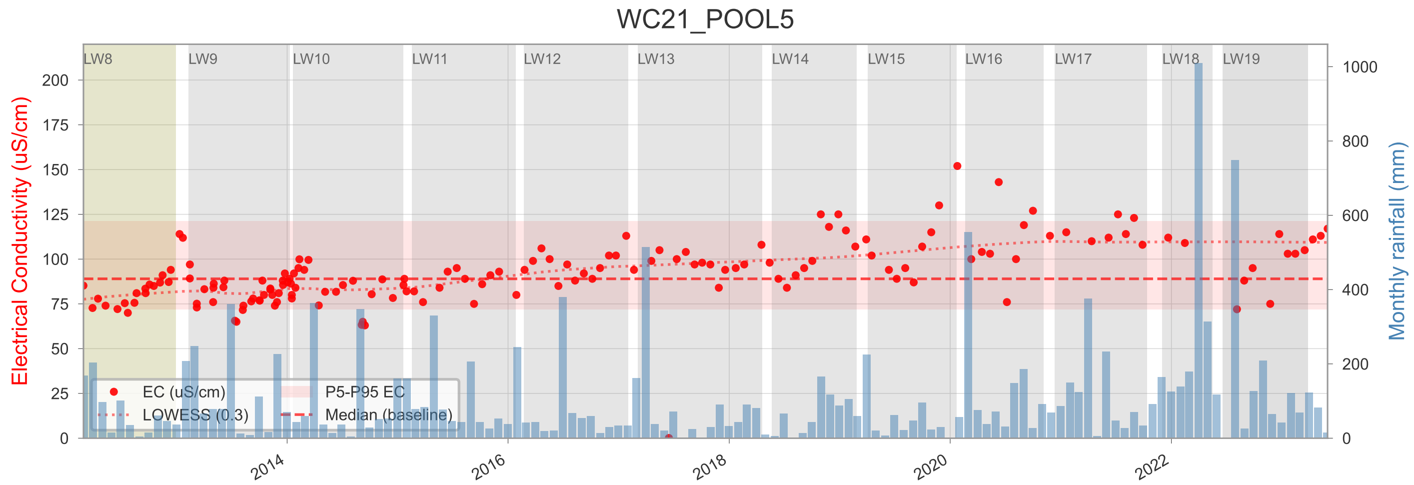

WC21_POOL38
Water level (m below ref. nail)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
2014
2016
2018
2020
2022

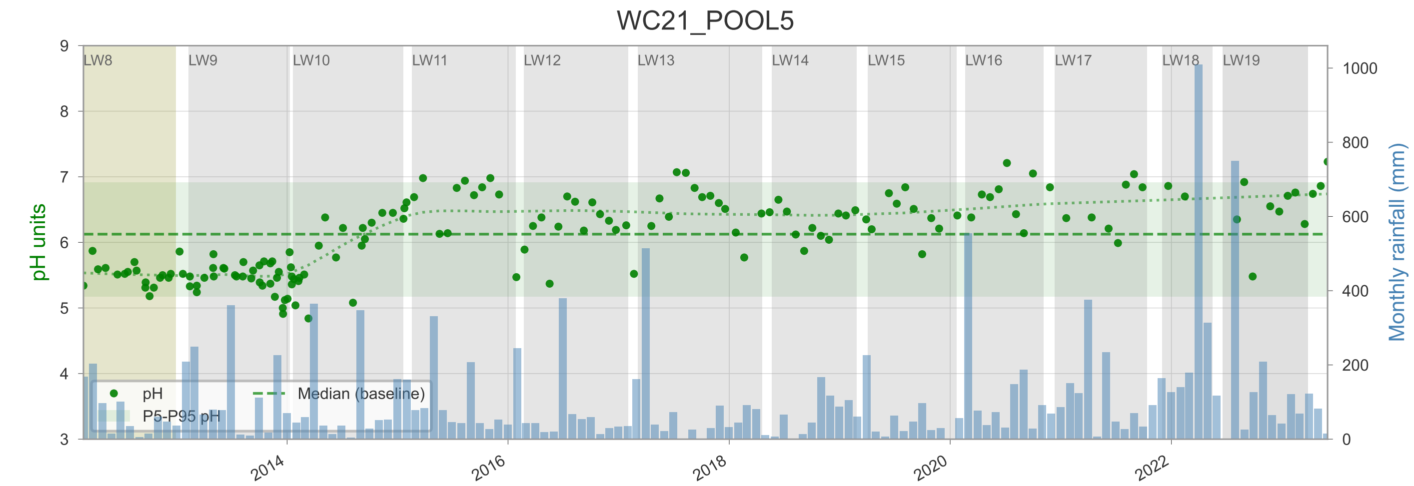

WC21_POOL38
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2014
2016
2018
2020
2022

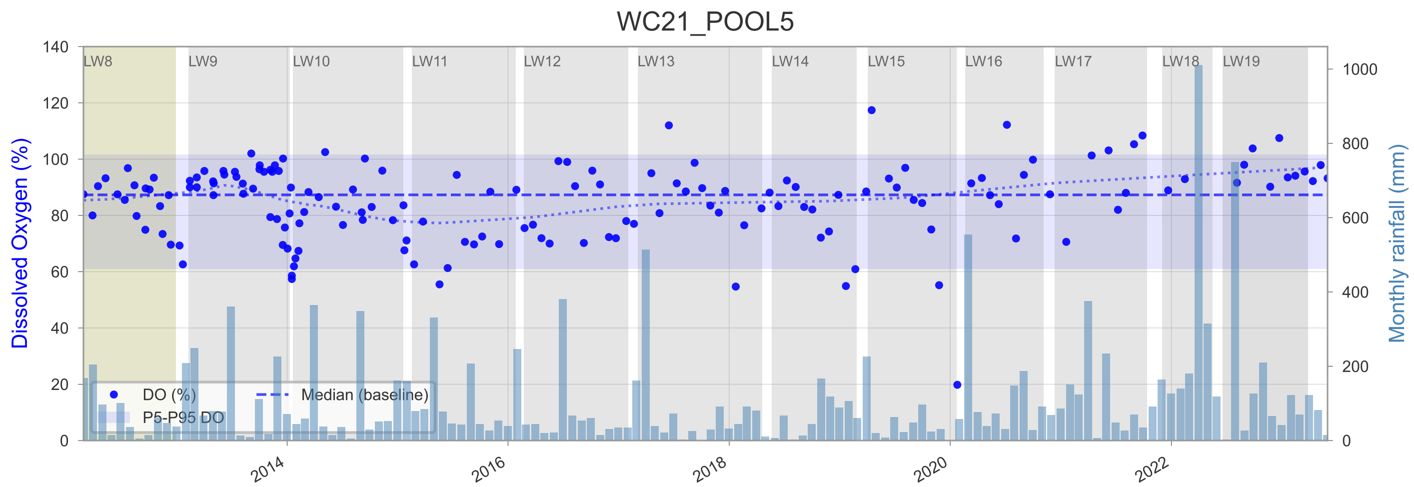

WC21_POOL38
pH units
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
2014
2016
2018
2020
2022

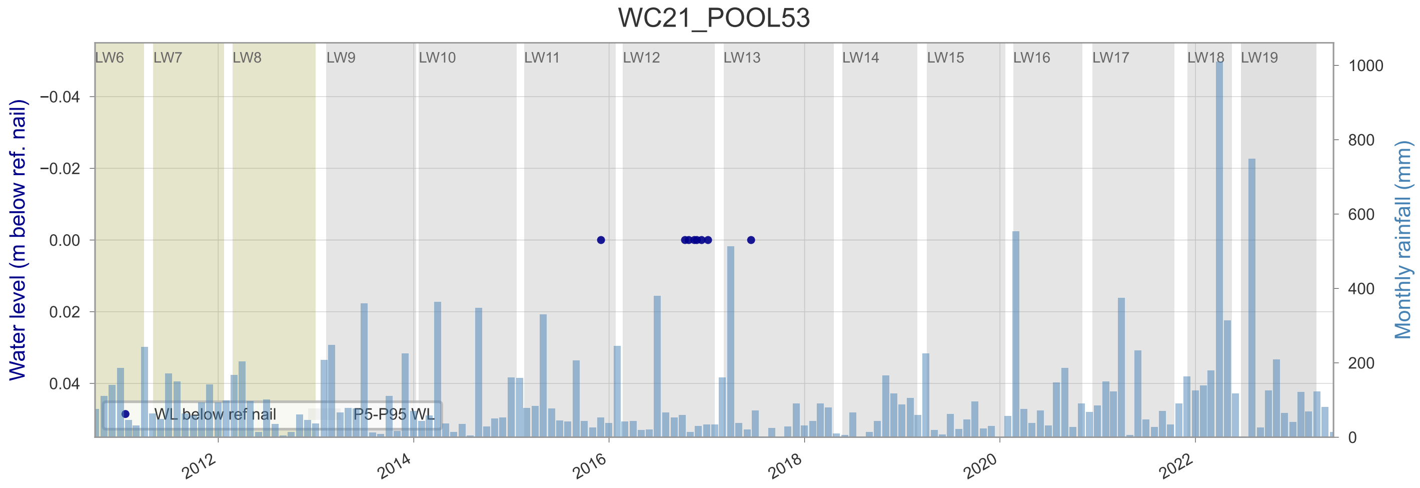

WC21_POOL38
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
2014
2016
2018
2020
2022


WC21S1
Stream flow (ML/day)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Flow (ML/d)
P5-P95 flow
2014
2016
2018
2020
2022

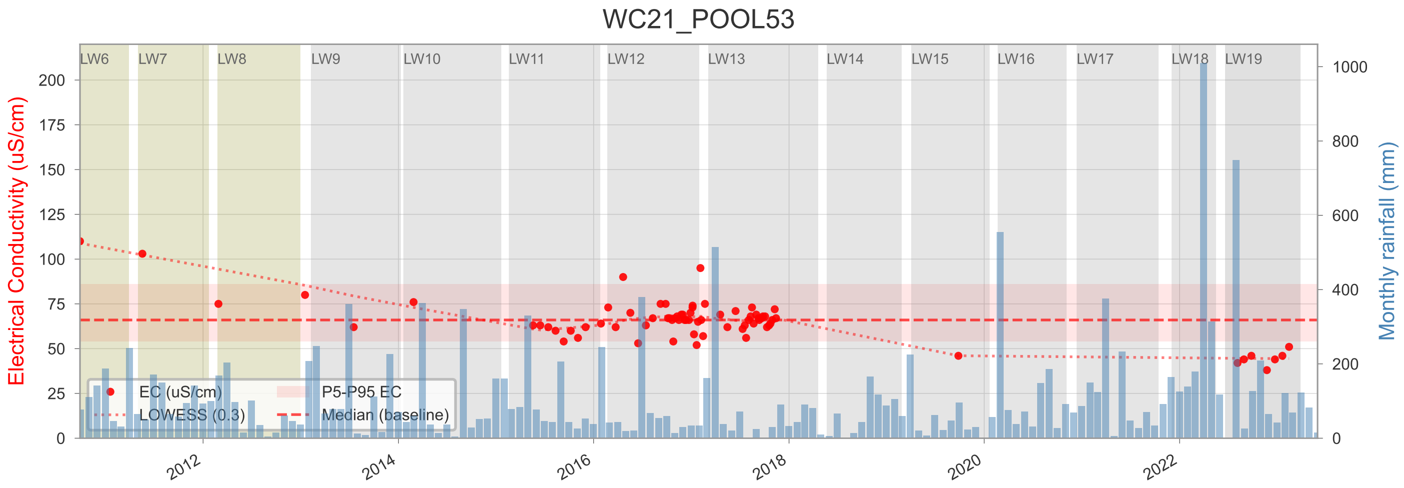

WC21_POOL5
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2014
2016
2018
2020
2022


WC21_POOL5
pH units
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
2014
2016
2018
2020
2022

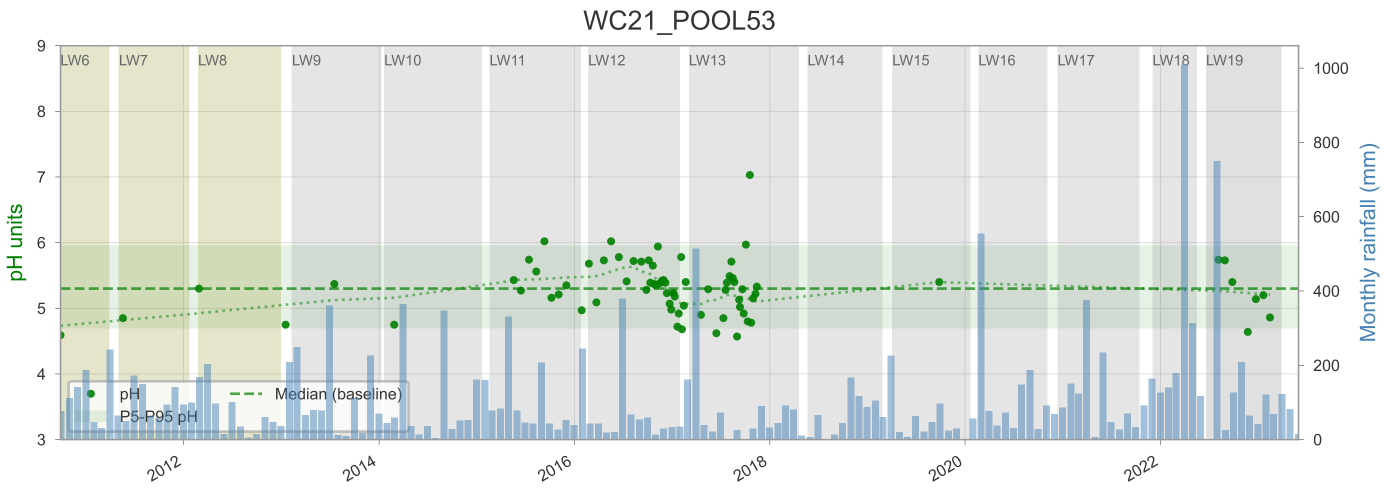

WC21_POOL5
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
2014
2016
2018
2020
2022



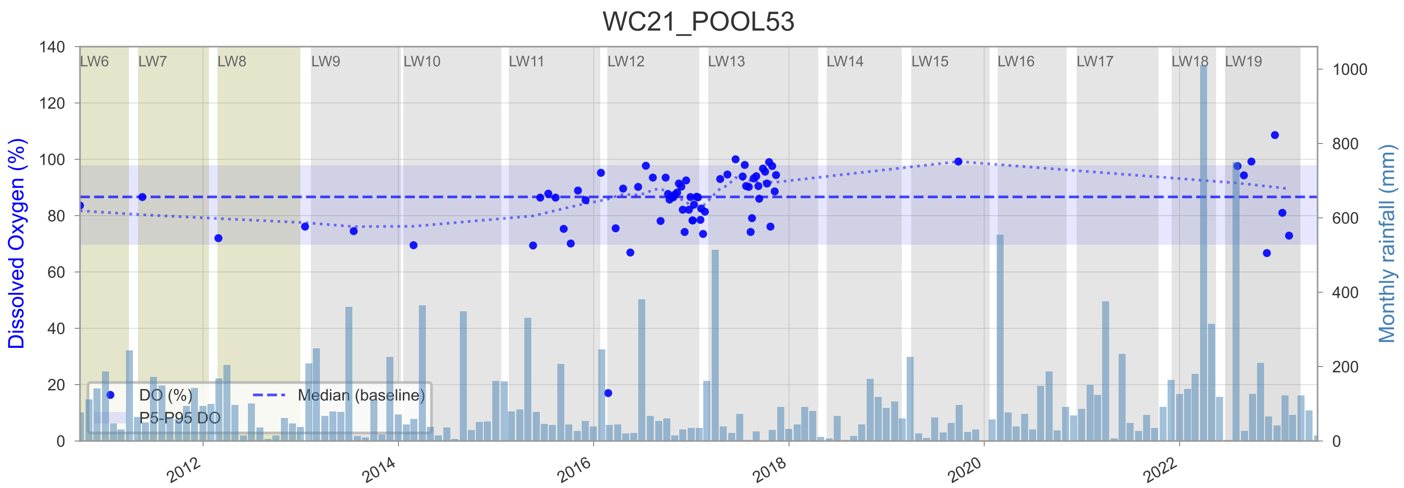
WC21_POOL53
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL



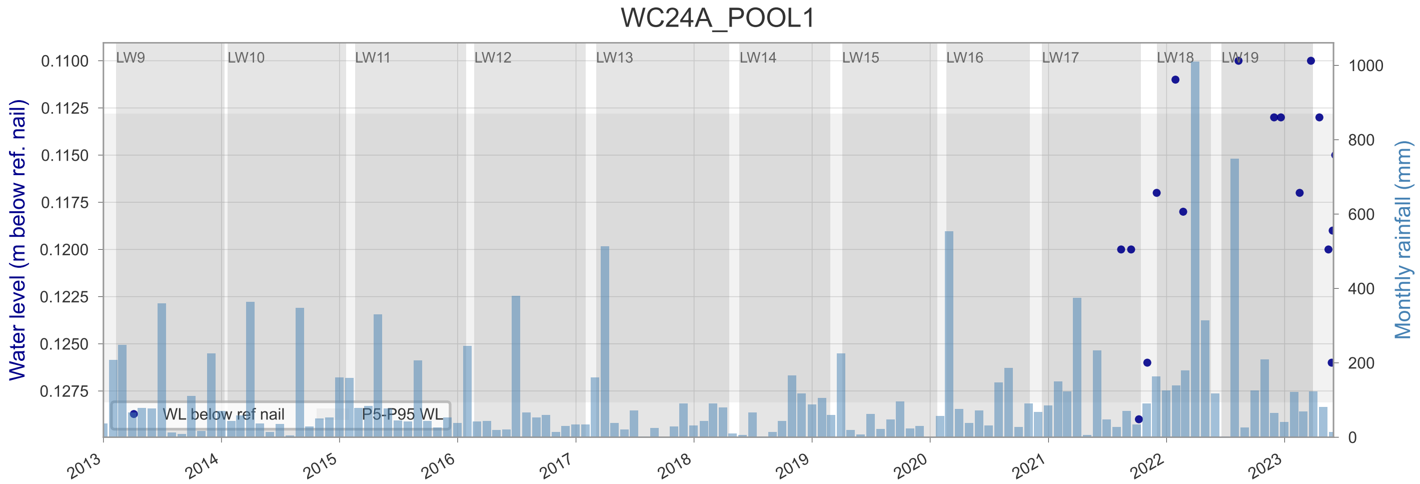
WC21_POOL53
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

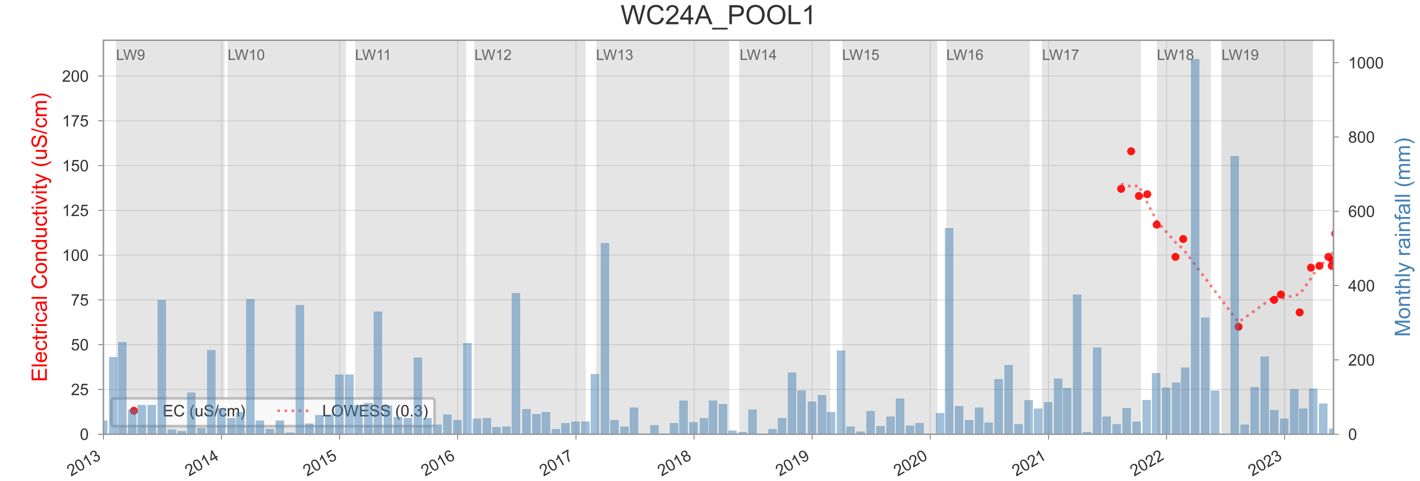


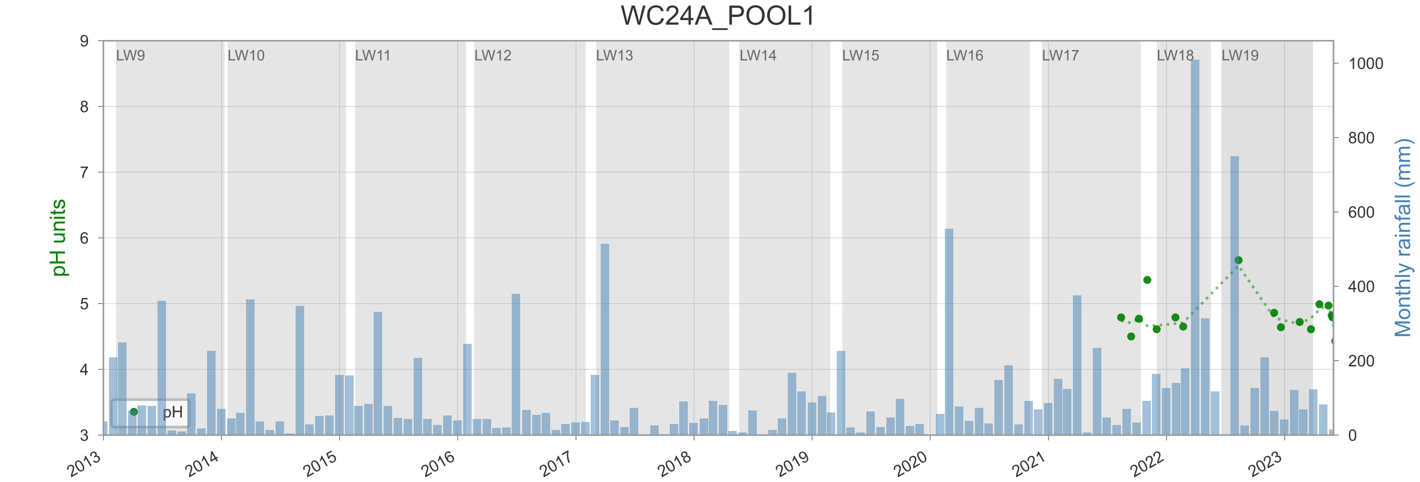
WC21_POOL53
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

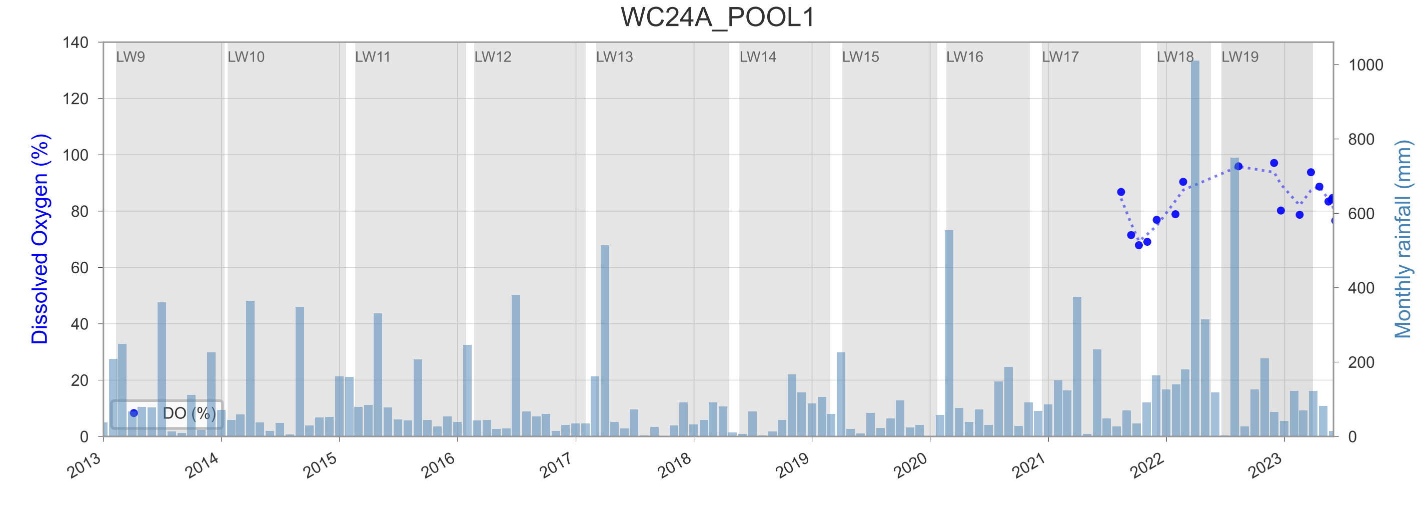


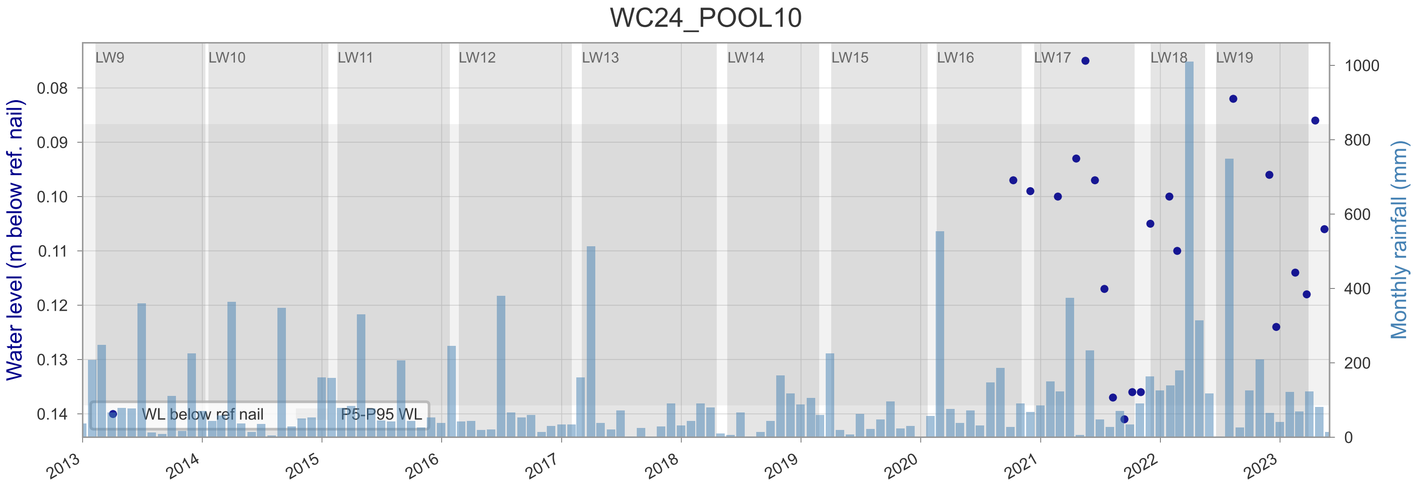
WC21_POOL53
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

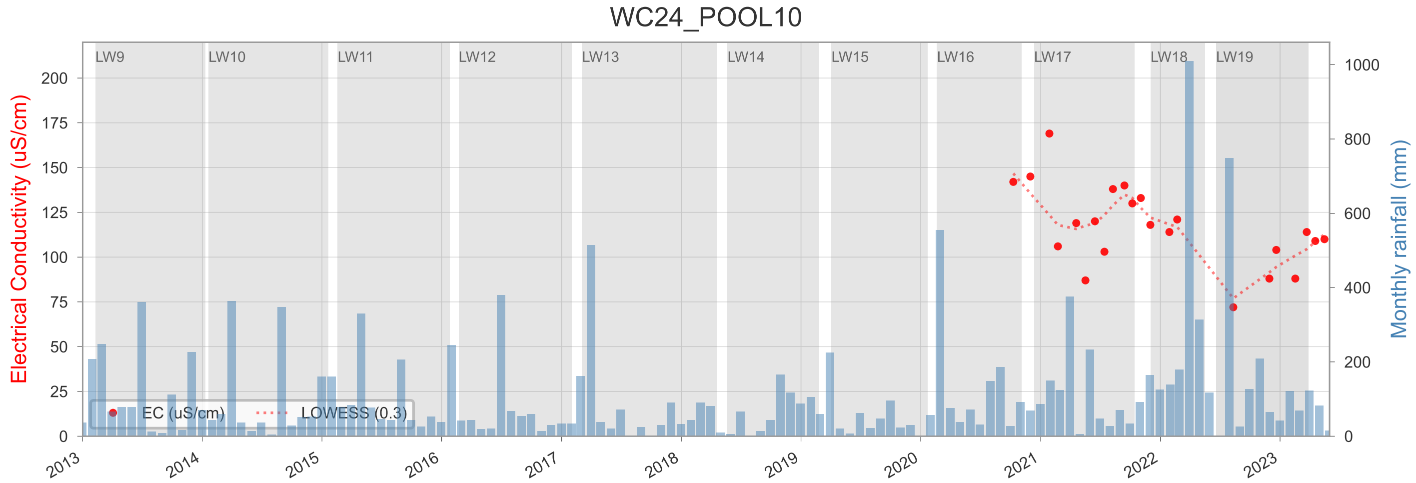

WC24A_POOL1
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
WL below ref nail
P5-P95 WL
0.1100 0.1125 0.1150 0.1175 0.1200 0.1225 0.1250 0.1275
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

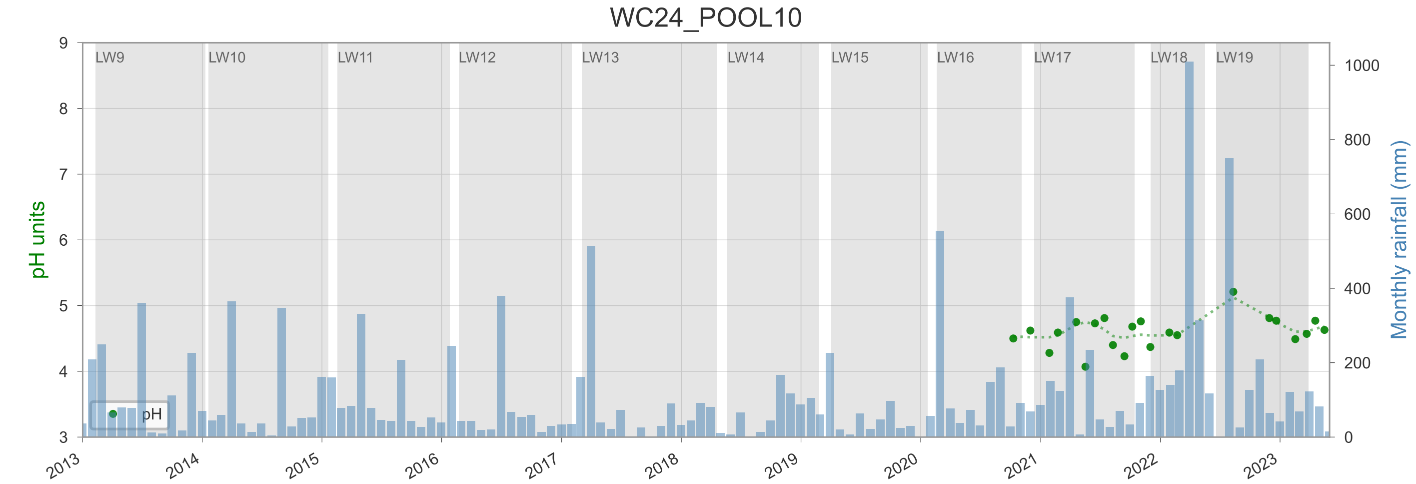

WC24A_POOL1
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
EC (uS/cm)
LOWESS (0.3)
0 25 50 75 100 125 150 175 200
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

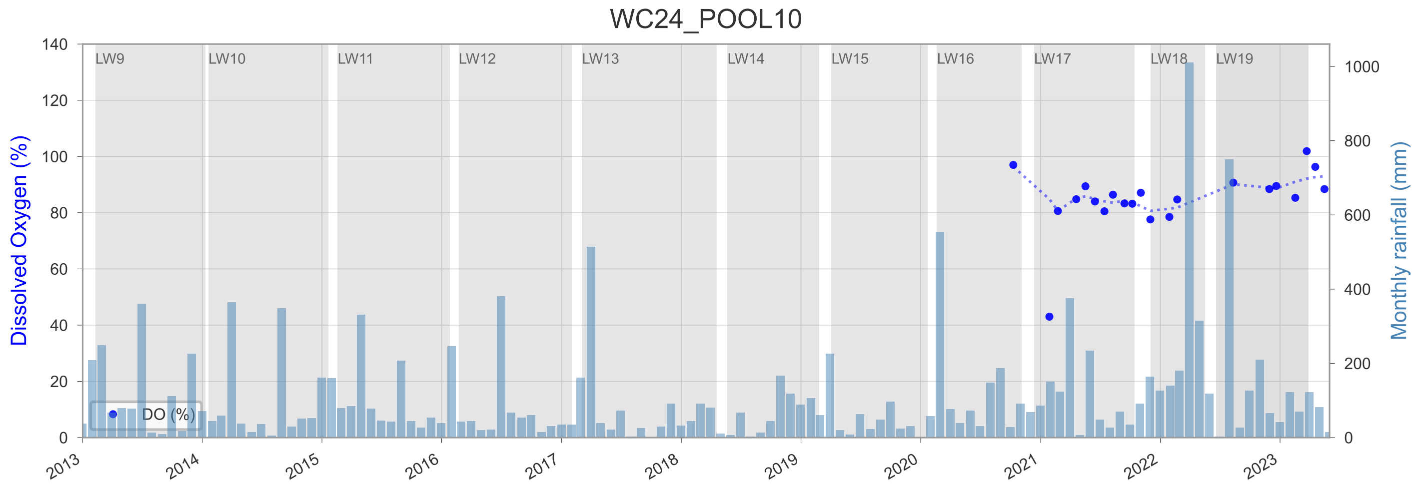

WC24A_POOL1
pH units
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH
3 4 5 6 7 8 9
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

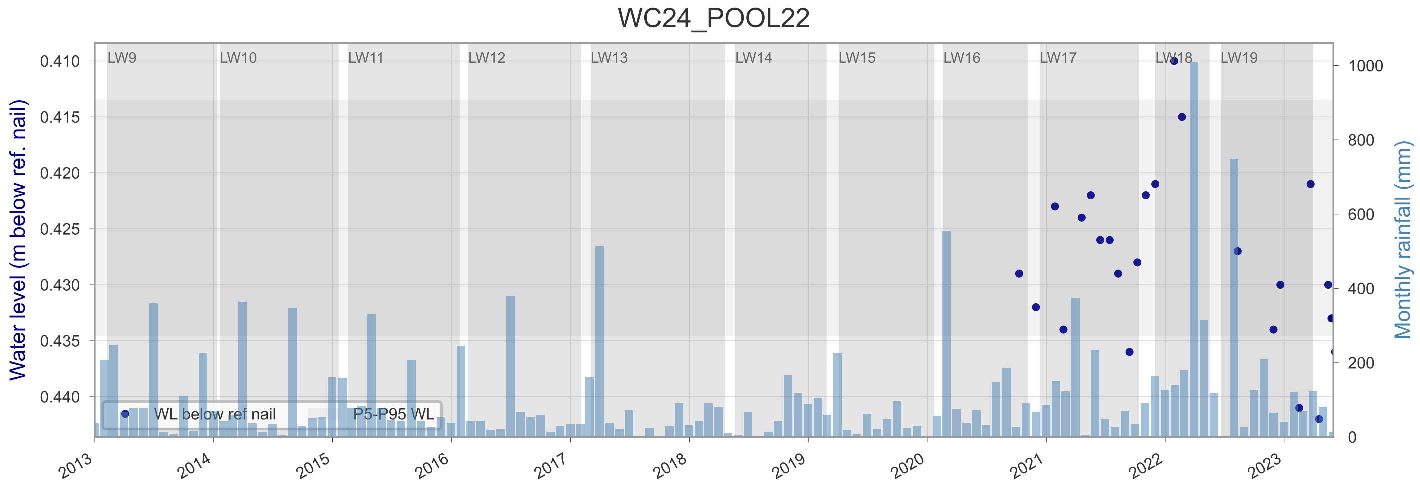

WC24A_POOL1
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
DO (%)
0 20 40 60 80 100 120 140
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

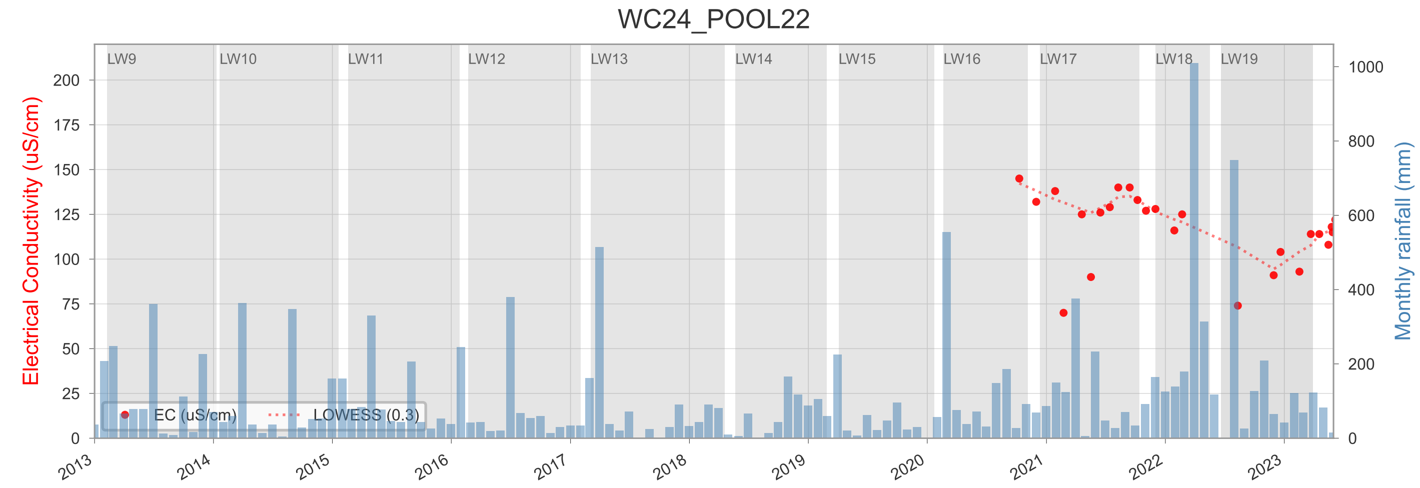

WC24_POOL10
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
0.08
0.09
0.10
0.11
0.12
0.13
0.14
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

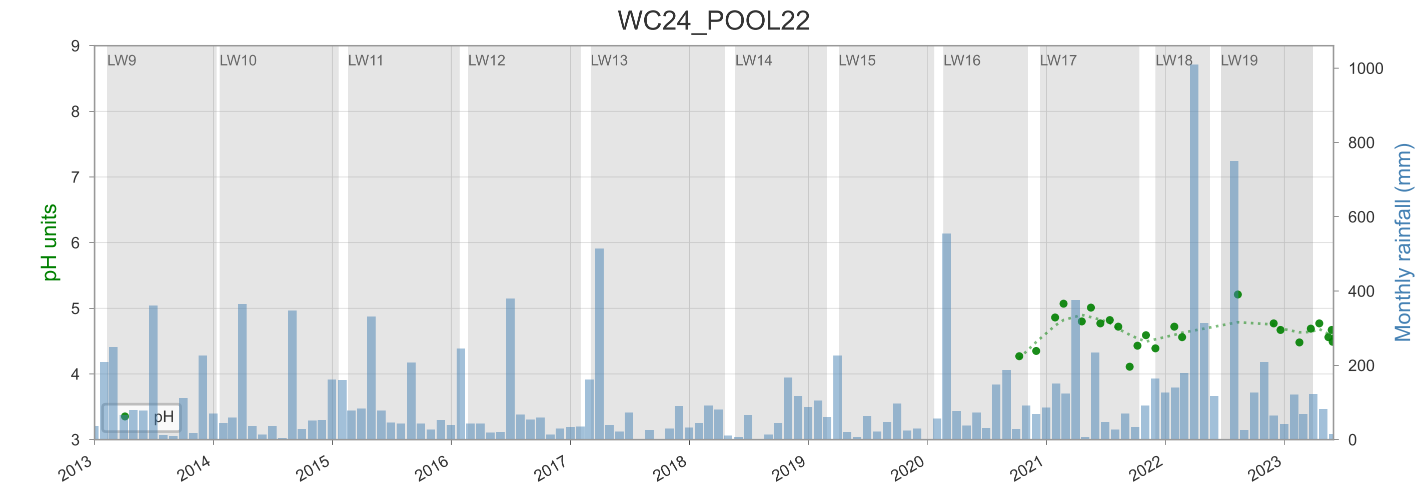

WC24_POOL10
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

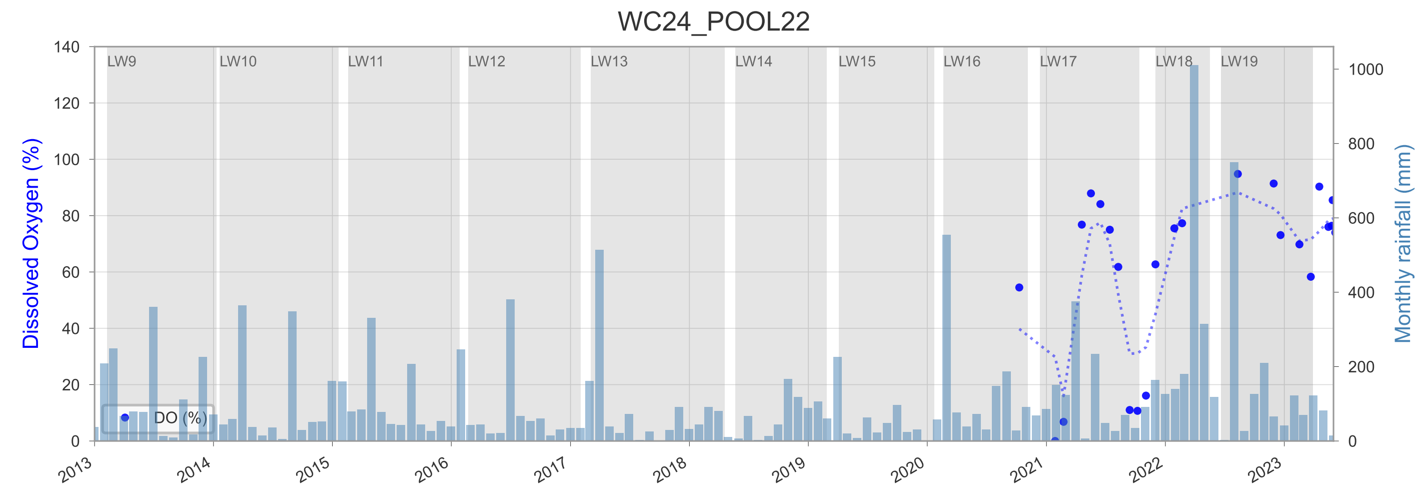

WC24_POOL10
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

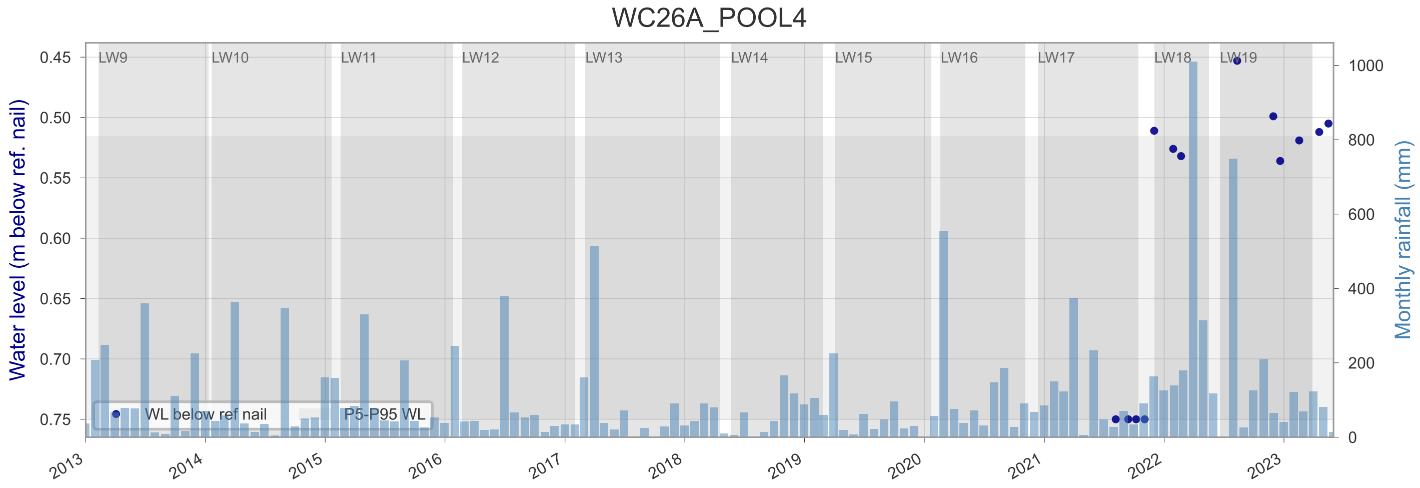

WC24_POOL10
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

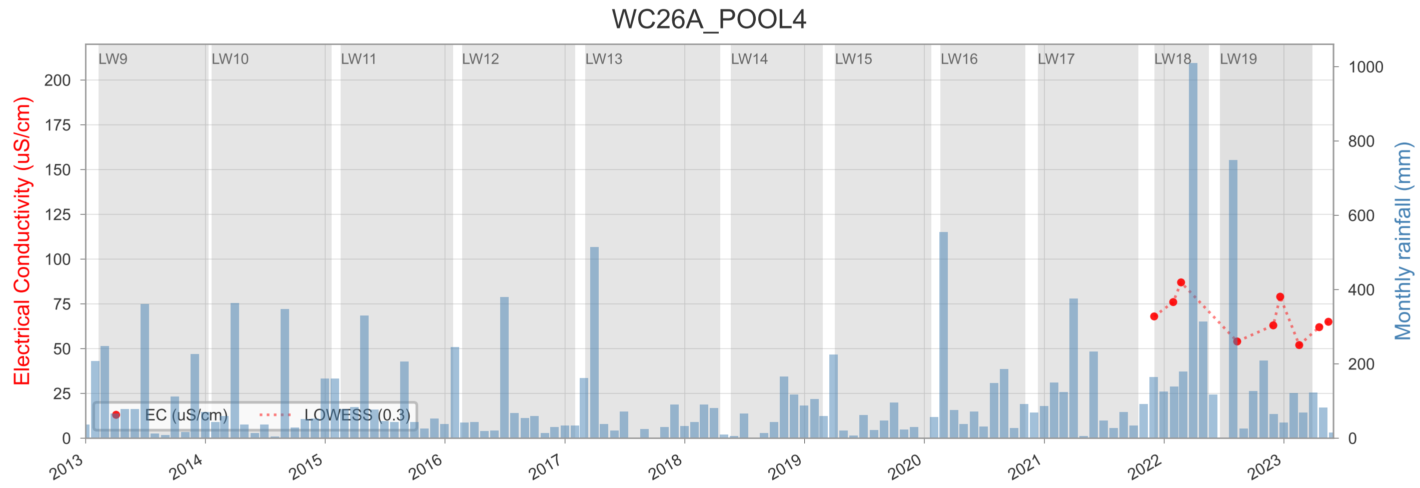

WC24_POOL22
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

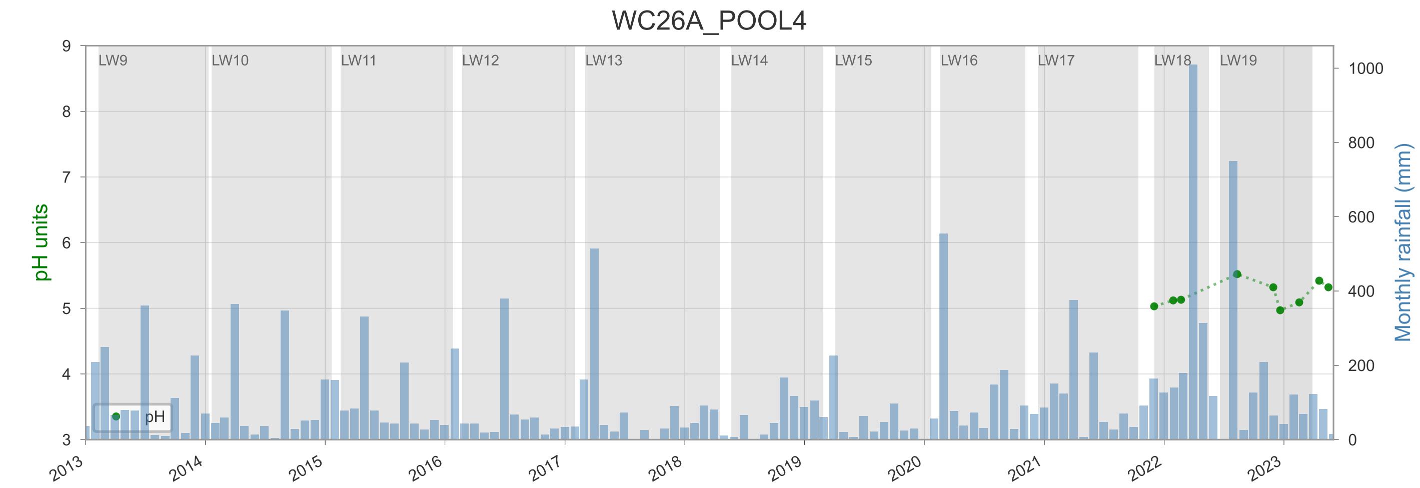

WC24_POOL22
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)

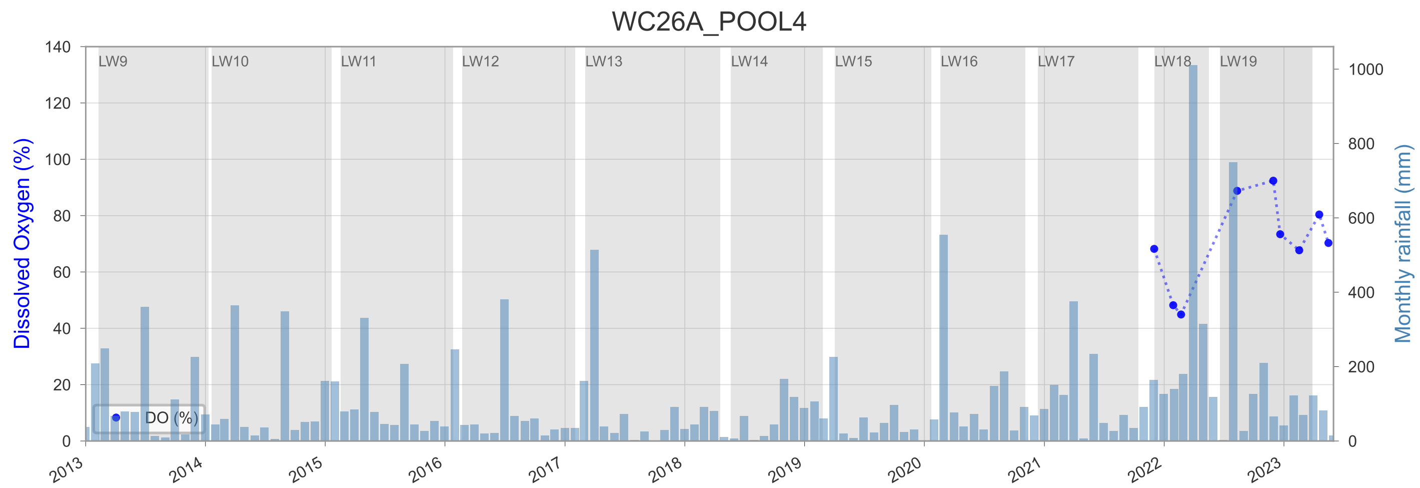

WC24_POOL22
pH units
Monthly rainfall (mm)
pH

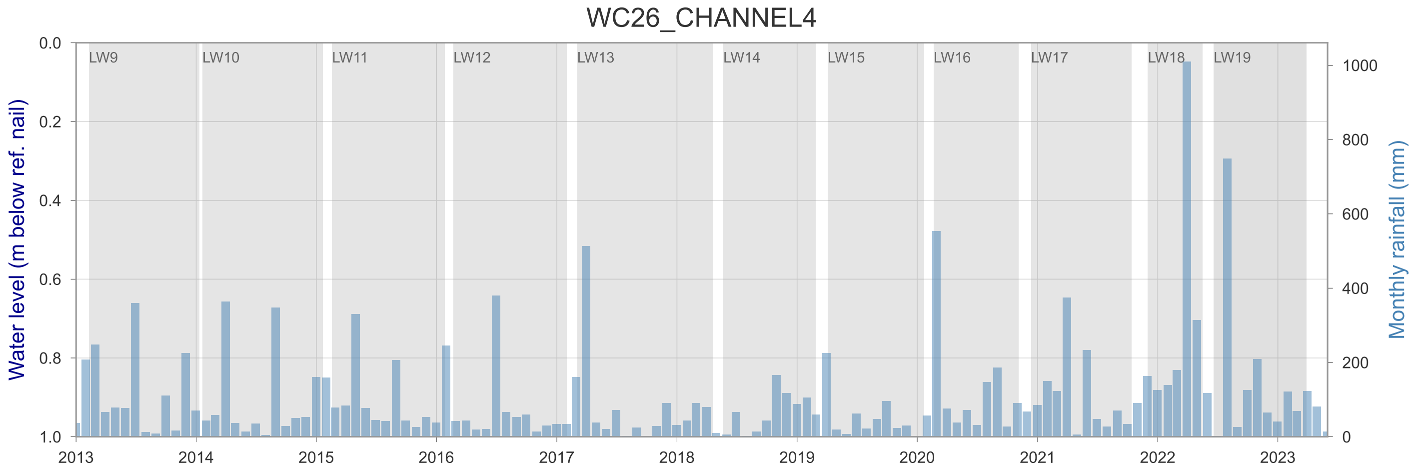

WC24_POOL22
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)

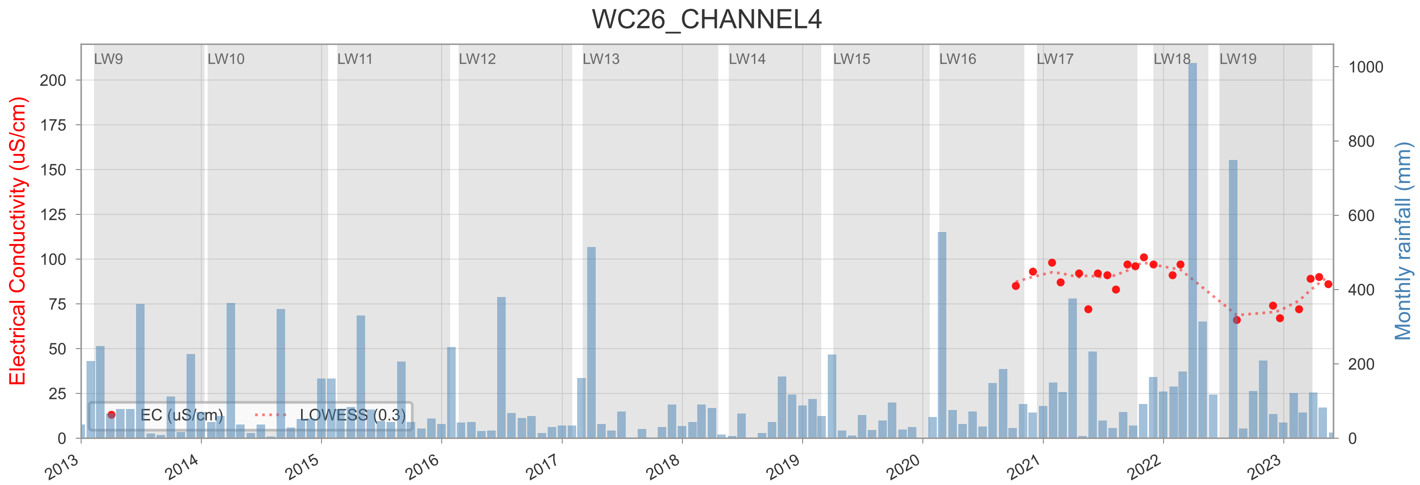

WC26A_POOL4
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

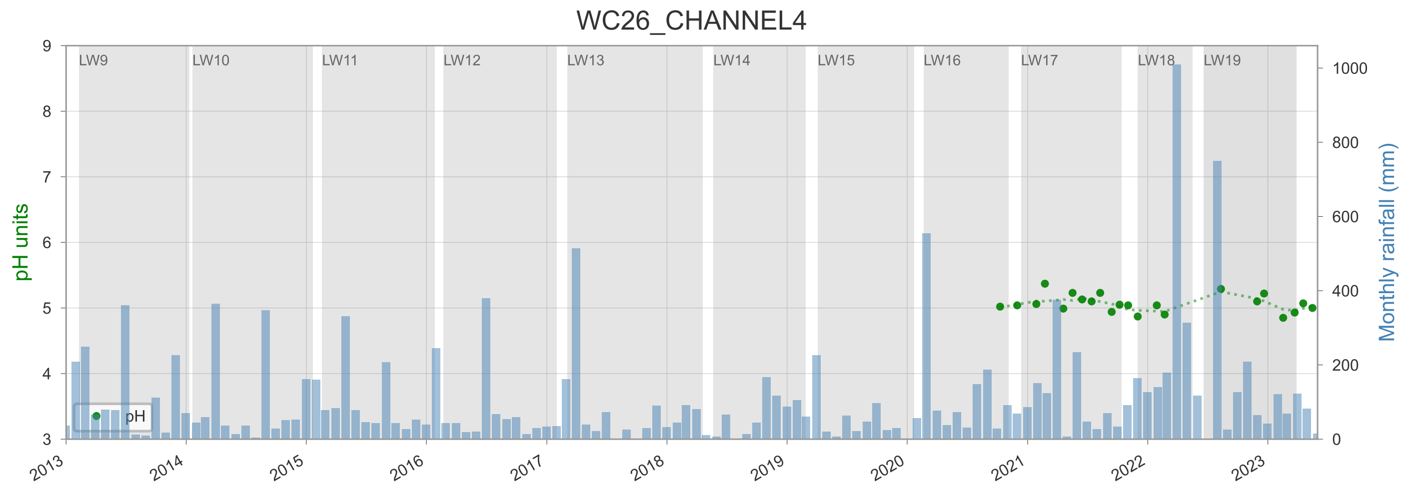

WC26A_POOL4
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

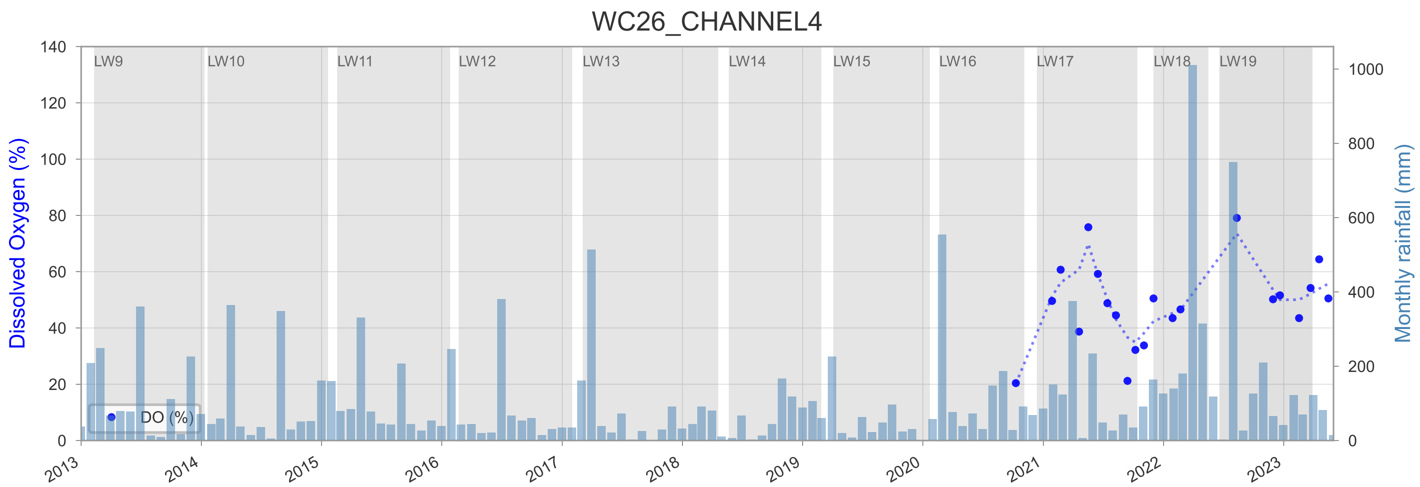

WC26A_POOL4
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

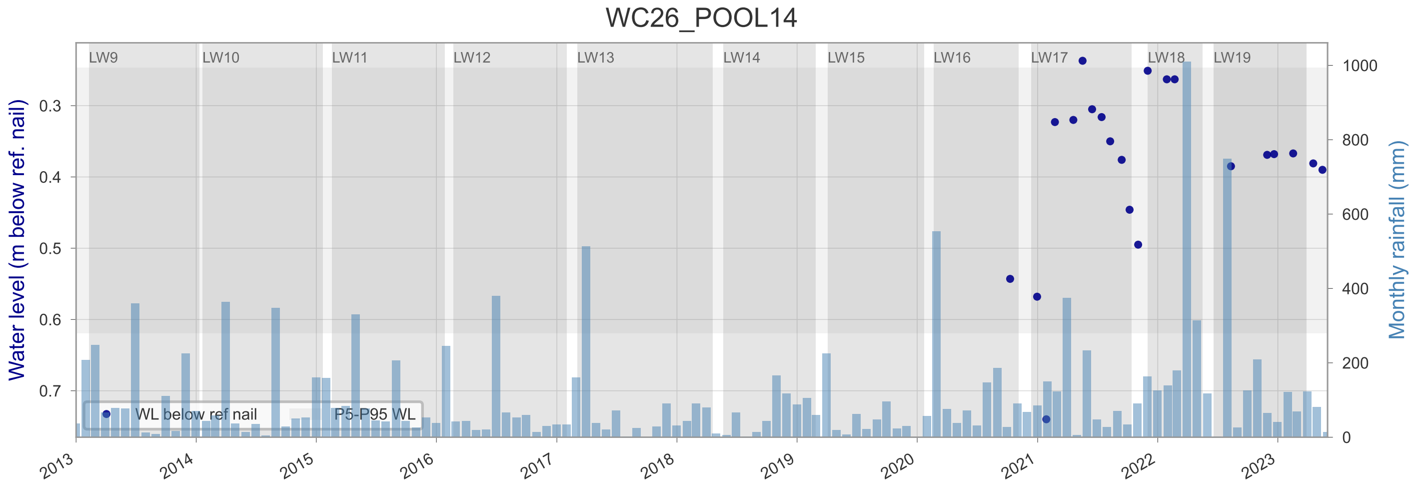

WC26A_POOL4
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC26_CHANNEL4
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

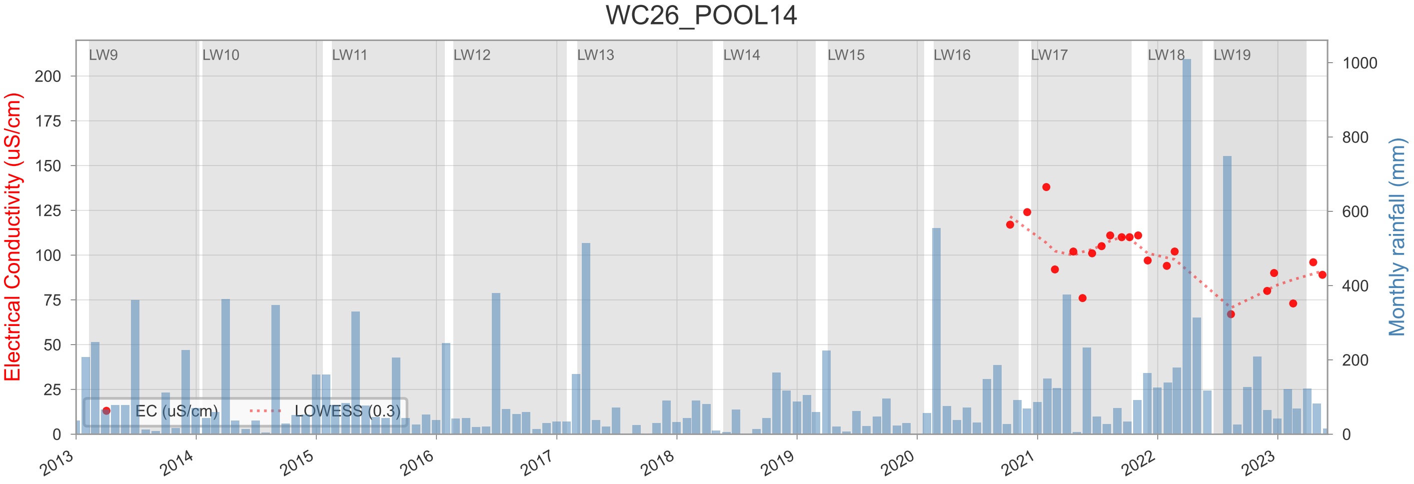

WC26_CHANNEL4
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC26_CHANNEL4
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

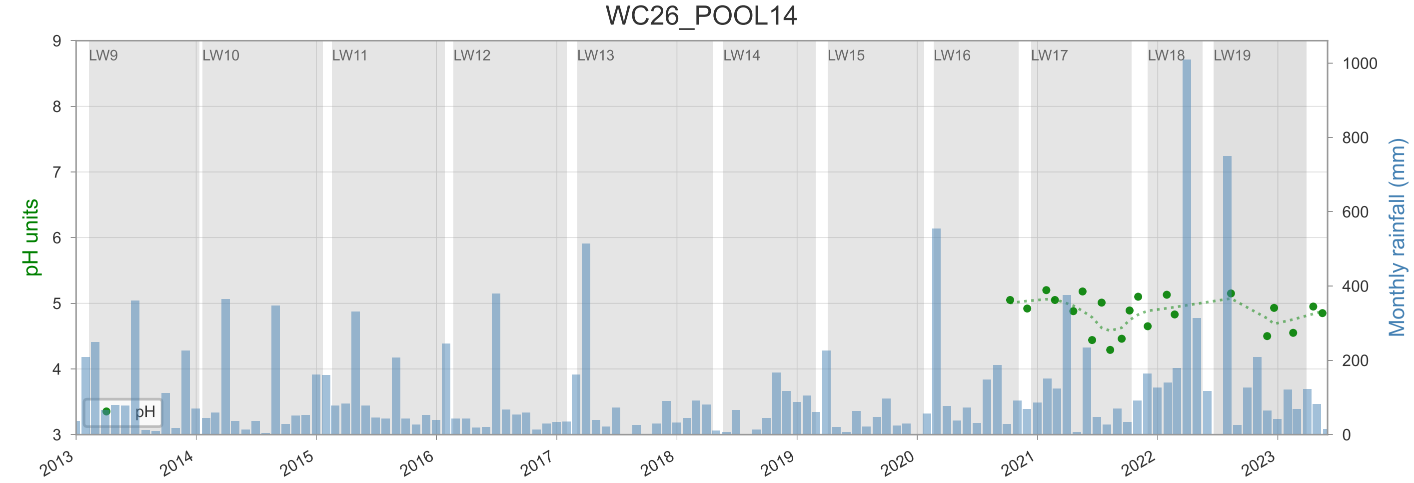

WC26_CHANNEL4
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19



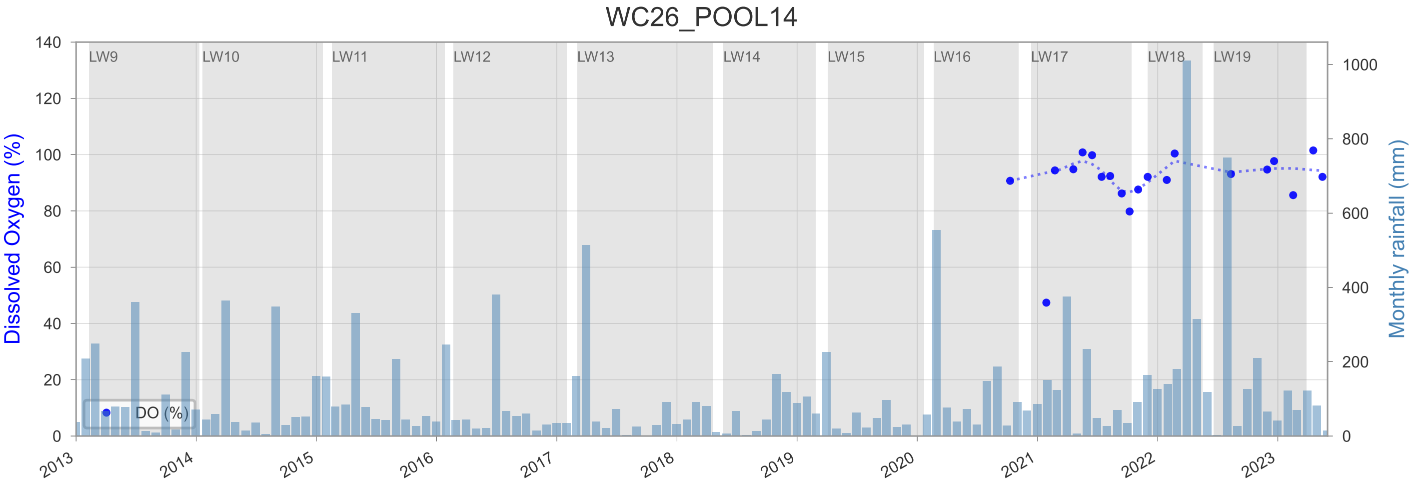
WC26_POOL14
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL



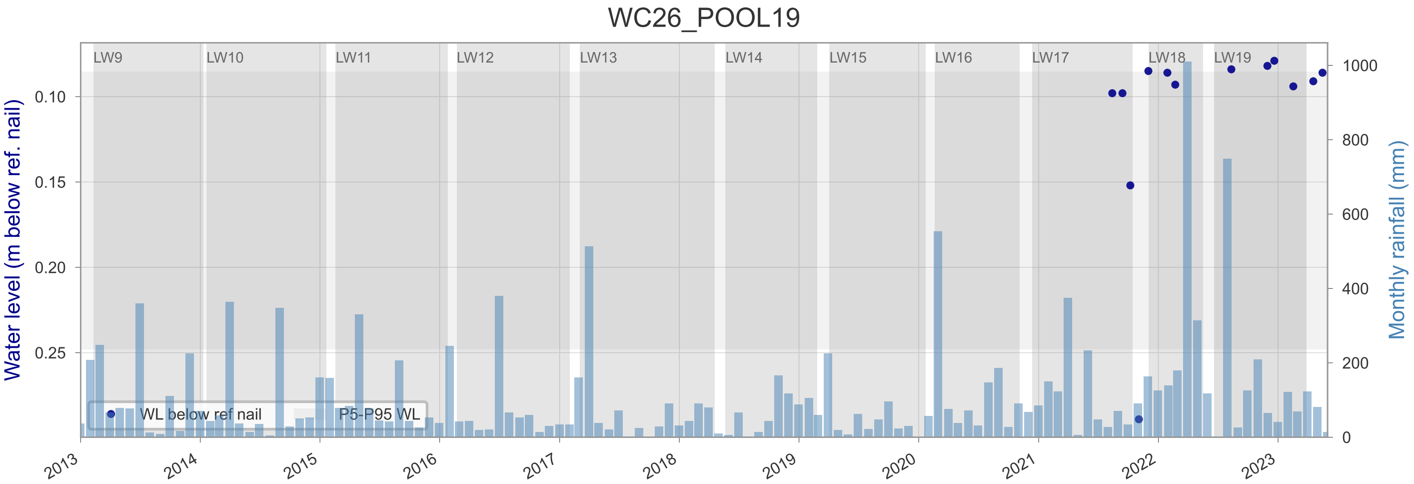
WC26_POOL14
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)



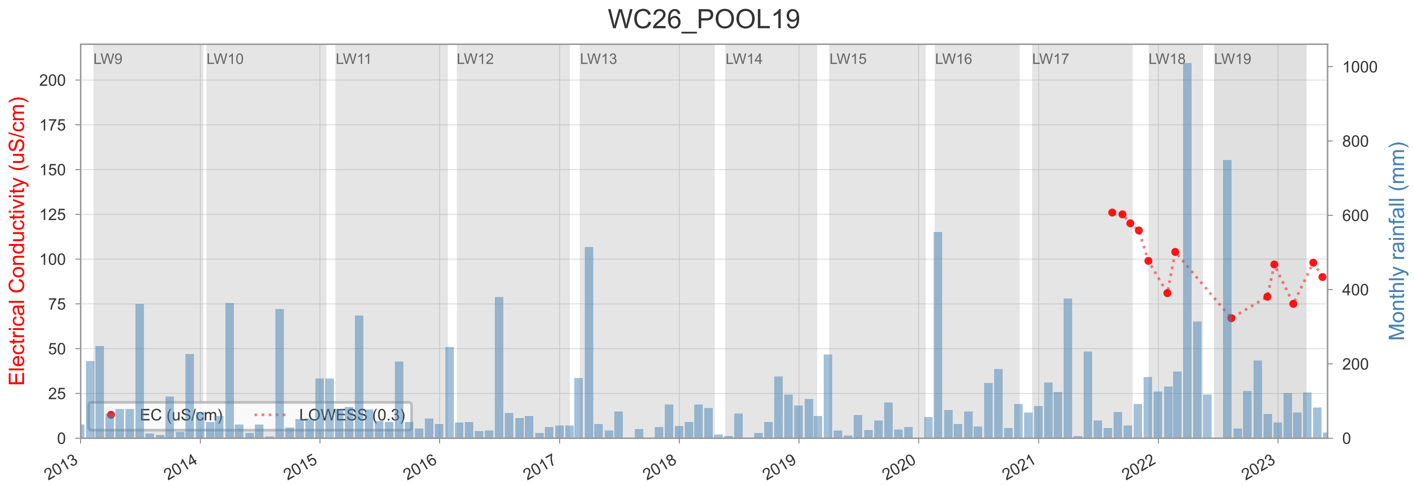
WC26_POOL14
pH units
Monthly rainfall (mm)
pH



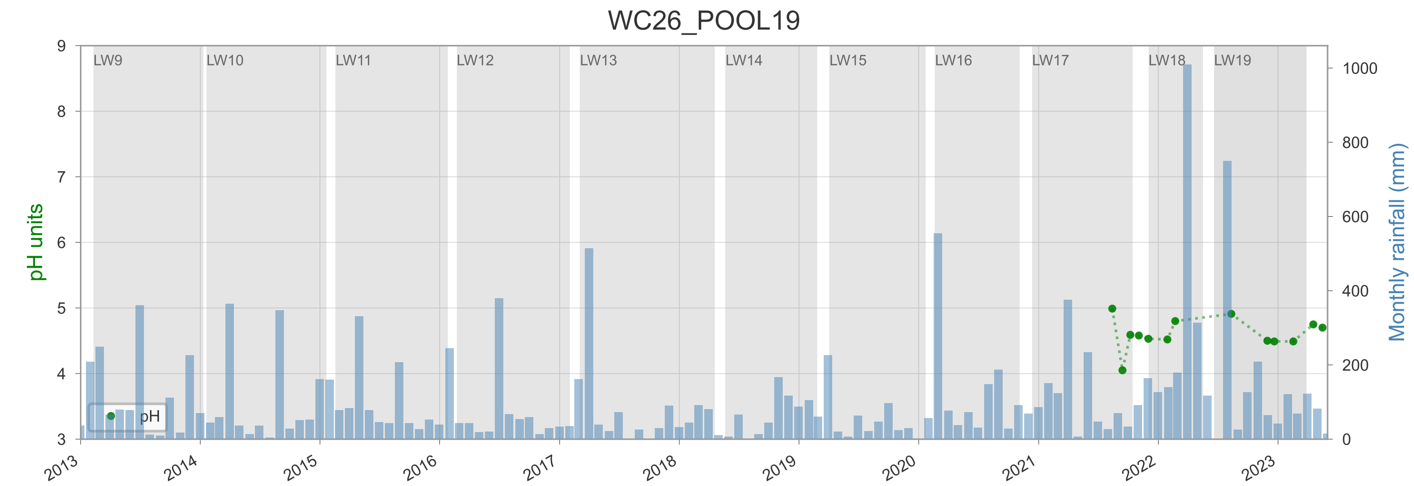
WC26_POOL14
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)



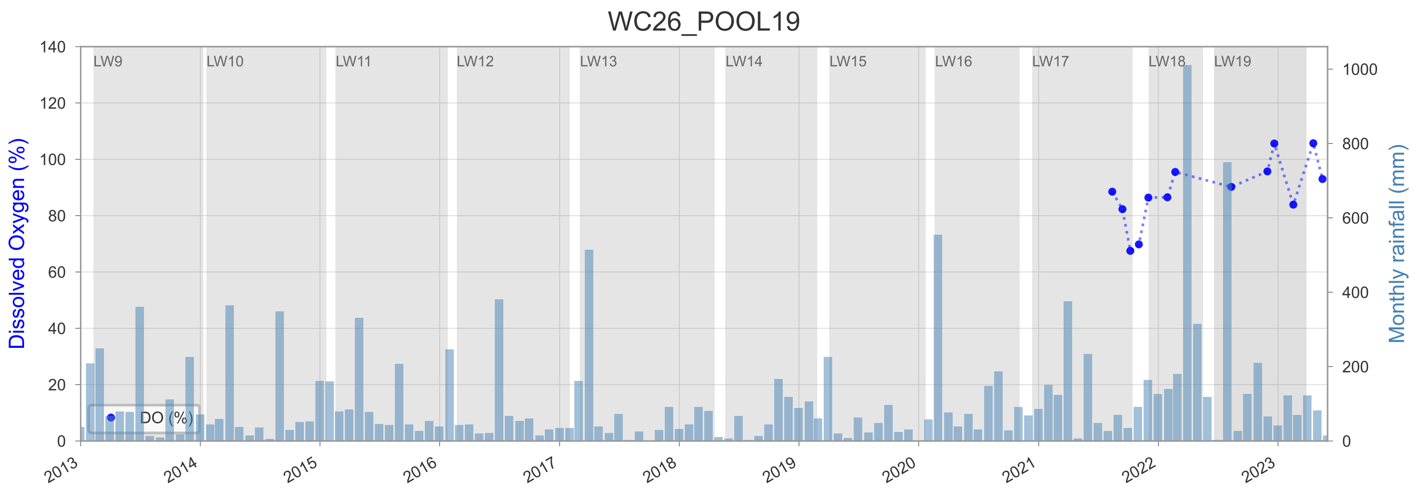
WC26_POOL19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19



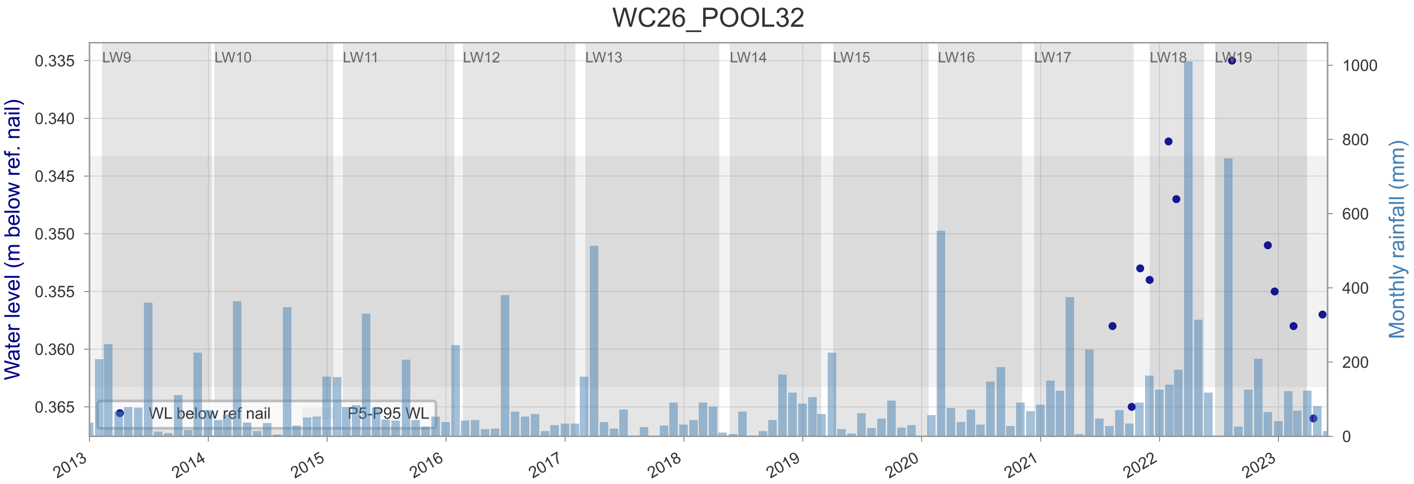
WC26_POOL19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)

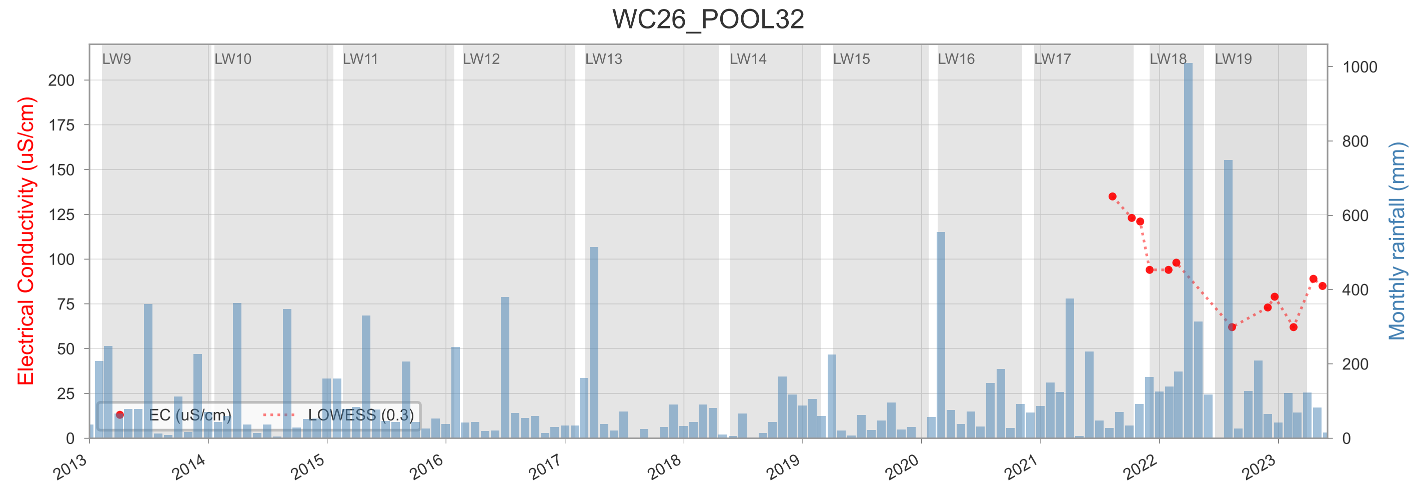


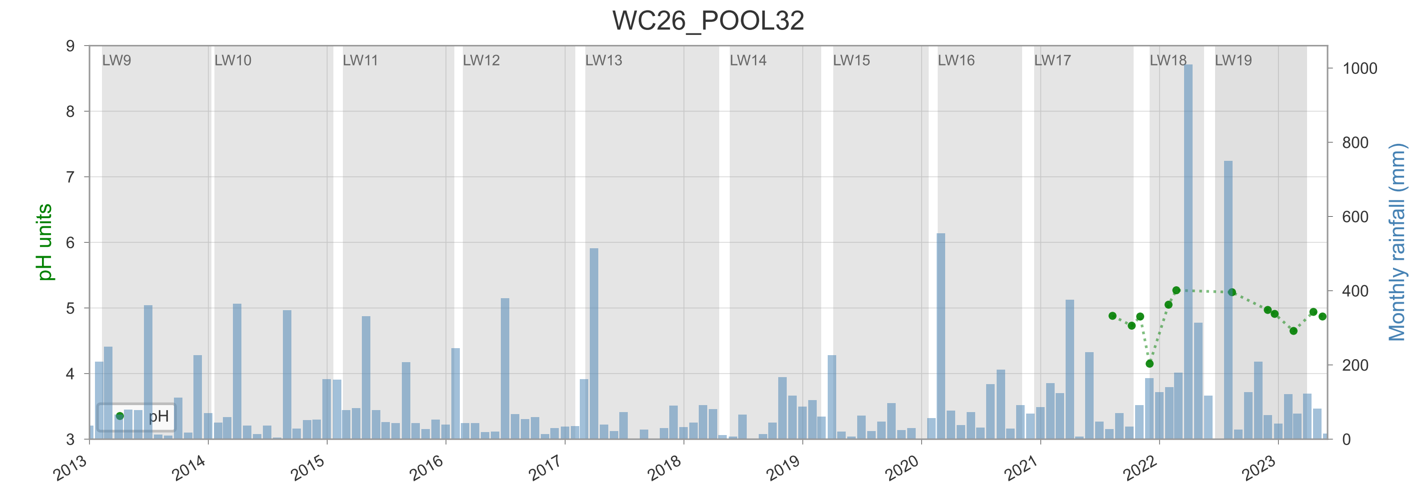
WC26_POOL19
pH units
Monthly rainfall (mm)
pH

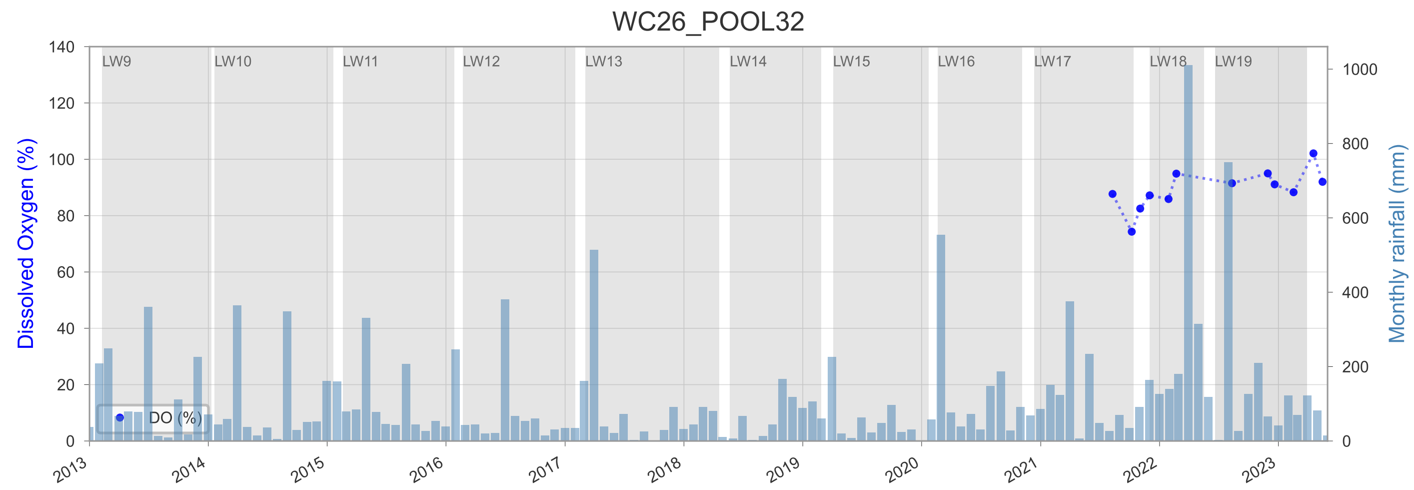


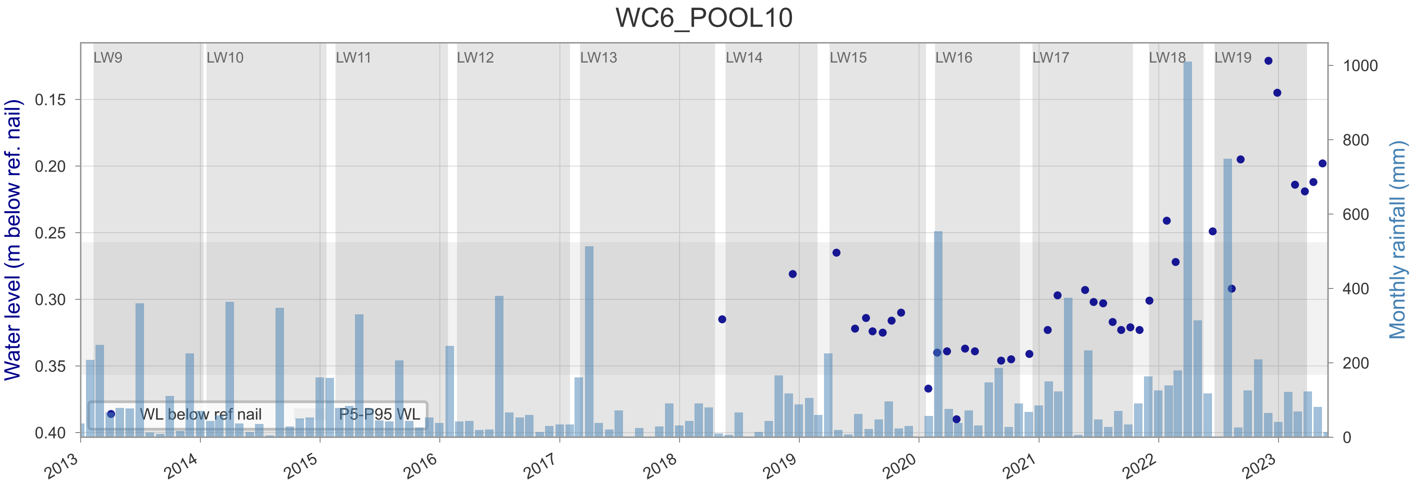
WC26_POOL19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)

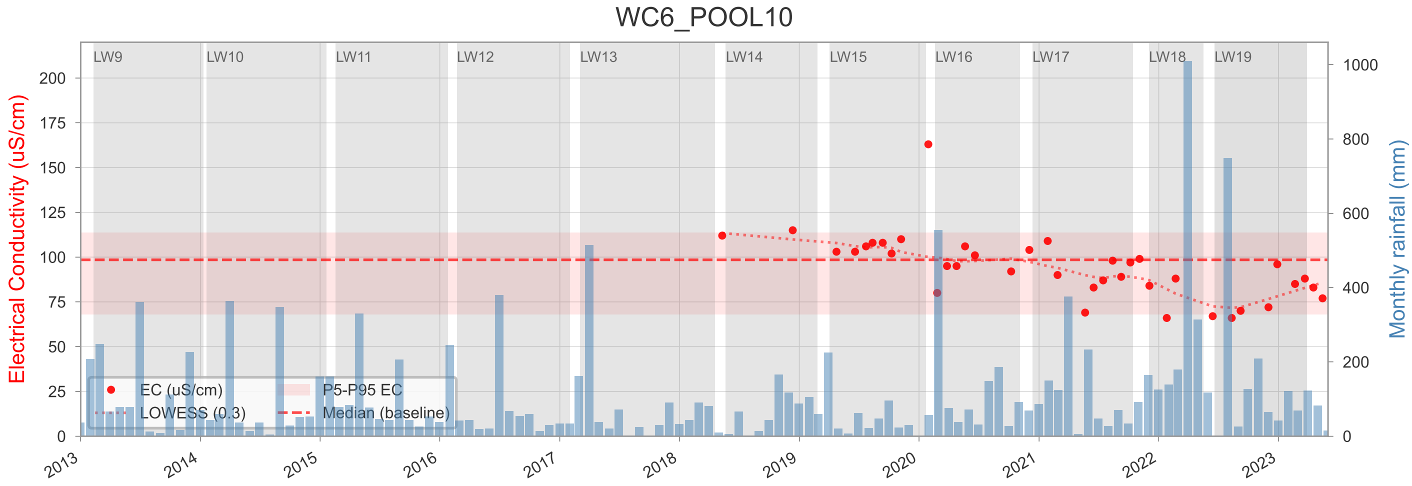

WC26_POOL32
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.335
0.340
0.345
0.350
0.355
0.360
0.365
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

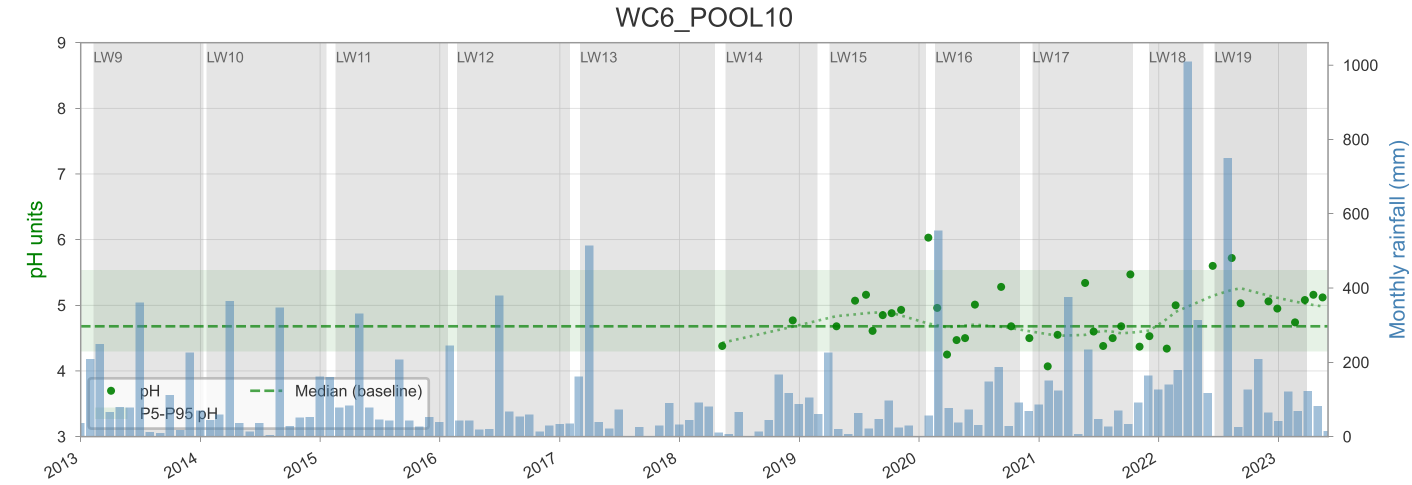

WC26_POOL32
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

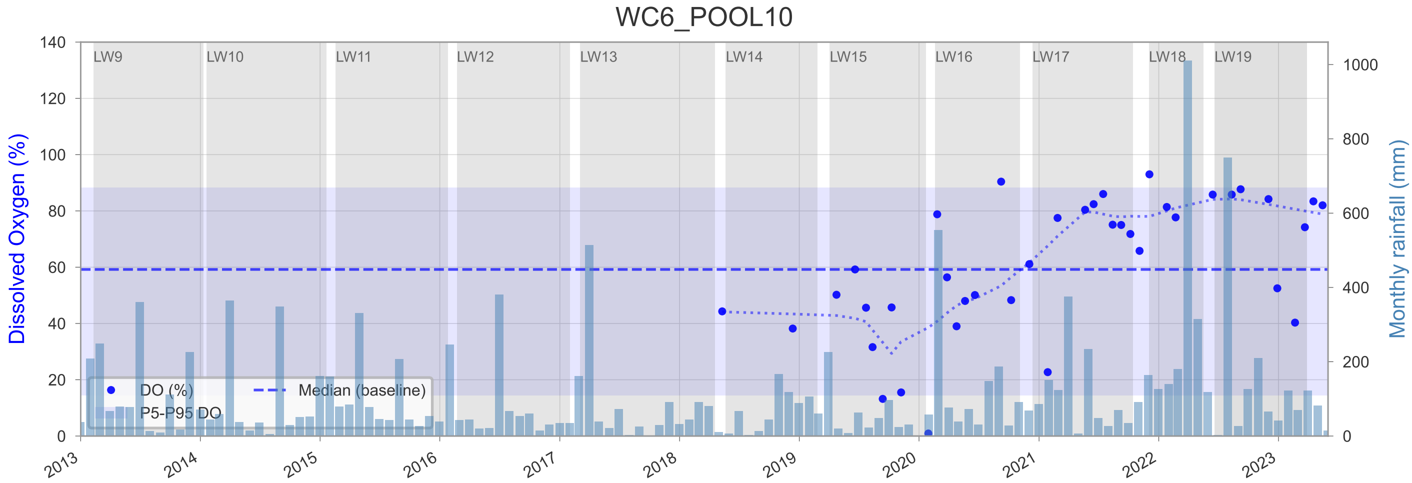

WC26_POOL32
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

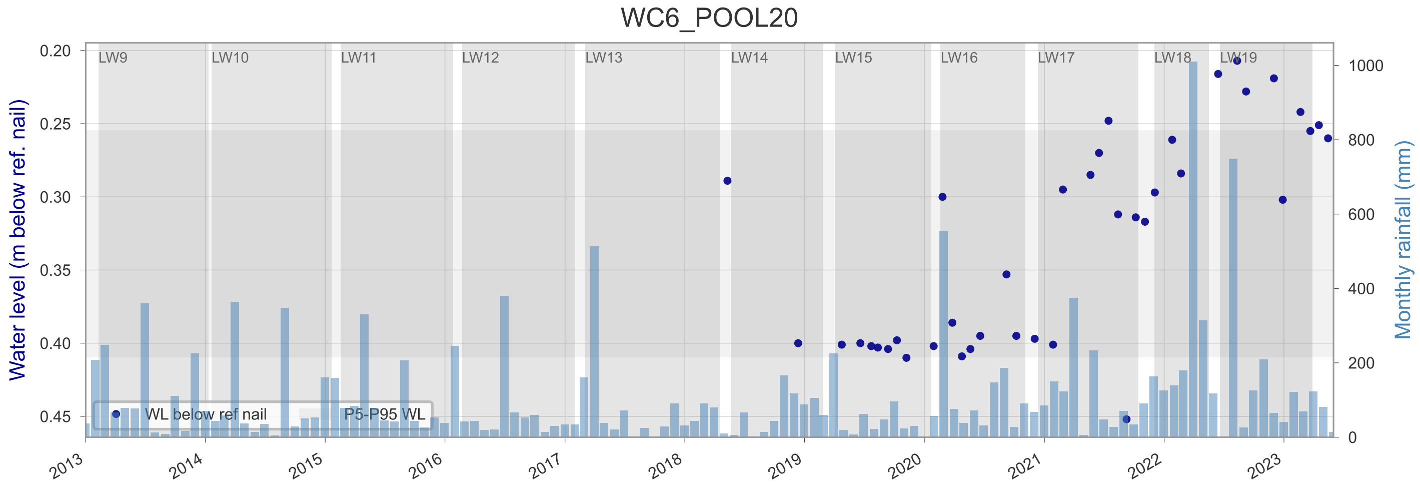

WC26_POOL32
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

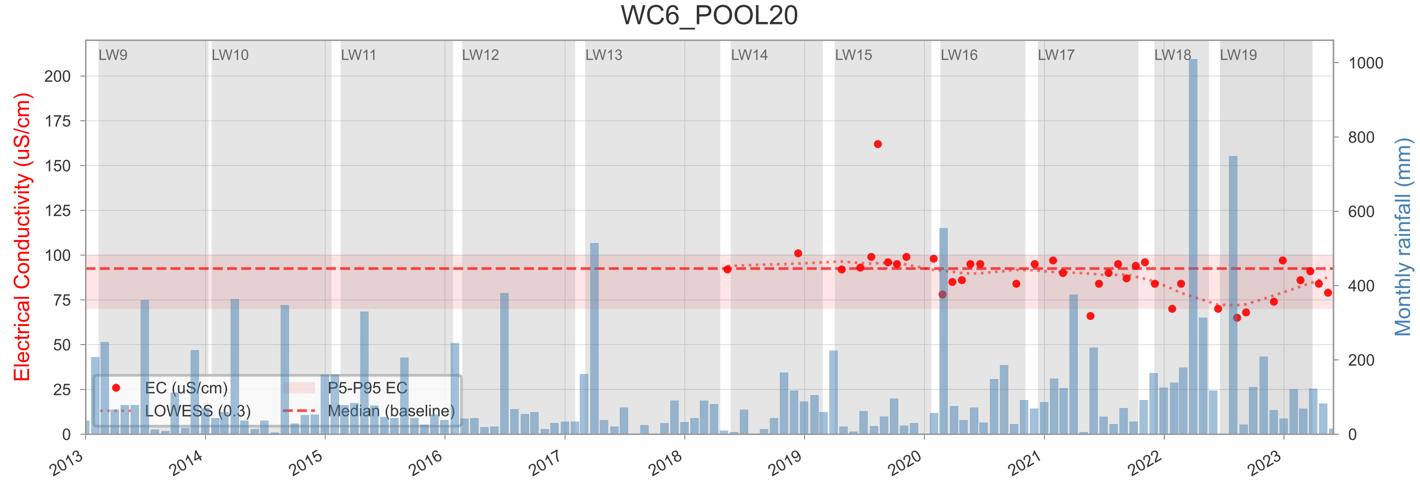

WC6_POOL10
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.15
0.20
0.25
0.30
0.35
0.40
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

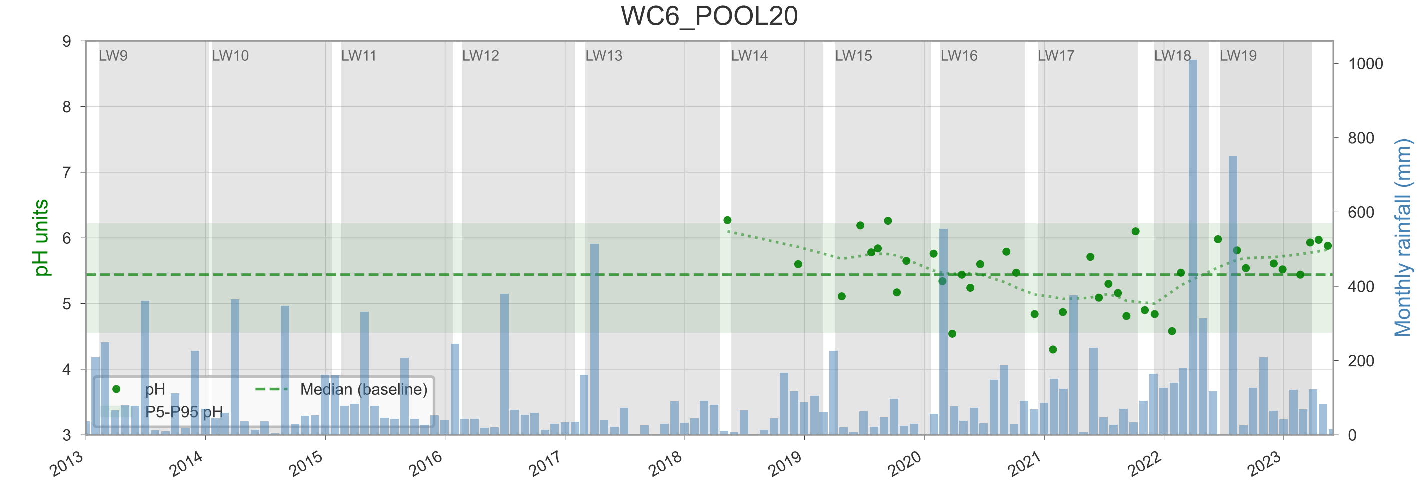

WC6_POOL10
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

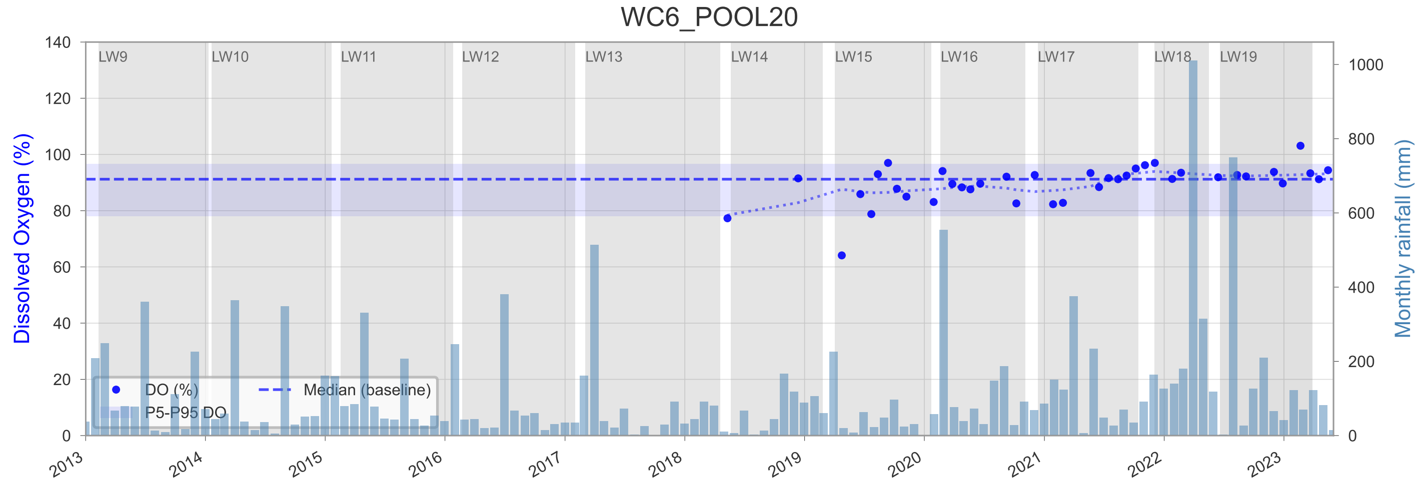

WC6_POOL10
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

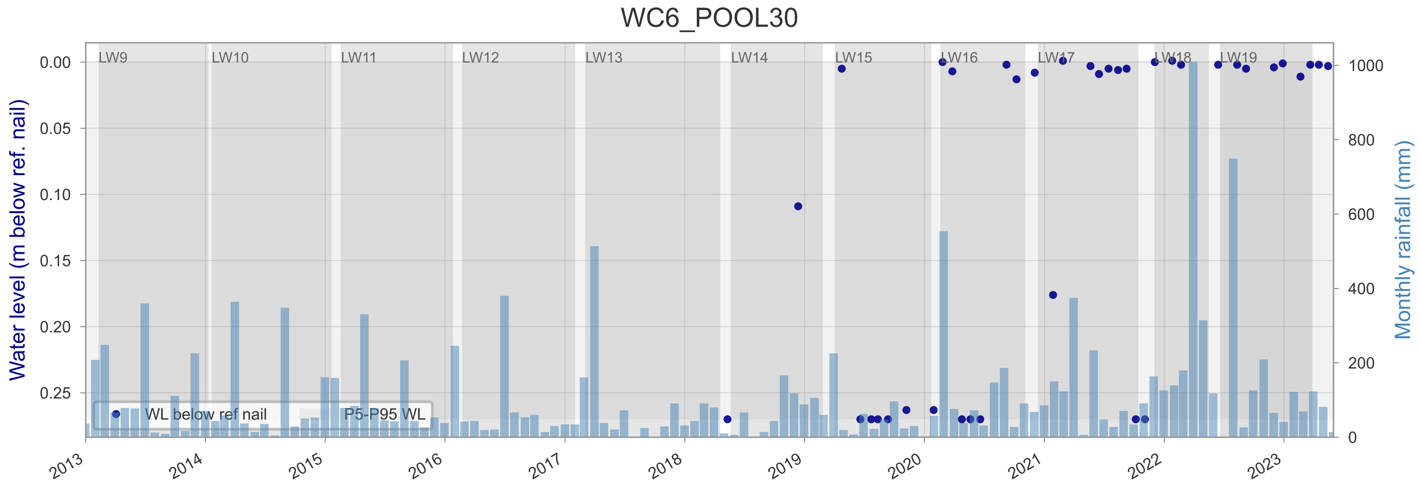

WC6_POOL10
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


WC6_POOL20
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

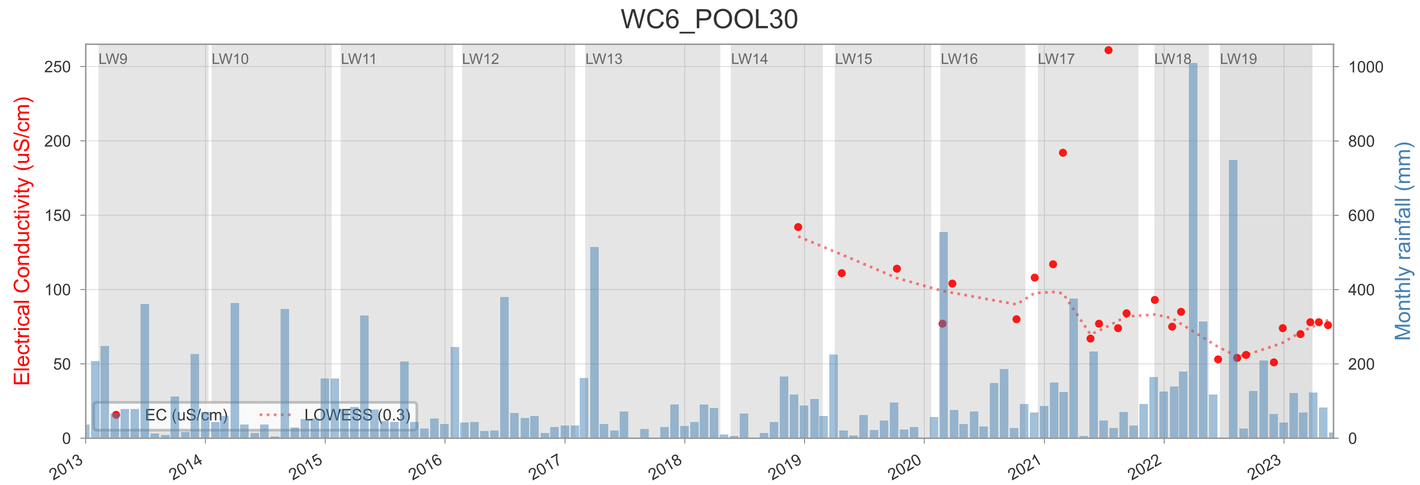

WC6_POOL20
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)


WC6_POOL20
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

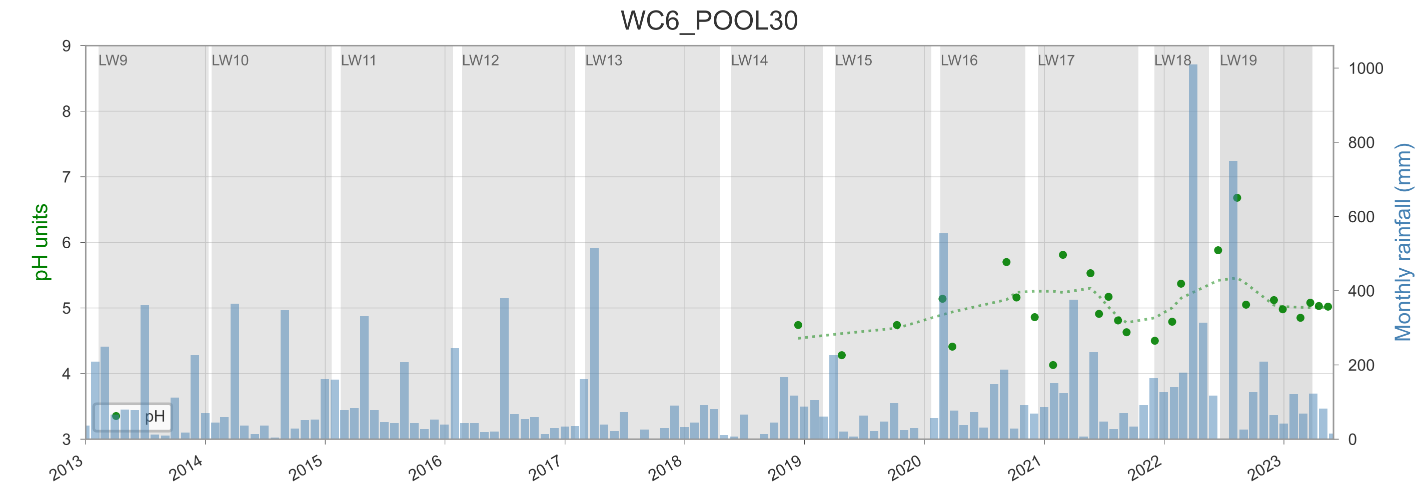

WC6_POOL20
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)



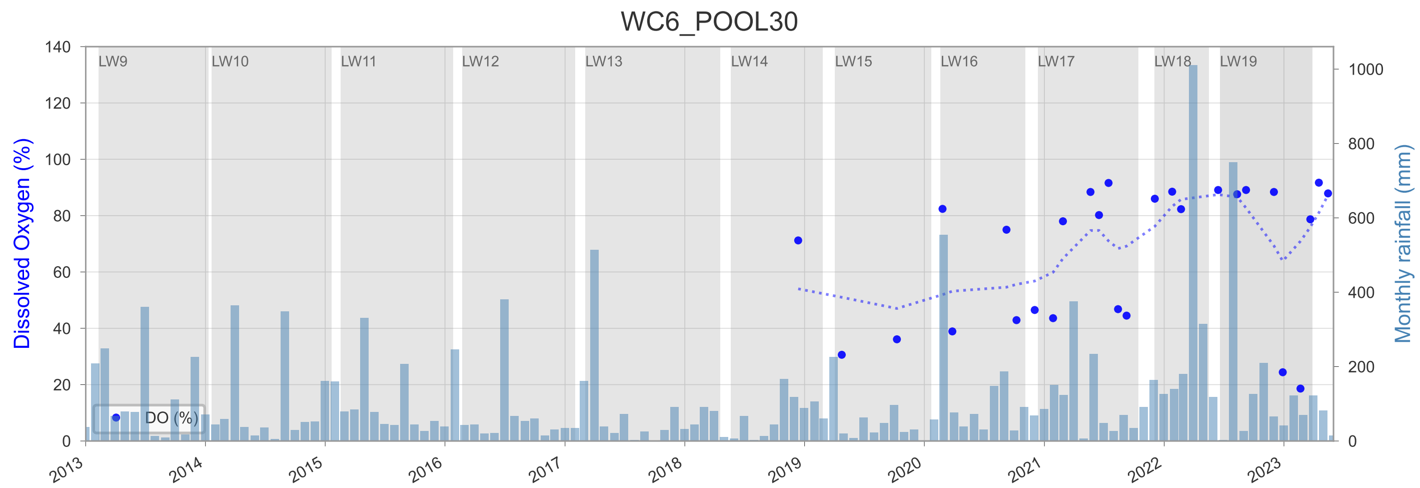
WC6_POOL30
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19



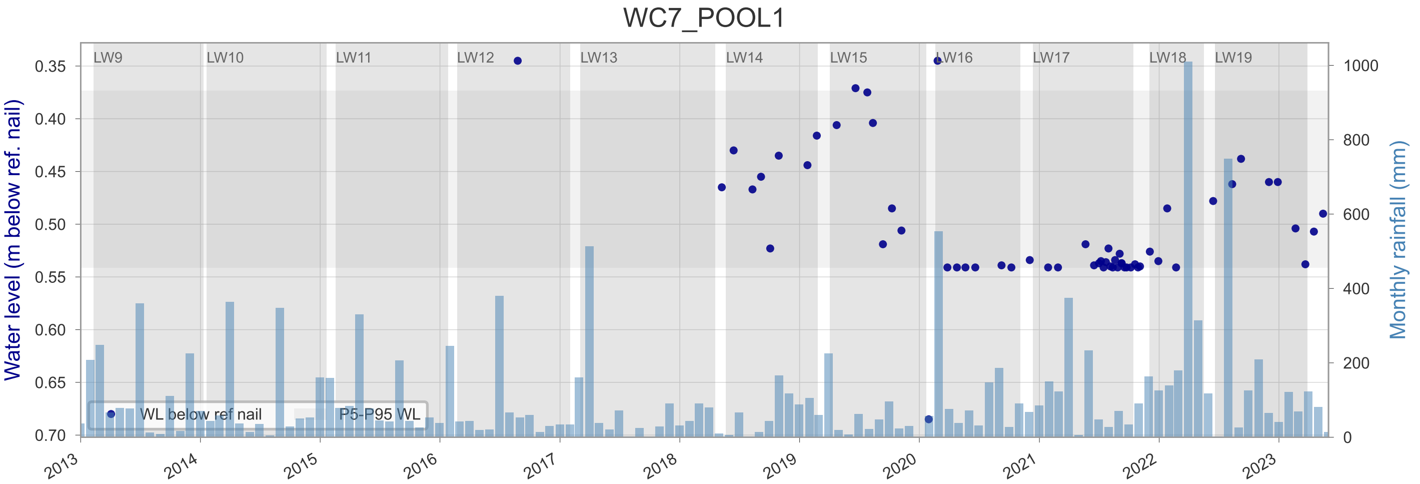
WC6_POOL30
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

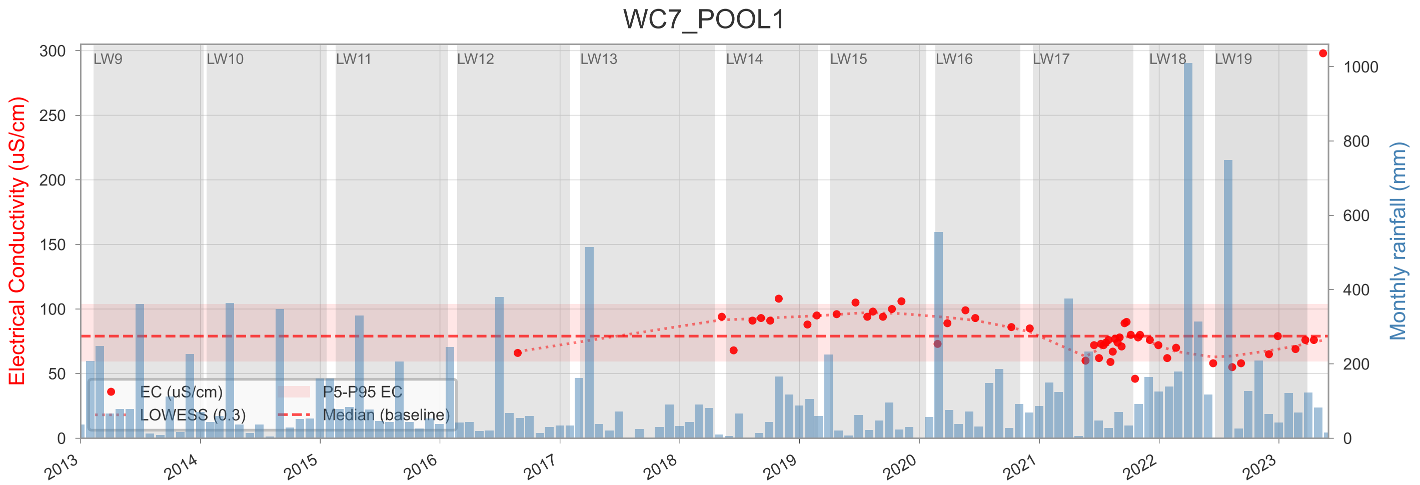


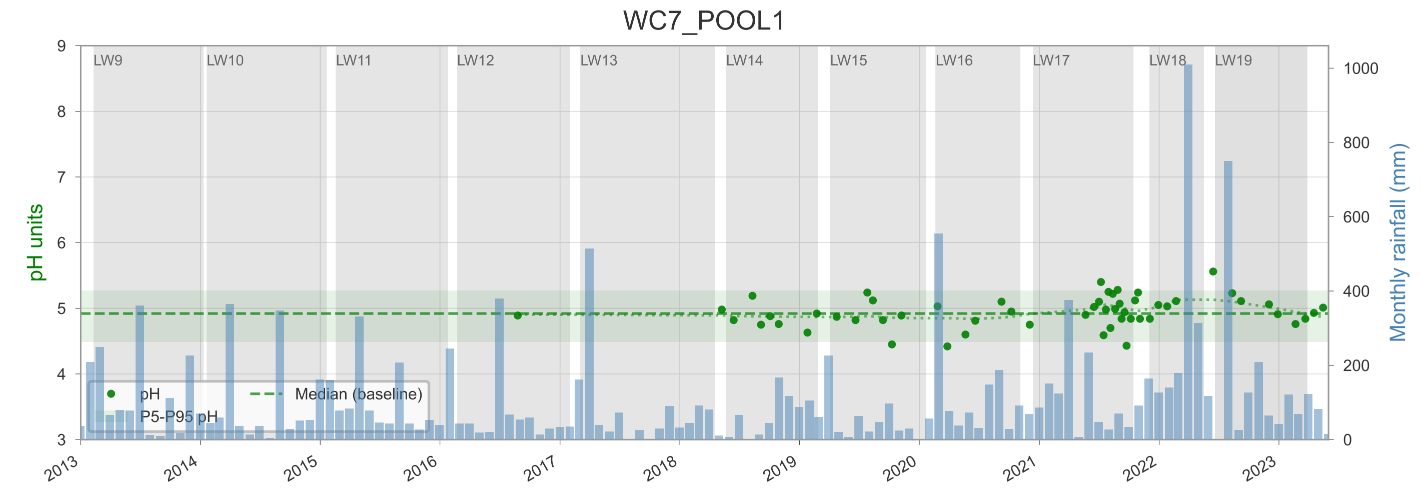
WC6_POOL30
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

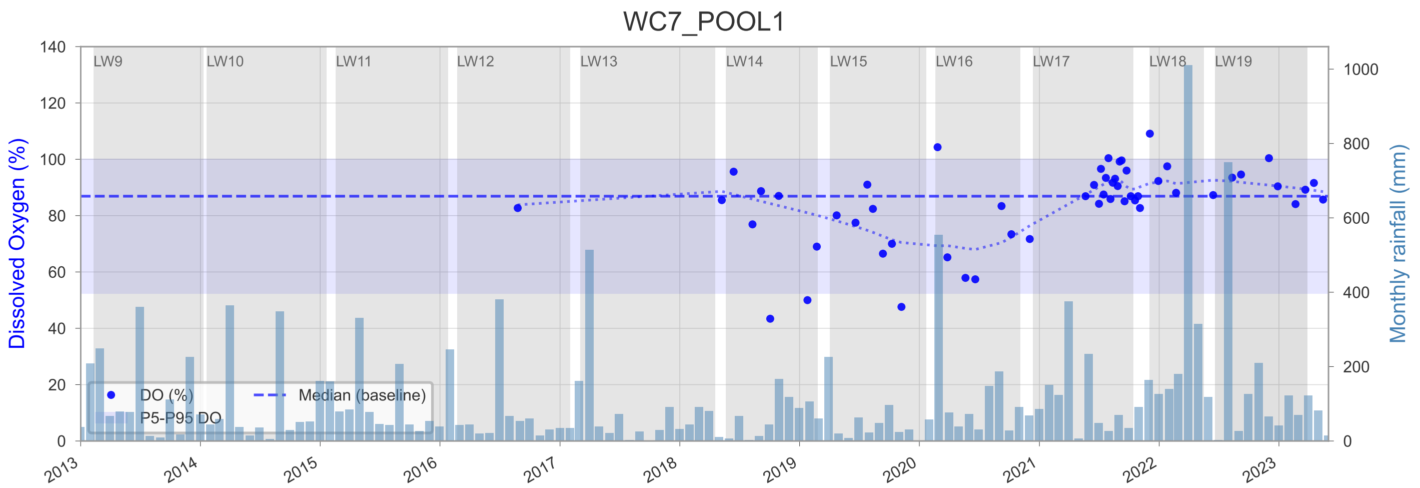


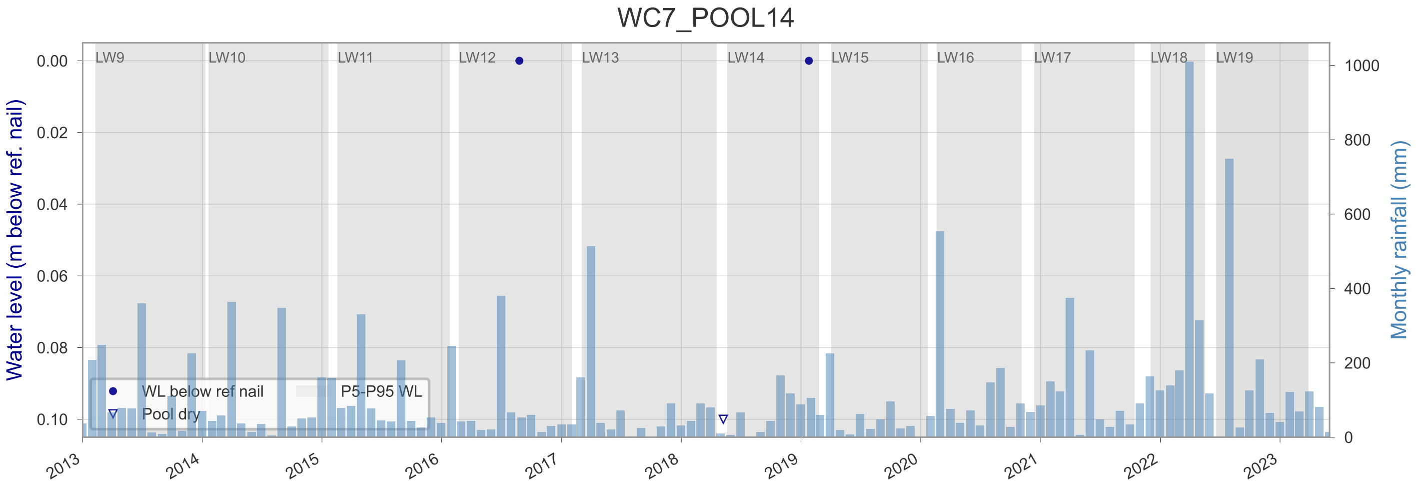
WC6_POOL30
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

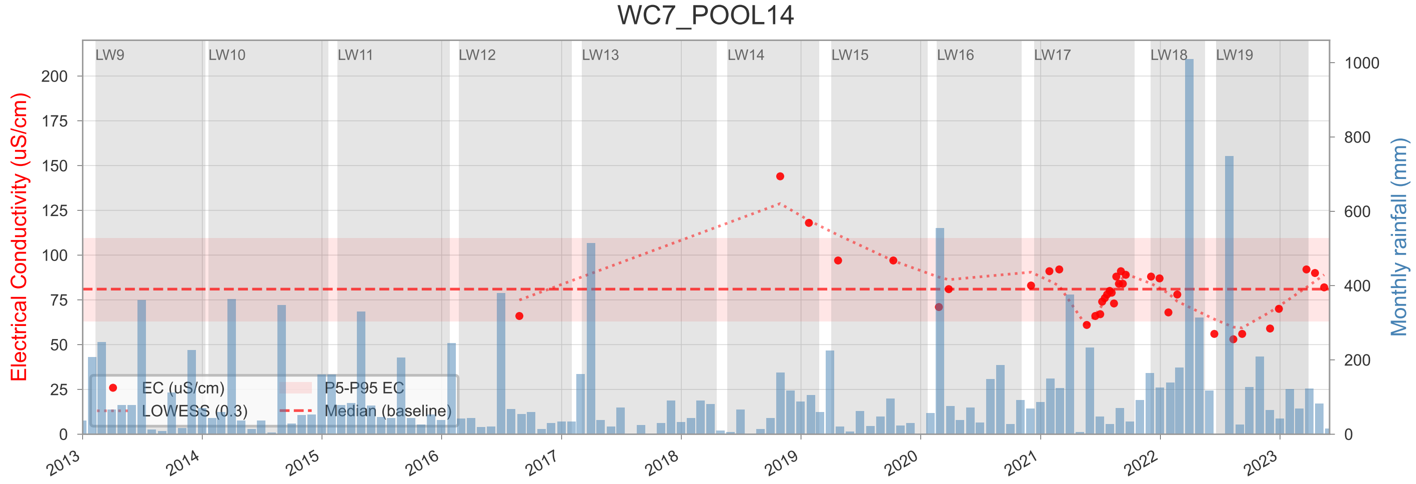

WC7_POOL1
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.35
0.40
0.45
0.50
0.55
0.60
0.65
0.70
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

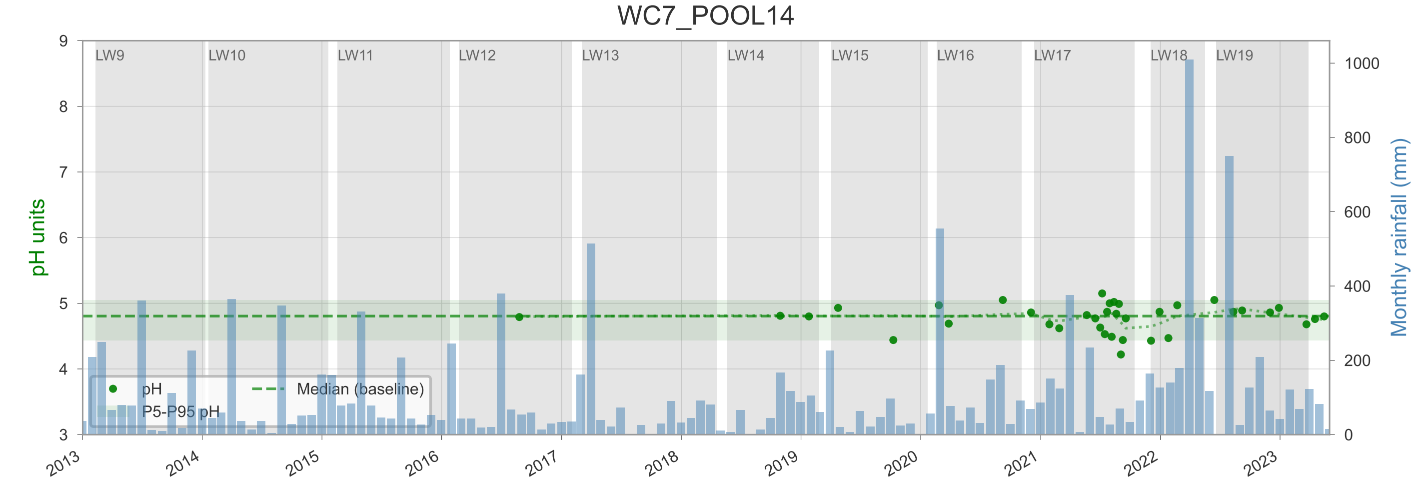

WC7_POOL1
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
50
100
150
200
250
300
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

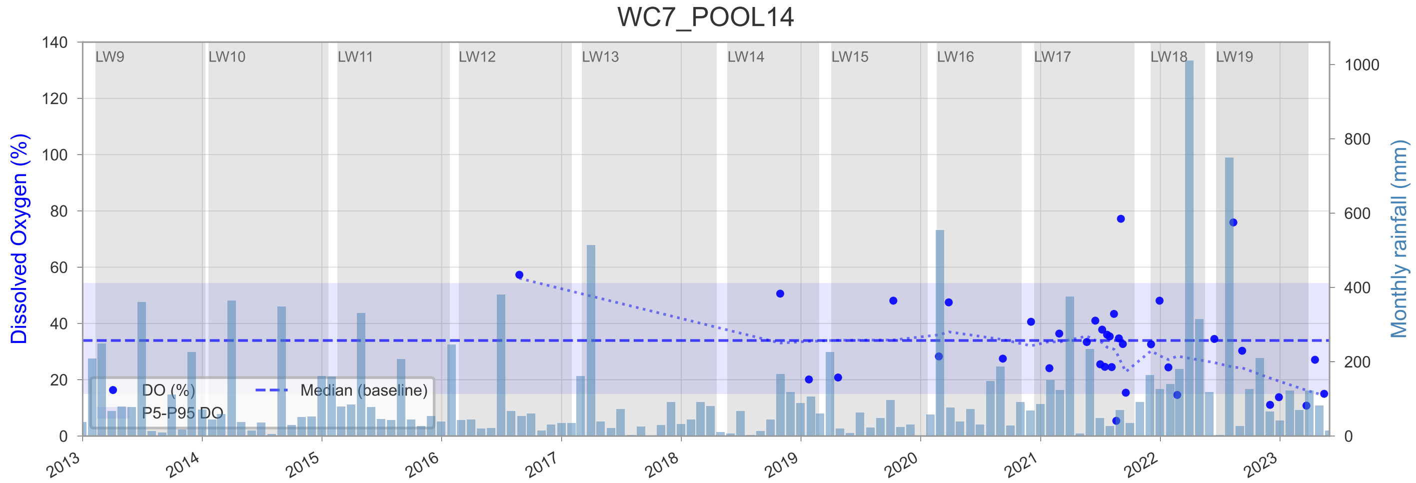

WC7_POOL1
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

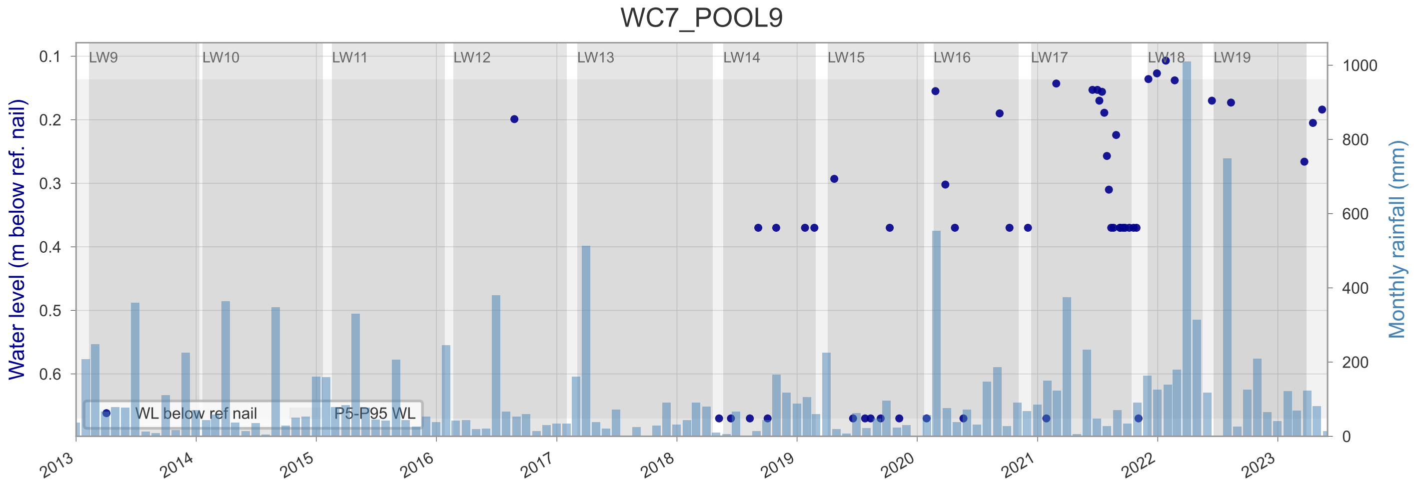

WC7_POOL1
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

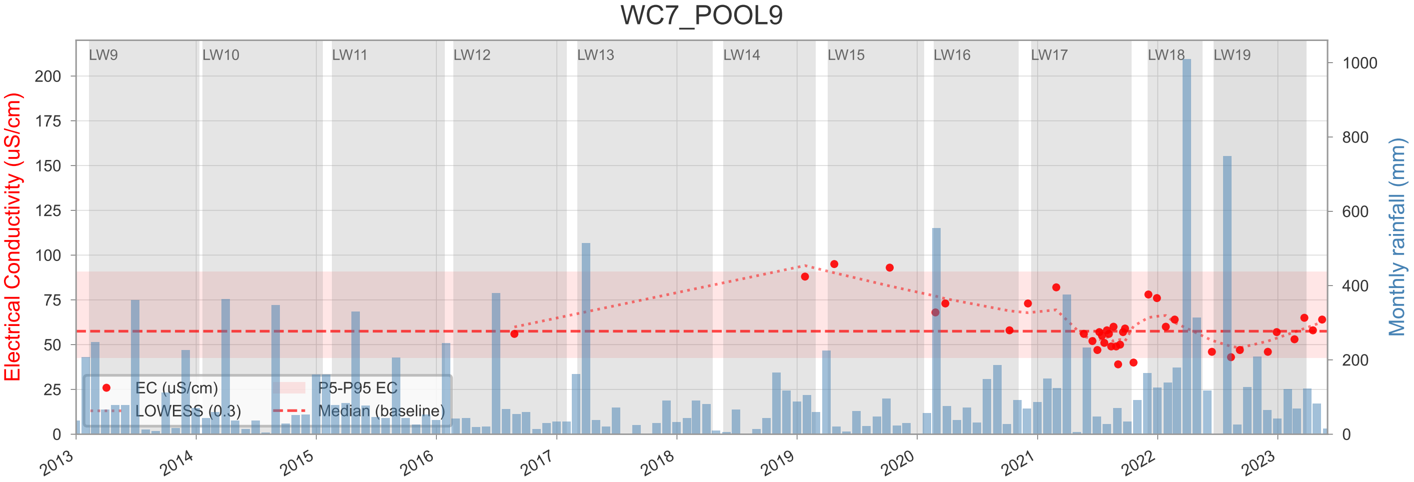

WC7_POOL14
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
Pool dry
P5-P95 WL

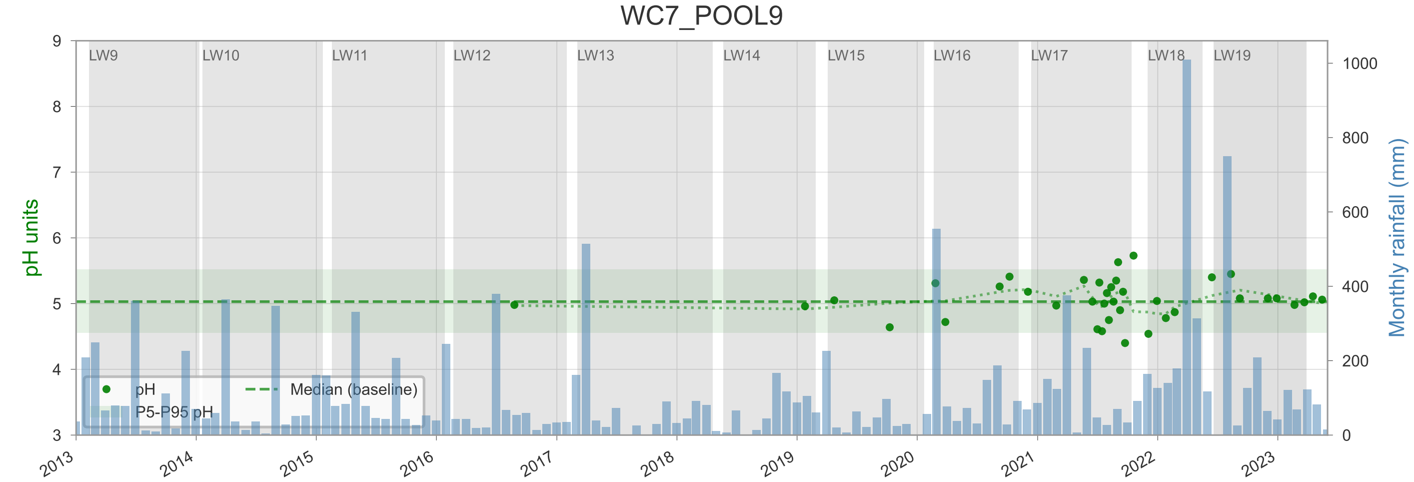

WC7_POOL14
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

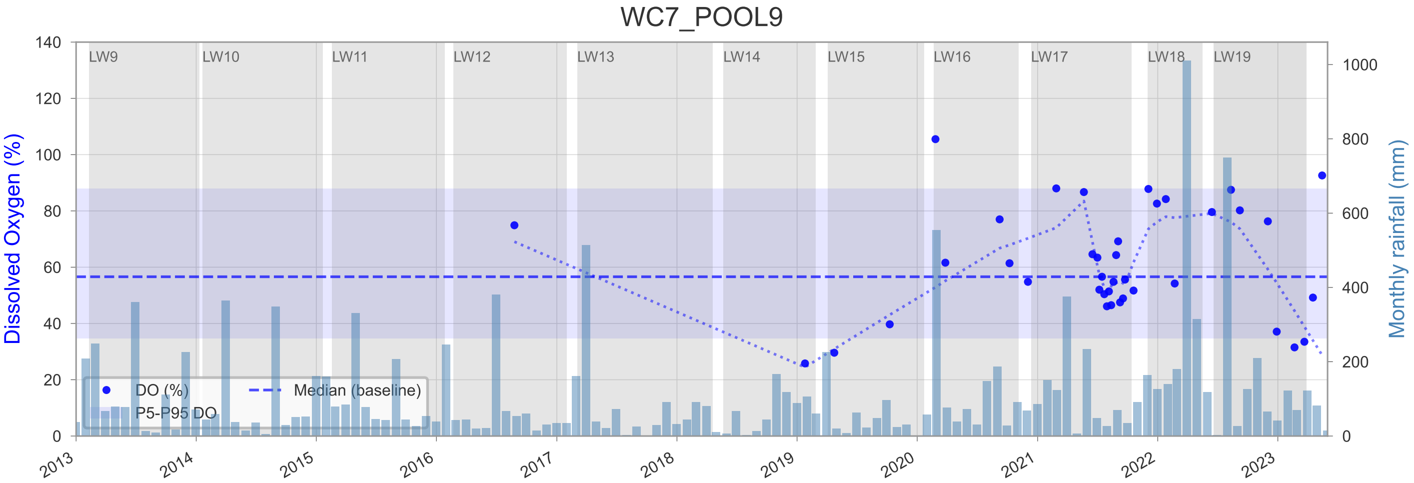

WC7_POOL14
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)

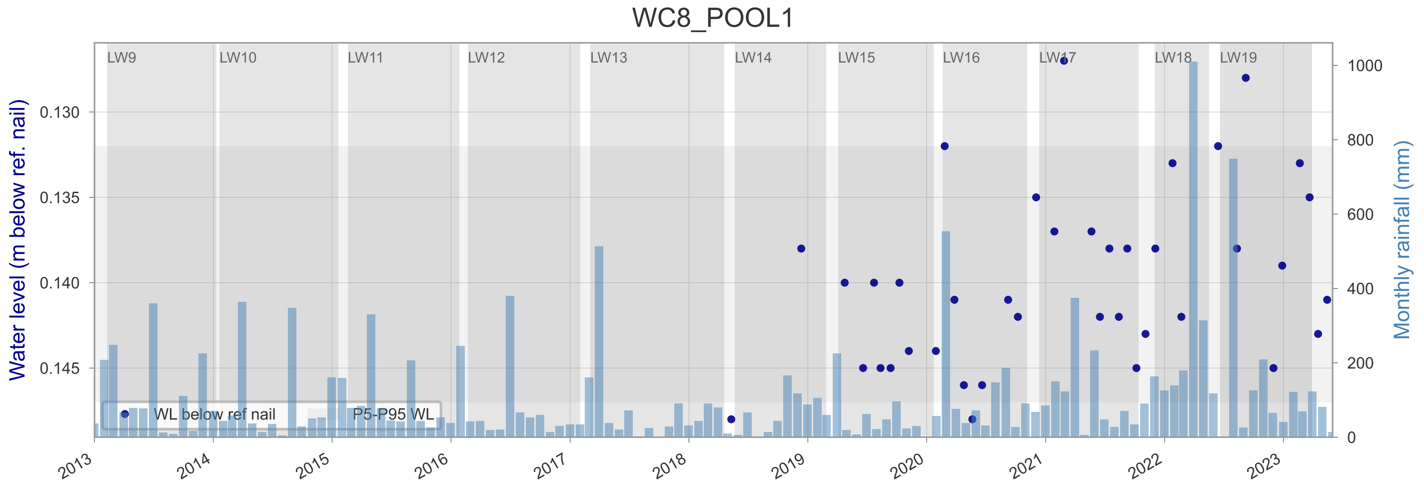

WC7_POOL14
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)

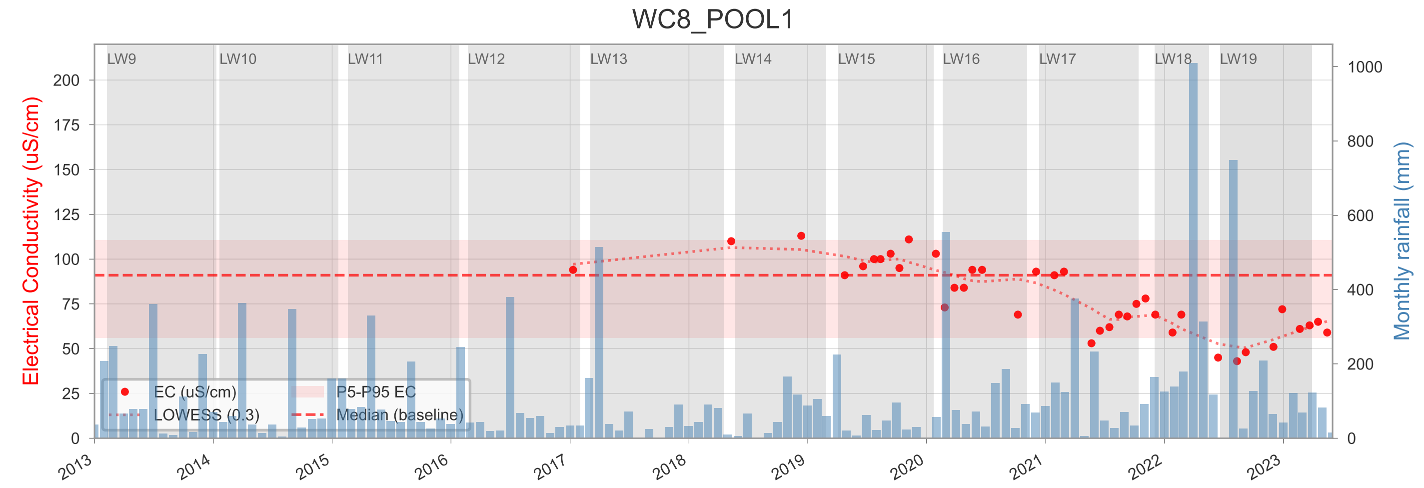

WC7_POOL9
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
WL below ref nail
P5-P95 WL
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

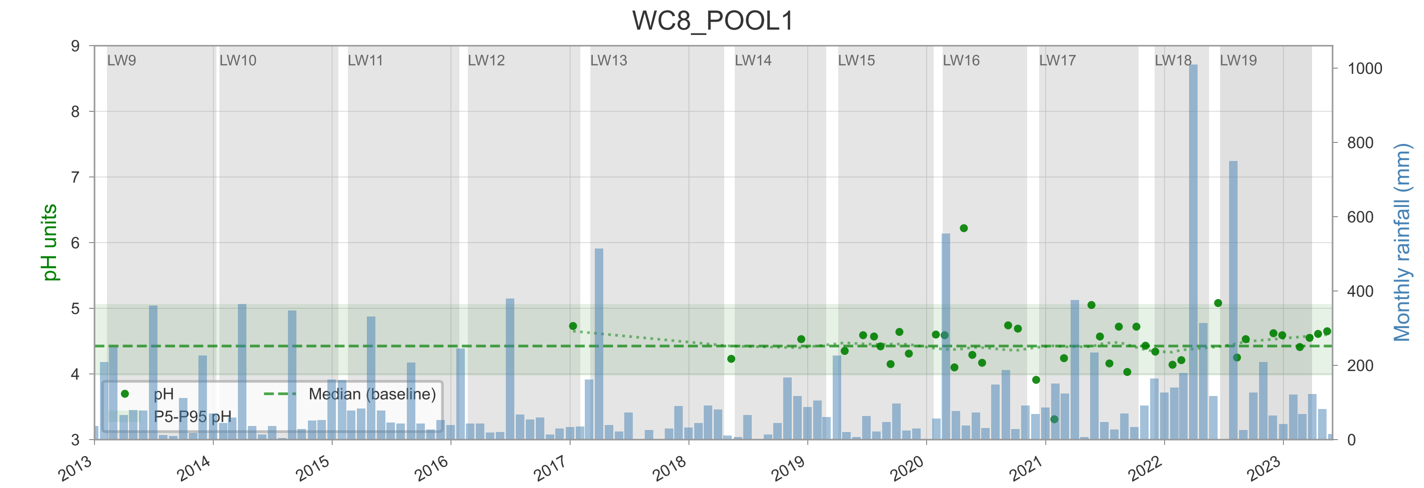

WC7_POOL9
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
EC (uS/cm)
P5-P95 EC
LOWESS (0.3)
Median (baseline)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

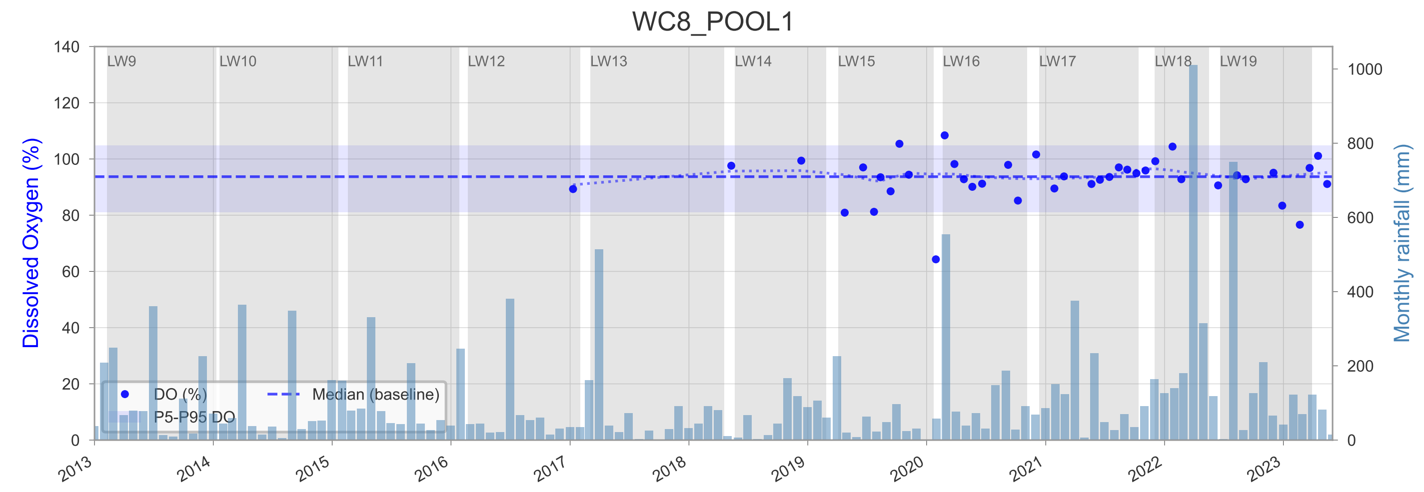

WC7_POOL9
pH units
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH
Median (baseline)
P5-P95 pH
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

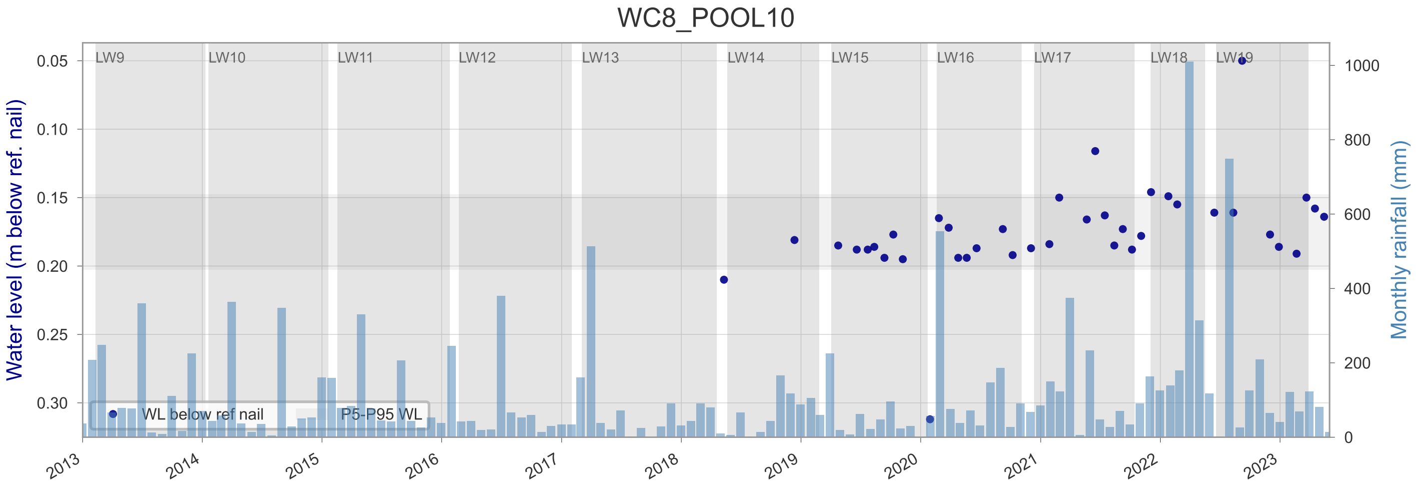

WC7_POOL9
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
DO (%)
Median (baseline)
P5-P95 DO
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

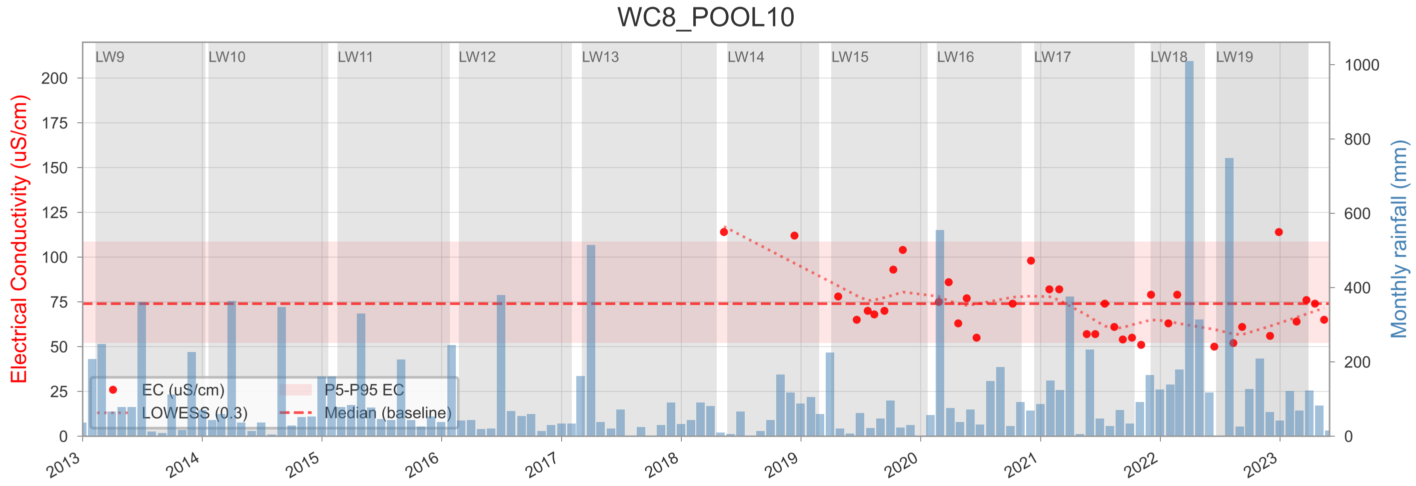

WC8_POOL1
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

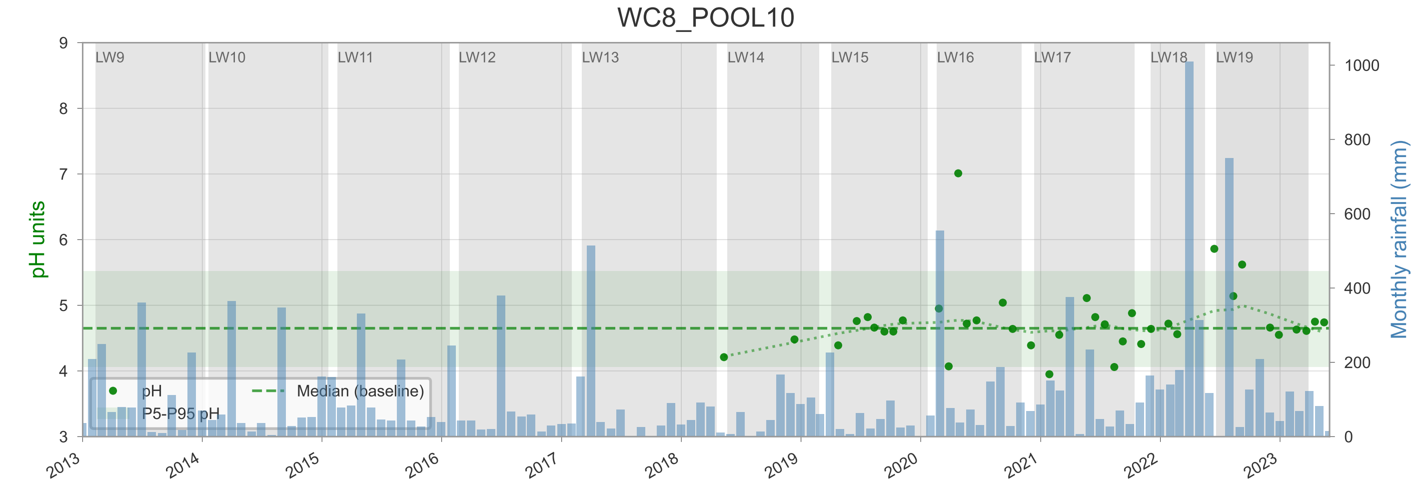

WC8_POOL1
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

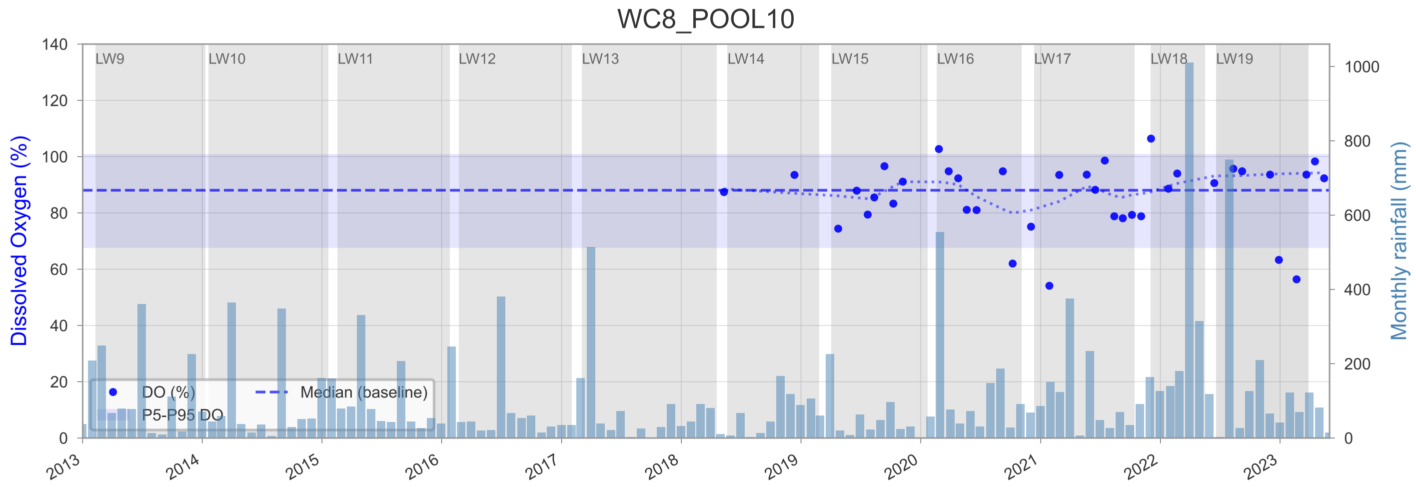

WC8_POOL1
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

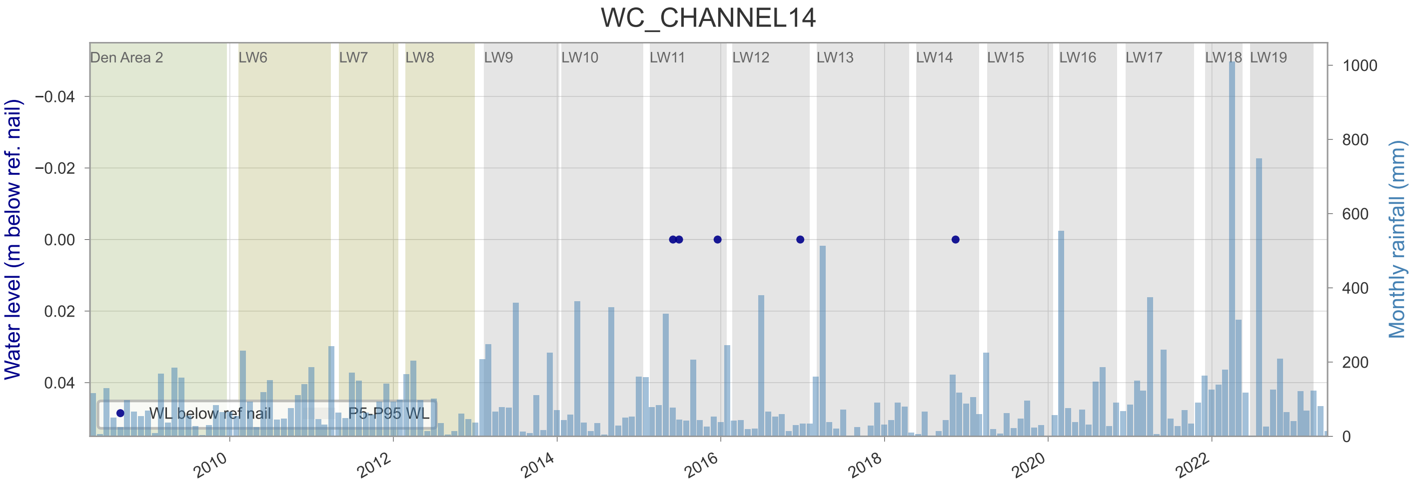

WC8_POOL1
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

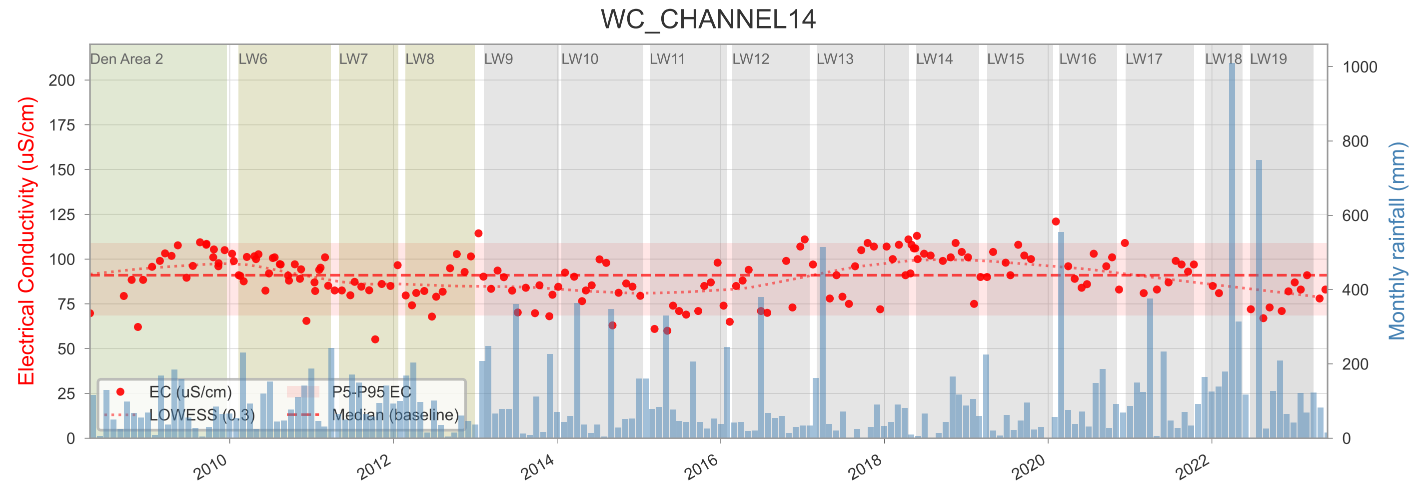

WC8_POOL10
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

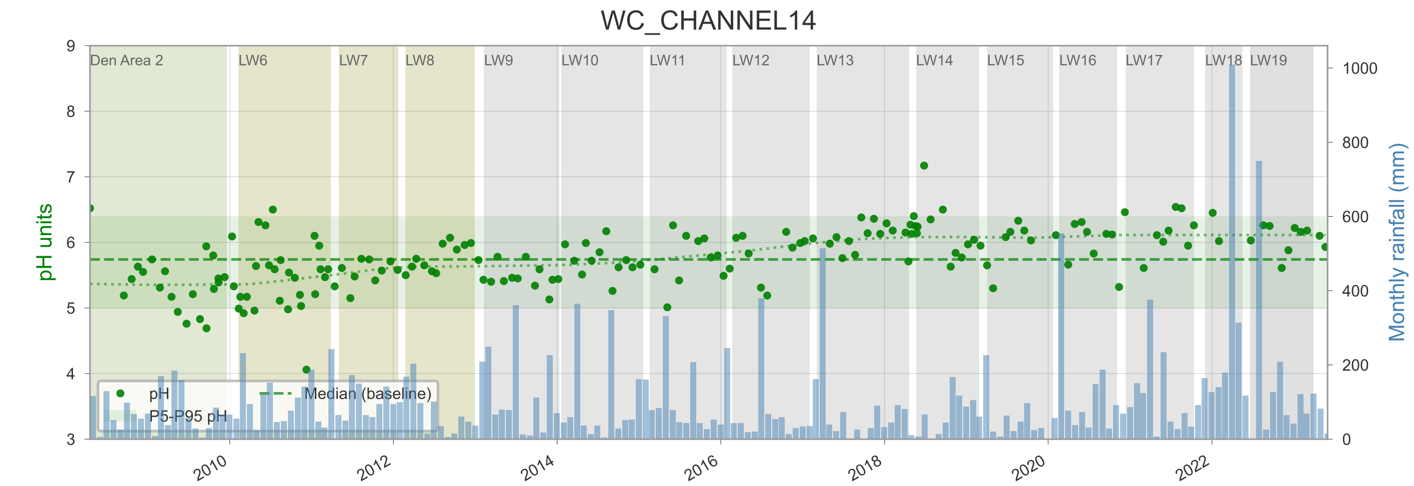

WC8_POOL10
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

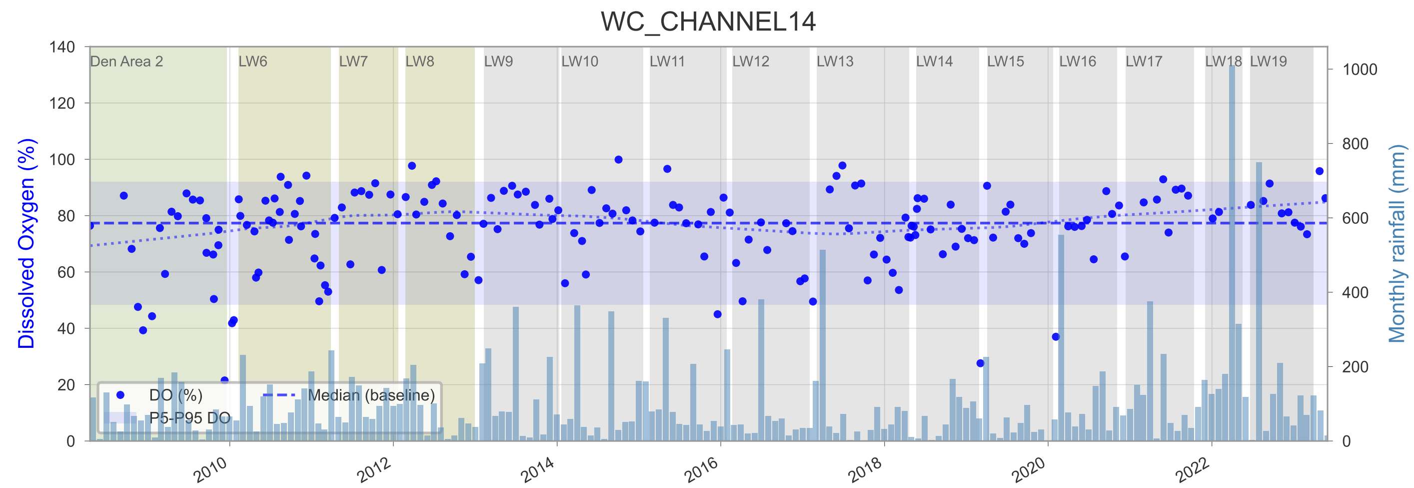

WC8_POOL10
pH units
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)

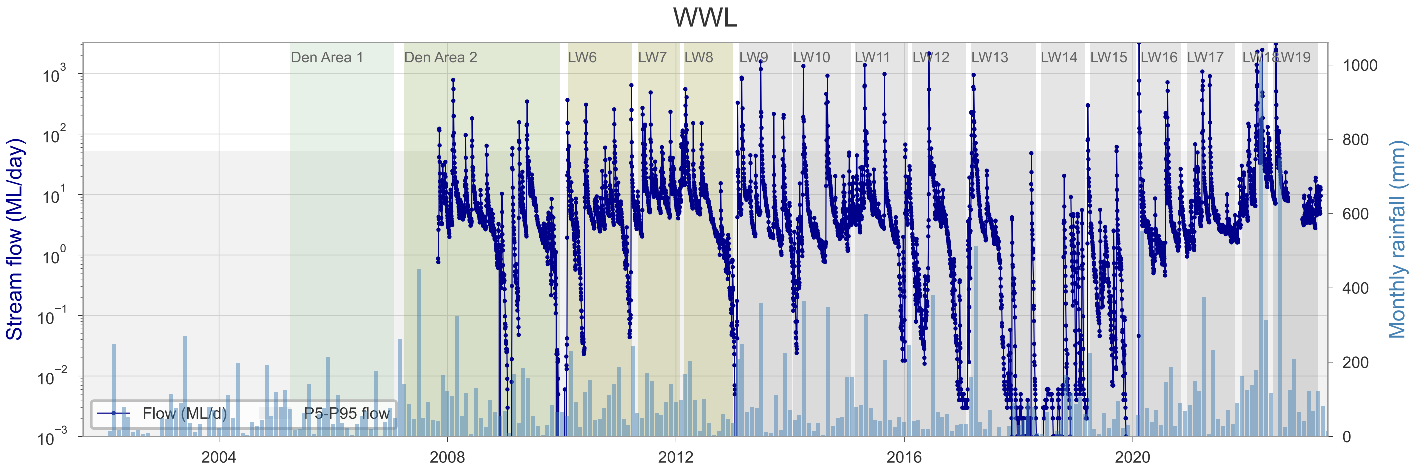

WC8_POOL10
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)

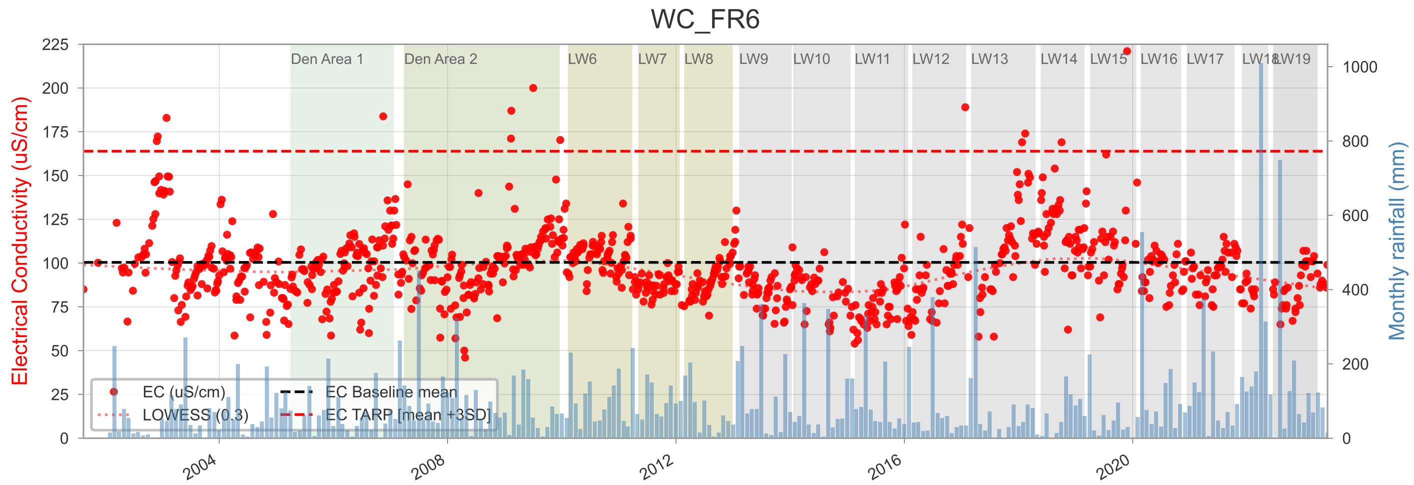

WC_CHANNEL14
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
2010
2012
2014
2016
2018
2020
2022

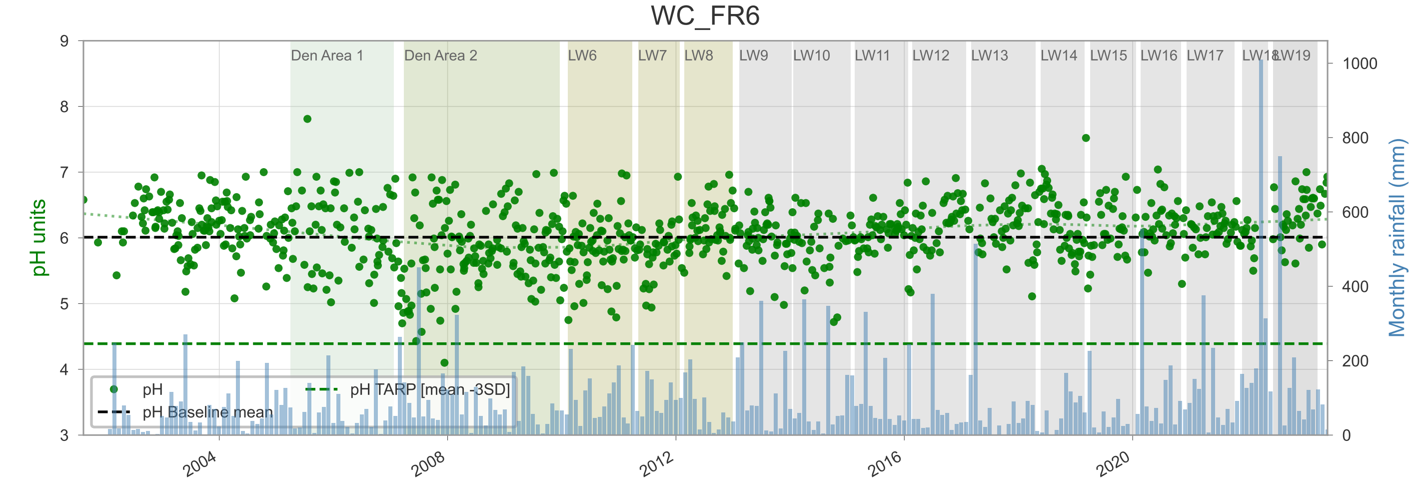

WC_CHANNEL14
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

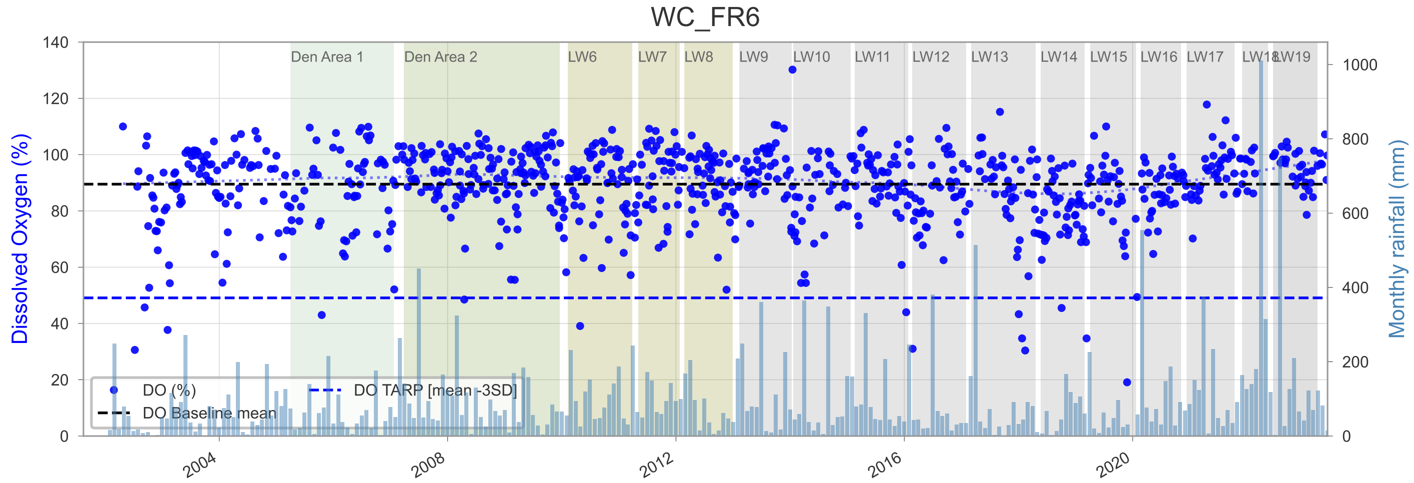

WC_CHANNEL14
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

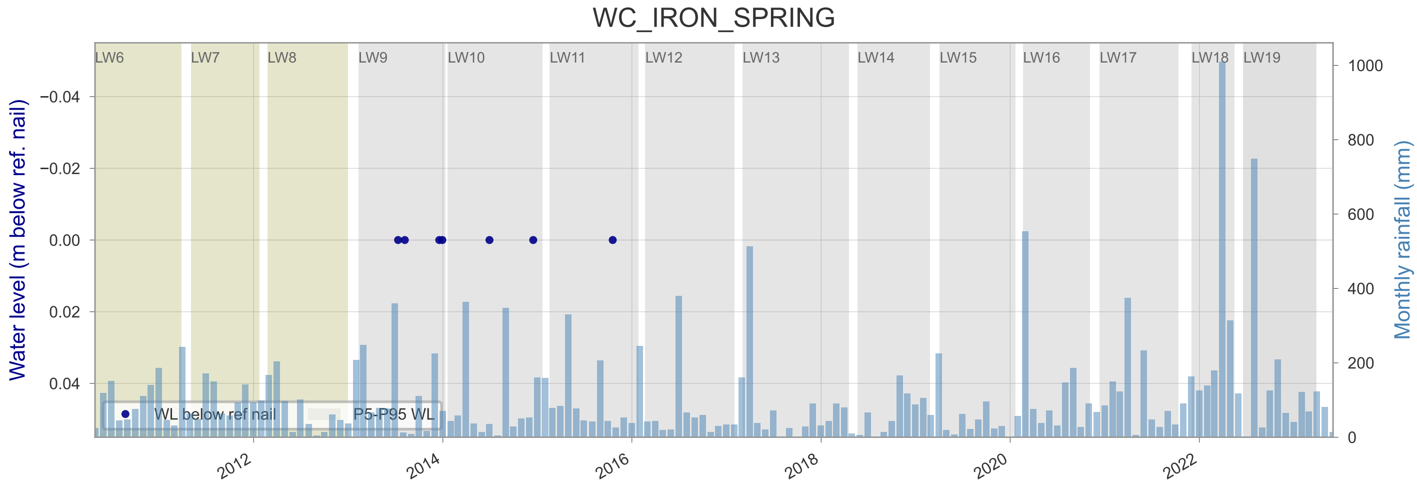

WC_CHANNEL14
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

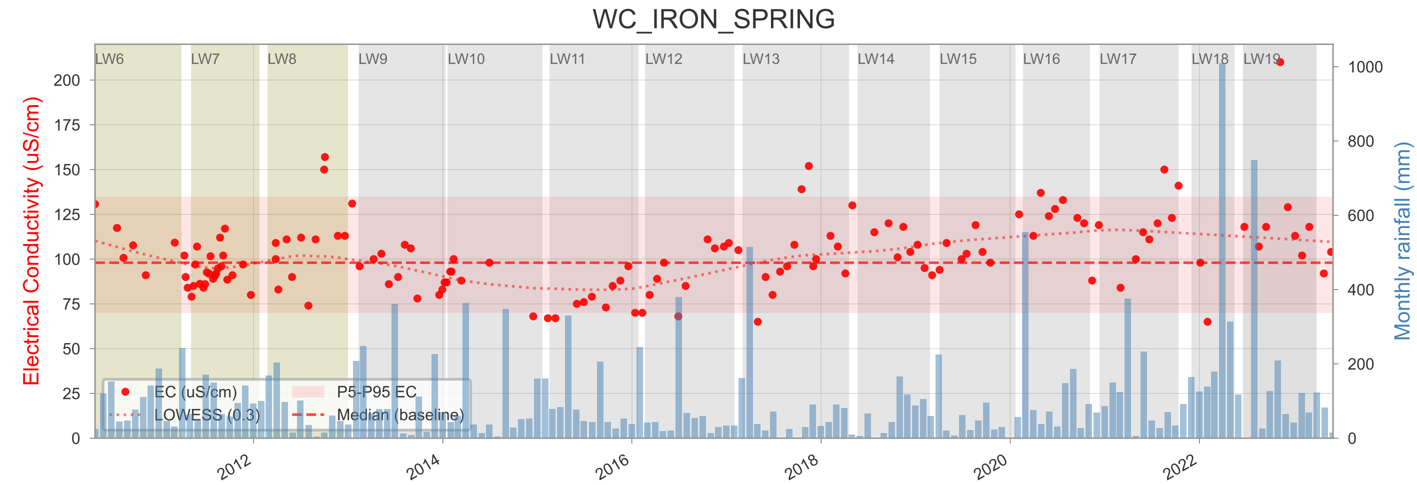

WWL
Stream flow (ML/day)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Flow (ML/d)
P5-P95 flow
2004
2008
2012
2016
2020

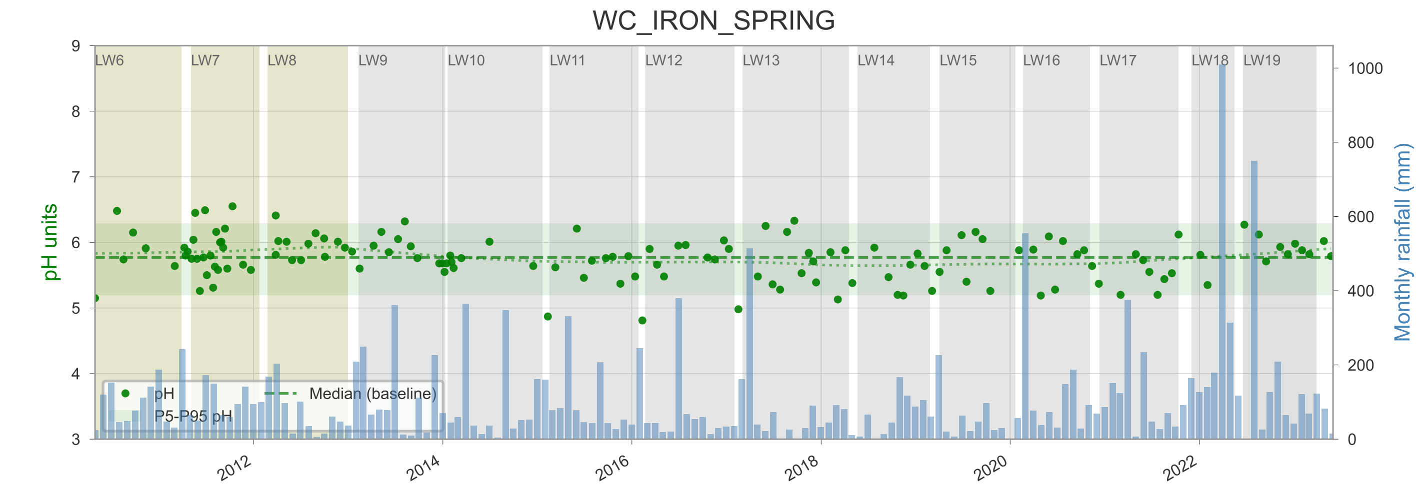

WC_FR6
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
EC Baseline mean
EC TARP [mean +3SD]
2004
2008
2012
2016
2020

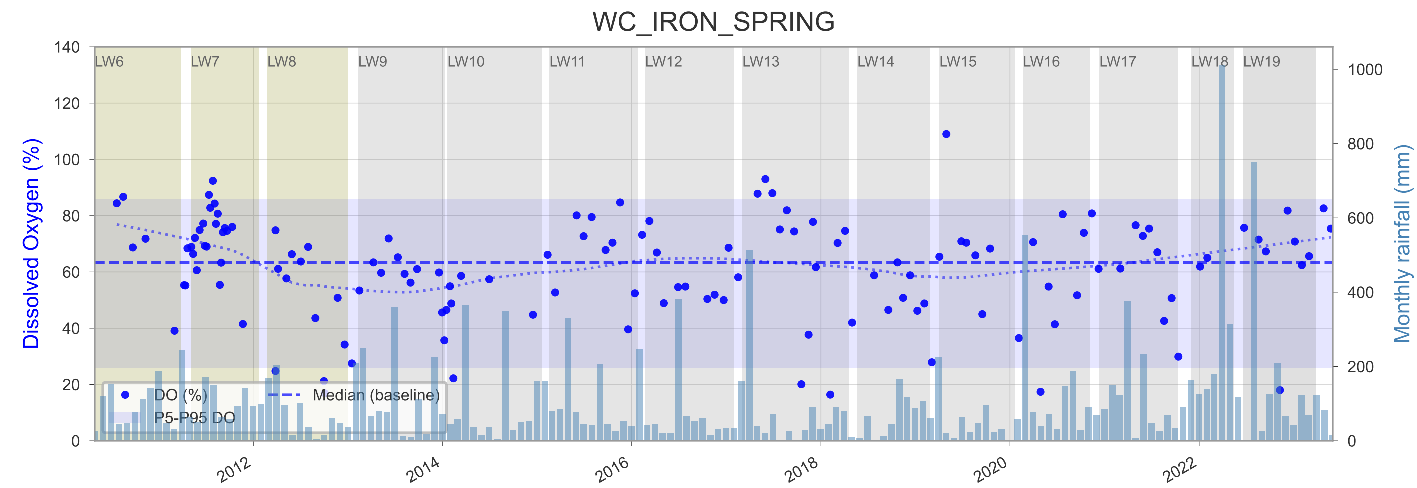

WC_FR6
pH units
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
pH Baseline mean
pH TARP [mean -3SD]
2004
2008
2012
2016
2020

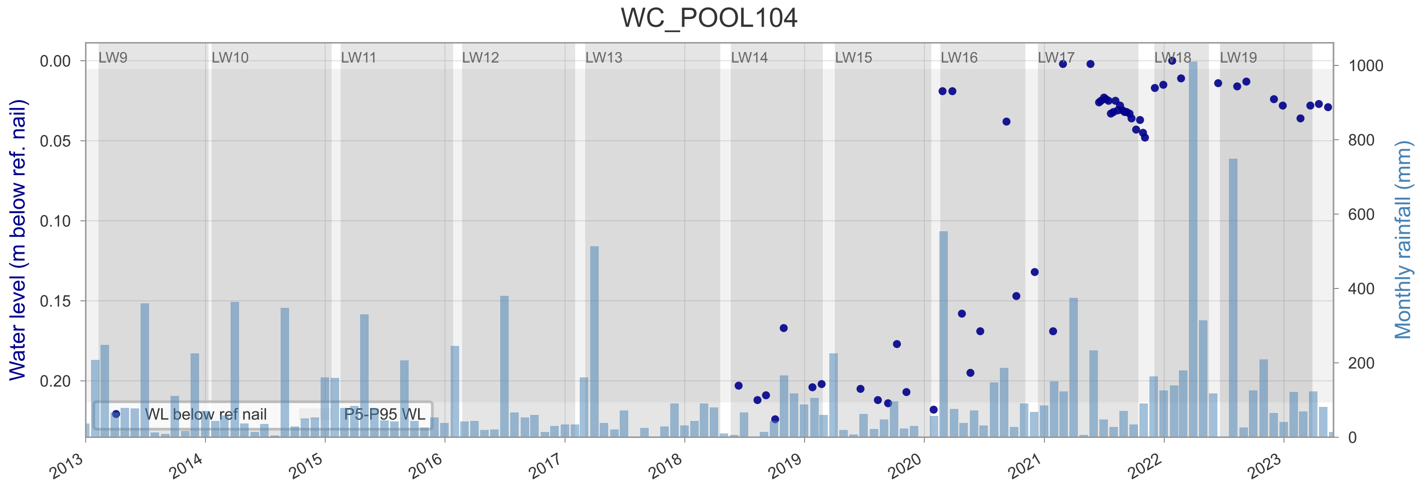

WC_FR6
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
DO Baseline mean
DO TARP [mean -3SD]
2004
2008
2012
2016
2020

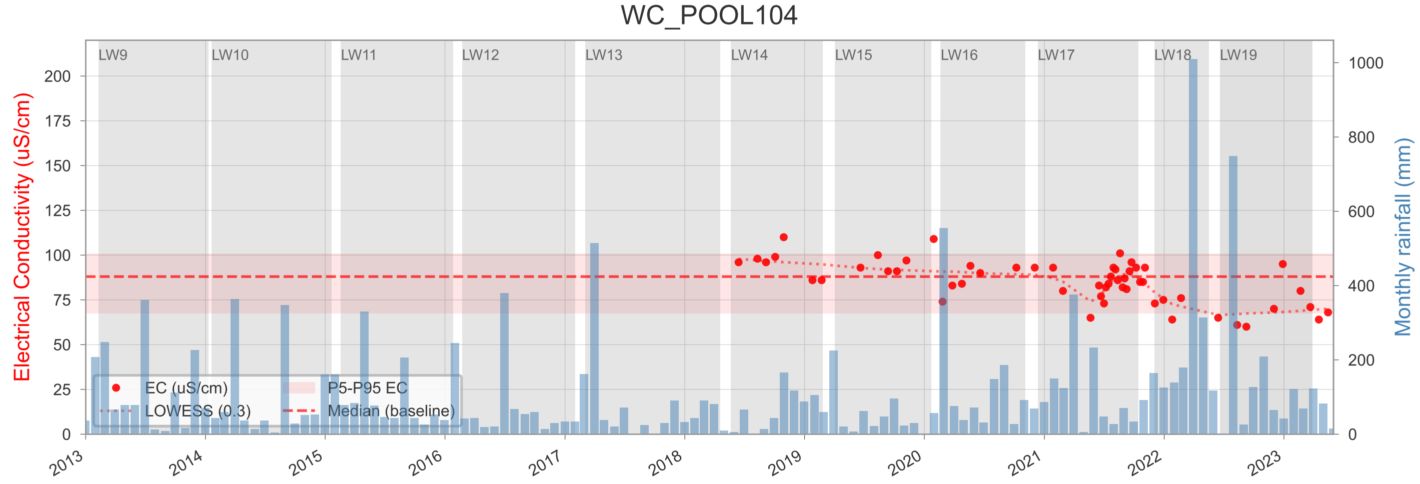

WC_IRON_SPRING
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
−0.04
−0.02
0.00
0.02
0.04
0
200
400
600
800
1000
2012
2014
2016
2018
2020
2022

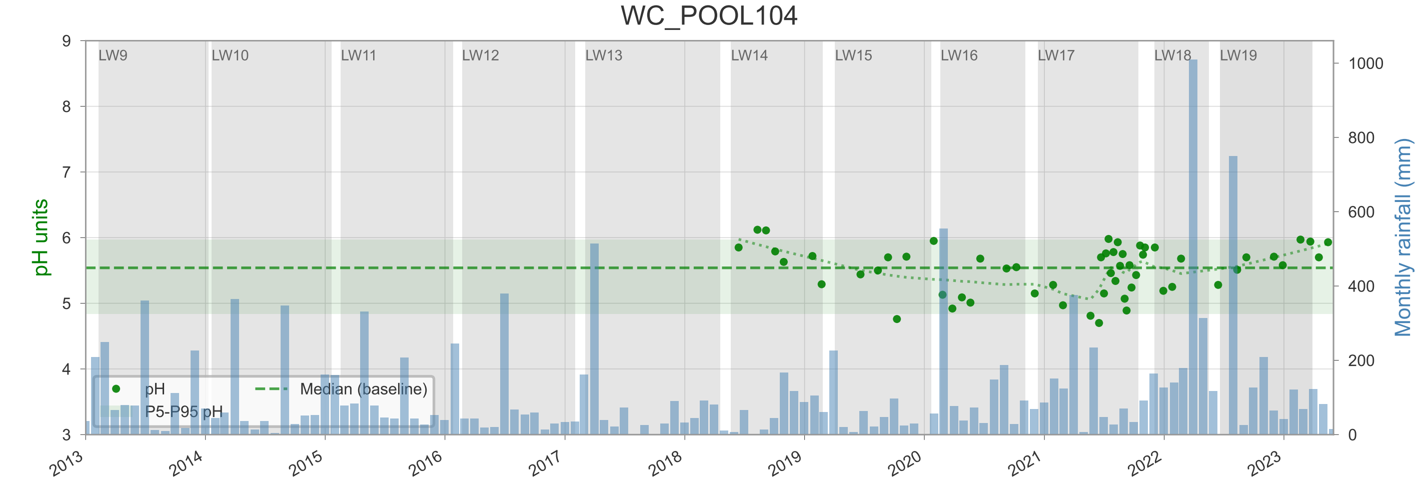

WC_IRON_SPRING
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2012
2014
2016
2018
2020
2022

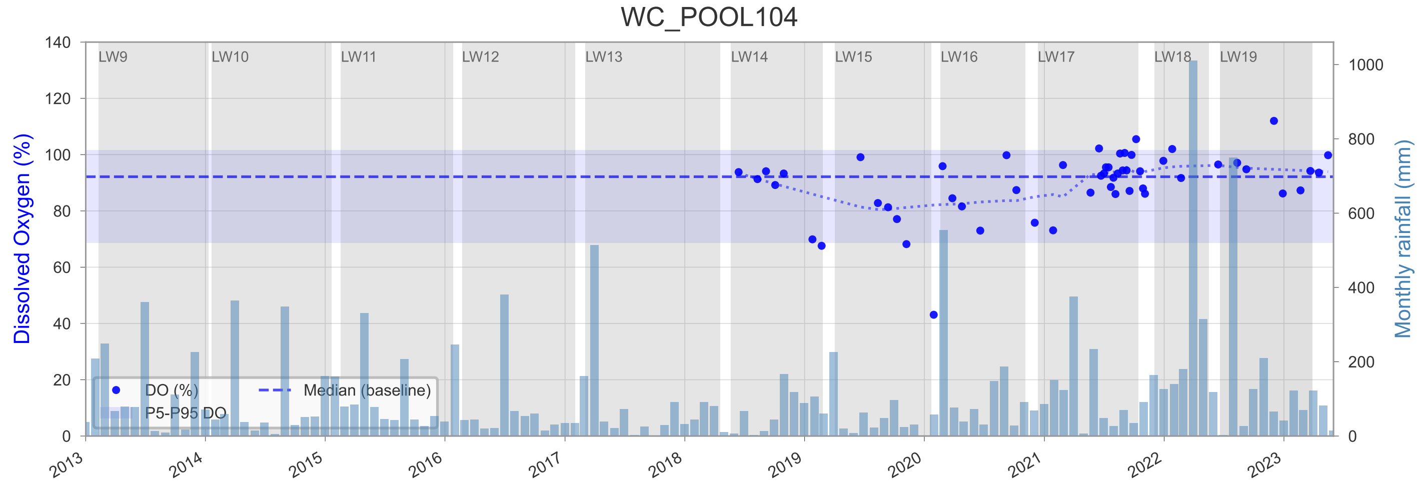

WC_IRON_SPRING
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2012
2014
2016
2018
2020
2022

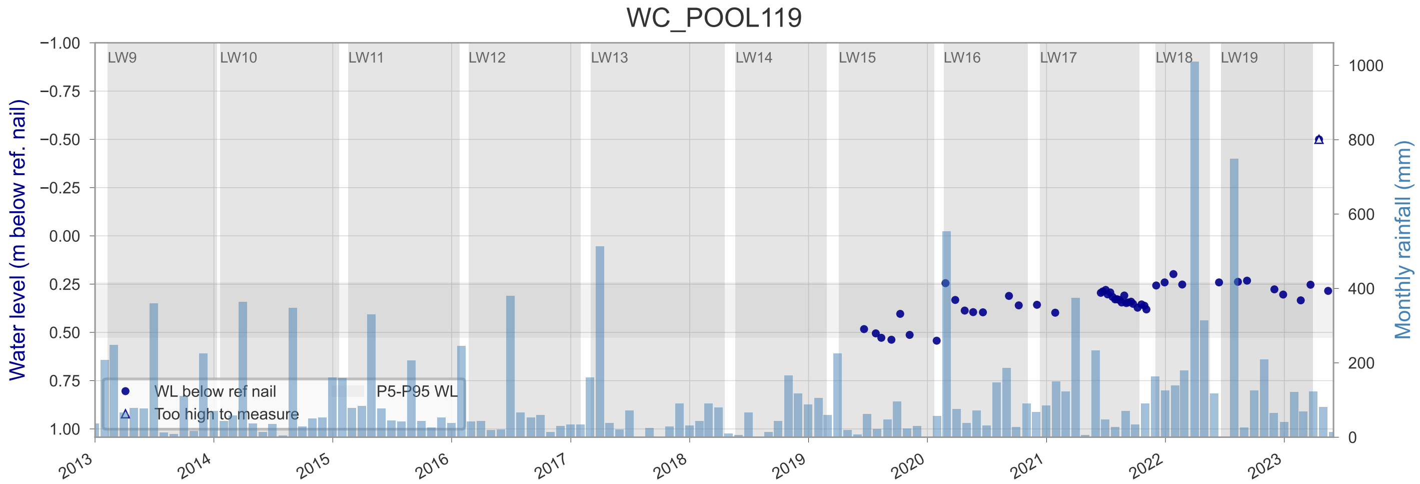

WC_IRON_SPRING
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2012
2014
2016
2018
2020
2022

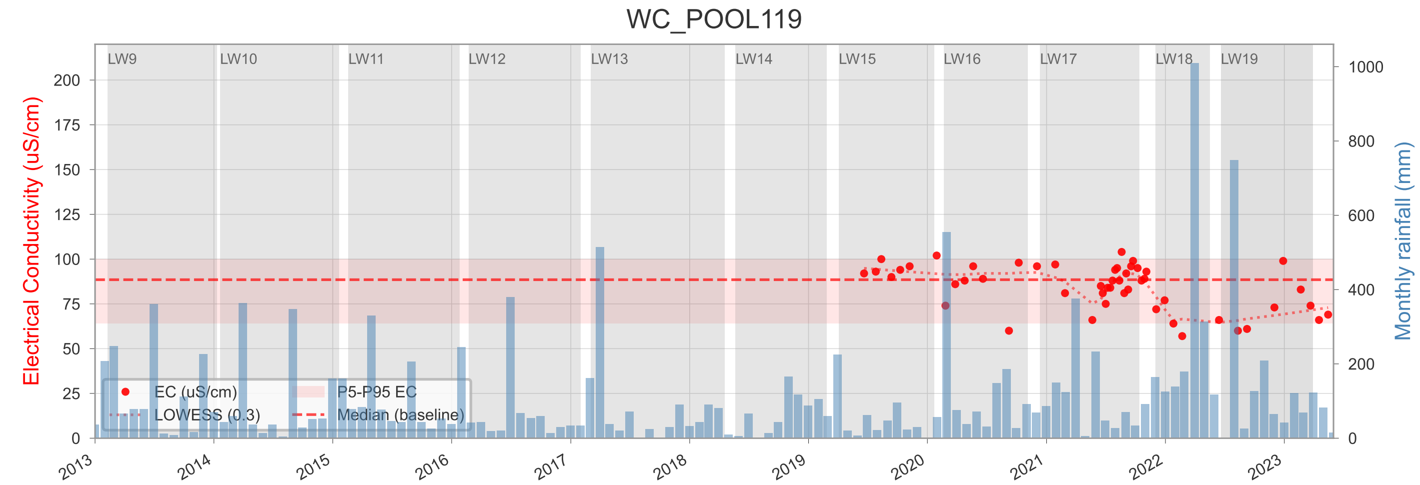

WC_POOL104
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
WL below ref nail
P5-P95 WL

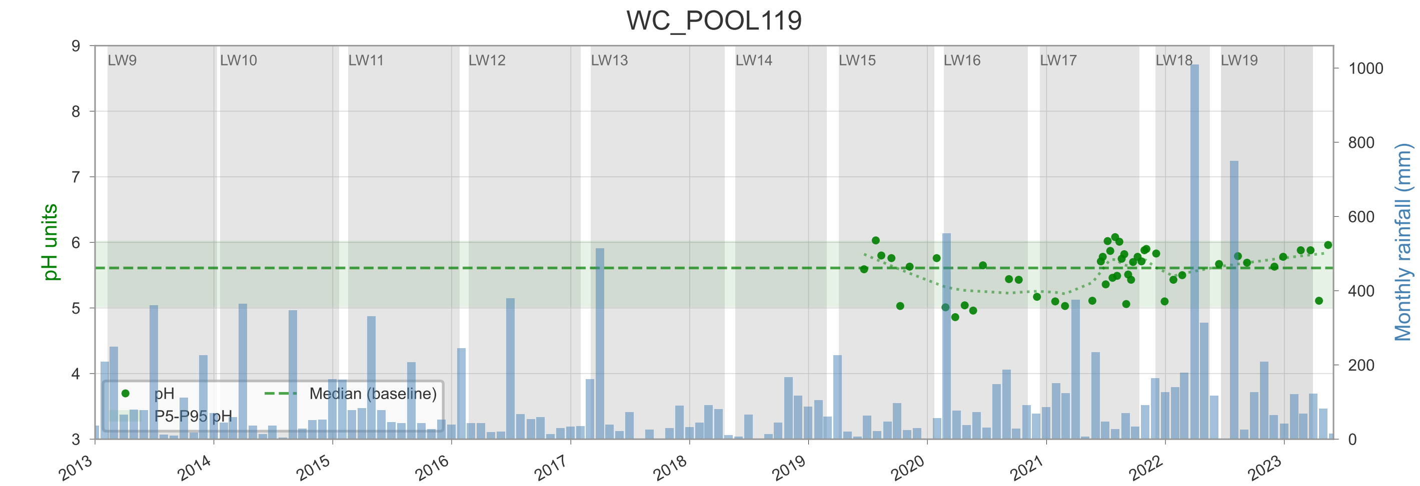

WC_POOL104
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

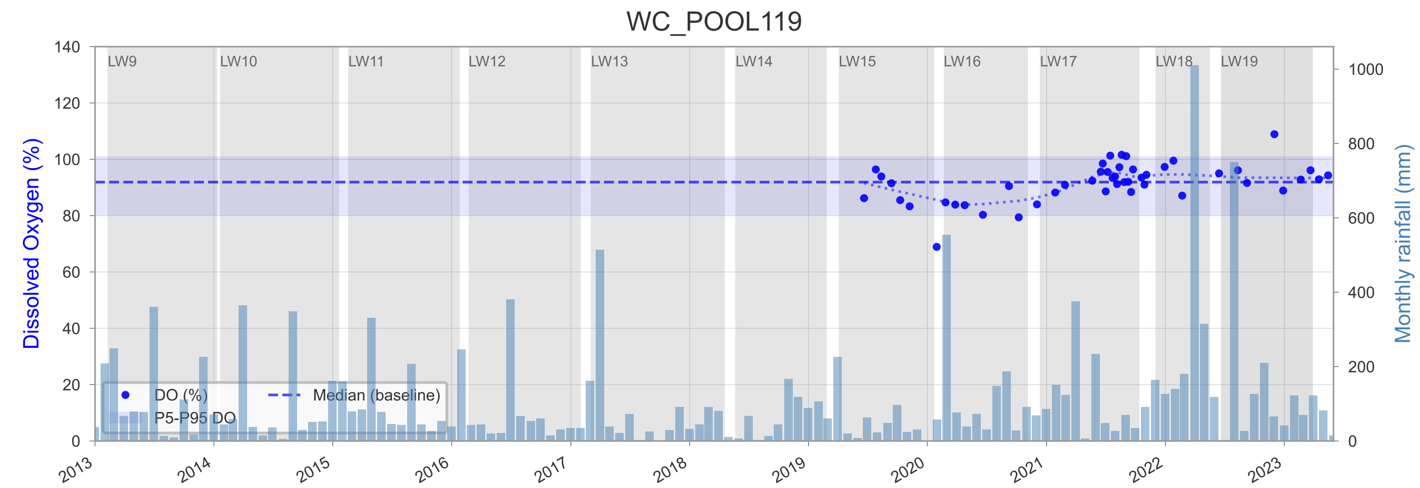

WC_POOL104
pH units
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
pH
P5-P95 pH
Median (baseline)

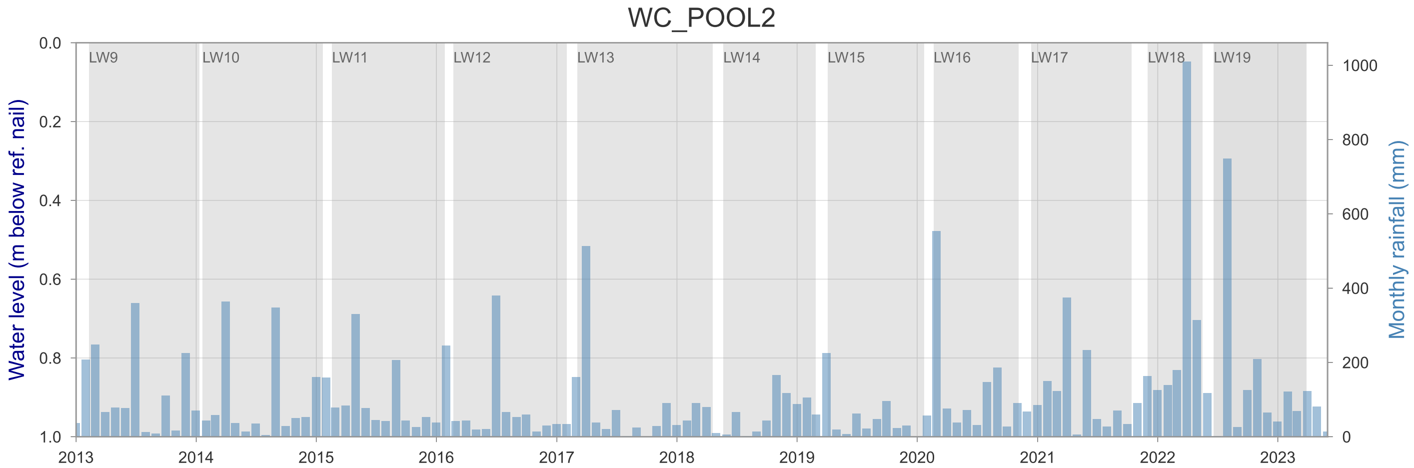

WC_POOL104
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
DO (%)
P5-P95 DO
Median (baseline)

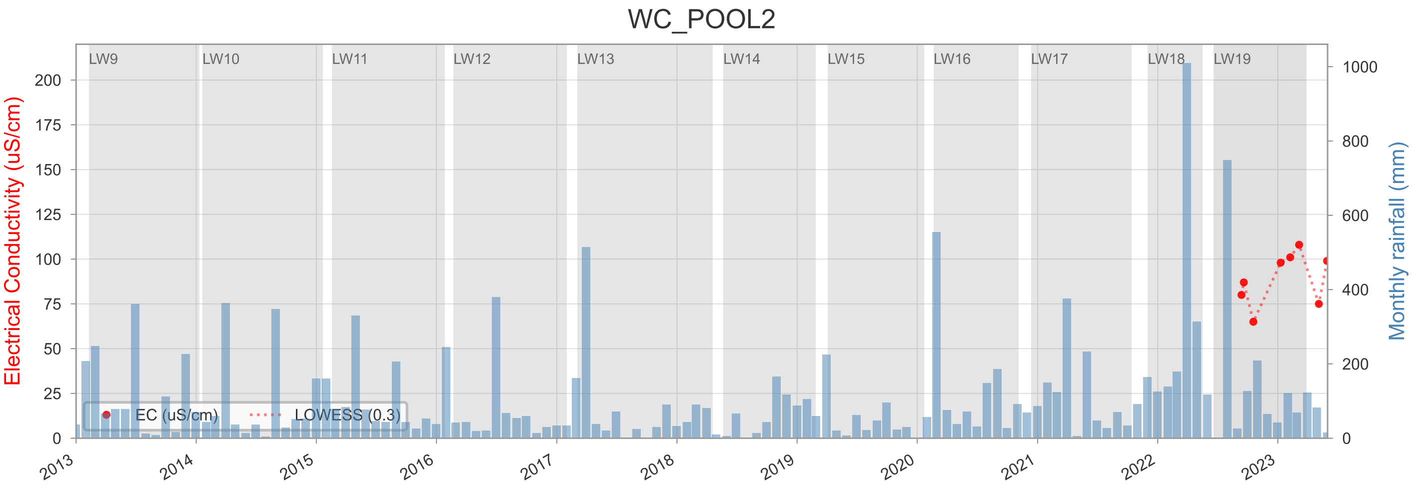

WC_POOL119
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
Too high to measure
P5-P95 WL

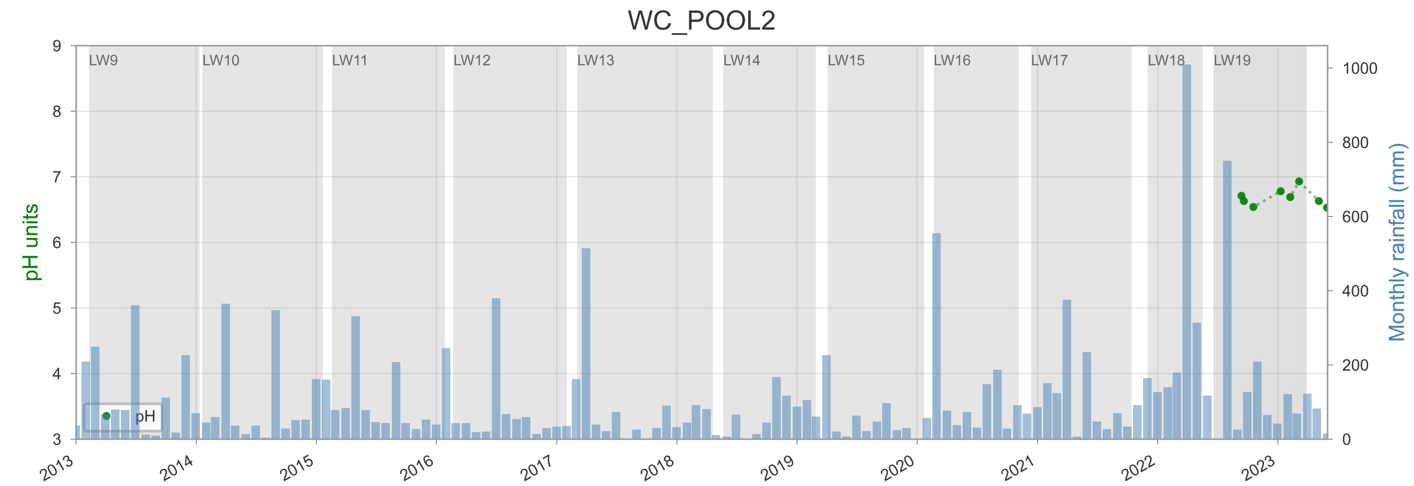

WC_POOL119
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

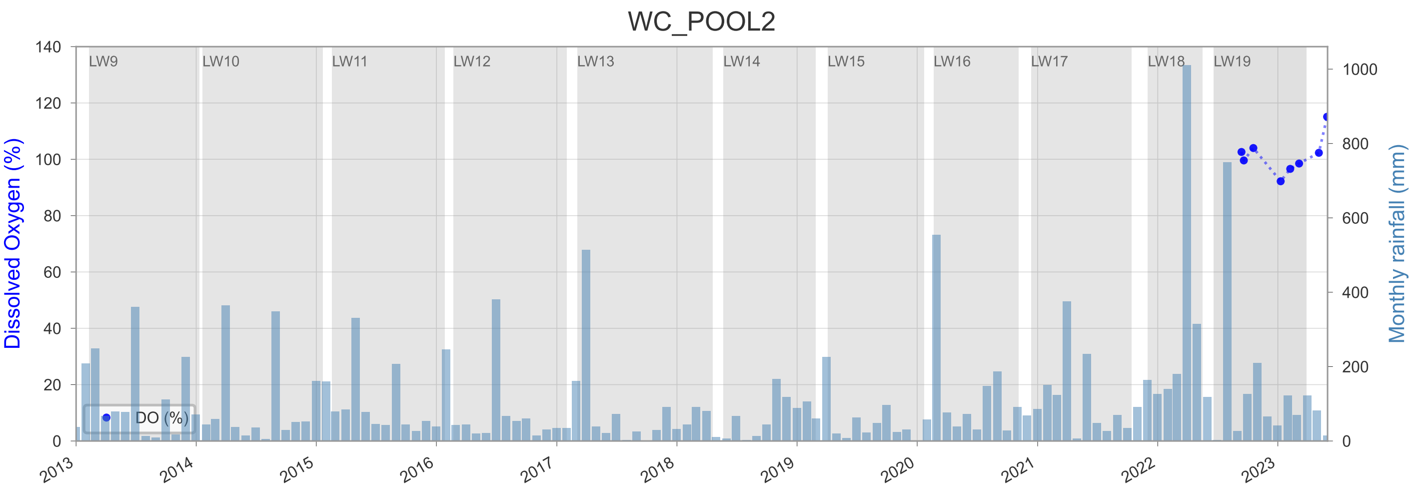

WC_POOL119
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

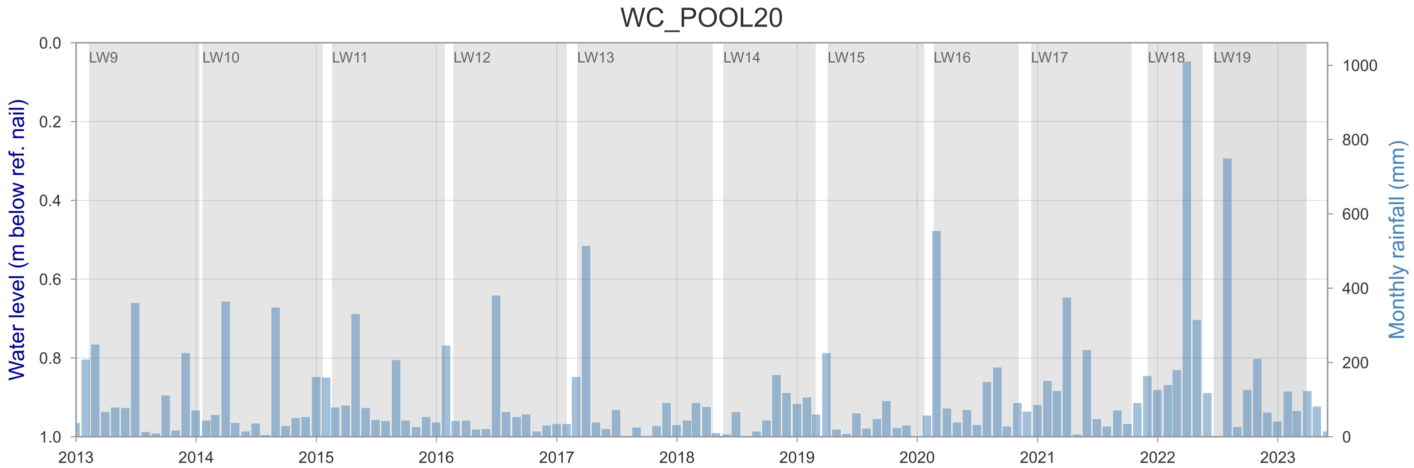

WC_POOL119
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

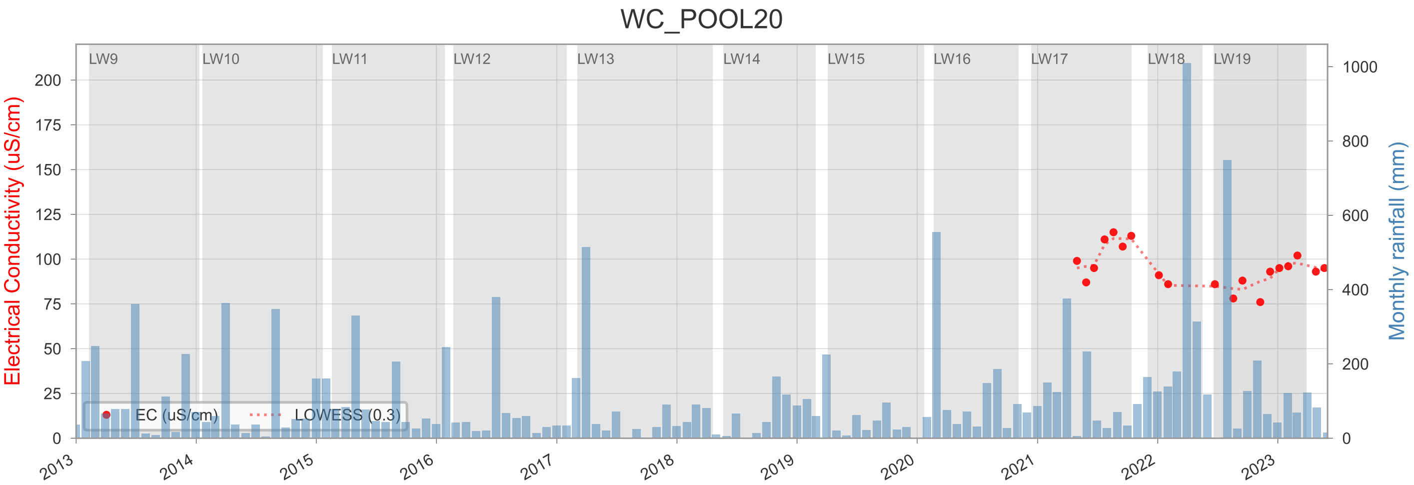

WC_POOL2
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

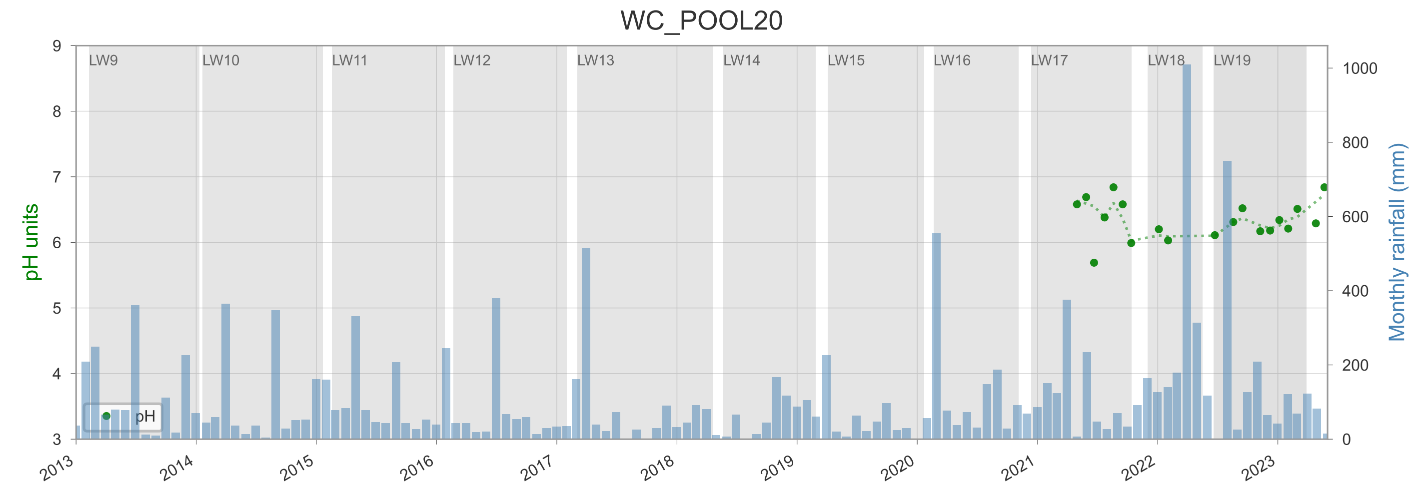

WC_POOL2
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

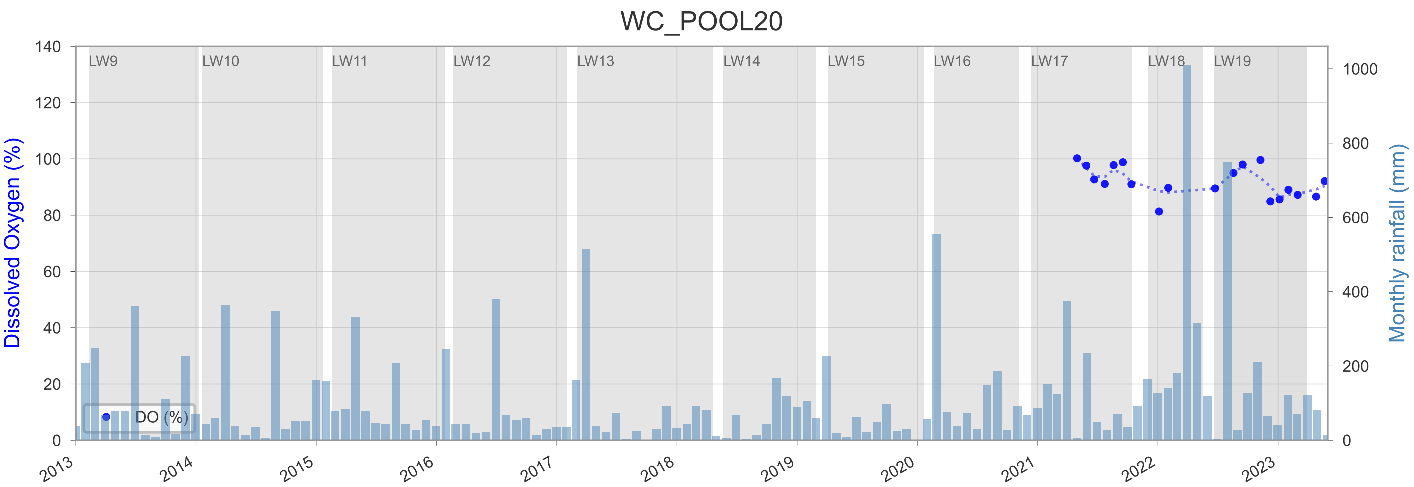

WC_POOL2
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

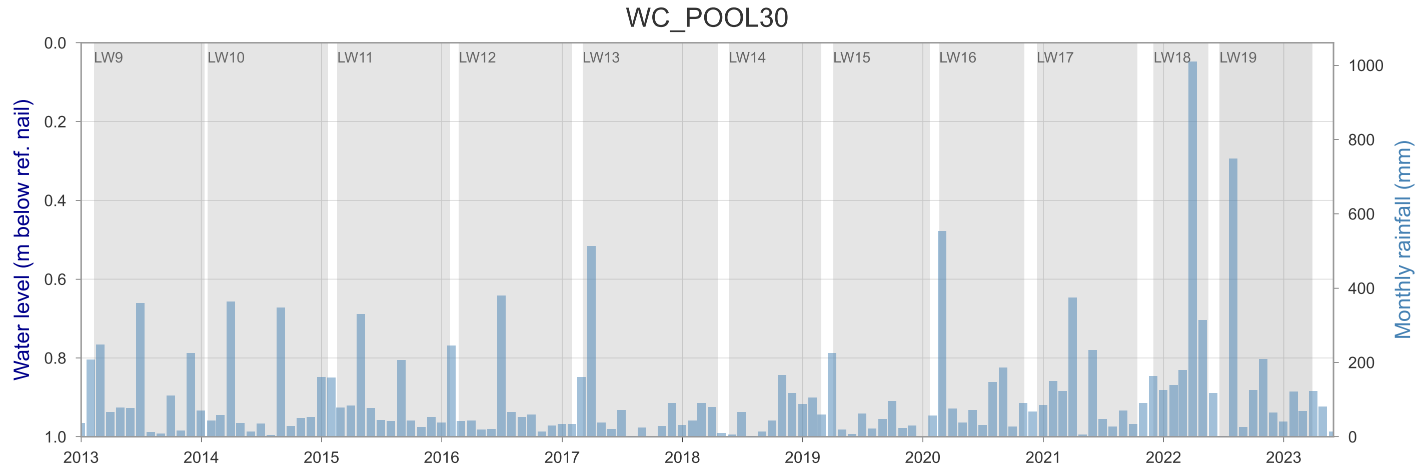

WC_POOL2
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

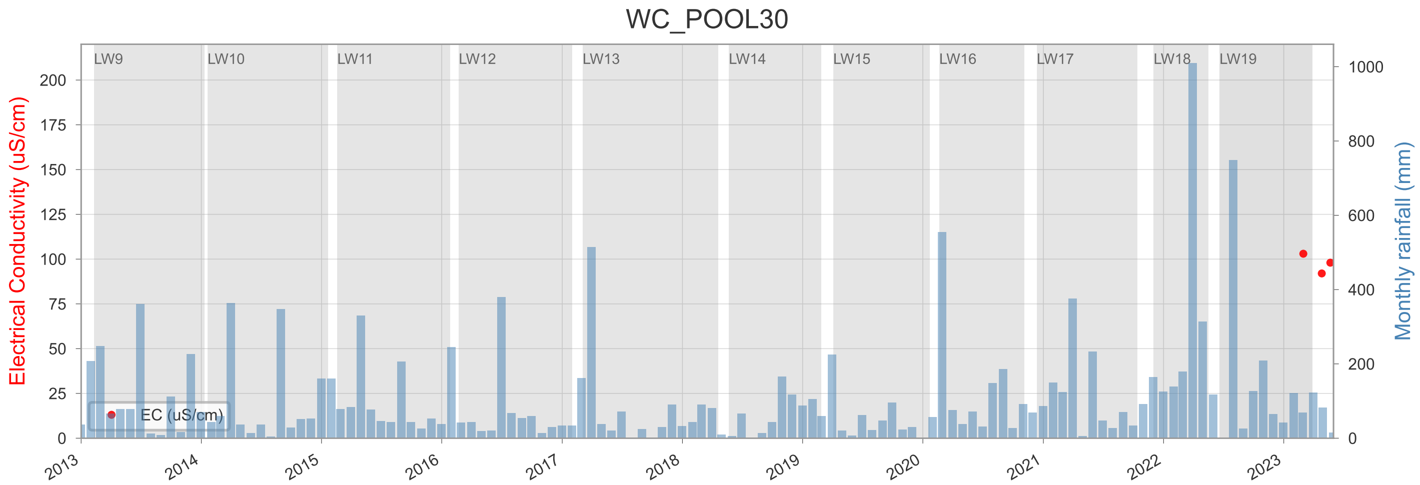

WC_POOL20
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

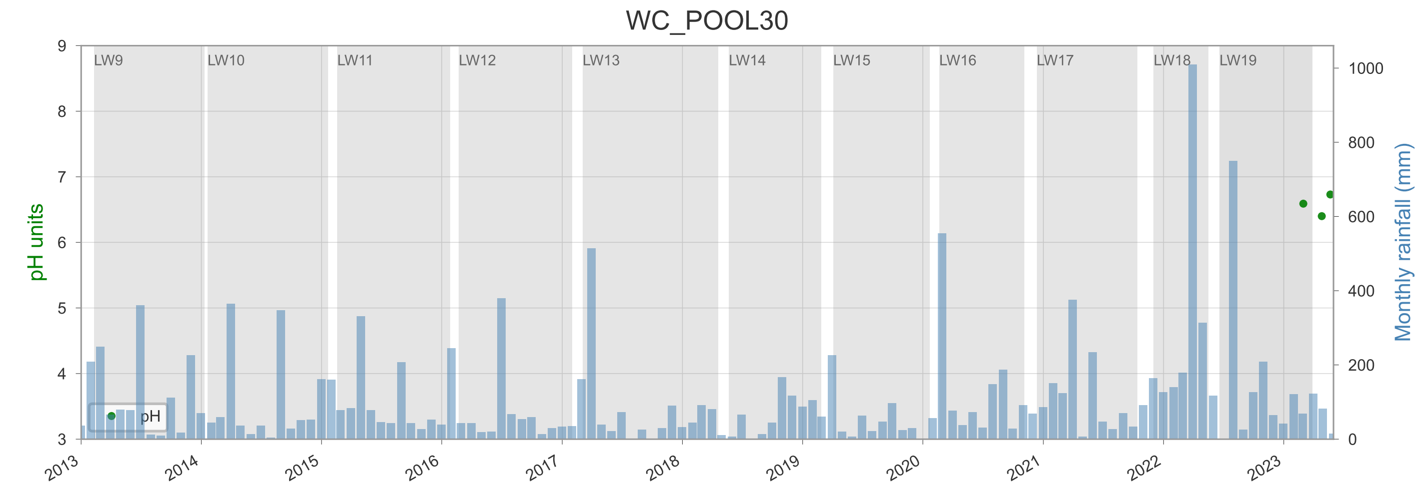

WC_POOL20
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

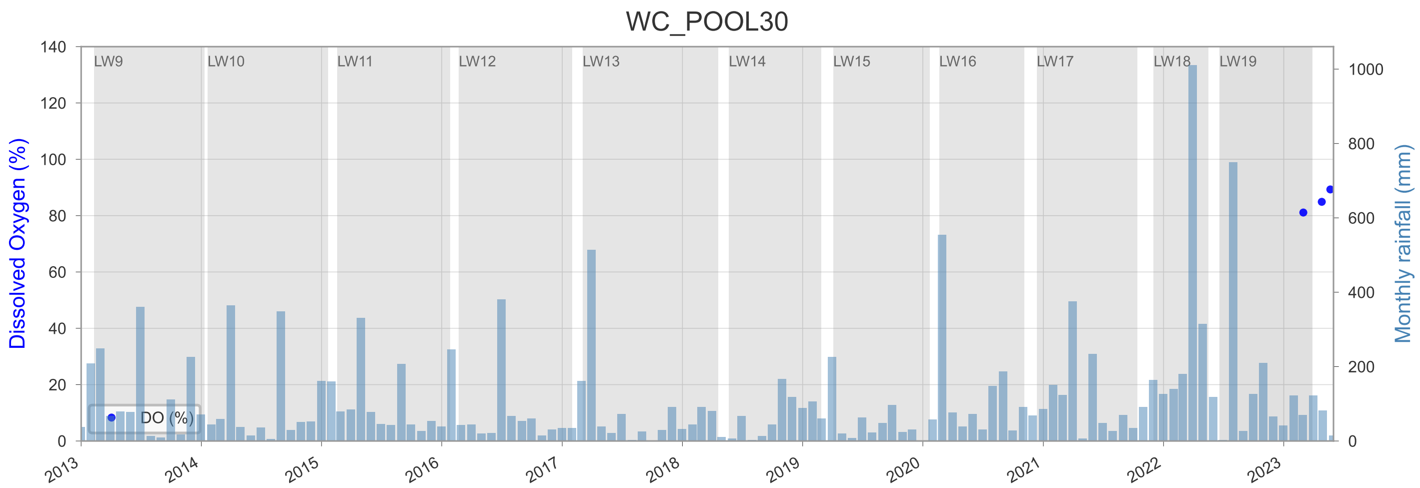

WC_POOL20
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

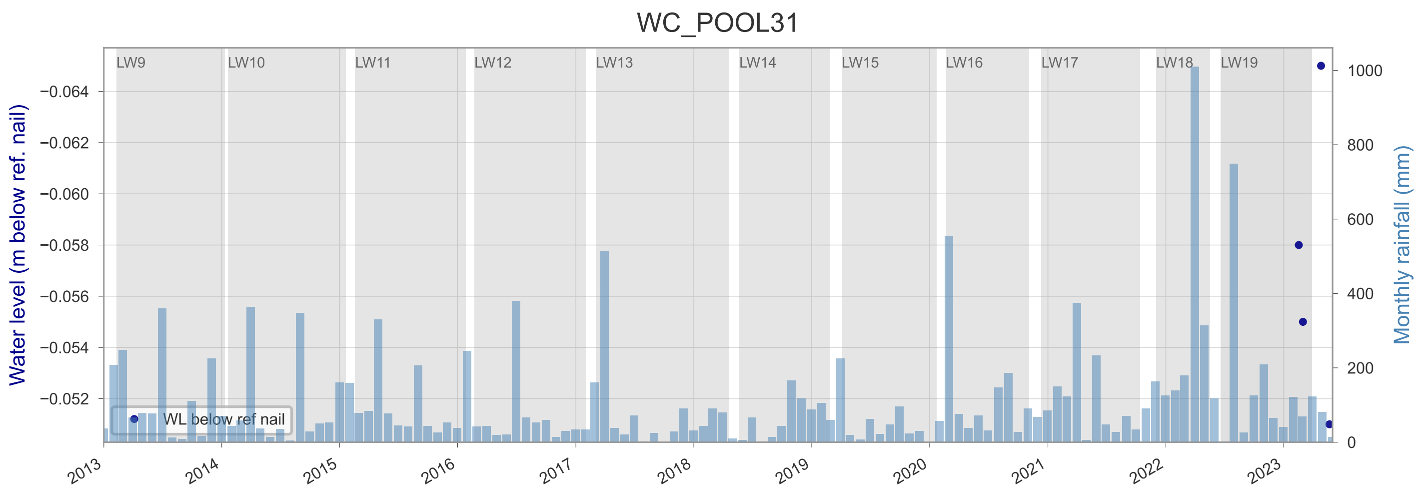

WC_POOL20
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

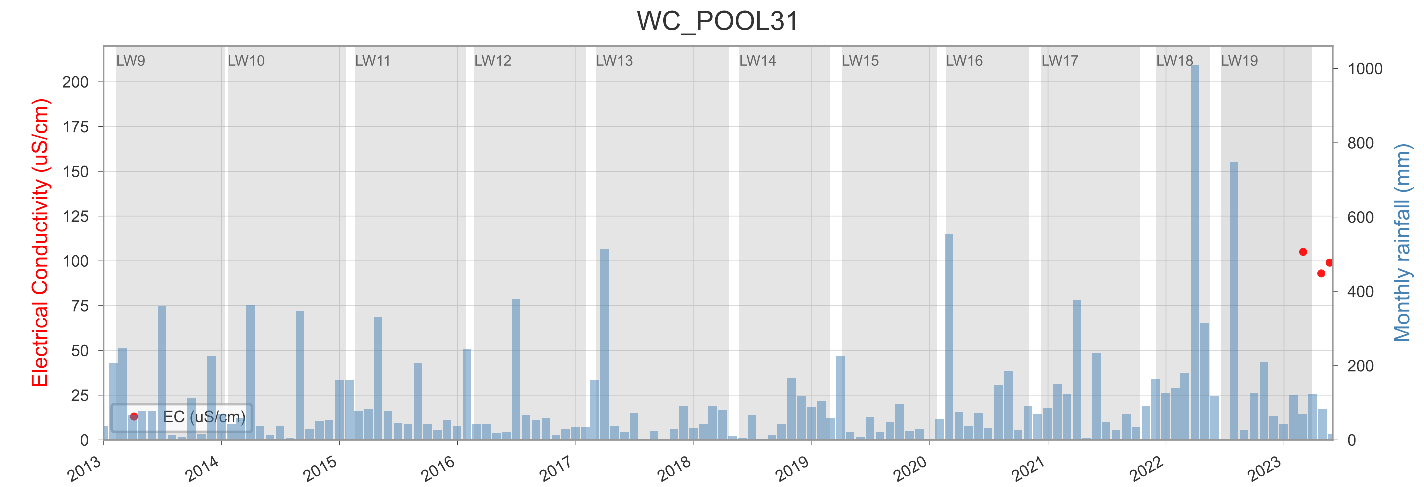

WC_POOL30
Water level (m below ref. nail)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.0 0.2 0.4 0.6 0.8 1.0
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

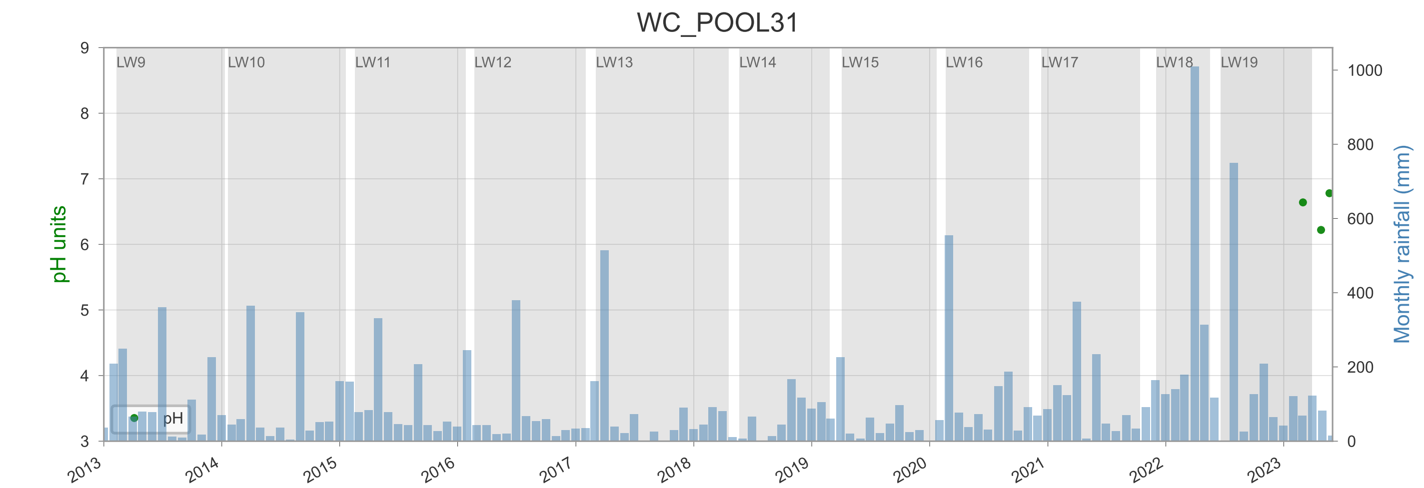

WC_POOL30
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 25 50 75 100 125 150 175 200
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

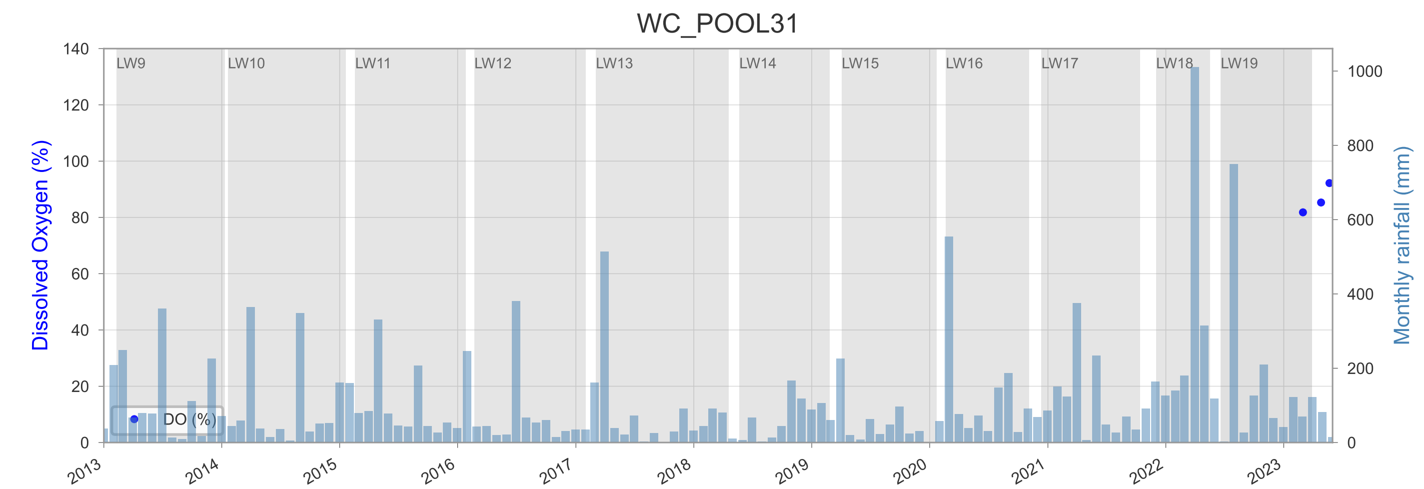

WC_POOL30
pH units
Monthly rainfall (mm)
pH
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
3 4 5 6 7 8 9
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

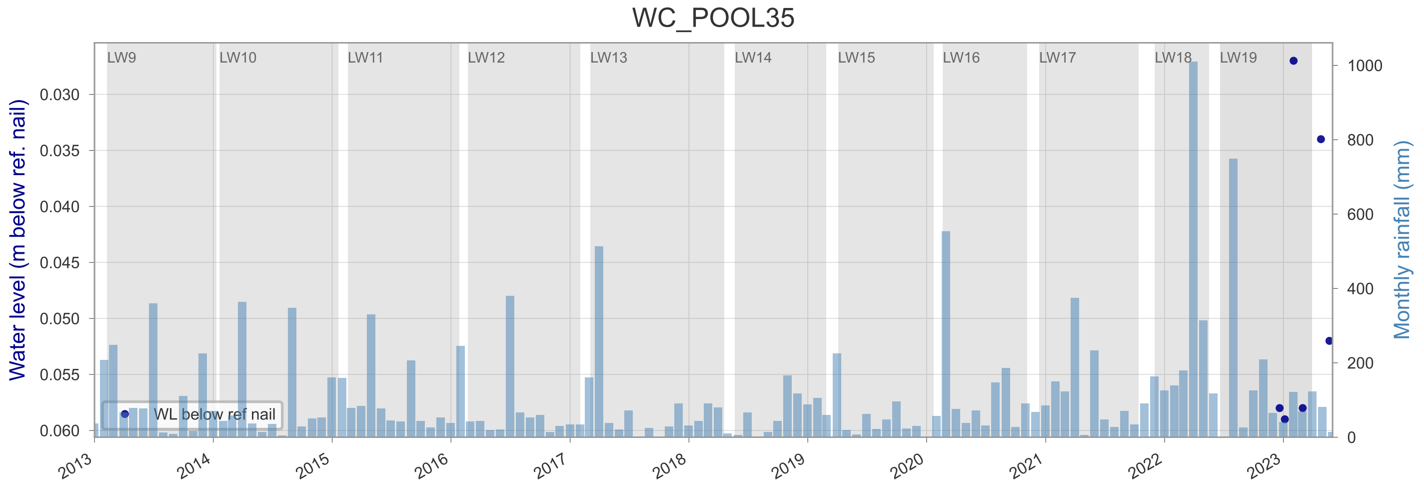

WC_POOL30
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 20 40 60 80 100 120 140
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

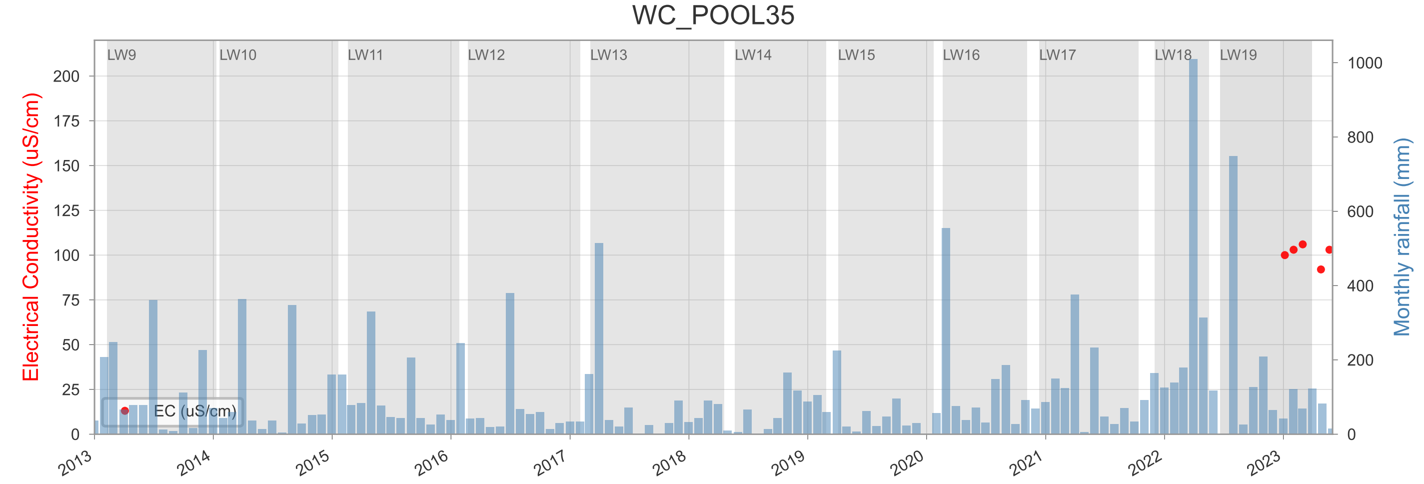

WC_POOL31
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
−0.064 −0.062 −0.060 −0.058 −0.056 −0.054 −0.052
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

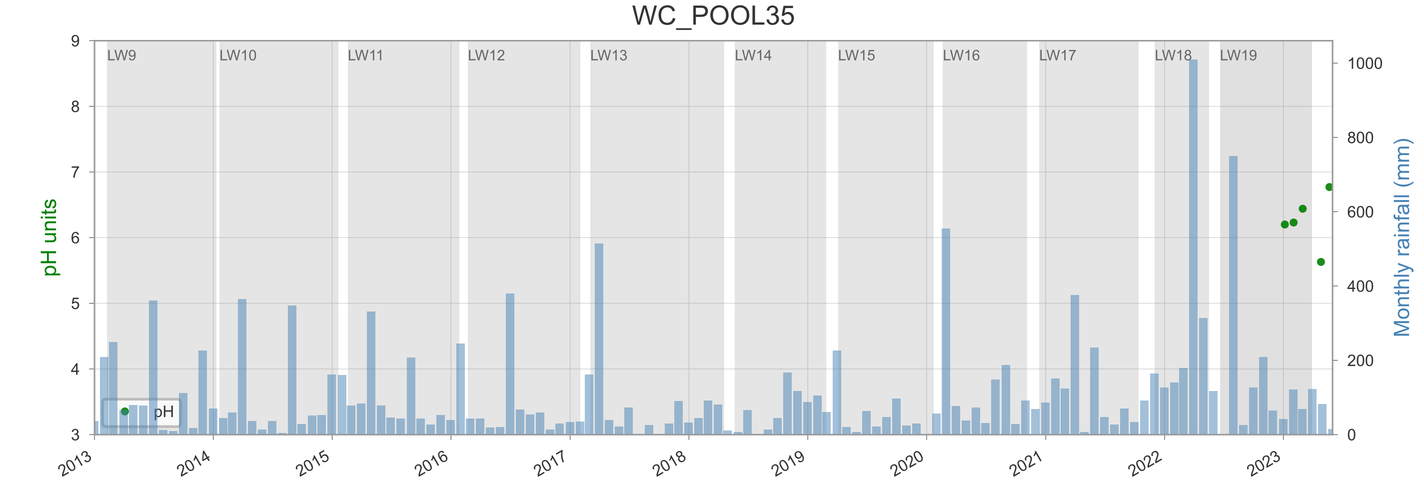

WC_POOL31
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 25 50 75 100 125 150 175 200
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

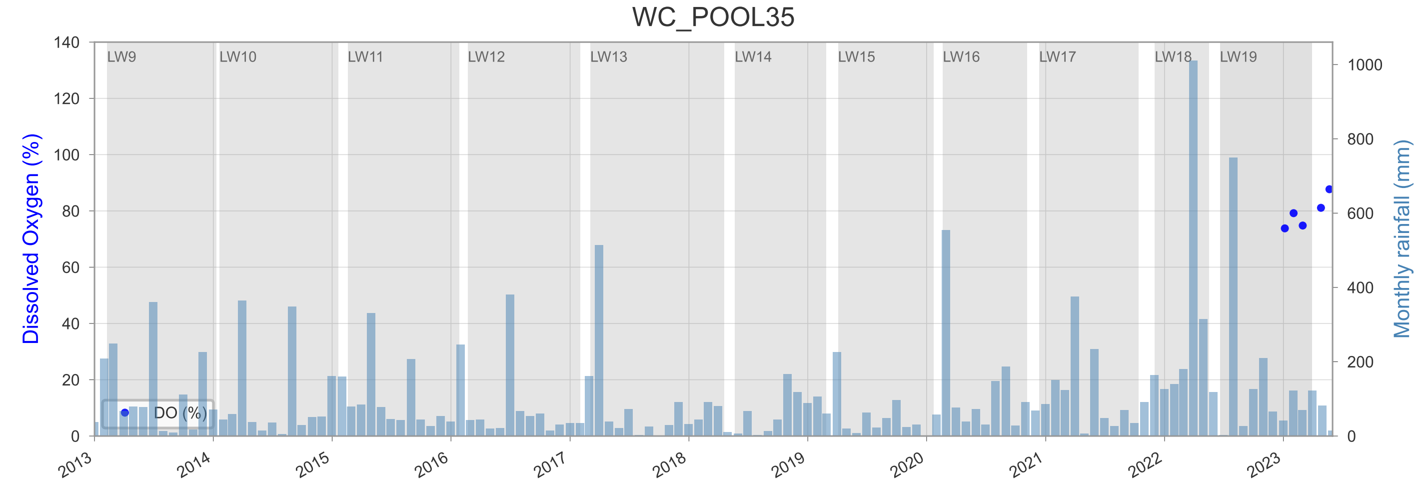

WC_POOL31
pH units
Monthly rainfall (mm)
pH
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
3 4 5 6 7 8 9
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

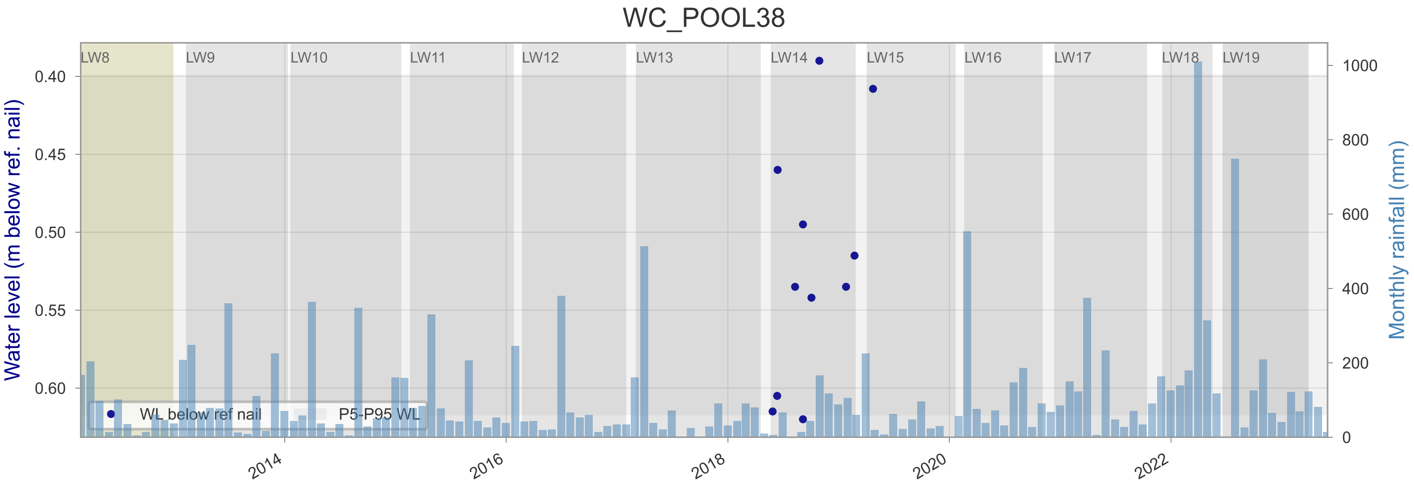

WC_POOL31
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 20 40 60 80 100 120 140
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

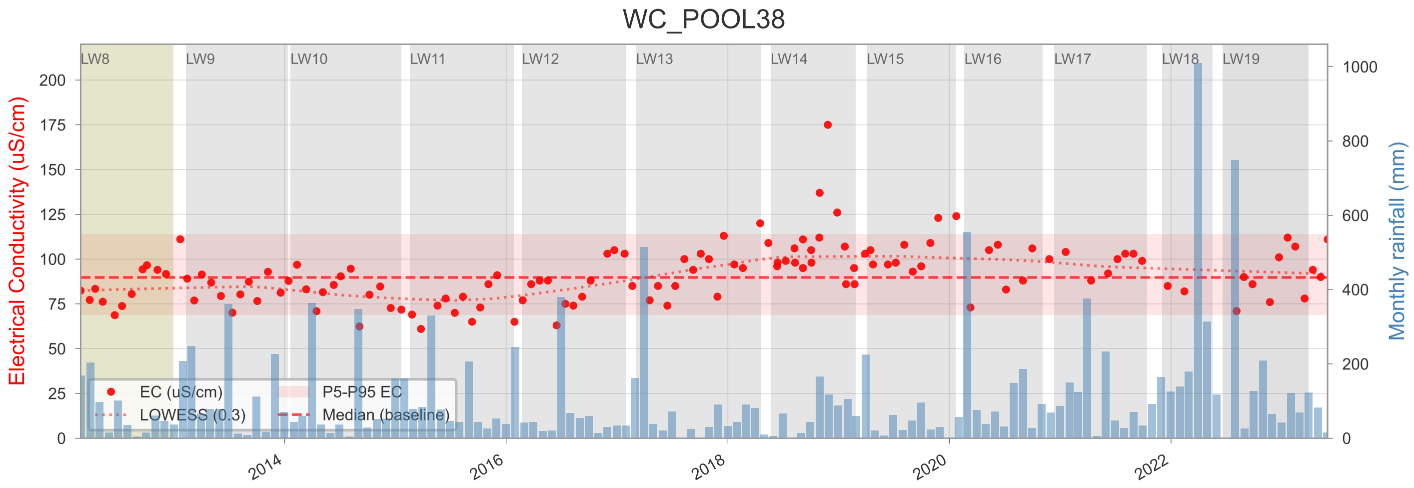

WC_POOL35
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

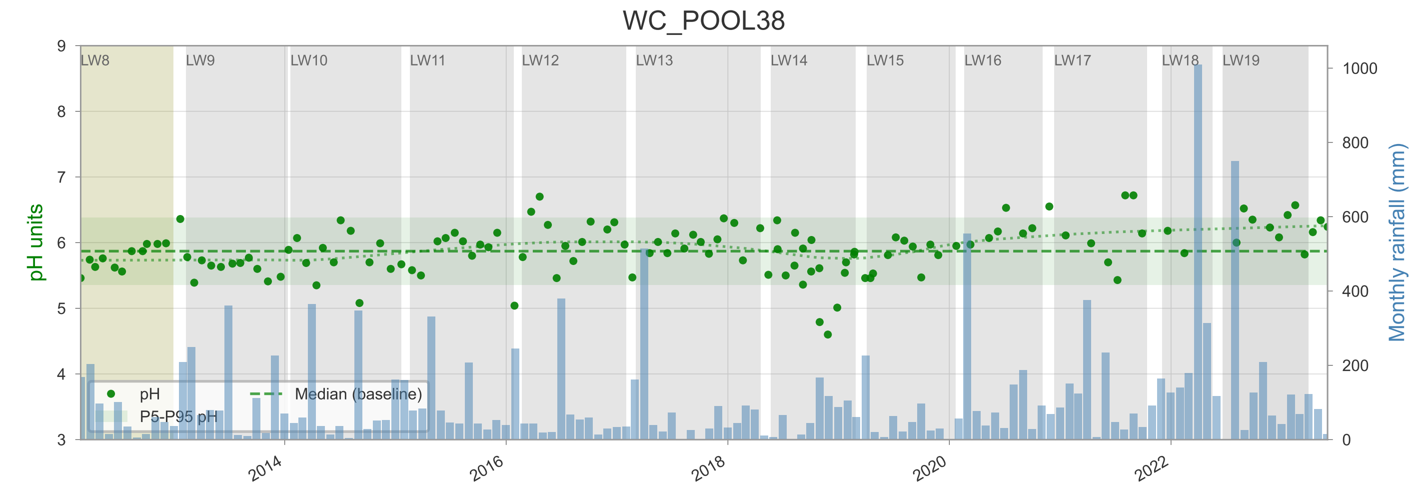

WC_POOL35
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)

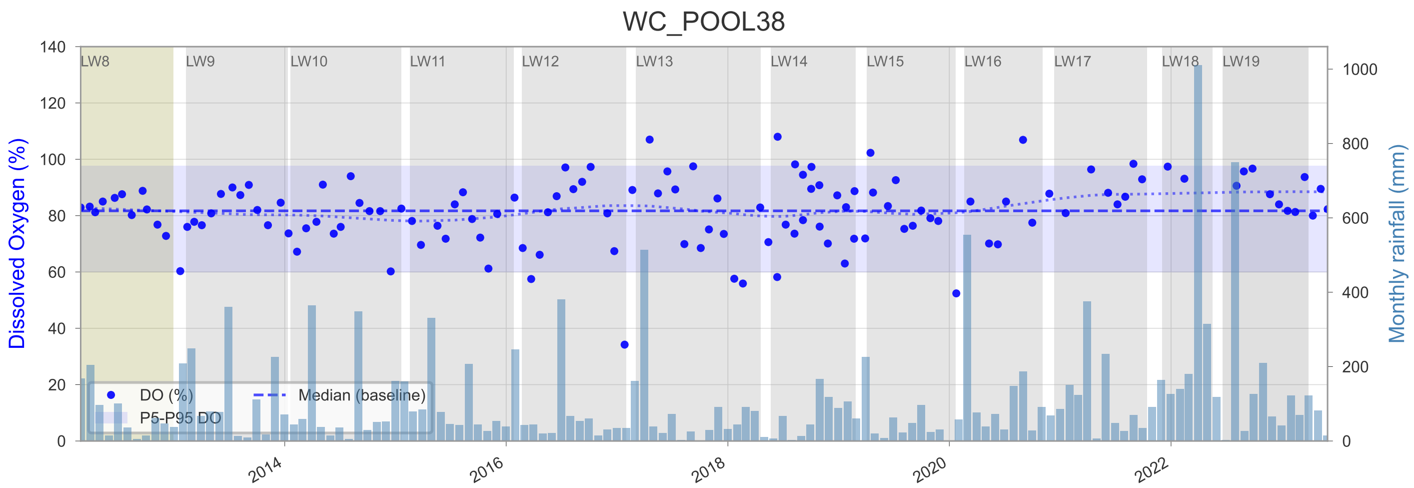

WC_POOL35
pH units
Monthly rainfall (mm)
pH

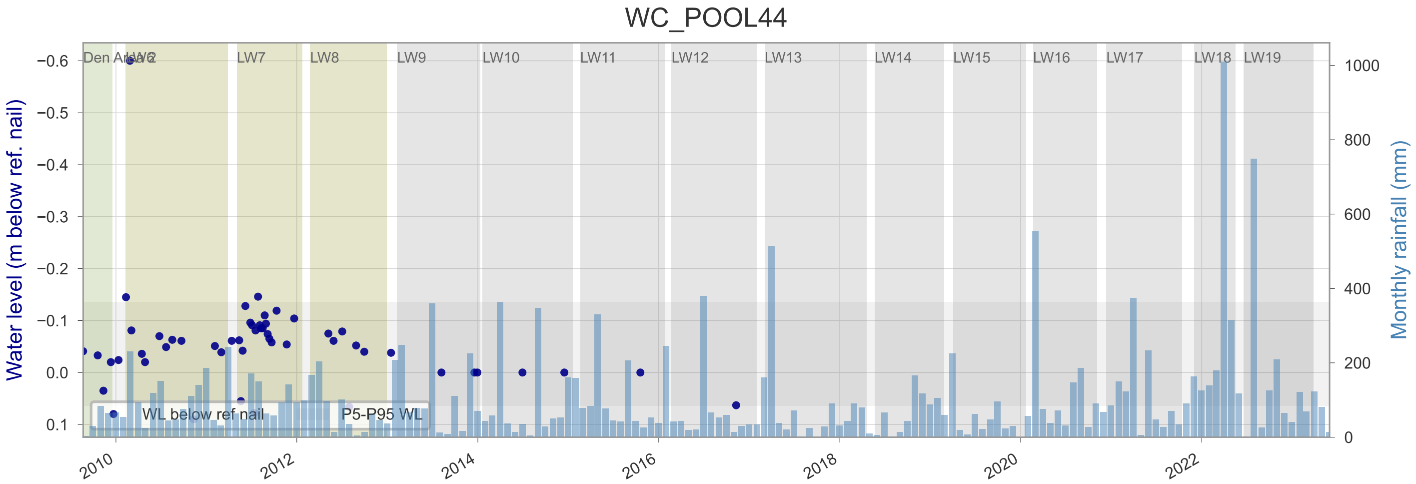

WC_POOL35
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)

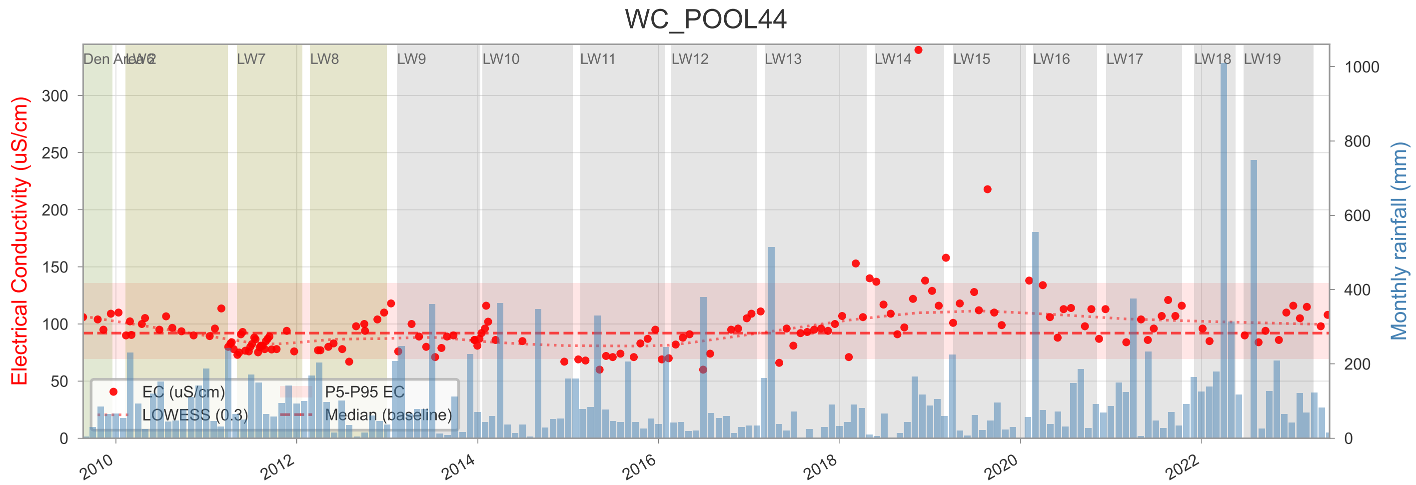

WC_POOL38
Water level (m below ref. nail)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

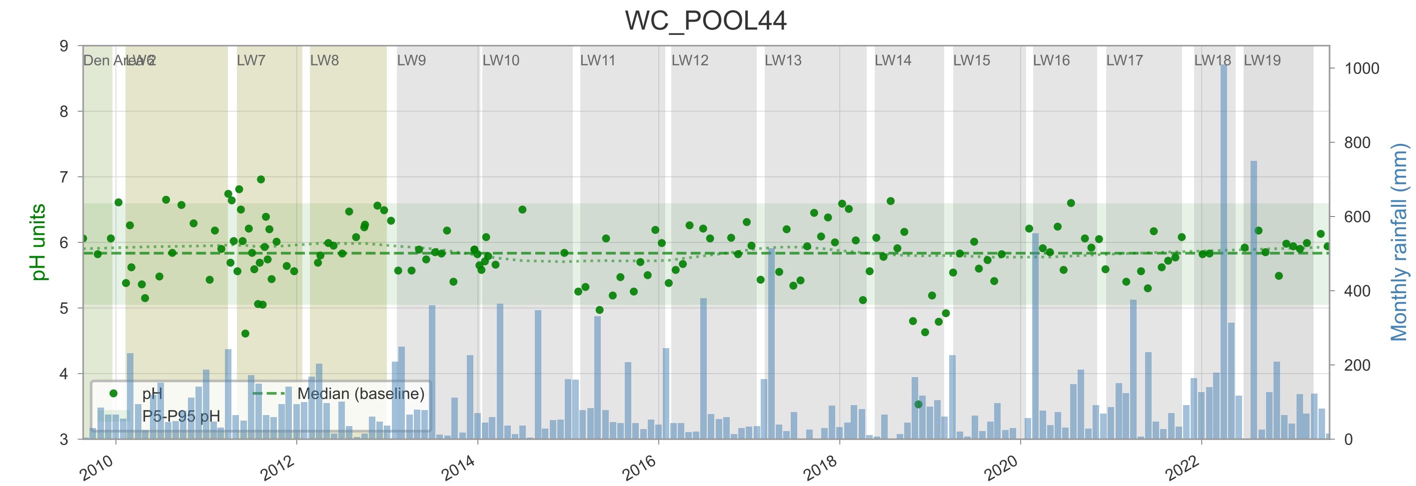

WC_POOL38
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

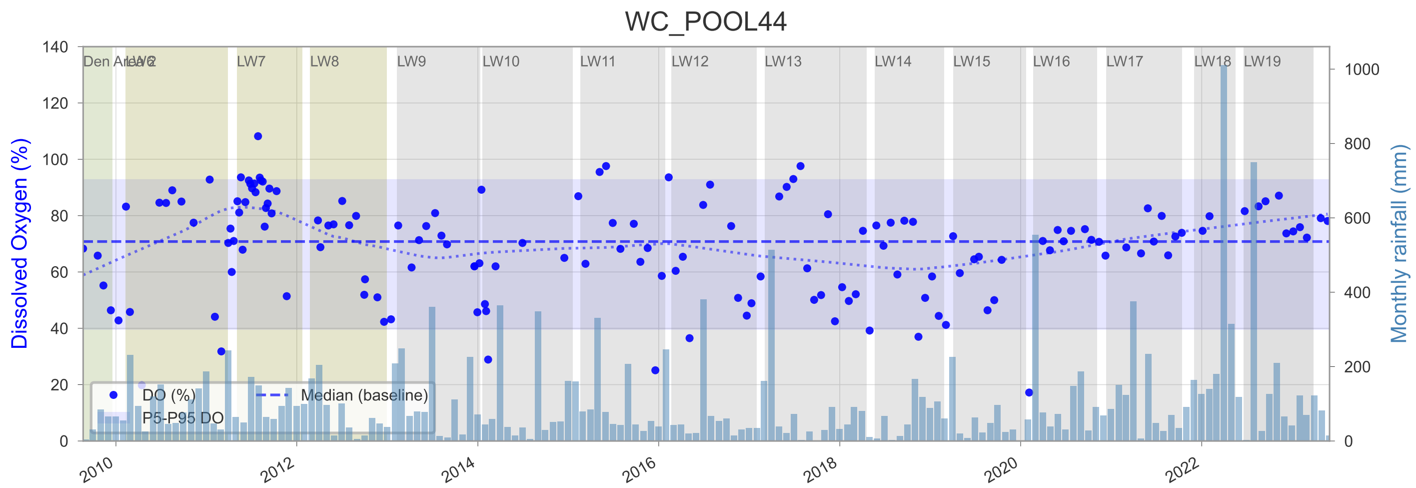

WC_POOL38
pH units
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)

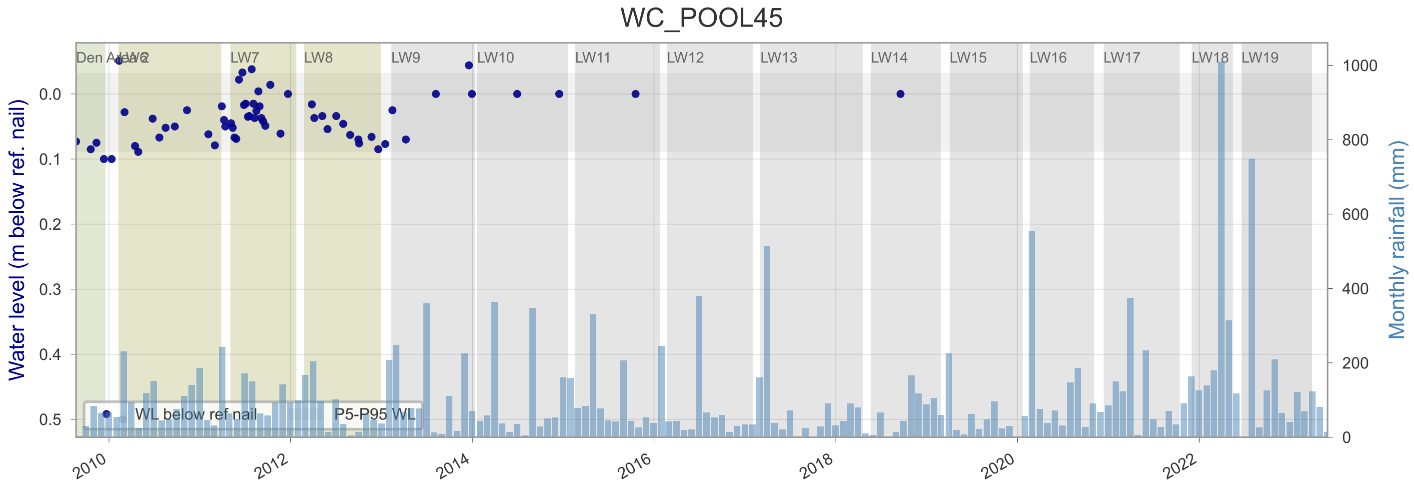

WC_POOL38
Dissolved Oxygen (%)
Monthly rainfall (mm)
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)

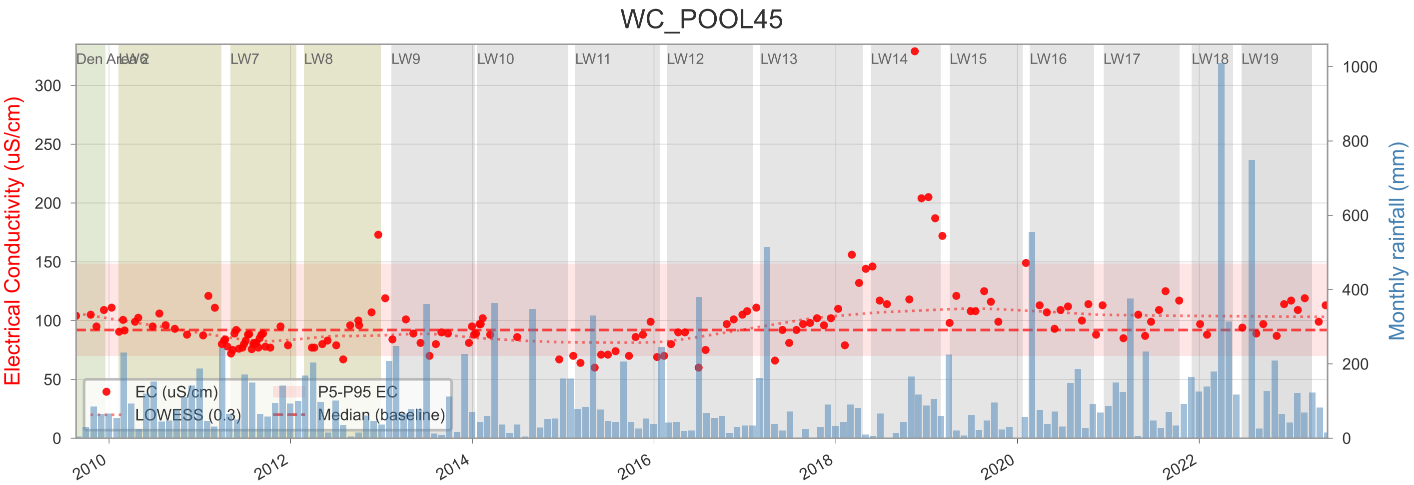

WC_POOL44
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

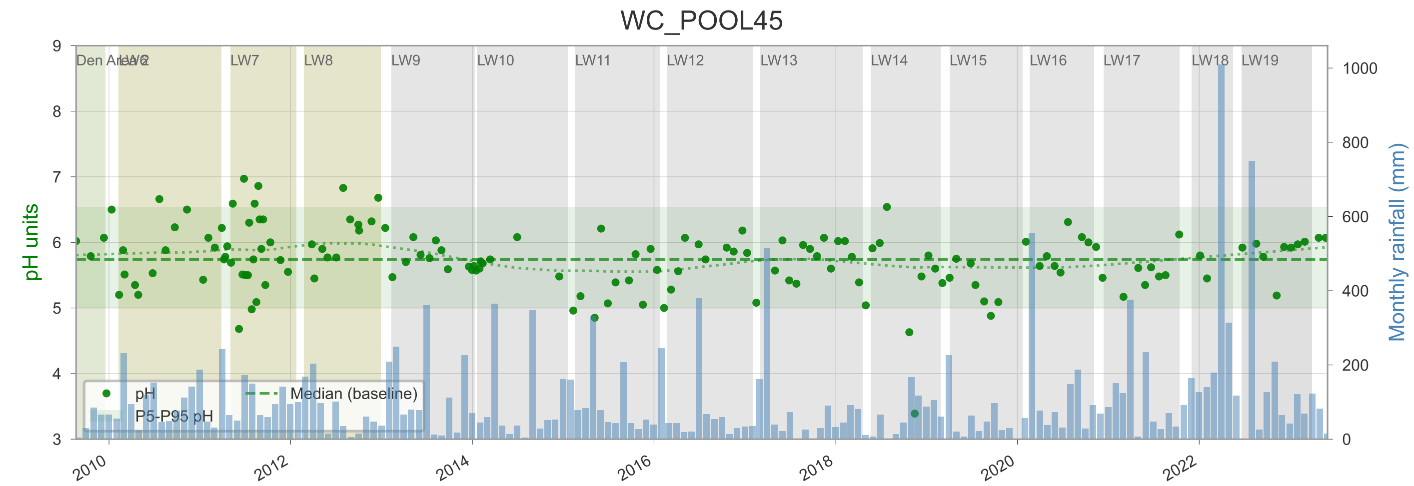

WC_POOL44
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

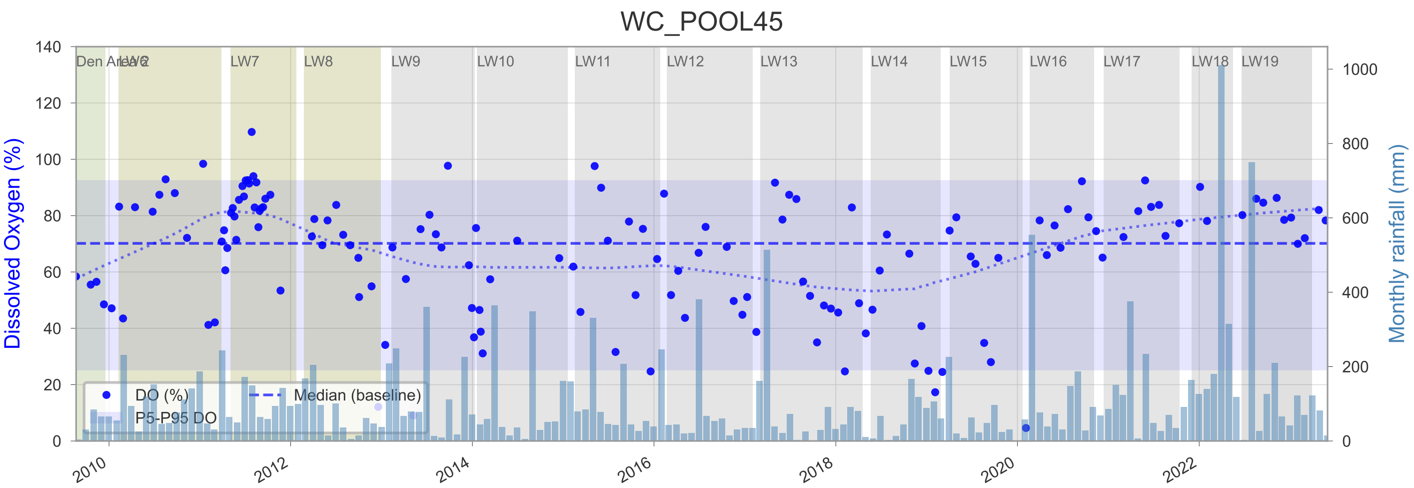

WC_POOL44
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

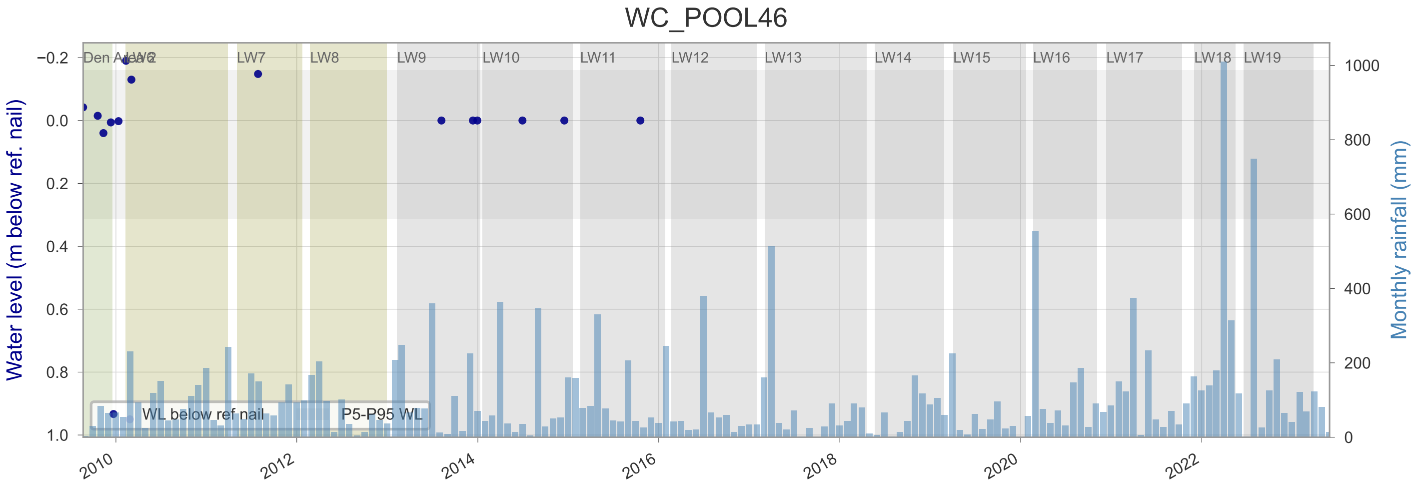

WC_POOL44
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

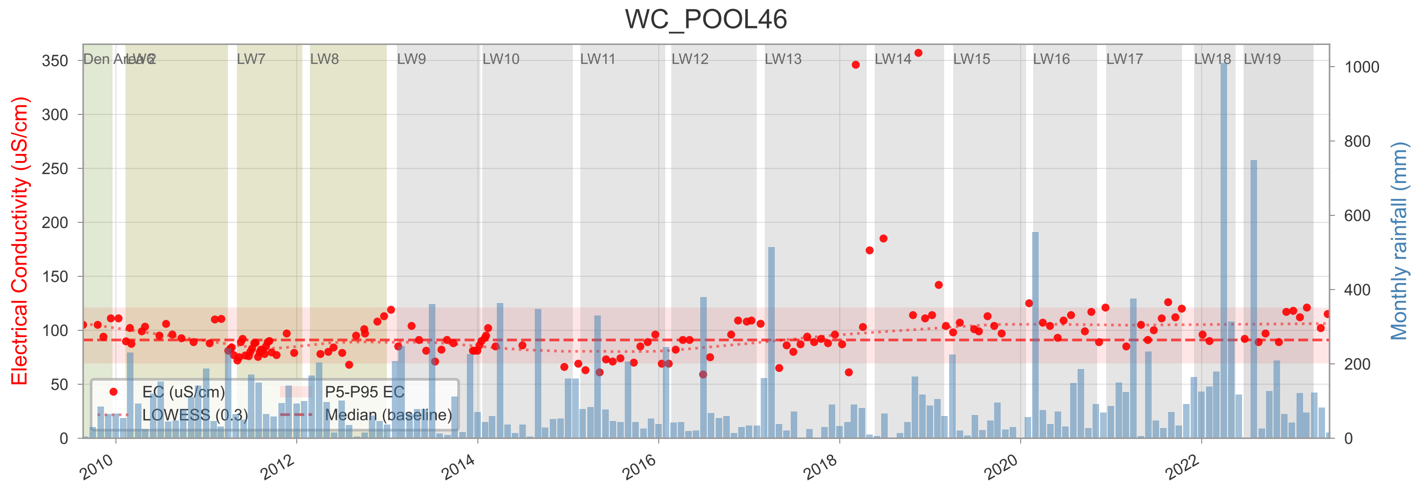

WC_POOL45
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
2010
2012
2014
2016
2018
2020
2022

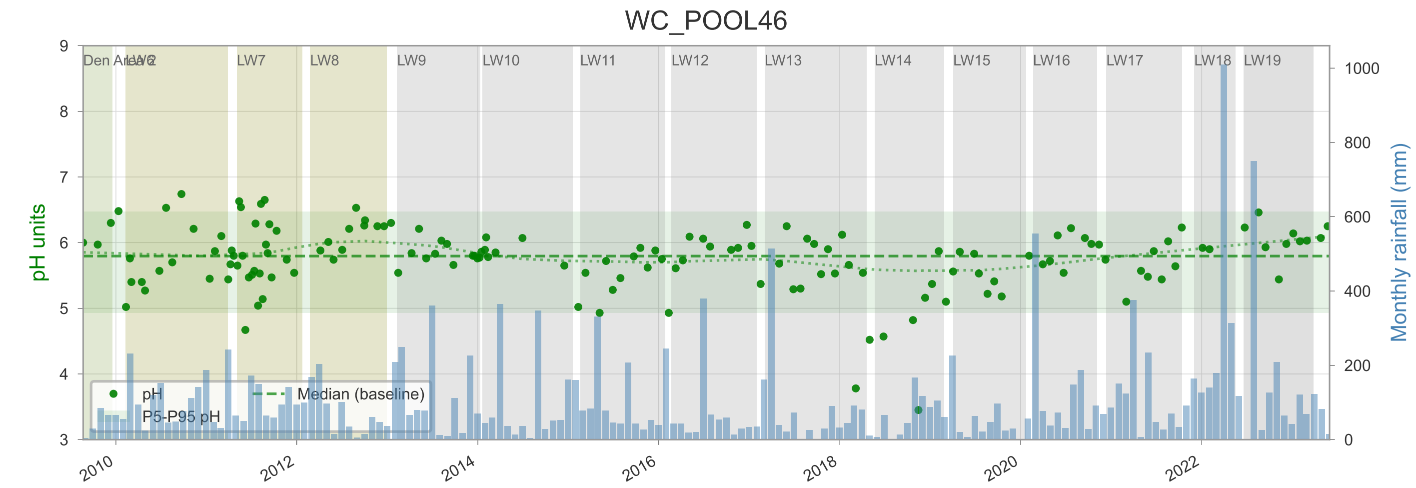

WC_POOL45
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

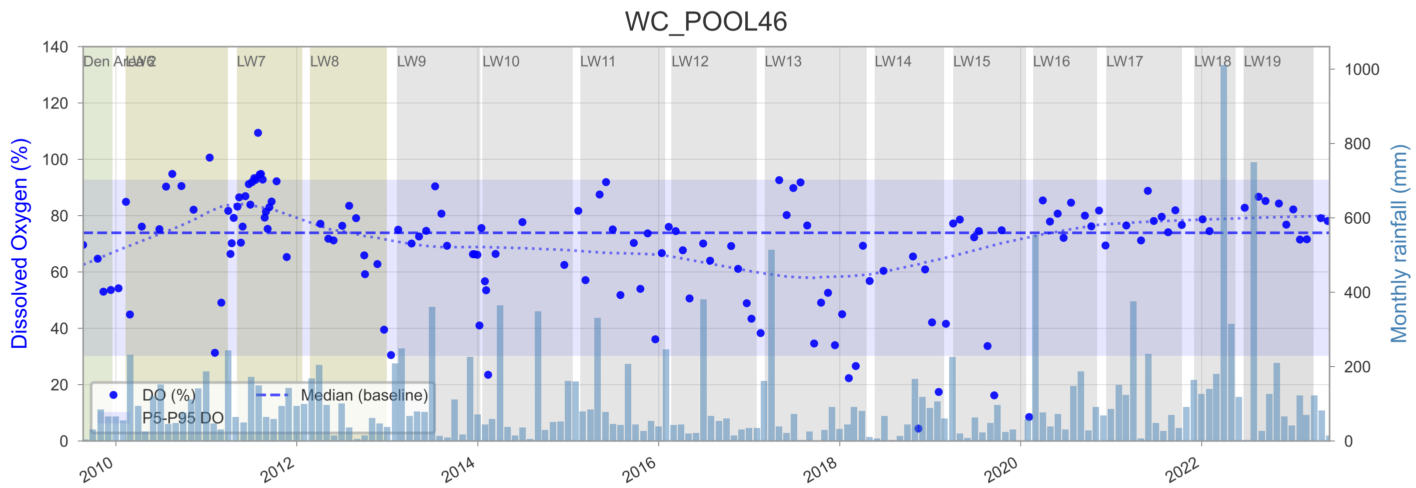

WC_POOL45
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

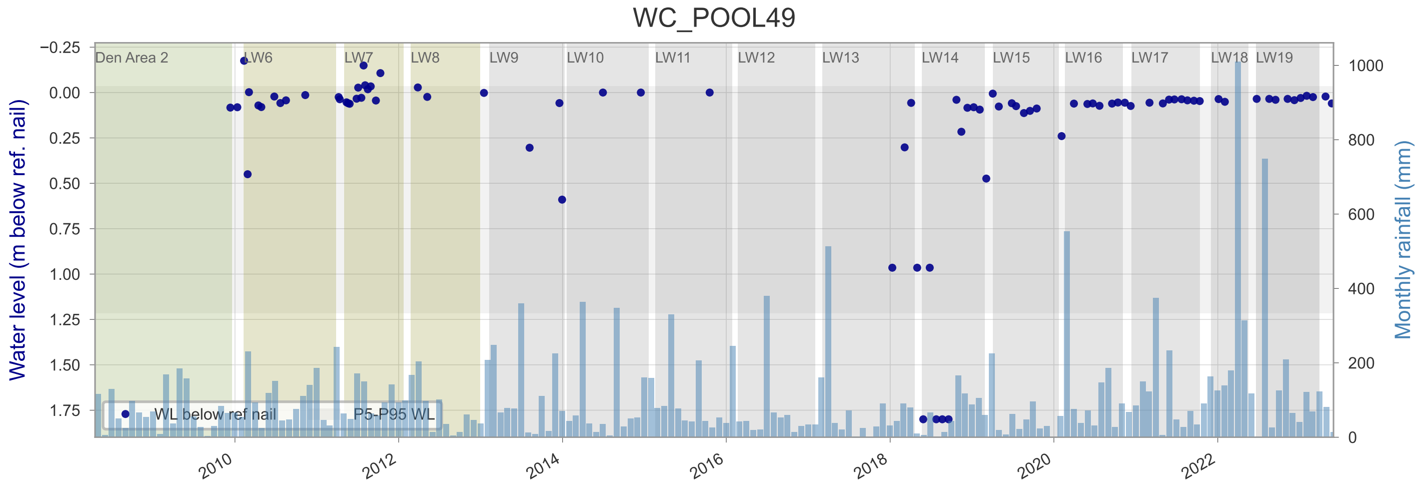

WC_POOL45
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
2010
2012
2014
2016
2018
2020
2022


WC_POOL46
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
2010
2012
2014
2016
2018
2020
2022

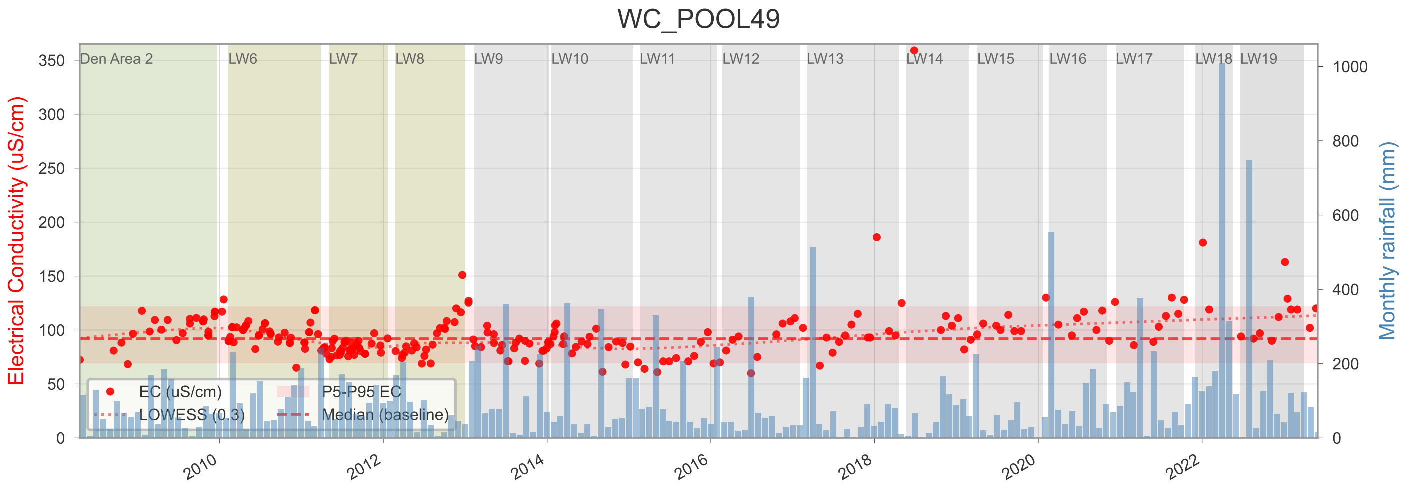

WC_POOL46
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2010
2012
2014
2016
2018
2020
2022


WC_POOL46
pH units
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

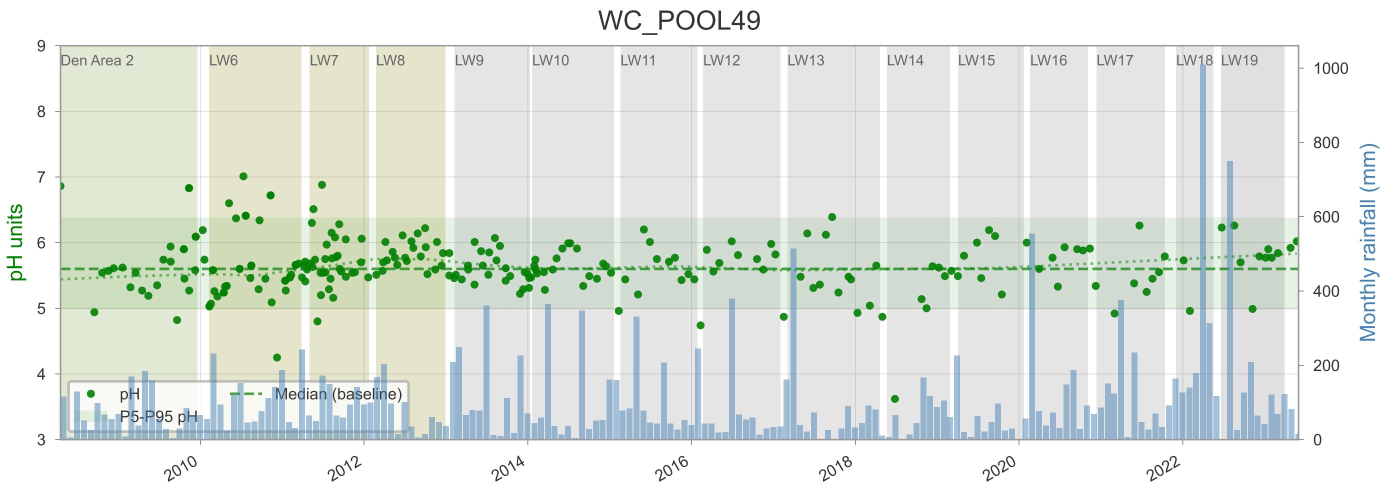

WC_POOL46
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
2010
2012
2014
2016
2018
2020
2022



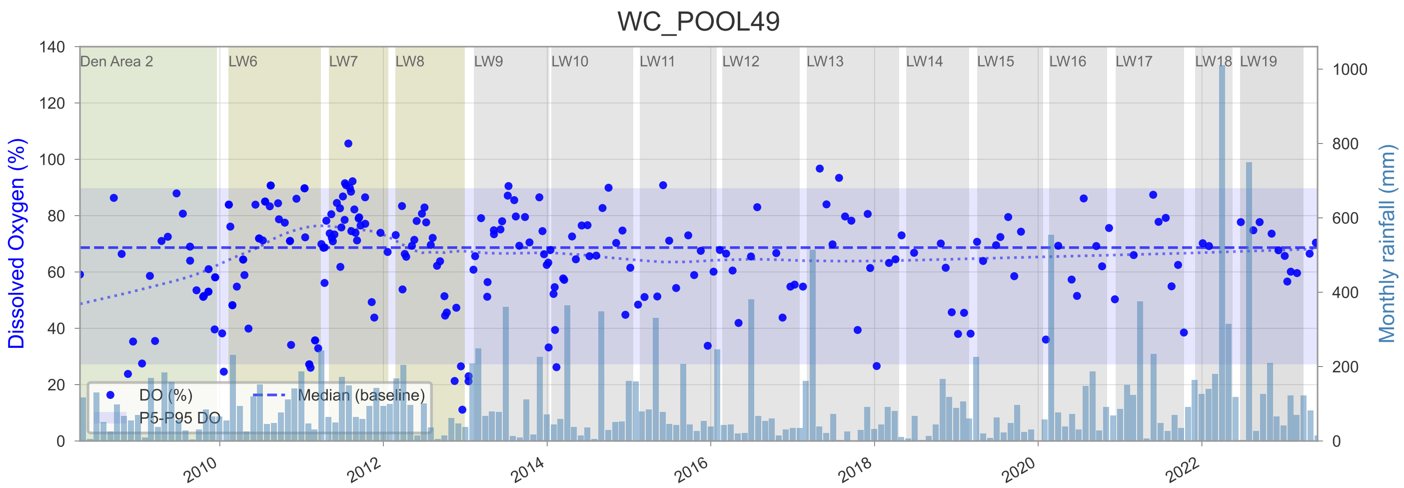
WC_POOL49
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL



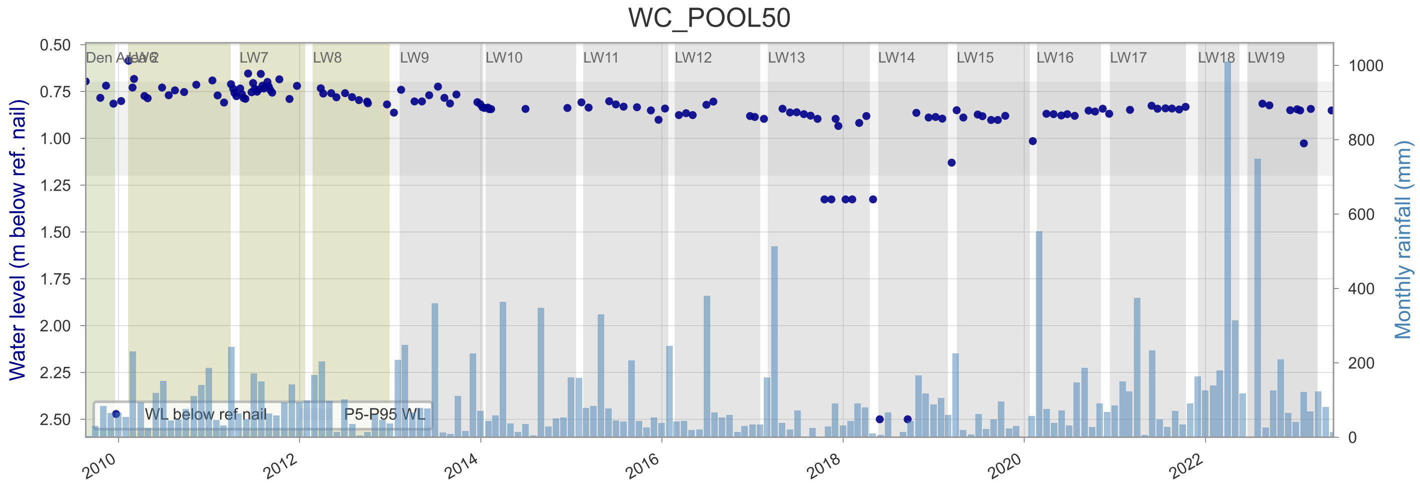
WC_POOL49
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

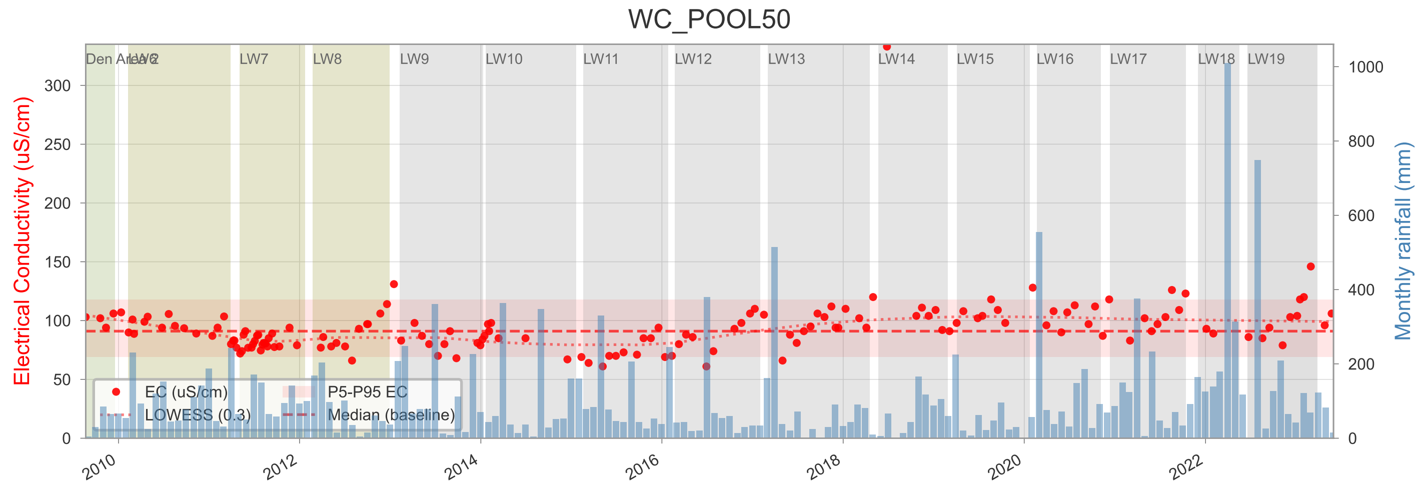


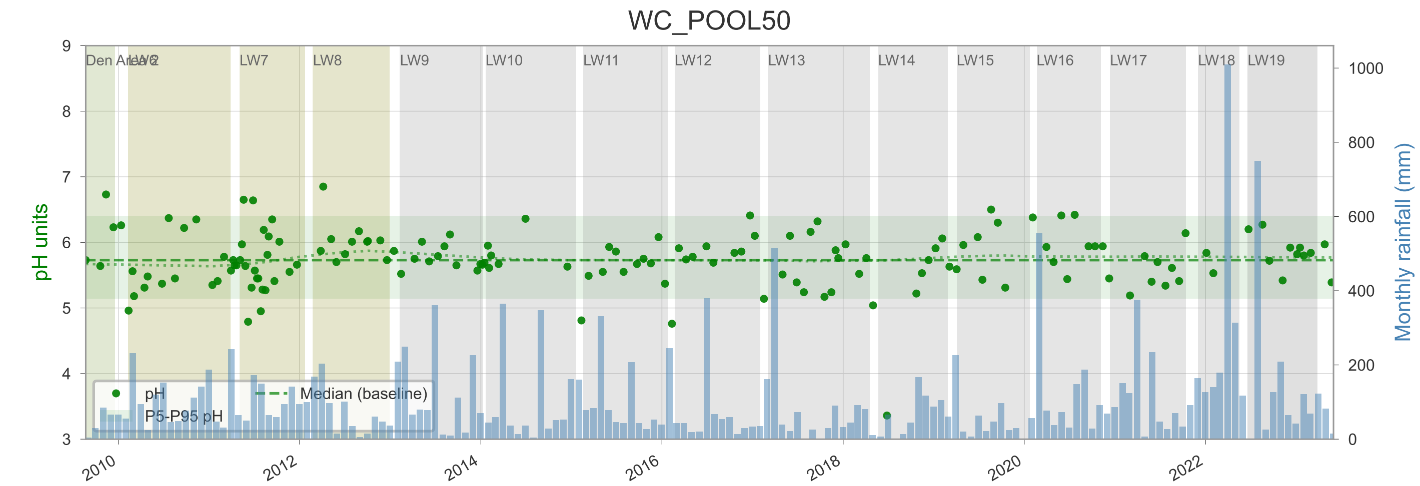
WC_POOL49
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

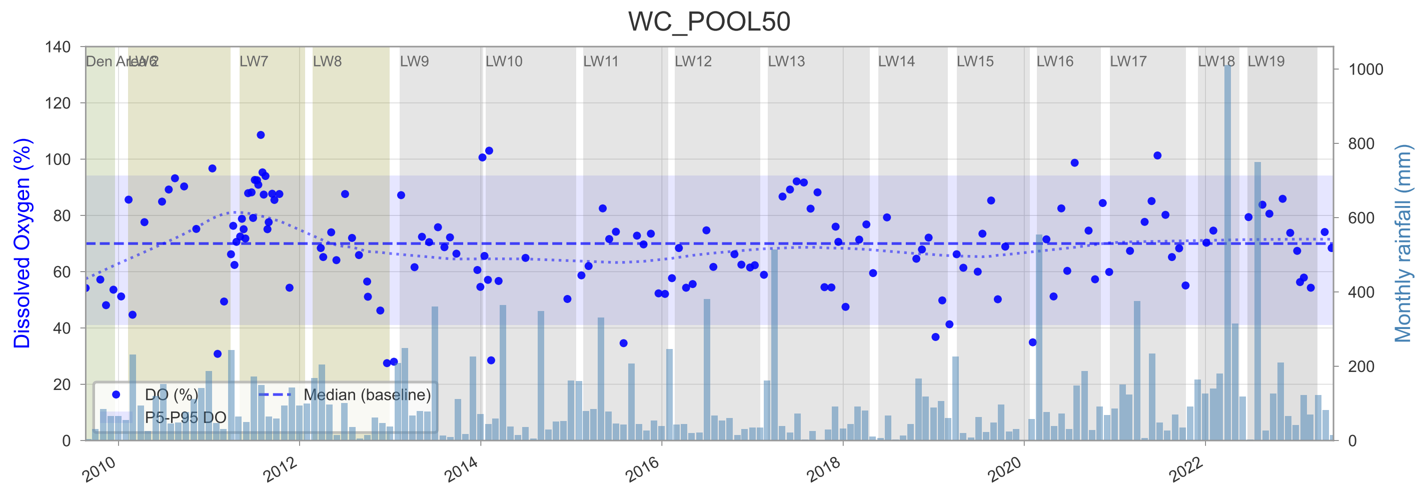


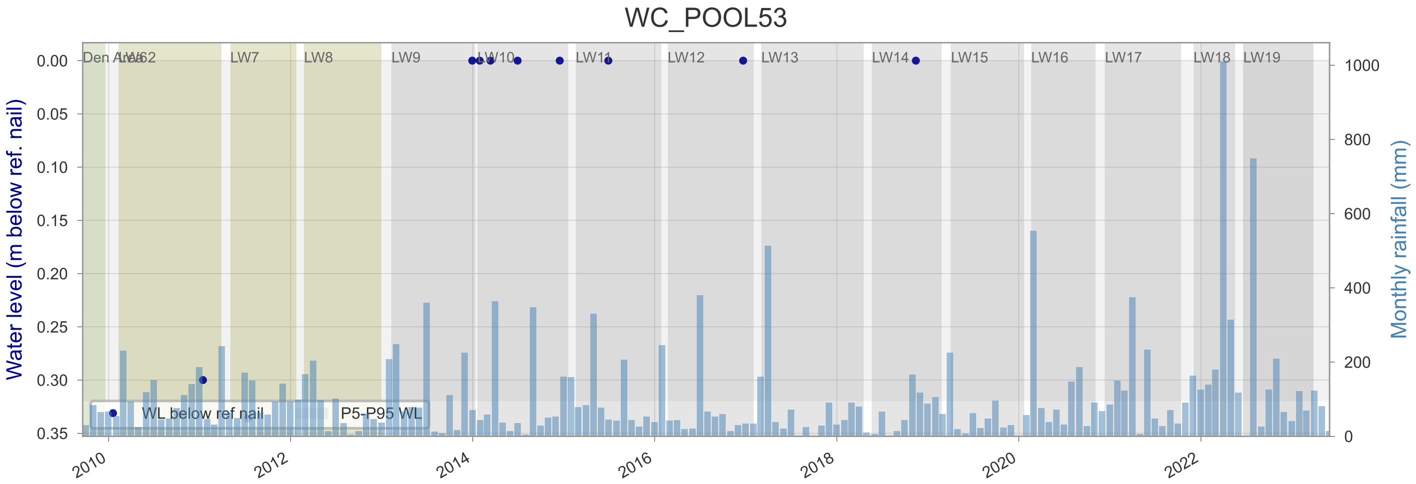
WC_POOL49
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

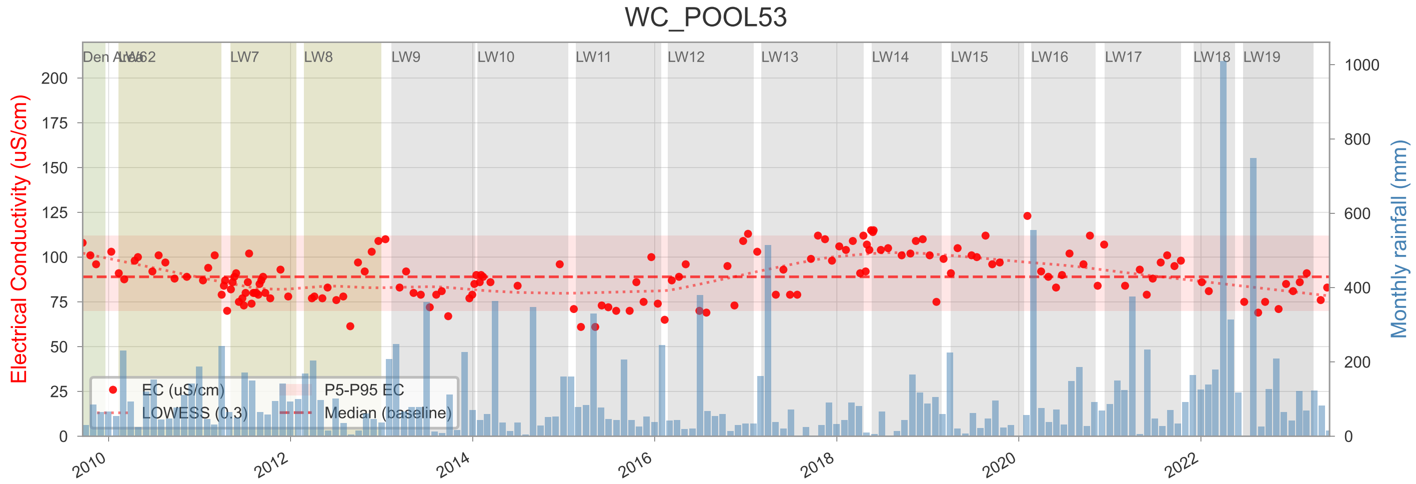

WC_POOL50
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

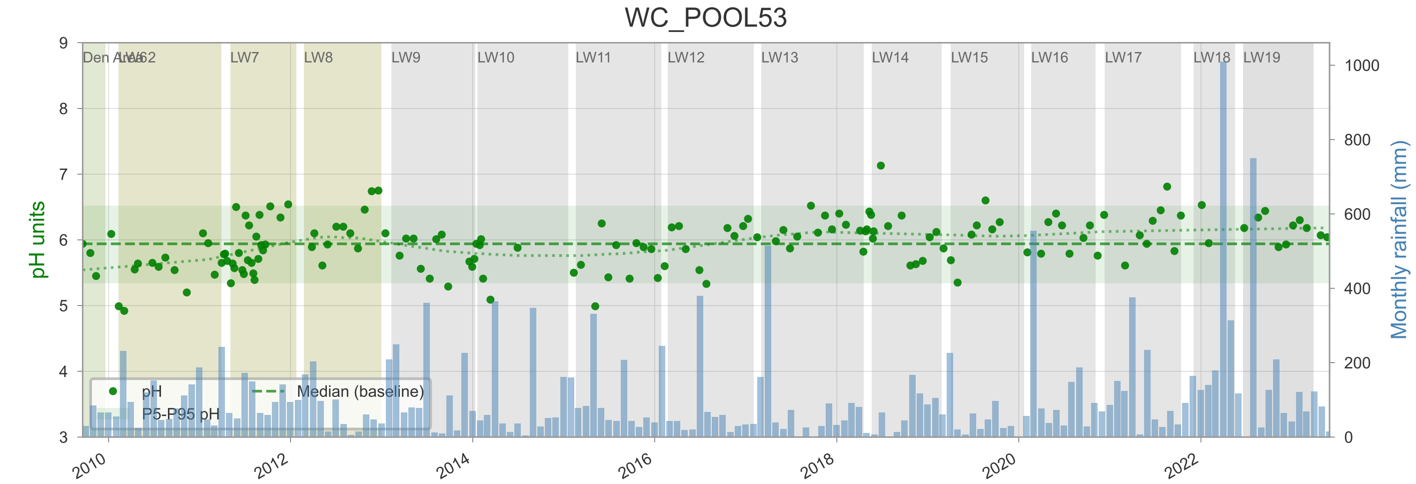

WC_POOL50
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

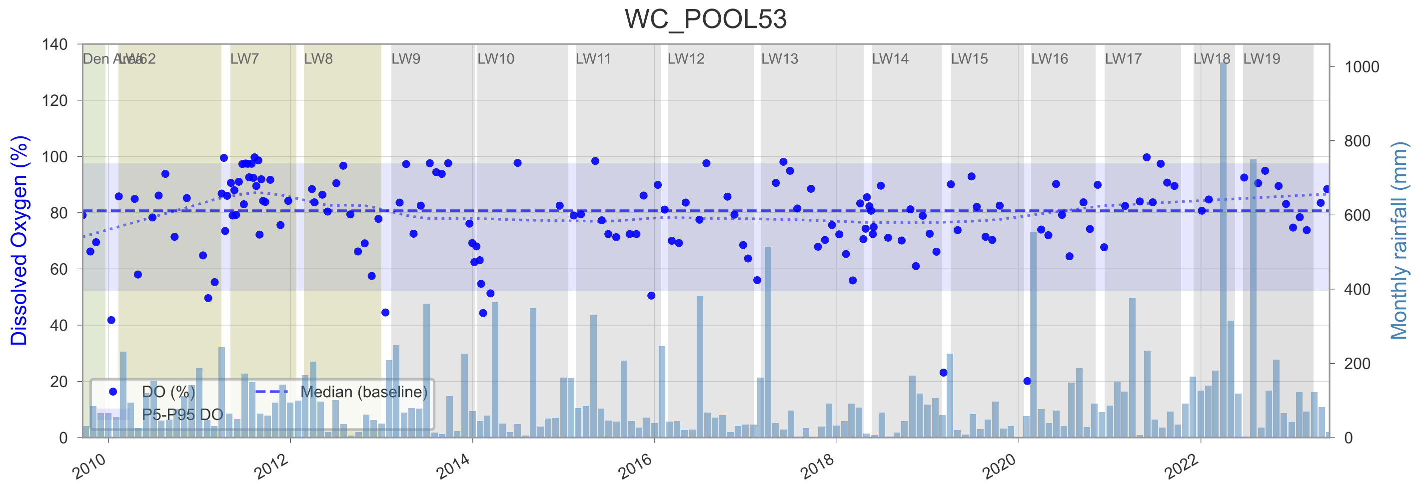

WC_POOL50
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

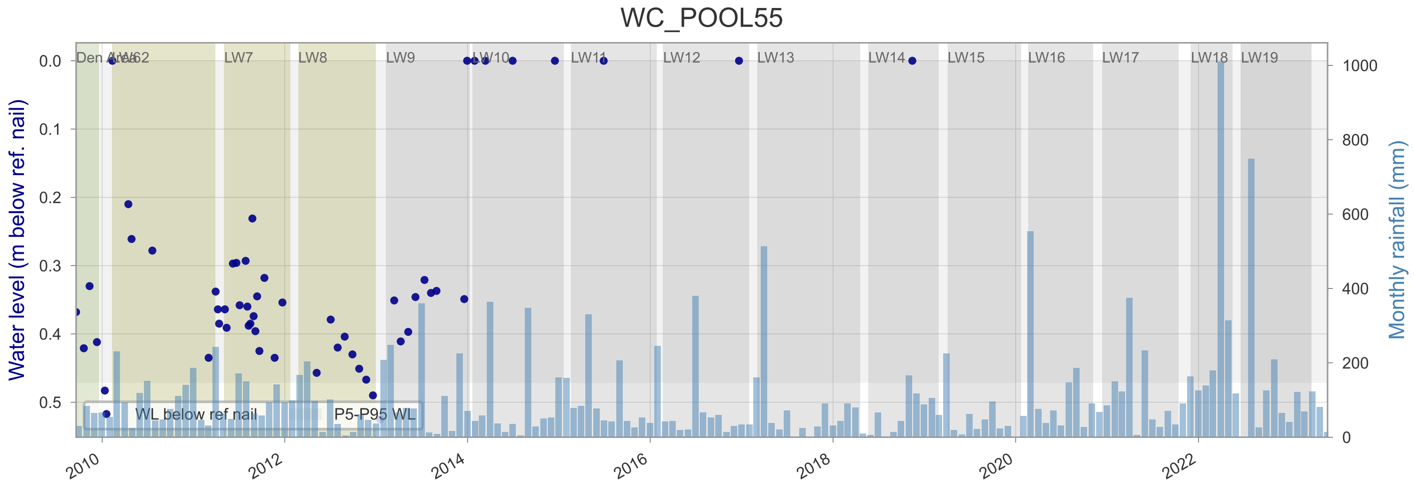

WC_POOL50
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

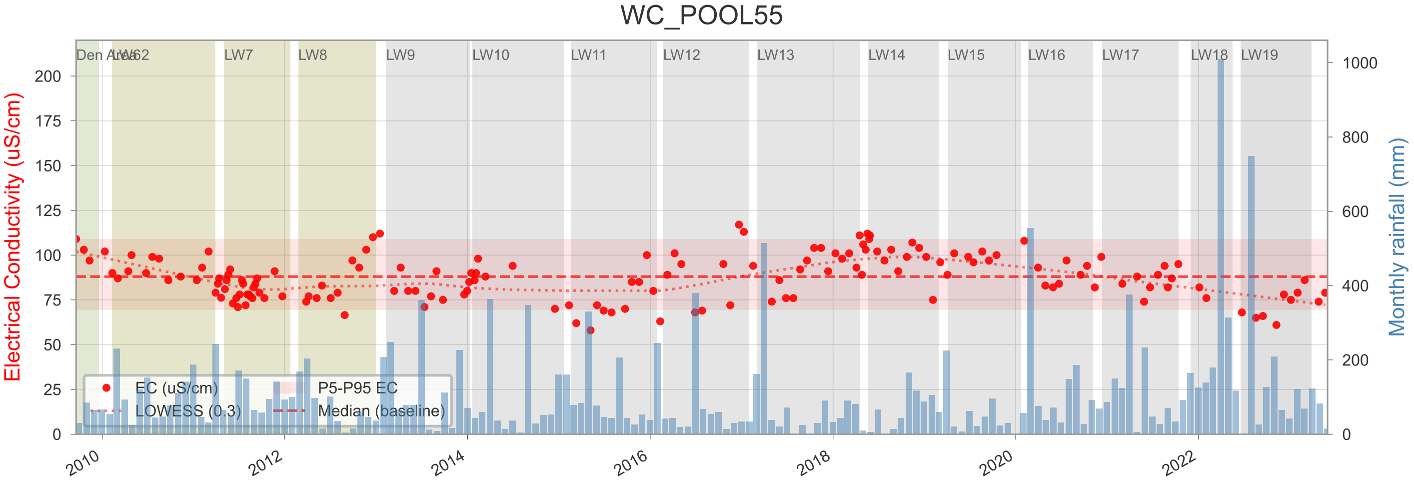

WC_POOL53
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

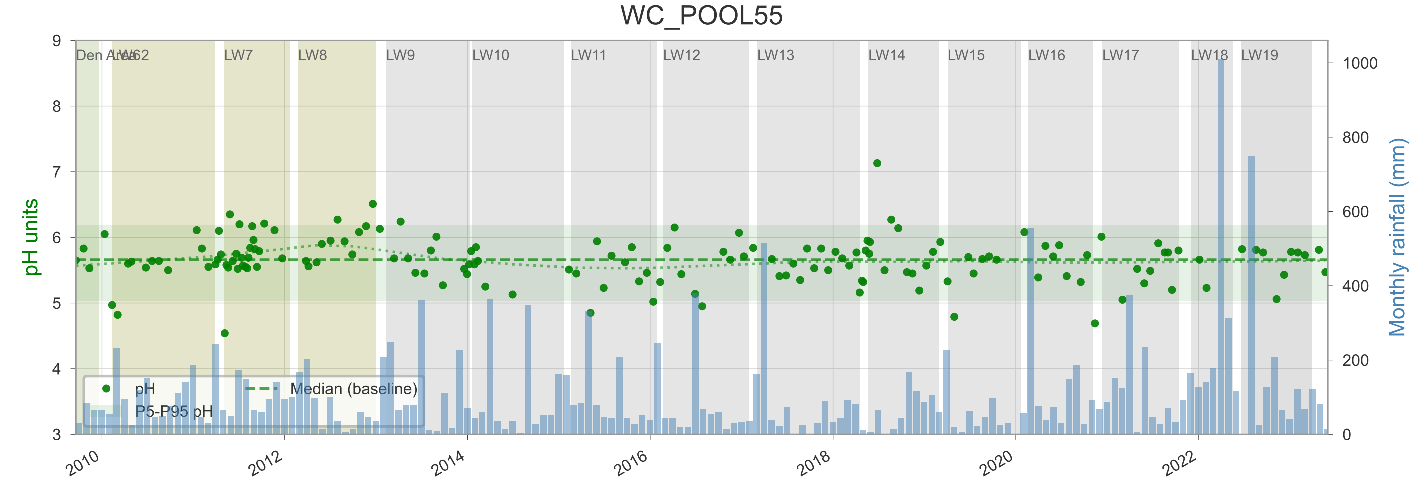

WC_POOL53
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

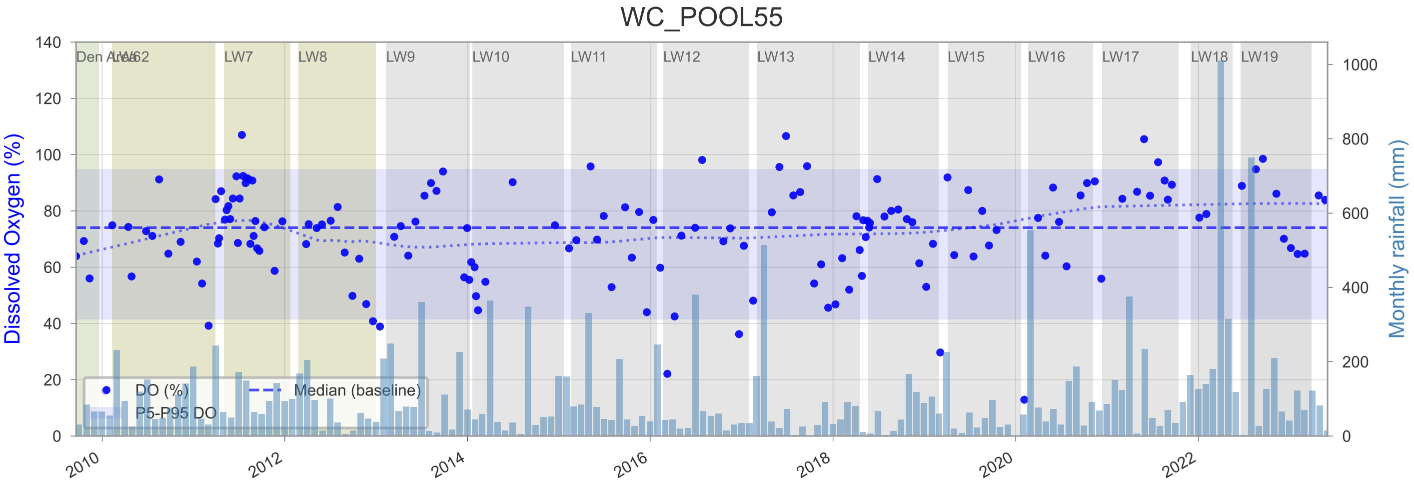

WC_POOL53
pH units
Monthly rainfall (mm)
Den Area
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

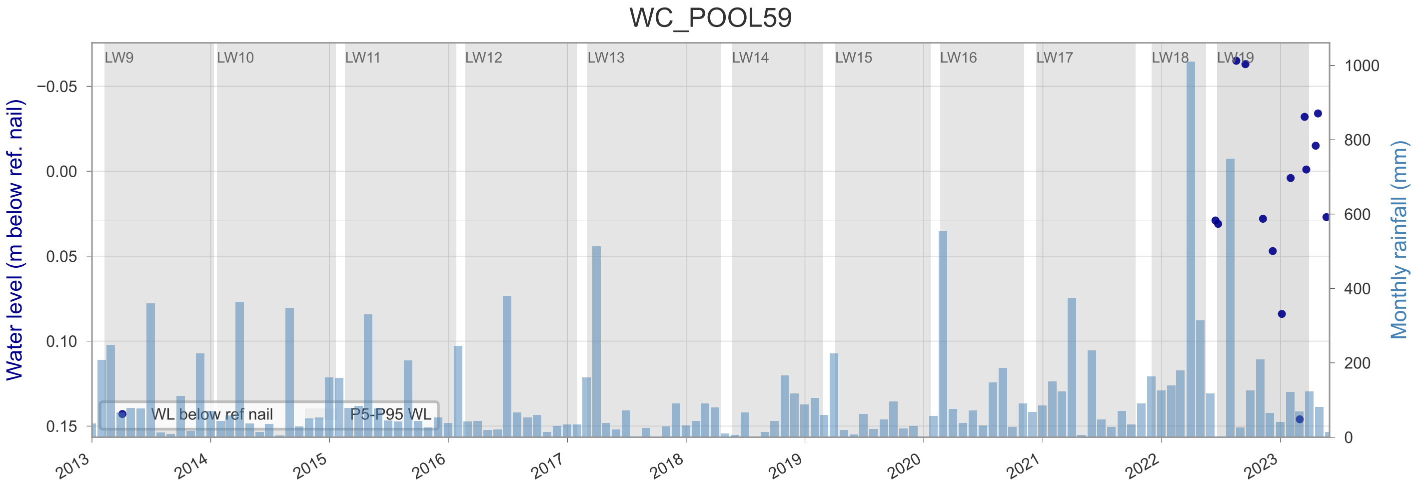

WC_POOL53
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

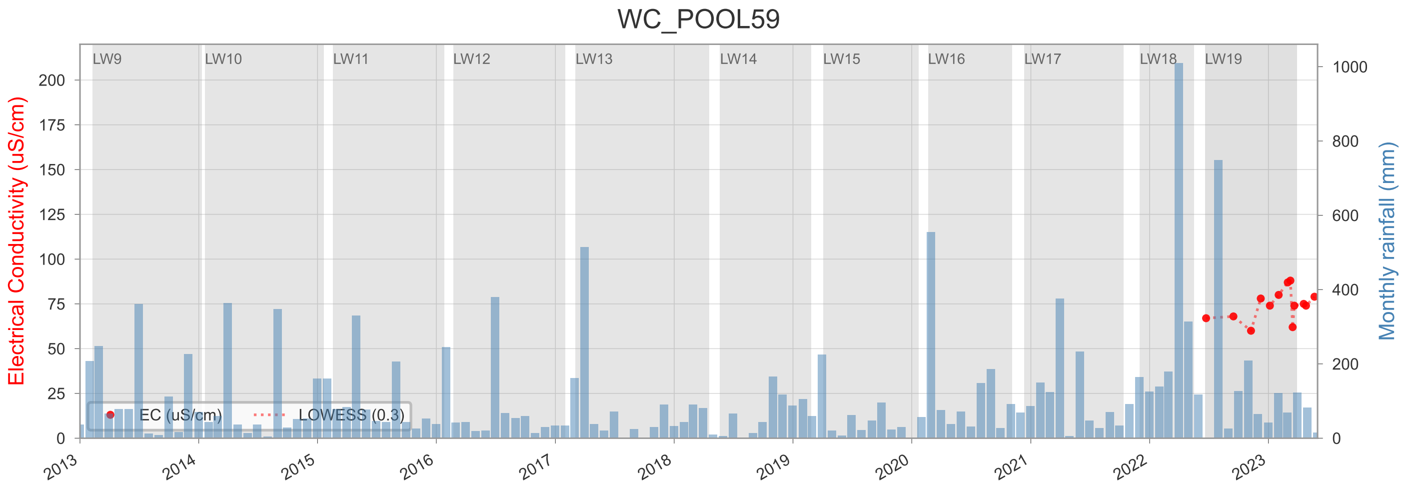

WC_POOL55
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area
LW6
LW62
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL

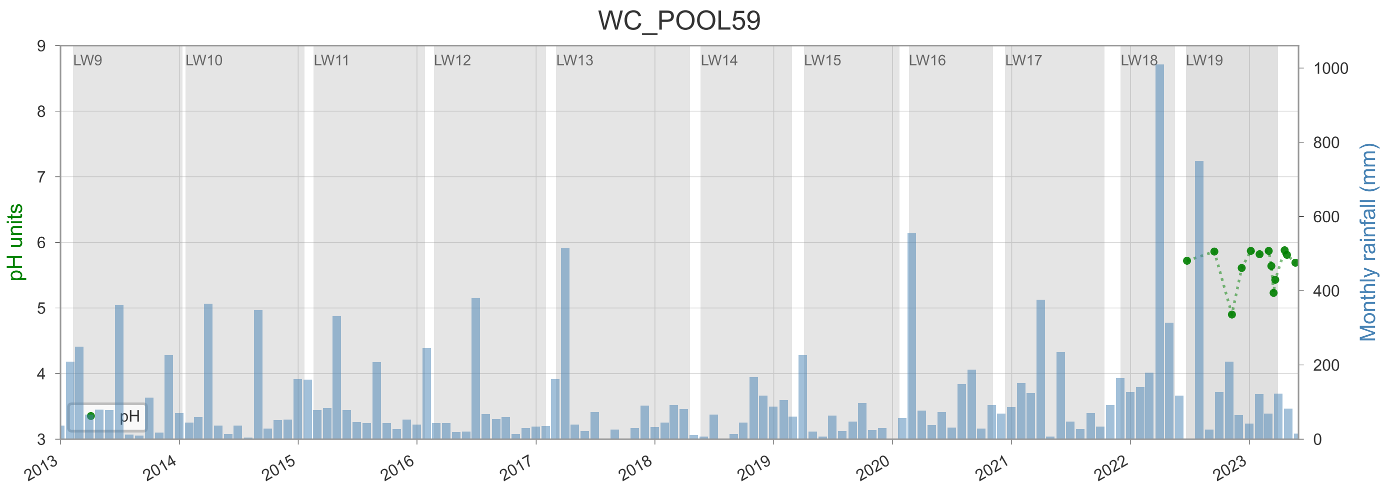

WC_POOL55
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

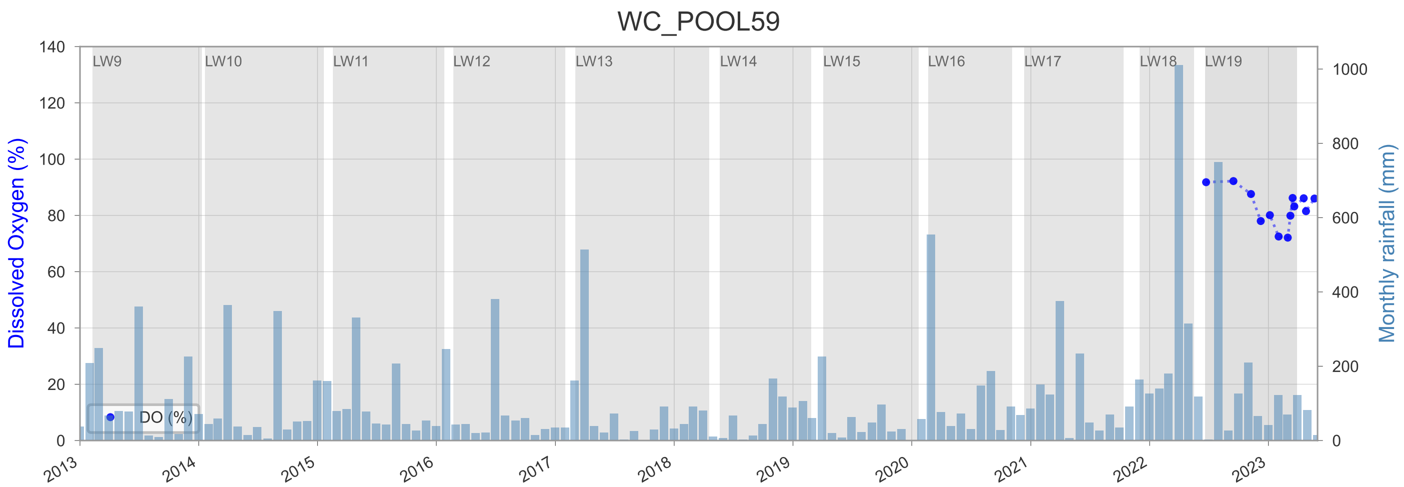

WC_POOL55
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

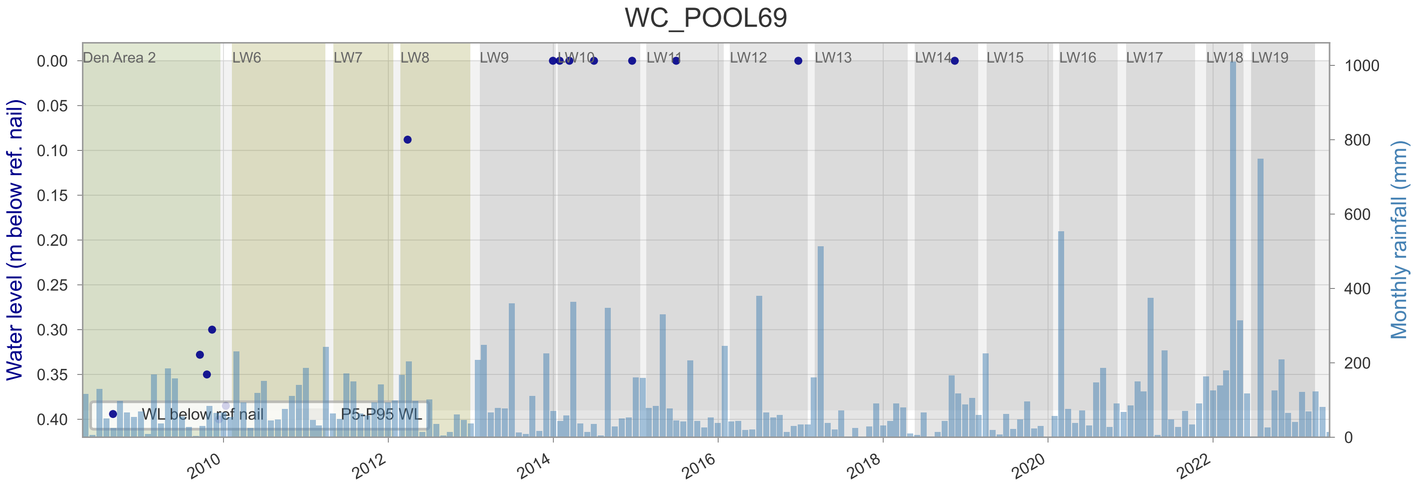

WC_POOL55
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

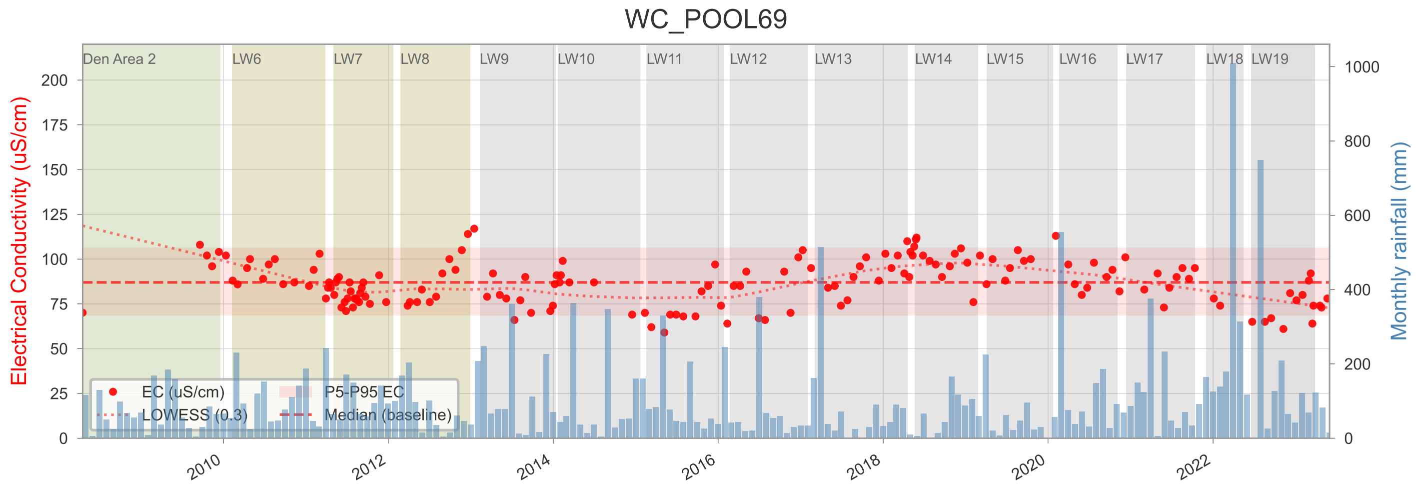

WC_POOL59
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

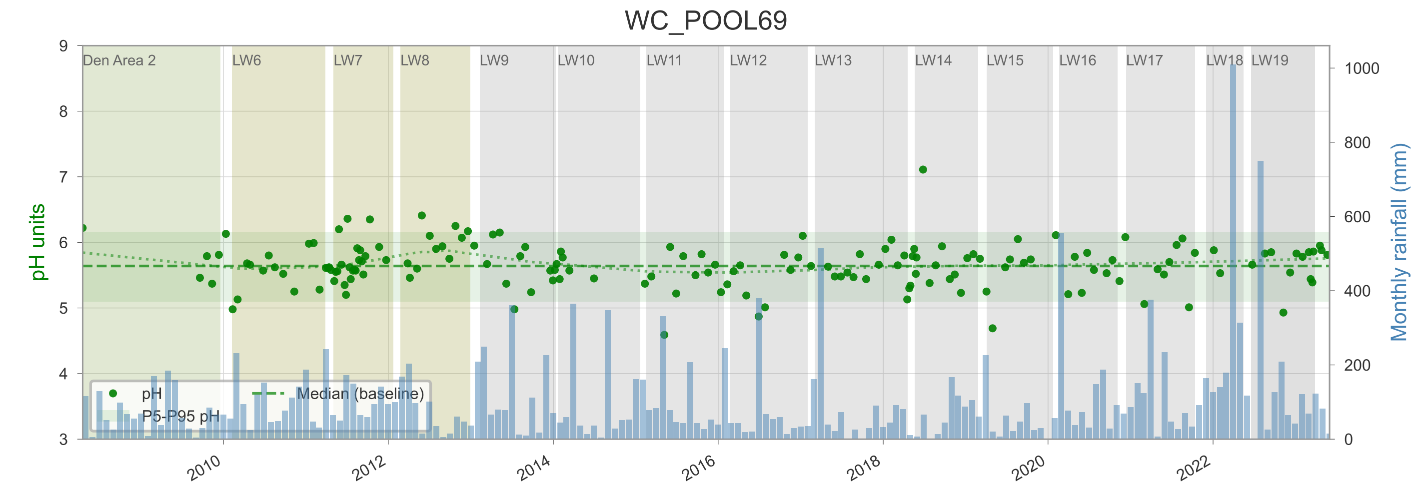

WC_POOL59
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

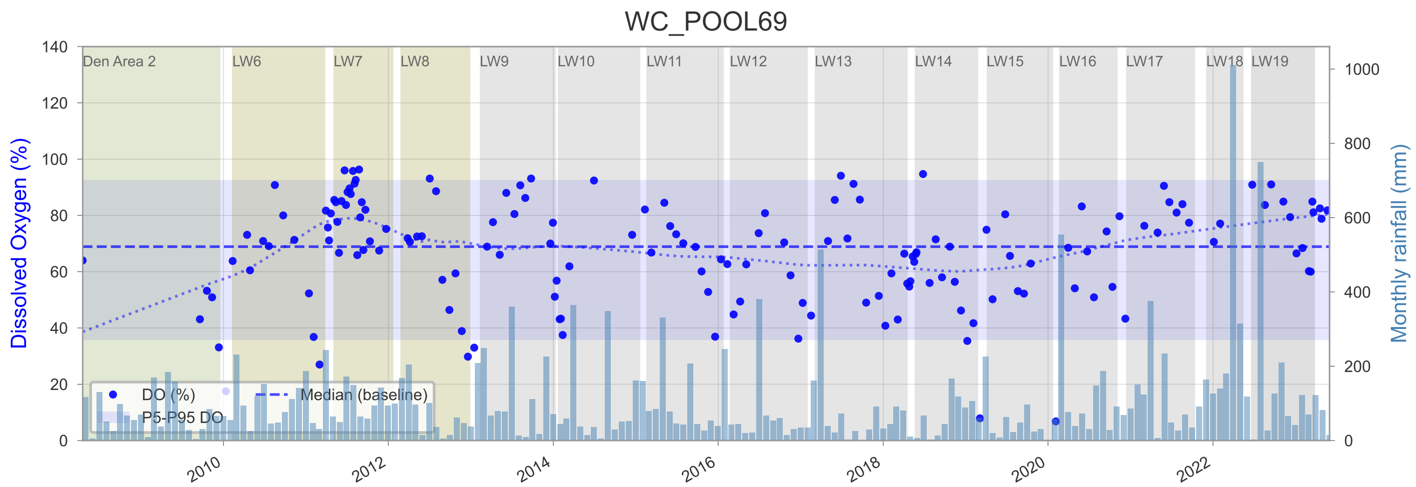

WC_POOL59
pH units
Monthly rainfall (mm)
pH
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

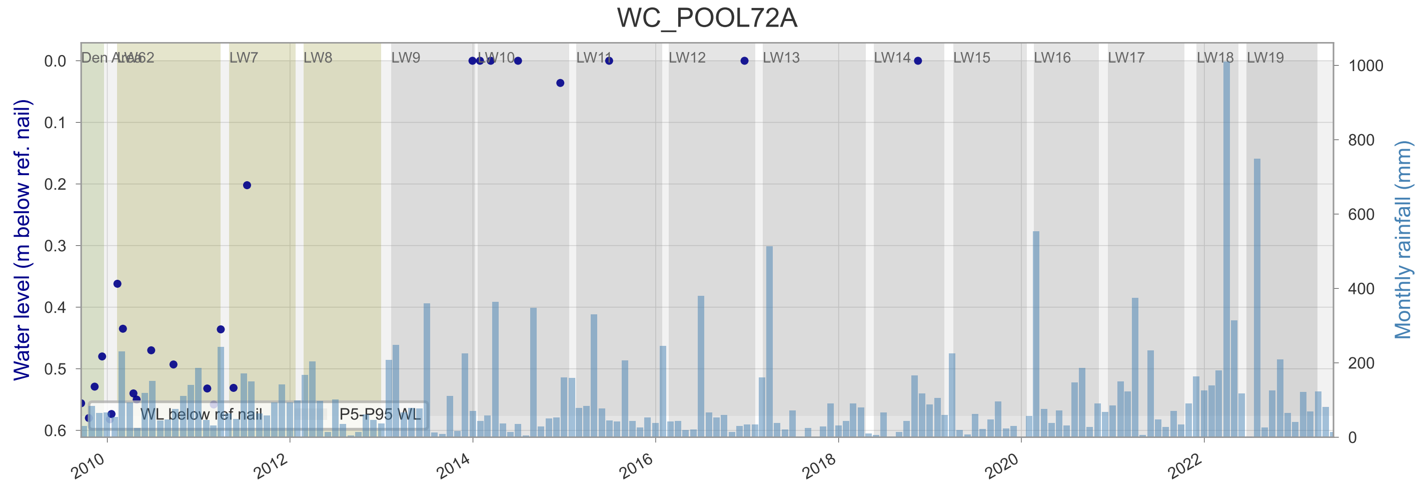

WC_POOL59
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC_POOL69
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
2010
2012
2014
2016
2018
2020
2022

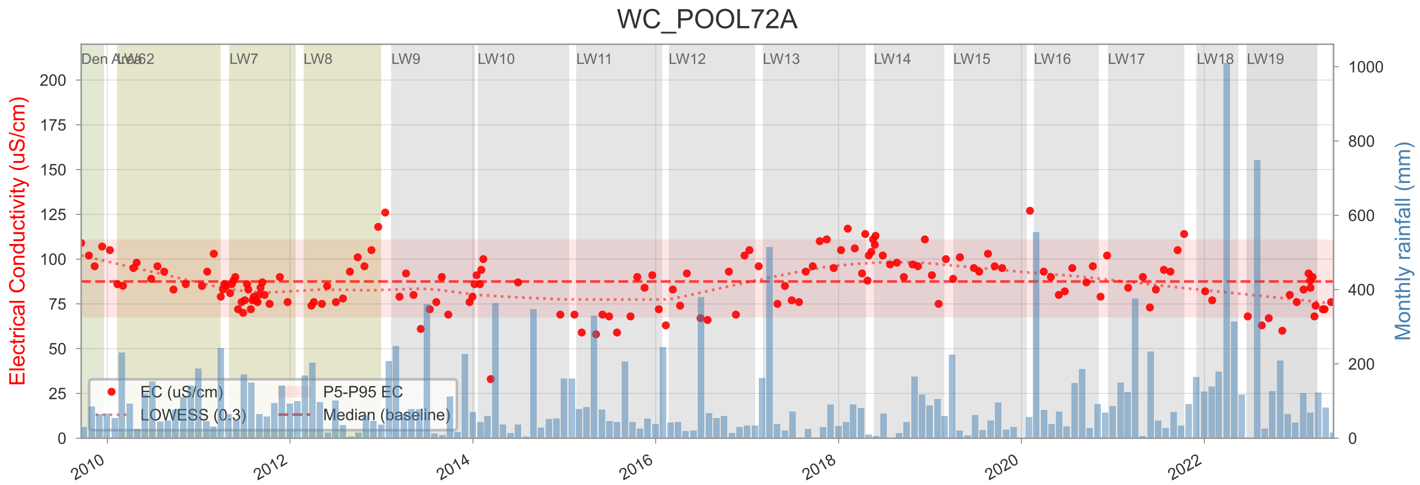

WC_POOL69
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2010
2012
2014
2016
2018
2020
2022


WC_POOL69
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
2010
2012
2014
2016
2018
2020
2022

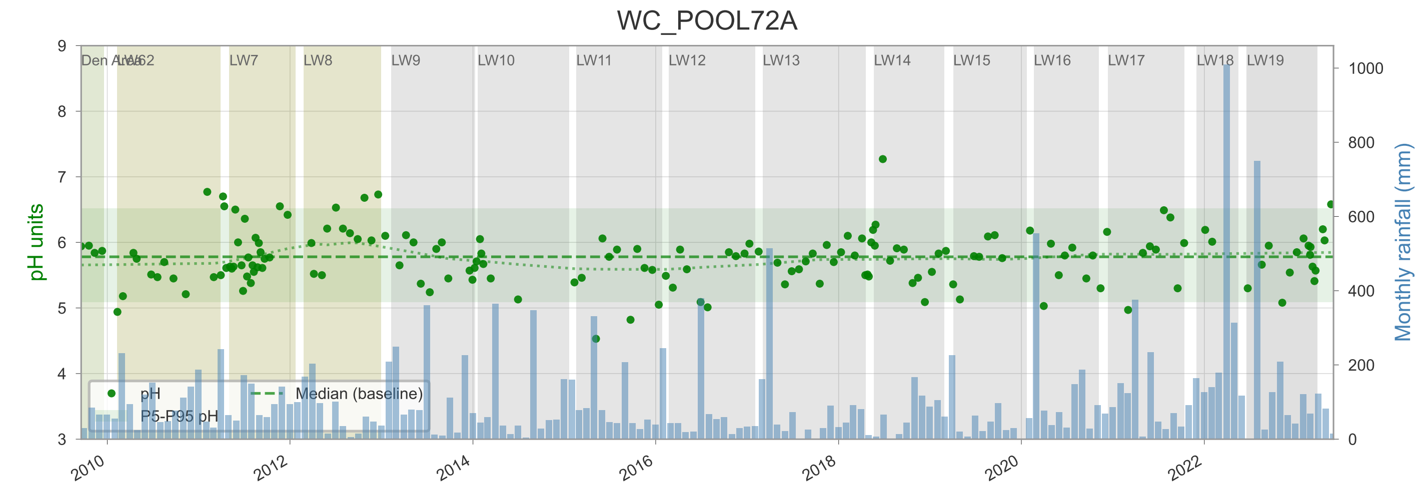

WC_POOL69
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
2010
2012
2014
2016
2018
2020
2022



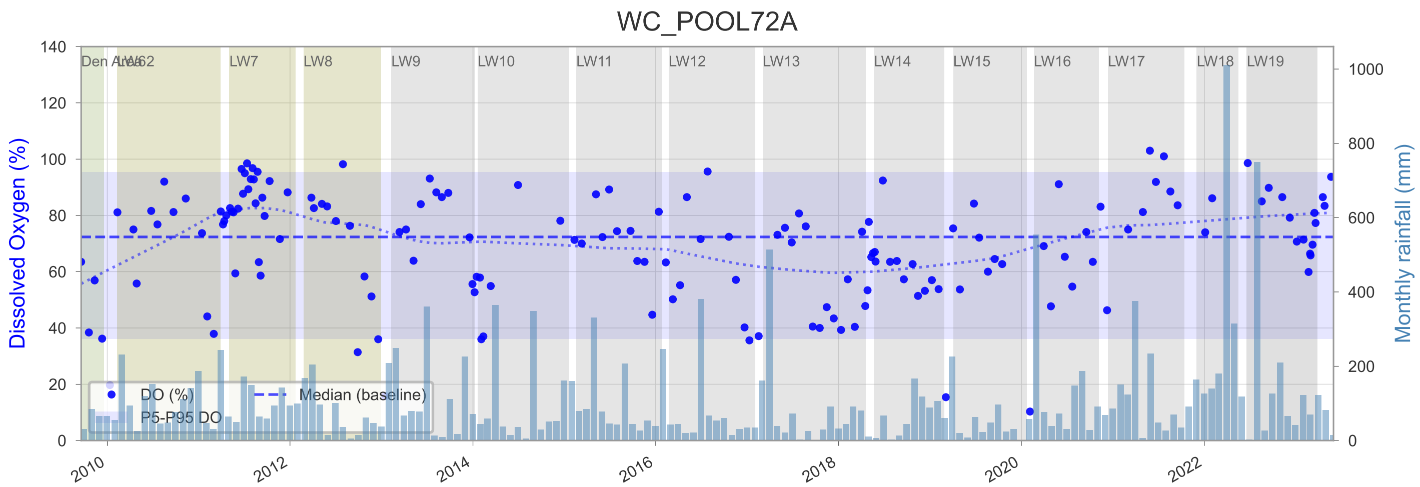
WC_POOL72A
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area
LW6 2
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL



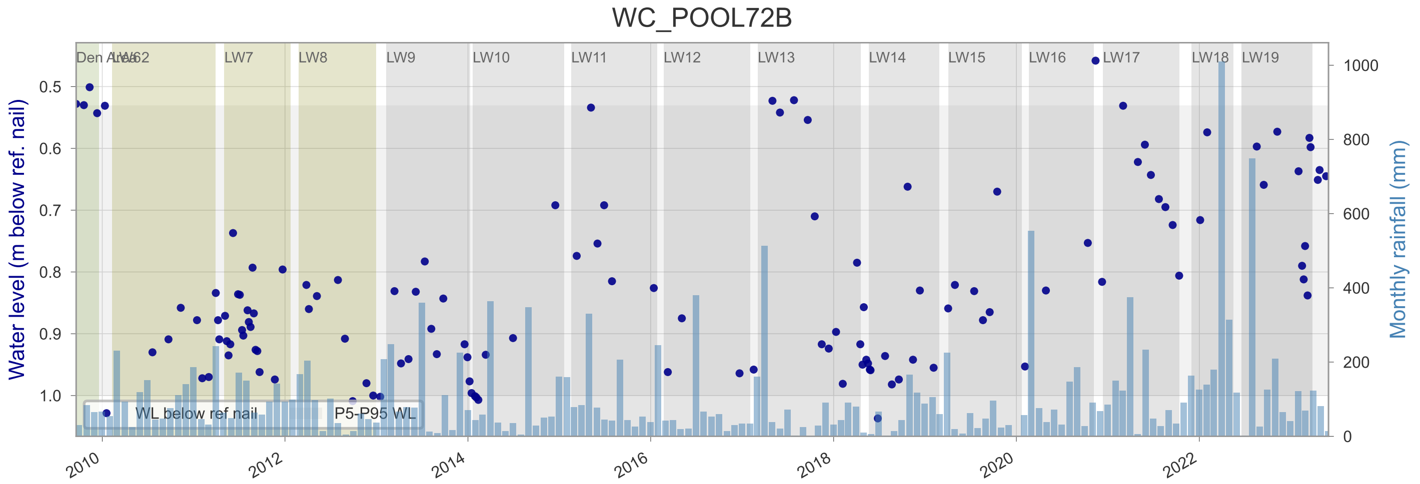
WC_POOL72A
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)

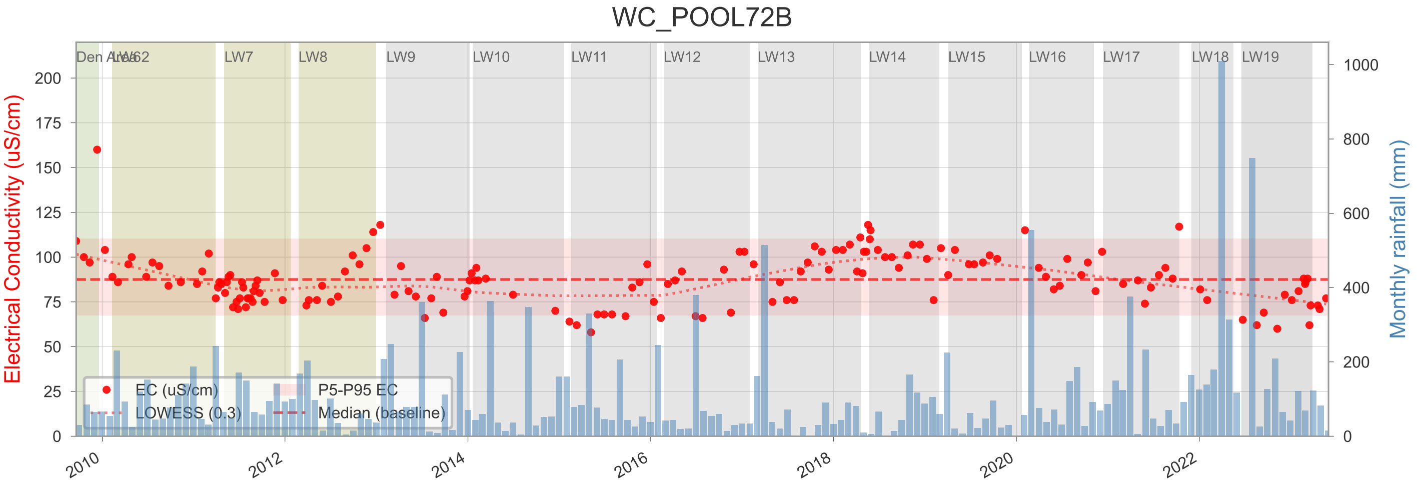


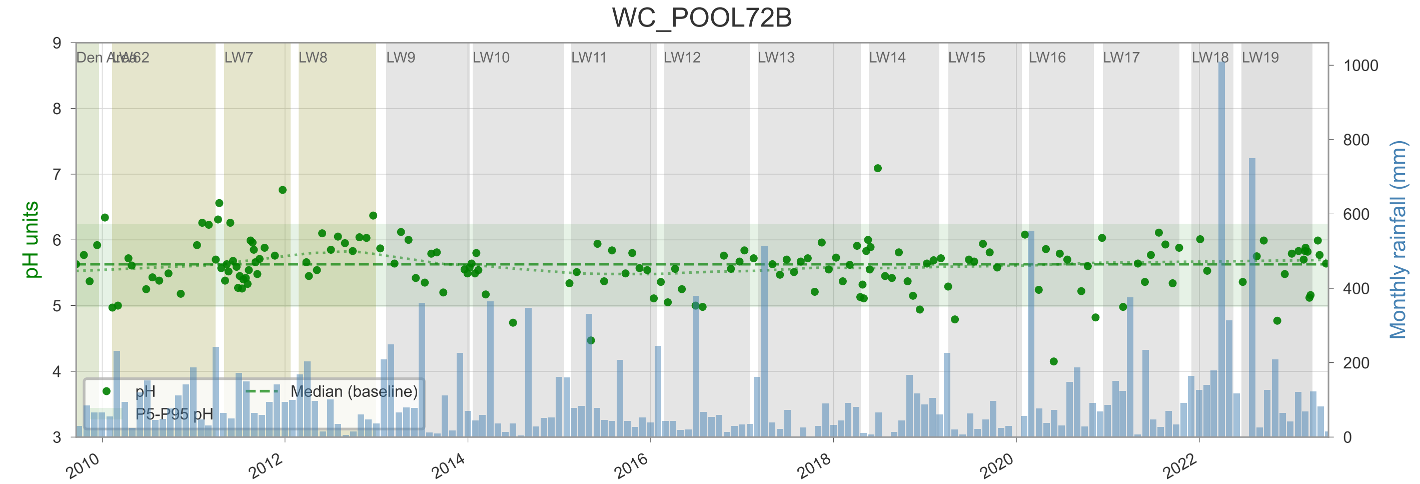
WC_POOL72A
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)

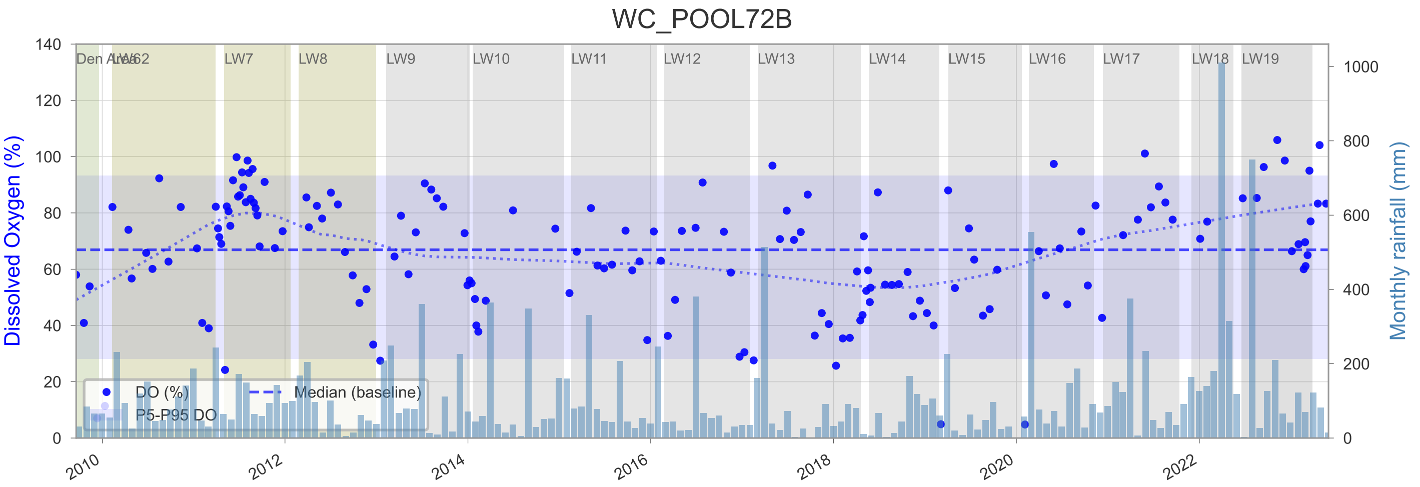


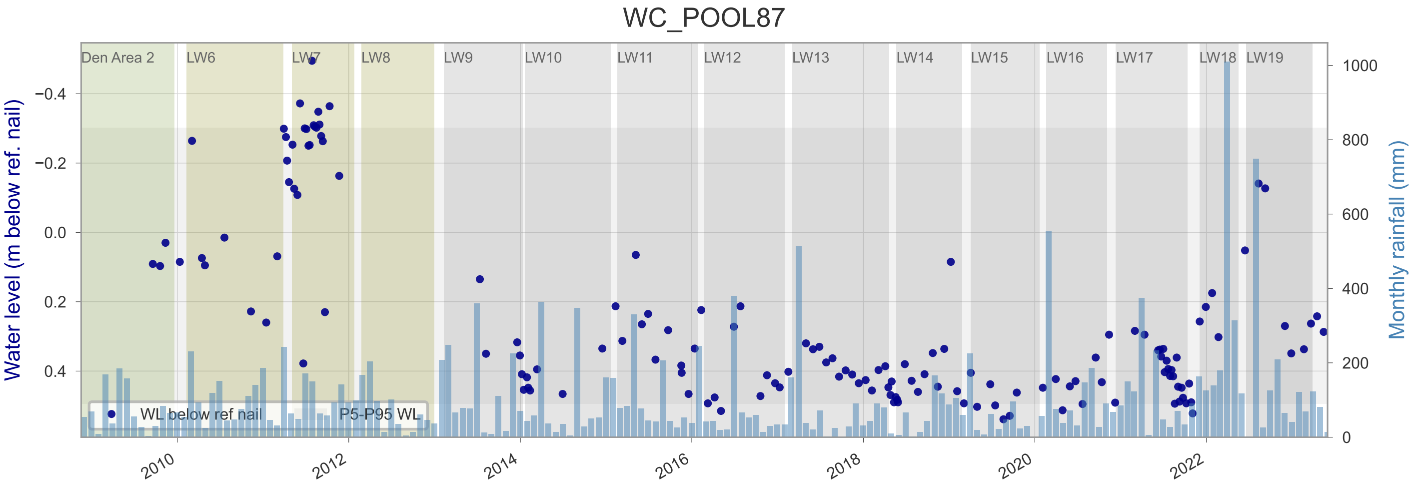
WC_POOL72A
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)

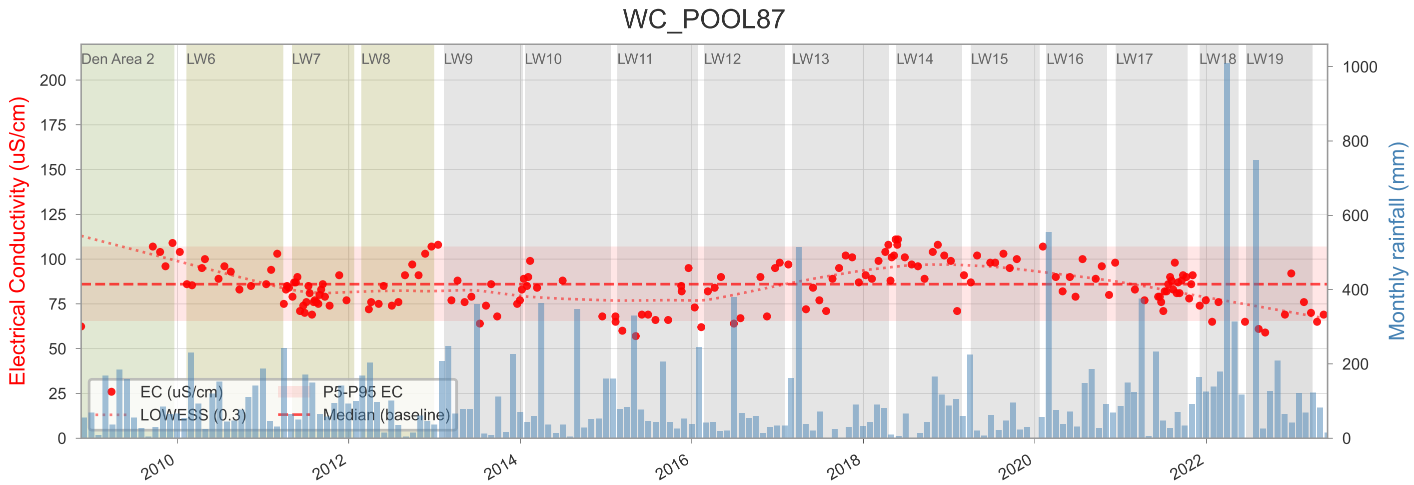

WC_POOL72B
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.5
0.6
0.7
0.8
0.9
1.0
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

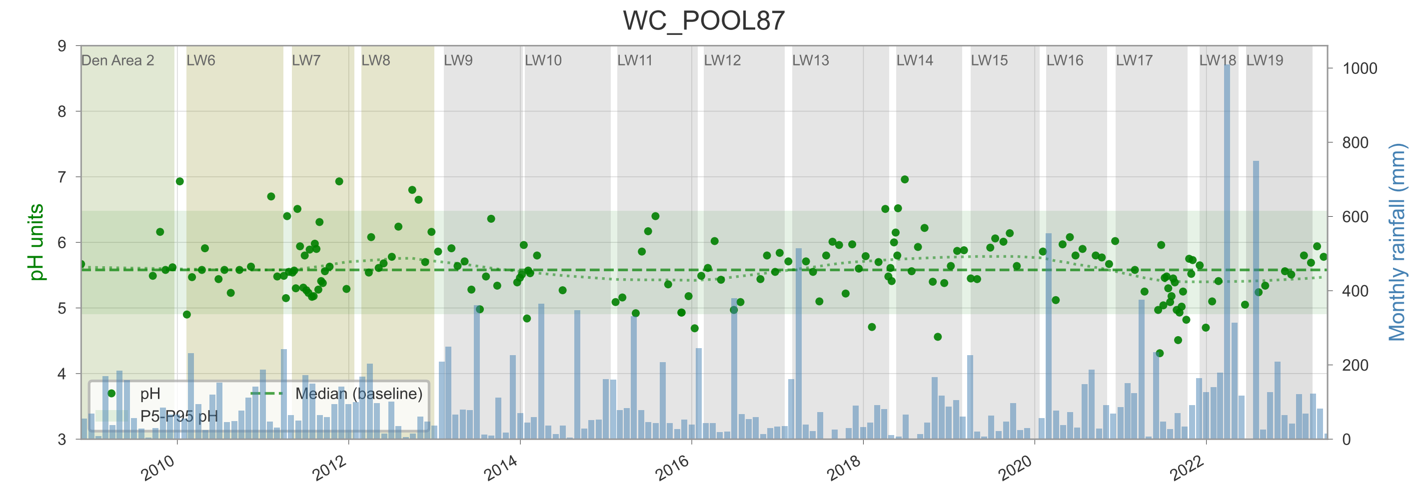

WC_POOL72B
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

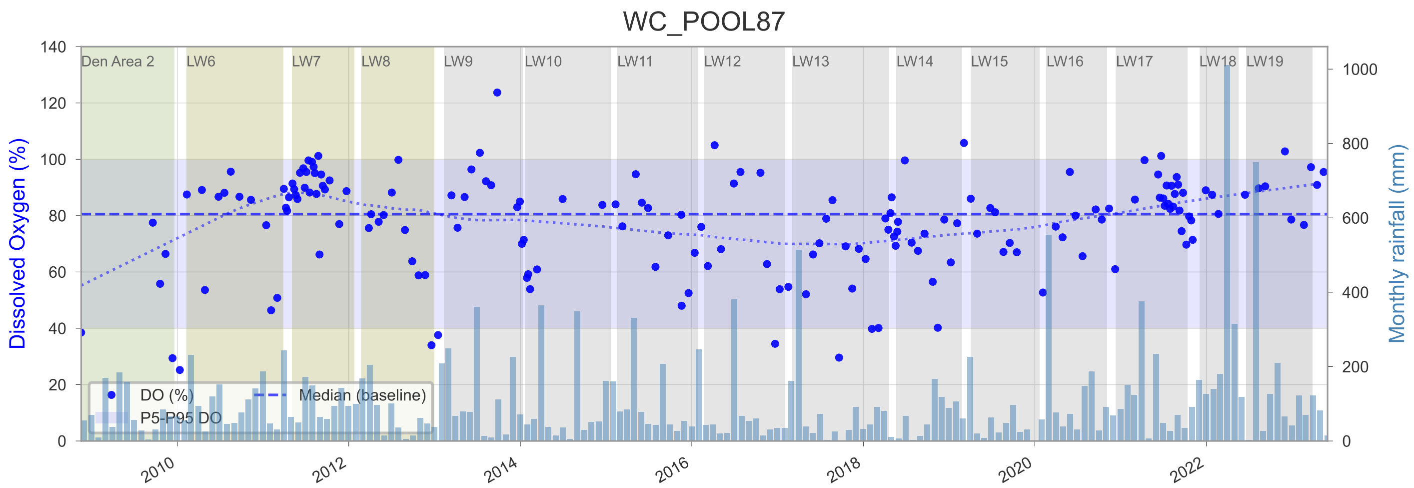

WC_POOL72B
pH units
Monthly rainfall (mm)
Den Area
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

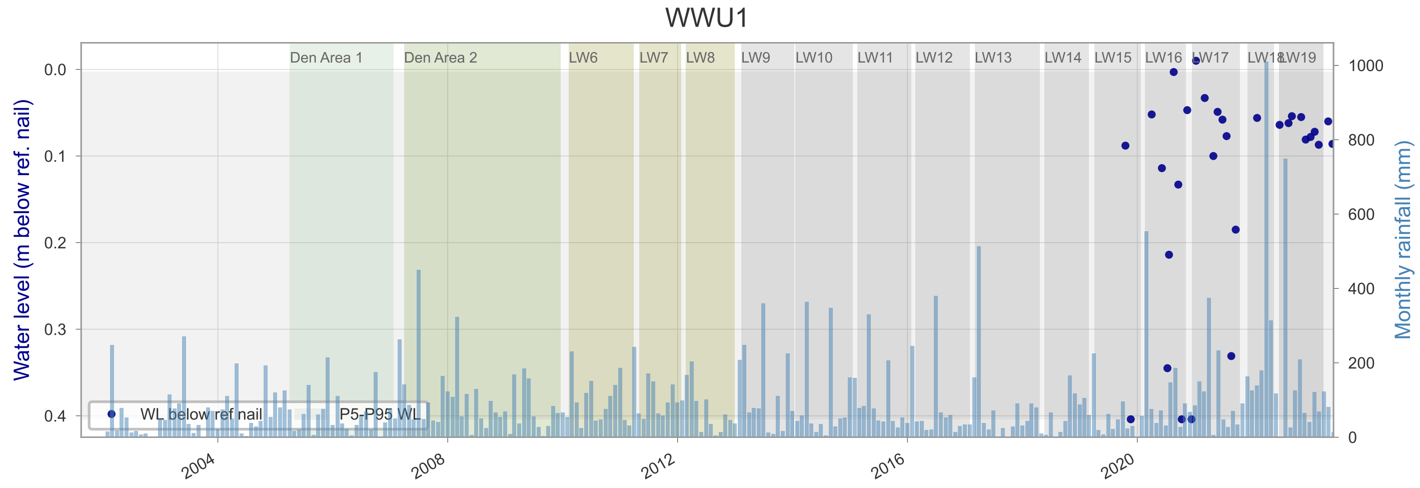

WC_POOL72B
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

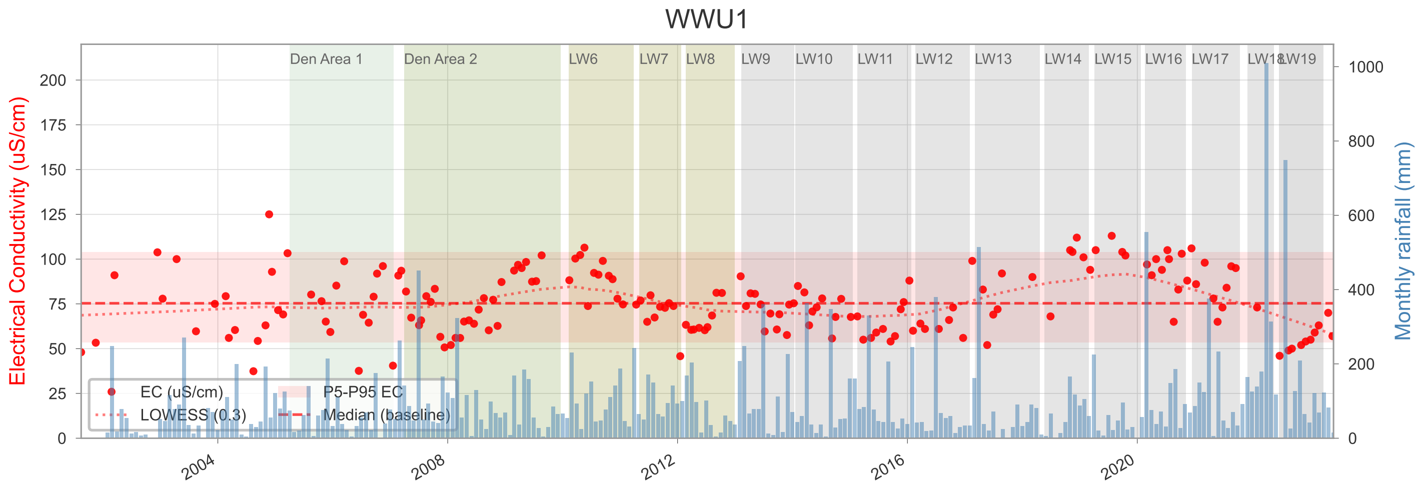

WC_POOL87
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Water level (m below ref. nail)
Monthly rainfall (mm)
WL below ref nail
P5-P95 WL
−0.4
−0.2
0.0
0.2
0.4
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

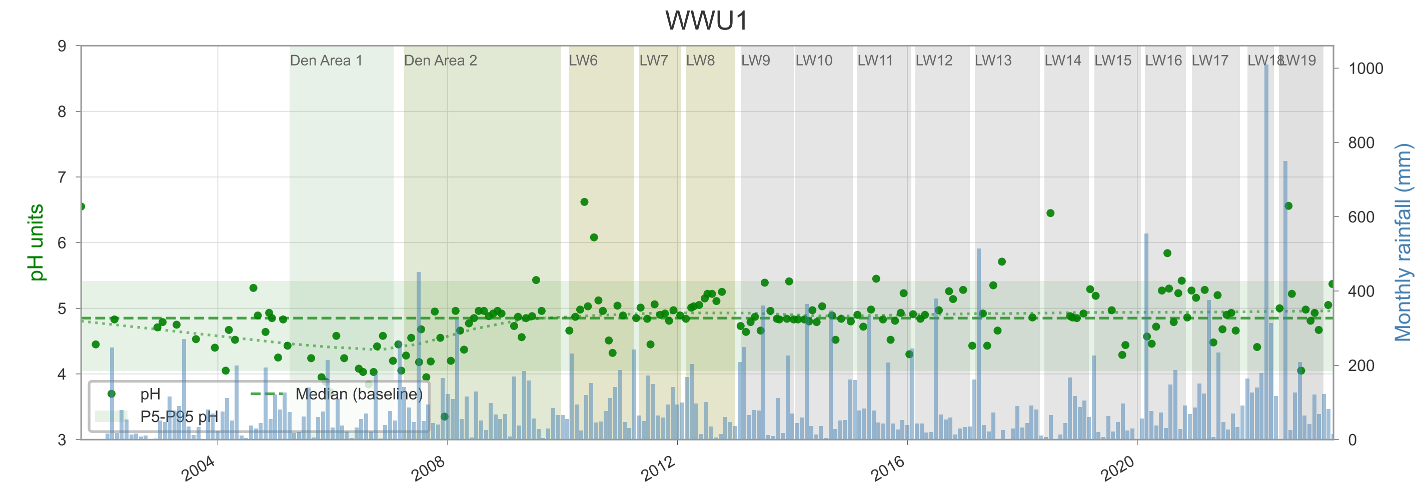

WC_POOL87
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

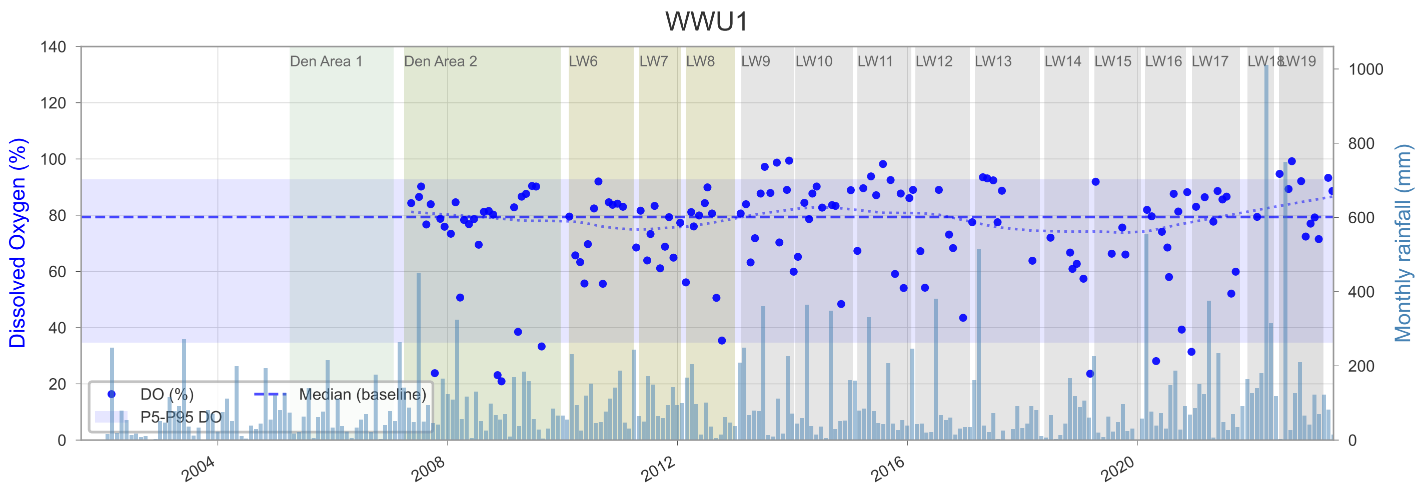

WC_POOL87
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH units
Monthly rainfall (mm)
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

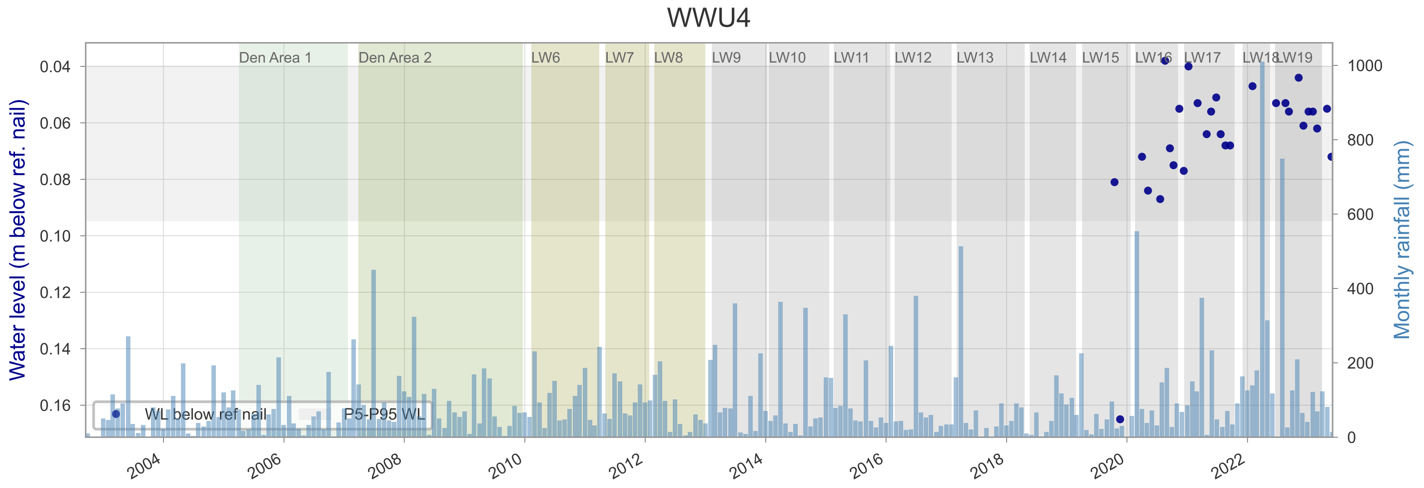

WC_POOL87
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Dissolved Oxygen (%)
Monthly rainfall (mm)
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2010
2012
2014
2016
2018
2020
2022

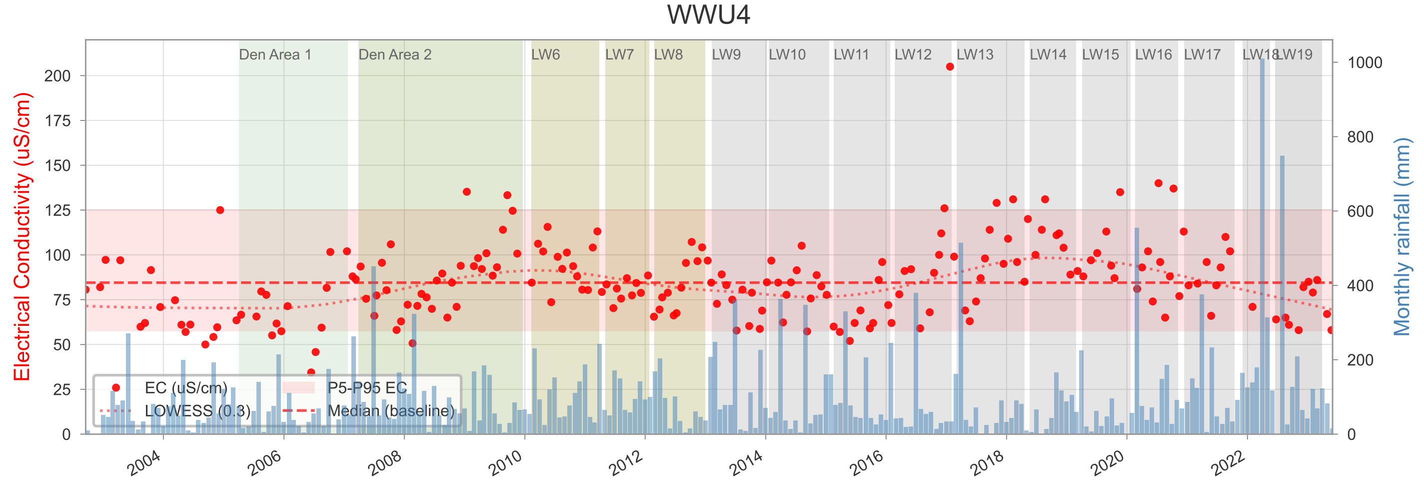

WWU1
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
2004
2008
2012
2016
2020

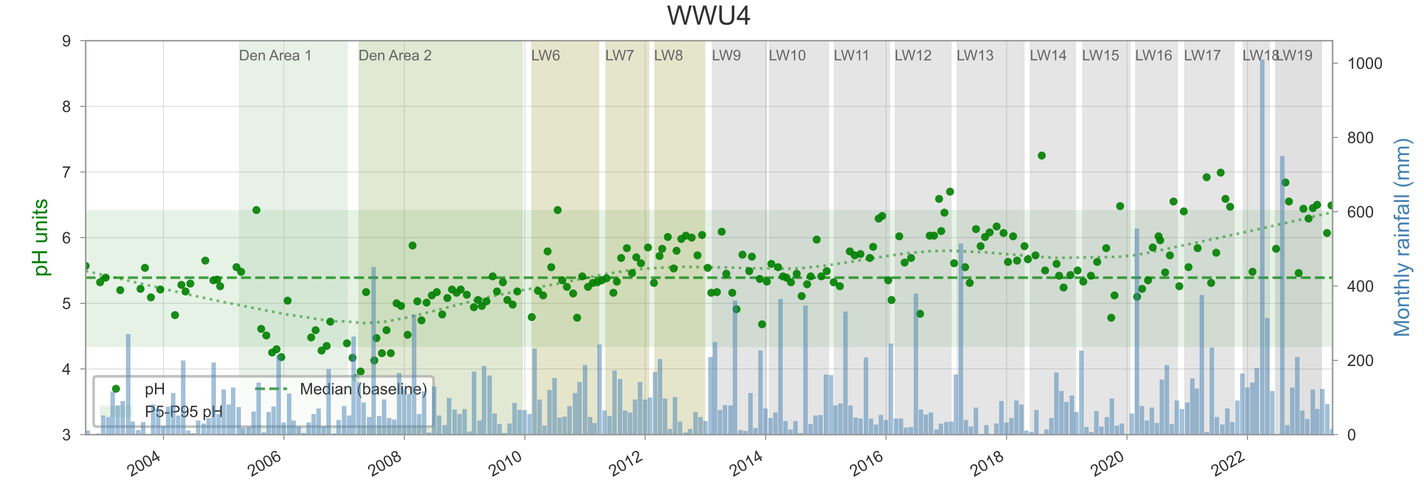

WWU1
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
2004
2008
2012
2016
2020

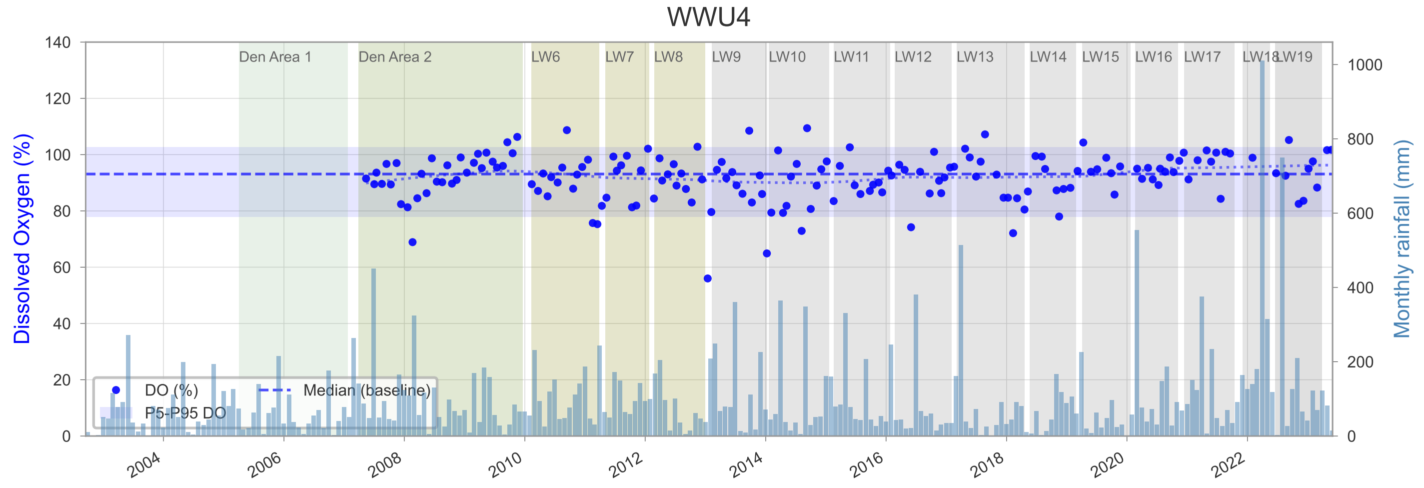

WWU1
pH units
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
2004
2008
2012
2016
2020

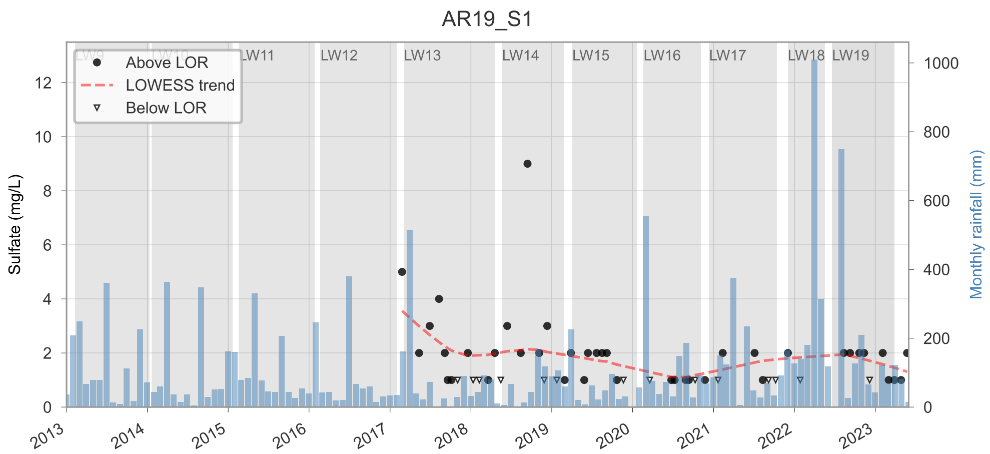

WWU1
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
2004
2008
2012
2016
2020

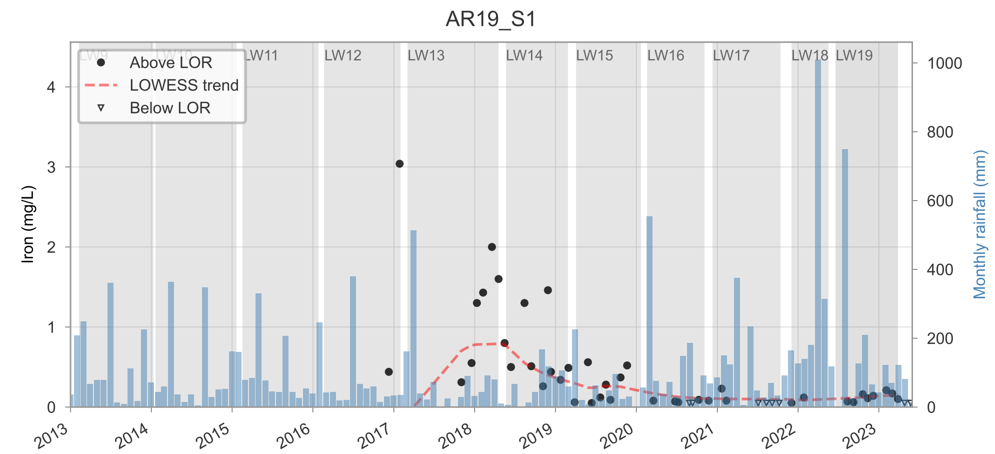

WWU4
Water level (m below ref. nail)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
WL below ref nail
P5-P95 WL
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0
200
400
600
800
1000
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

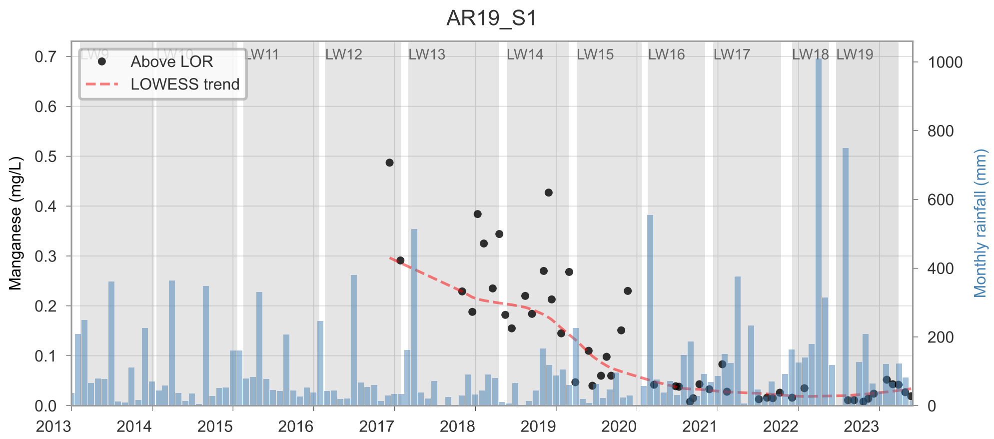

WWU4
Electrical Conductivity (uS/cm)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
EC (uS/cm)
LOWESS (0.3)
P5-P95 EC
Median (baseline)
0
25
50
75
100
125
150
175
200
0
200
400
600
800
1000
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

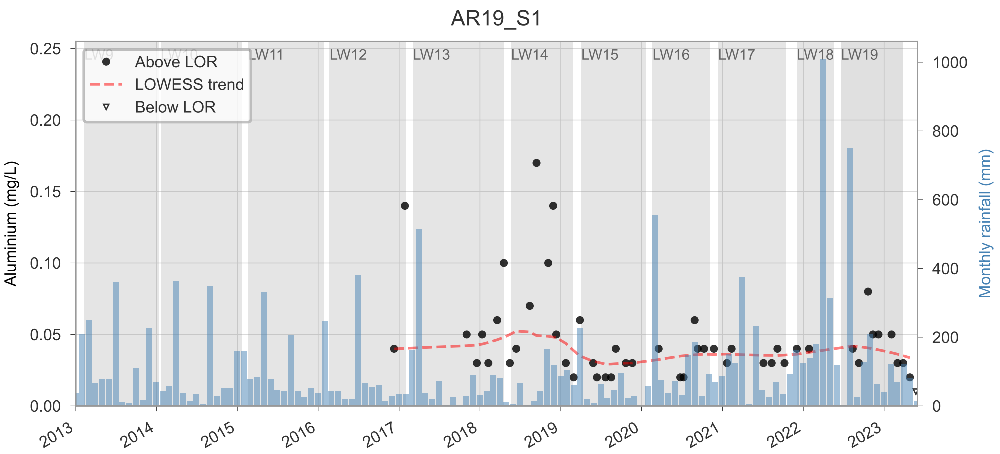

WWU4
pH units
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
pH
P5-P95 pH
Median (baseline)
3
4
5
6
7
8
9
0
200
400
600
800
1000
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

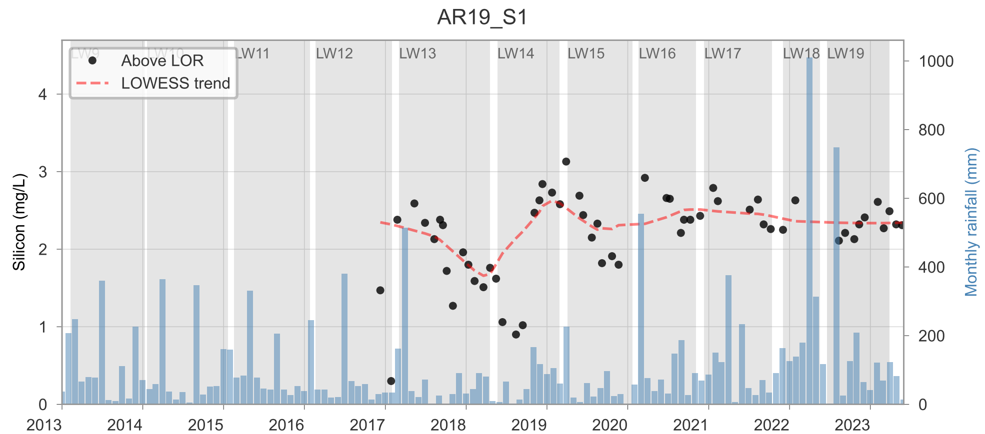

WWU4
Dissolved Oxygen (%)
Monthly rainfall (mm)
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
DO (%)
P5-P95 DO
Median (baseline)
0
20
40
60
80
100
120
140
0
200
400
600
800
1000
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

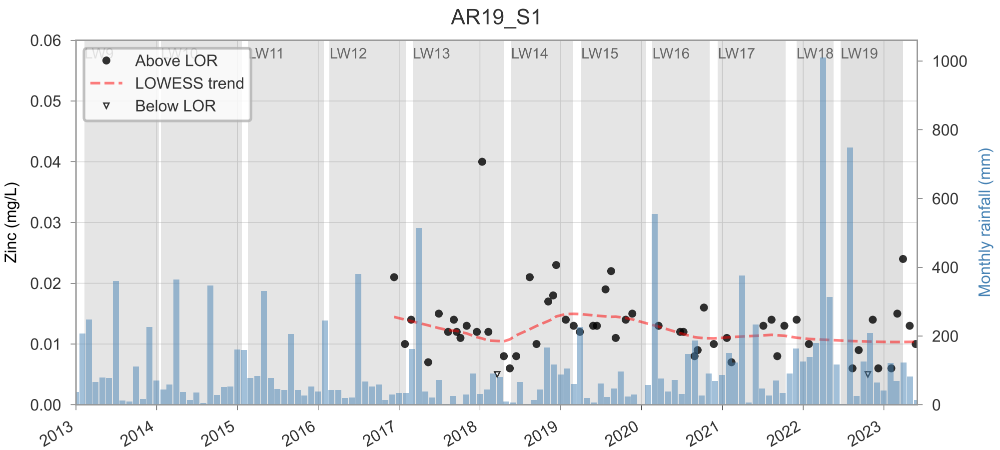

AR19_S1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

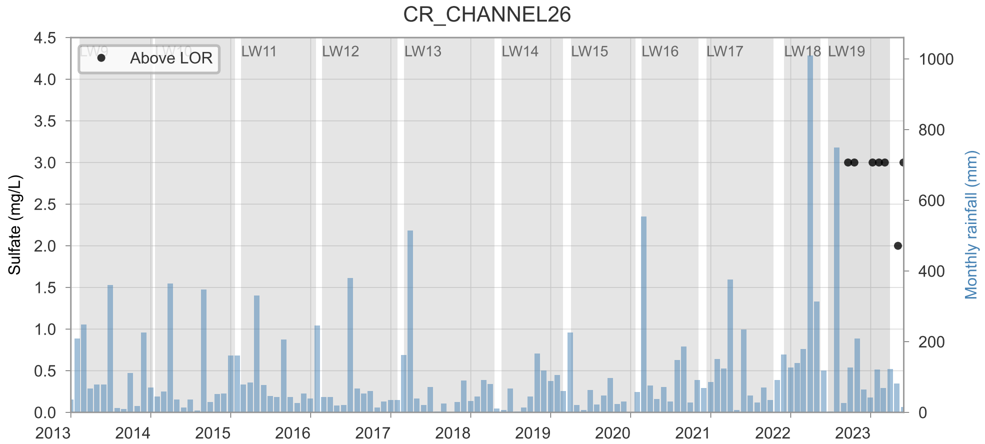

AR19_S1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

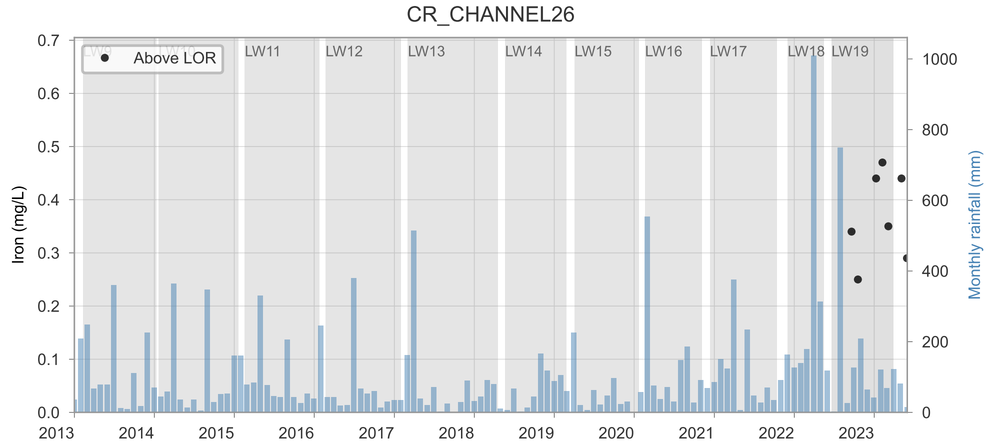

AR19_S1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

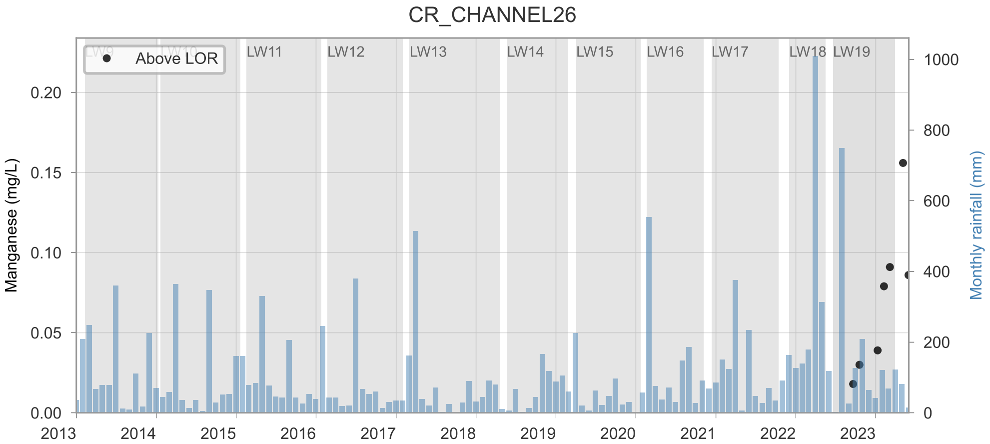

AR19_S1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

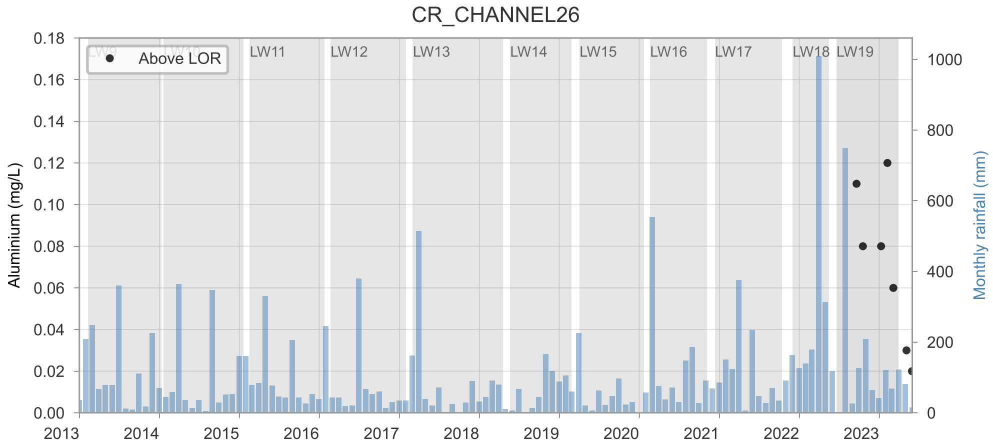

AR19_S1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

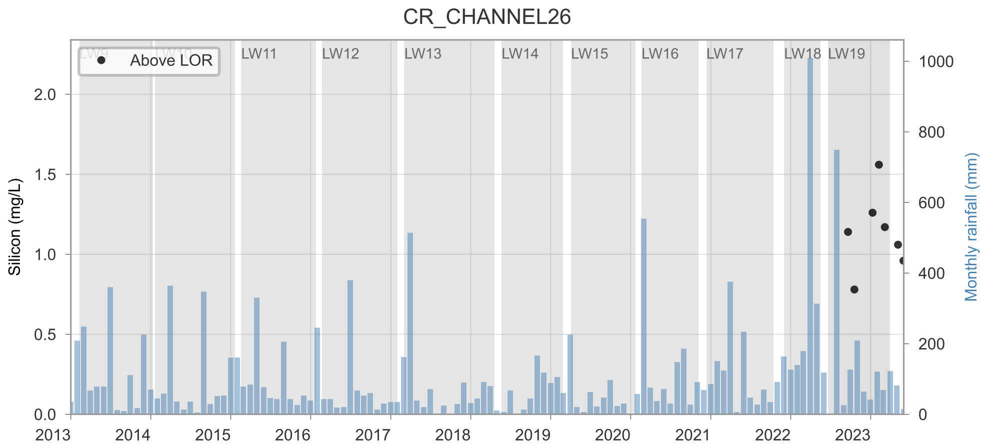

AR19_S1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

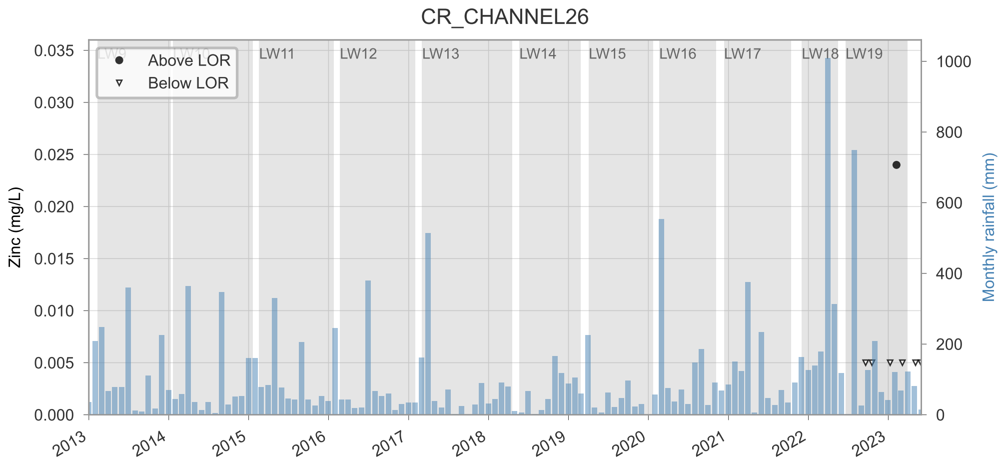

CR_CHANNEL26
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

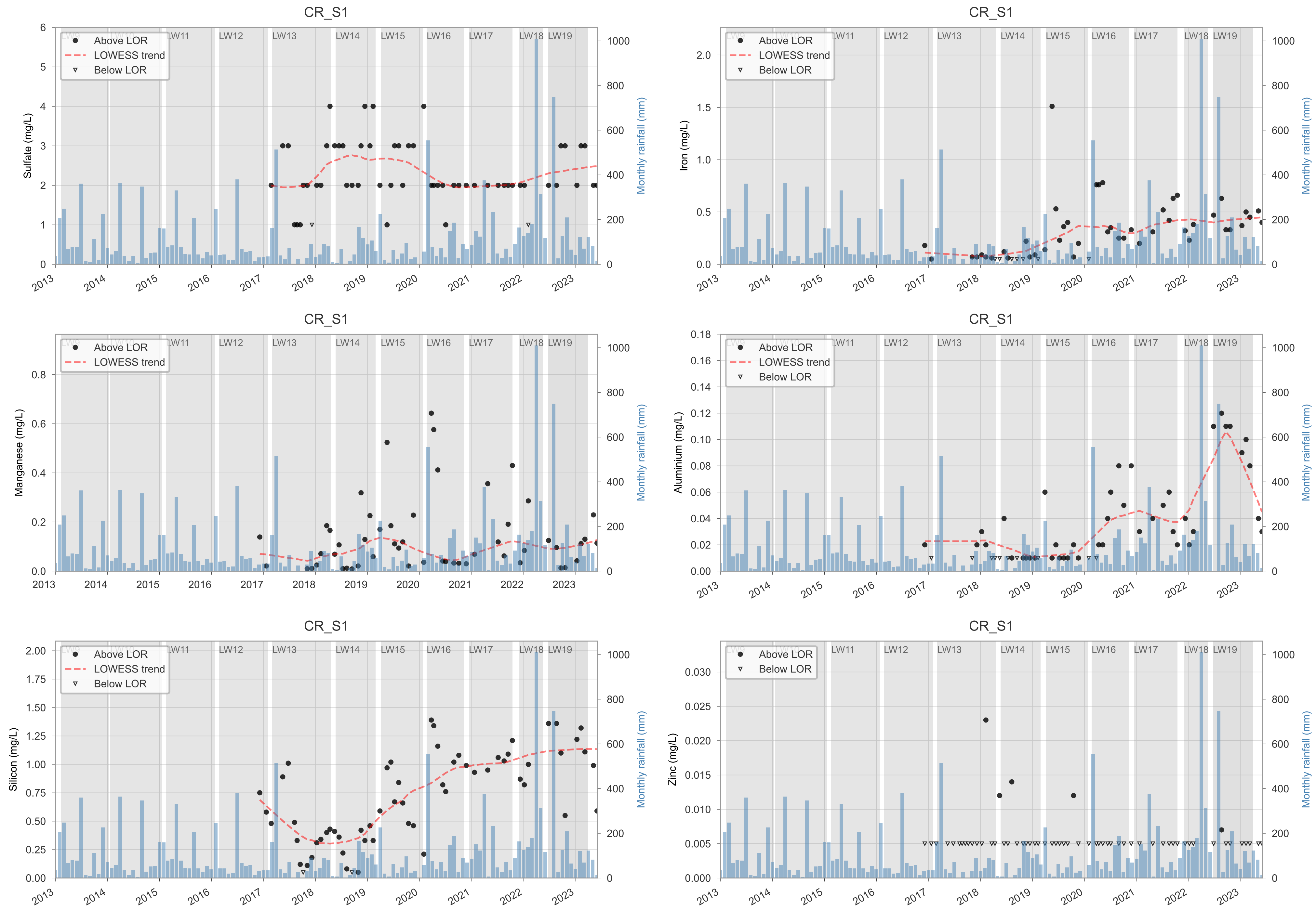

CR_CHANNEL26
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

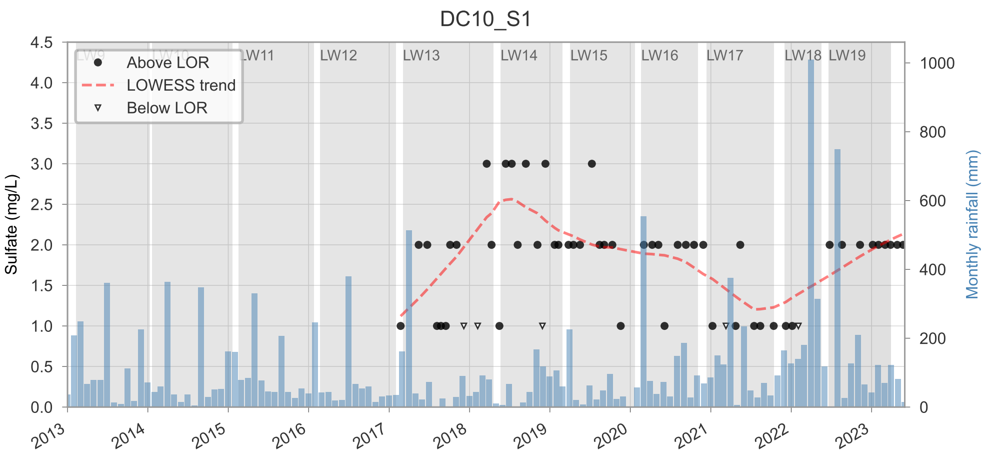

CR_CHANNEL26
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

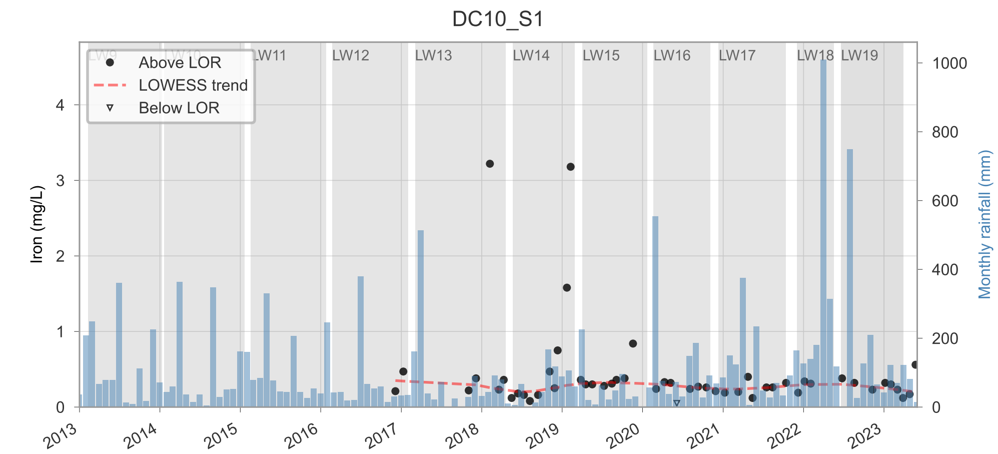

CR_CHANNEL26
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

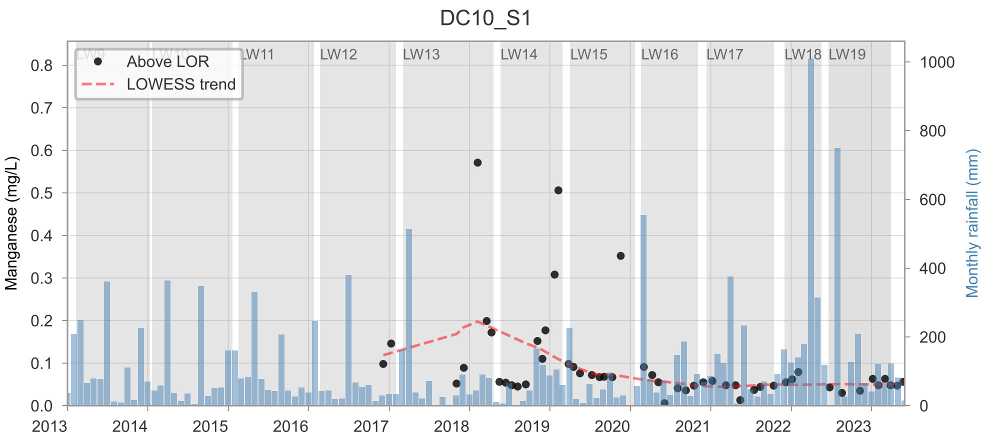

CR_CHANNEL26
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

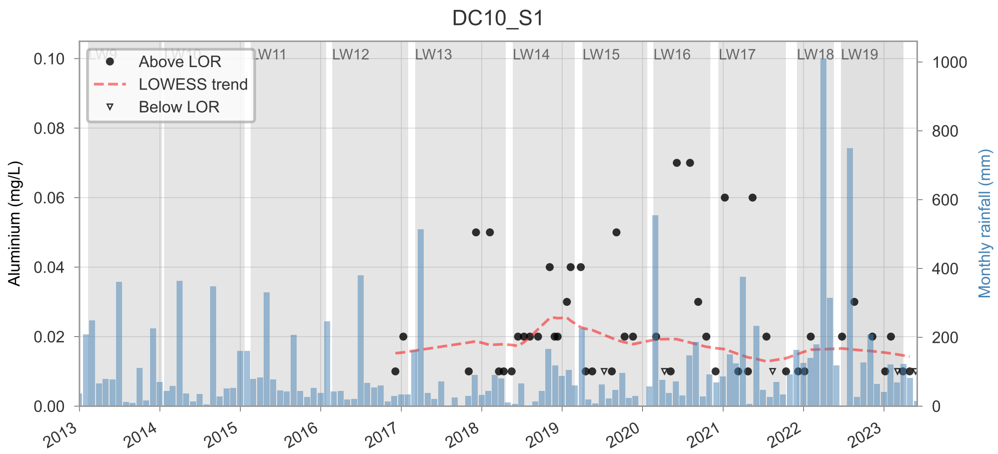

CR_CHANNEL26
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

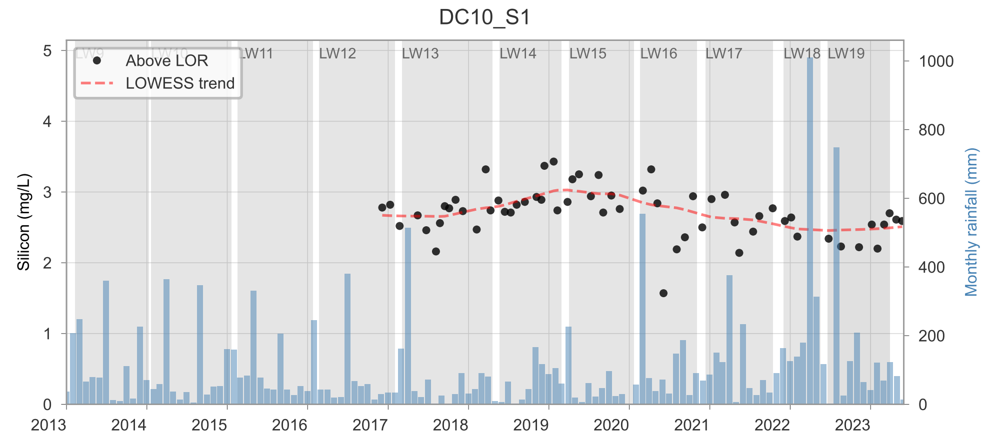

CR_S1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
CR_S1
Iron (mg/L)
Monthly rainfall (mm)
CR_S1
Manganese (mg/L)
Monthly rainfall (mm)
CR_S1
Aluminium (mg/L)
Monthly rainfall (mm)
CR_S1
Silicon (mg/L)
Monthly rainfall (mm)
CR_S1
Zinc (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

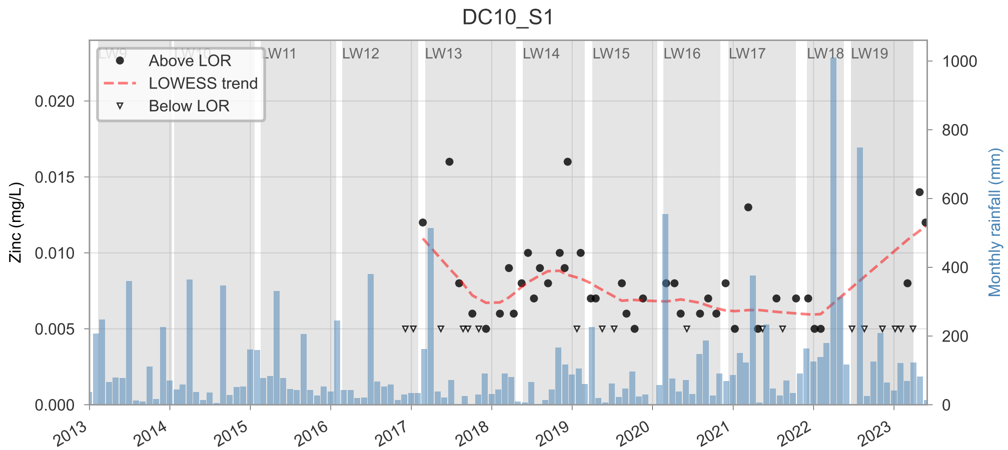

DC10_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)

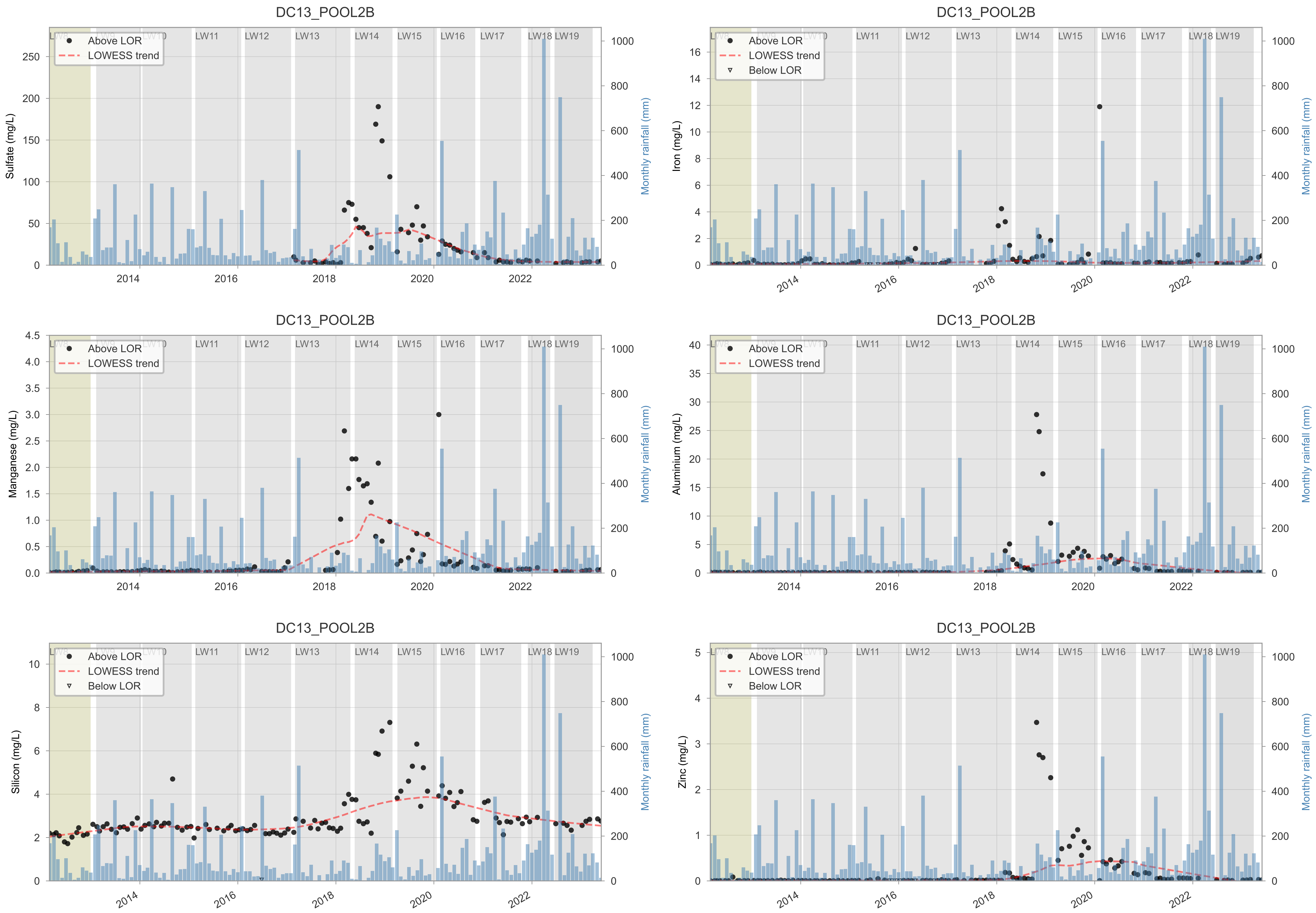

DC10_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)

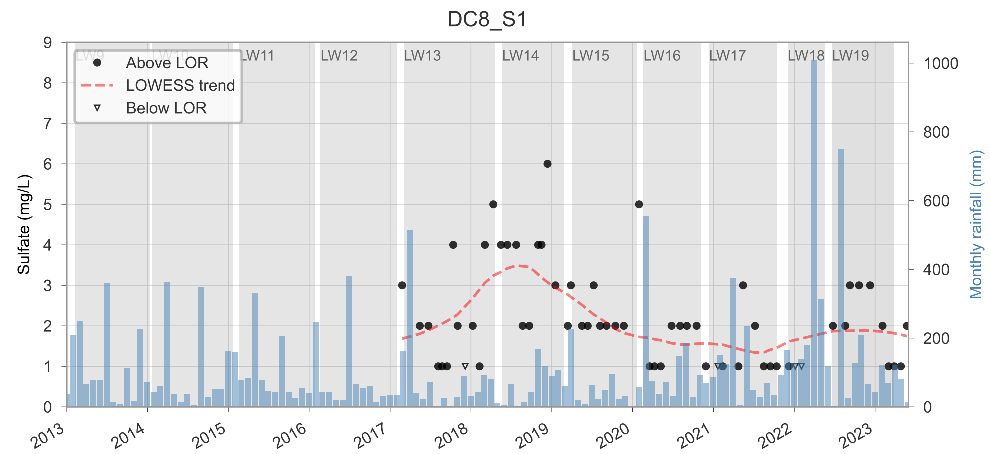

DC10_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)

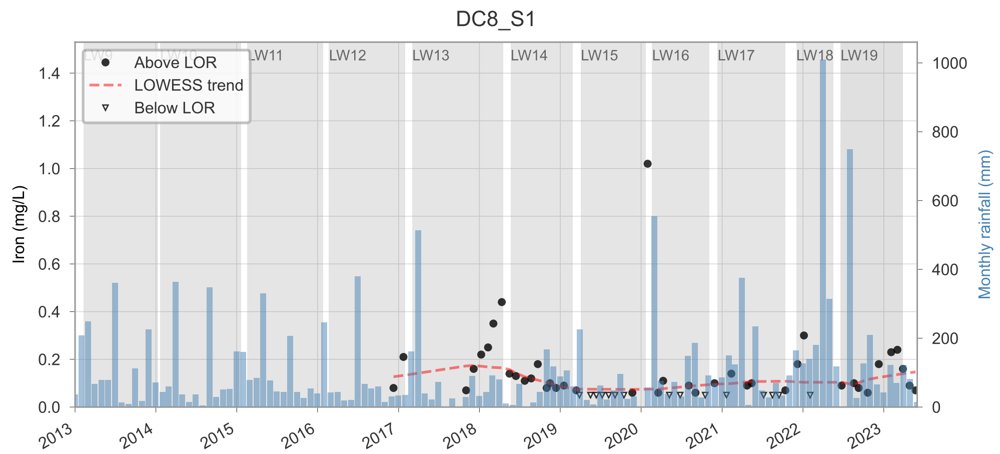

DC10_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)

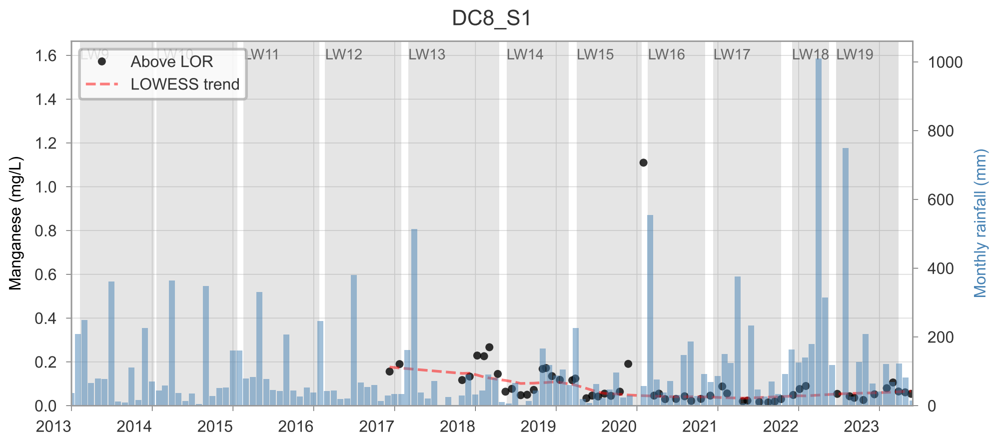

DC10_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)

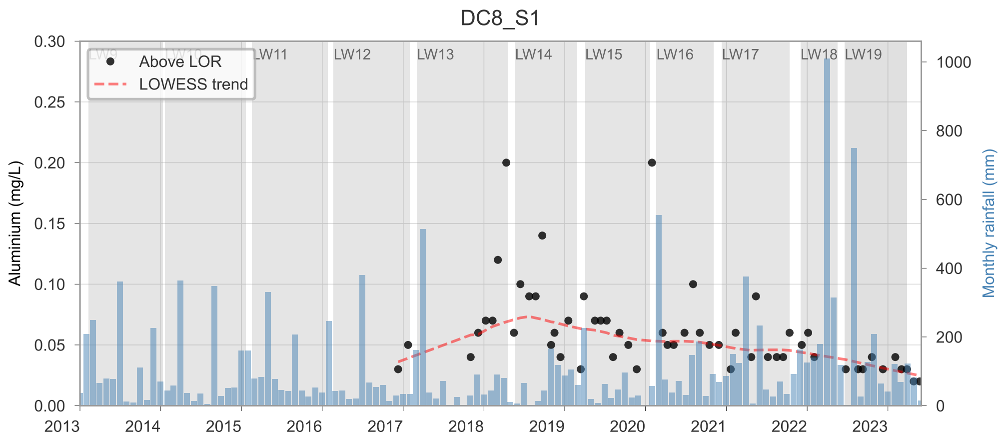

DC10_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)

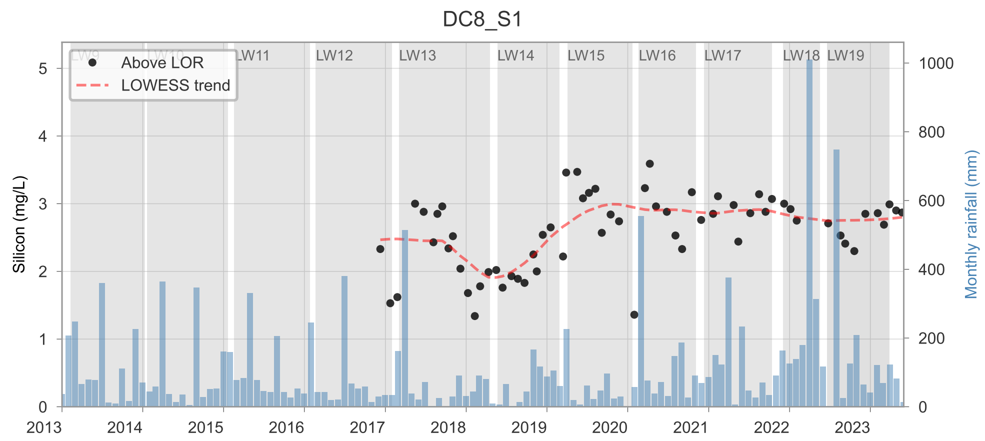

DC13_POOL2B
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022
DC13_POOL2B
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
DC13_POOL2B
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
DC13_POOL2B
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
DC13_POOL2B
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
DC13_POOL2B
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR

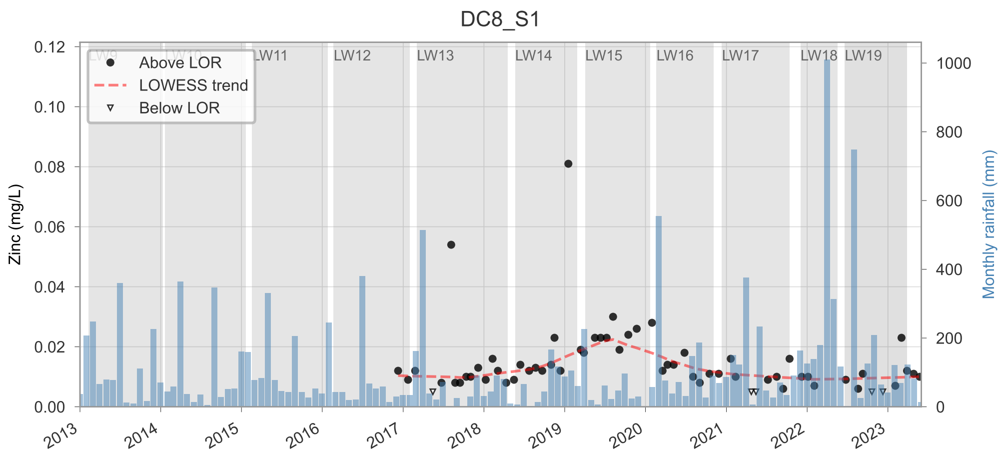

DC8_S1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

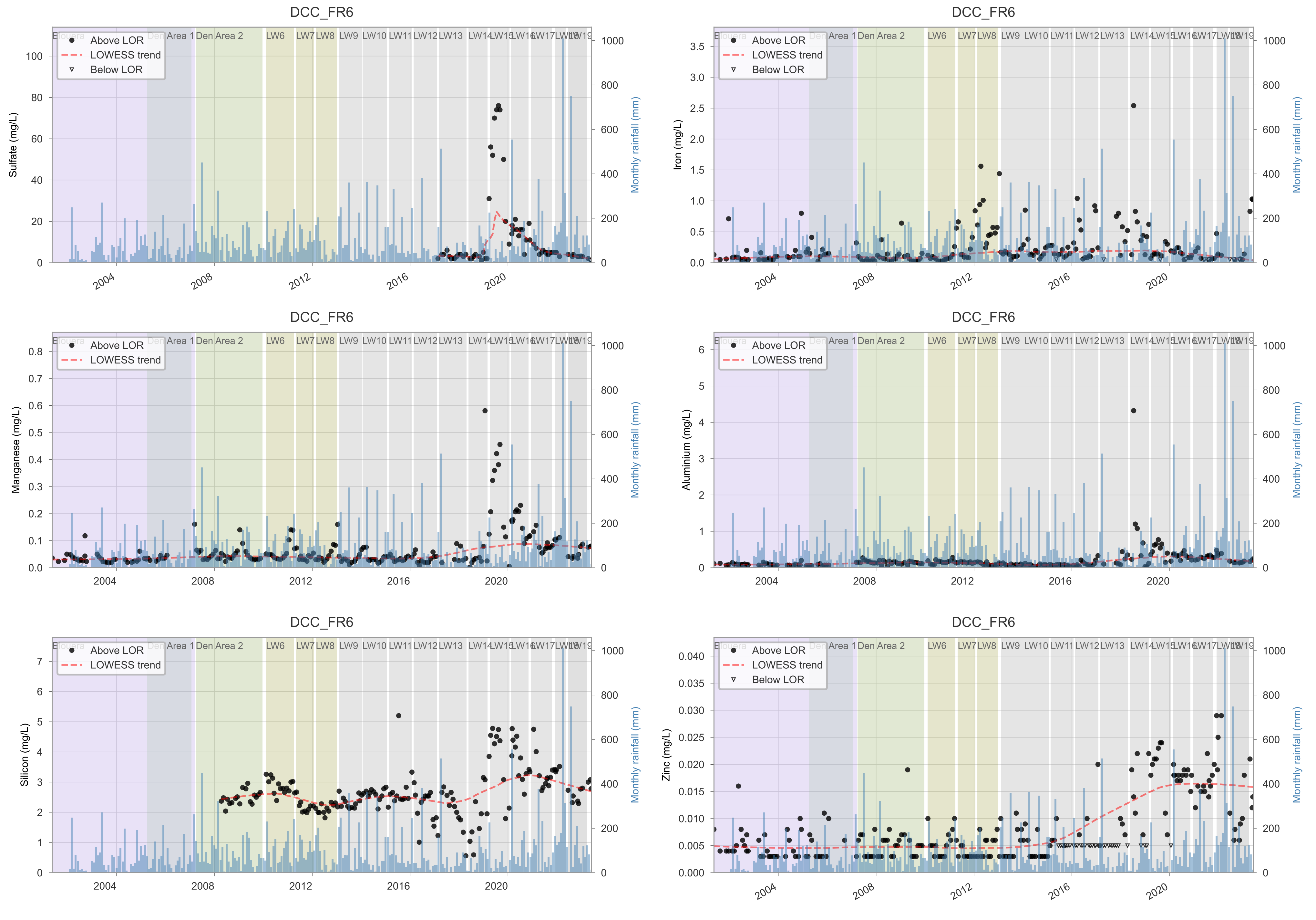

DC8_S1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

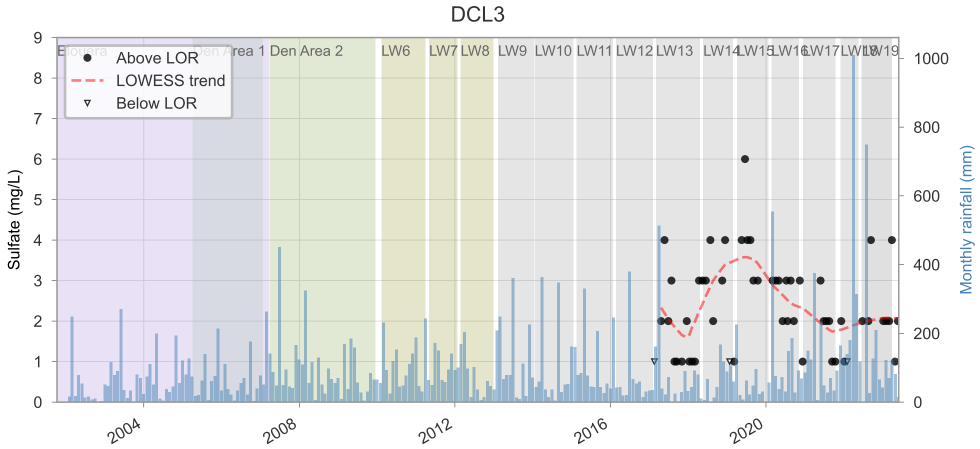

DC8_S1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

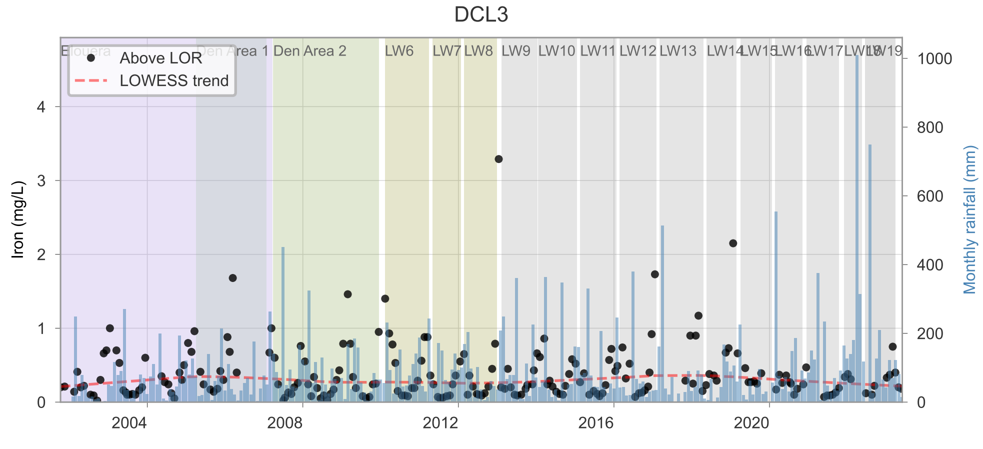

DC8_S1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

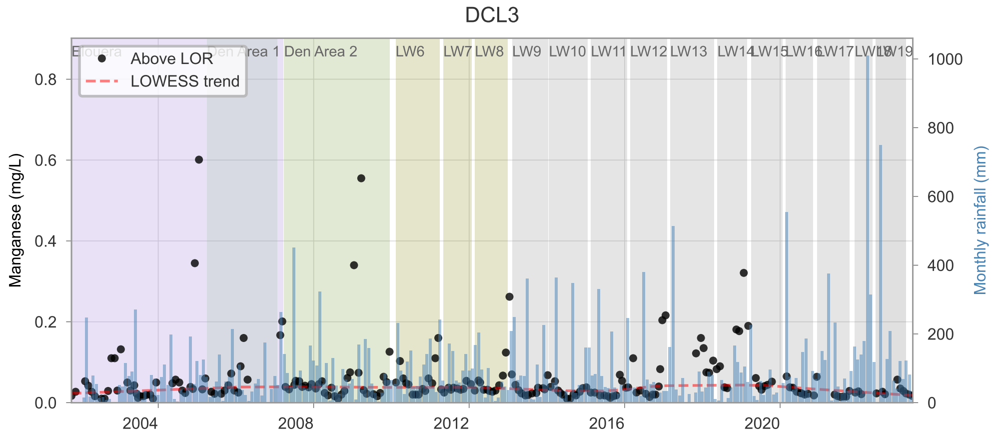

DC8_S1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

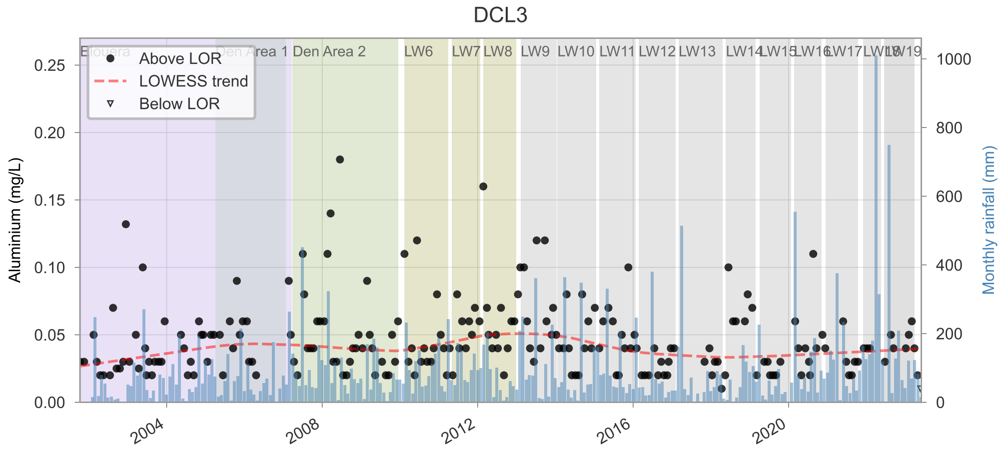

DC8_S1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

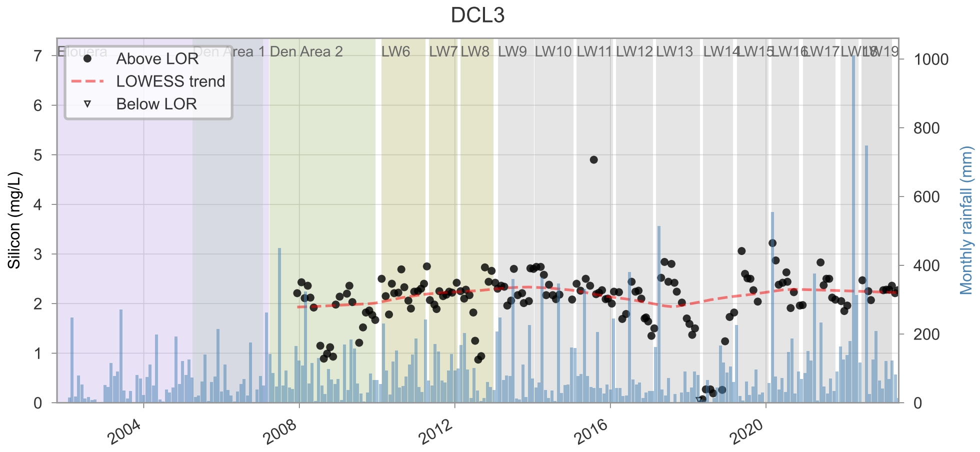

DCC_FR6
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2004
2008
2012
2016
2020

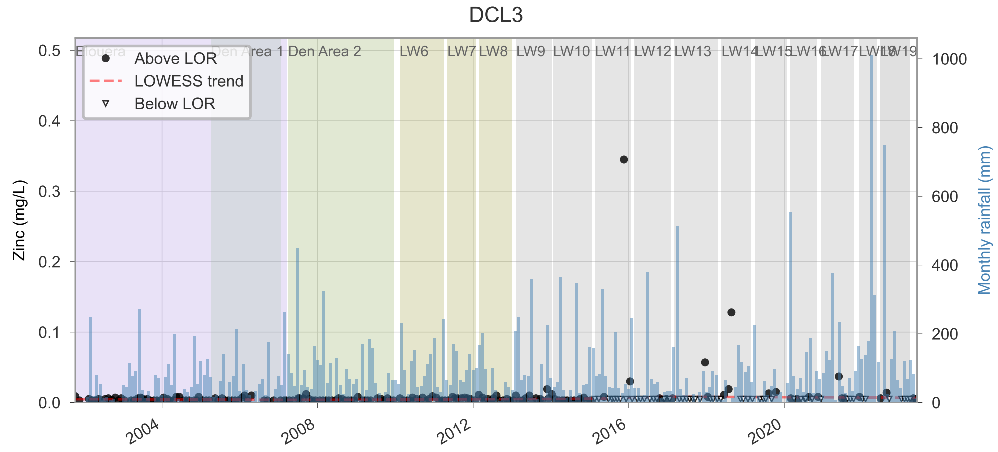

DCL3
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

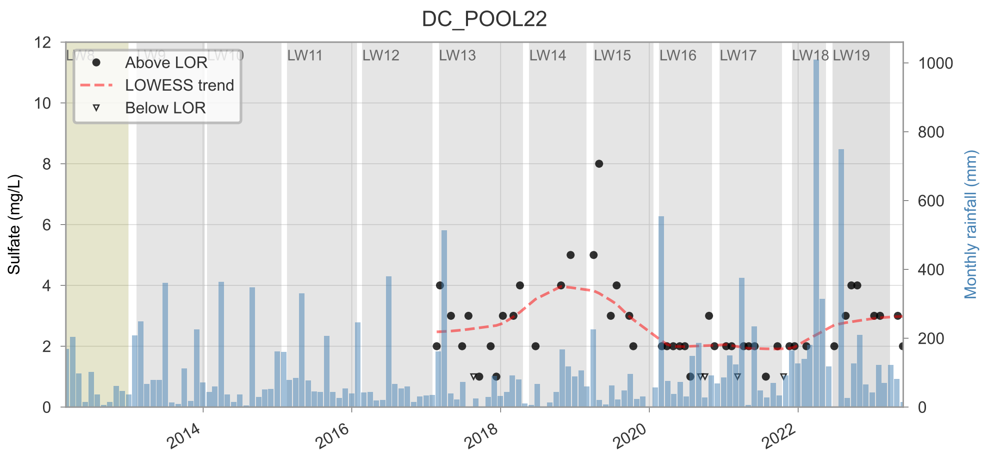

DCL3
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

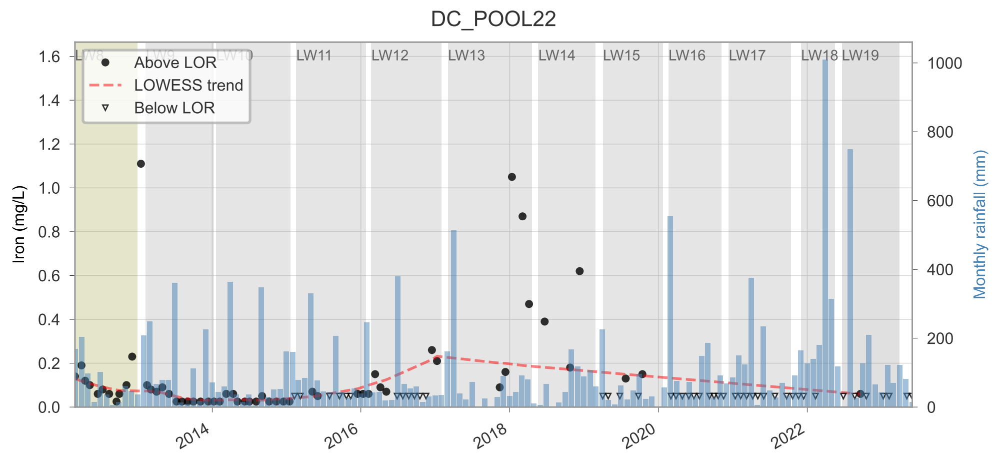

DCL3
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

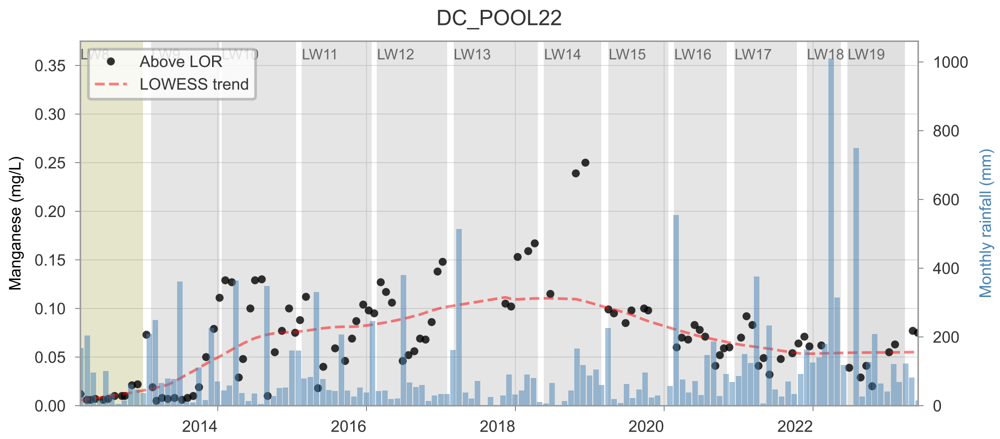

DCL3
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

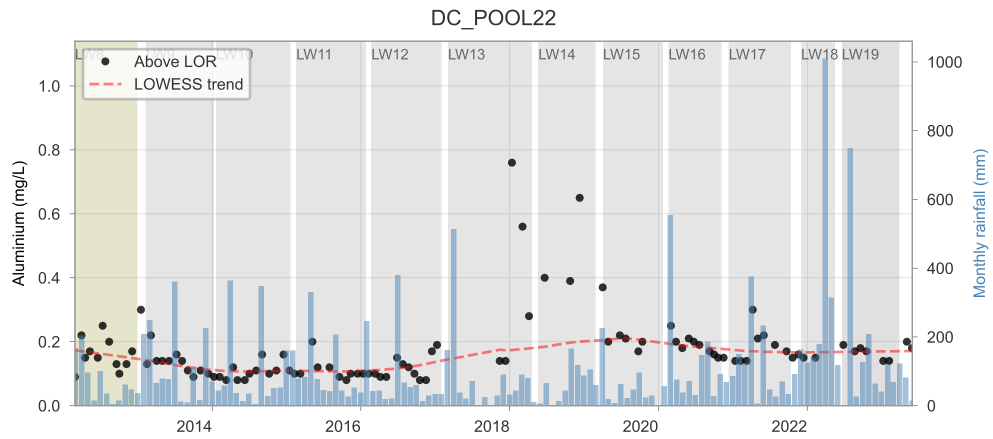

DCL3
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

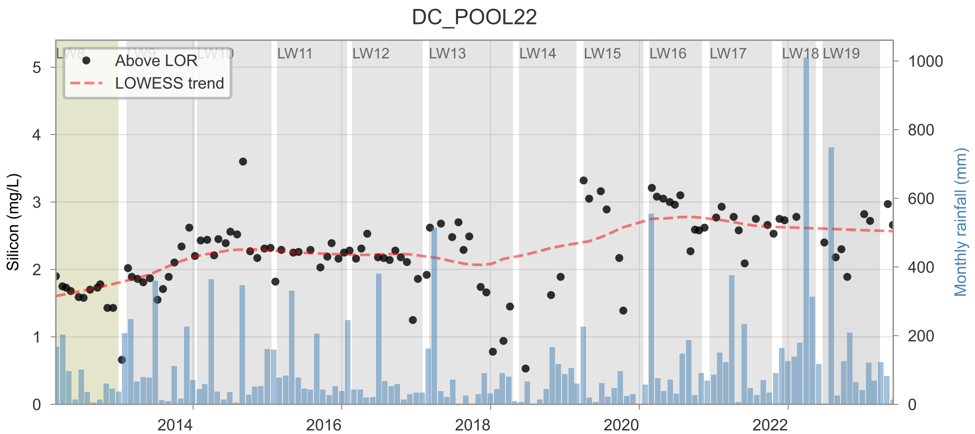

DCL3
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2004 2008 2012 2016 2020

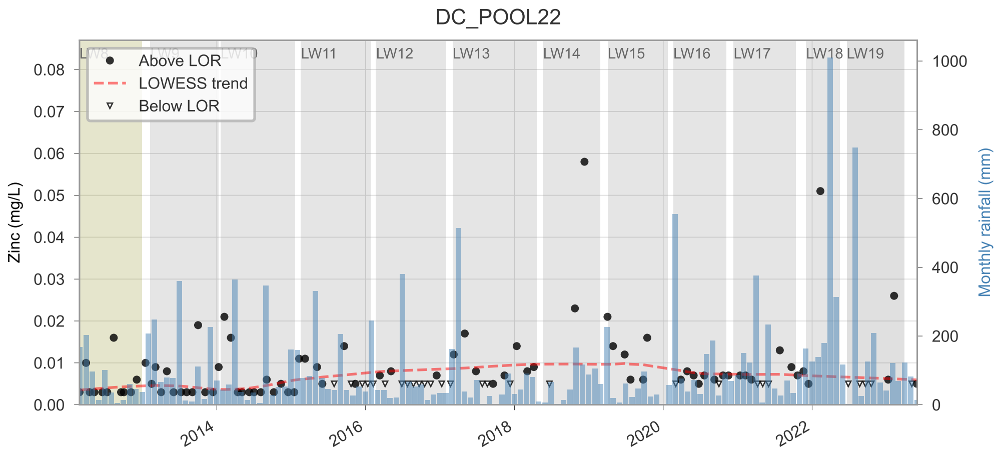

DC_POOL22
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

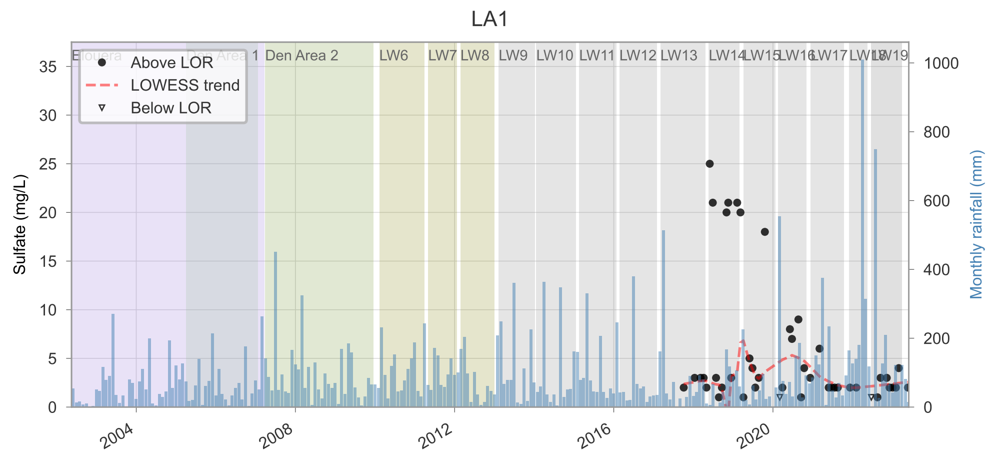

DC_POOL22
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

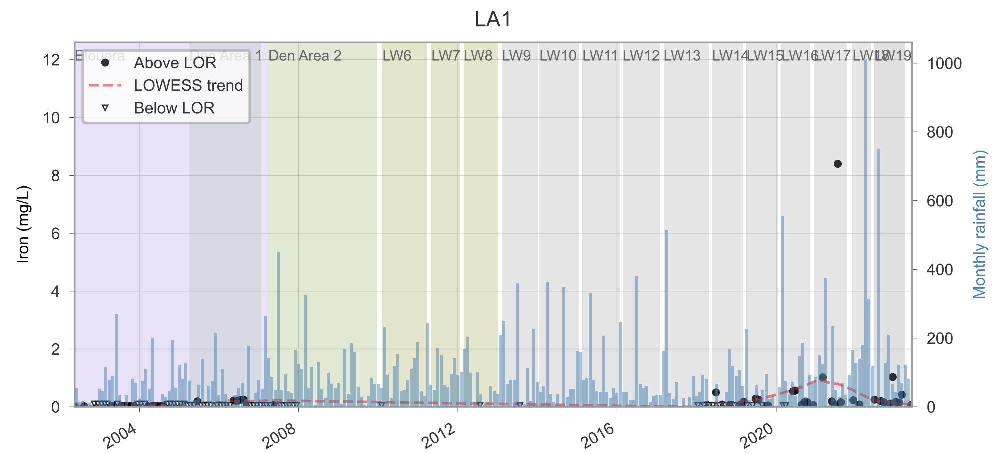

DC_POOL22
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

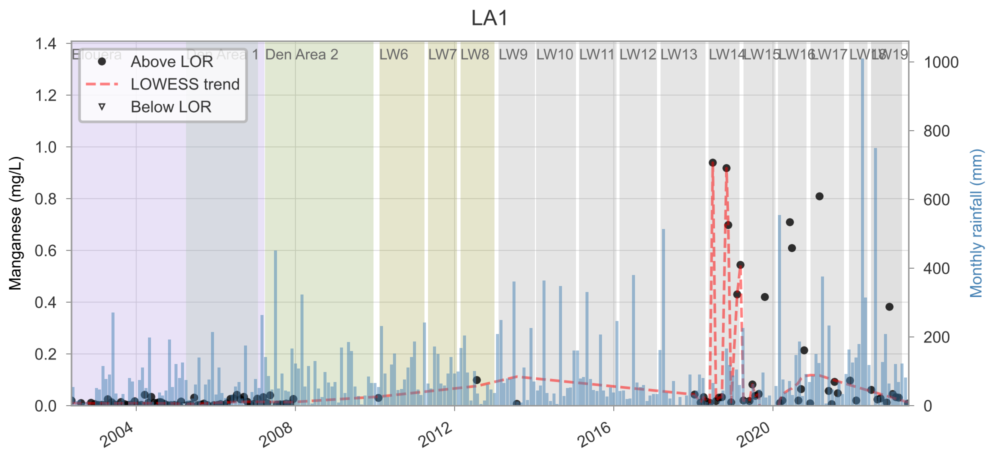

DC_POOL22
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

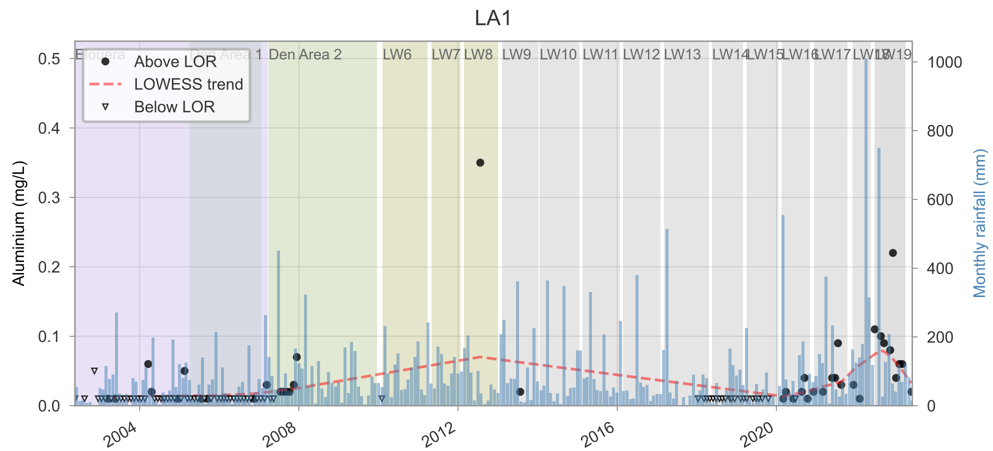

DC_POOL22
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

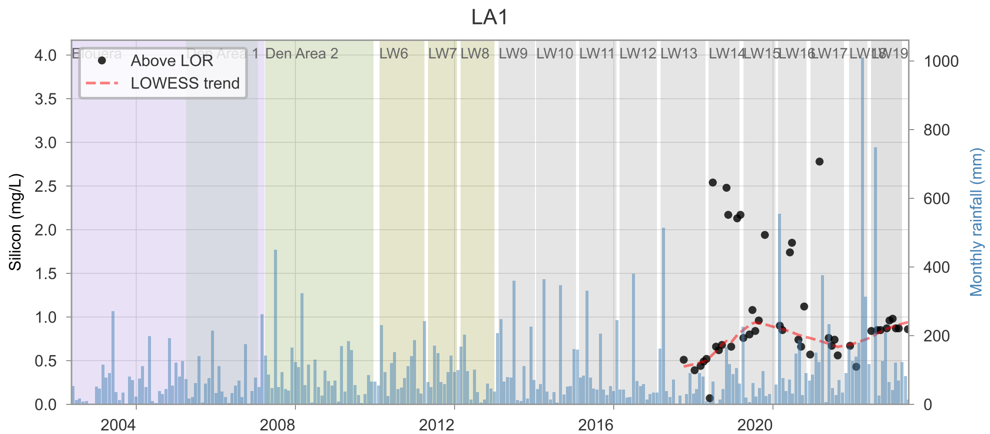

DC_POOL22
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

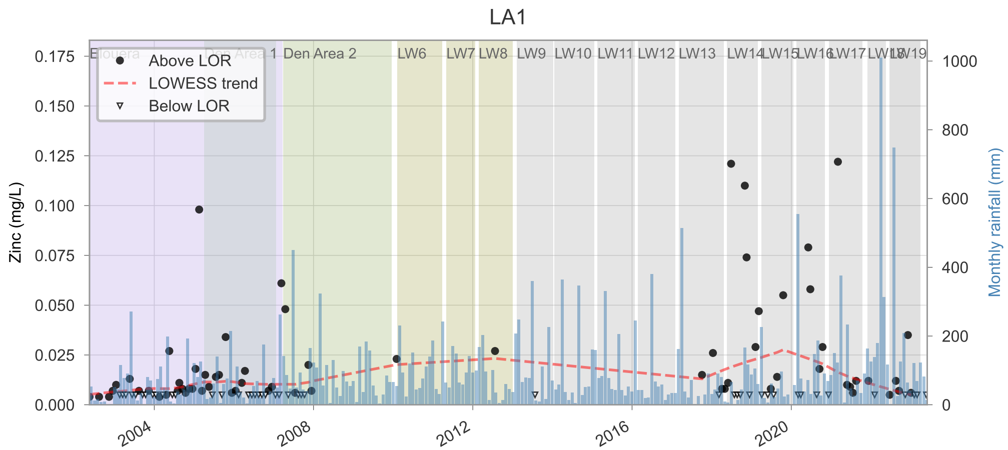

LA1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

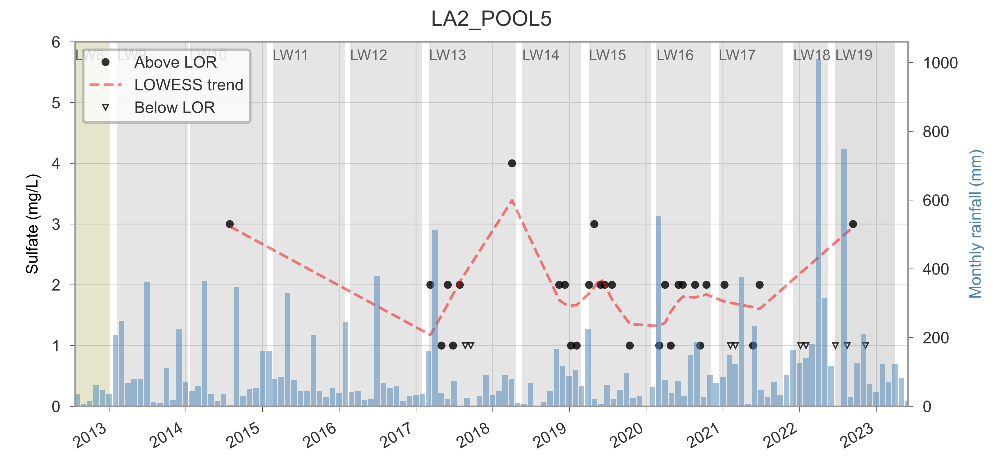

LA1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Iron (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

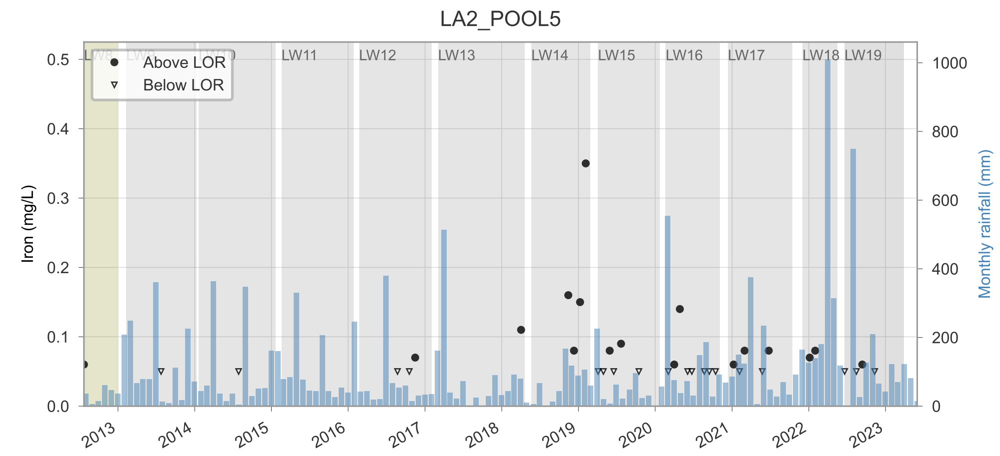

LA1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

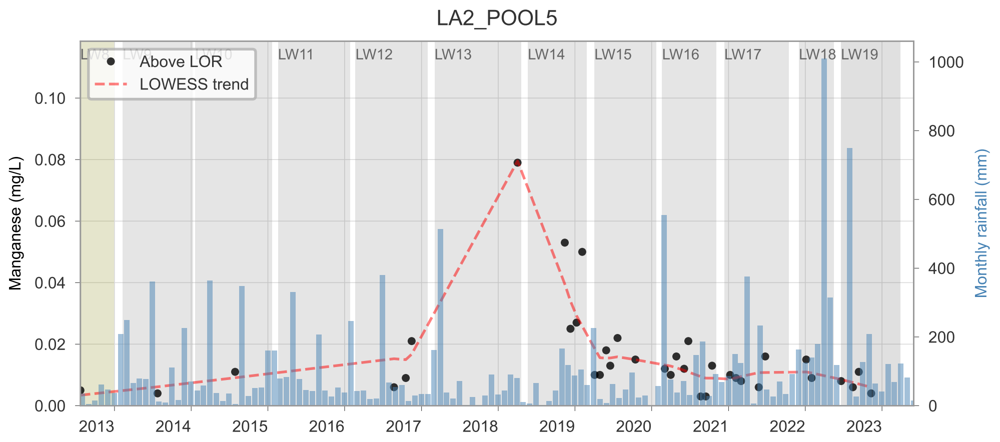

LA1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

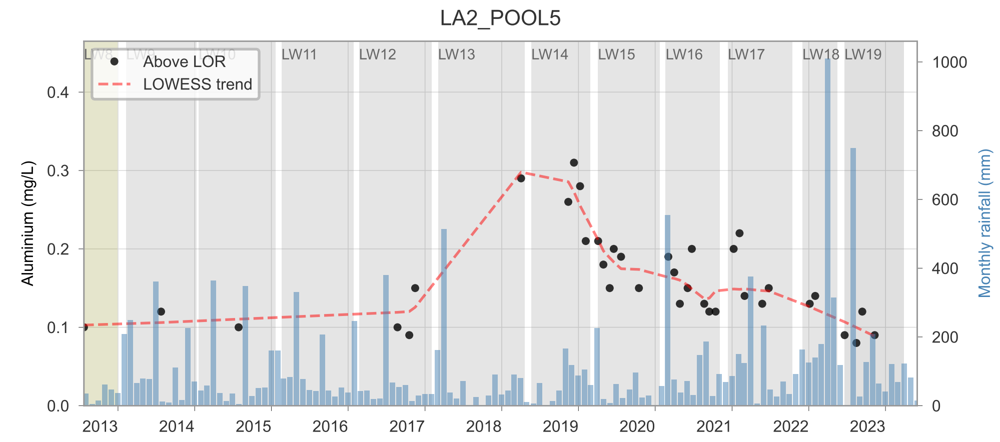

LA1
Above LOR
LOWESS trend
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

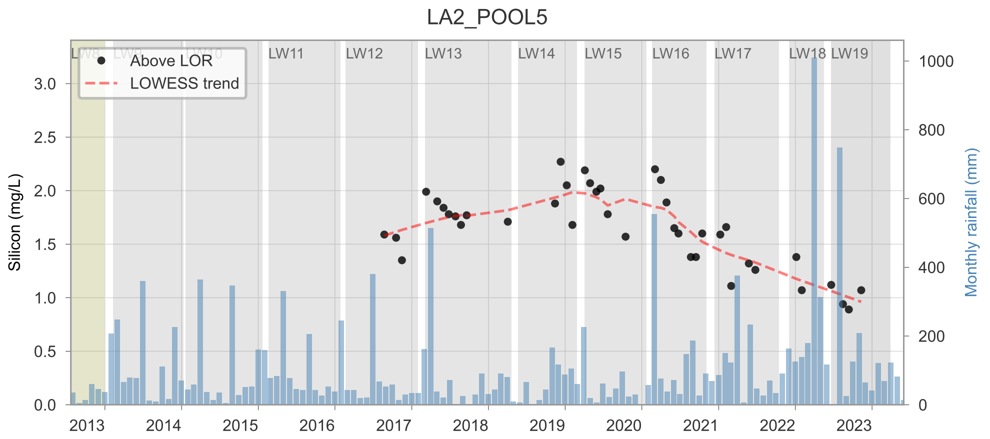

LA1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

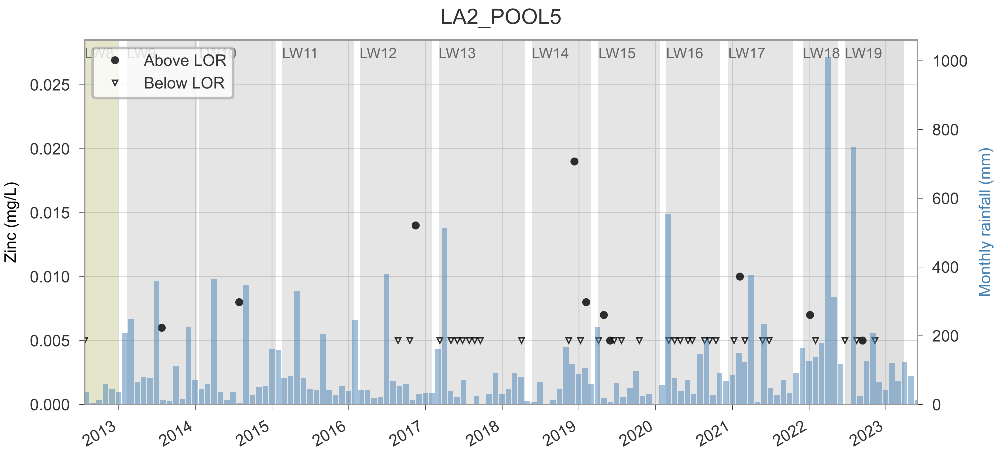

LA2_POOL5
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)

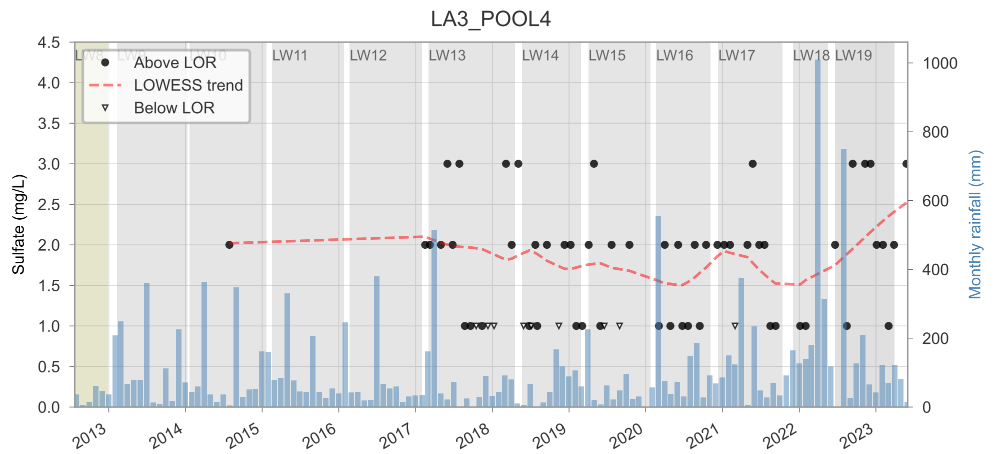

LA2_POOL5
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)

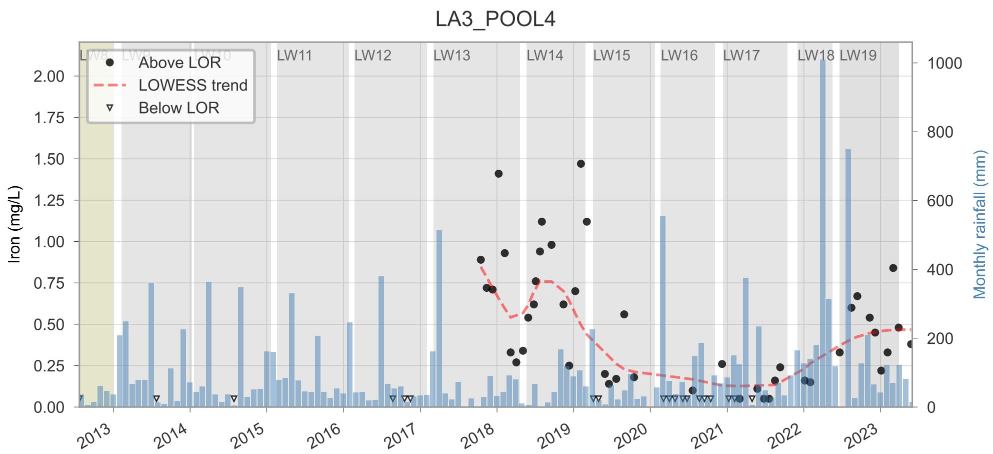

LA2_POOL5
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)

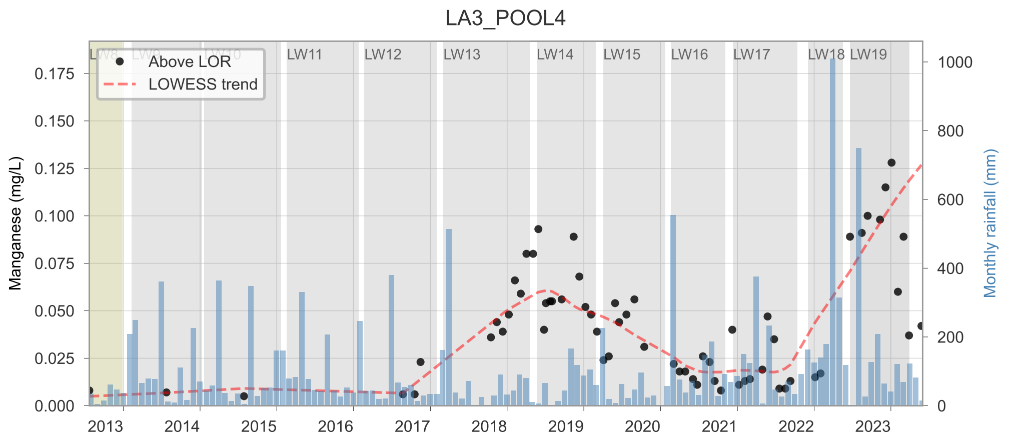

LA2_POOL5
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)

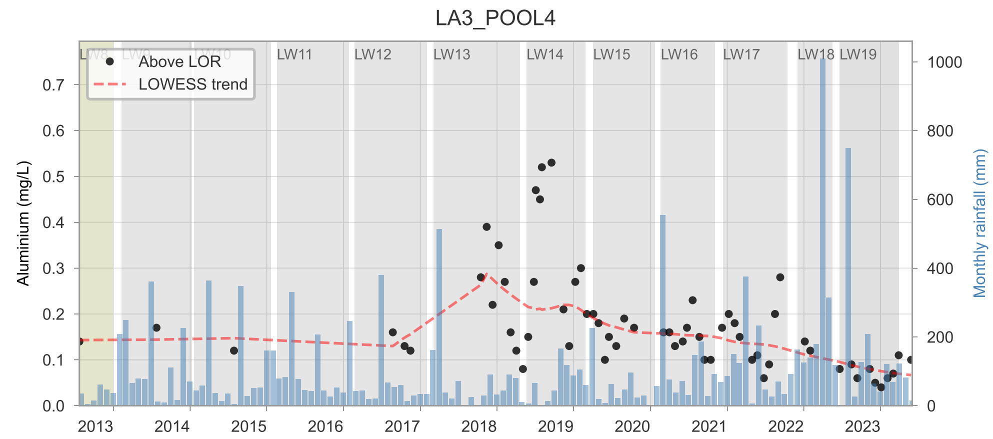

LA2_POOL5
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)

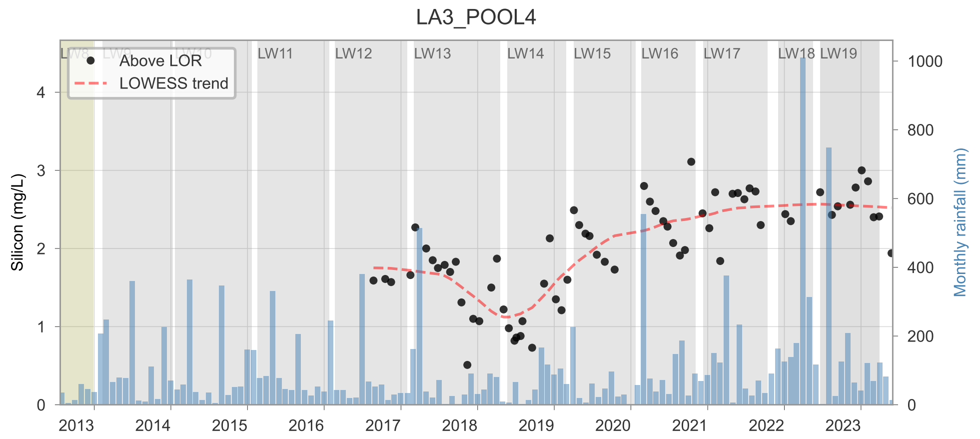

LA2_POOL5
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)

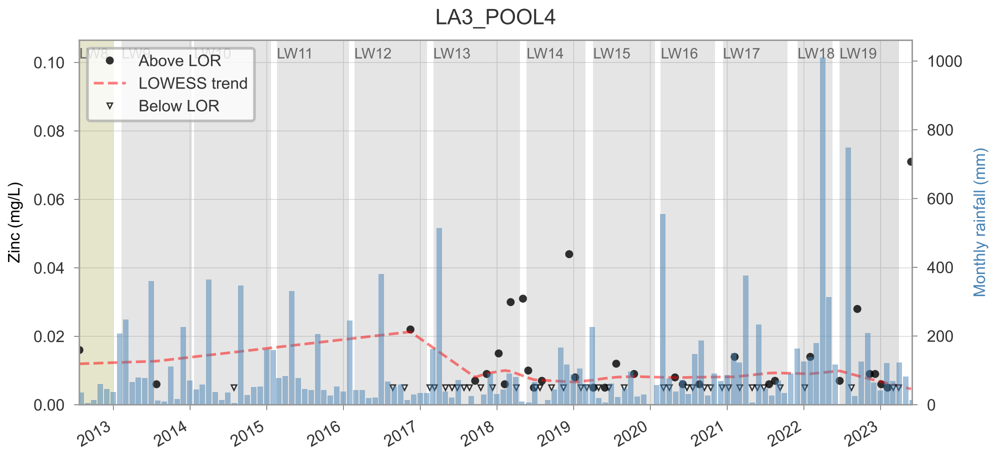

LA3_POOL4
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

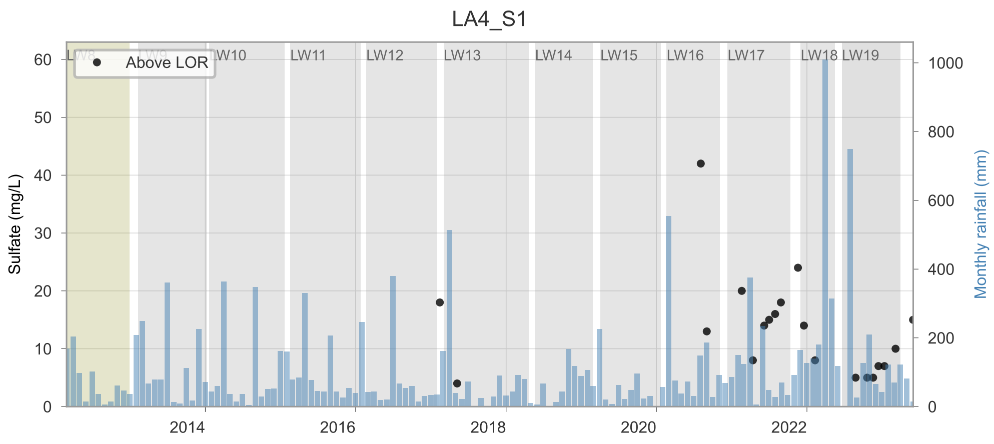

LA3_POOL4
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

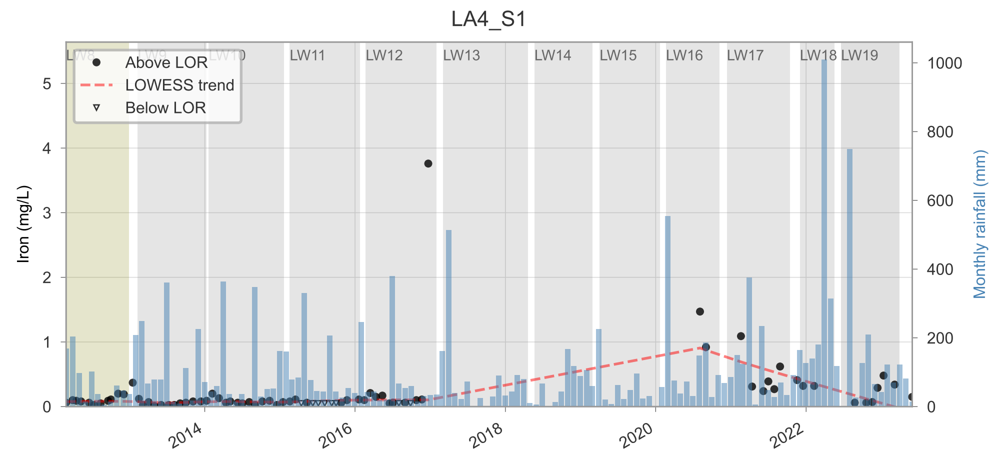

LA3_POOL4
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

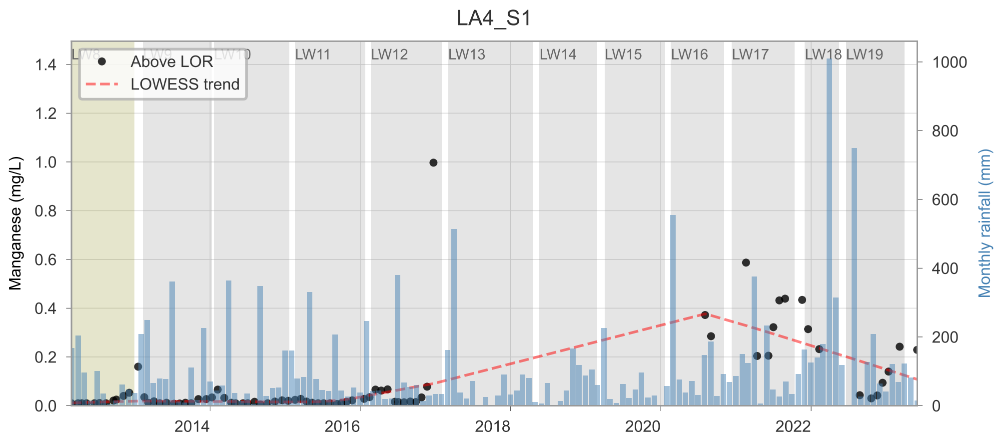

LA3_POOL4
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

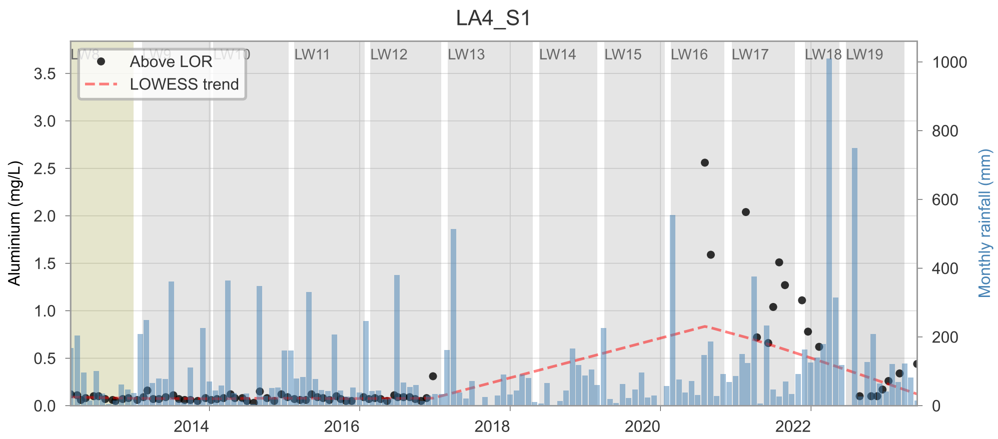

LA3_POOL4
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

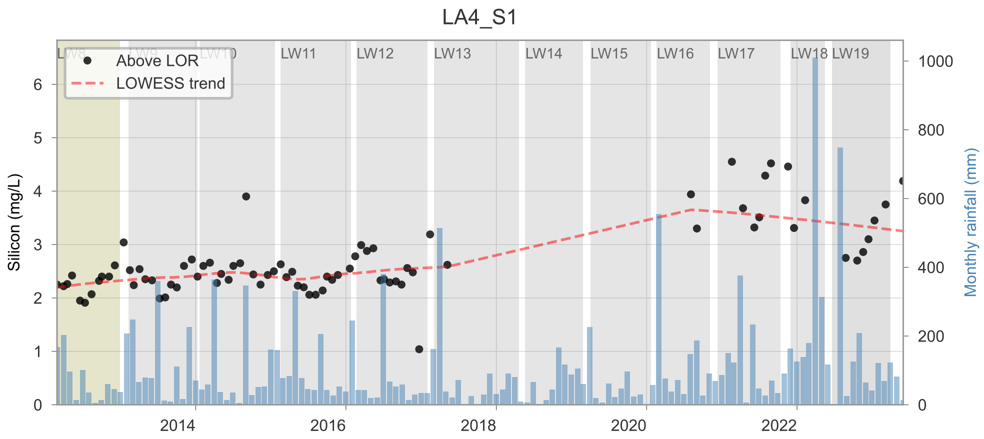

LA3_POOL4
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

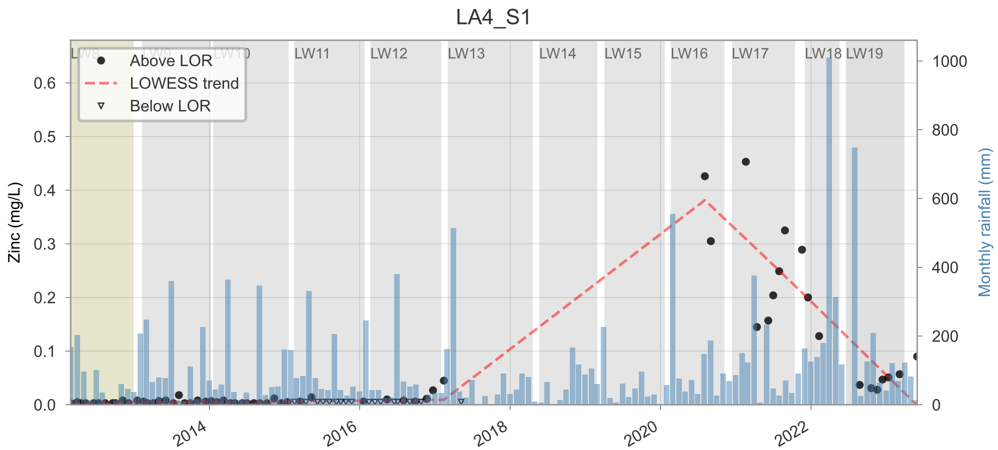

LA4_S1
Above LOR
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

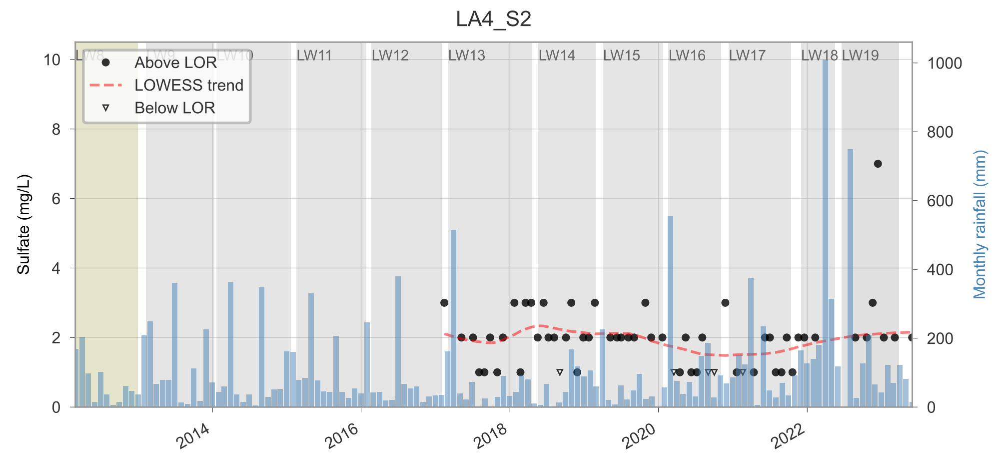

LA4_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

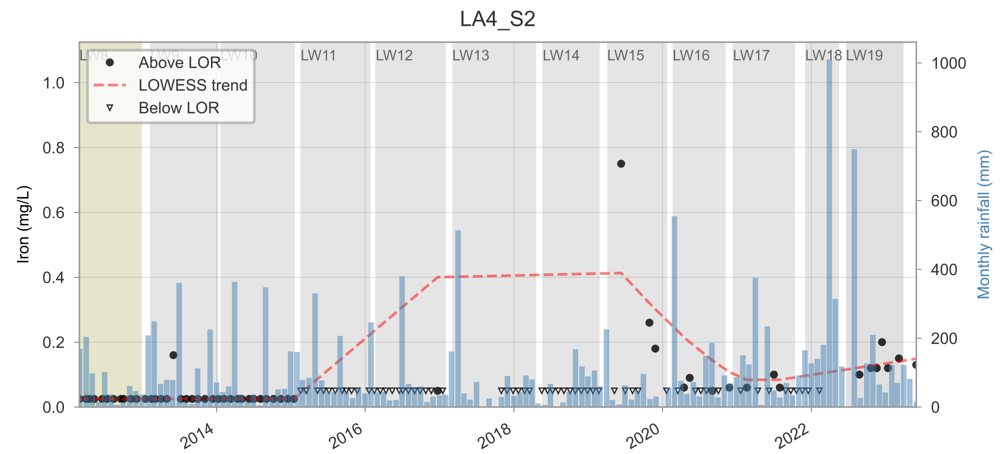

LA4_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

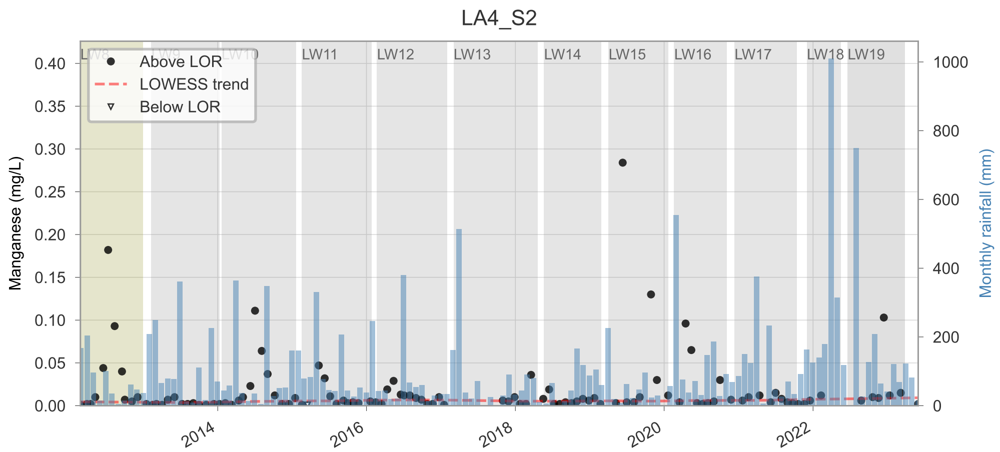

LA4_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

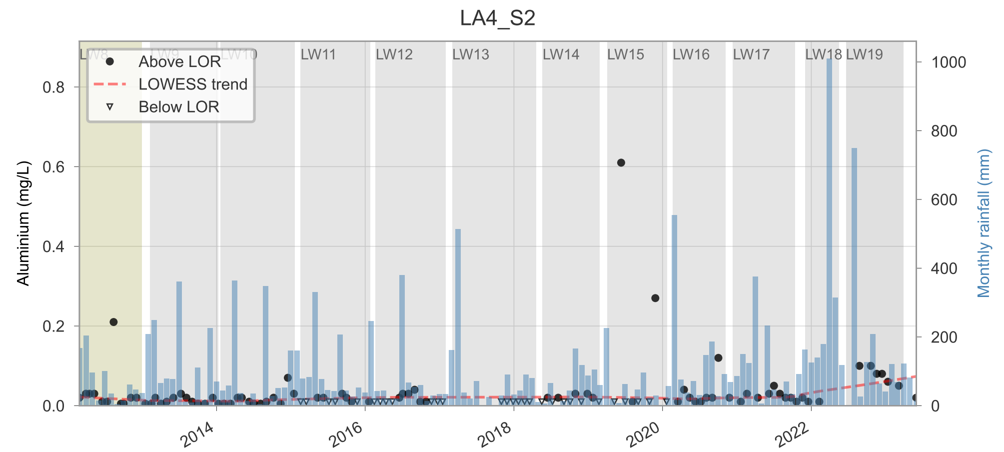

LA4_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

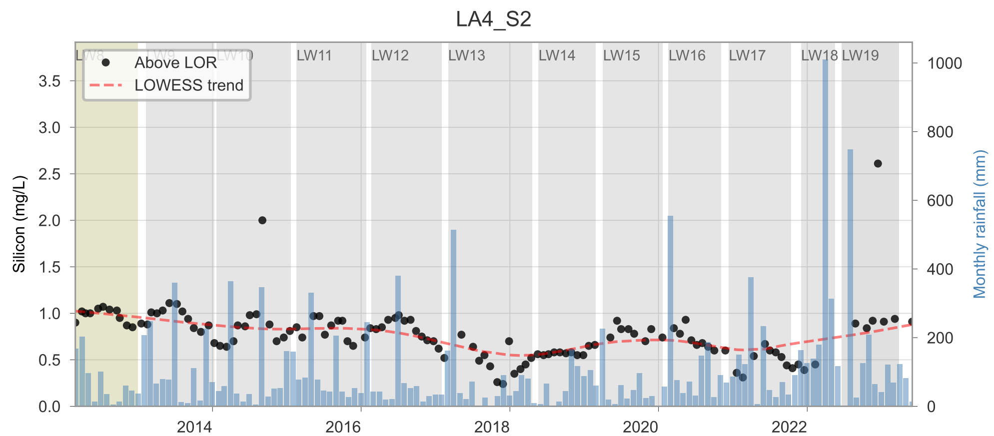

LA4_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

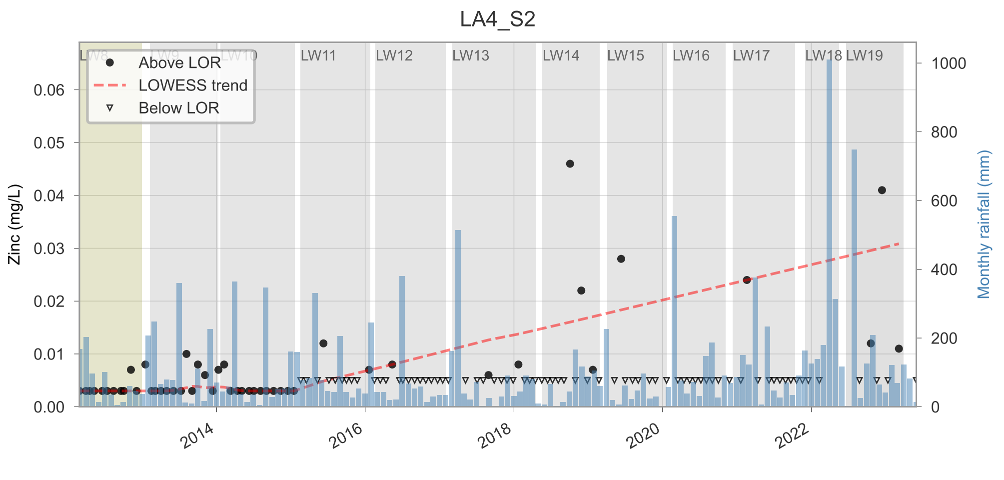

LA4_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

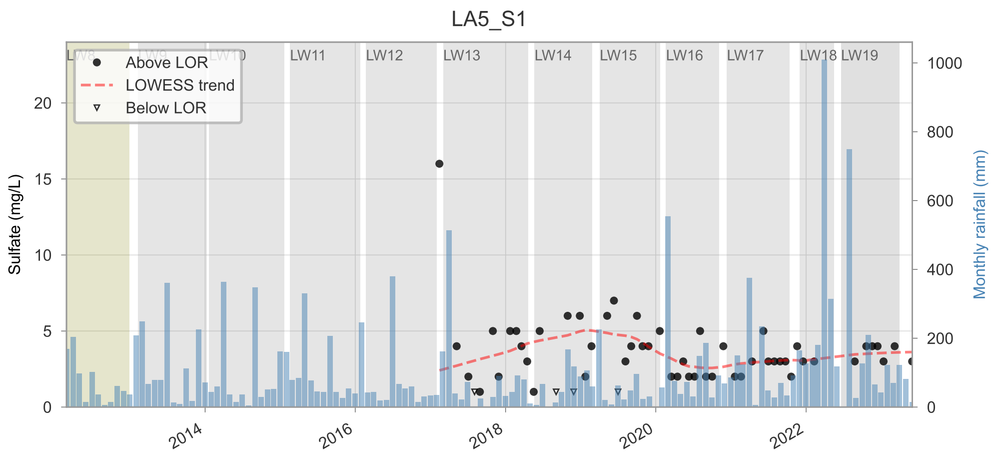

LA4_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

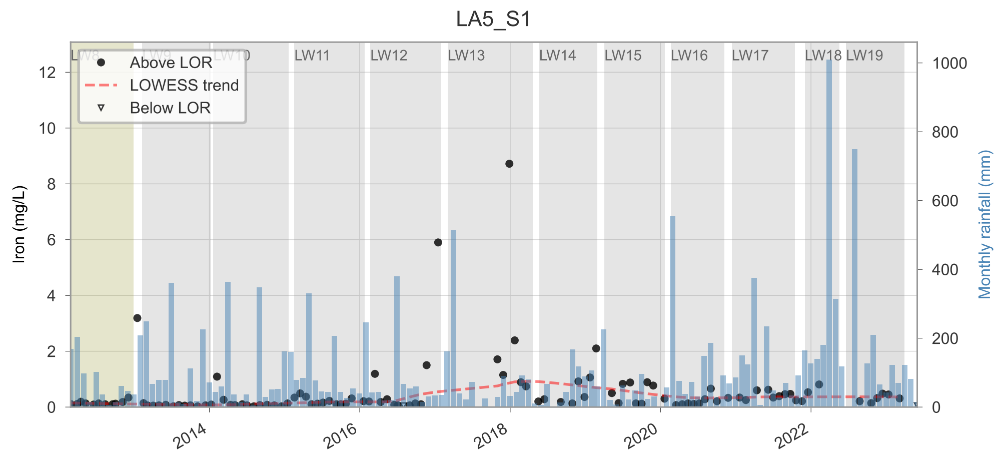

LA4_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

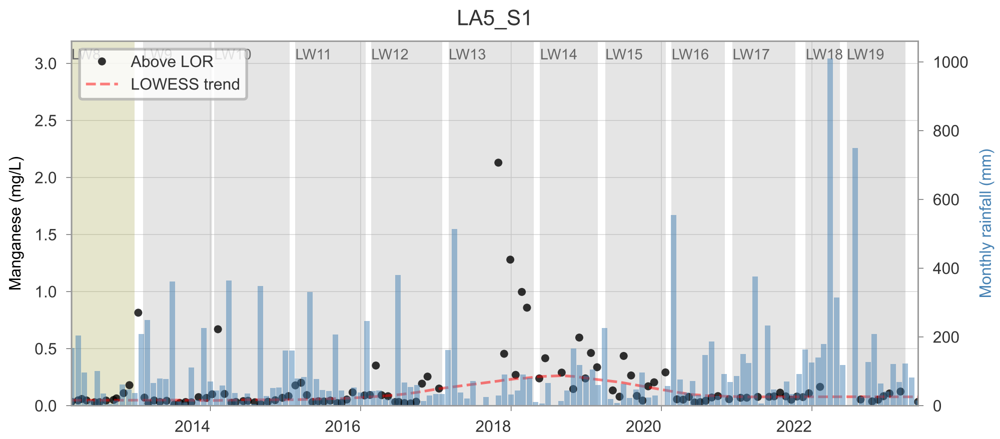

LA4_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

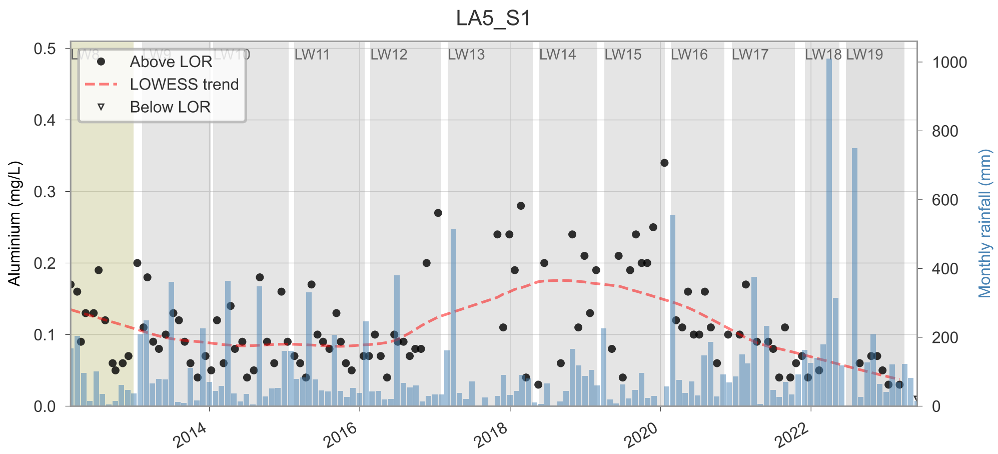

LA4_S2
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

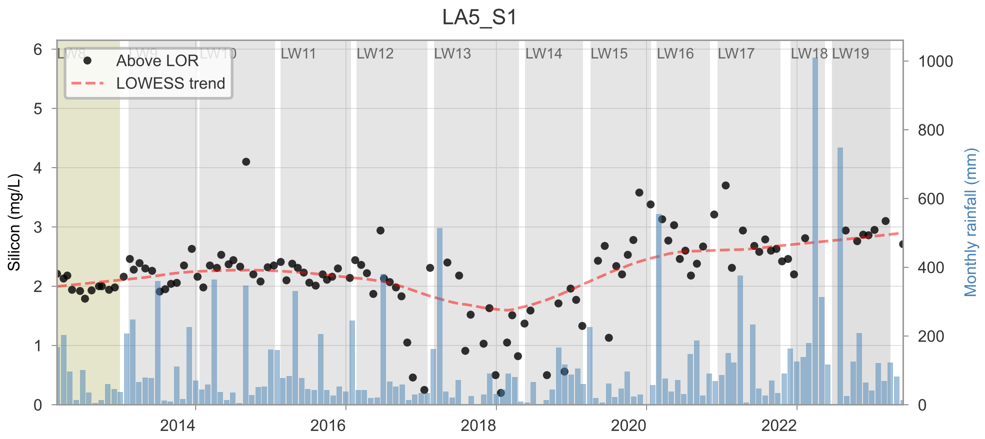

LA4_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

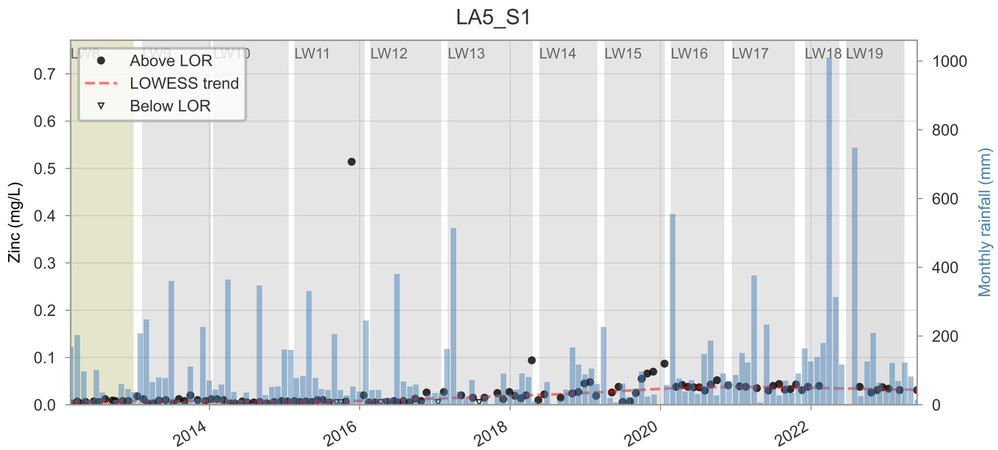

LA5_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0
5
10
15
20
200
400
600
800
1000
2014
2016
2018
2020
2022

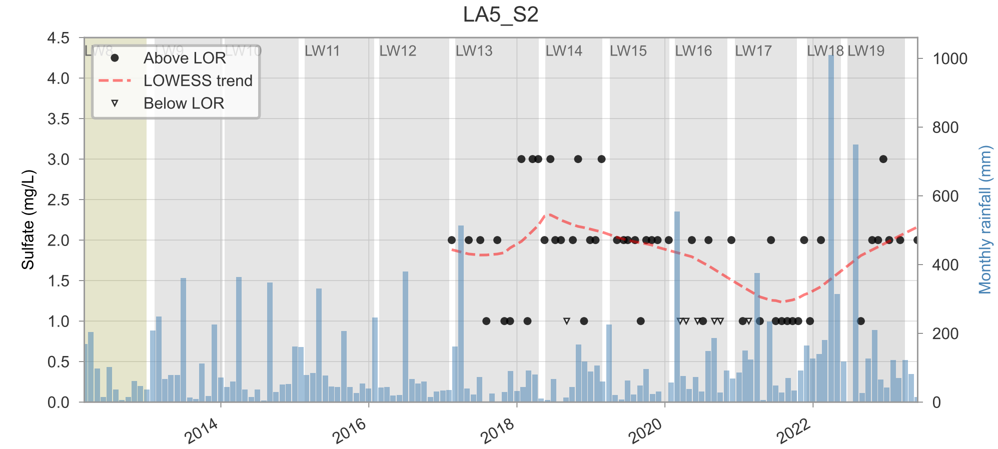

LA5_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
0
2
4
6
8
10
12
200
400
600
800
1000
2014
2016
2018
2020
2022

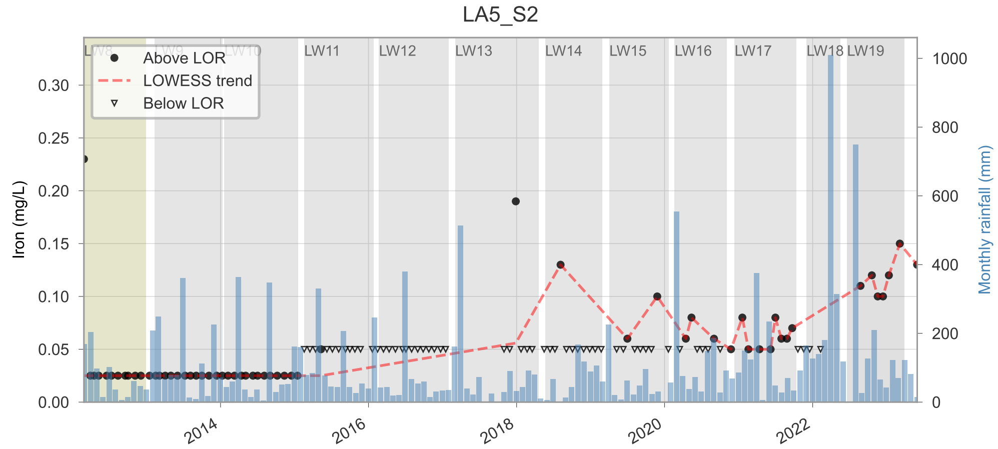

LA5_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
200
400
600
800
1000
2014
2016
2018
2020
2022

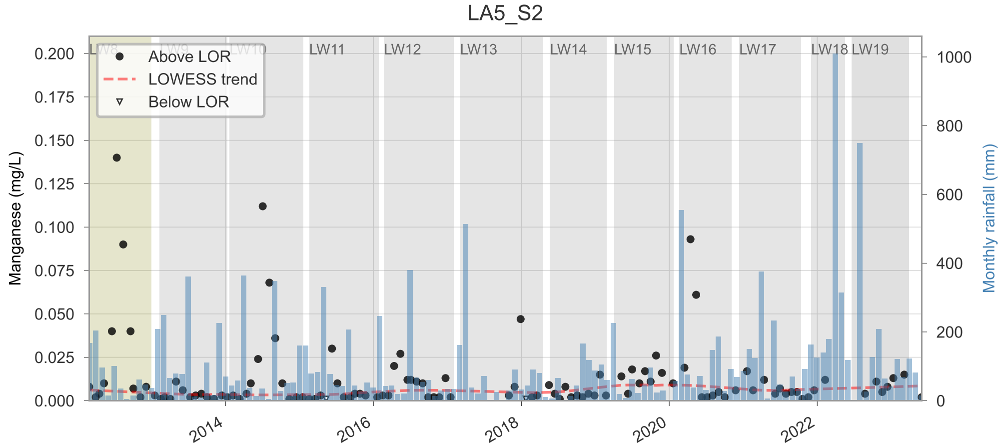

LA5_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.0
0.1
0.2
0.3
0.4
0.5
200
400
600
800
1000
2014
2016
2018
2020
2022

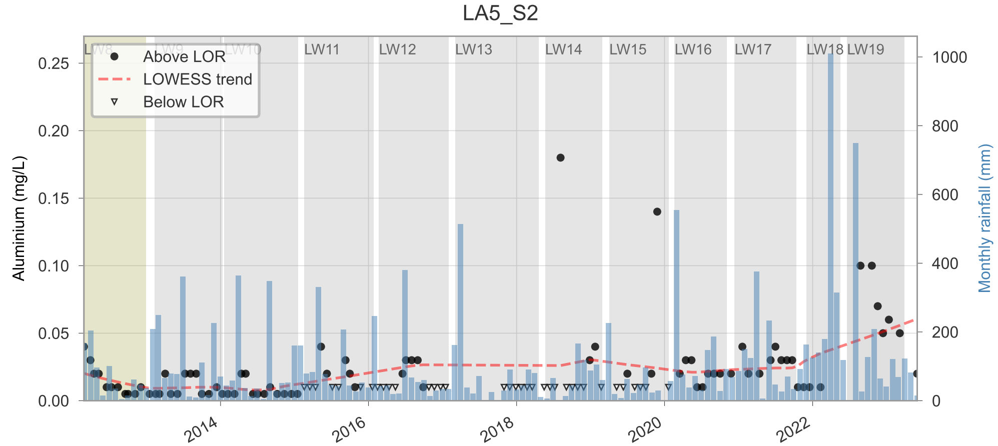

LA5_S1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
0
1
2
3
4
5
6
200
400
600
800
1000
2014
2016
2018
2020
2022

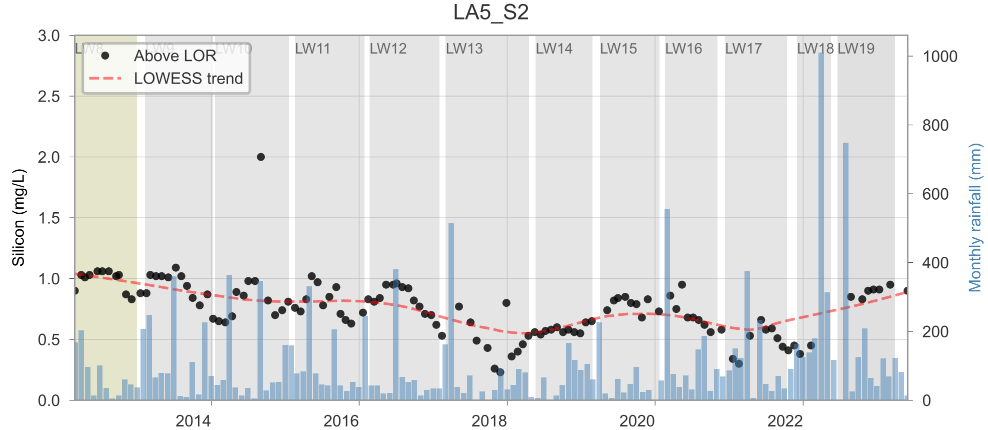

LA5_S1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
200
400
600
800
1000
2014
2016
2018
2020
2022

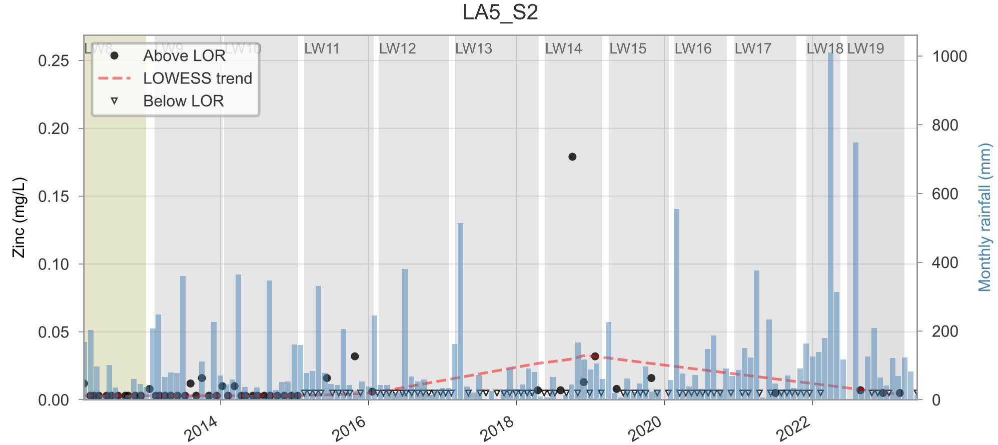

LA5_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

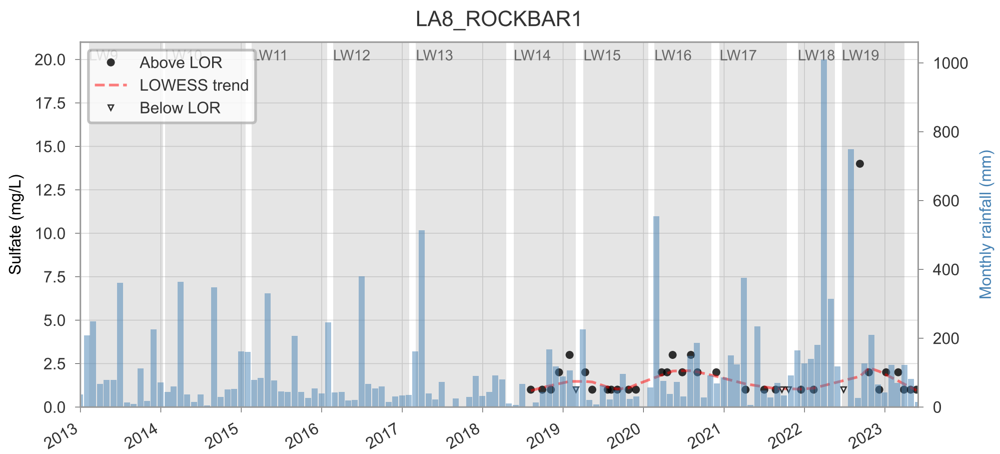

LA5_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

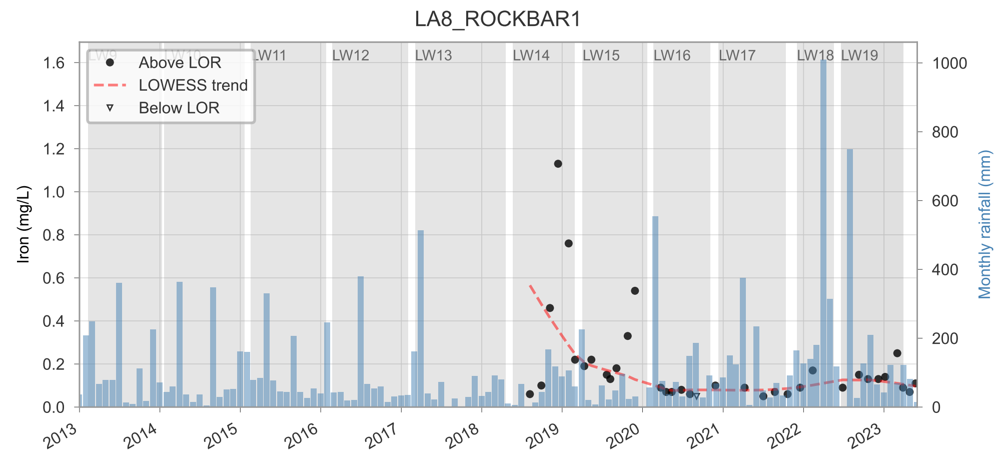

LA5_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

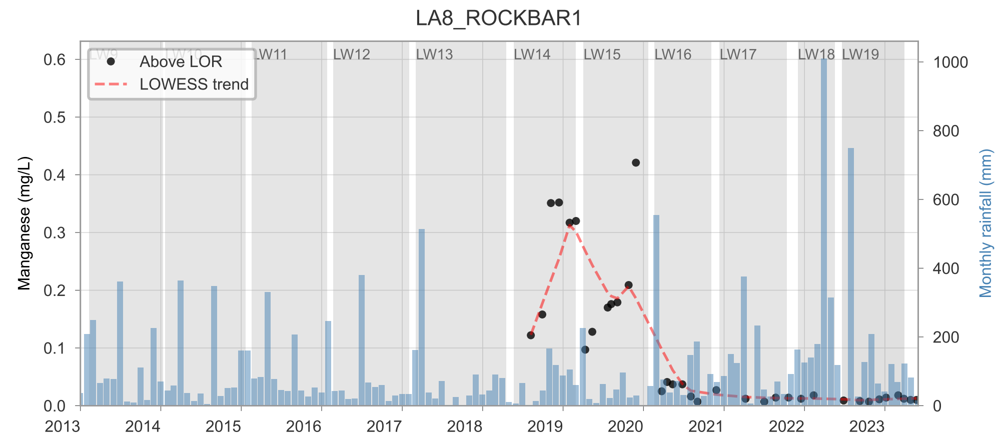

LA5_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

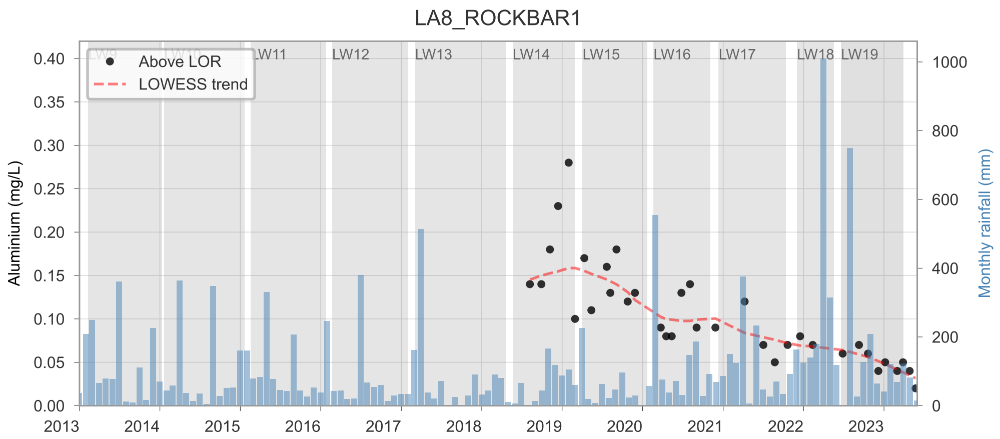

LA5_S2
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

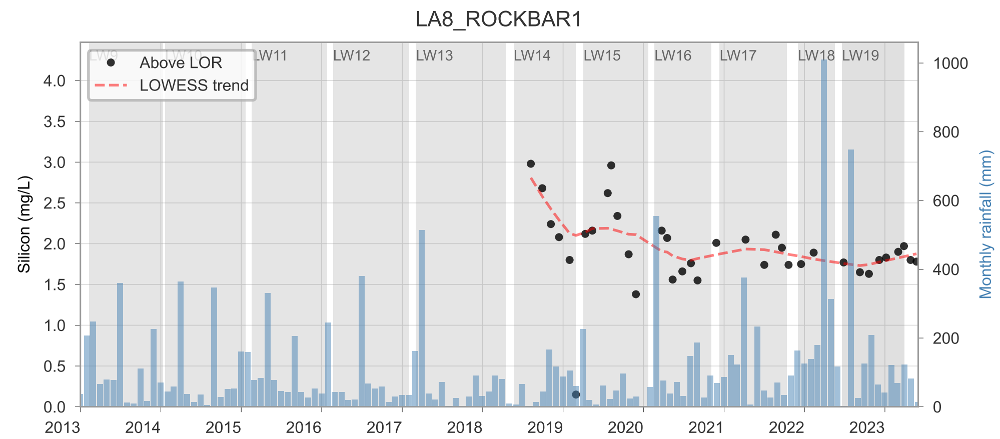

LA5_S2
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
2014 2016 2018 2020 2022

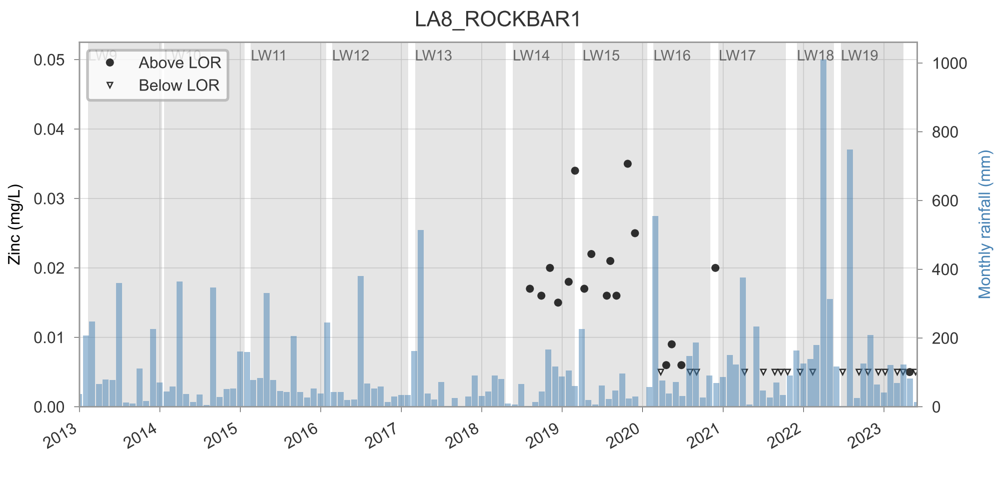

LA8_ROCKBAR1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

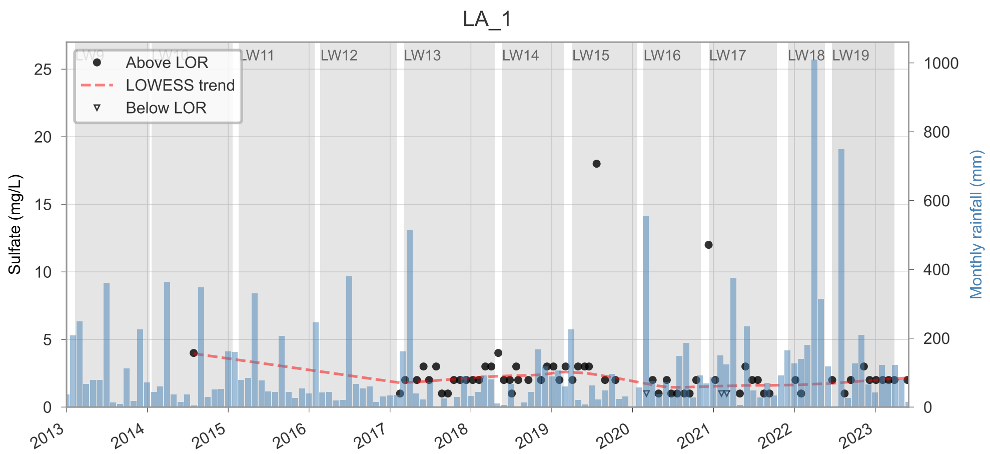

LA8_ROCKBAR1
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

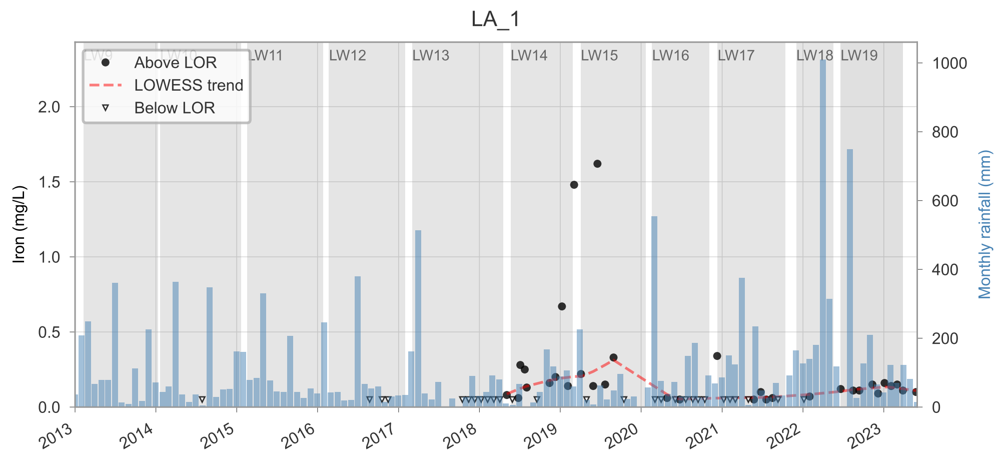

LA8_ROCKBAR1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

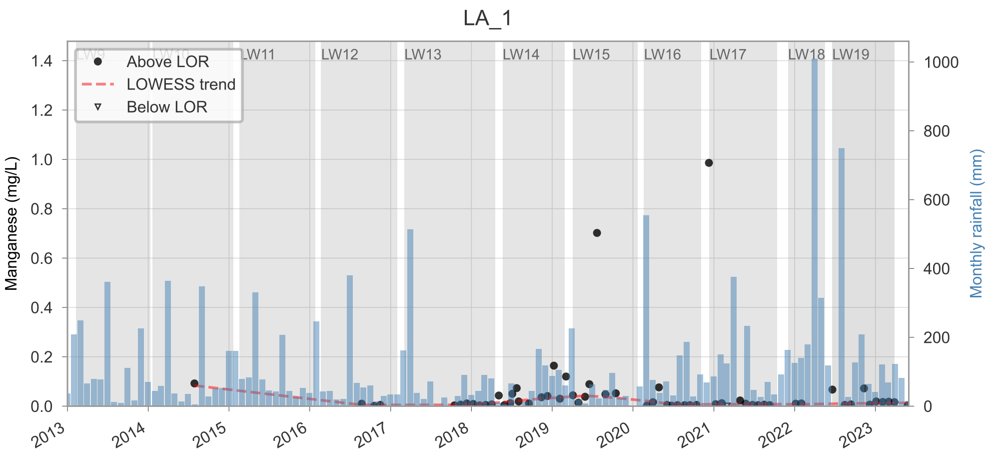

LA8_ROCKBAR1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

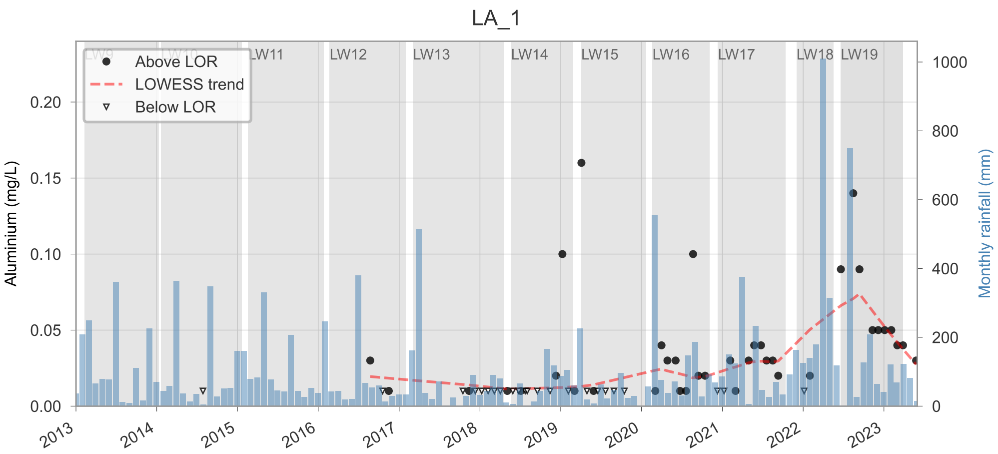

LA8_ROCKBAR1
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

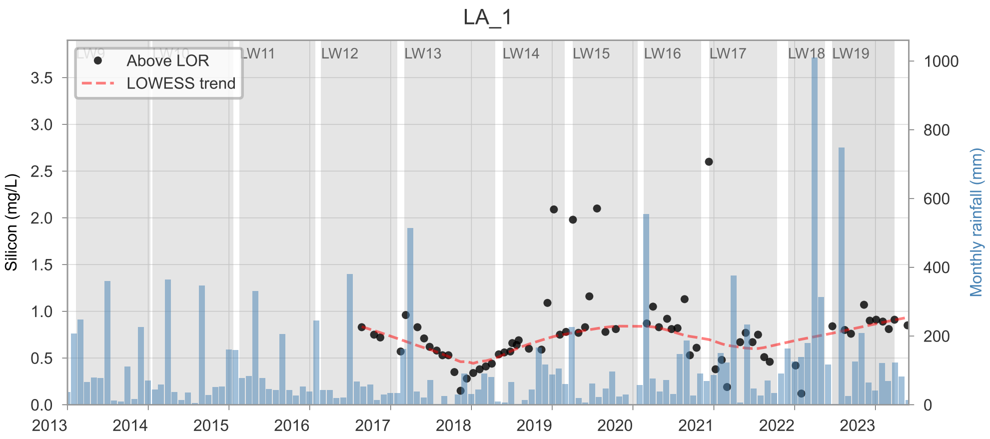

LA8_ROCKBAR1
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.00
0.01
0.02
0.03
0.04
0.05
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

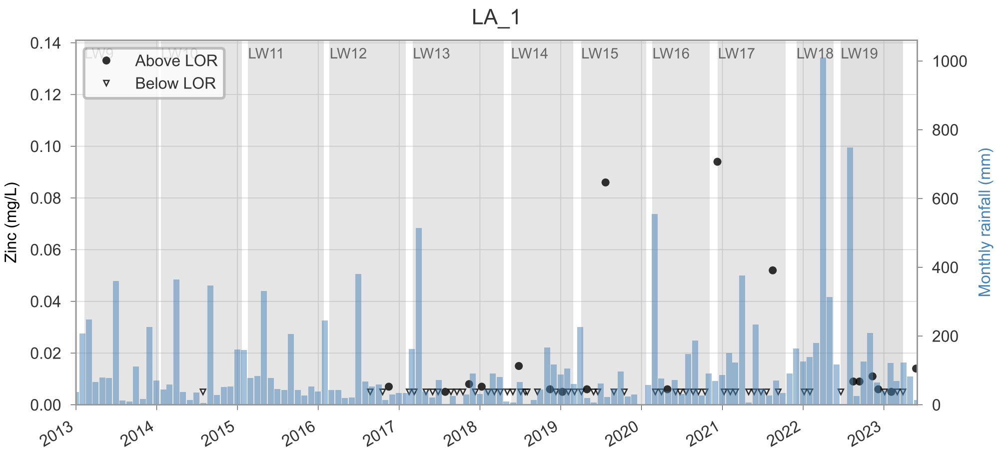

LA_1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0
5
10
15
20
25
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

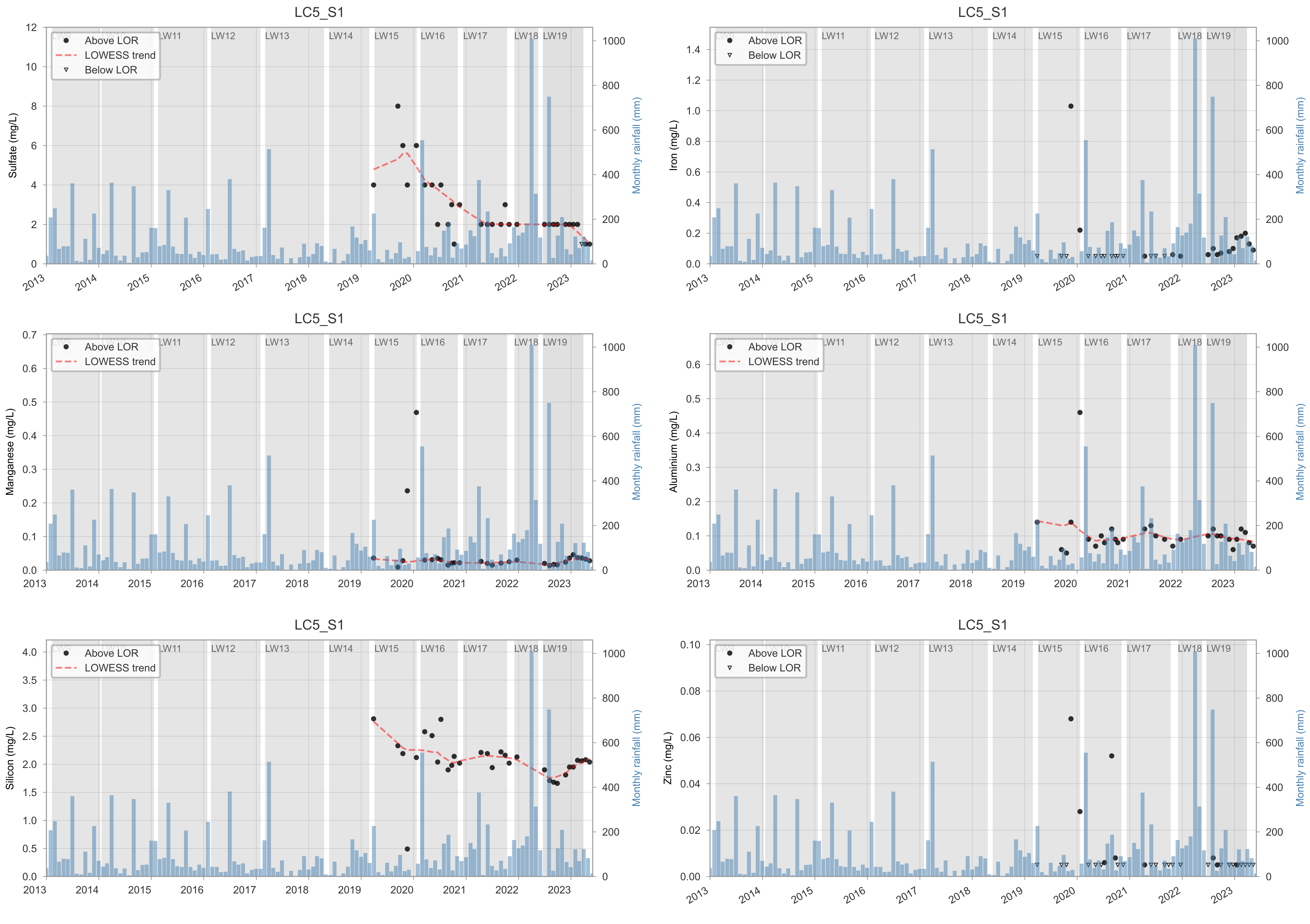

LA_1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0
0.5
1.0
1.5
2.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023


LA_1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

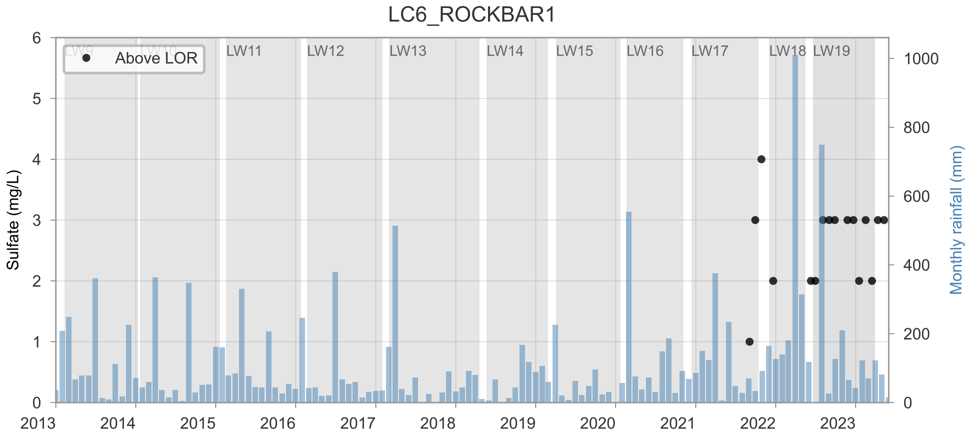

LA_1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.00
0.05
0.10
0.15
0.20
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

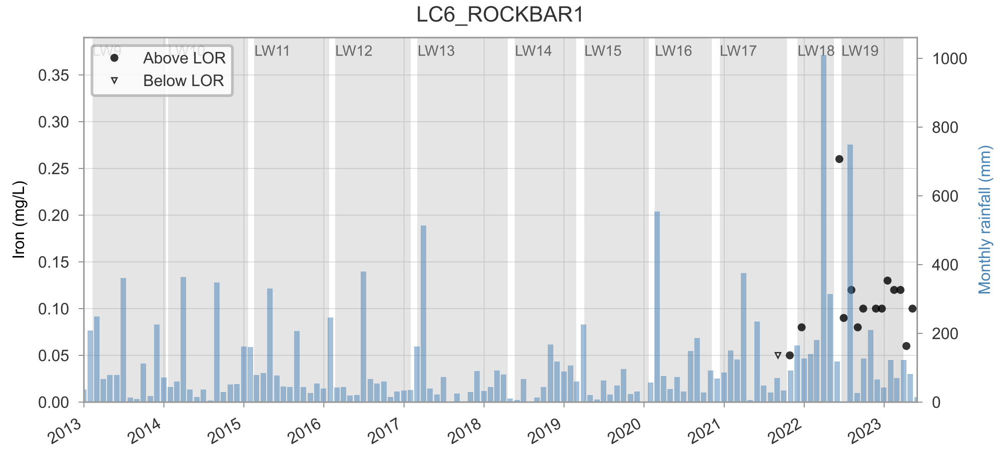

LA_1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

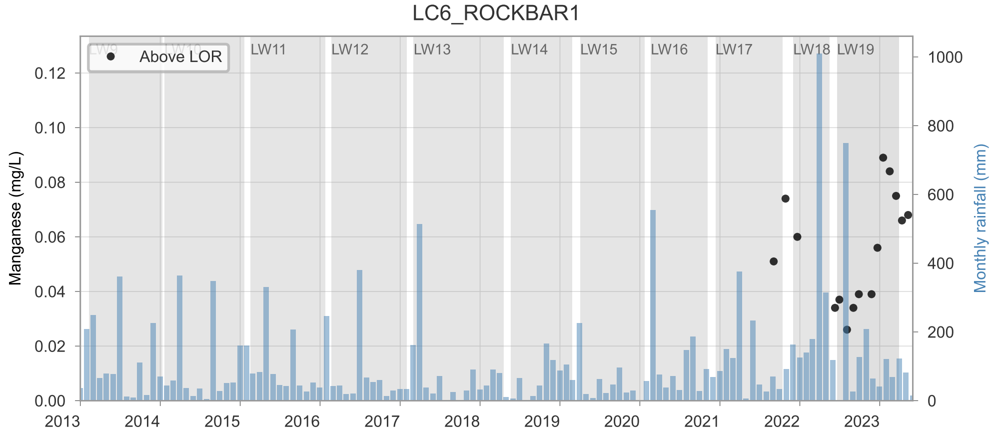

LA_1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

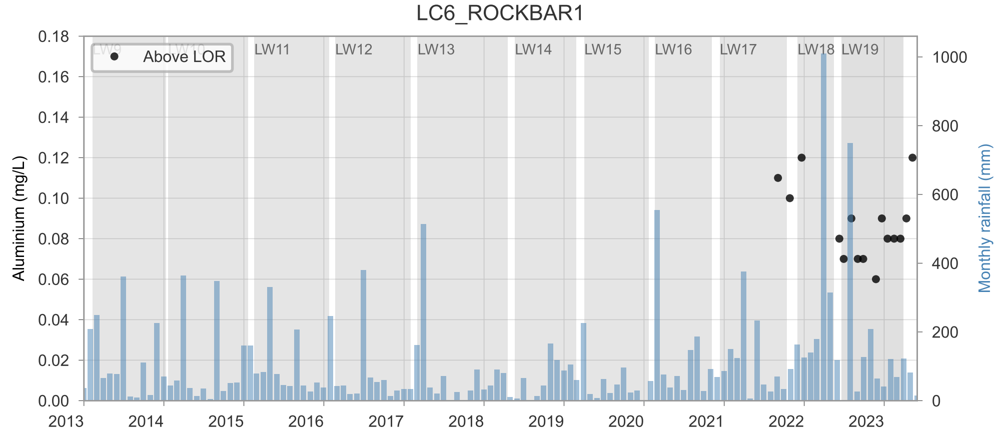


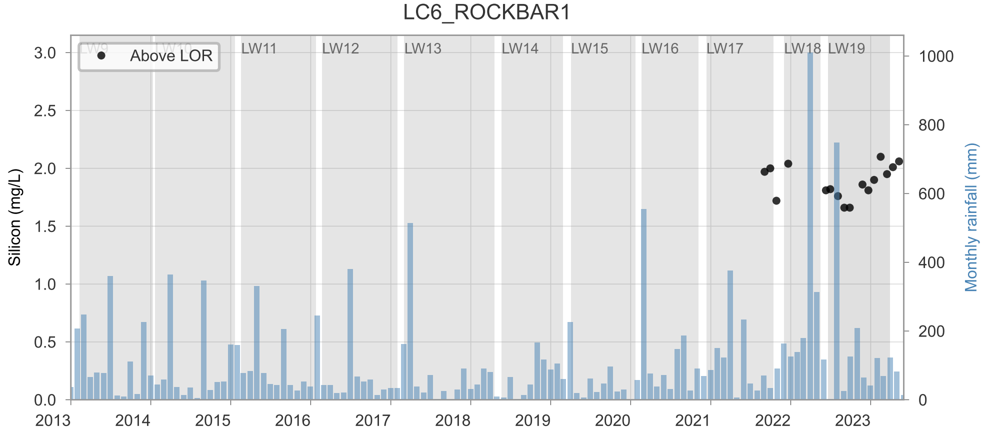
LC5_S1
Sulfate (mg/L)
Above LOR
LOWESS trend
Below LOR
Monthly rainfall (mm)
LC5_S1
Iron (mg/L)
Above LOR
Below LOR
Monthly rainfall (mm)
LC5_S1
Manganese (mg/L)
Above LOR
LOWESS trend
Monthly rainfall (mm)
LC5_S1
Aluminium (mg/L)
Above LOR
LOWESS trend
Monthly rainfall (mm)
LC5_S1
Silicon (mg/L)
Above LOR
LOWESS trend
Monthly rainfall (mm)
LC5_S1
Zinc (mg/L)
Above LOR
Below LOR
Monthly rainfall (mm)
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

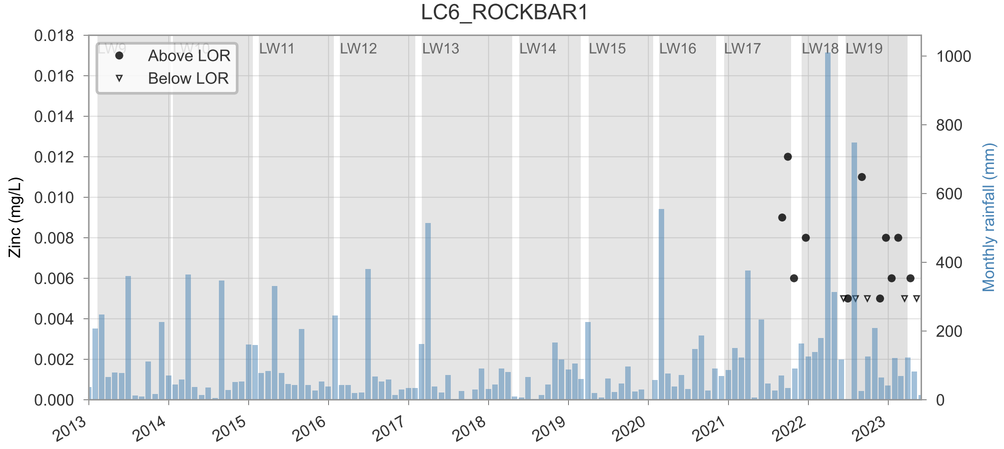

LC6_ROCKBAR1
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0 1 2 3 4 5 6
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

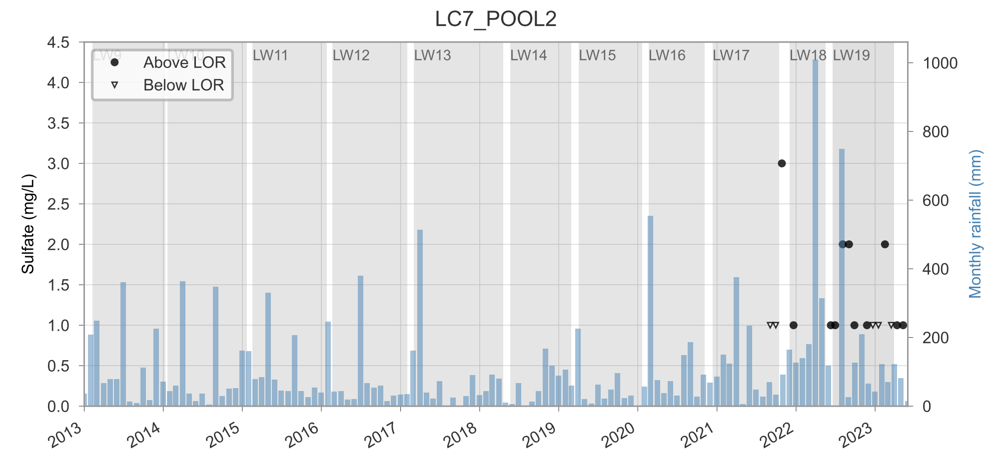

LC6_ROCKBAR1
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023


LC6_ROCKBAR1
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.00 0.02 0.04 0.06 0.08 0.10 0.12
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

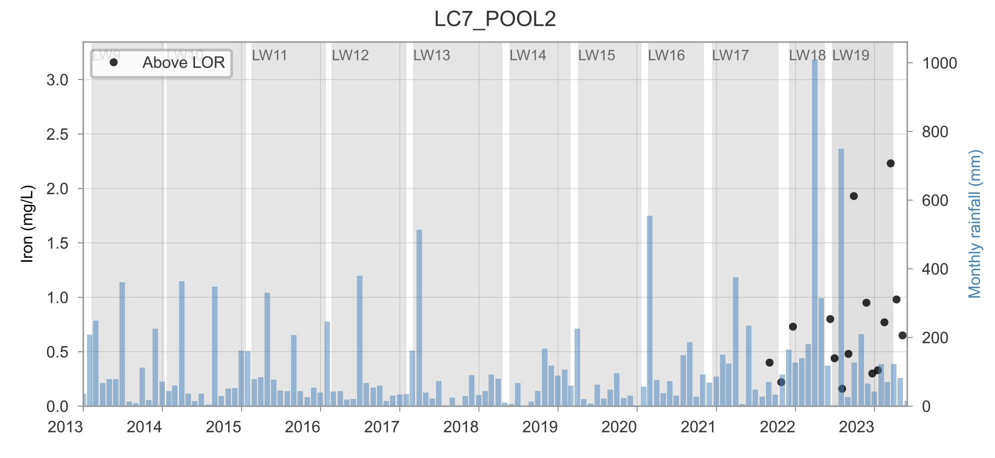

LC6_ROCKBAR1
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16 0.18
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023


LC6_ROCKBAR1
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
0.0 0.5 1.0 1.5 2.0 2.5 3.0
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

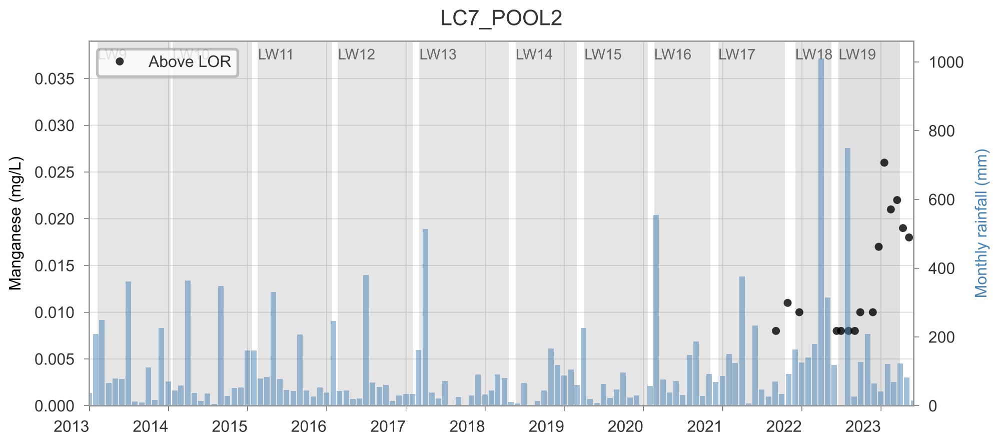

LC6_ROCKBAR1
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.000 0.002 0.004 0.006 0.008 0.010 0.012 0.014 0.016 0.018
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023



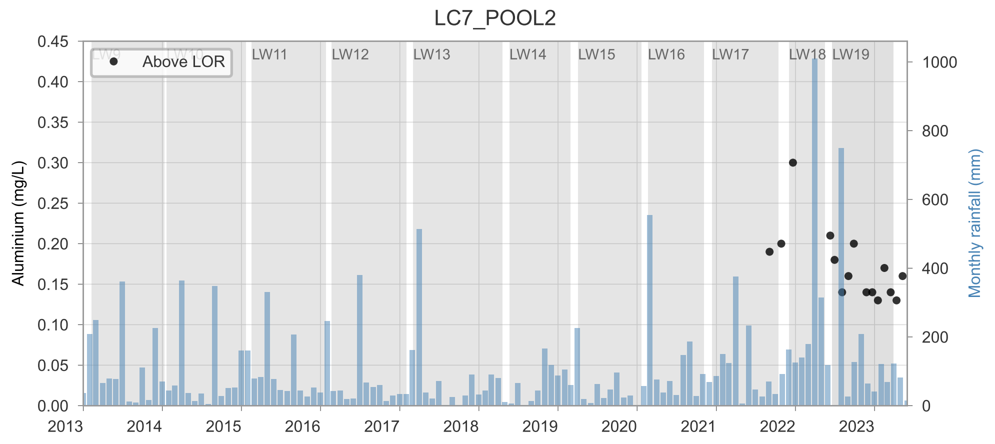
LC7_POOL2
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19



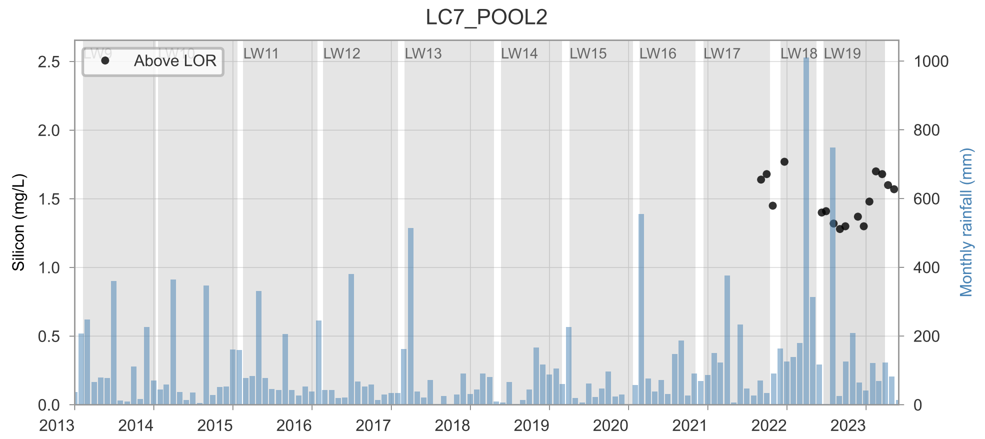
LC7_POOL2
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19



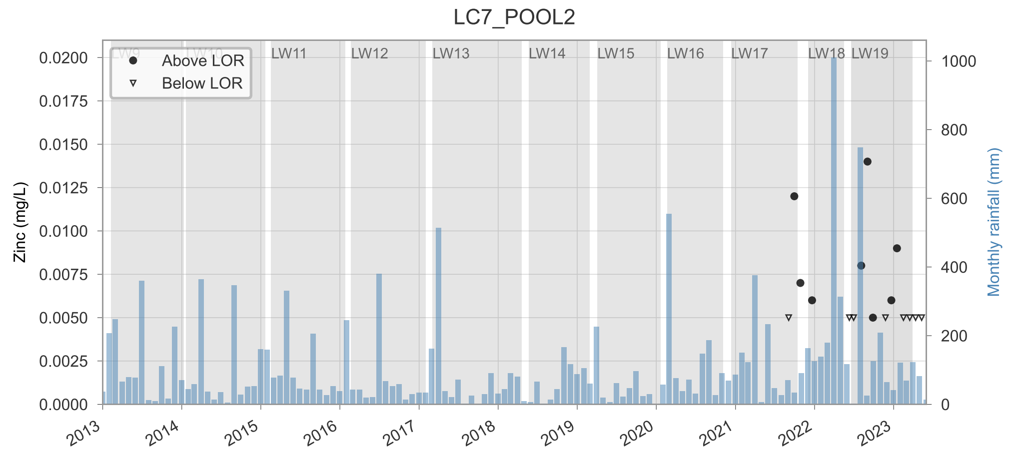
LC7_POOL2
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19



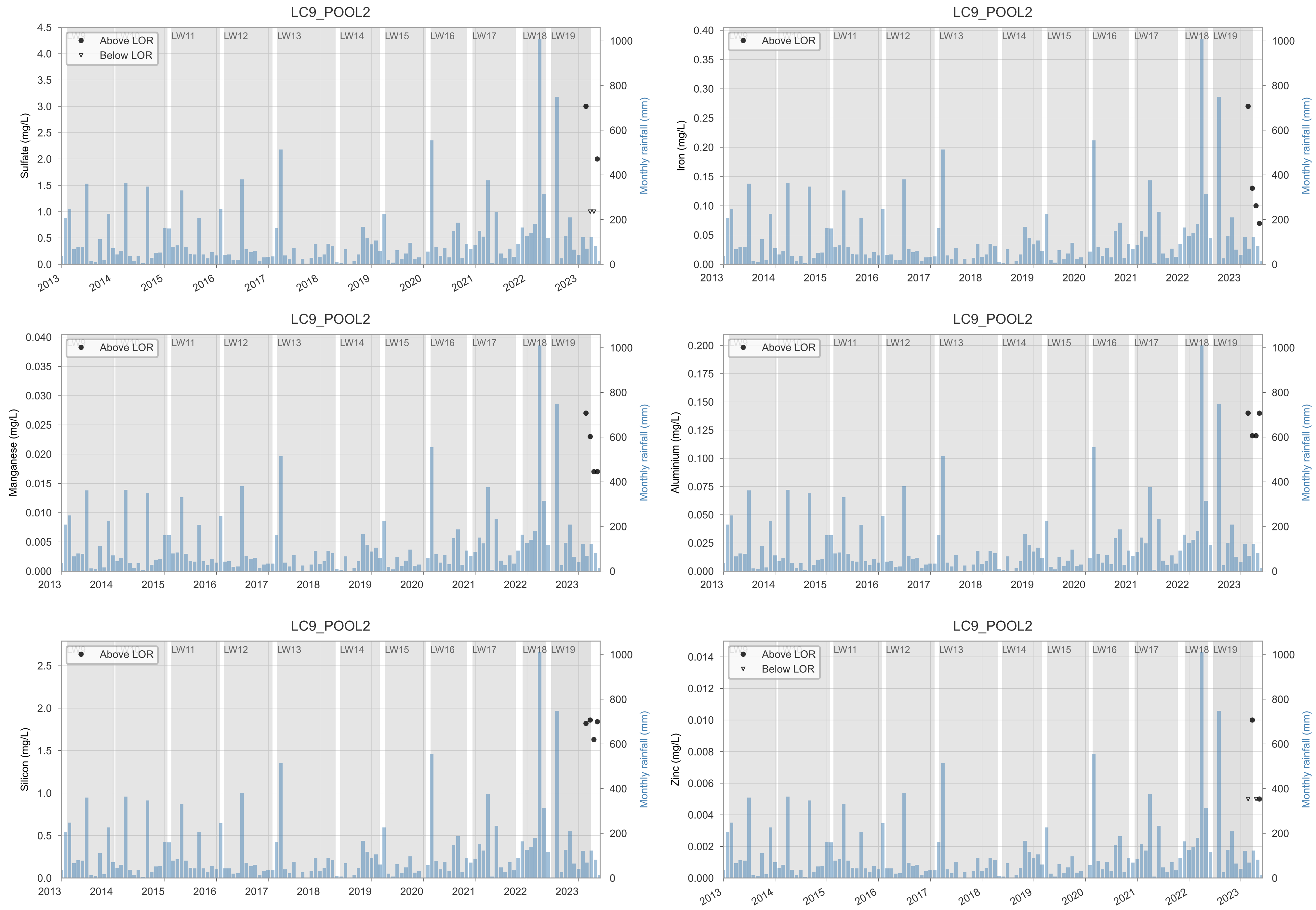
LC7_POOL2
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

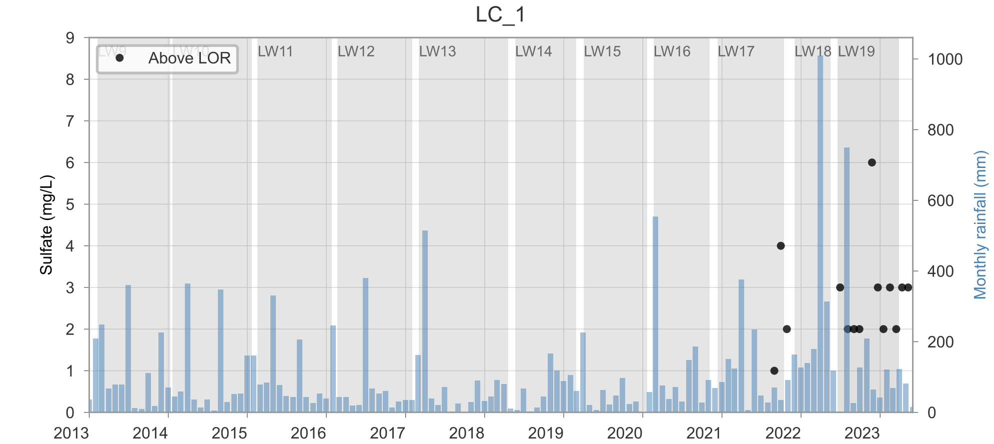


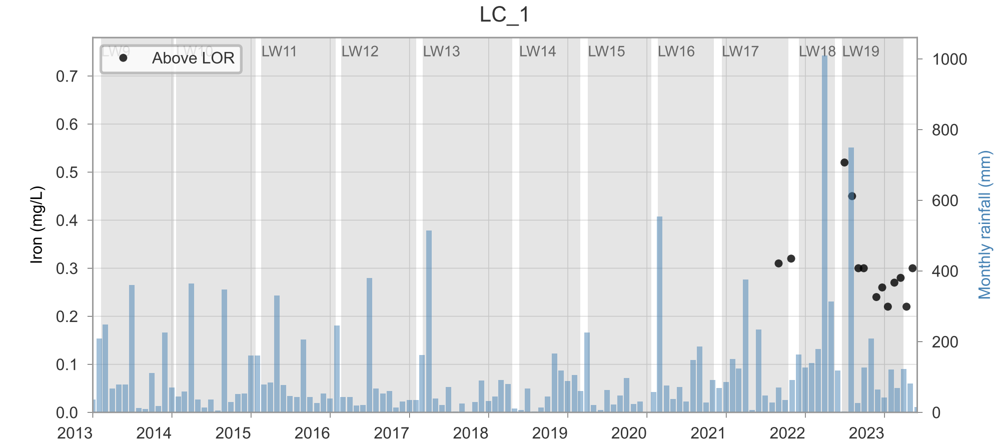
LC7_POOL2
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

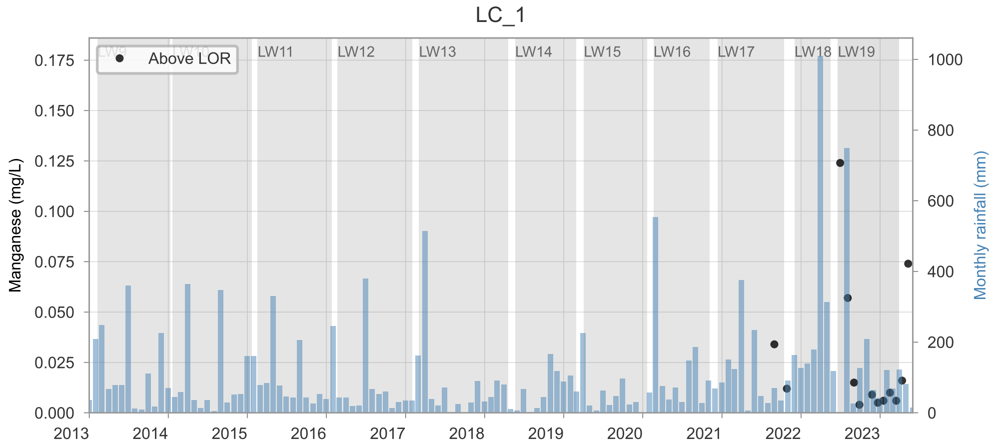


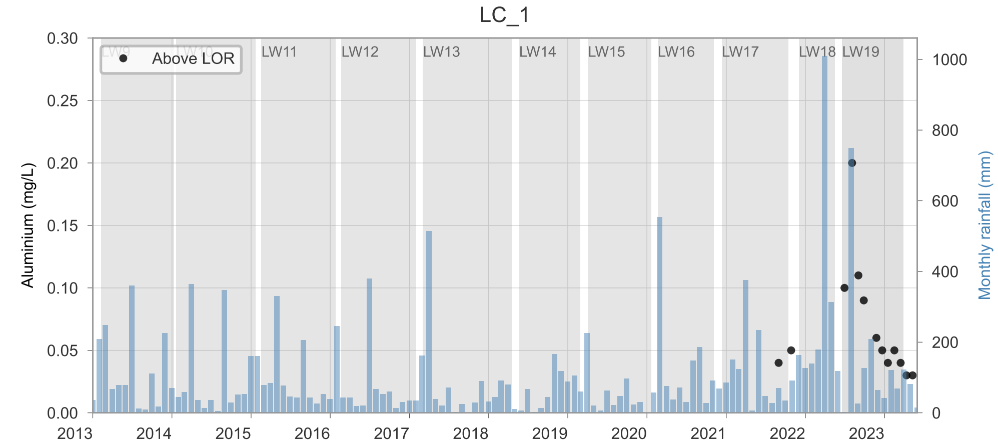
LC7_POOL2
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

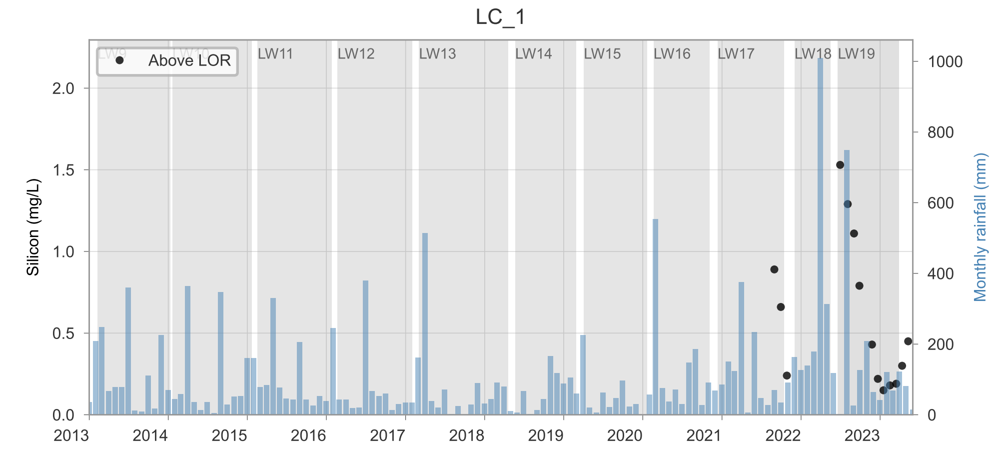

LC9_POOL2
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
LC9_POOL2
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
LC9_POOL2
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
0.040
LC9_POOL2
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
LC9_POOL2
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
0.0
0.5
1.0
1.5
2.0
2.5
LC9_POOL2
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0.014

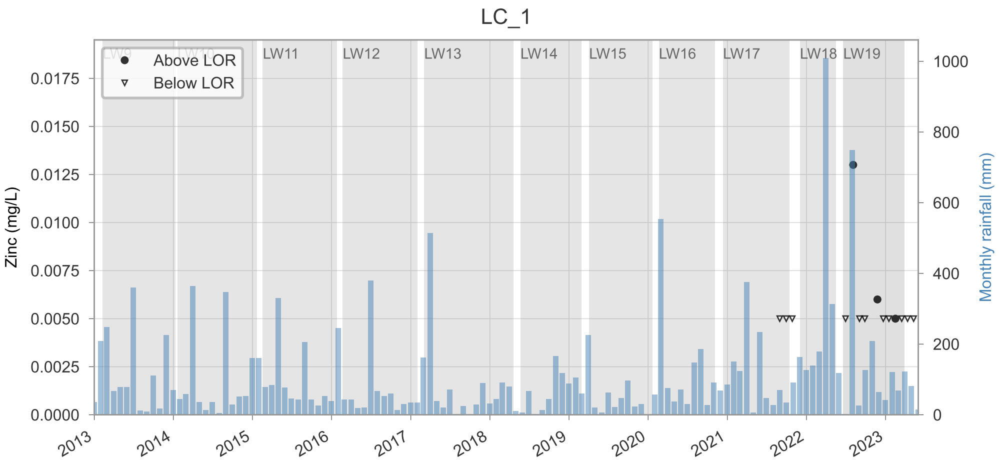

LC_1
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

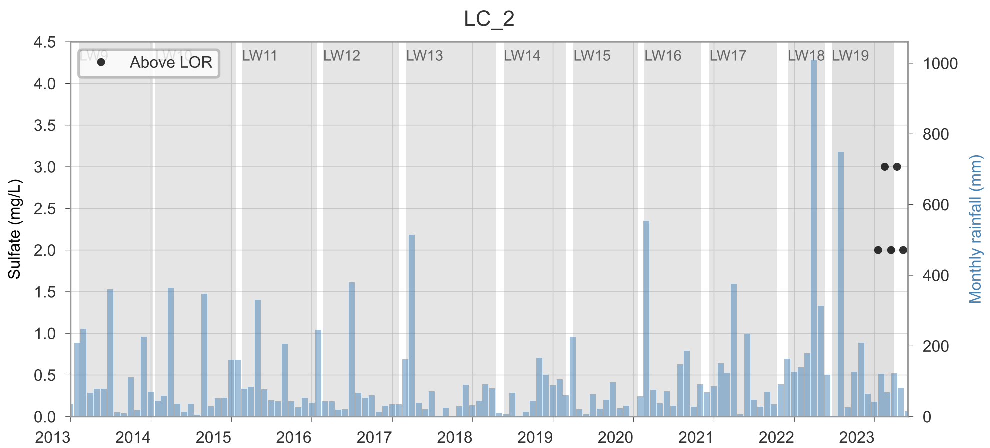

LC_1
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

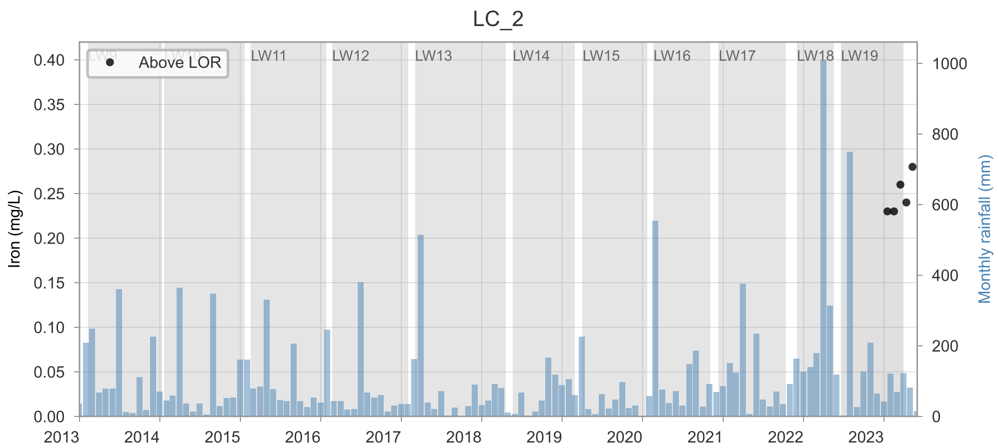

LC_1
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

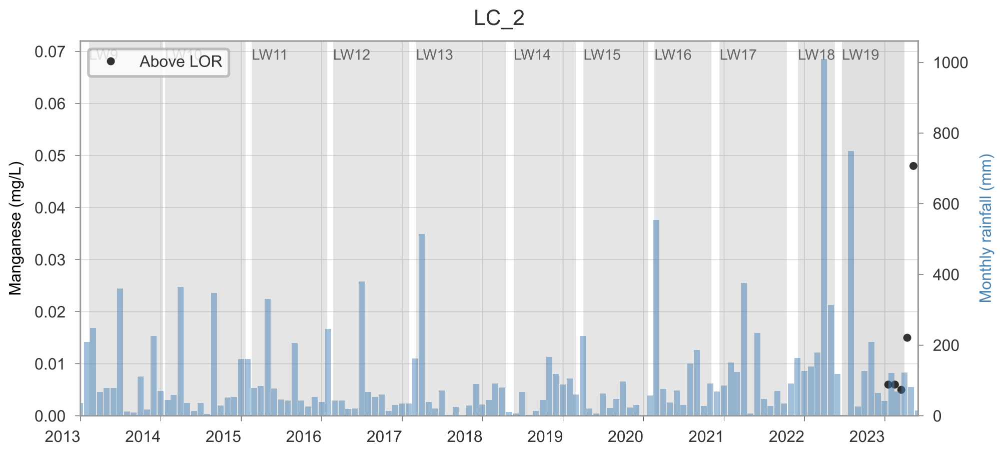

LC_1
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

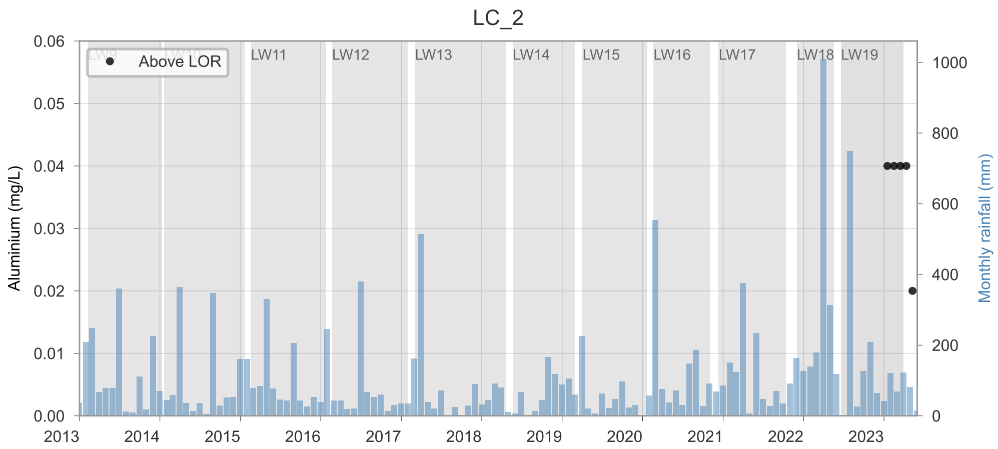

LC_1
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

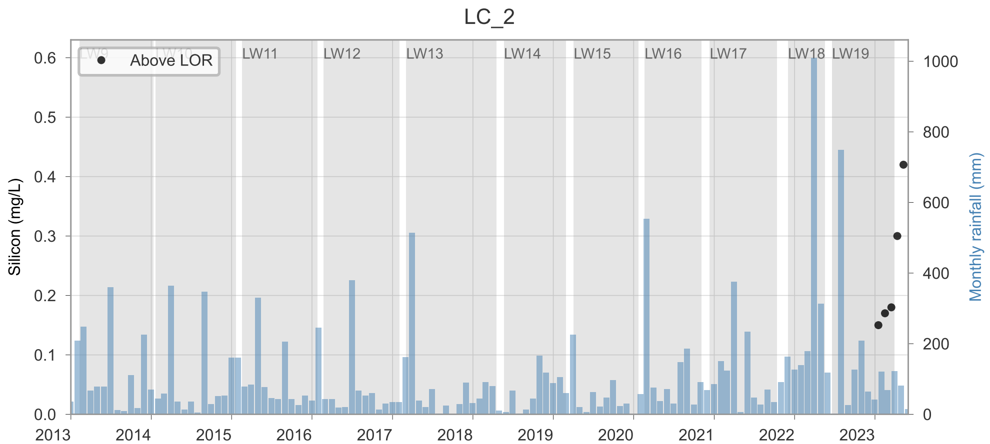

LC_1
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

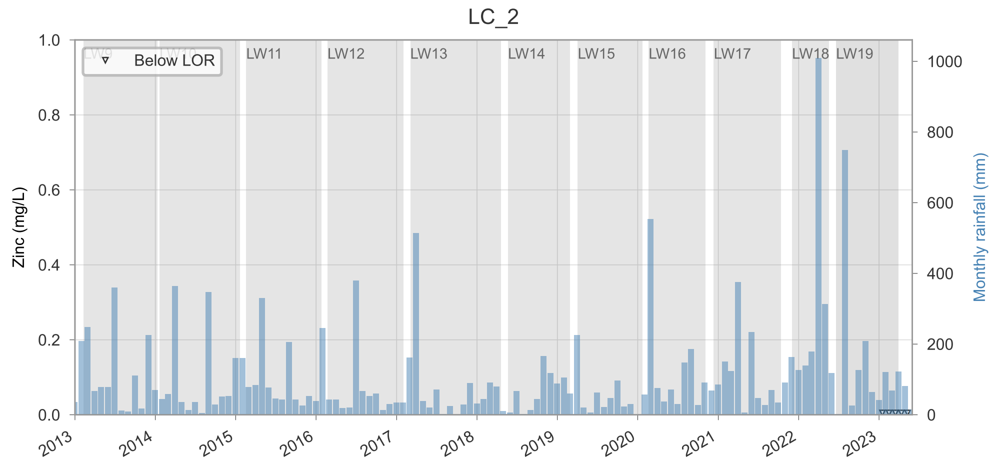

LC_2
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

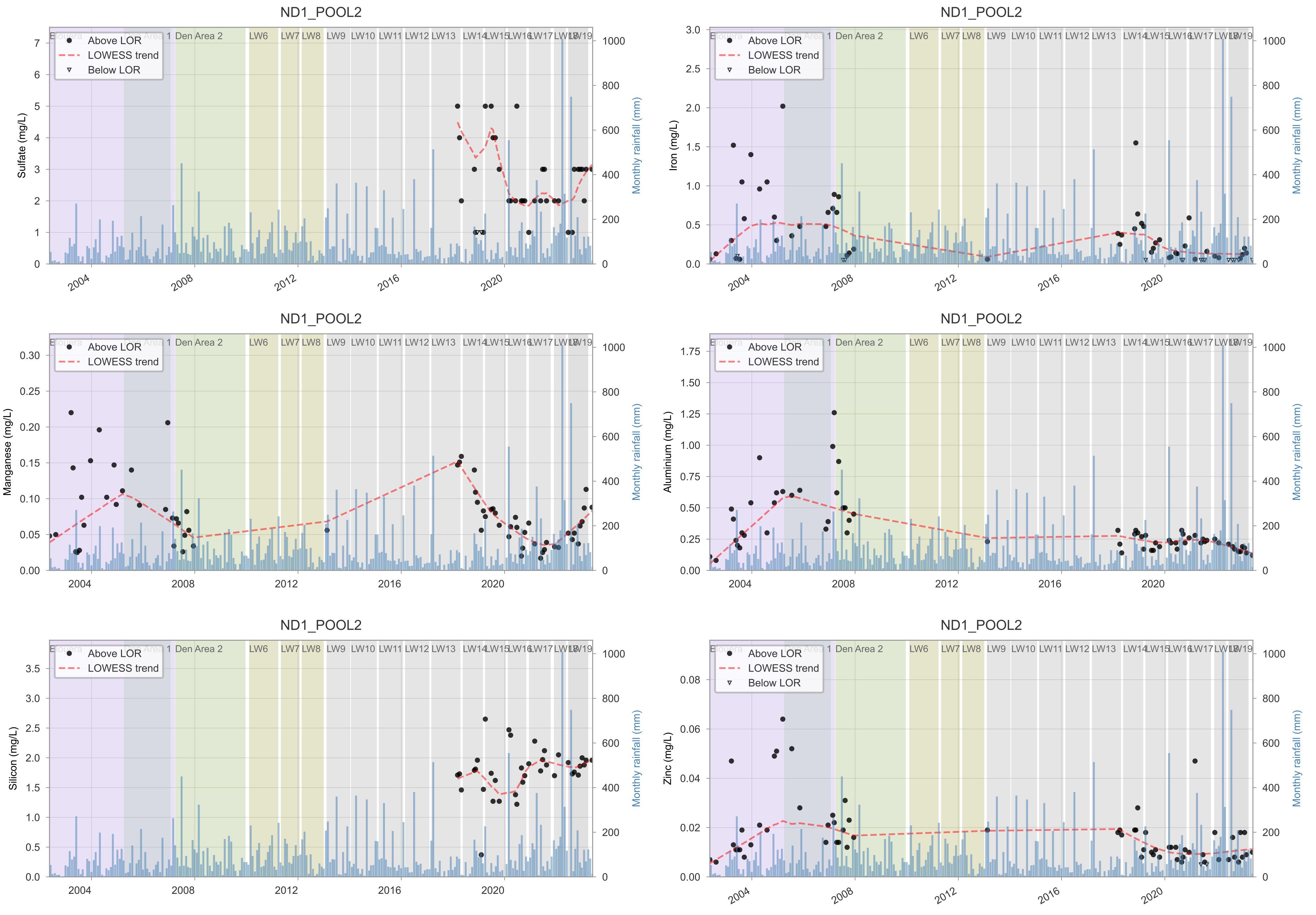

LC_2
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

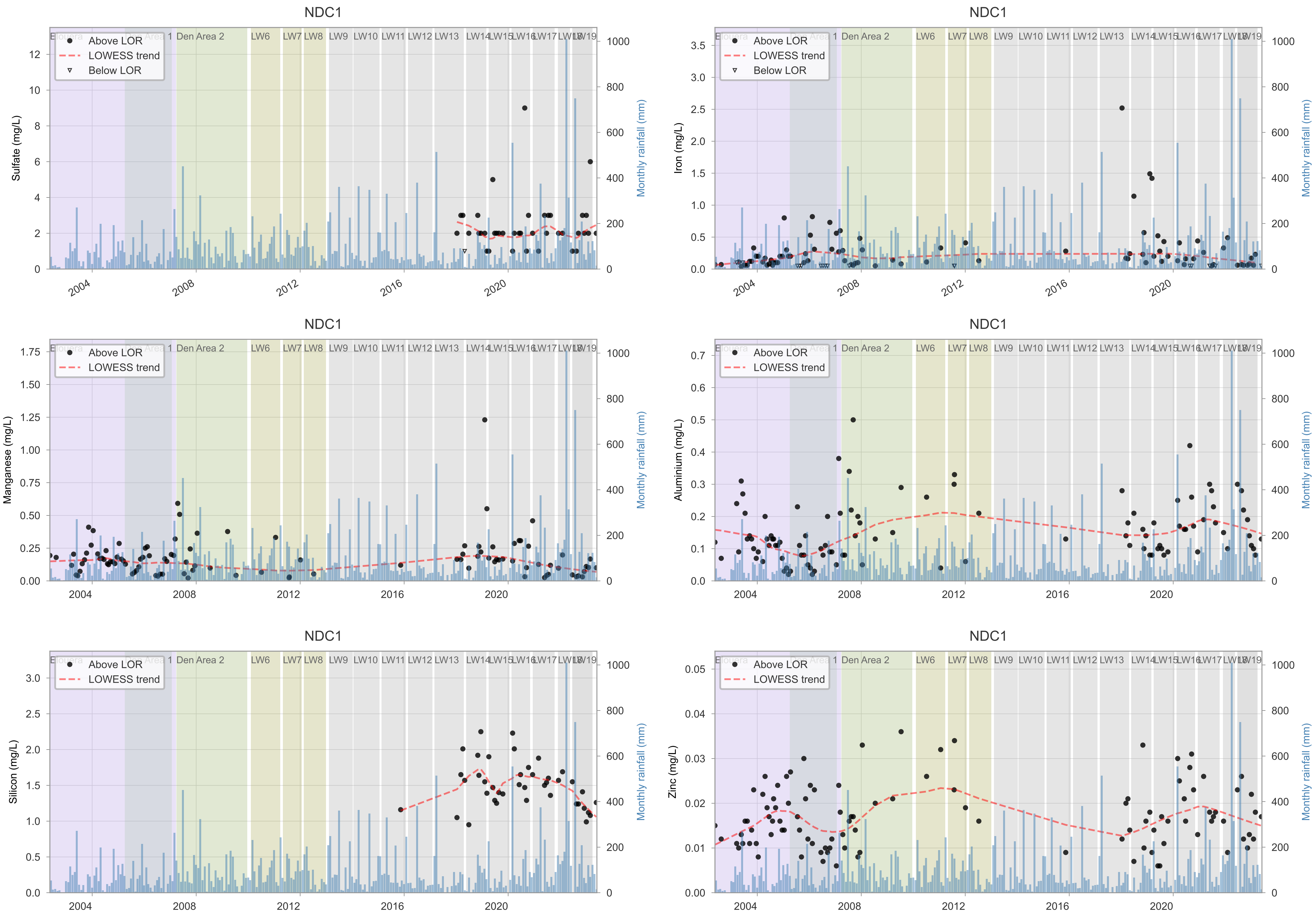

LC_2
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

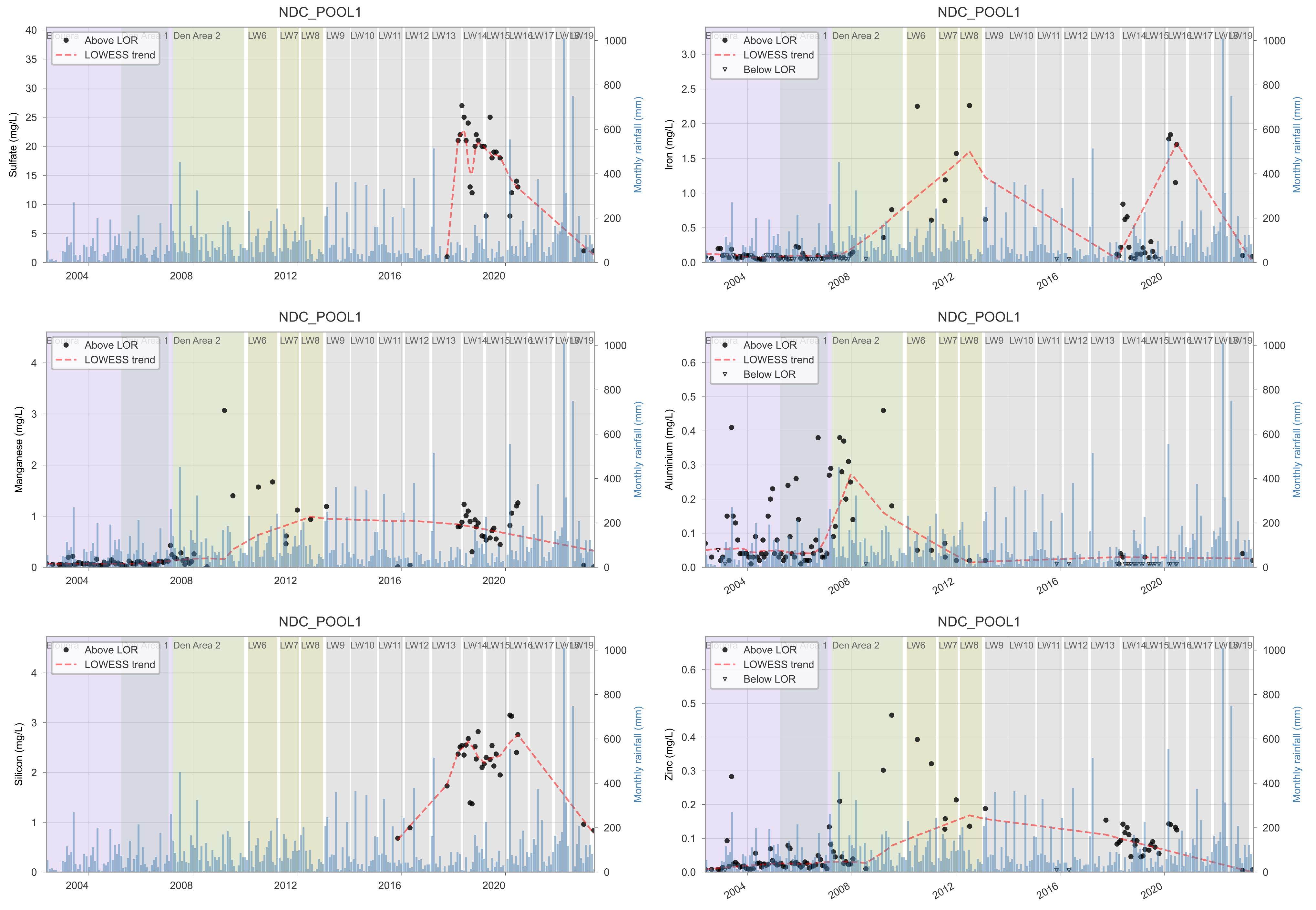

LC_2
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.00 0.01 0.02 0.03 0.04 0.05 0.06
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023


LC_2
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0 0.1 0.2 0.3 0.4 0.5 0.6
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

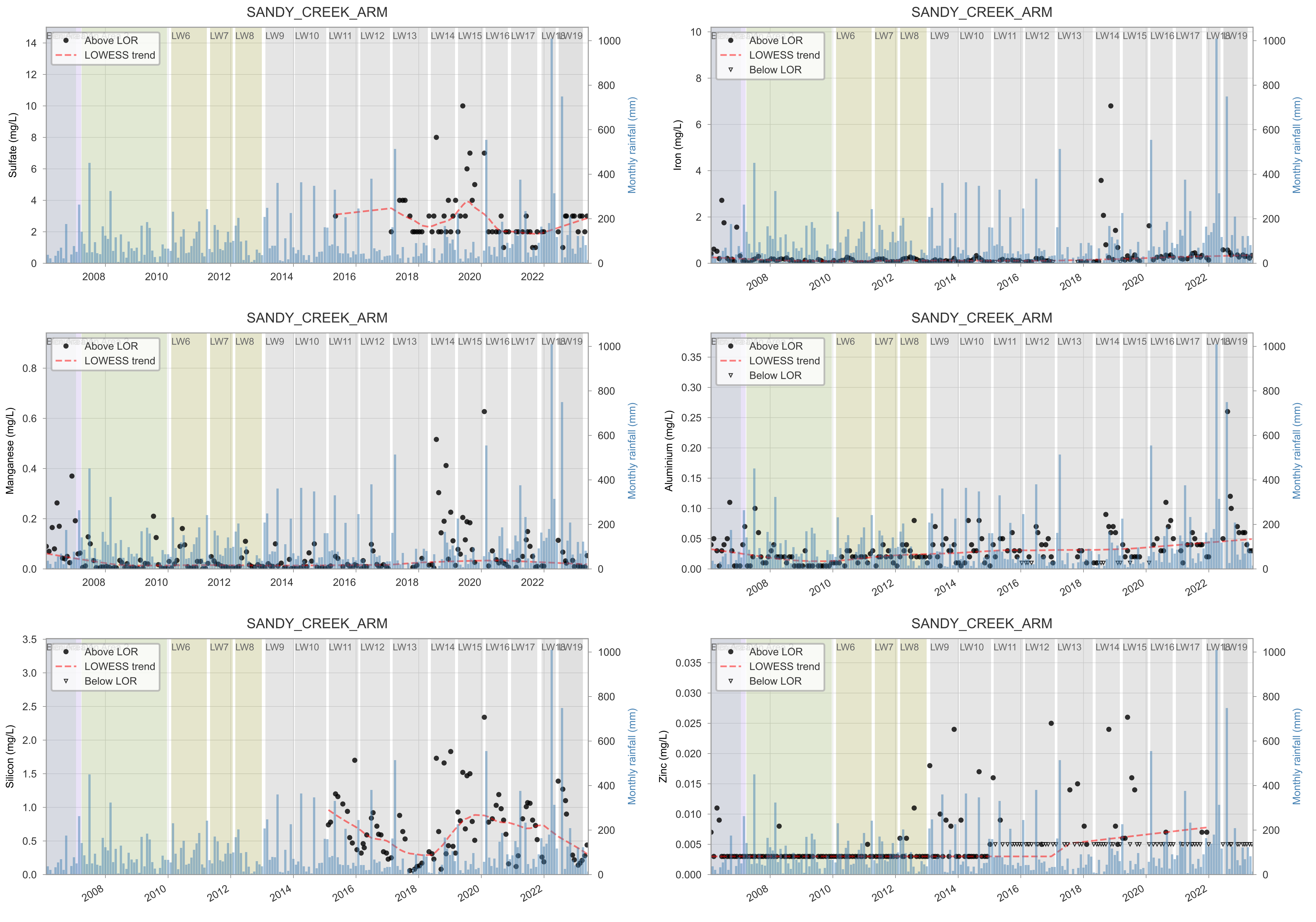

LC_2
Zinc (mg/L)
Monthly rainfall (mm)
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
0.0 0.2 0.4 0.6 0.8 1.0
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

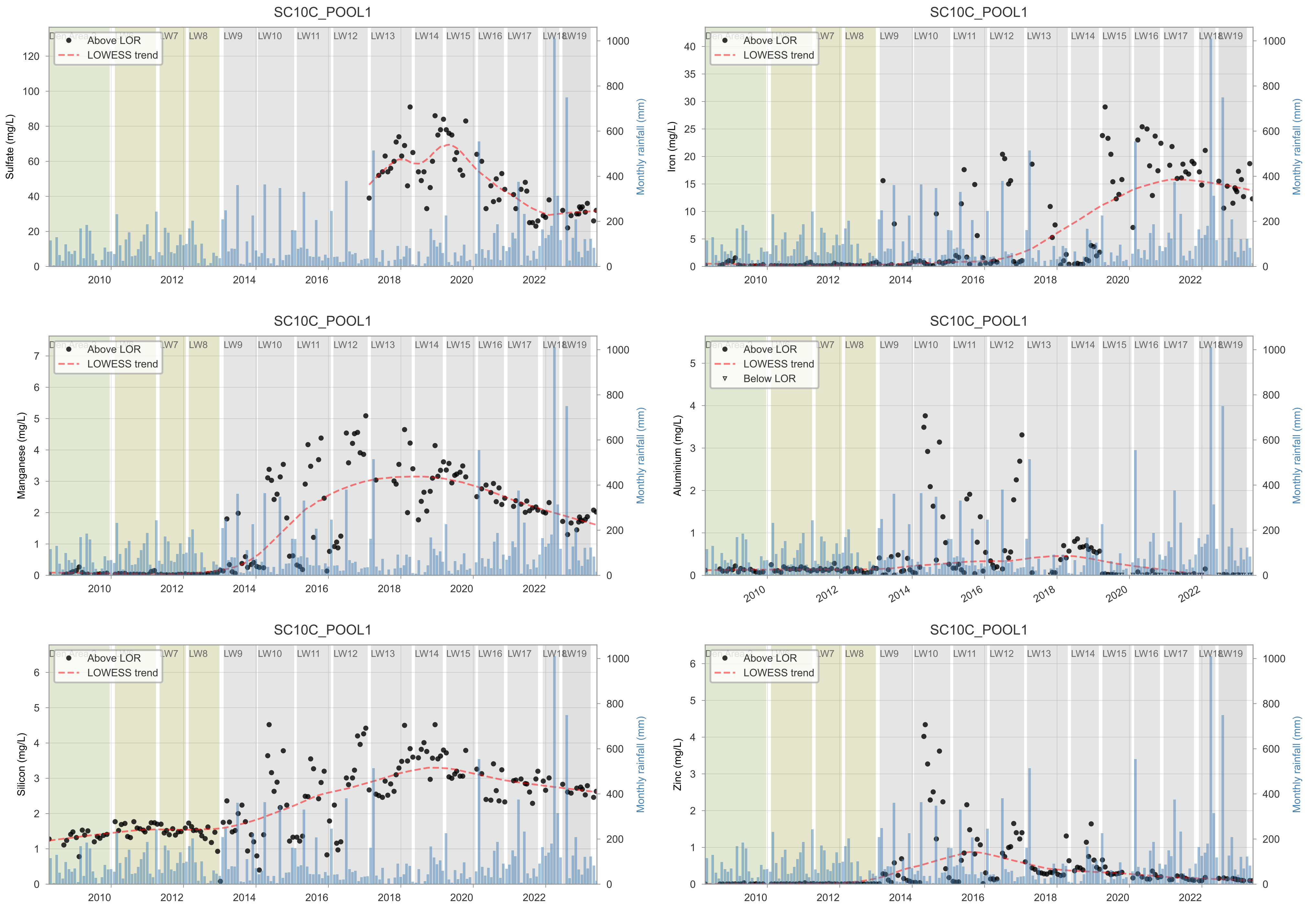

ND1_POOL2
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
ND1_POOL2
Iron (mg/L)
Monthly rainfall (mm)
ND1_POOL2
Manganese (mg/L)
Monthly rainfall (mm)
ND1_POOL2
Aluminium (mg/L)
Monthly rainfall (mm)
ND1_POOL2
Silicon (mg/L)
Monthly rainfall (mm)
ND1_POOL2
Zinc (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

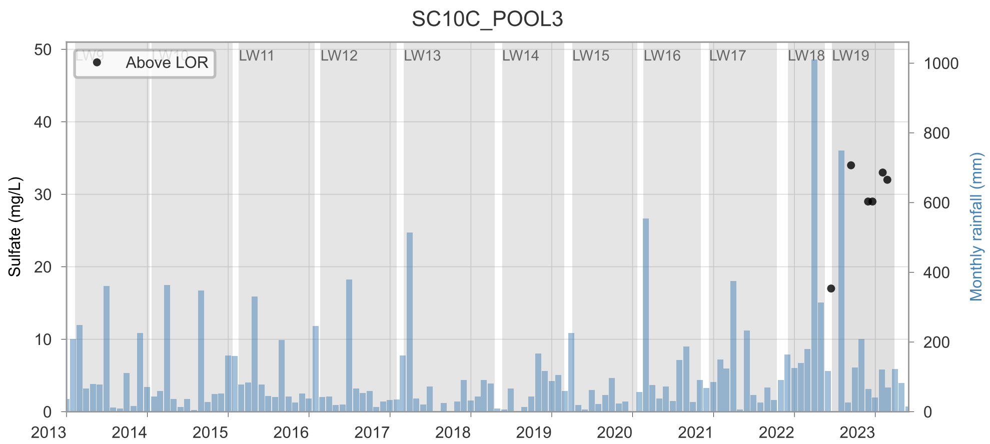

NDC1
Above LOR
LOWESS trend
Below LOR
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
2004
2008
2012
2016
2020

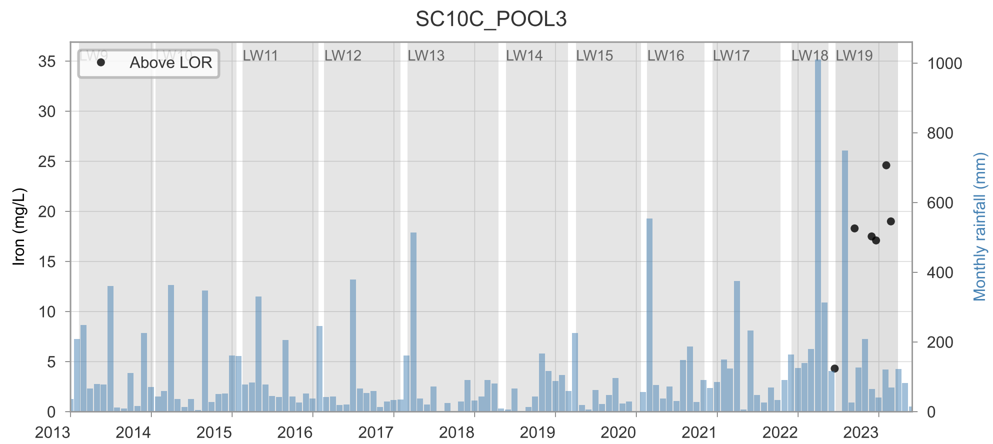


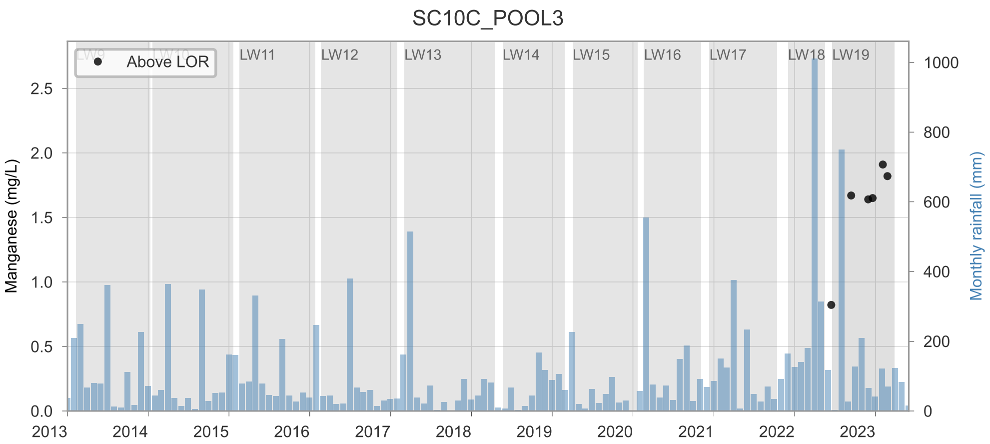
NDC_POOL1
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW19
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

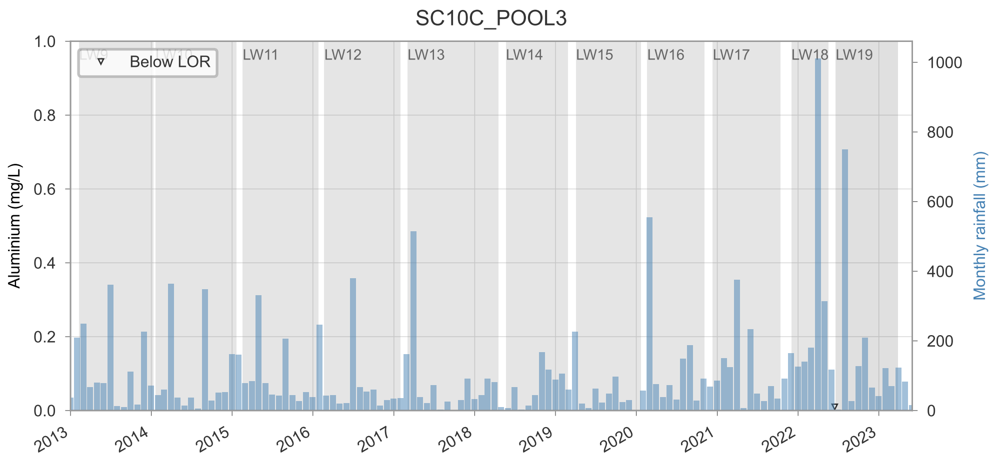

SANDY_CREEK_ARM
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SANDY_CREEK_ARM
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
SANDY_CREEK_ARM
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
SANDY_CREEK_ARM
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
SANDY_CREEK_ARM
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
SANDY_CREEK_ARM
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
2008 2010 2012 2014 2016 2018 2020 2022

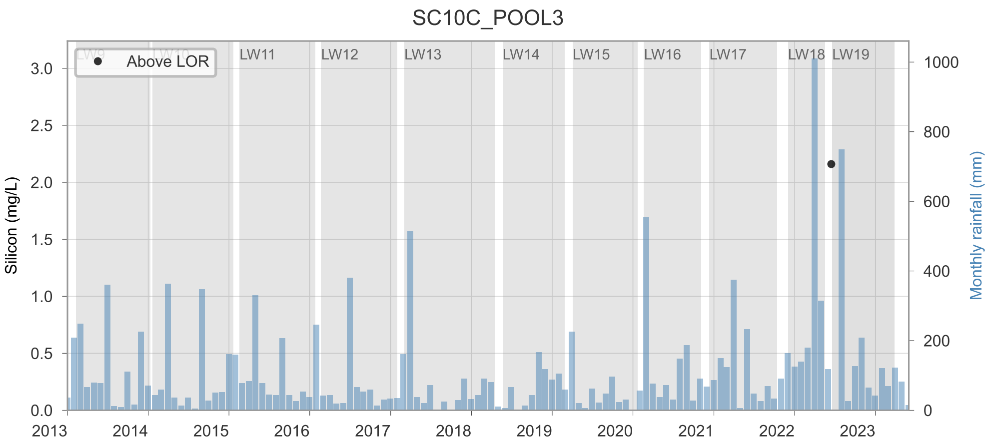

SC10C_POOL1
Above LOR
LOWESS trend
Below LOR
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
2010
2012
2014
2016
2018
2020
2022

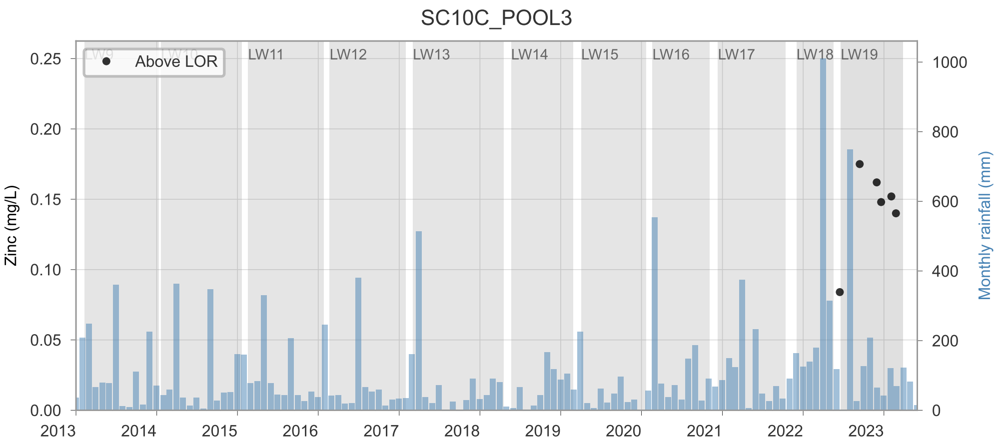

SC10C_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0
10
20
30
40
50
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

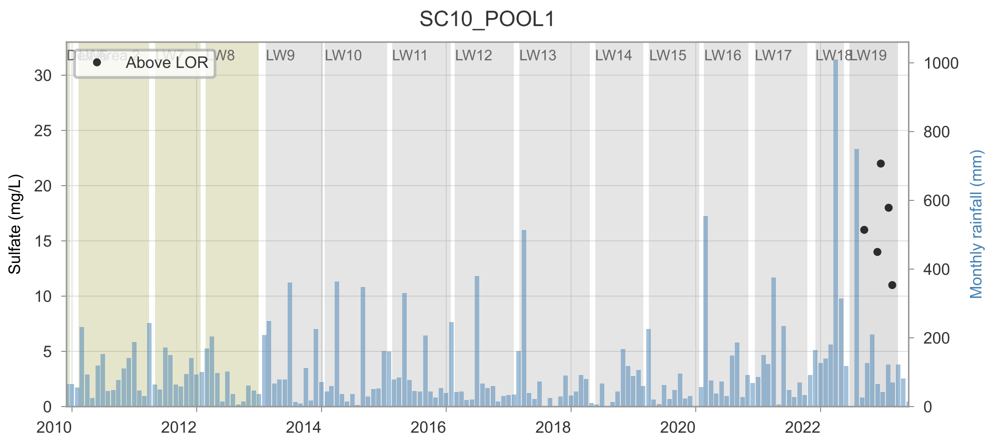

SC10C_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
0
5
10
15
20
25
30
35
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

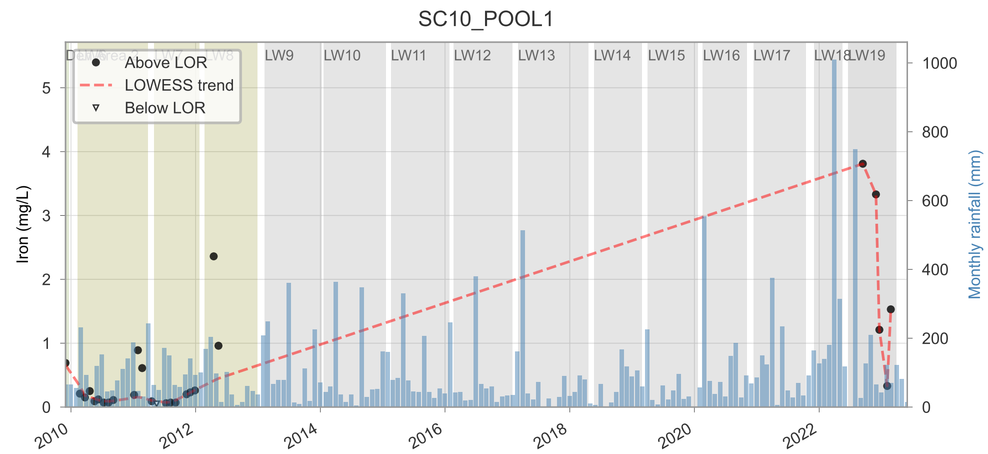

SC10C_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.0
0.5
1.0
1.5
2.0
2.5
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

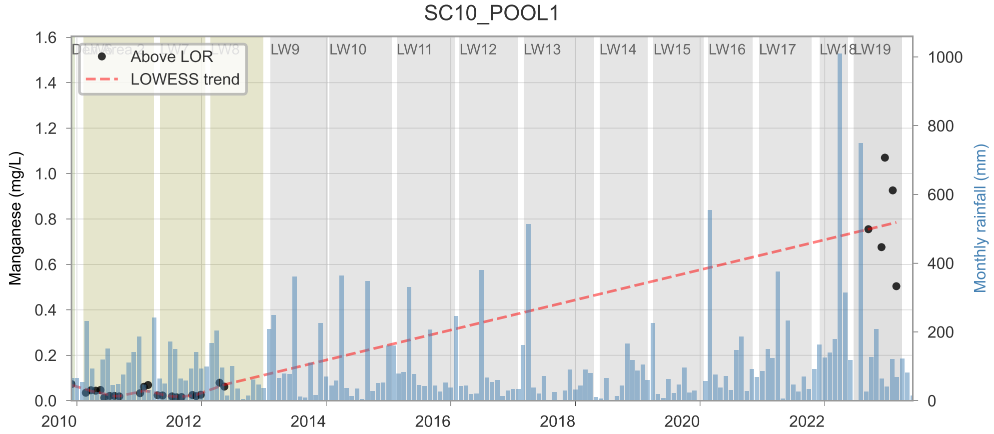

SC10C_POOL3
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.0
0.2
0.4
0.6
0.8
1.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

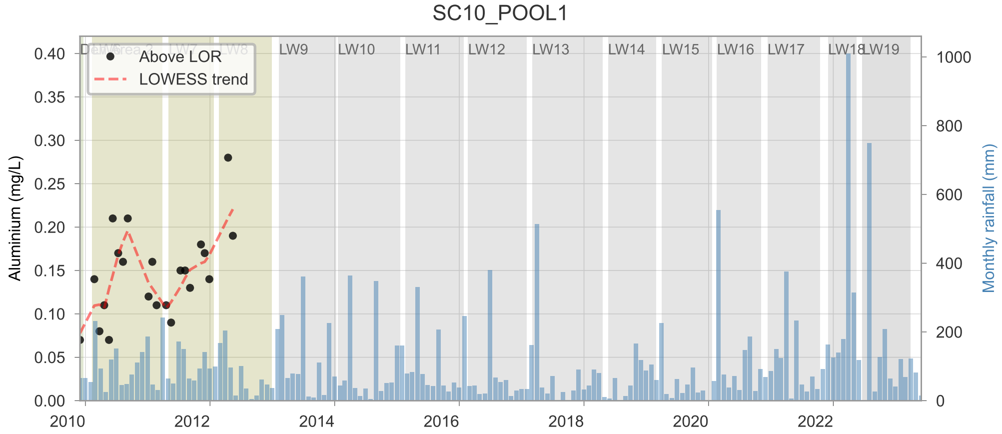

SC10C_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

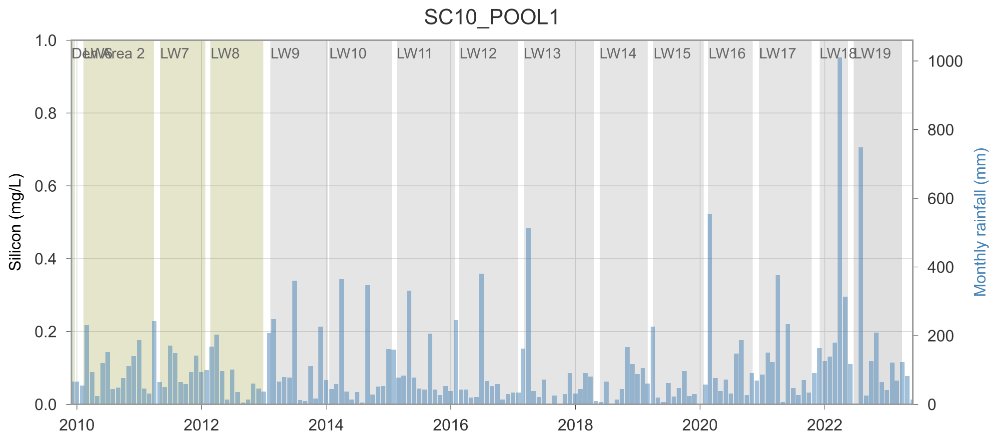

SC10C_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.00
0.05
0.10
0.15
0.20
0.25
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

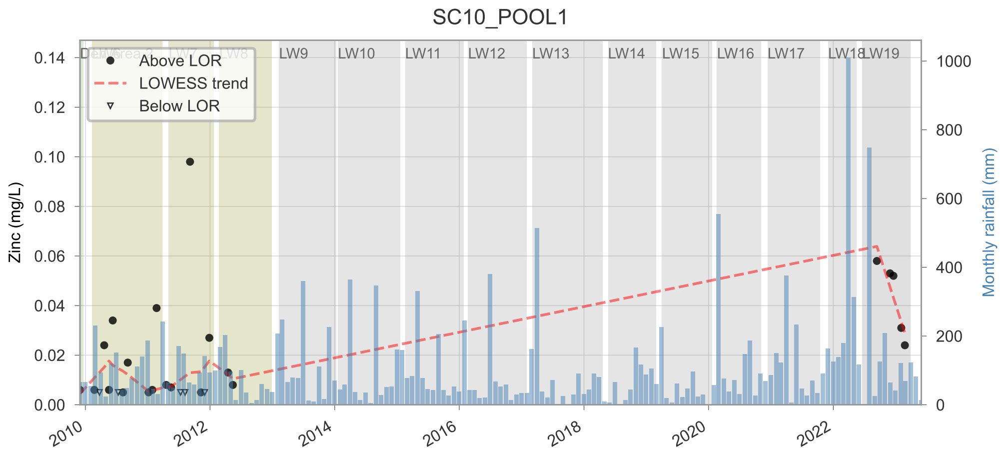

SC10_POOL1
Above LOR
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

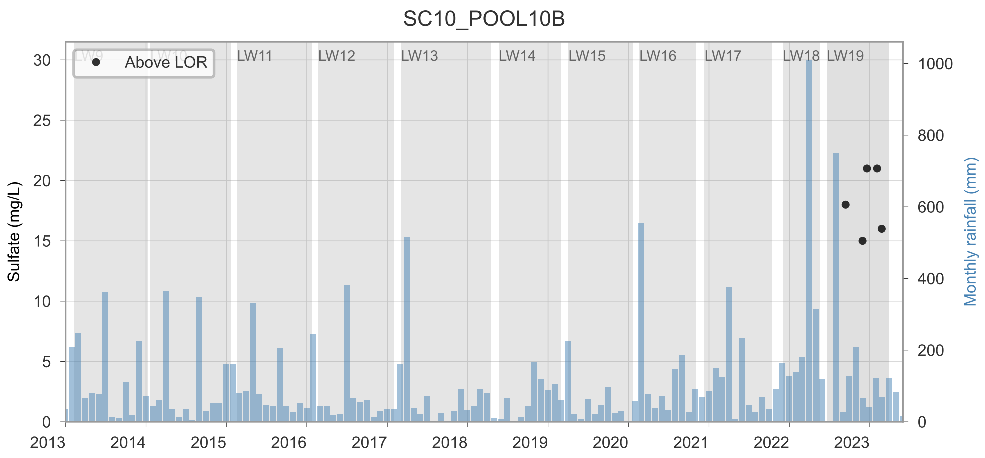

SC10_POOL1
Above LOR
LOWESS trend
Below LOR
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

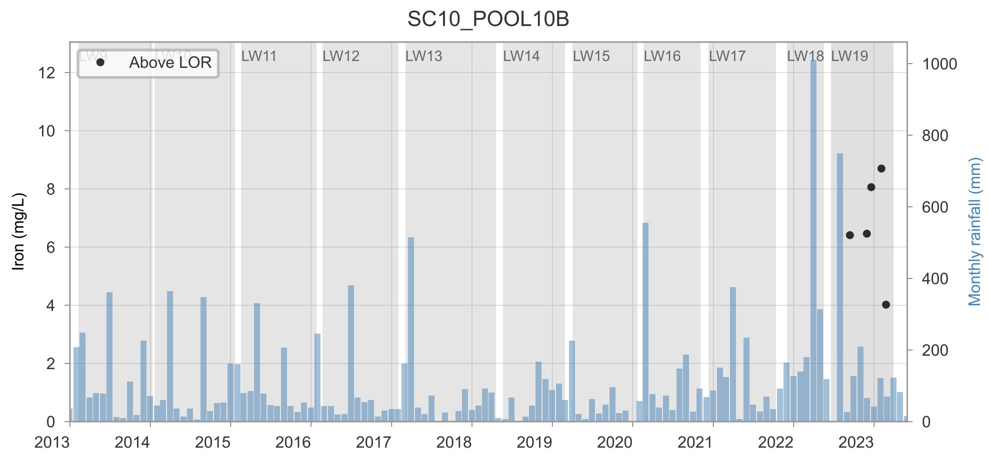

SC10_POOL1
Above LOR
LOWESS trend
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

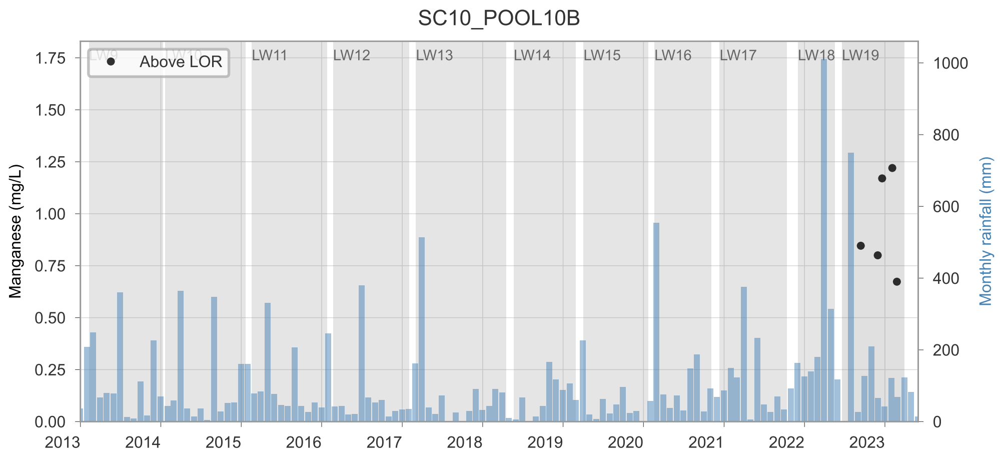

SC10_POOL1
Above LOR
LOWESS trend
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

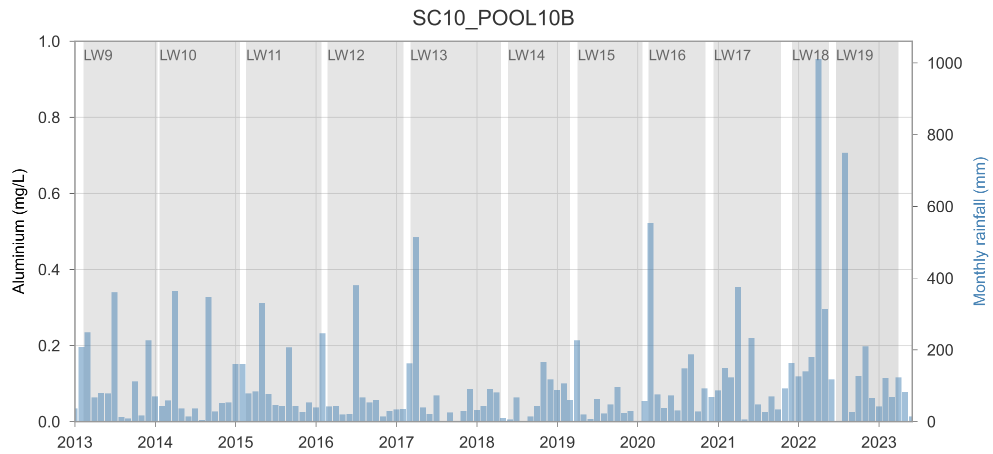

SC10_POOL1
LW6 Area 2 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

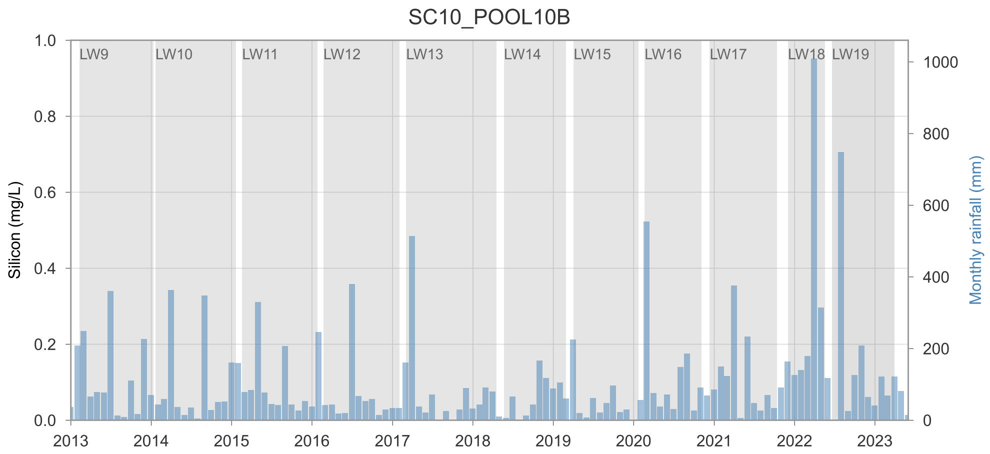

SC10_POOL1
Above LOR
LOWESS trend
Below LOR
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
2010 2012 2014 2016 2018 2020 2022

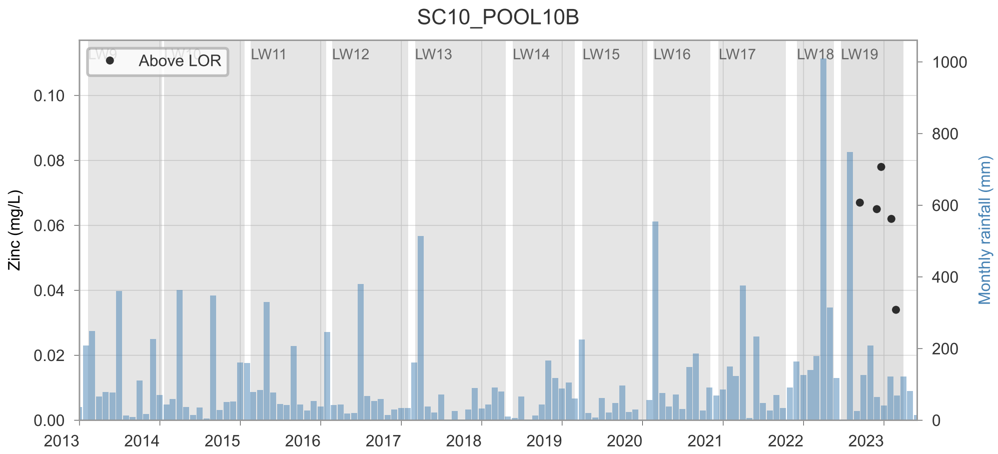

SC10_POOL10B
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

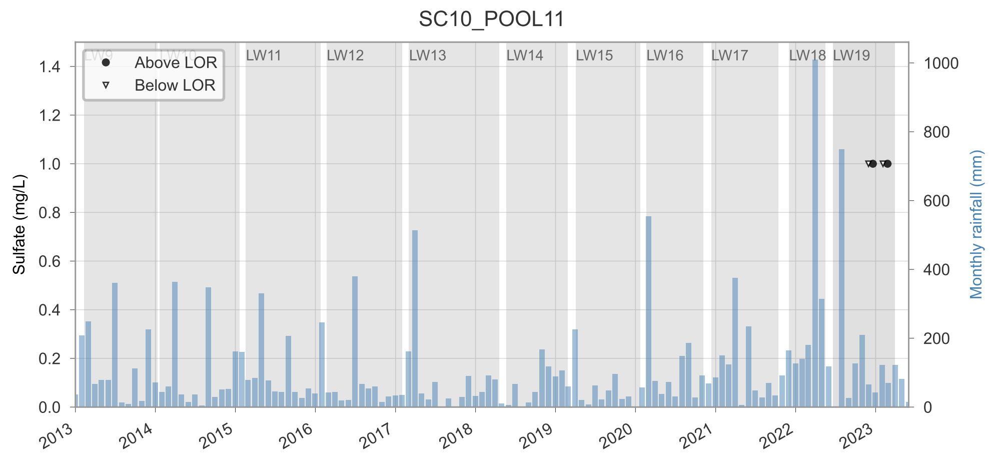

SC10_POOL10B
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

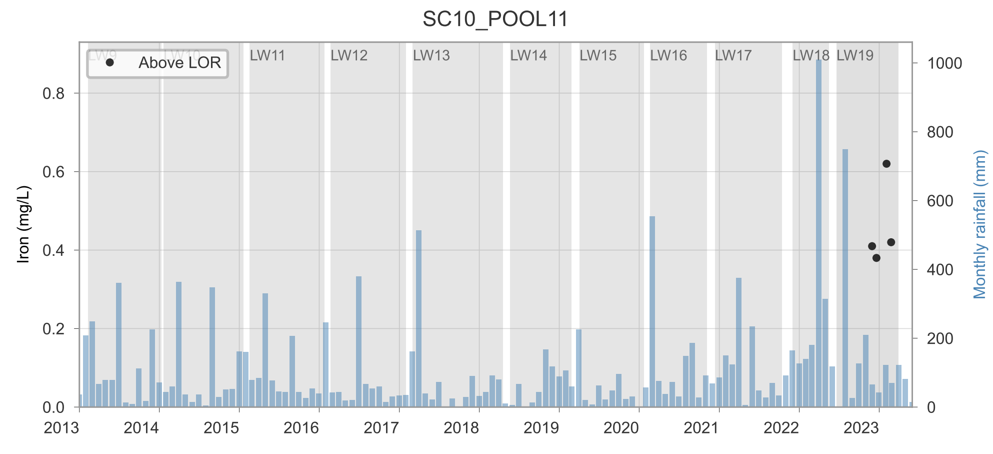

SC10_POOL10B
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

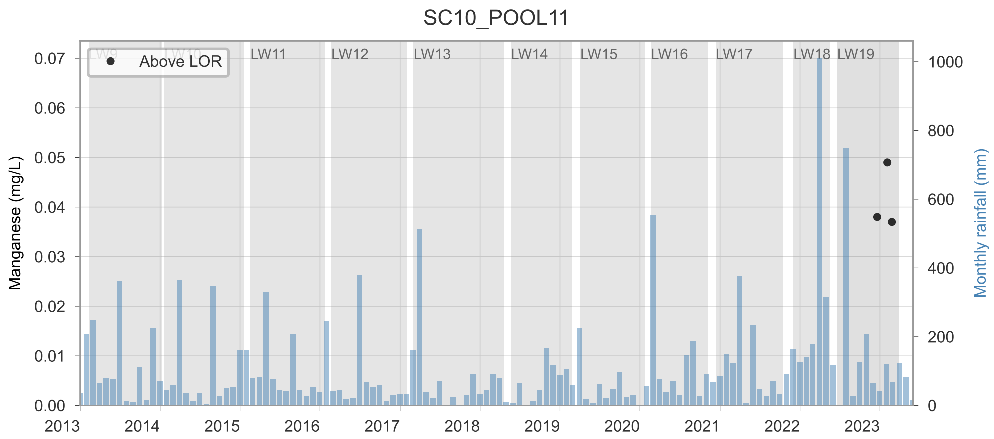

SC10_POOL10B
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

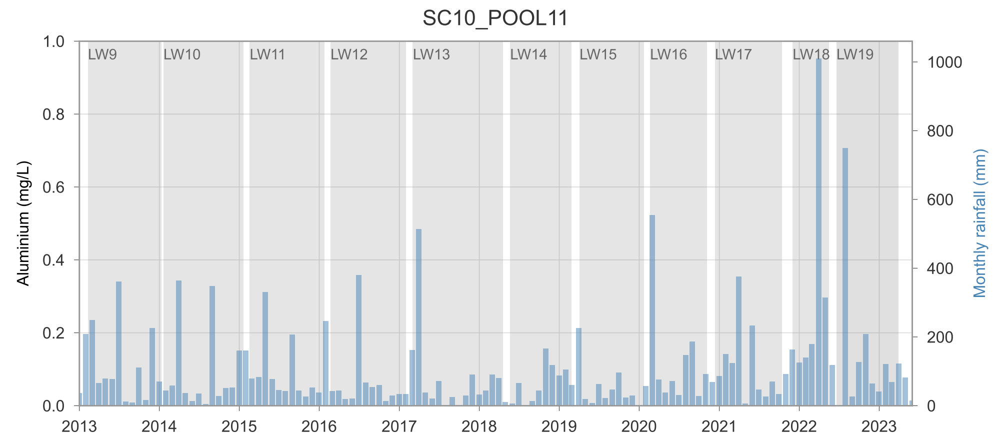

SC10_POOL10B
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

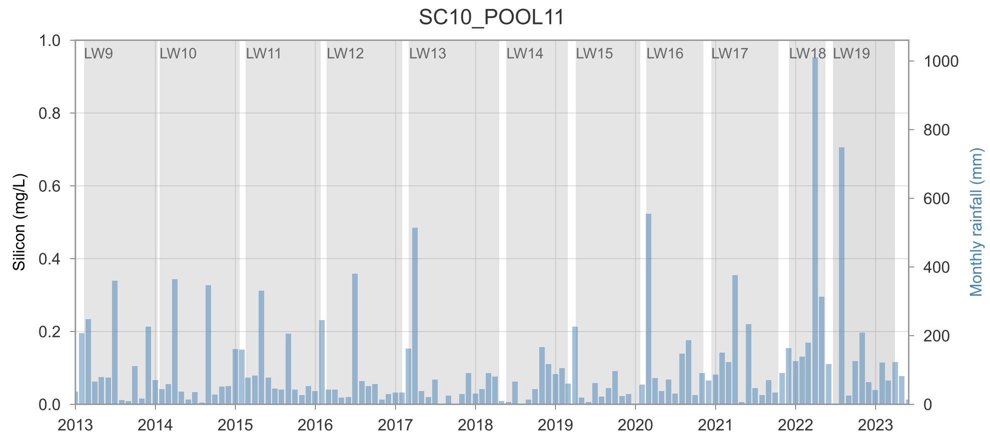

SC10_POOL10B
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

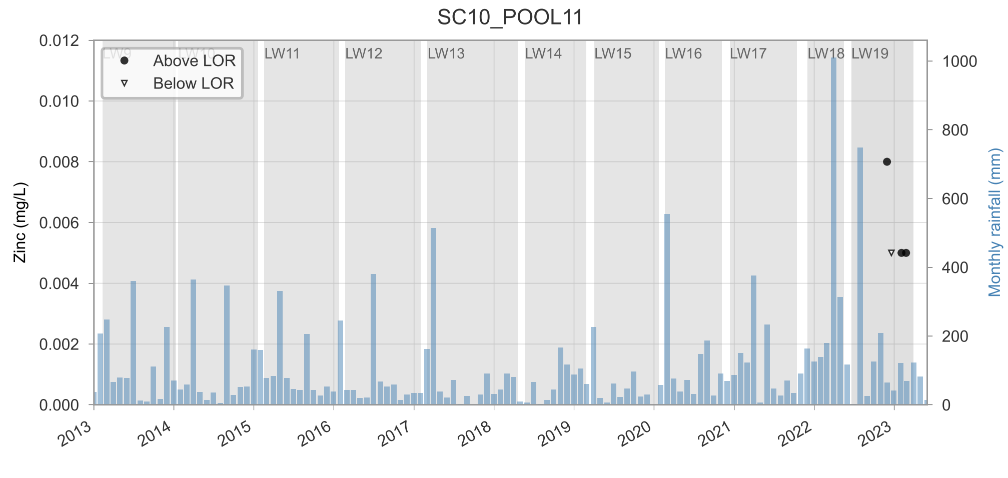

SC10_POOL11
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

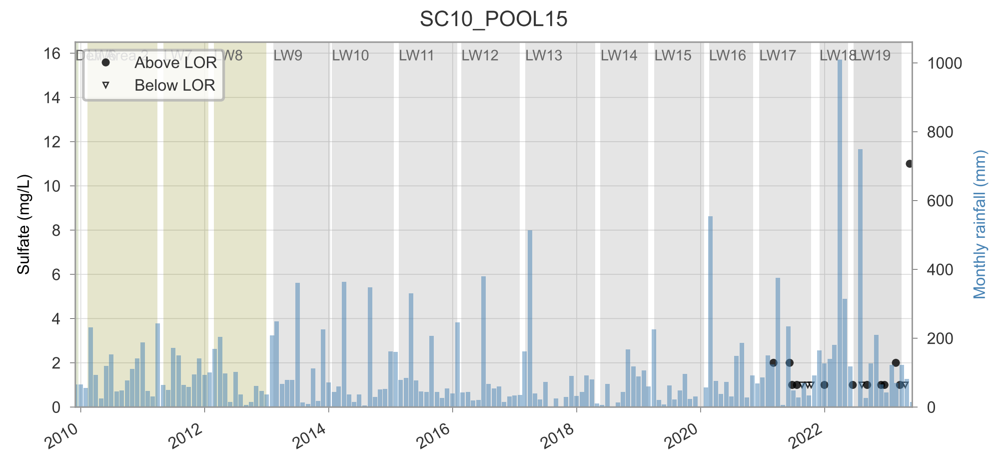

SC10_POOL11
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

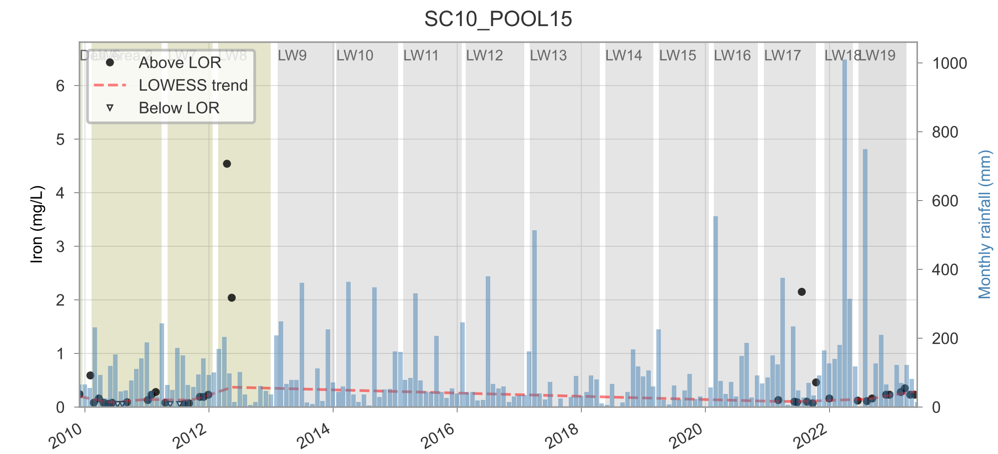

SC10_POOL11
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

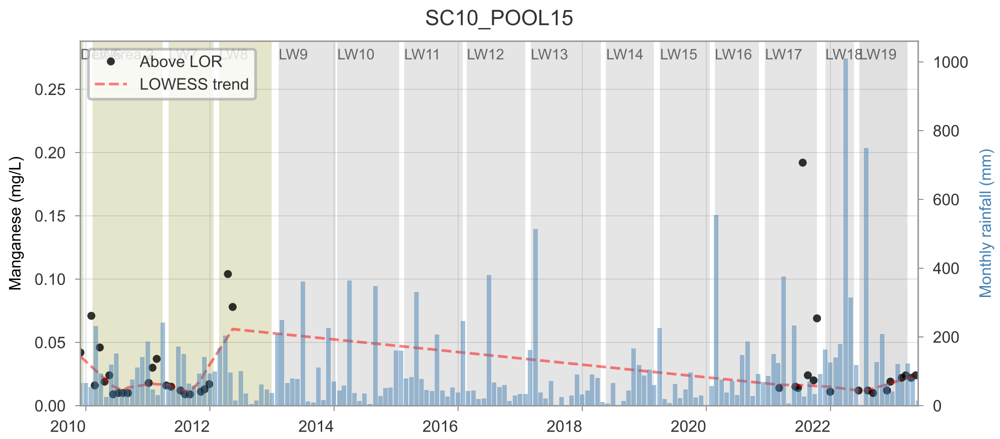

SC10_POOL11
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

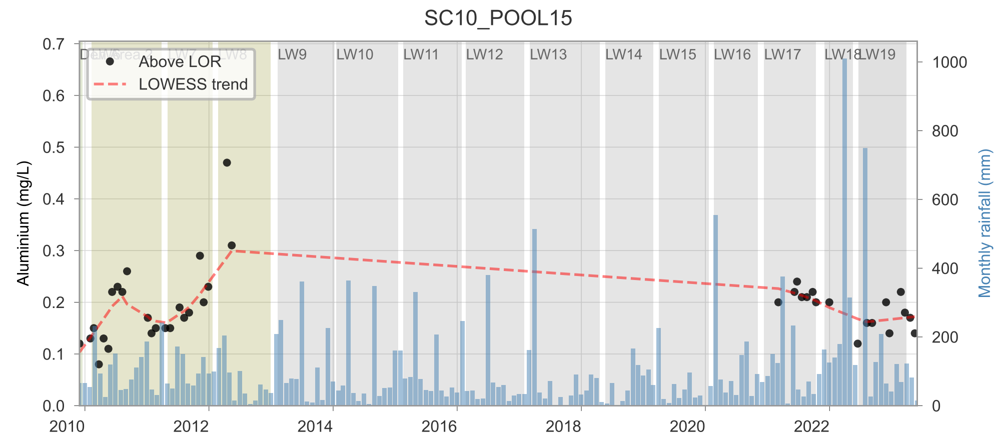

SC10_POOL11
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

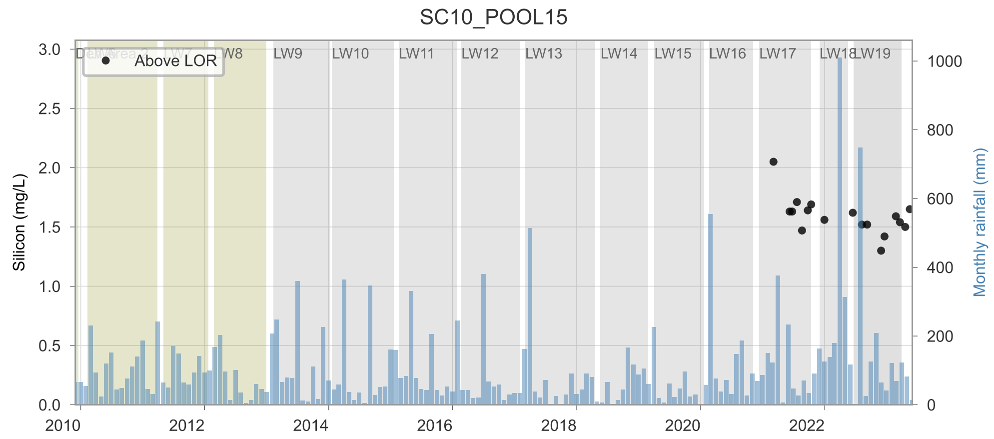

SC10_POOL11
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

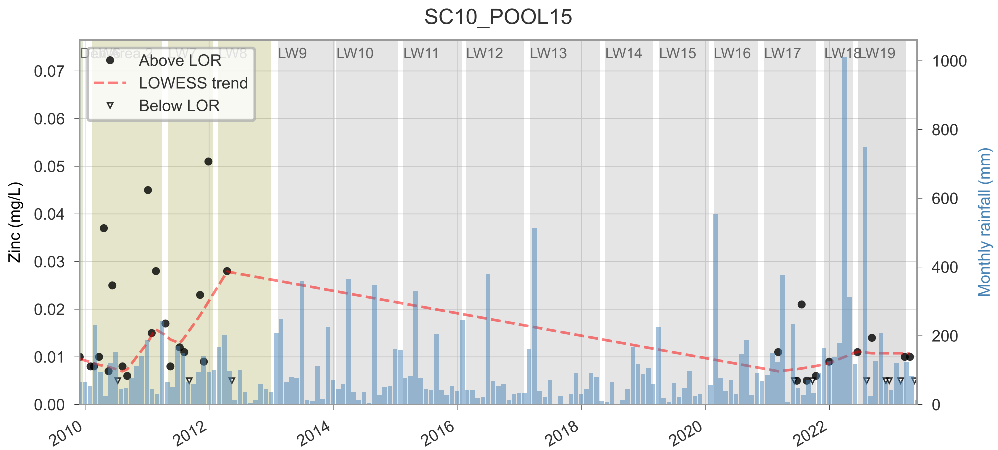

SC10_POOL15
Above LOR
Below LOR
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)

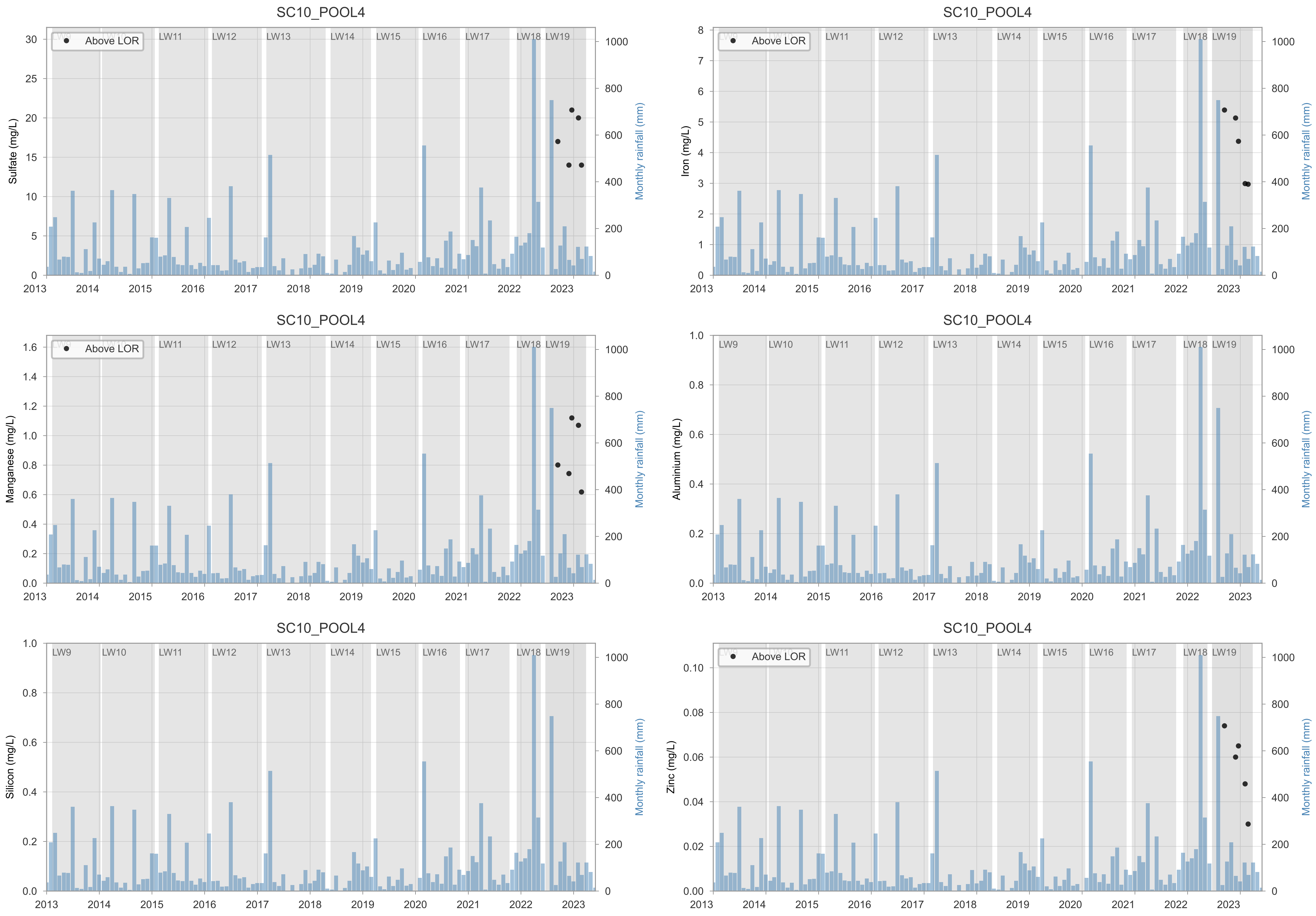

SC10_POOL15
Above LOR
LOWESS trend
Below LOR
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)

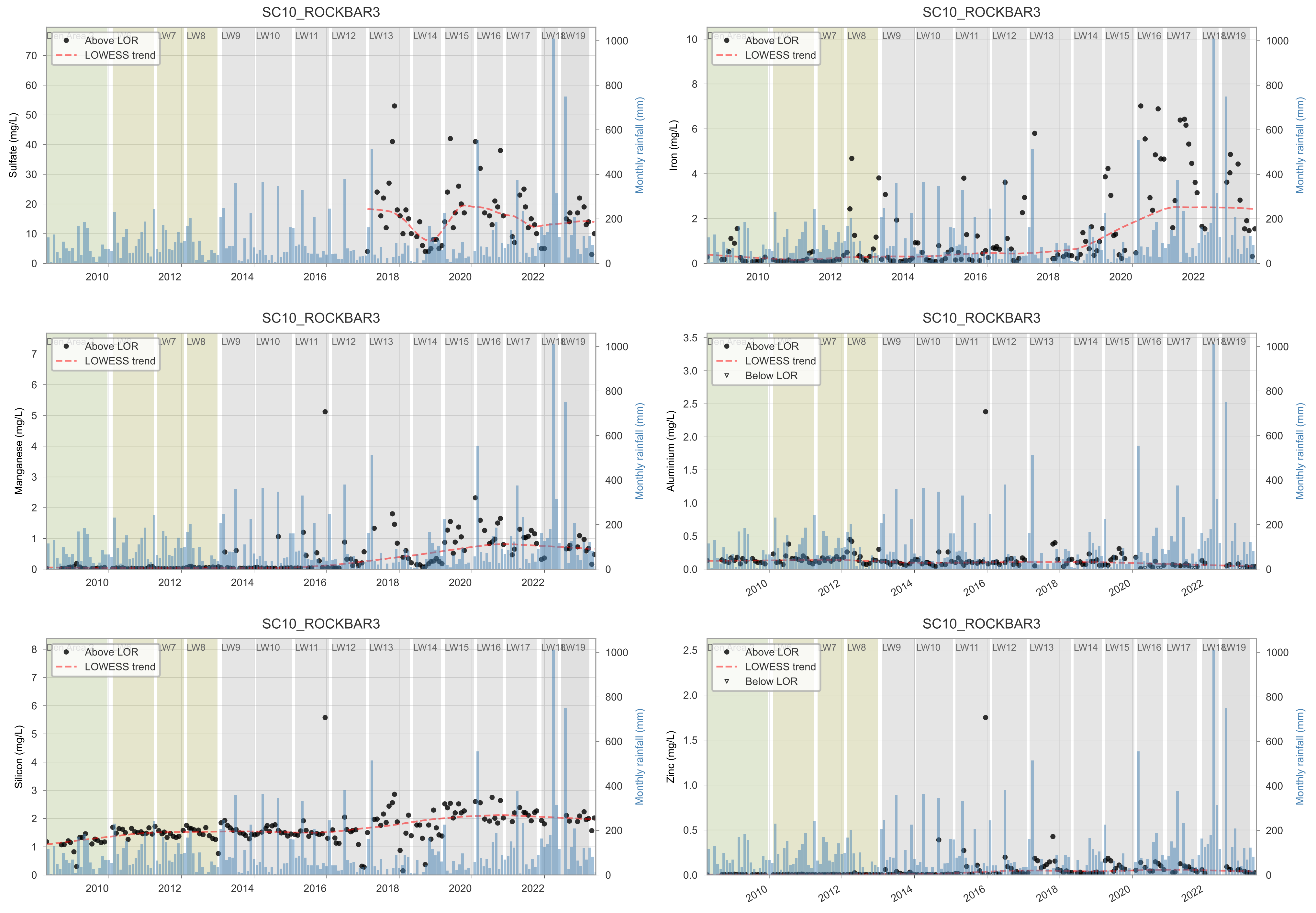

SC10_POOL15
Above LOR
LOWESS trend
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)

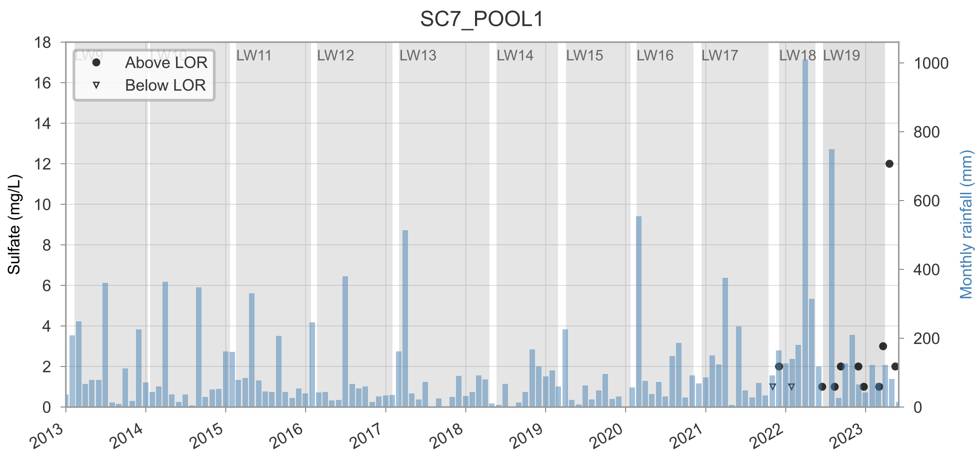

SC10_POOL15
Above LOR
LOWESS trend
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)

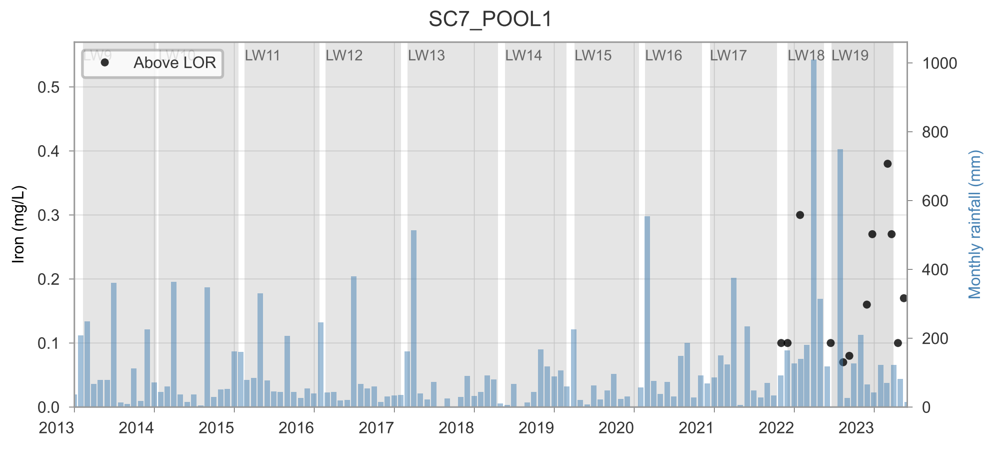

SC10_POOL15
Above LOR
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)

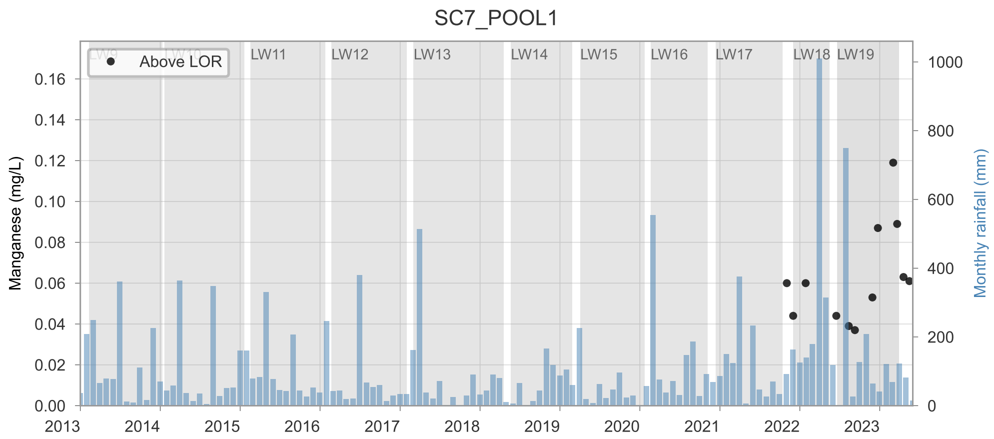

SC10_POOL15
Above LOR
LOWESS trend
Below LOR
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)

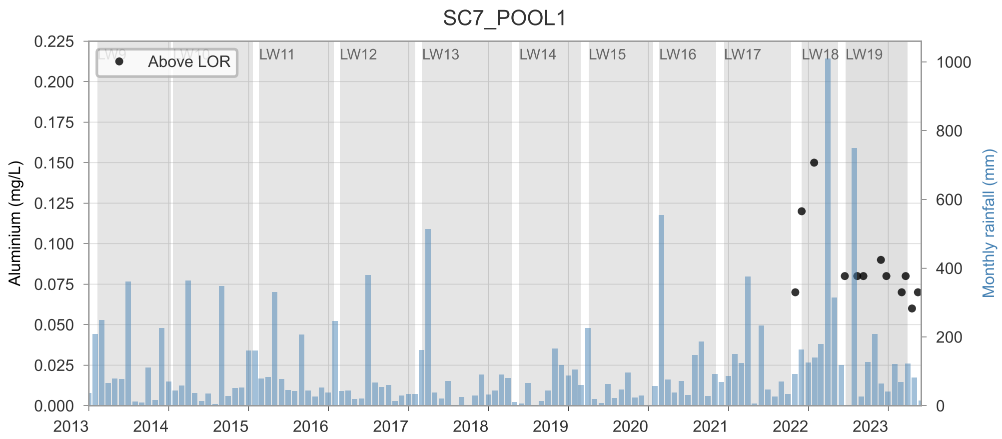

SC10_POOL4
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SC10_POOL4
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SC10_POOL4
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SC10_POOL4
Aluminium (mg/L)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SC10_POOL4
Silicon (mg/L)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
SC10_POOL4
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

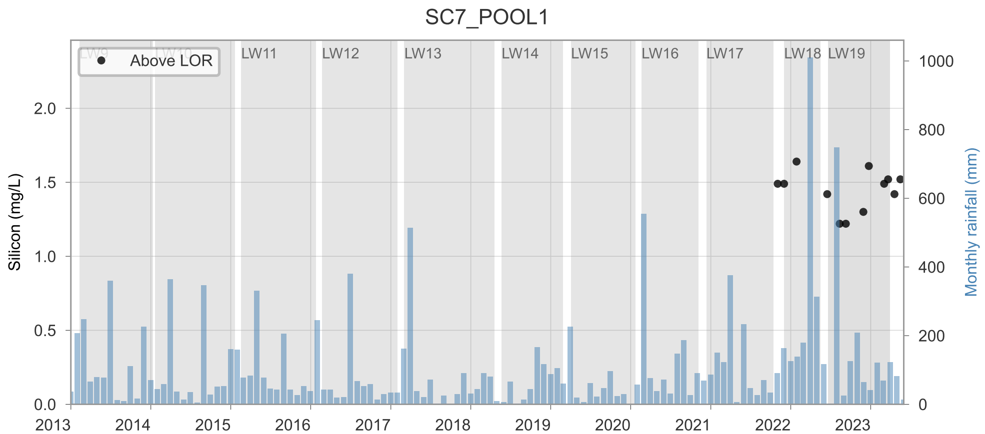

SC10_ROCKBAR3
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2010
2012
2014
2016
2018
2020
2022

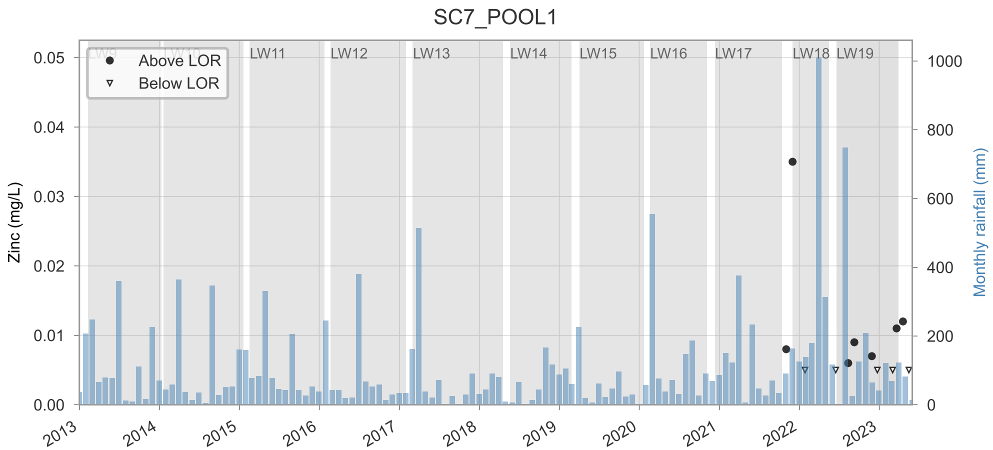

SC7_POOL1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

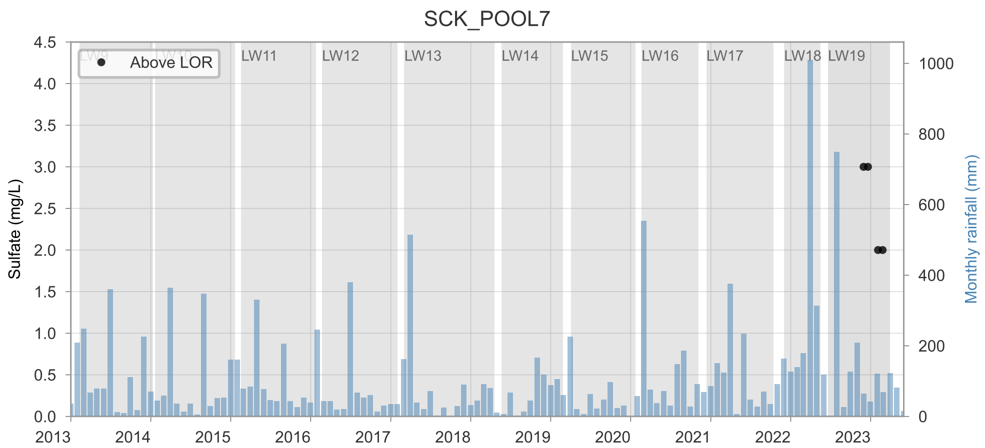

SC7_POOL1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

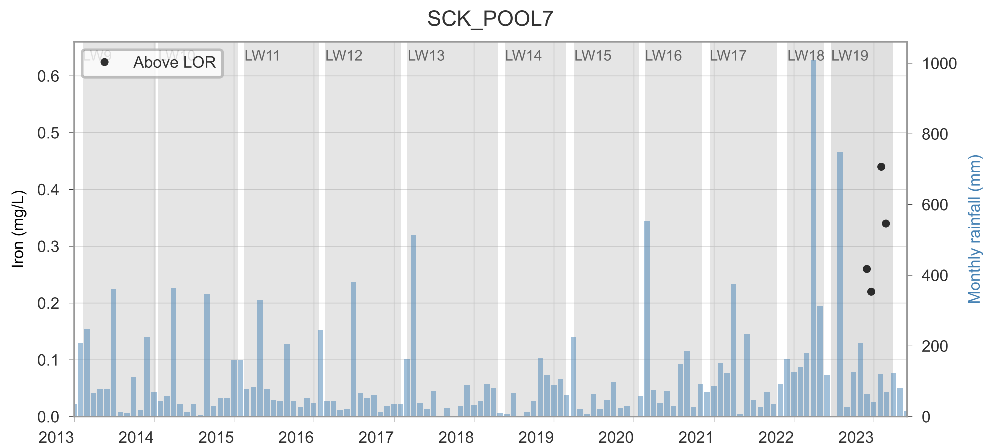

SC7_POOL1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

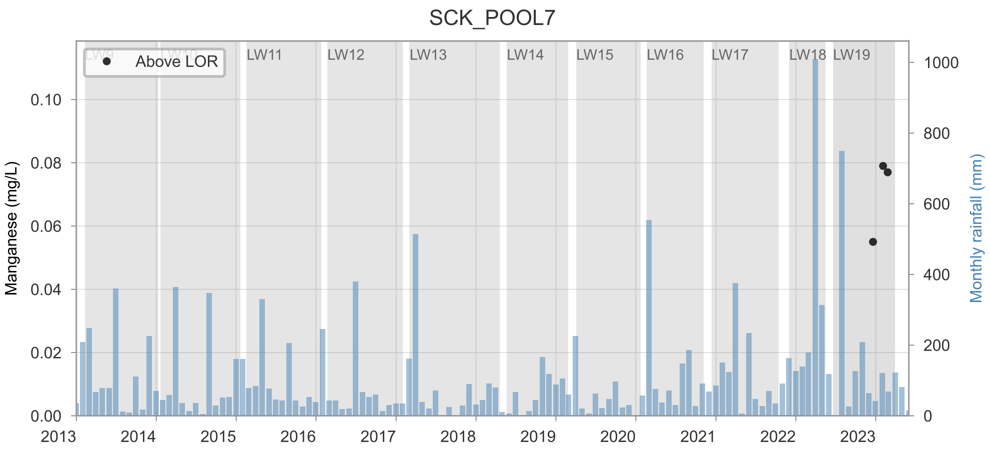

SC7_POOL1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

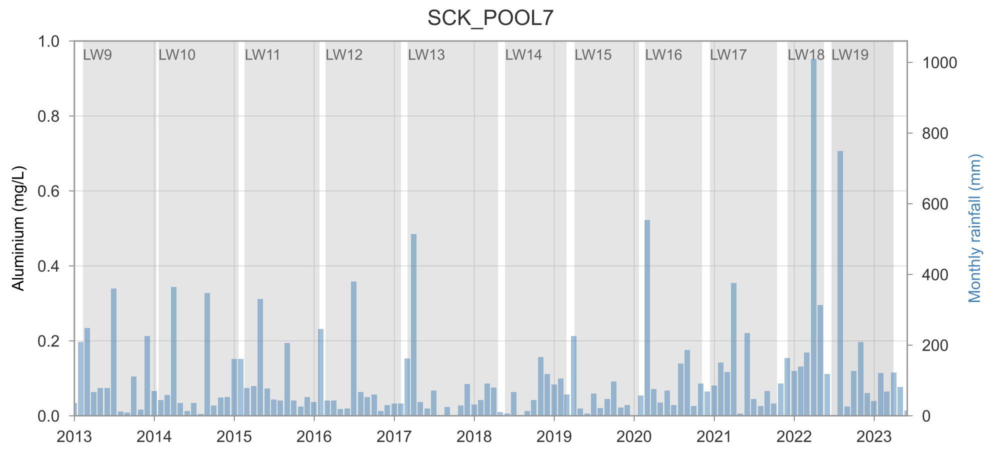

SC7_POOL1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

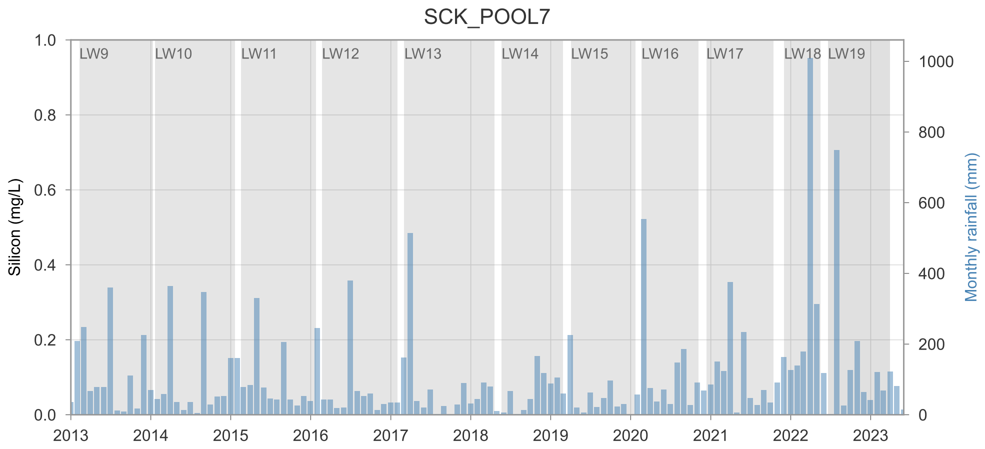

SC7_POOL1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

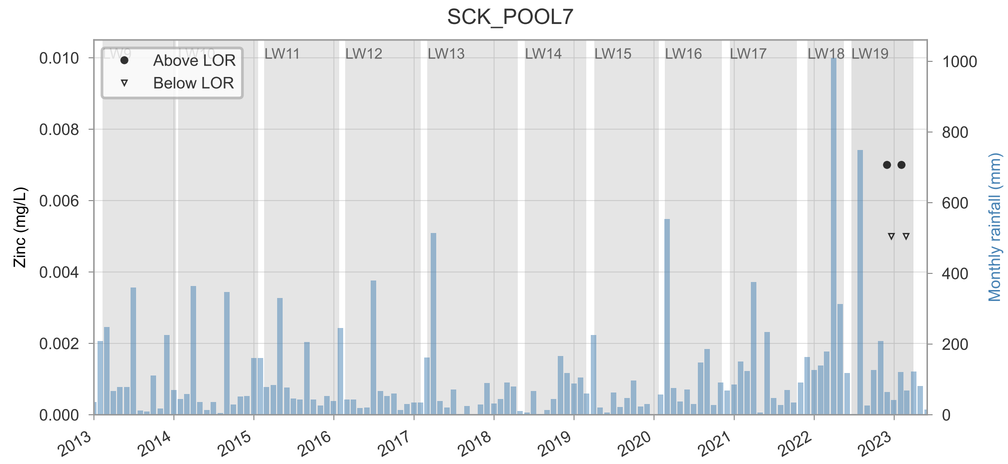

SCK_POOL7
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

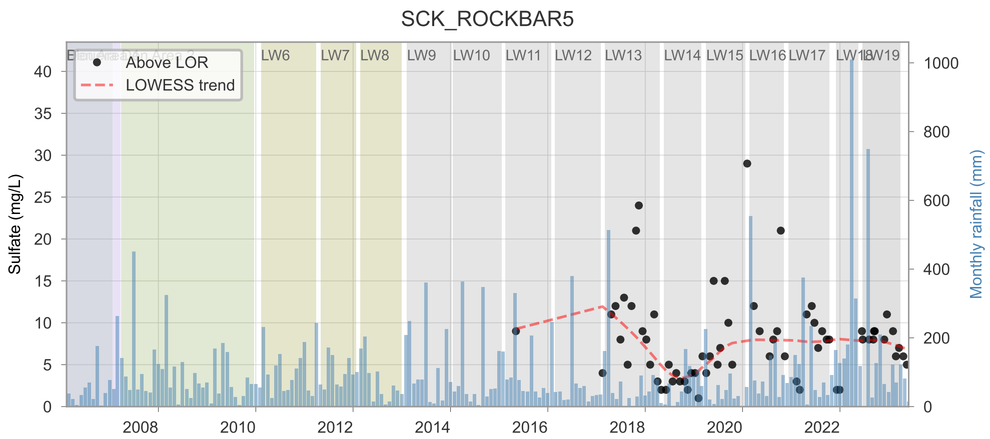

SCK_POOL7
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

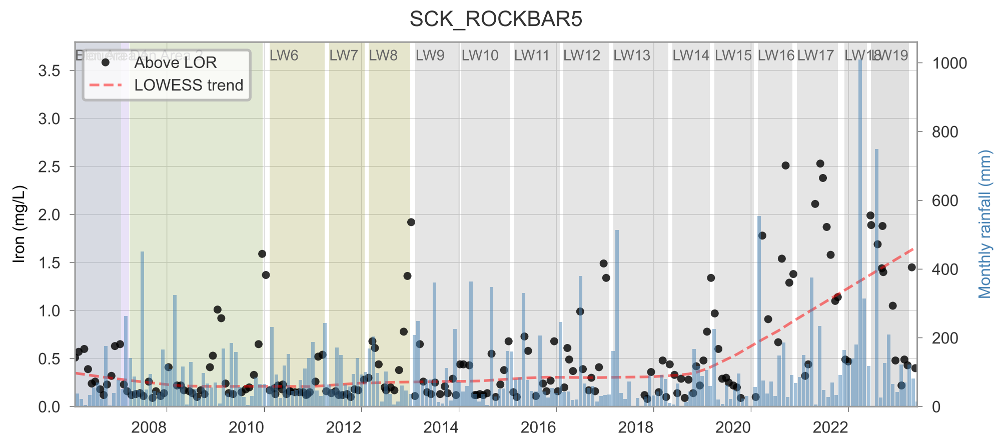

SCK_POOL7
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

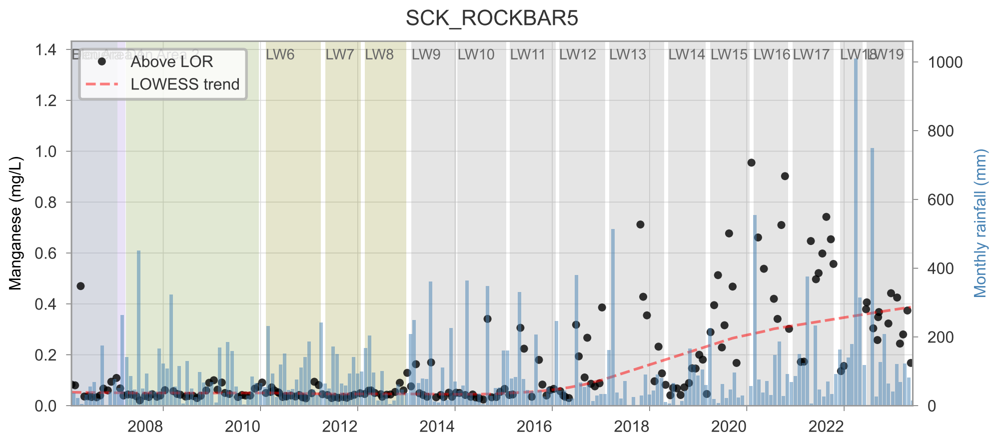

SCK_POOL7
Aluminium (mg/L)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

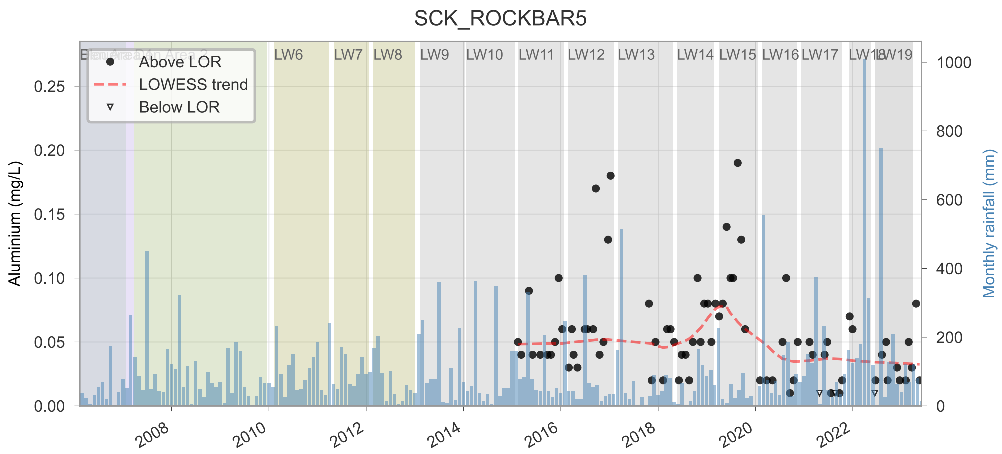

SCK_POOL7
Silicon (mg/L)
Monthly rainfall (mm)
LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

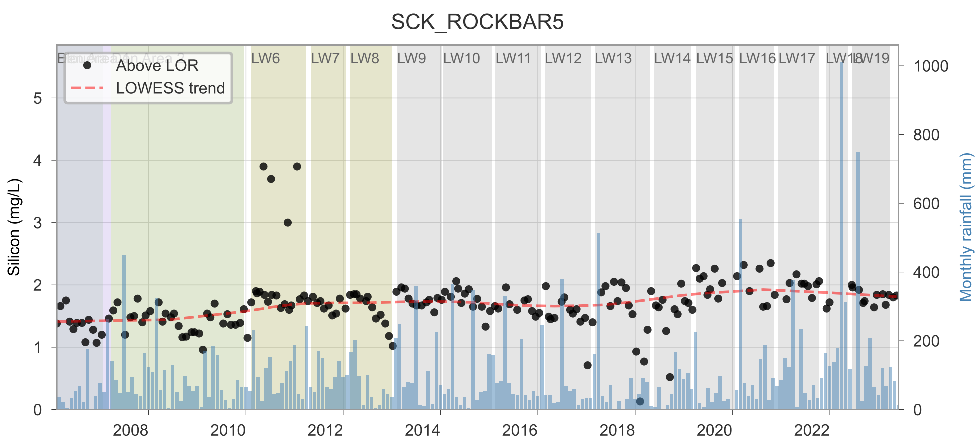

SCK_POOL7
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

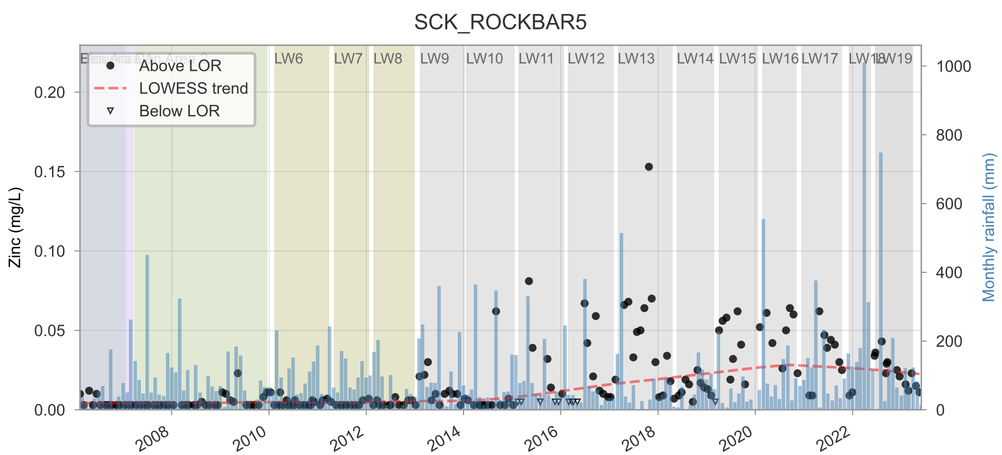

SCK_ROCKBAR5
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

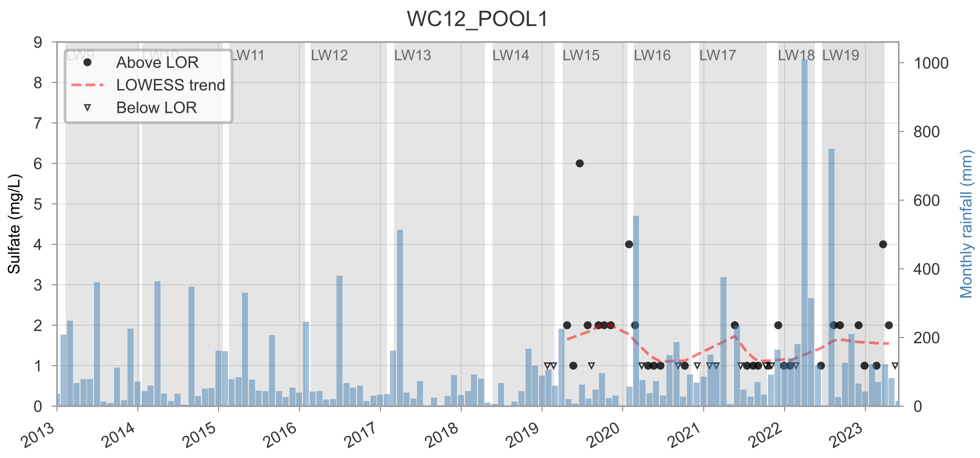

SCK_ROCKBAR5
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

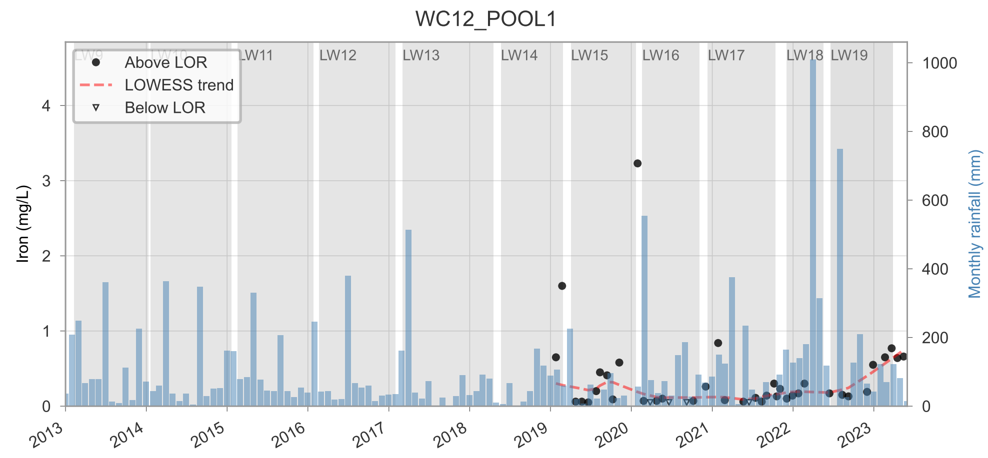

SCK_ROCKBAR5
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

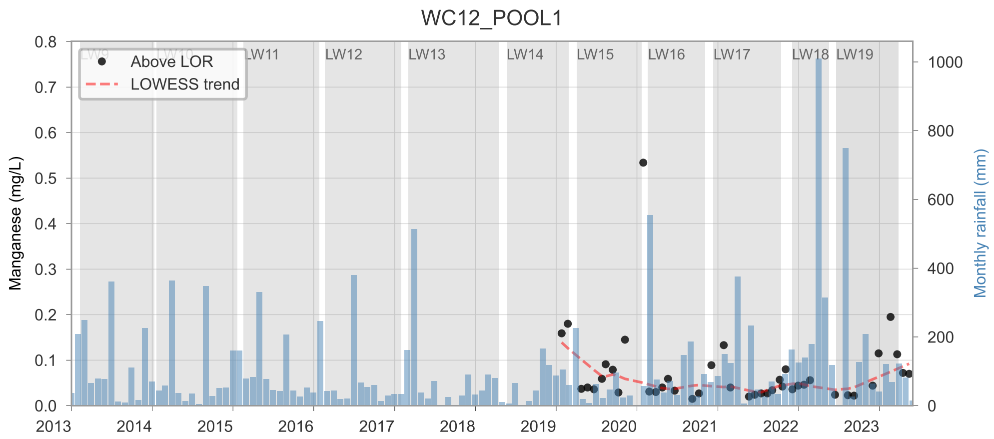

SCK_ROCKBAR5
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

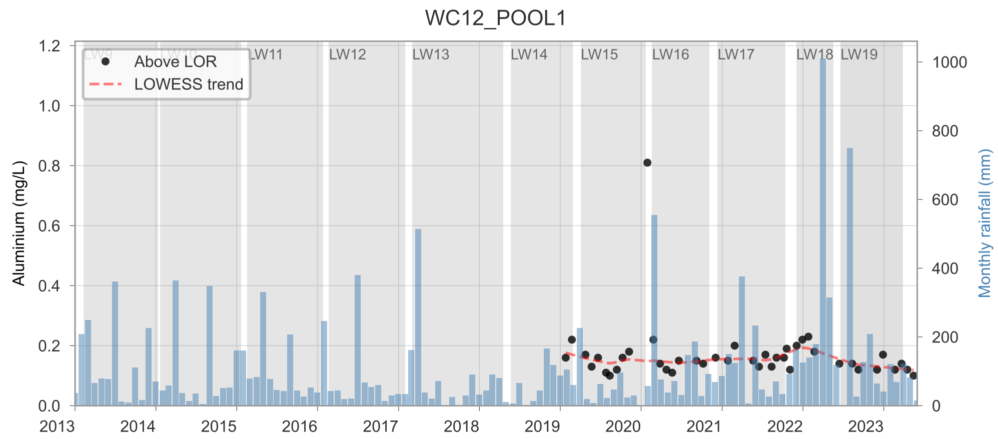

SCK_ROCKBAR5
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

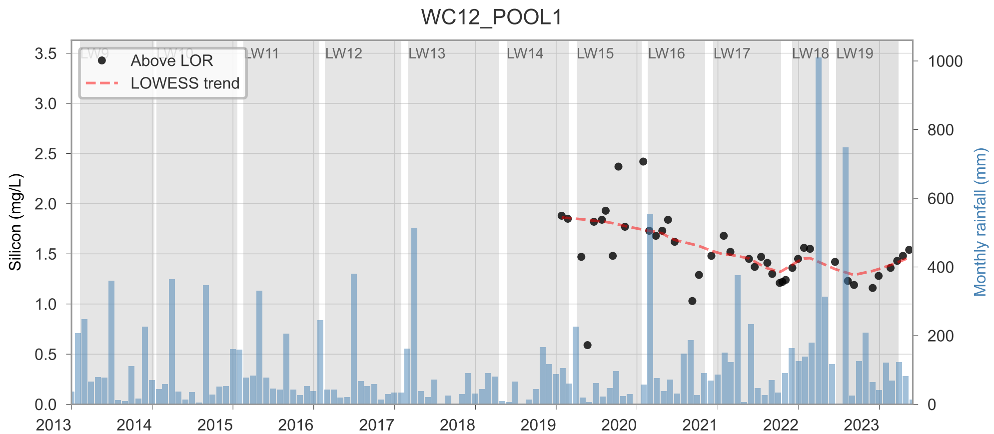

SCK_ROCKBAR5
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW6 LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

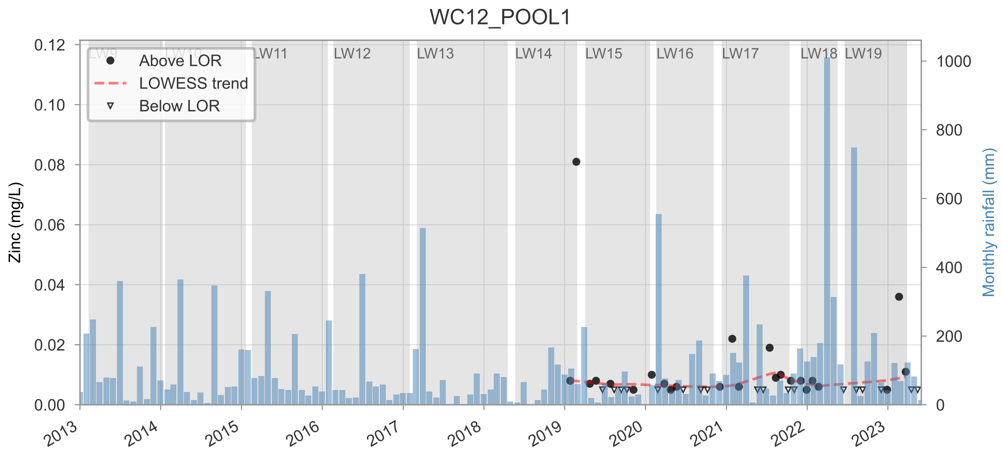

WC12_POOL1
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0 1 2 3 4 5 6 7 8 9
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

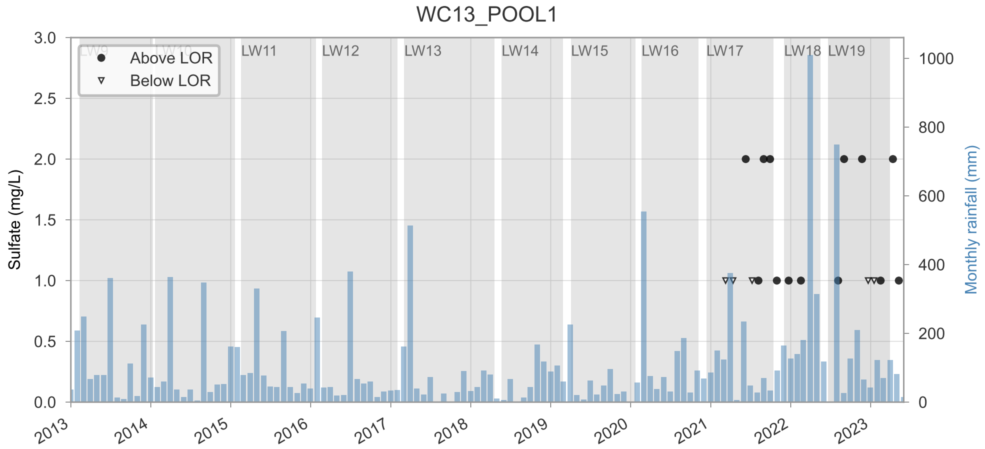

WC12_POOL1
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
0 1 2 3 4
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

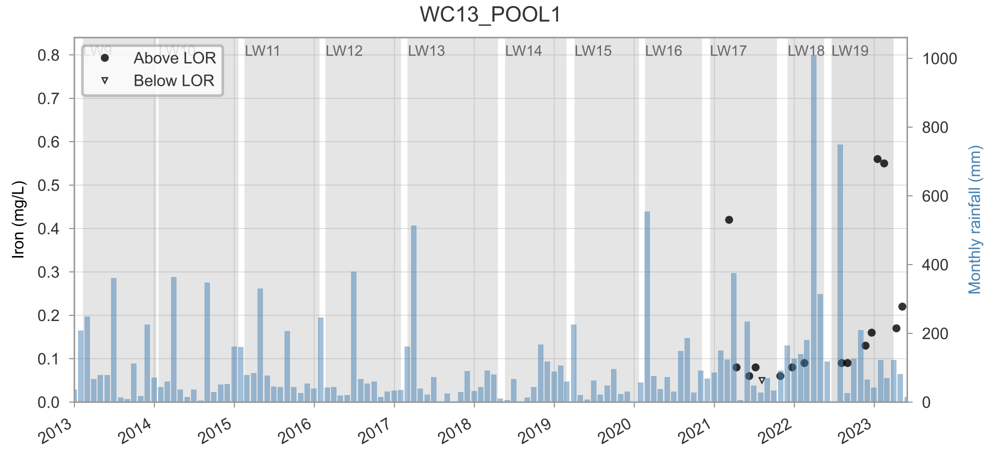

WC12_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

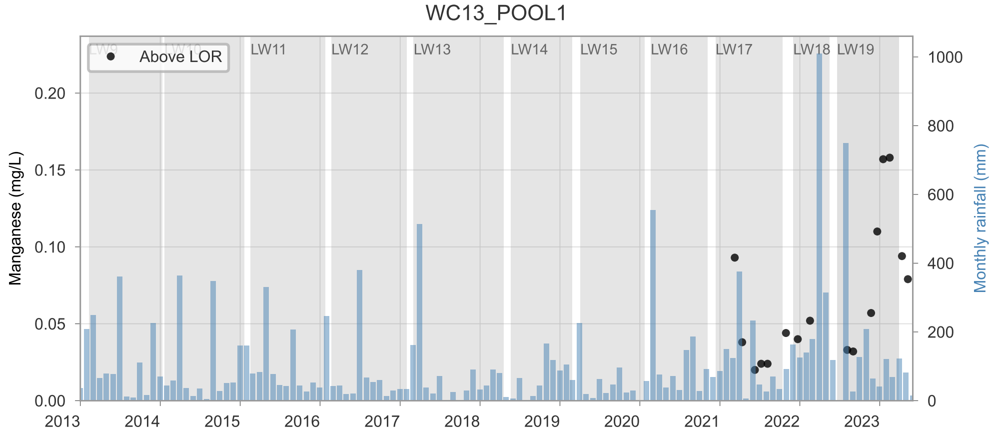

WC12_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.0 0.2 0.4 0.6 0.8 1.0 1.2
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

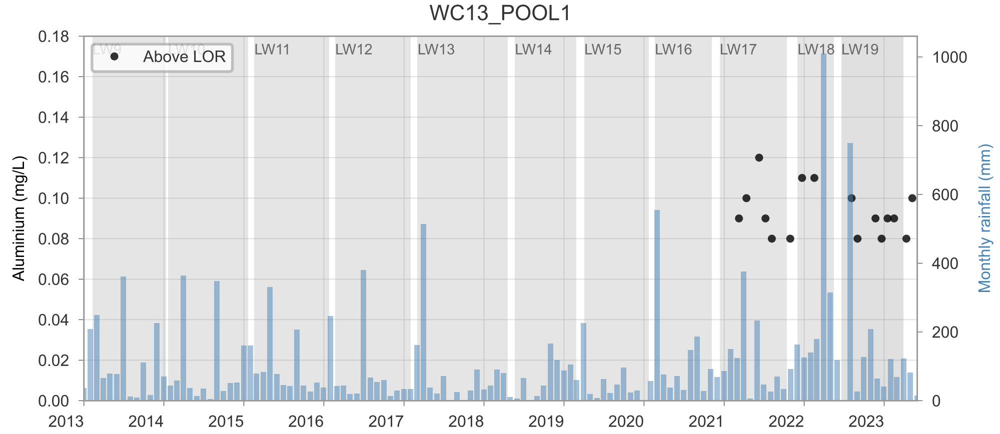

WC12_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

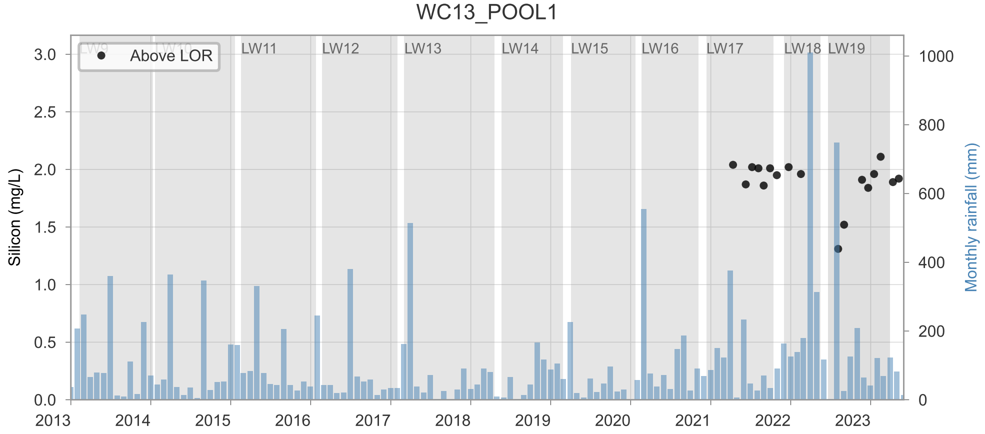

WC12_POOL1
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.00 0.02 0.04 0.06 0.08 0.10 0.12
0 200 400 600 800 1000
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

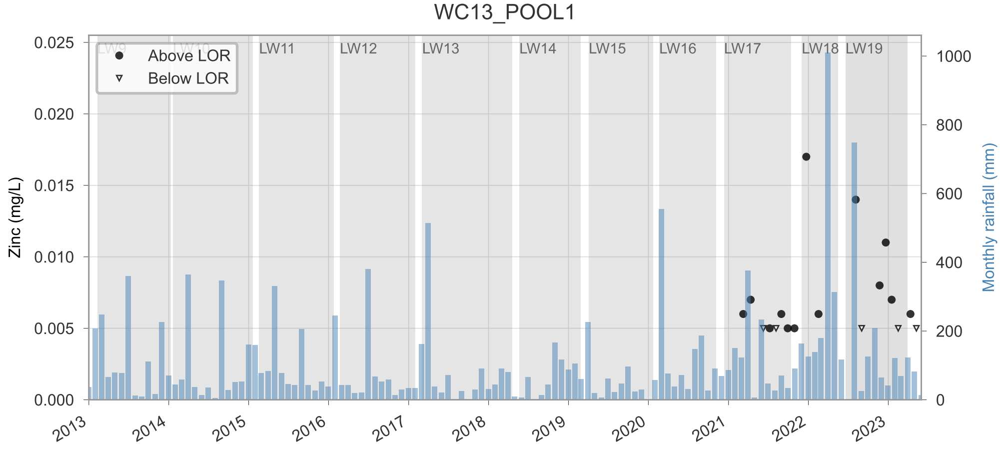

WC13_POOL1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

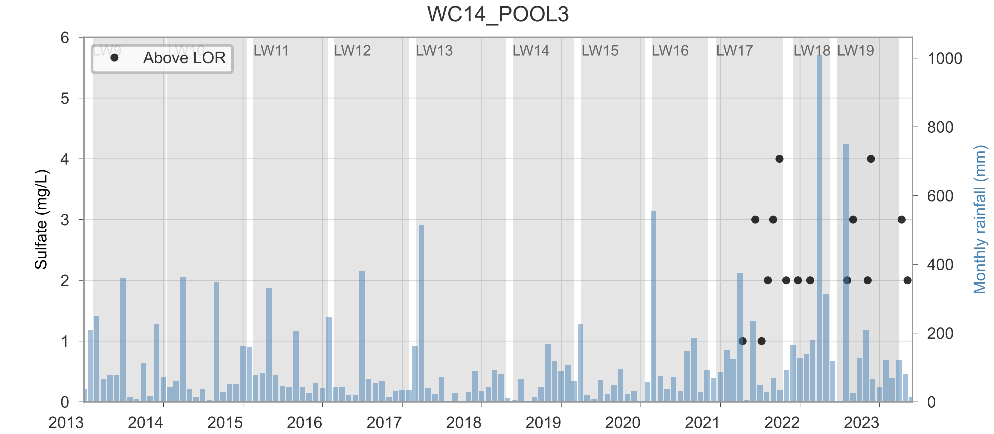

WC13_POOL1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

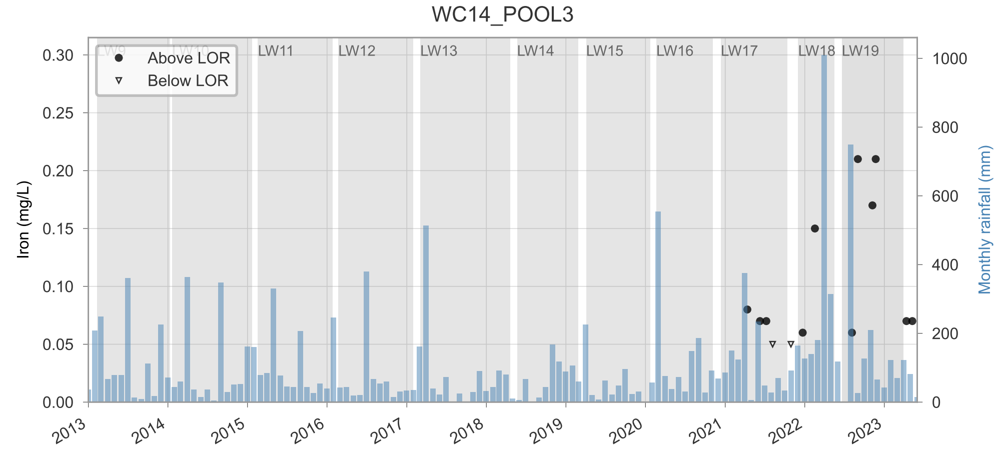

WC13_POOL1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

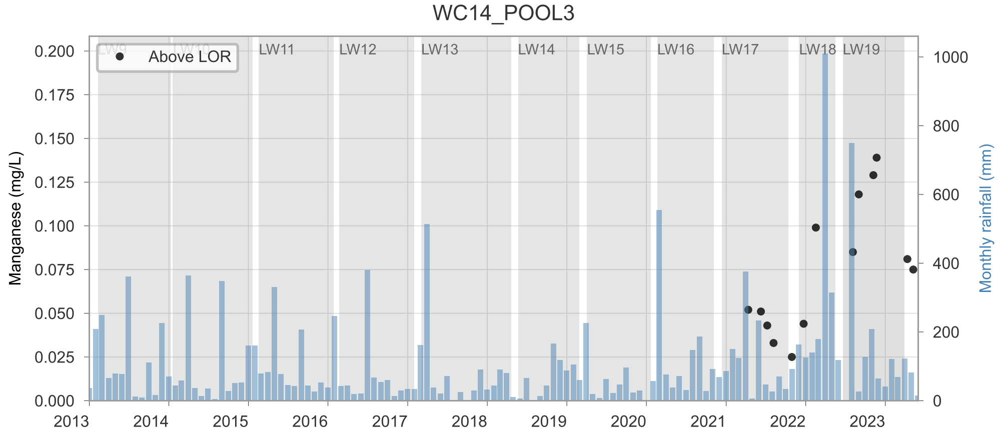

WC13_POOL1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

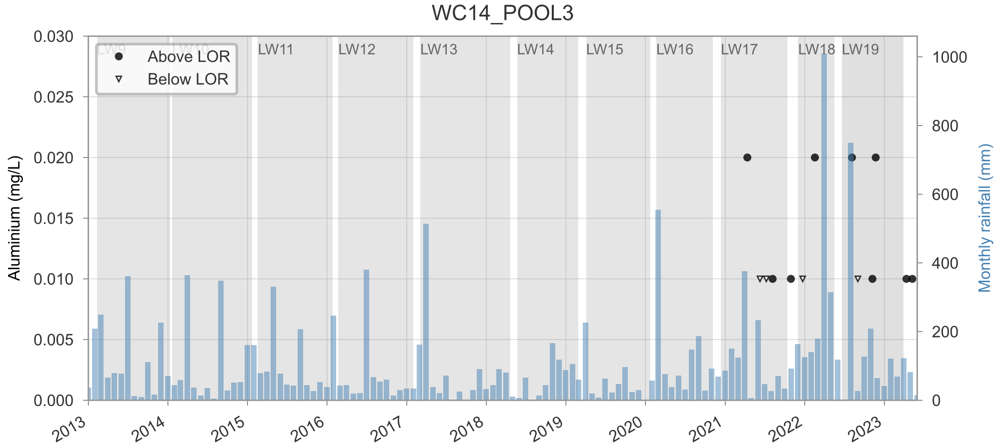

WC13_POOL1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

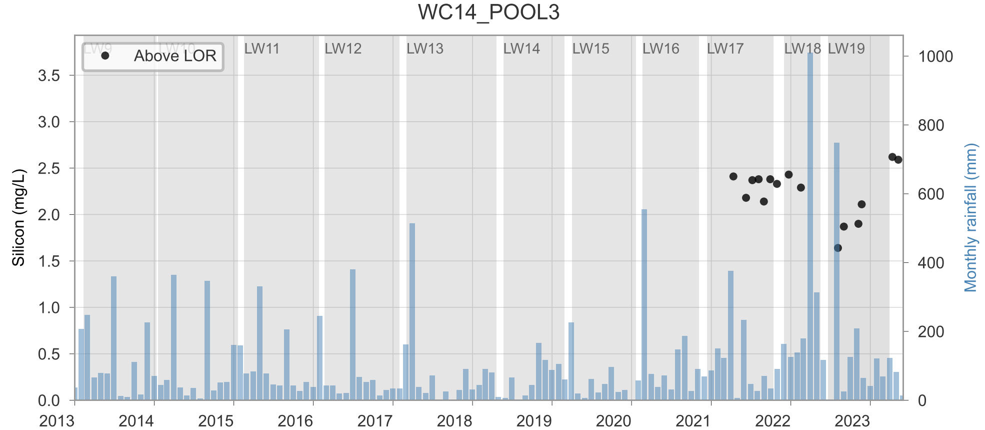

WC13_POOL1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

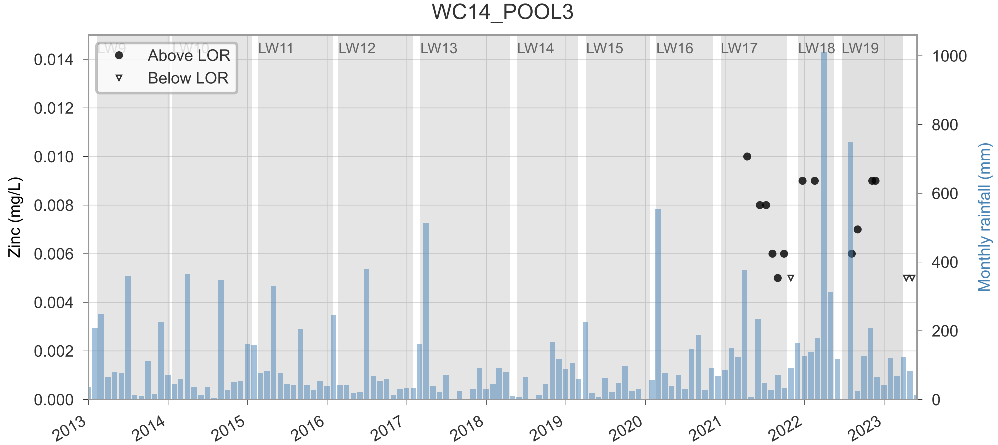

WC14_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

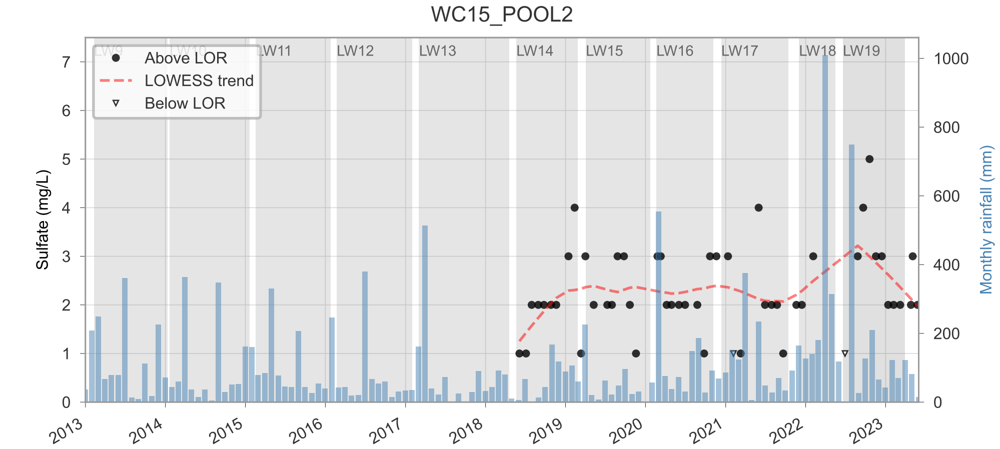

WC14_POOL3
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

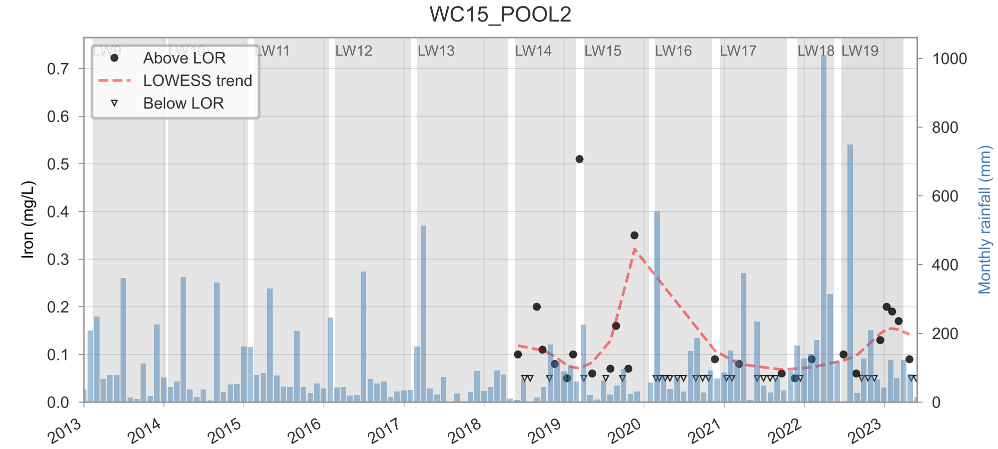

WC14_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

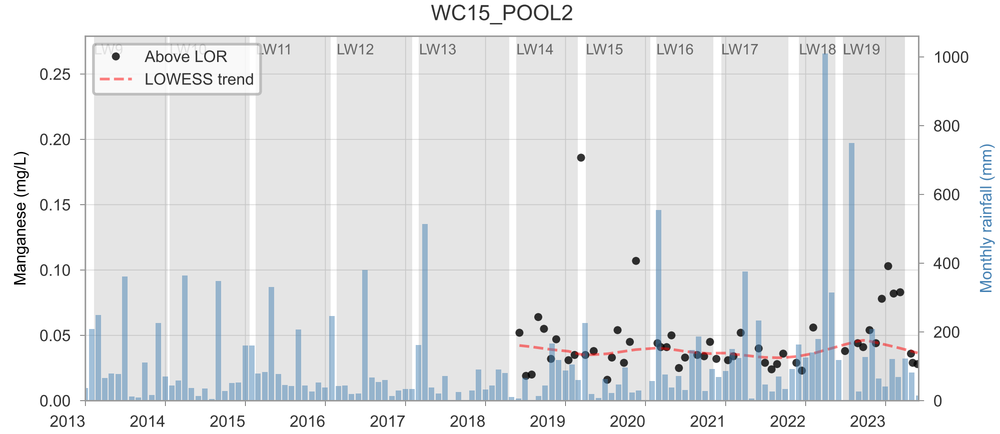

WC14_POOL3
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

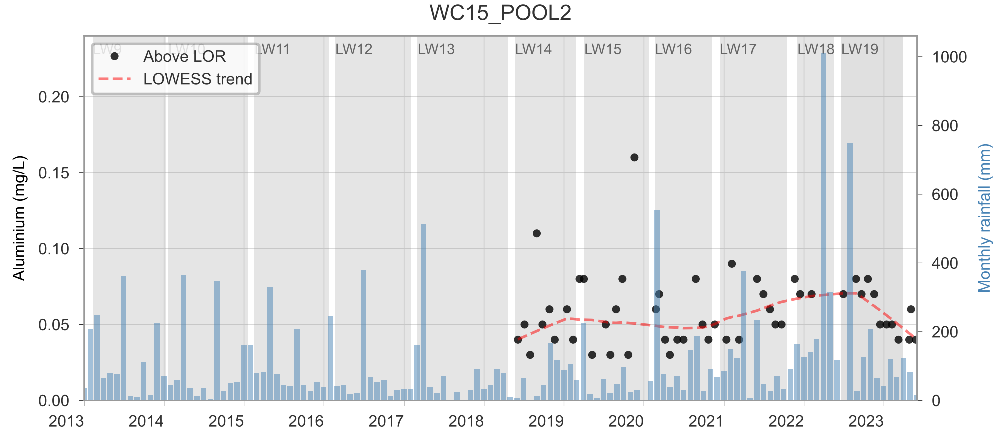

WC14_POOL3
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

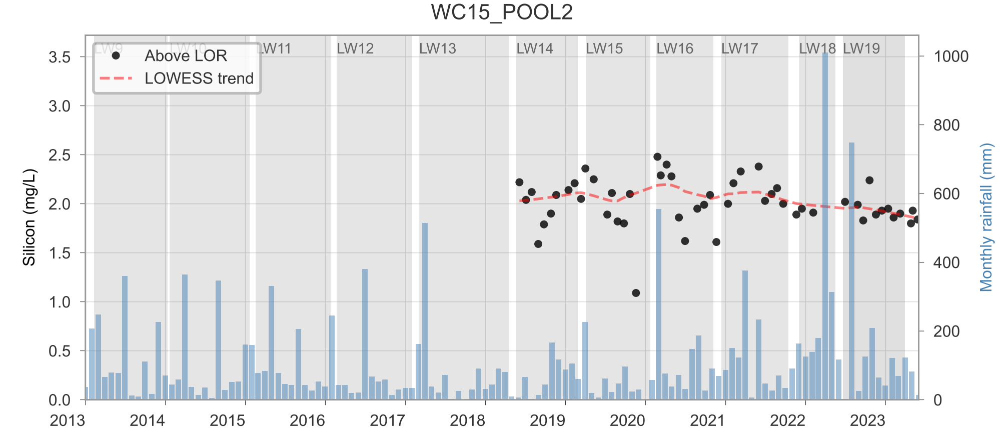

WC14_POOL3
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

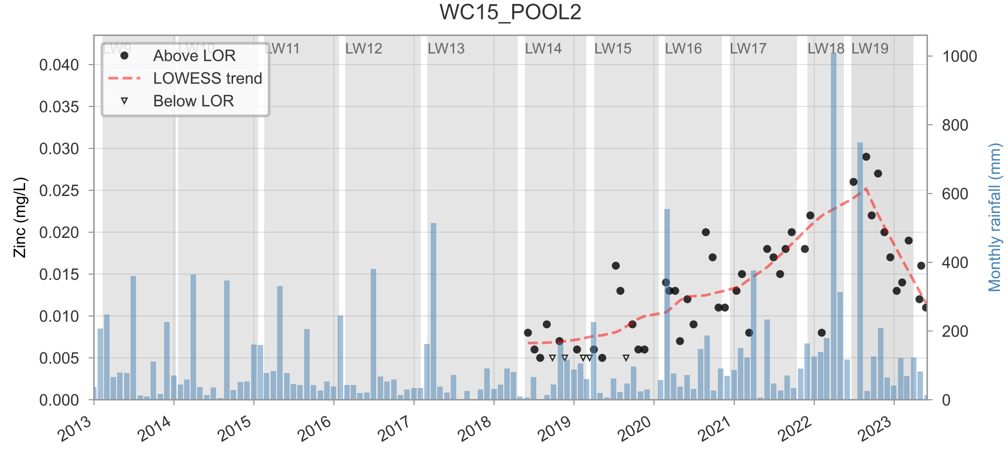

WC15_POOL2
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)

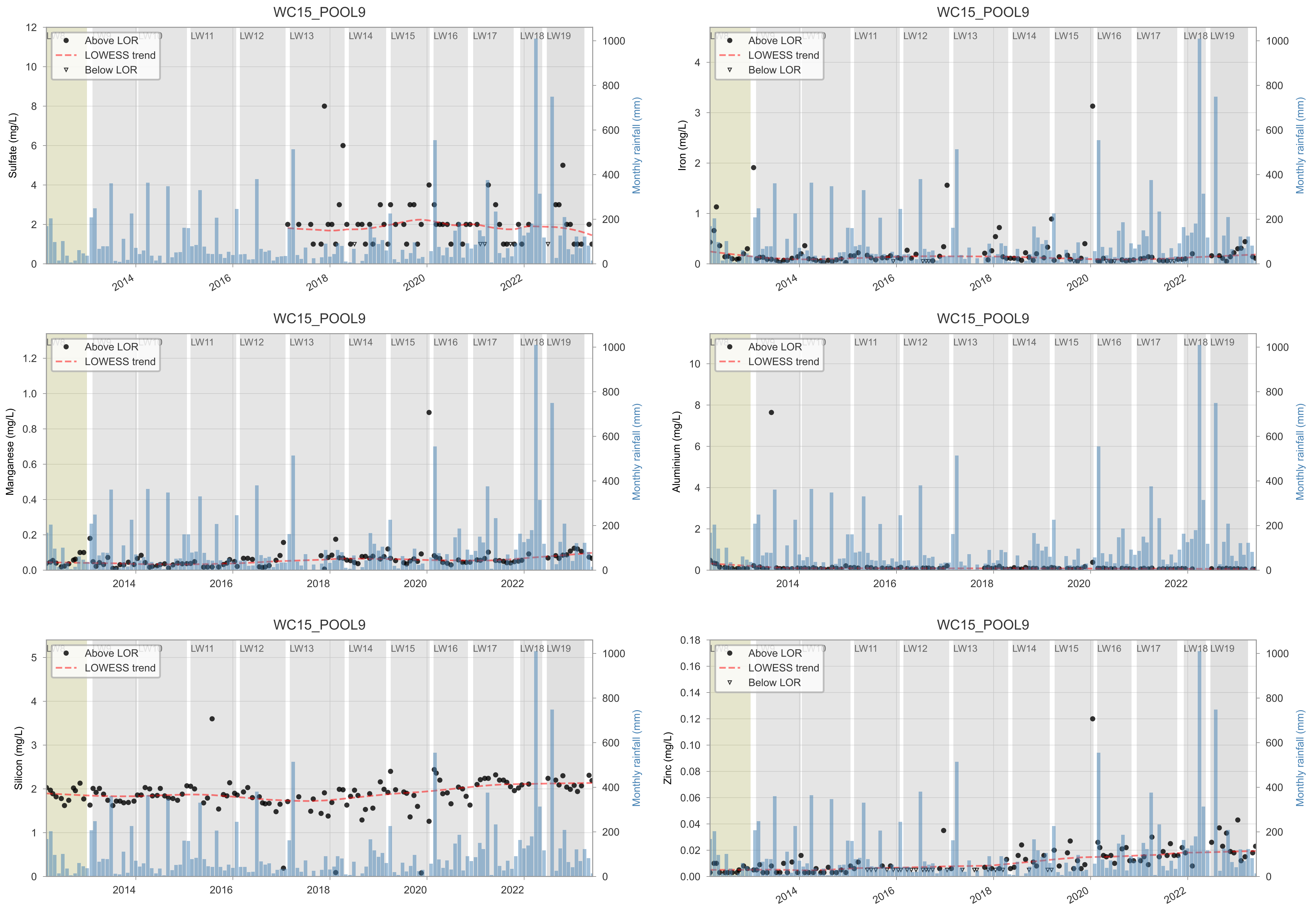

WC15_POOL2
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)


WC15_POOL2
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)

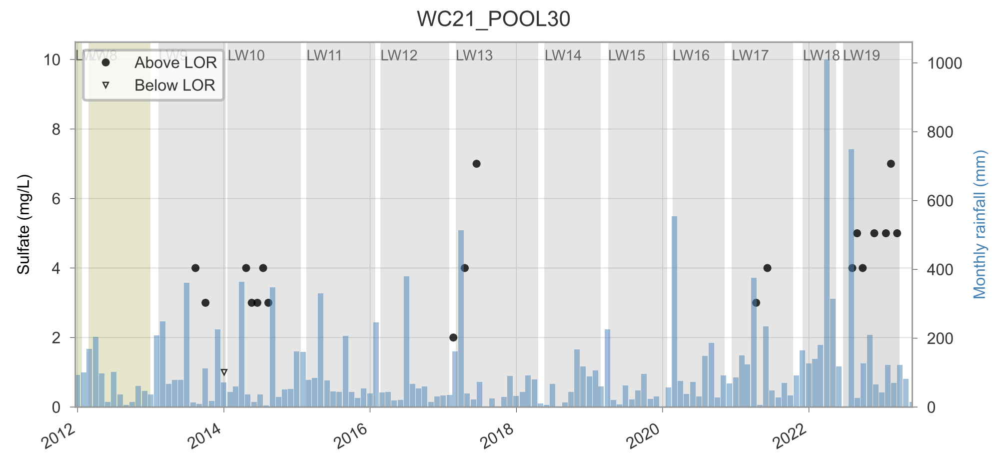

WC15_POOL2
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)

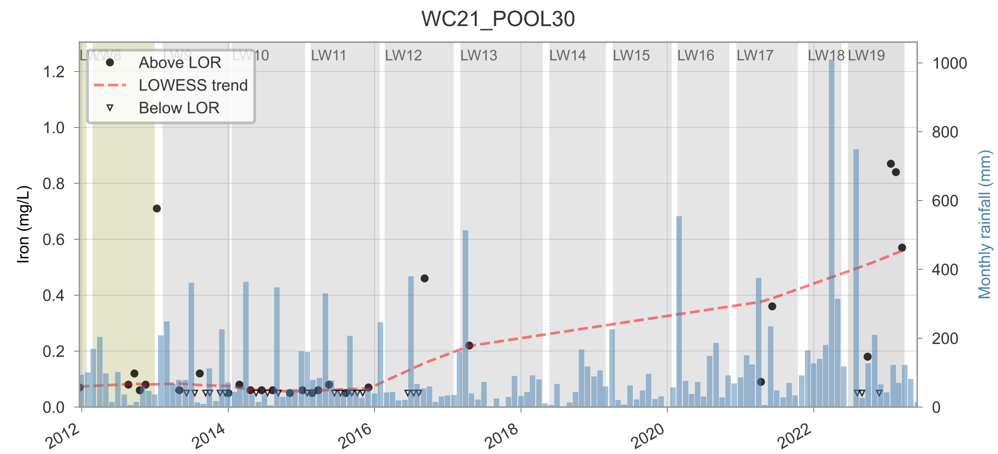

WC15_POOL2
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)

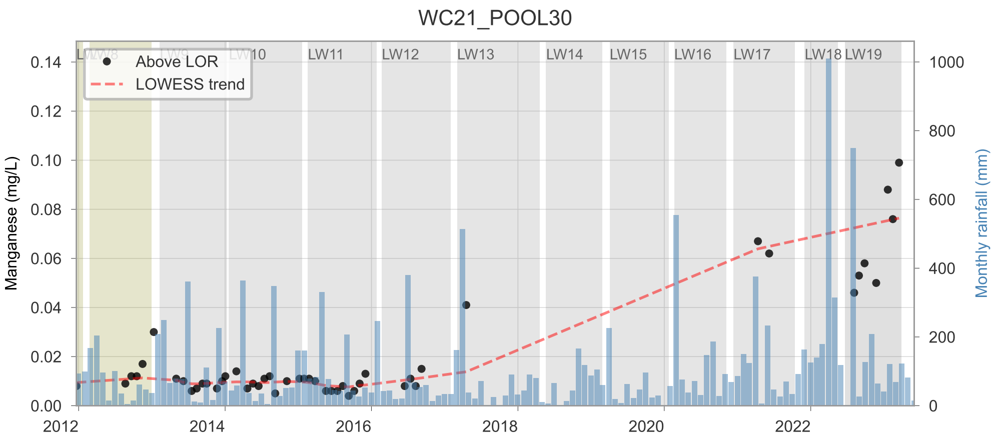

WC15_POOL2
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)

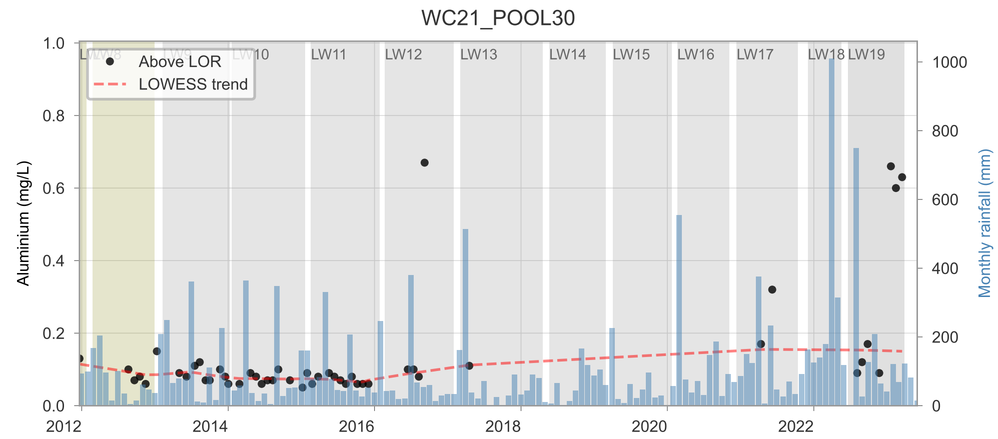


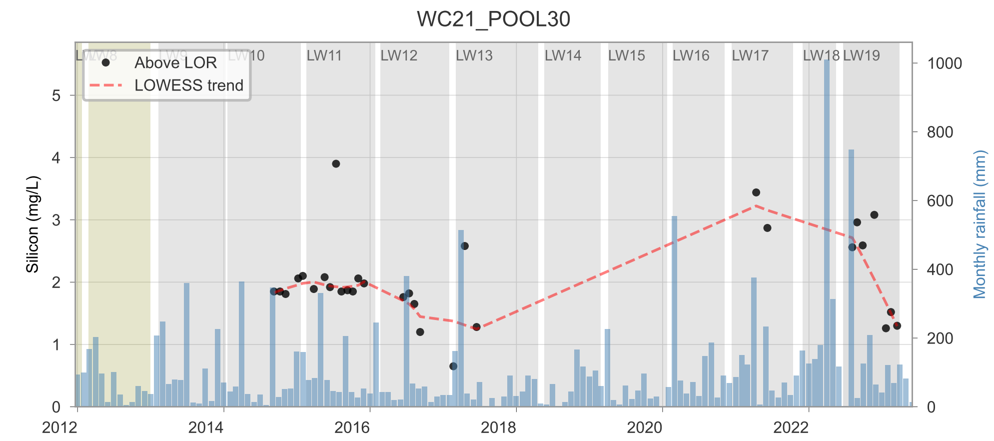
WC15_POOL9
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022
WC15_POOL9
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
WC15_POOL9
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
WC15_POOL9
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
WC15_POOL9
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
WC15_POOL9
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR

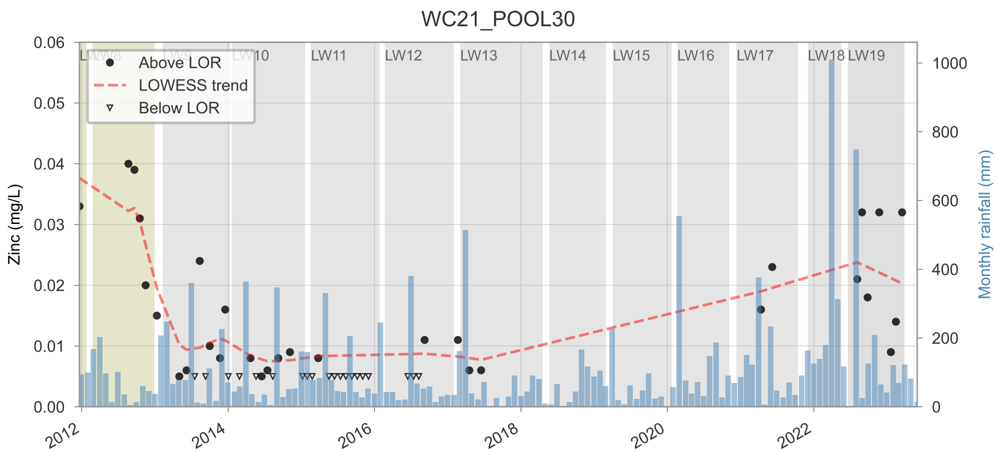

WC21_POOL30
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

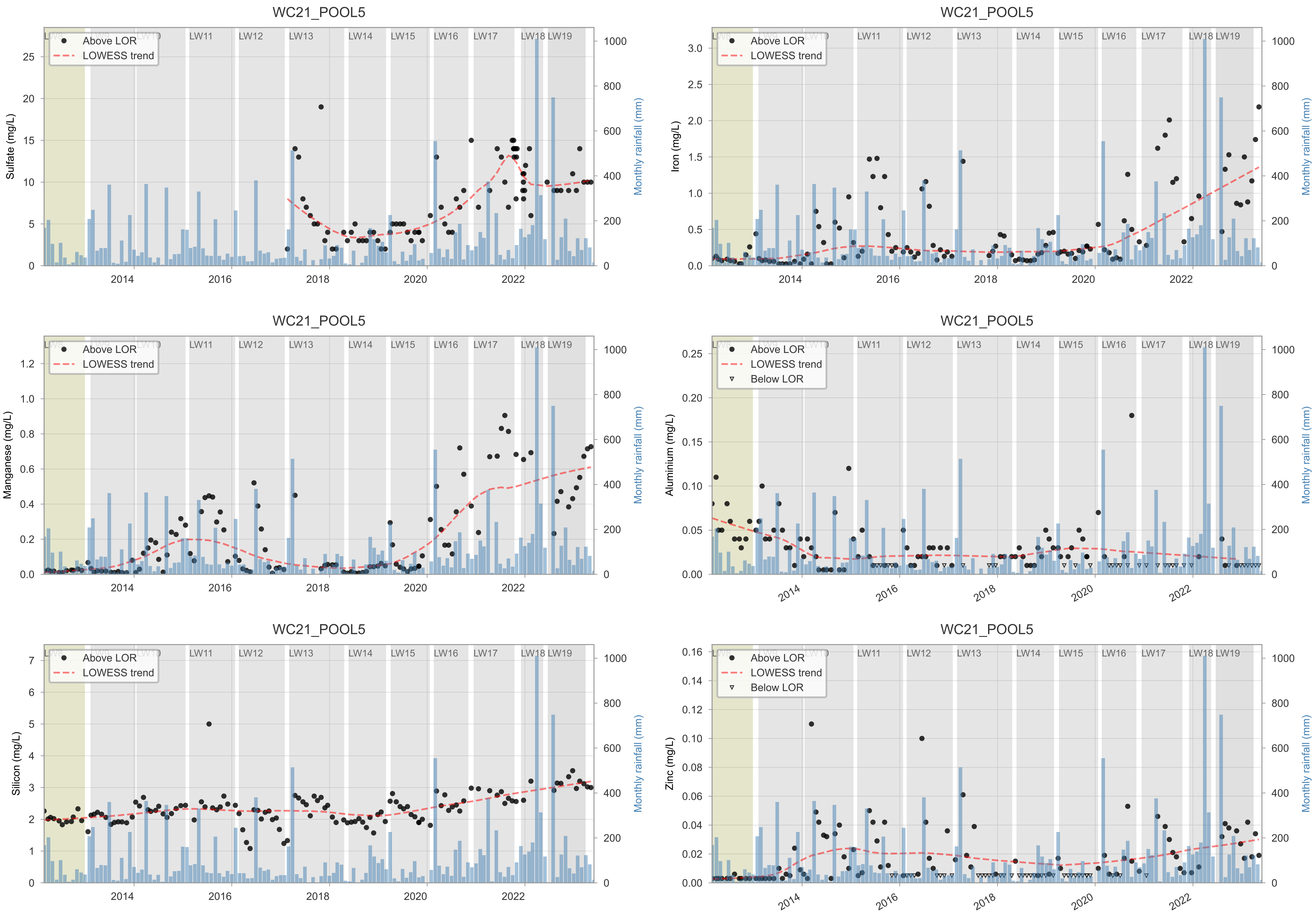

WC21_POOL30
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

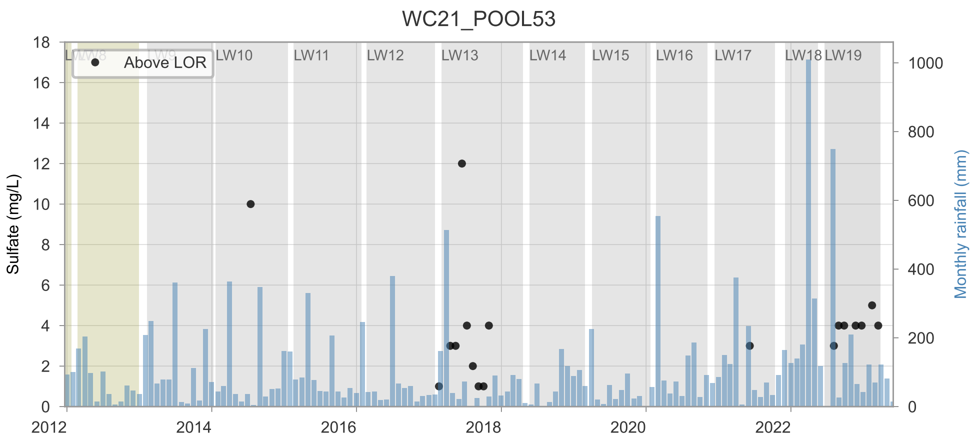
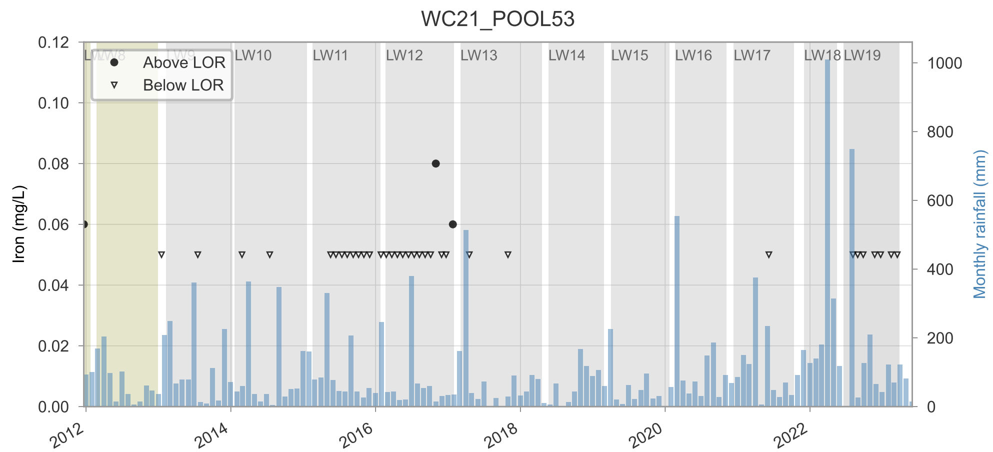
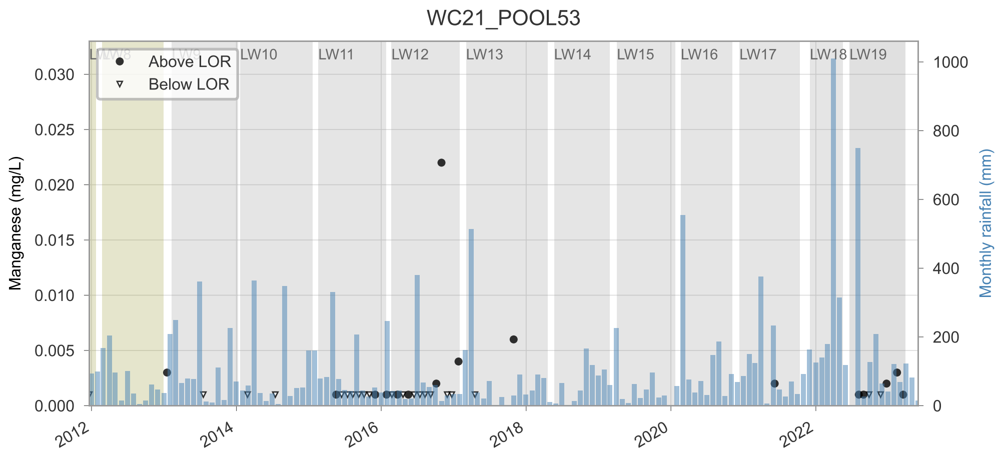
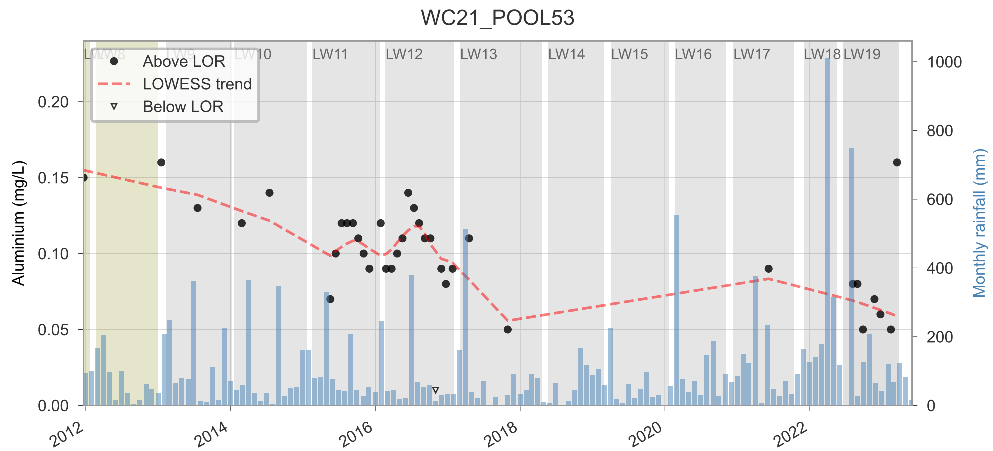
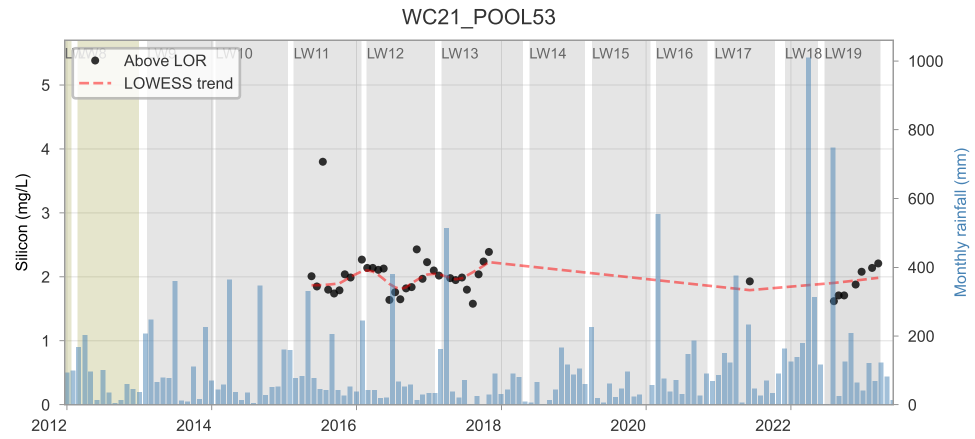
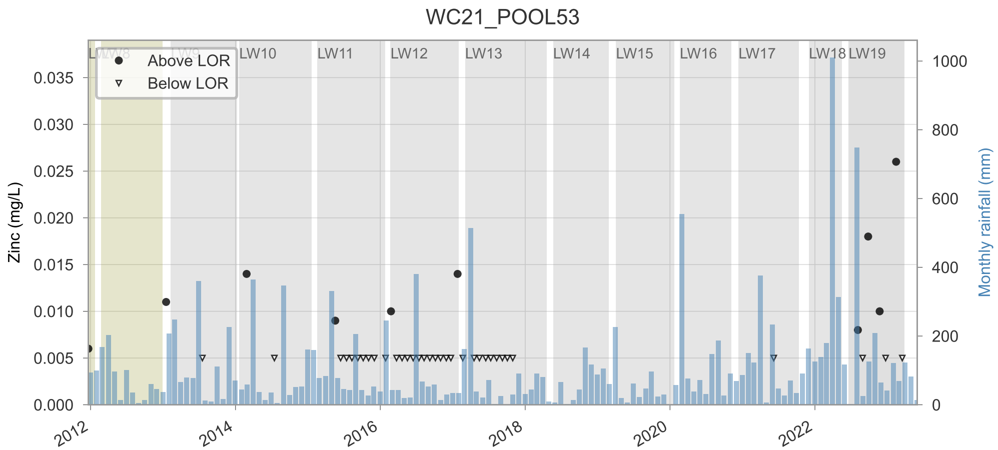

WC21_POOL30
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

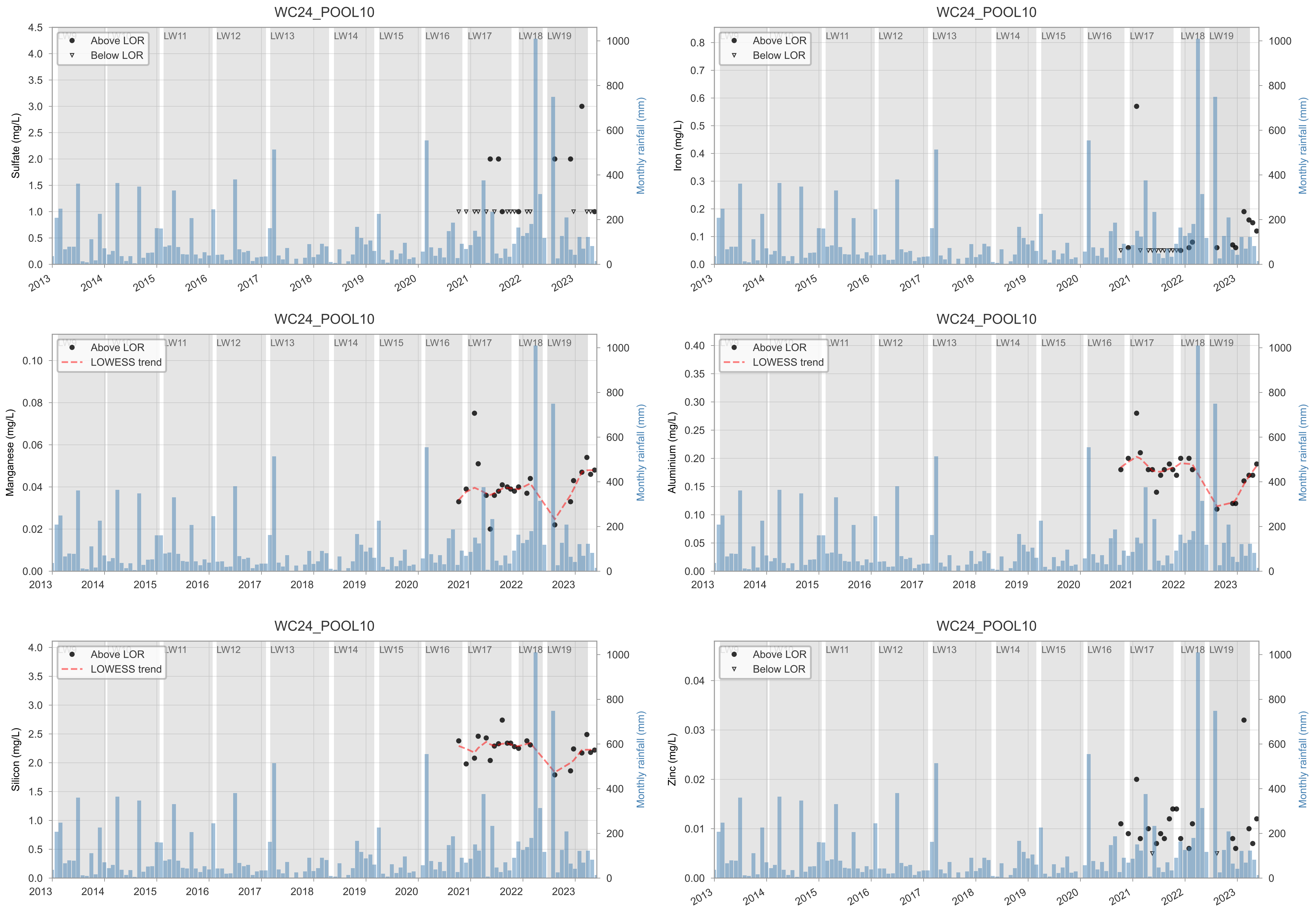

WC21_POOL30
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

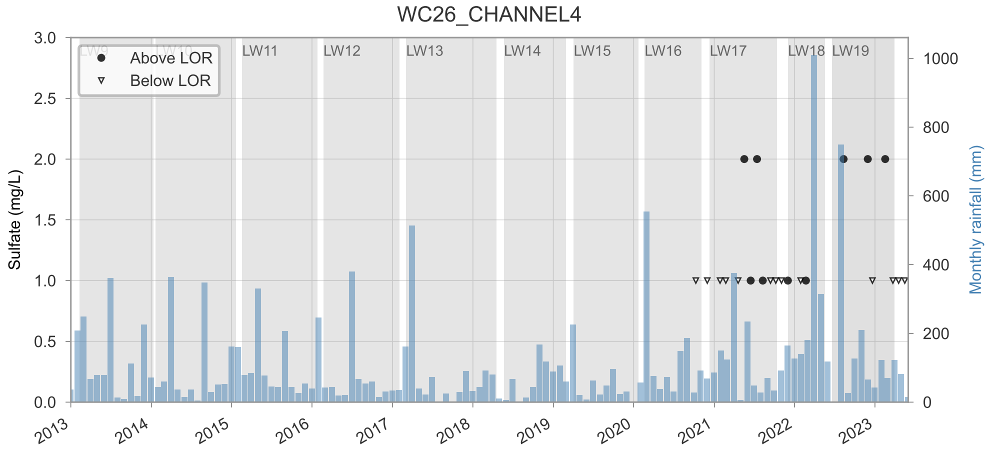

WC21_POOL30
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

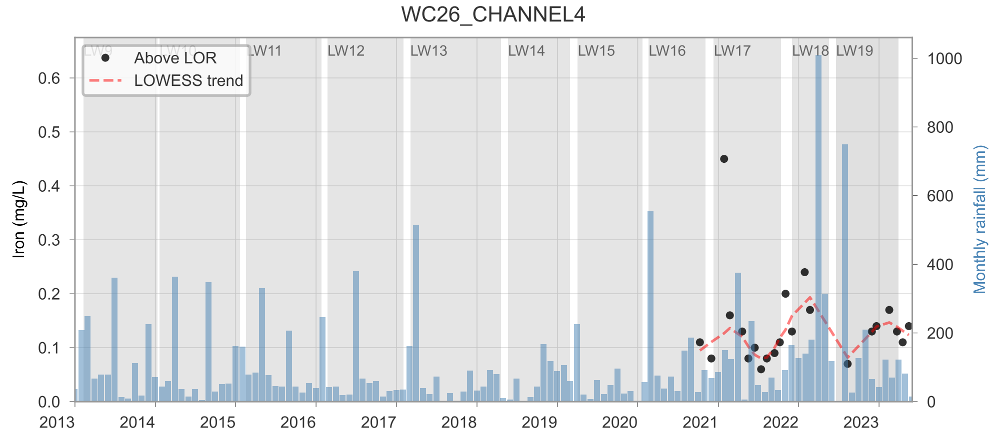

WC21_POOL30
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
2012 2014 2016 2018 2020 2022

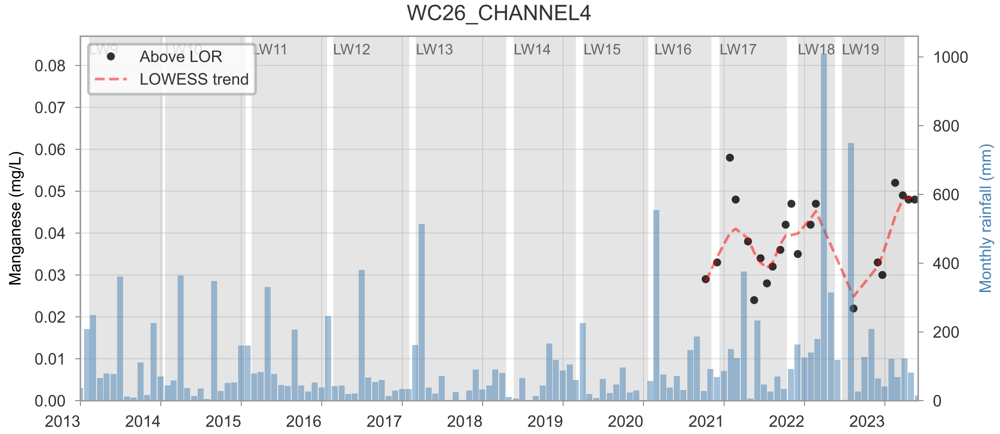

WC21_POOL5
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2014
2016
2018
2020
2022

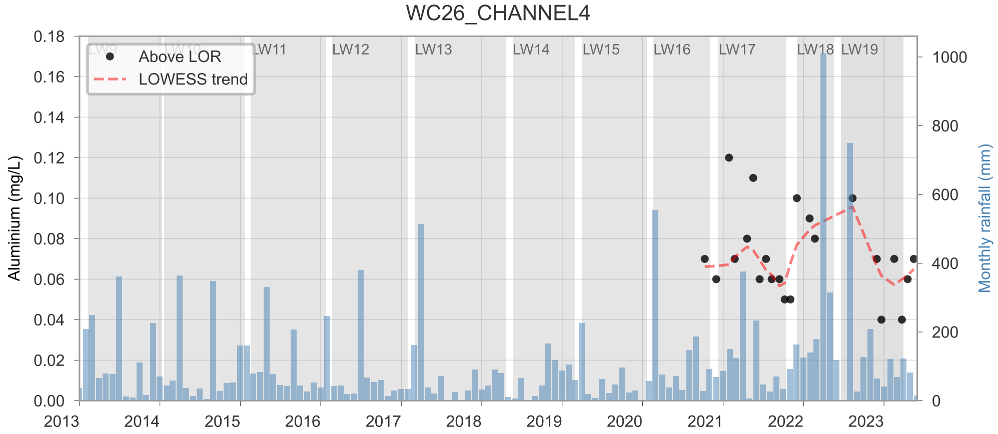

WC21_POOL53
Above LOR
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)

WC21_POOL53
Above LOR
Below LOR
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)

WC21_POOL53
Above LOR
Below LOR
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)

WC21_POOL53
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)

WC21_POOL53
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)

WC21_POOL53
Above LOR
Below LOR
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)

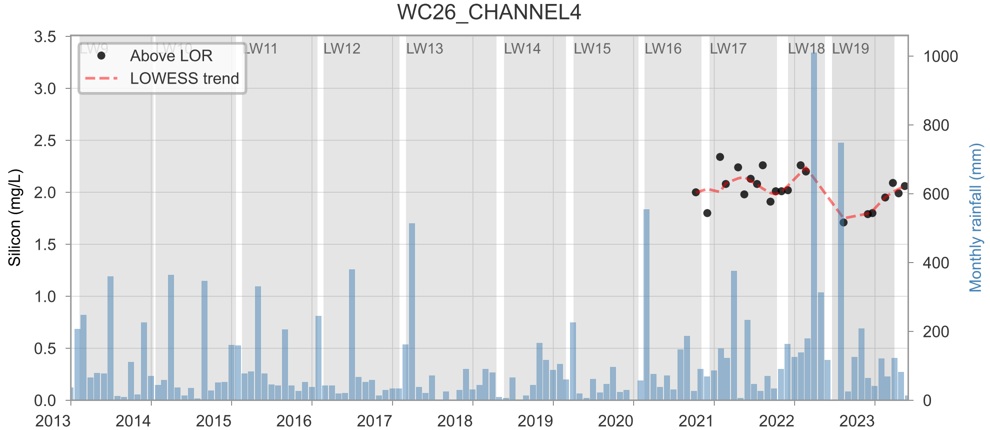

WC24_POOL10
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

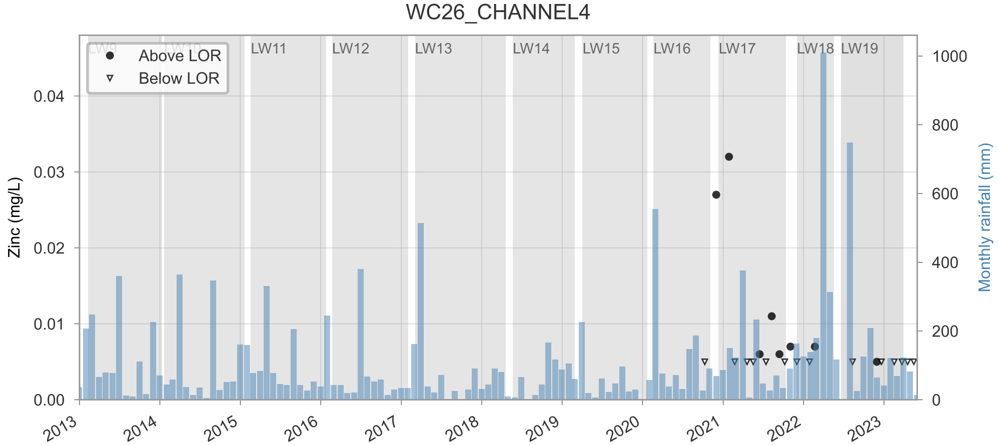

WC26_CHANNEL4
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

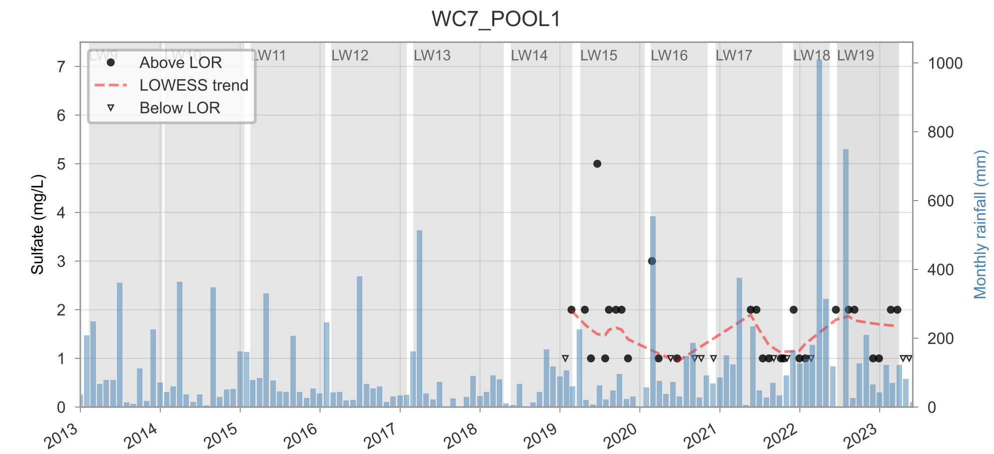

WC26_CHANNEL4
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

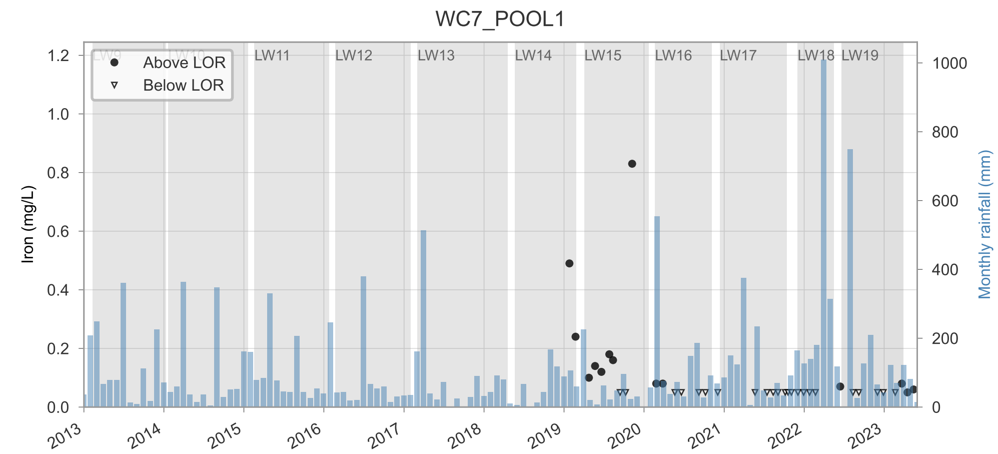

WC26_CHANNEL4
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

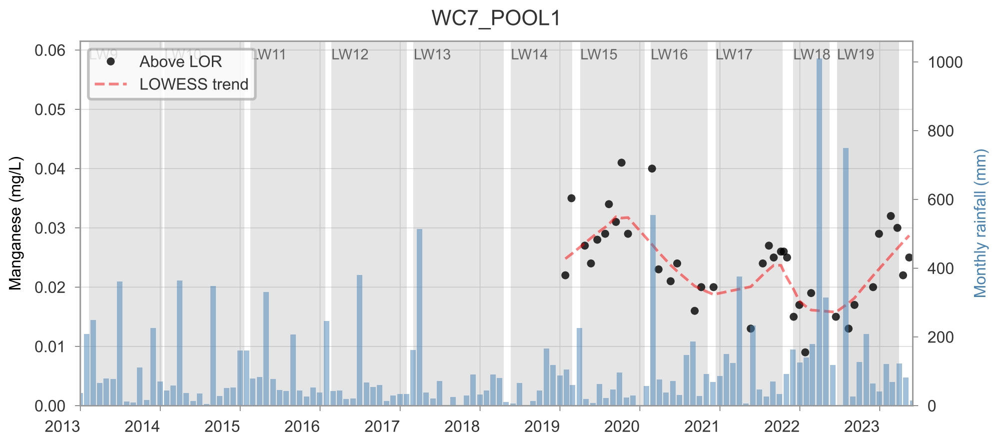

WC26_CHANNEL4
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

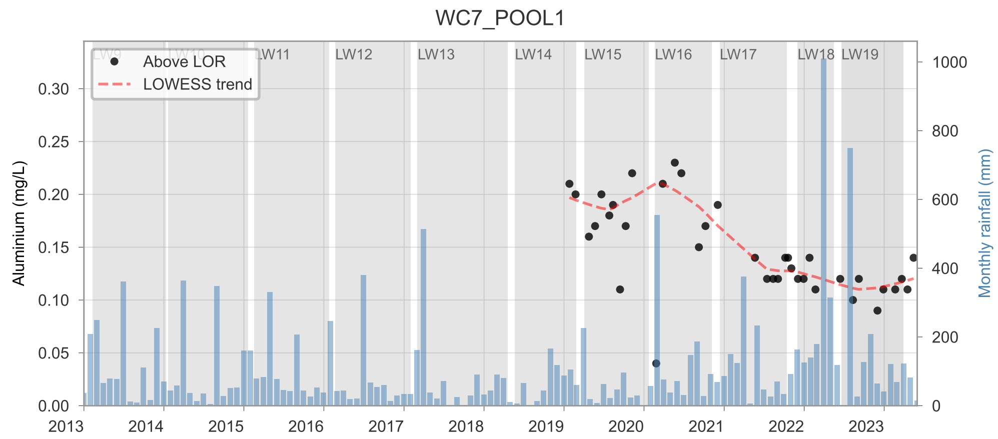

WC26_CHANNEL4
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

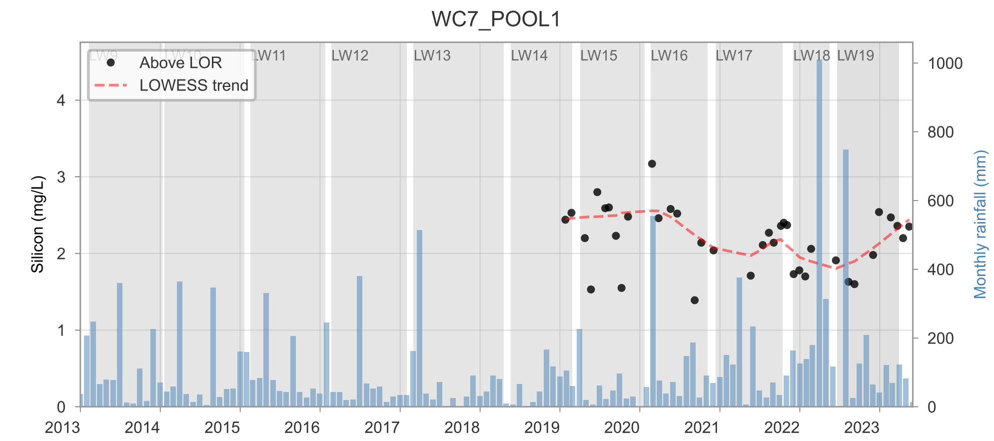

WC26_CHANNEL4
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

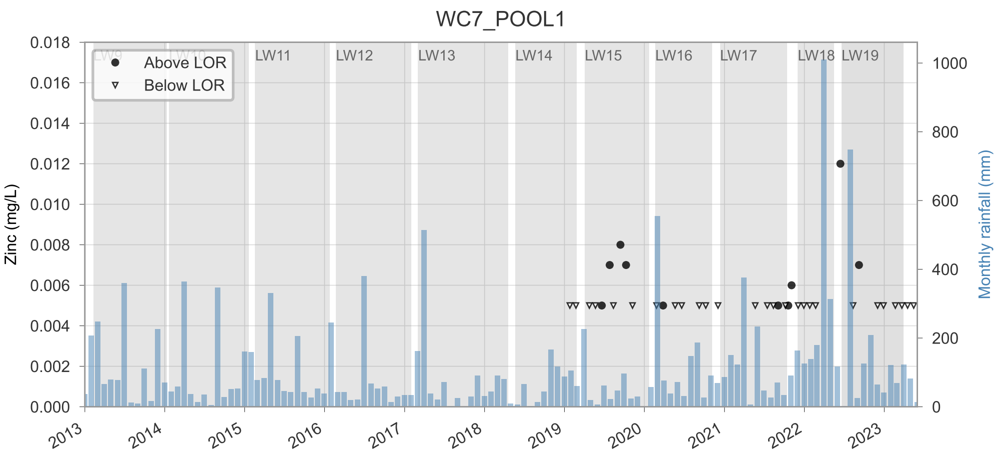

WC7_POOL1
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

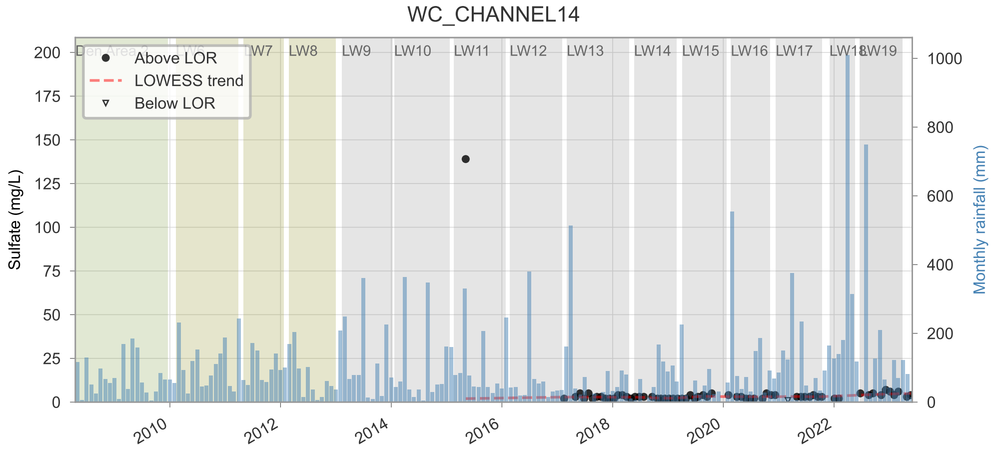

WC7_POOL1
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Iron (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

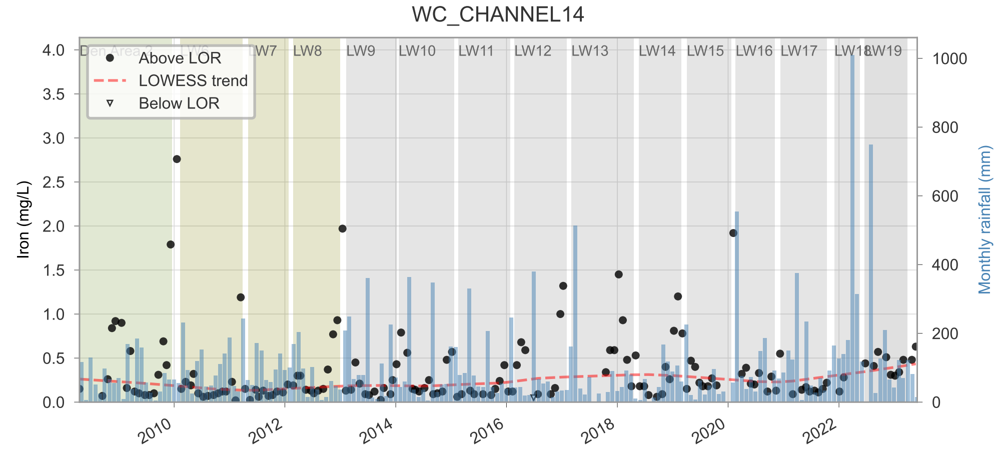

WC7_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Manganese (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

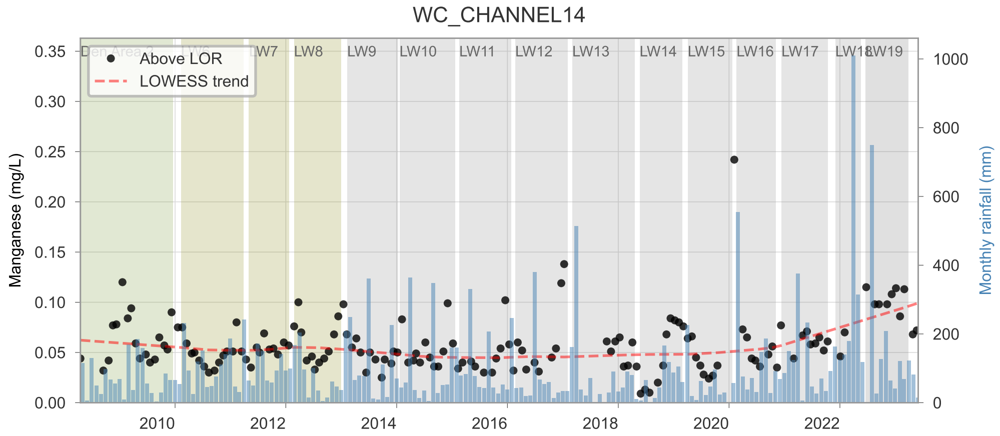

WC7_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

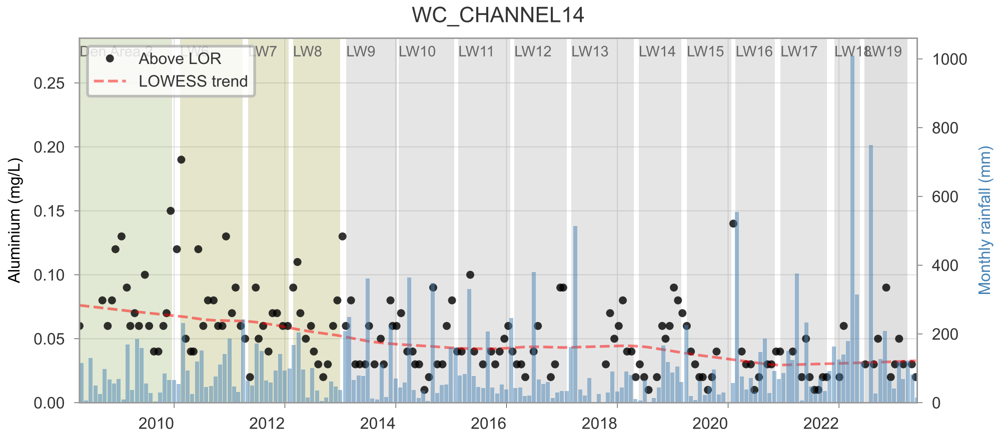

WC7_POOL1
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Silicon (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

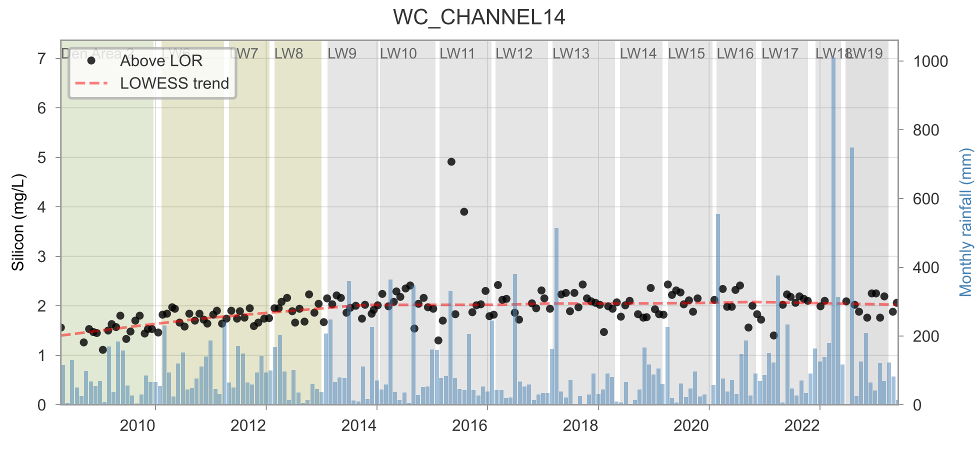

WC7_POOL1
Above LOR
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
Zinc (mg/L)
Monthly rainfall (mm)
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

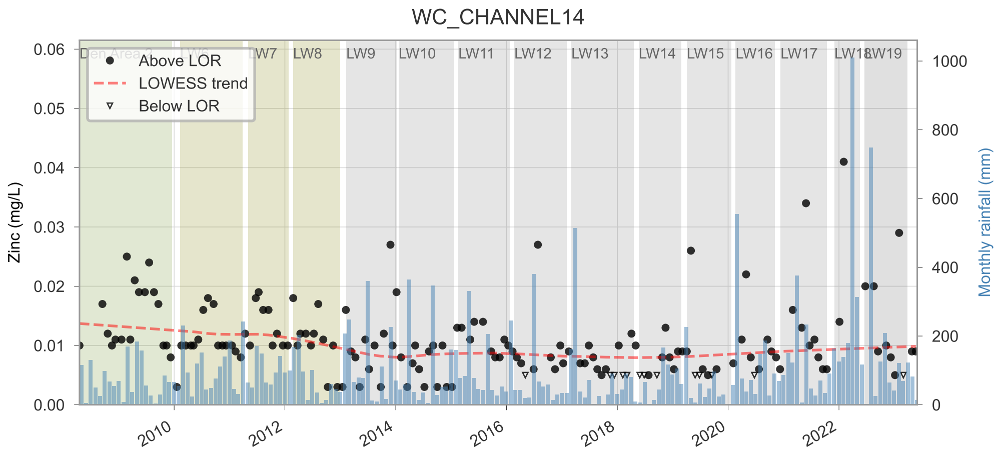

WC_CHANNEL14
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

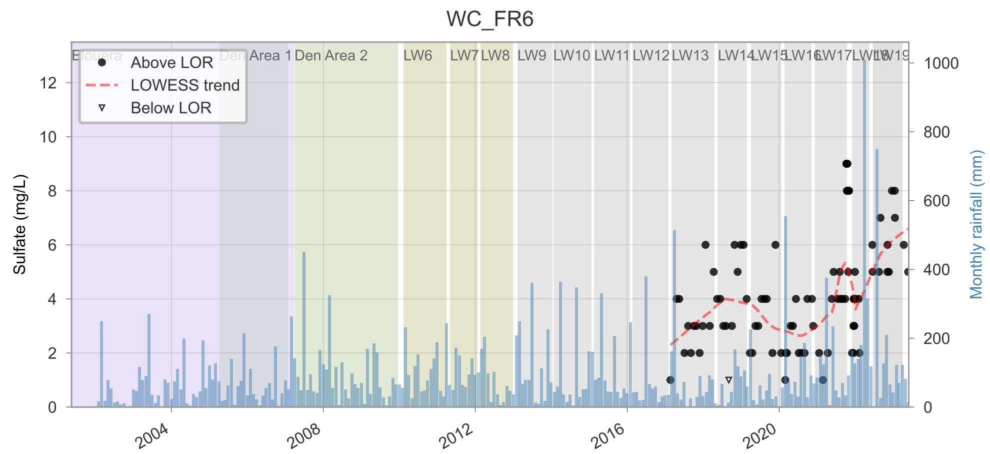

WC_CHANNEL14
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

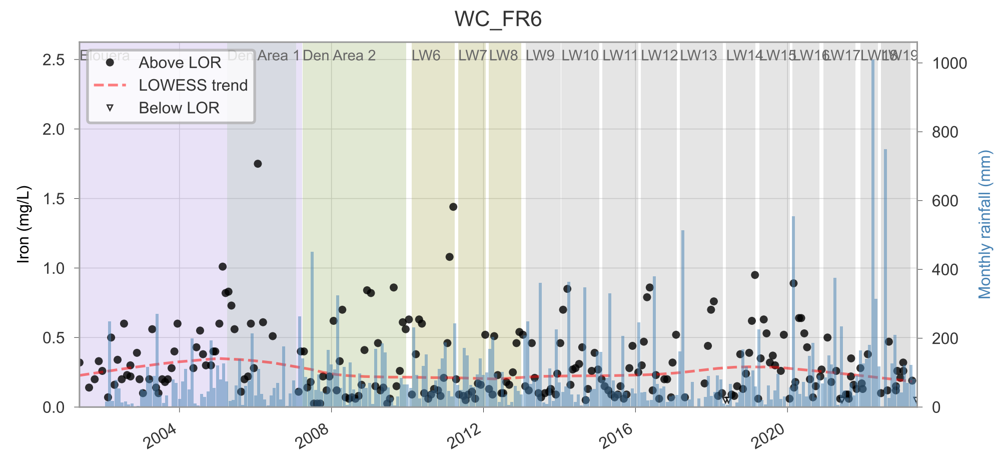

WC_CHANNEL14
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

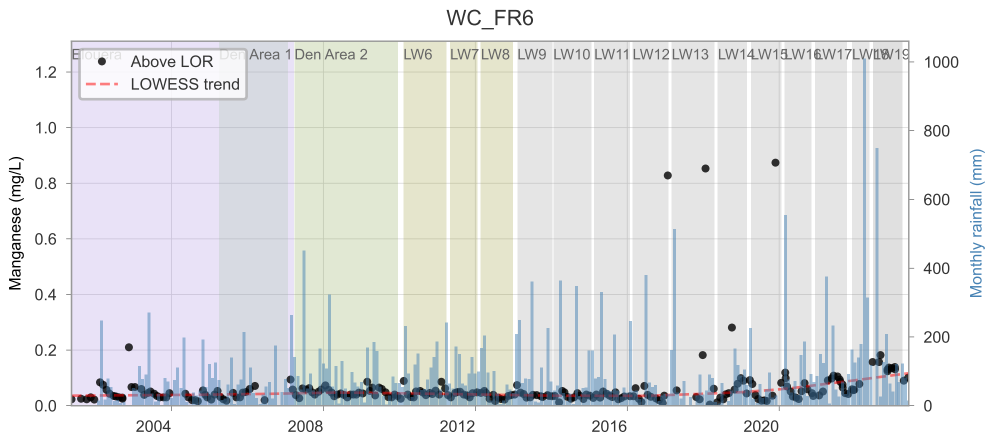

WC_CHANNEL14
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

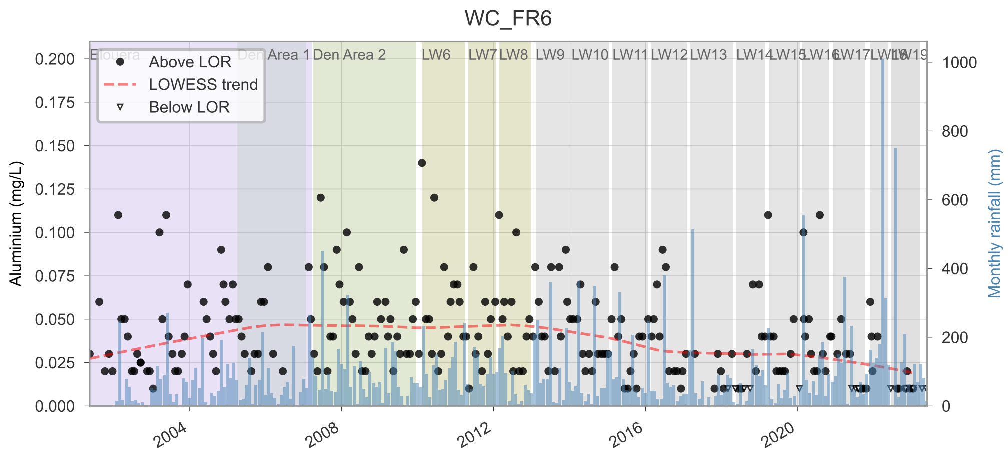

WC_CHANNEL14
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

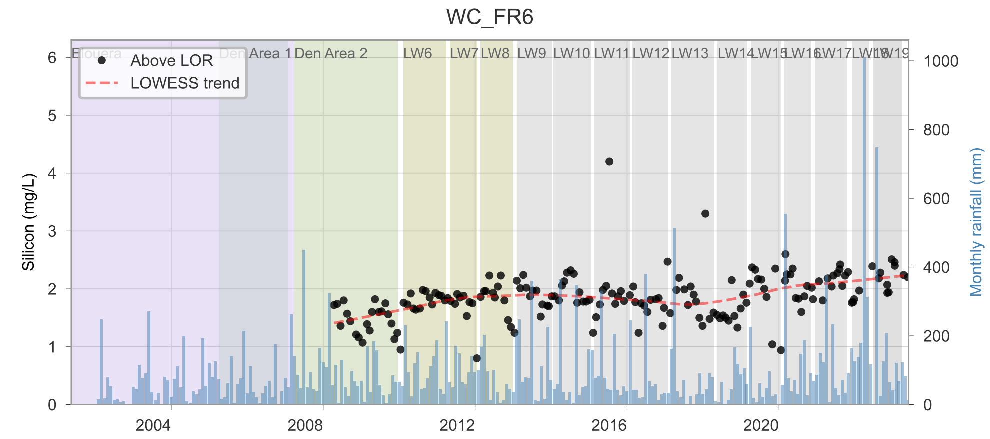

WC_CHANNEL14
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

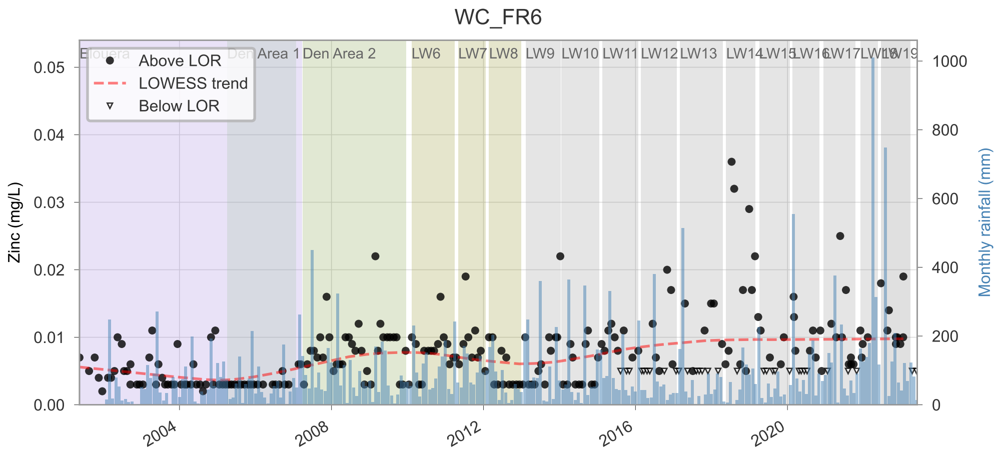

WC_FR6
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Sulfate (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

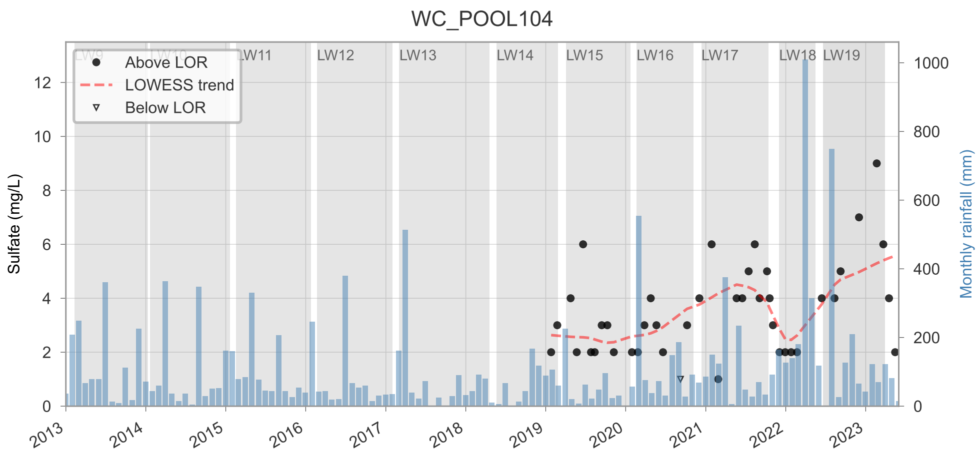

WC_FR6
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Iron (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

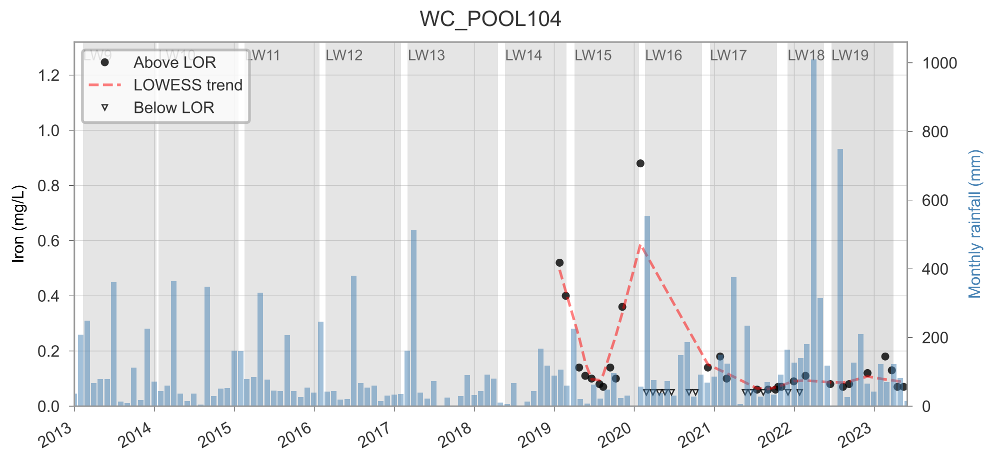

WC_FR6
Above LOR
LOWESS trend
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Manganese (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

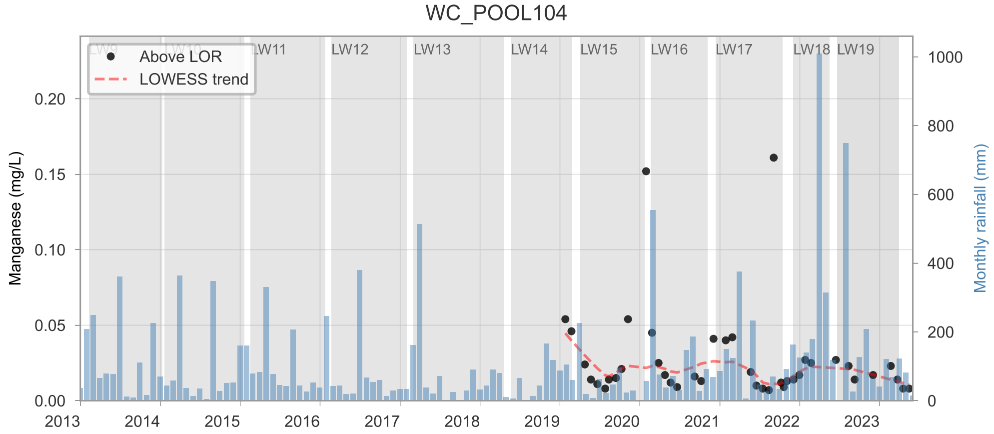

WC_FR6
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Aluminium (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

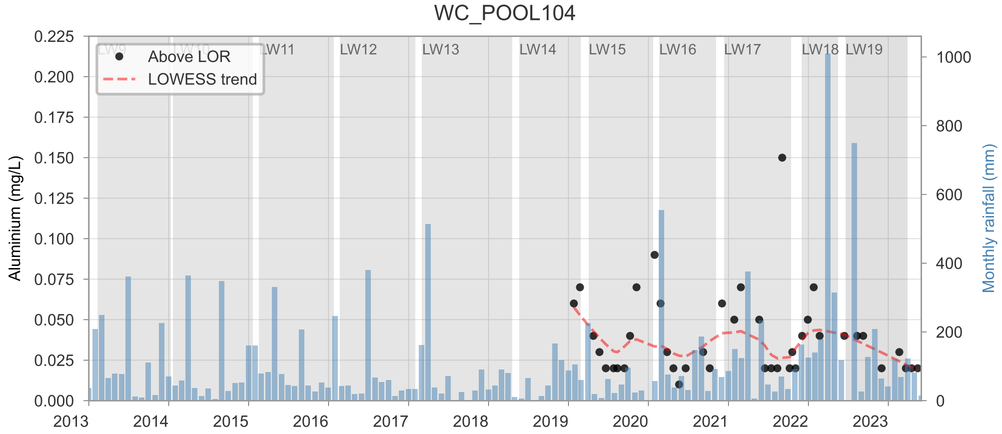

WC_FR6
Above LOR
LOWESS trend
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Silicon (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

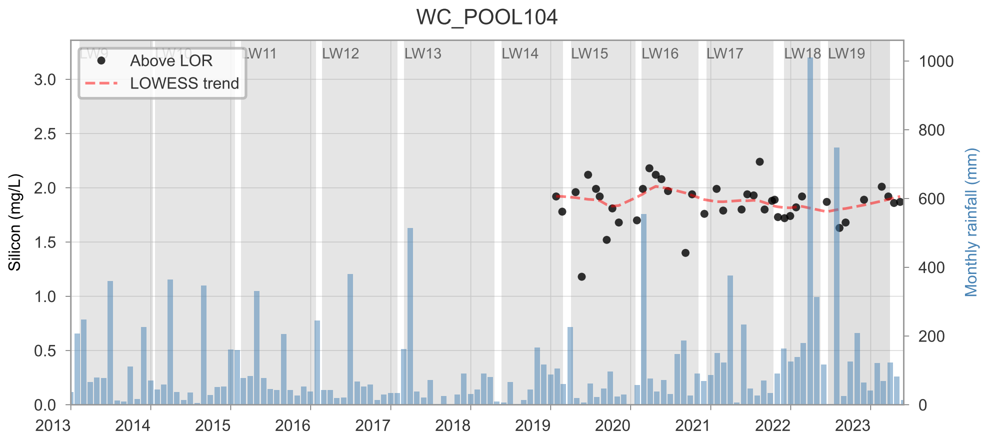

WC_FR6
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
Zinc (mg/L)
Monthly rainfall (mm)
2004
2008
2012
2016
2020

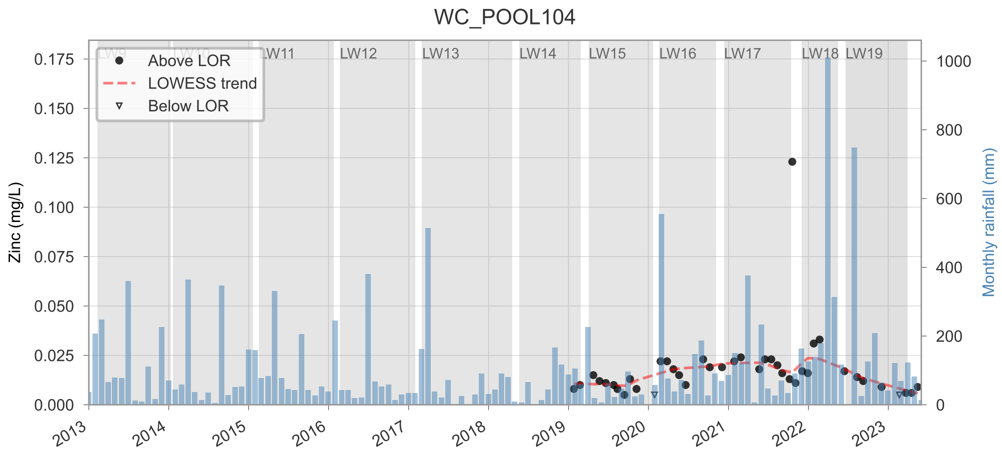

WC_POOL104
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

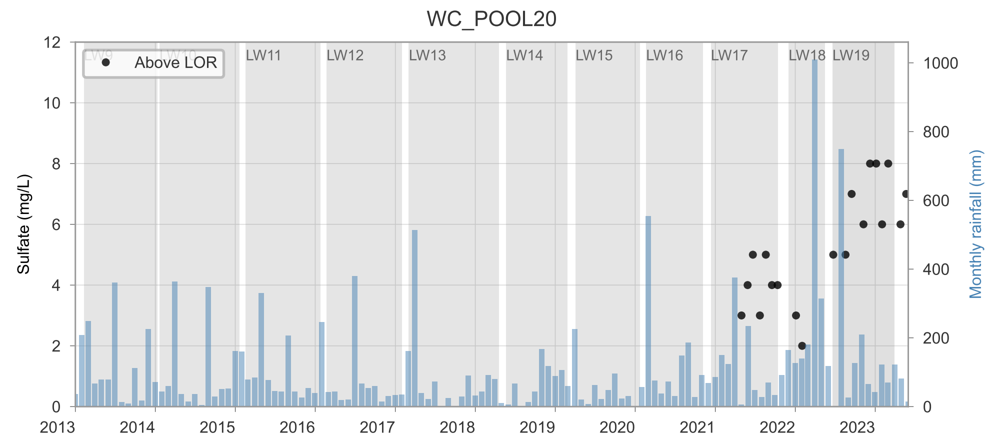

WC_POOL104
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

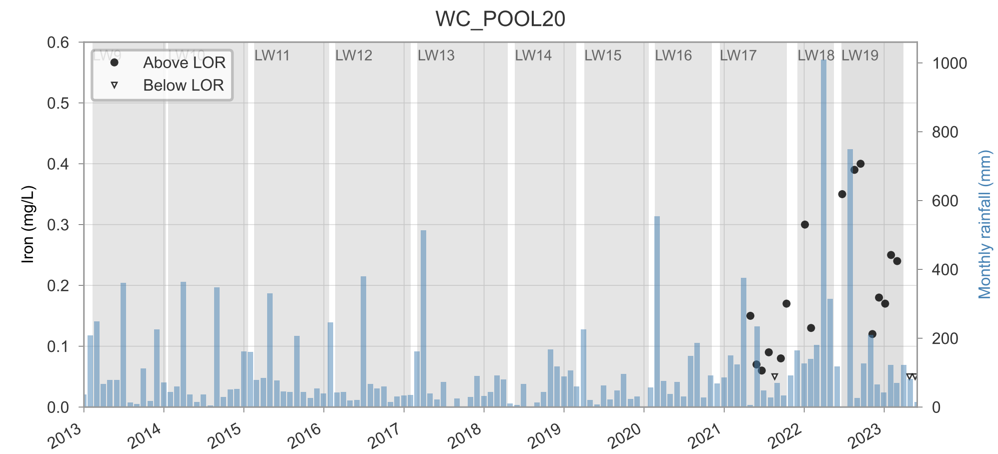

WC_POOL104
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

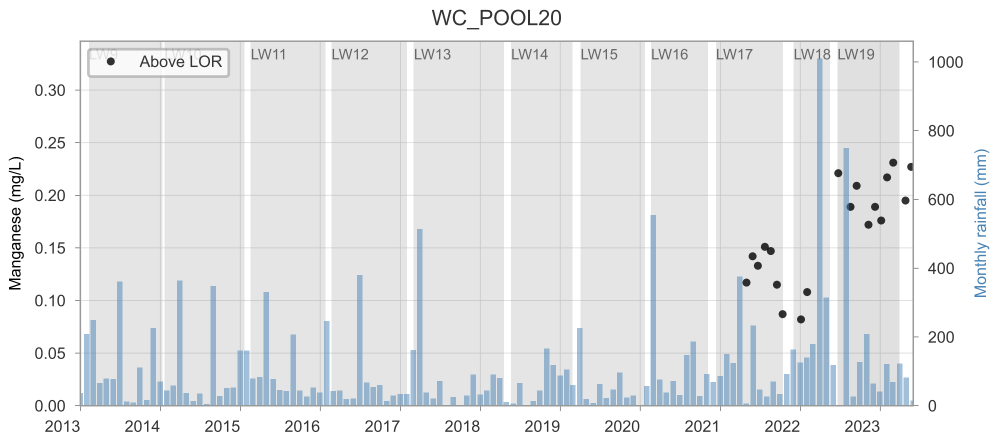

WC_POOL104
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

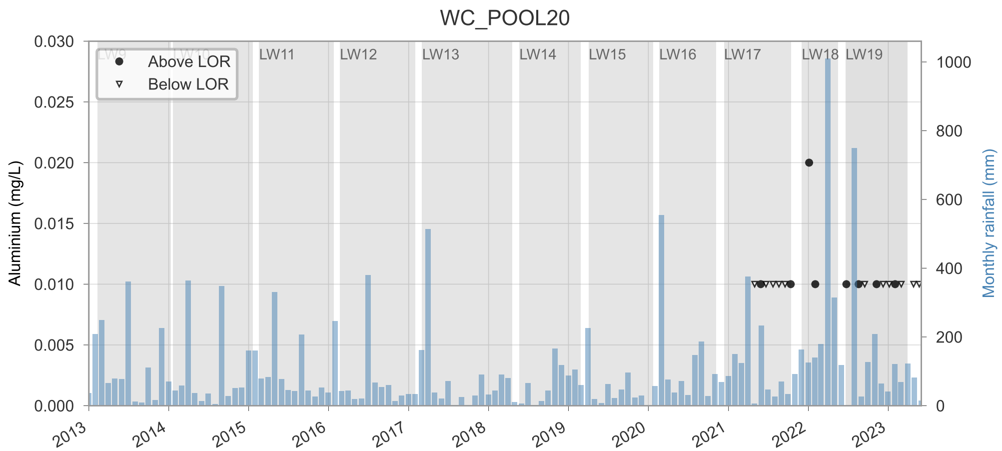

WC_POOL104
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

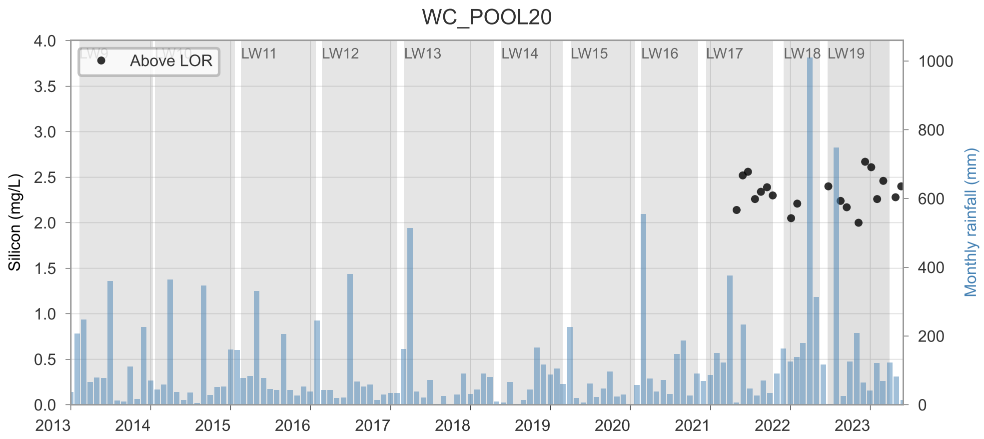

WC_POOL104
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19

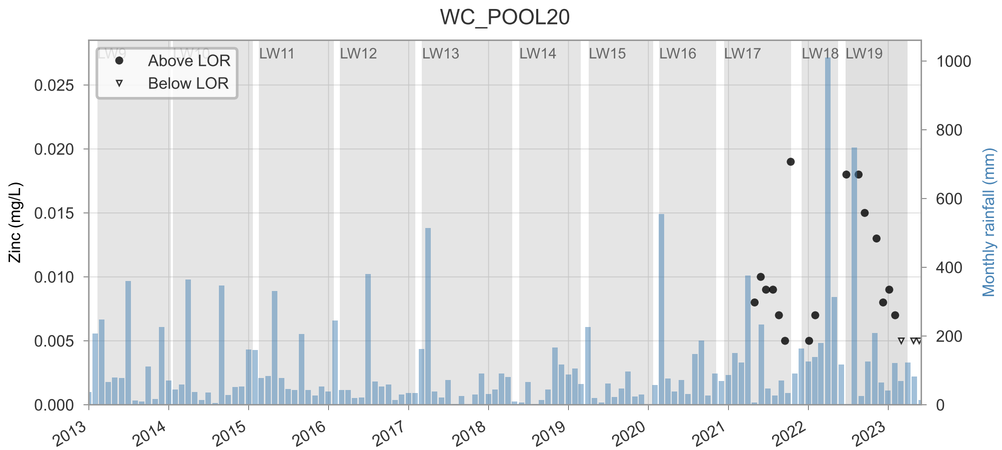

WC_POOL20
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
0
2
4
6
8
10
12
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

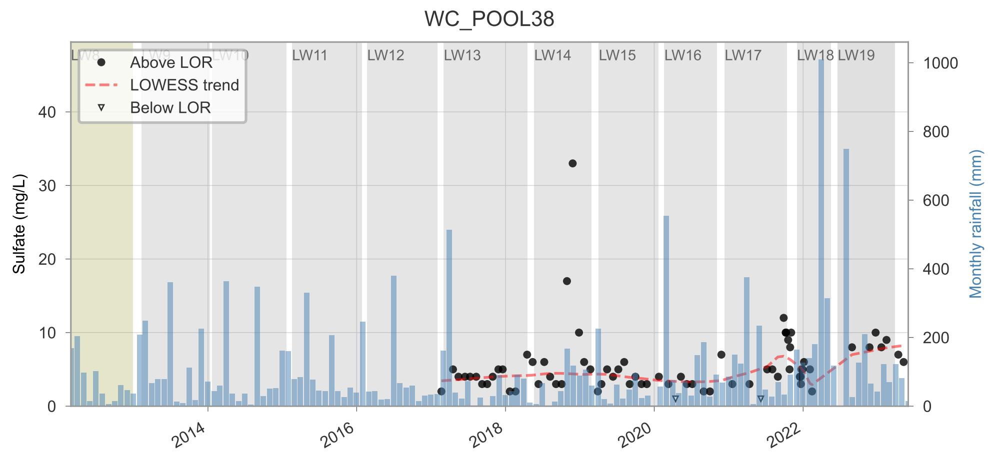

WC_POOL20
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

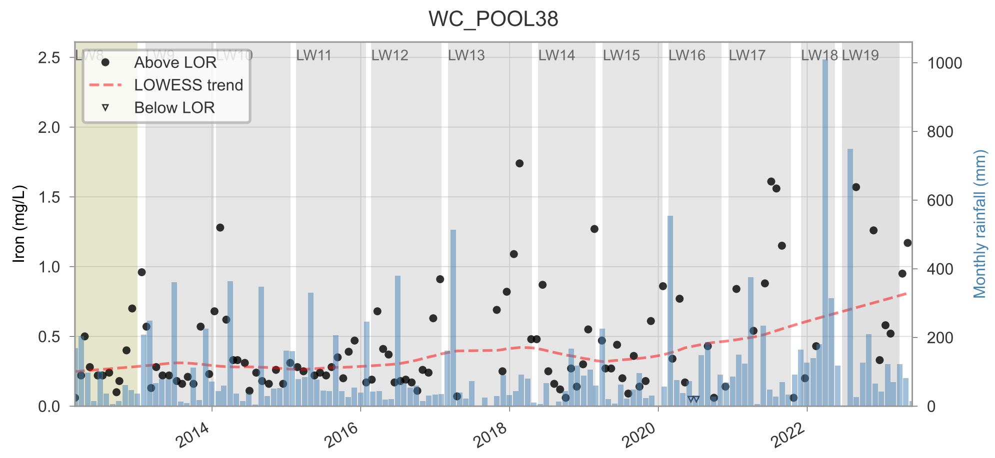

WC_POOL20
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

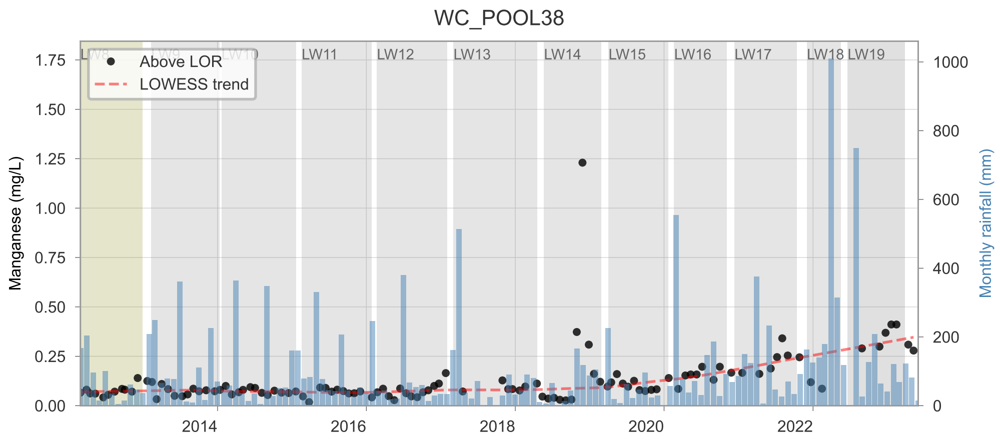

WC_POOL20
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

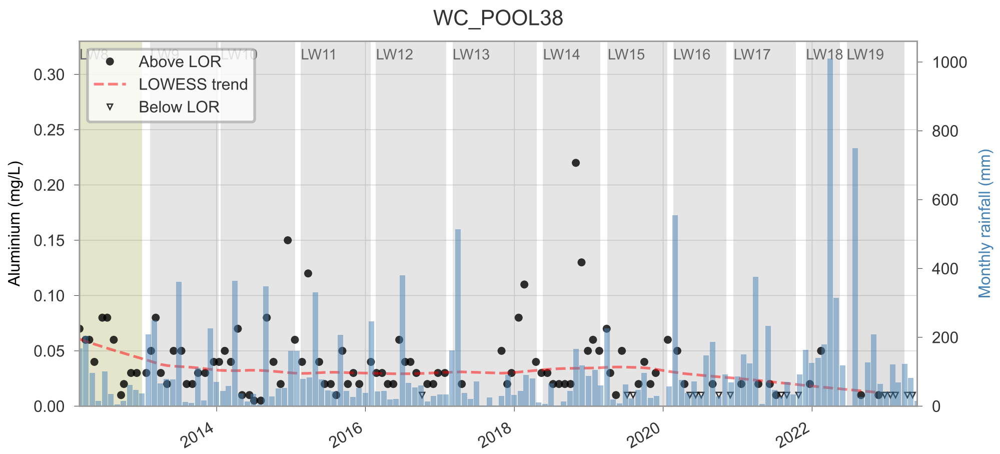

WC_POOL20
Above LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

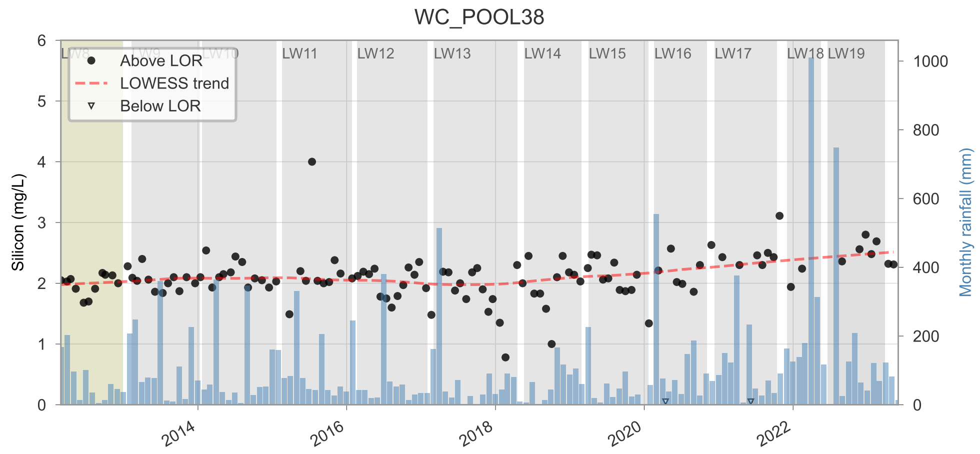

WC_POOL20
Above LOR
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
0.000
0.005
0.010
0.015
0.020
0.025
0
200
400
600
800
1000
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

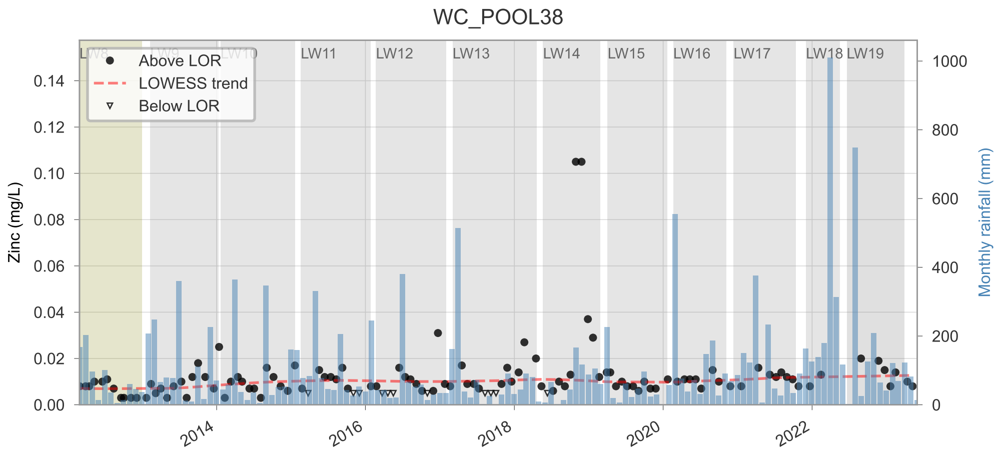

WC_POOL38
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Sulfate (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

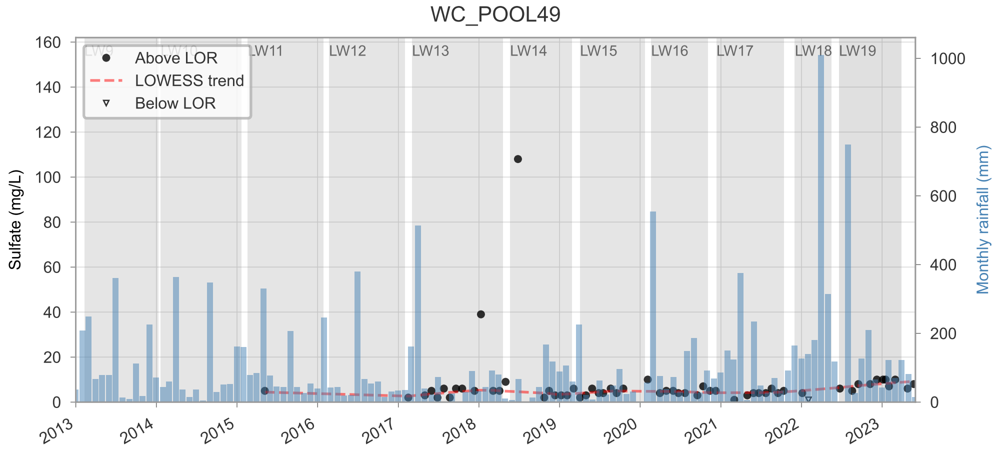

WC_POOL38
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Iron (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

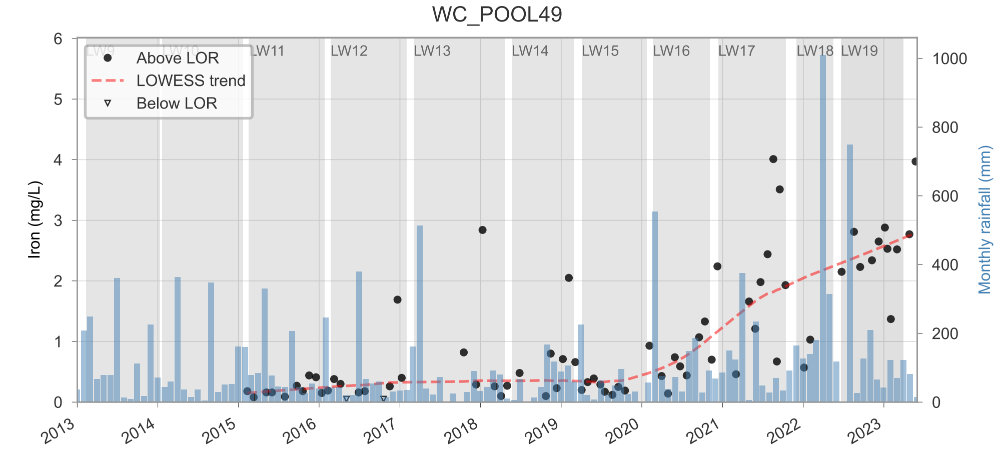

WC_POOL38
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Manganese (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

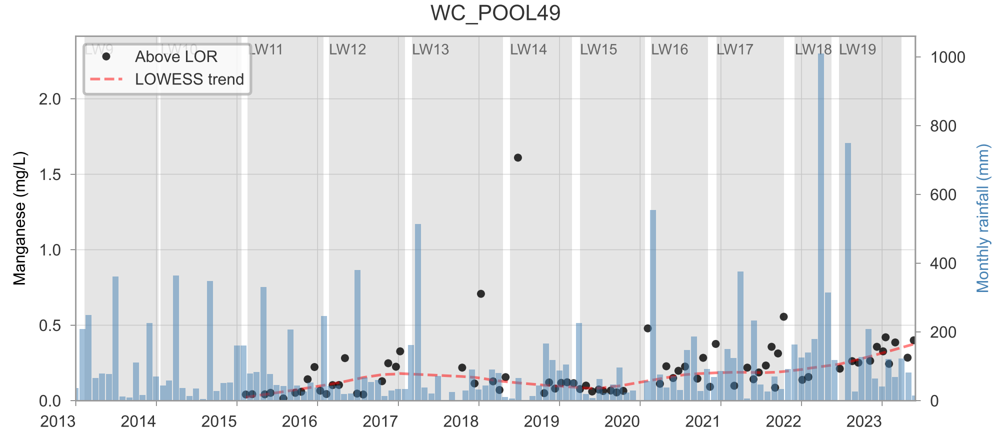

WC_POOL38
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Aluminium (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

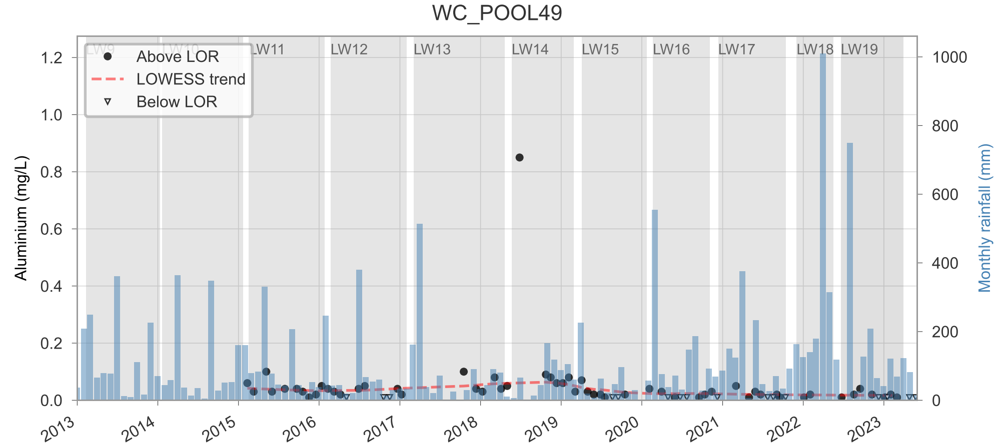

WC_POOL38
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Silicon (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

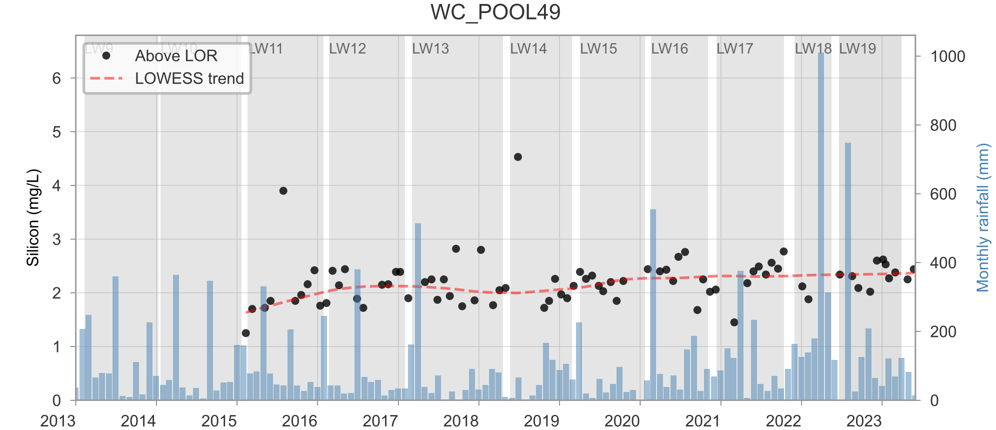

WC_POOL38
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Zinc (mg/L)
Monthly rainfall (mm)
2014
2016
2018
2020
2022

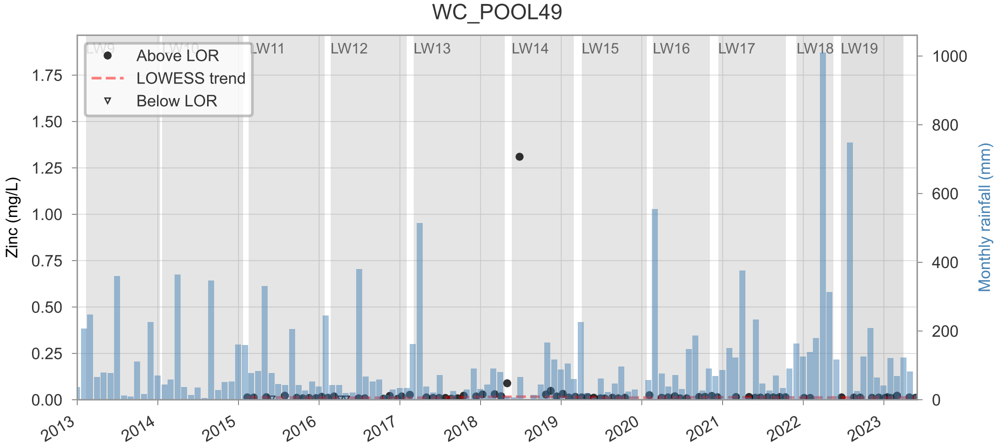

WC_POOL49
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

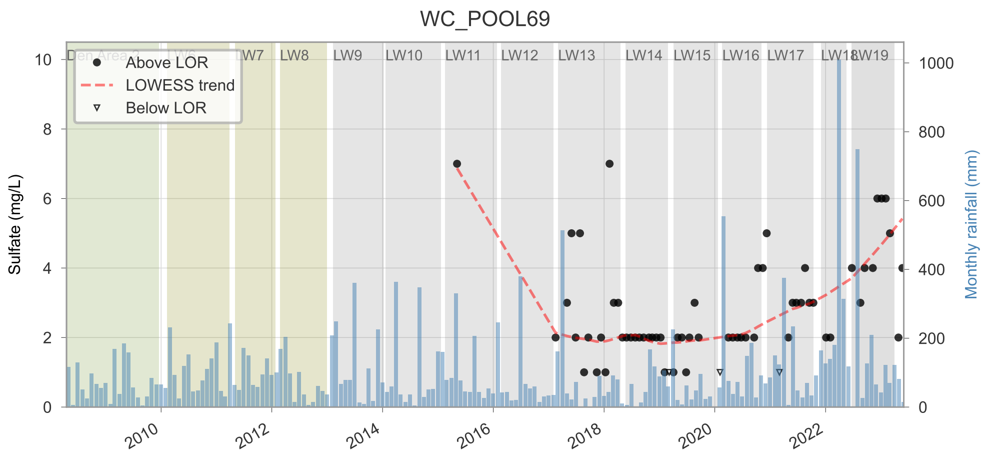

WC_POOL49
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

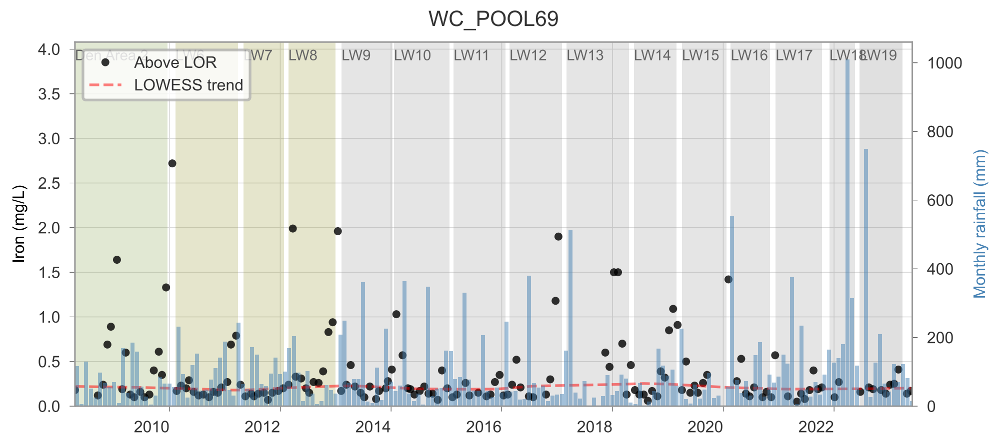

WC_POOL49
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

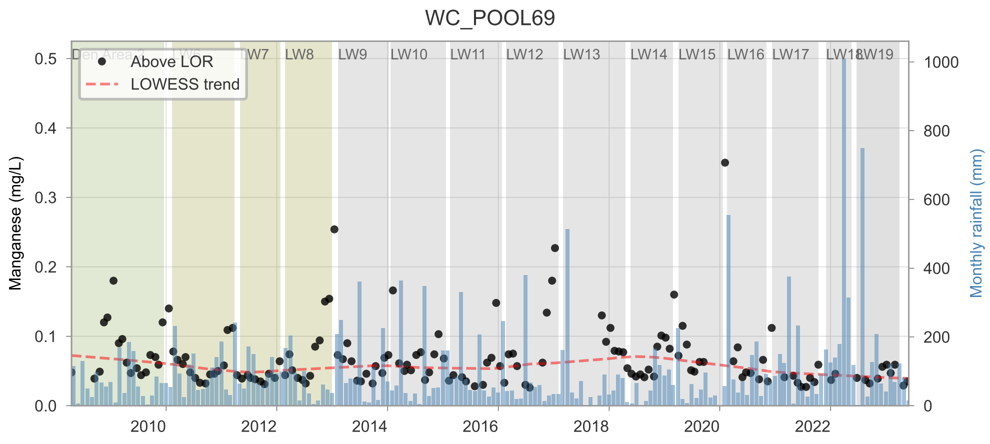

WC_POOL49
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

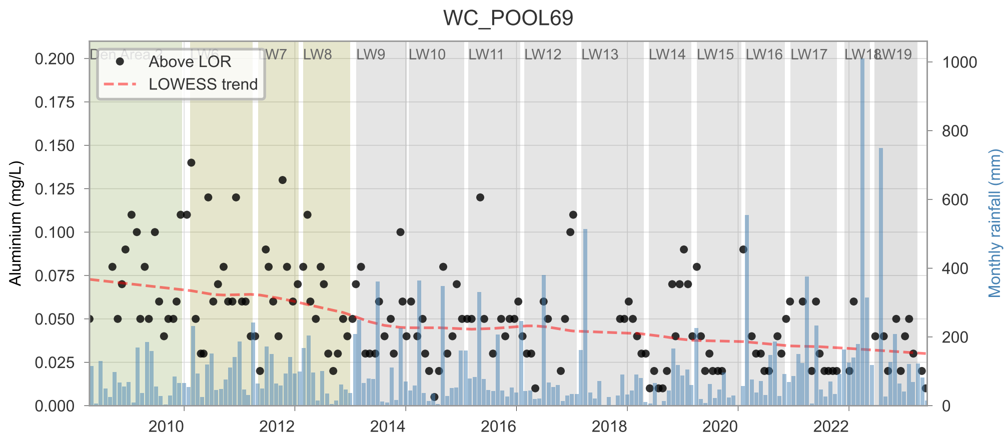

WC_POOL49
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

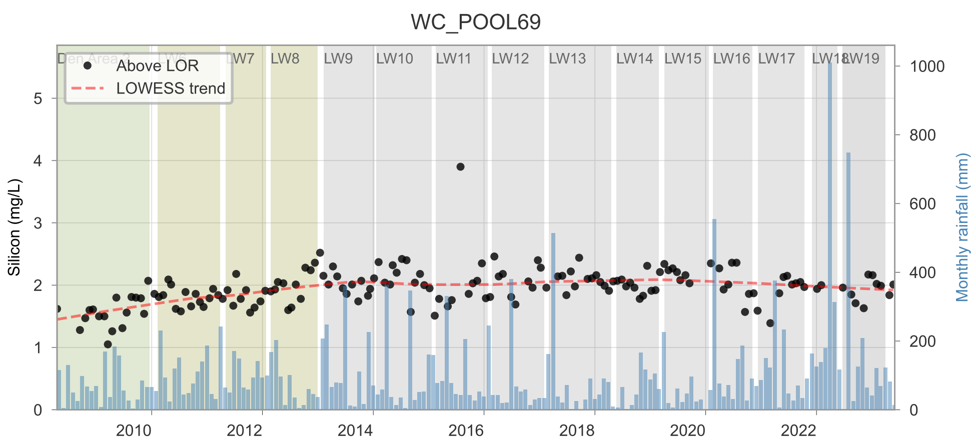

WC_POOL49
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

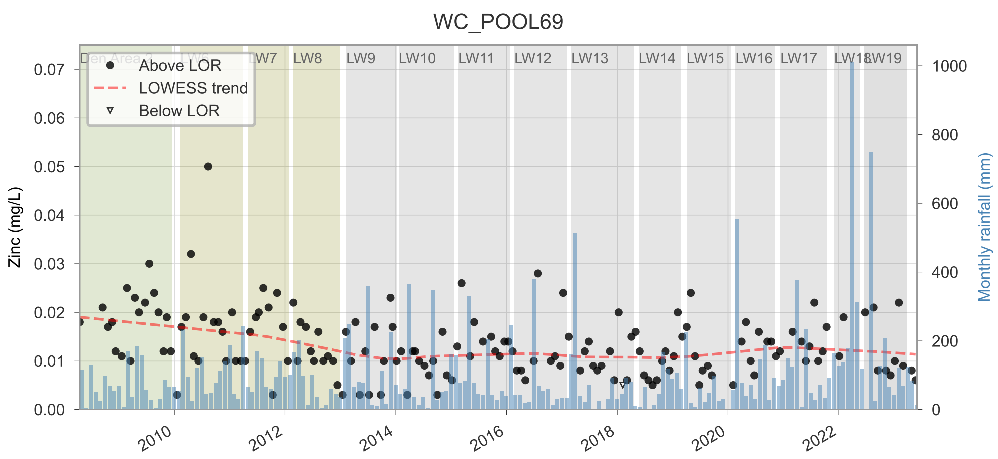

WC_POOL69
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 2 4 6 8 10
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

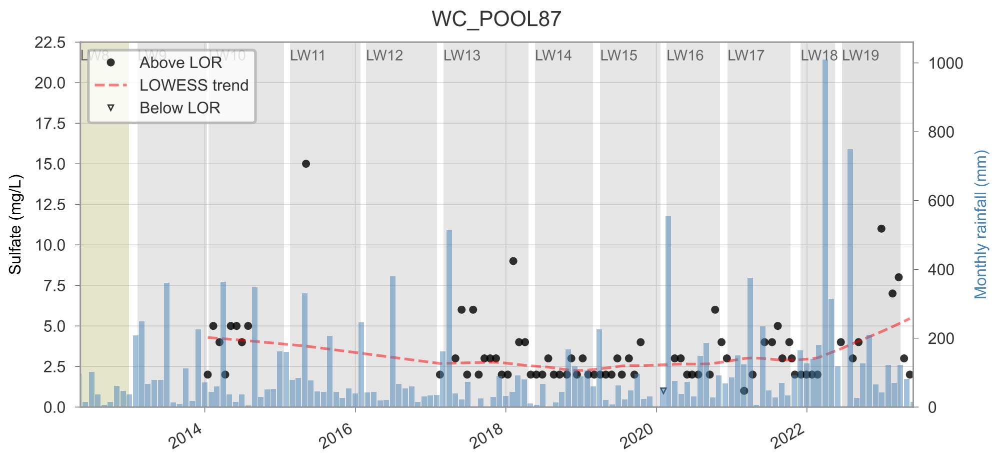

WC_POOL69
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

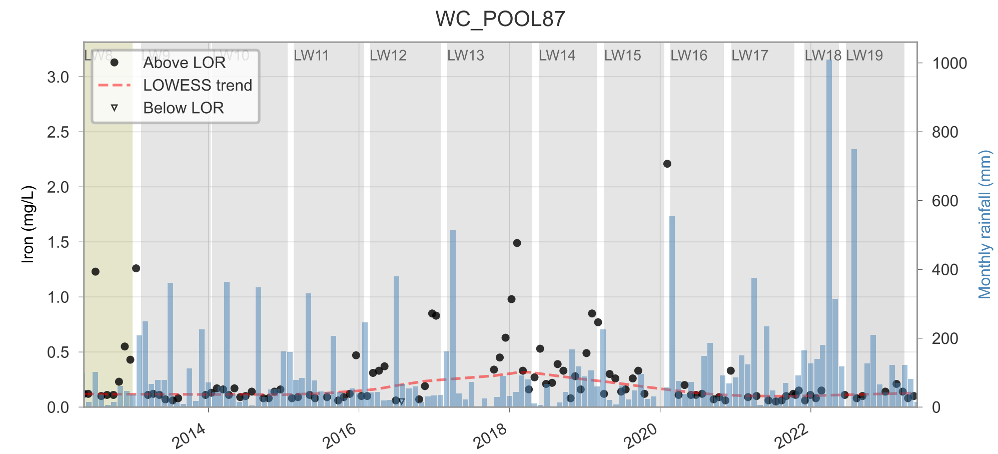

WC_POOL69
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.0 0.1 0.2 0.3 0.4 0.5
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

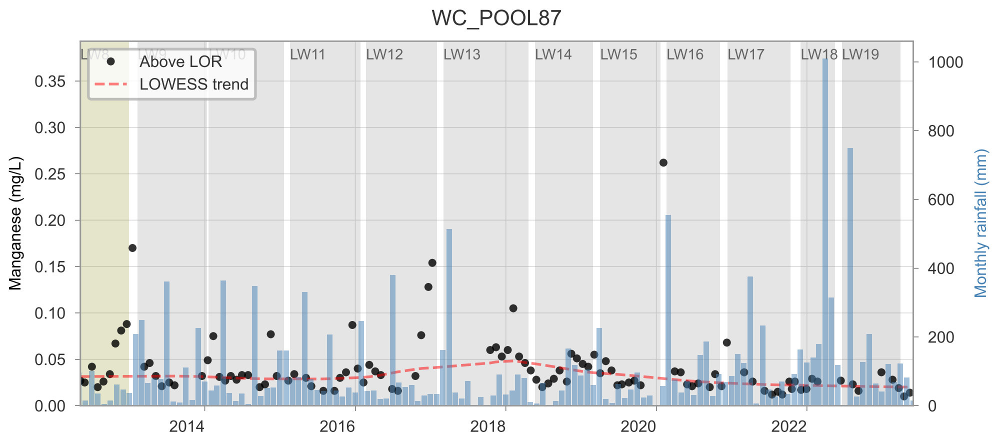

WC_POOL69
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.000 0.025 0.050 0.075 0.100 0.125 0.150 0.175 0.200
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

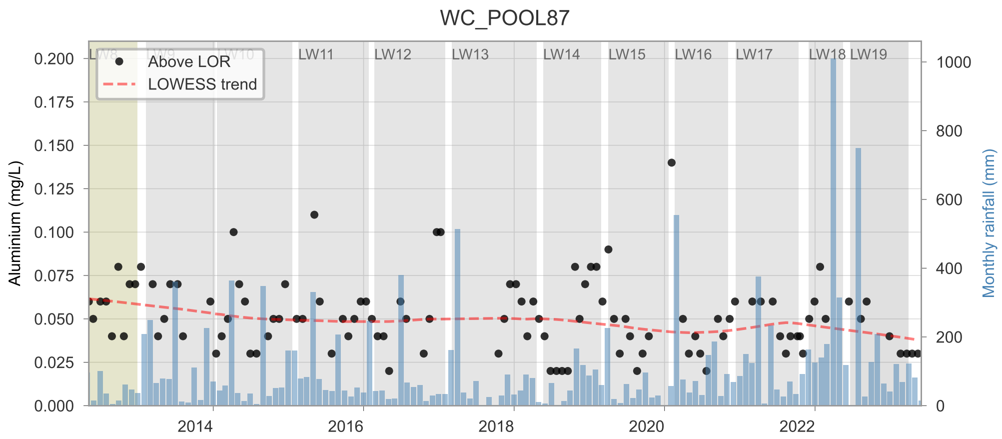

WC_POOL69
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0 1 2 3 4 5
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

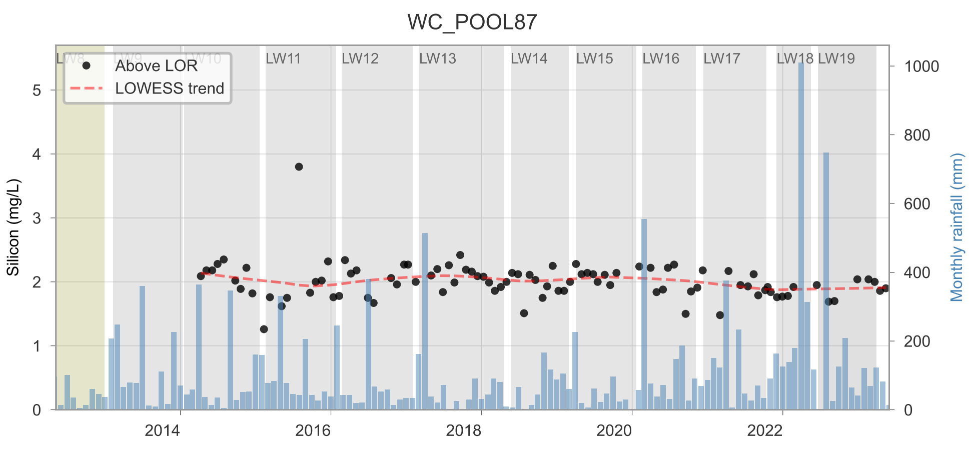

WC_POOL69
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW7 LW8 LW9 LW10 LW11 LW12 LW13 LW14 LW15 LW16 LW17 LW18 LW19
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07
0 200 400 600 800 1000
2010 2012 2014 2016 2018 2020 2022

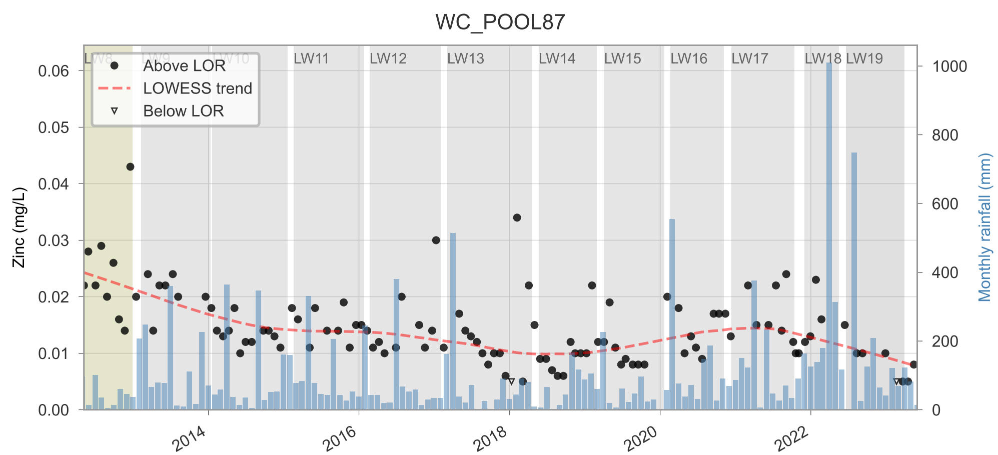

WC_POOL87
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

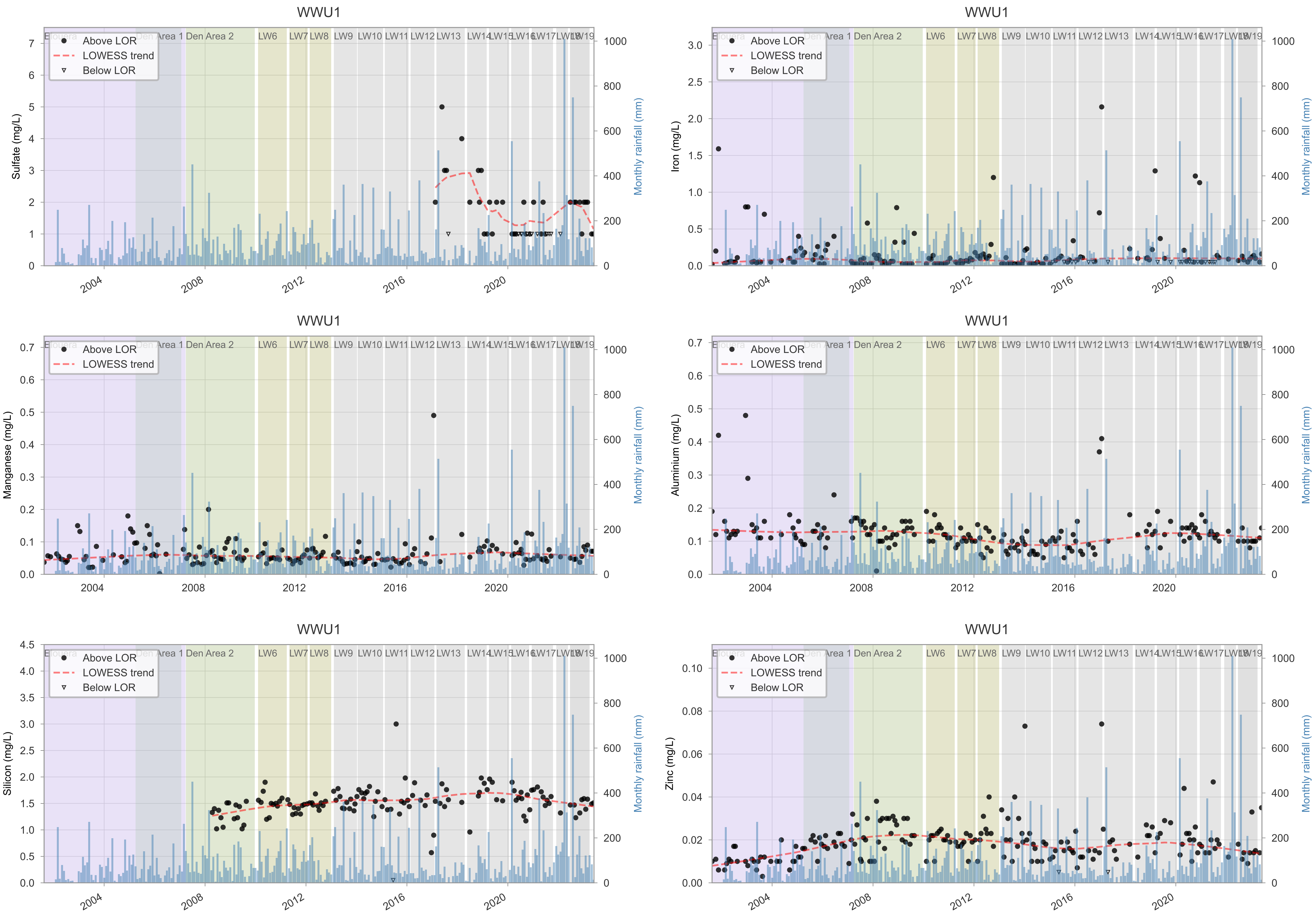

WC_POOL87
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

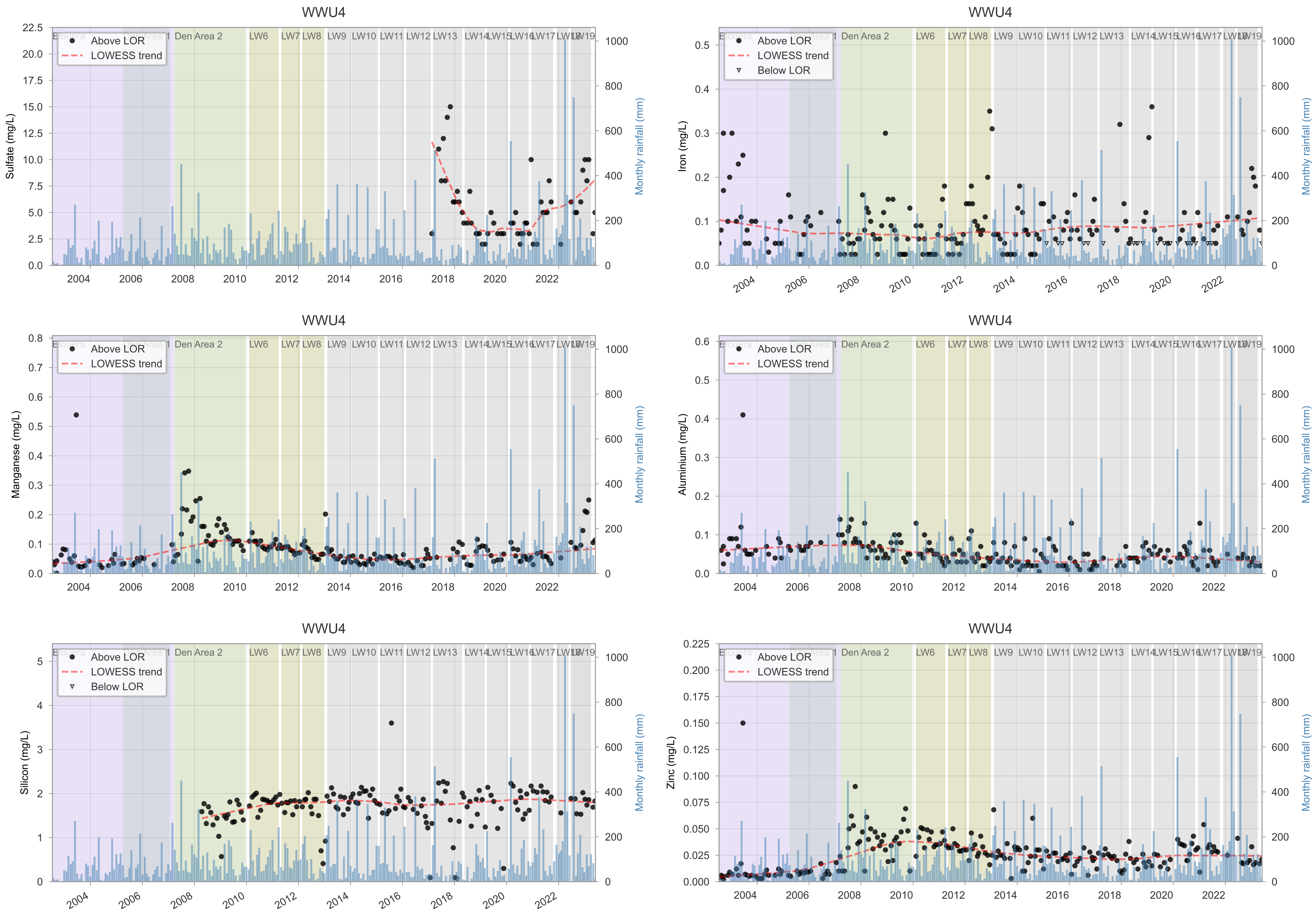

WC_POOL87
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC_POOL87
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC_POOL87
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WC_POOL87
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


WWU1
Sulfate (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 1
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
2004
2008
2012
2016
2020
WWU1
Iron (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
WWU1
Manganese (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
WWU1
Aluminium (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
WWU1
Silicon (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
WWU1
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR


WWU4
Sulfate (mg/L)
Iron (mg/L)
Manganese (mg/L)
Aluminium (mg/L)
Silicon (mg/L)
Zinc (mg/L)
Monthly rainfall (mm)
Above LOR
LOWESS trend
Below LOR
Den Area 2
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

Appendix A2: Water quality trend analysis

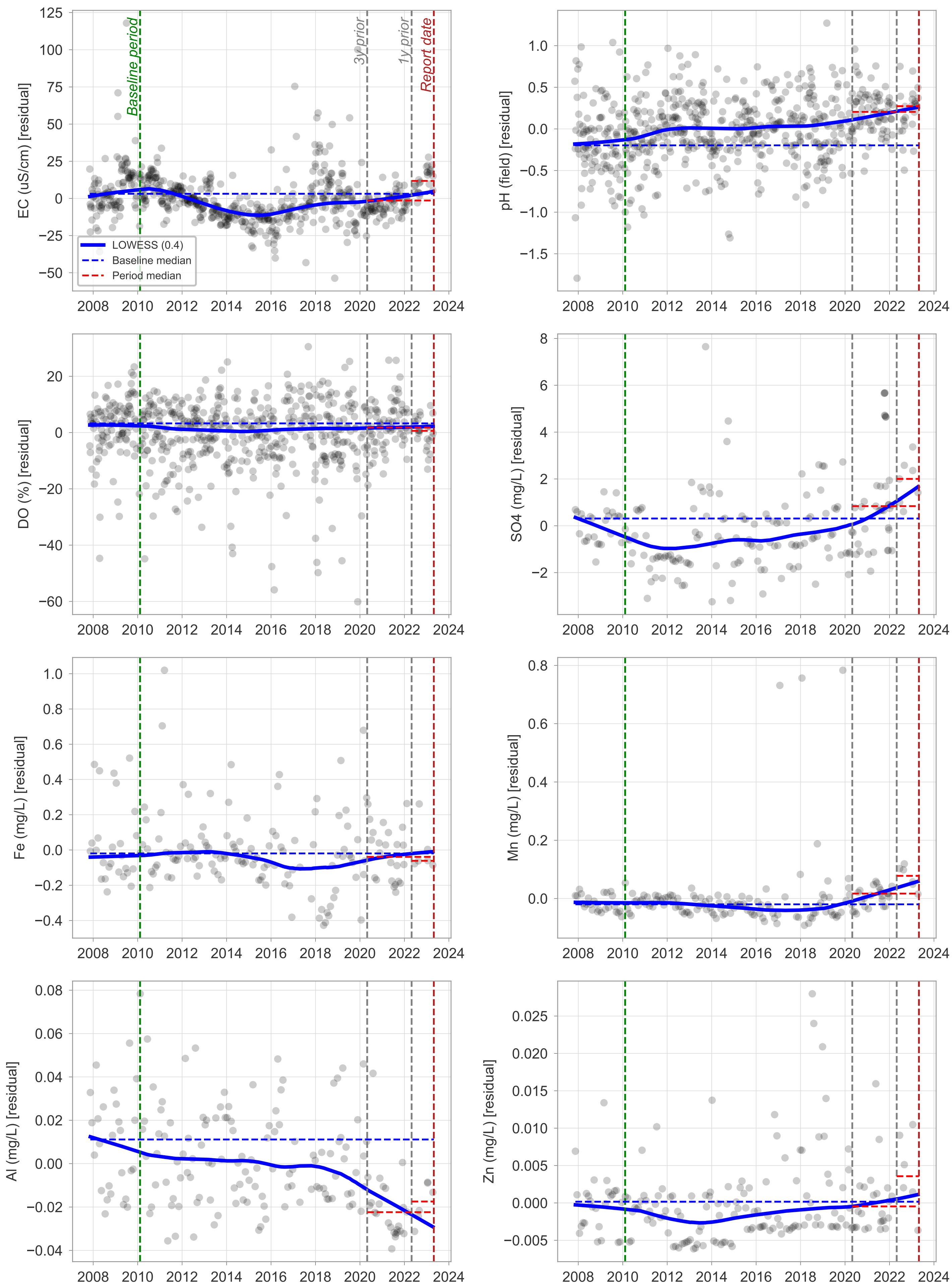
Analysis of water quality trends in flow-corrected data: Post-Longwall 19 (to 29/4/2023)

									Raw data statistics			**Flow-corrected statistics**						
WQ_site	**Stream_gauge**	**Param**	**Theil-Sen slope**		**Mann-Kendall serial correlation**		**1-year_trend**	**3-year_trend**	**median_BL**	**median_1y**	**median_3y**	**median_BL**	**median_1y**	**median_3y**	**Mann-Whitney U test**		**1-year mean test**	**3-year mean test**
			1-year slope	**3-year slope**	**1-year**	**3-year**									**1-year**	**3-years**		
WC_FR6	WWL	EC_uS/cm	4.67E-02	2.07E-02	**2.99E-03**	**1.17E-11**	Increasing	Increasing	99	88.5	93.5	3.140	11.807	-1.371	**0.005**	**0.004**	Higher than BL	
WC_FR6	WWL	pH_field	1.15E-03	-5.70E-05	**4.36E-02**	5.02E-01			5.84	6.405	6.2	-0.197	0.273	0.205	**0.000**	**0.000**		
WC_FR6	WWL	DO_%	-1.44E-02	8.58E-04	3.37E-01	7.37E-01			93.75	97	93.25	3.257	0.611	1.770	0.106	0.491		
WC_FR6	WWL	SO4_mg/L	1.64E-03	2.04E-03	7.73E-01	**1.75E-02**		Increasing	4	6	4	0.311	2.003	0.839	**0.000**	**0.003**	Higher than BL	Higher than BL
WC_FR6	WWL	Fe_mg/L	-2.57E-05	-8.37E-05	1.00E+00	3.04E-01			0.155	0.225	0.195	-0.019	-0.061	-0.039	0.944	0.699		
WC_FR6	WWL	Mn_mg/L	-3.23E-04	8.91E-05	5.56E-02	**3.70E-03**		Increasing	0.044	0.148	0.0705	-0.020	0.078	0.017	**0.000**	**0.002**	Higher than BL	Higher than BL
WC_FR6	WWL	Zn_mg/L	-2.64E-05	3.90E-06	4.69E-01	1.55E-01			0.0085	0.0125	0.0085	0.000	0.004	0.000	**0.038**	0.628	Higher than BL	
WC_FR6	WWL	Al_mg/L	1.01E-04	-5.00E-06	5.56E-02	4.57E-01			0.05	0.01	0.02	0.011	-0.017	-0.022	**0.006**	**0.000**		
DCC_FR6	DCU	EC_uS/cm	1.11E-01	2.99E-02	**1.19E-09**	**2.16E-03**	Increasing	Increasing	123	80.5	108	7.230	33.079	8.821	**0.000**	0.674	Higher than BL	
DCC_FR6	DCU	pH_field	-1.61E-03	2.23E-04	**5.95E-03**	6.46E-02	Decreasing		5.27	4.865	4.84	-0.185	-0.255	-0.371	0.639	**0.001**		Lower than BL
DCC_FR6	DCU	DO_%	5.95E-03	9.55E-04	5.39E-01	6.92E-01			88.6	95.4	92.75	2.663	0.644	3.188	0.804	0.068		
DCC_FR6	DCU	SO4_mg/L	-2.35E-03	5.97E-03	7.20E-01	2.95E-01			3	3	5	-1.259	11.528	-0.544	**0.000**	0.188	Higher than BL	
DCC_FR6	DCU	Fe_mg/L	1.03E-04	2.54E-05	7.20E-01	6.86E-01			0.065	0.05	0.07	-0.178	-0.130	-0.113	**0.033**	**0.014**	Higher than BL	Higher than BL
DCC_FR6	DCU	Mn_mg/L	3.52E-04	9.56E-05	**1.74E-03**	**3.43E-02**	Increasing	Increasing	0.0415	0.0455	0.087	-0.015	0.087	0.010	**0.000**	**0.000**	Higher than BL	Higher than BL
DCC_FR6	DCU	Zn_mg/L	4.72E-05	5.55E-06	**1.41E-02**	**3.30E-03**	Increasing	Increasing	0.005	0.0095	0.017	-0.003	0.008	0.007	**0.000**	**0.000**	Higher than BL	Higher than BL
DCC_FR6	DCU	Al_mg/L	9.63E-05	3.12E-04	5.48E-01	**6.36E-06**		Increasing	0.13	0.145	0.28	-0.068	0.249	0.089	**0.000**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	EC_uS/cm	1.68E-02	5.76E-03	2.91E-01	4.23E-01			96.4	81.5	102	2.204	19.319	17.838	**0.000**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	pH_field	-1.32E-03	-3.45E-04	1.56E-01	8.10E-02			5.42	6.345	6.23	-0.227	0.346	0.405	**0.000**	**0.000**		
SCK_ROCKBAR5	SC10S1	DO_%	-2.84E-03	3.95E-04	1.00E+00	9.84E-01			78.8	91.7	90.4	-5.802	2.812	2.126	**0.010**	**0.000**		
SCK_ROCKBAR5	SC10S1	SO4_mg/L	2.68E-04	-2.44E-04	1.00E+00	6.50E-01			2	8.5	8	-2.597	3.451	3.248	**0.000**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	Fe_mg/L	-6.32E-03	-7.63E-04	**1.15E-04**	7.98E-02			0.2	1.42	1.38	-0.333	0.759	0.779	**0.003**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	Mn_mg/L	2.52E-04	-6.38E-05	7.27E-01	5.91E-01			0.046	0.358	0.406	-0.126	0.246	0.269	**0.000**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	Zn_mg/L	-5.30E-05	-2.07E-05	**2.86E-02**	7.28E-02			0.003	0.027	0.03	-0.014	0.010	0.012	**0.000**	**0.000**	Higher than BL	Higher than BL
SCK_ROCKBAR5	SC10S1	Al_mg/L	2.08E-06	1.86E-05	1.00E+00	3.36E-01			0	0.02	0.025	0.000	-0.012	-0.013	**0.000**	**0.000**		
WWU4	WWU	EC_uS/cm	3.90E-02	1.95E-02	5.48E-01	**2.08E-02**		Increasing	88.4	72	83.5	0.947	10.715	3.750	0.107	0.843		
WWU4	WWU	pH_field	-7.27E-04	1.55E-04	9.05E-01	8.27E-01			5.05	6.445	5.99	-0.554	0.474	0.474	**0.000**	**0.000**		
WWU4	WWU	DO_%	5.48E-03	2.32E-03	1.00E+00	6.00E-01			95.4	92.95	95.15	3.528	1.609	3.867	0.853	0.799		
WWU4	WWU	SO4_mg/L	2.52E-03	-8.58E-04	9.05E-01	4.31E-01			8	7	5	1.112	-2.936	-1.563	**0.000**	**0.000**		
WWU4	WWU	Fe_mg/L	2.97E-04	1.16E-05	1.79E-01	4.84E-01			0.08	0.115	0.08	-0.001	0.000	-0.008	0.665	0.756		
WWU4	WWU	Mn_mg/L	7.18E-04	-7.05E-06	**3.12E-02**	6.94E-01	Increasing		0.124	0.126	0.0585	0.040	0.002	-0.012	0.162	**0.000**		
WWU4	WWU	Zn_mg/L	8.13E-06	-7.75E-06	7.20E-01	3.36E-01			0.039	0.018	0.0285	0.009	-0.006	-0.001	**0.022**	**0.001**		
WWU4	WWU	Al_mg/L	5.29E-05	2.57E-06	5.48E-01	8.96E-01			0.06	0.04	0.04	0.014	-0.006	-0.009	**0.001**	**0.000**		

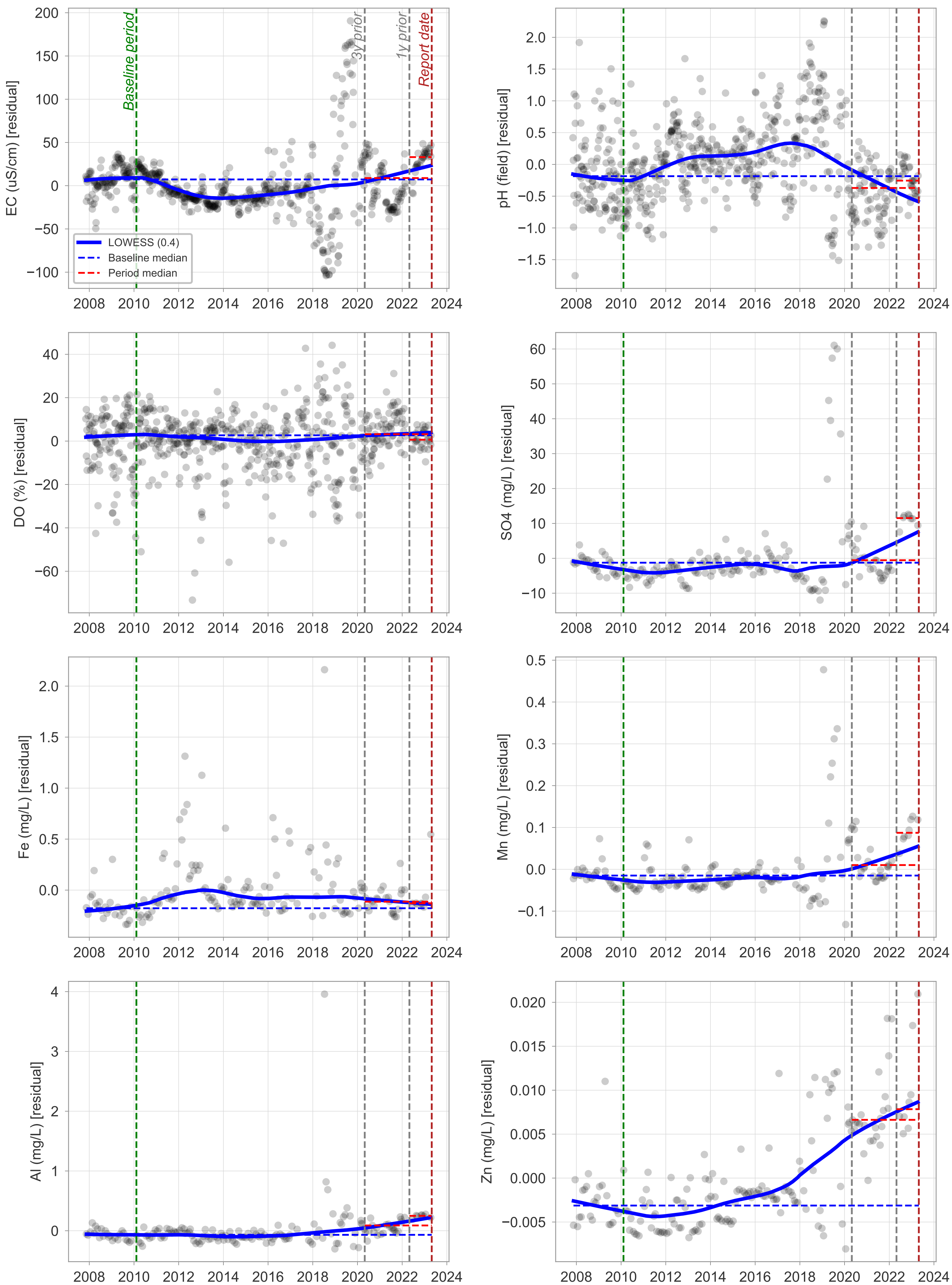
Notes:

1. Theil-Sen slope is the median of the slopes between all pairs of x-y points in the data. It is a non parametric estimator of median slope
2. Mann-Kendal test for serial correlation (p-value): the probability of obtaining a correlation result at least as extreme due to chance. Results significant at the 95% level are indicated in **bold** (values <0.05)
3. Flow-corrected statisics are the median values for the periods indicated, based on the flow-corrected residuals (not actual measurment values)
4. Mann-Whitney U test: A non parametric rank-sum test for the difference in means between two samples (in this case, observations in different time intervals). Expressed as a p-value with significance at the 95% level indicated in **bold**.

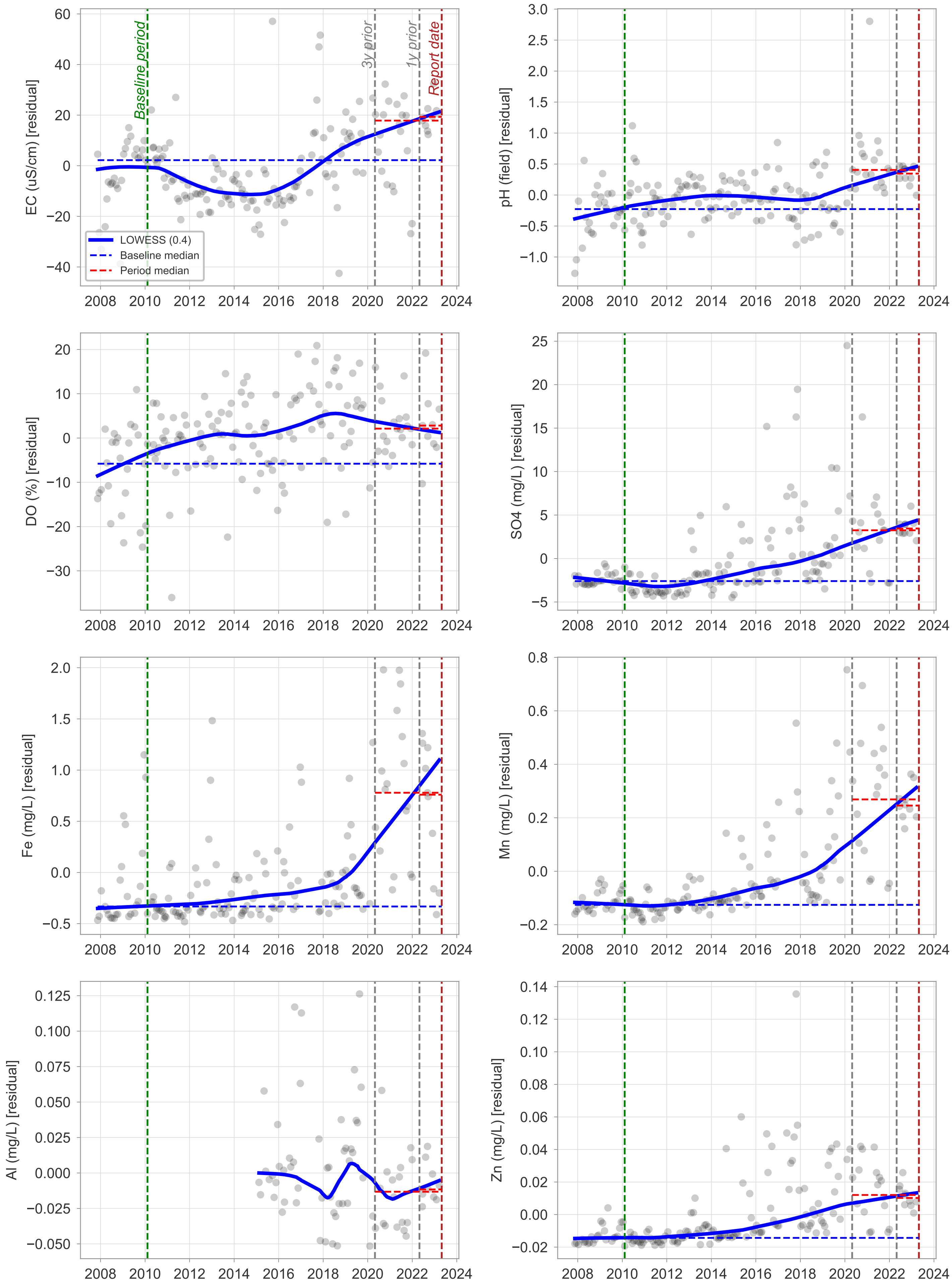
WC_FR6 Flow-corrected time series



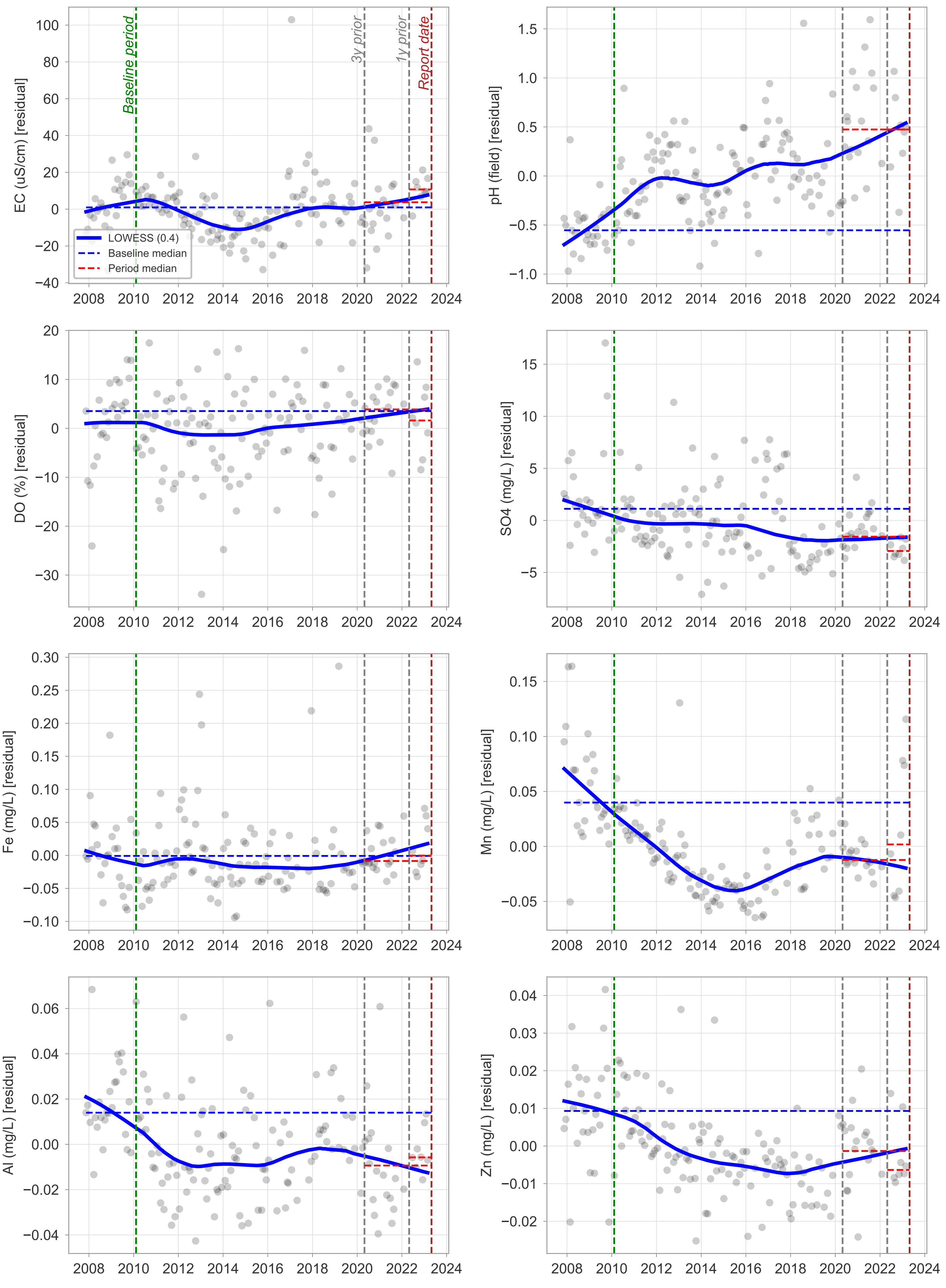
DCC_FR6 Flow-corrected time series



SCK_ROCKBAR5 Flow-corrected time series



WWU4 Flow-corrected time series



Appendix B: Rainfall data

Monitoring Data

The geographic distribution of the various data sources at which rainfall and stream flow is measured around Dendrobium are shown on Figure B1.

Rainfall data

Rainfall data for the Dendrobium area is available from three primary sources (Figure B1):

- A series of rainfall gauges owned by IMC ("site data") and currently operated by the hydrographic consultants ALS;
- A rainfall gauge ("Browns Road") operated by WaterNSW (located within Area 3B); and
- Series of "infilled" data available from the SILO service, a cooperative initiative of the Queensland Government's Department of Environment and Science (DES) and the Australian Bureau of Meteorology (BoM).

The details of the various data sources is summarised in Table B1.

Measurement uncertainty

Based on manufacturers specifications[1], "*the Hyquest Solutions TB3 Model Tipping Bucket Rain Gauge is recognised as the world standard for measuring rainfall and precipitation in remote and unattended locations. The TB3 is the rain gauge of choice to the Australian Bureau of Meteorology and other organisations world wide*."

ALS have instructed that the manufacturer's stated accuracy is:

Rainfall intensity	Accuracy
0-250 mm per hour	+/-2%
250-500 mm per hour	+/-3%
Measurement range	700 mm per hour

These accuracies are independent of the siting of the gauge itself. ALS have stated that the siting of the gauges has been carried out consistent with RMS, 2016[2], which is itself compiled from Australian Standards. ALS can provide further information on request.

[1] https://www.hyquestsolutions.com/products-services/products-hardware/meteorology/model-tb3-tipping-bucket-rain-gauge/

[2] NSW RMS, 2016. Automatic weather stations: QA specification R272. Edition 1, rev 1, May 2016.

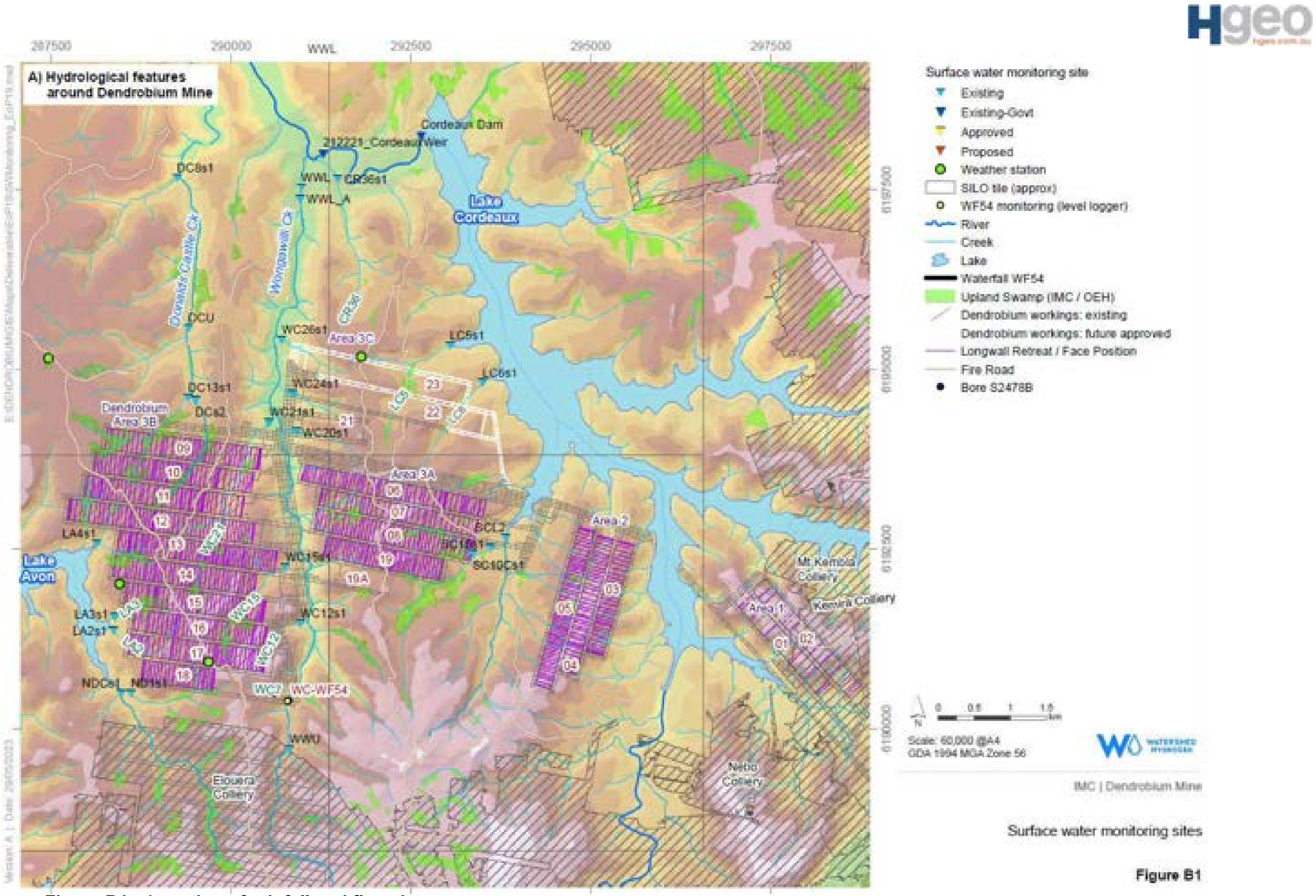


Figure B1 Location of rainfall and flow data sources

Table B1 Rainfall data sources

SITE_NAME	ID	EASTING (Z56)	NORTHING (Z56)	Z_ELEVATION [MAHD]	OPERATOR	START DATE	MEASUREMENT FREQUENCY	GAUGE TYPE	LOGGER
Dendrobium "Centroid" A3A		291815	6195170	403.1	IMC	28/10/2007	event based and midnight timestamp	Hyquest Tipping Bucket Rain Gauge model TB3 / 0.5mm	Hyquest Minilog
DA3B Weather Station		288458	6192012	413.4	IMC	1/06/2012	event based and midnight timestamp, 15 minute on CR800	Hyquest Tipping Bucket Rain Gauge model TB3 / 0.5mm	Hyquest Minilog and Campbells Scientific CR800
DA5 Rainfall Gauge		287468	6195153	401.6	IMC	19/07/2017	event based and midnight timestamp	Hyquest Tipping Bucket Rain Gauge model TB3 / 0.5mm	Hyquest Minilog
DA6 Rainfall Gauge		291749	6200383	352.4	IMC	17/06/2017	event based and midnight timestamp	Hyquest Tipping Bucket Rain Gauge model TB3 / 0.5mm	Hyquest Minilog
Cordeaux Site Rain Gauge		294658	6199531	373.5	IMC	1/01/2002	data recorded @ 00:00 for previous 24 hrs		
Browns Road	568061	289690	6190930	442.0	WaterNSW	31/03/1983	data recorded @ 00:00 for previous 24 hrs		
SILO Data drill - **"A3B"**		Long: 150.70	Lat: -34.40		SILO	1/01/1900	24hr total to 9am, interpolated and averaged for 0.05x0.05 degree tile		
SILO Data drill - **"A3A-A2"**		Long: 150.75	Lat: -34.40		SILO	1/01/1900	24hr total to 9am, interpolated and averaged for 0.05x0.05 degree tile		
SILO Data drill - **"A3C"**		Long: 150.75	Lat: -34.35		SILO	1/01/1900	24hr total to 9am, interpolated and averaged for 0.05x0.05 degree tile		

Notes:

IMC sites maintained by ALS.

Browns Road data obtained from WaterNSW.

SILO data from https://www.longpaddock.qld.gov.au/silo/datadrill/

A comparison of the recent data from these sources is presented below.

Figure B2 shows recent annual totals (since the commencement of Dendrobium Mine). For these, the SILO records and Dendrobium's Area 3B record is 100% complete, Area 3A (Centroid) is 100% complete, while the WaterNSW Browns Road record is 94.5% complete.

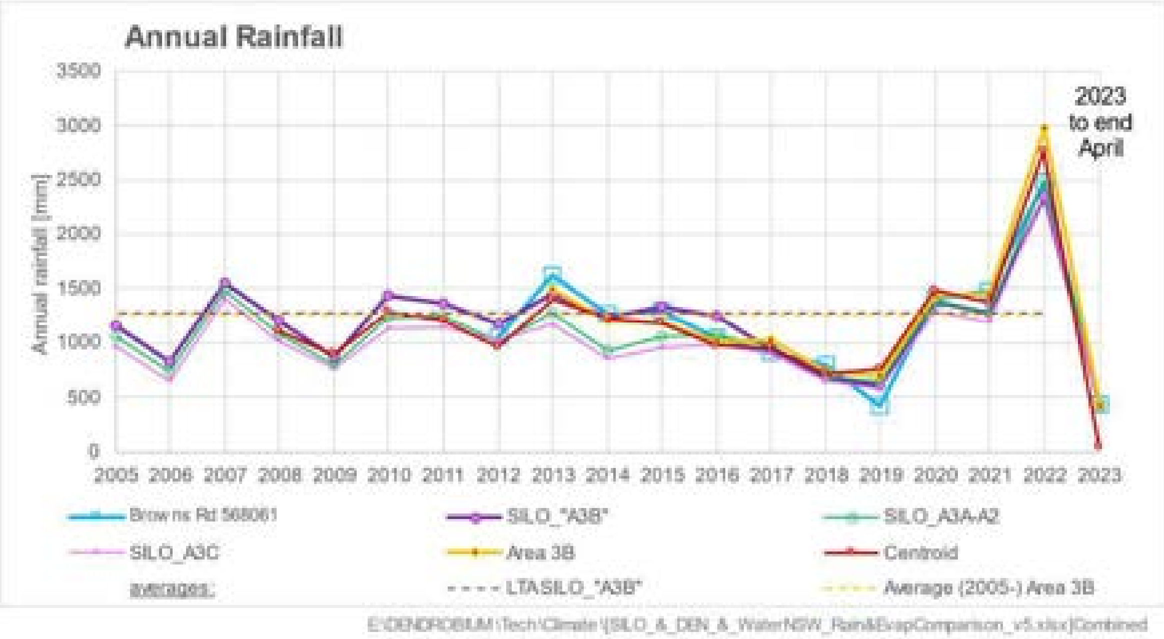


Figure B2 Annual rainfall totals

Figure B2 shows that the different records show some variability in annual totals. 2013, 2020 and 2021 were the wettest years of the recent period, until 2022, which is the record annual rainfall total at Dendrobium (as it was across much of eastern NSW). In the wettest years, the variability between the different monitoring records shown above, from minimum to maximum, was 14%, 7%, 23% and 21% in 2013, 2020, 2021 and 2022) respectively.

In 2019 (the driest of the selected years), the variability was 44%. All stations show the same broad trends across those selected years, including the severe and persistent rainfall deficit in 2017-2019, and the return to higher rainfall across 2020-21 and then the record rainfall of 2022.

Rainfall to the end of April-2023 is approximately 400-440 mm at the stations reviewed here, suggesting near-average conditions for 2023.

There was variation in which station or data source was wettest or driest in each year but in terms of cumulative rainfall 2013-2022 to date (excluding 2012 because the Area 3B gauge did not commence until May that year), there is 10% difference between the four monitoring records shown on Figure B2.

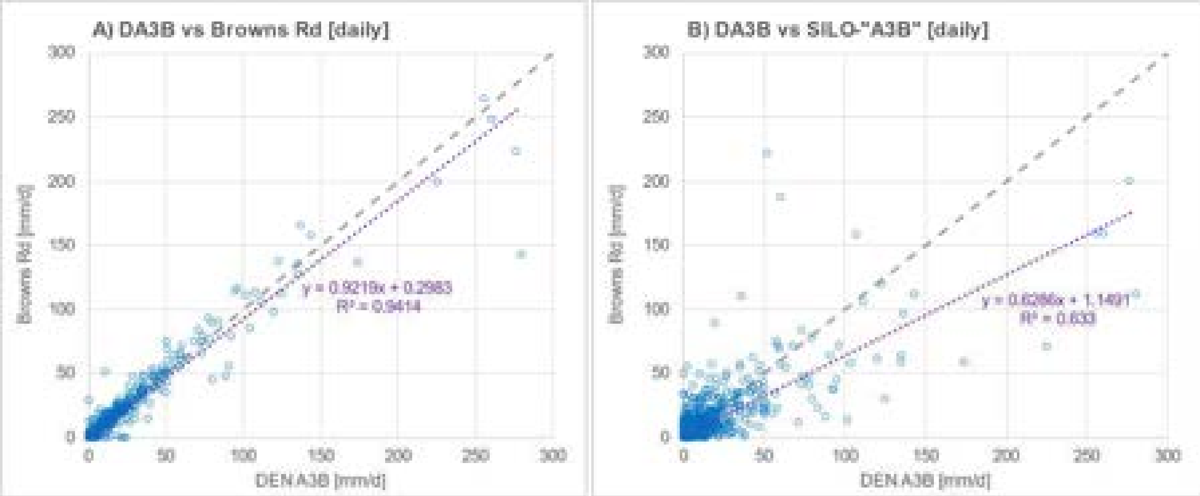


Figure B3 Correlation of daily rainfall around Area 3B

Figure B3 shows a comparison of daily totals for the three stations most relevant to Area 3B.

Figure B3a shows that the A3B station and the Browns Road station, which are 1.6 km apart, are highly correlated (R^2 = 0.94). Figure B3b shows that there is a substantially weaker correlation between the local SILO record and the Browns Road station (and therefore, also with the A3B record) (R^2 = 0.63).

To assess this further, the accumulated rainfall for the available record during the period 2005-2020 is plotted on Figure B4. The A3B rainfall is not included here due to that record beginning in 2012.

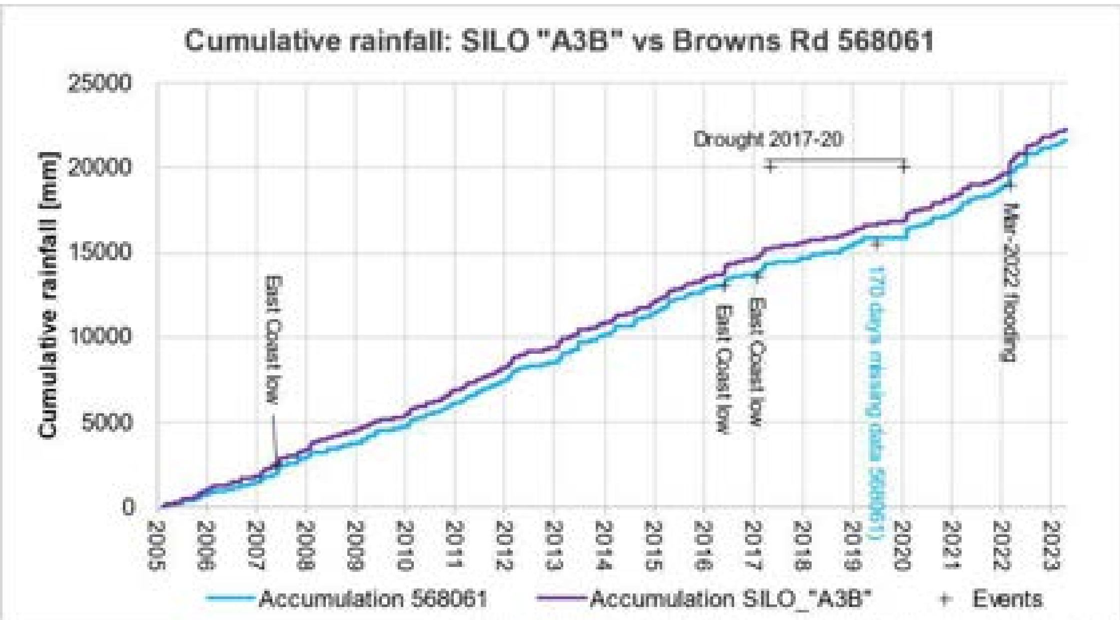


Figure B4 Rainfall accumulation near to the Area 3B domain

Figure B4 indicates that while there is a weaker correlation on a daily basis, and some significant variances in total rainfall on specific days (Figure B3b), the correlation is strong overall. That is, the accumulation shows very similar trends through the 17 year record, and the overall total accumulated rainfall varies by 3% to the end of April-2023.

This analysis of the data indicates that broadly there is general agreement in the data on a monthly or annual timeframe, but that short-term differences exist. These differences may be due to:

- Measurement error (in the case of the site data, Browns Road and the raw BoM data behind the SILO "Data Drill" record);
- Mismatch in timing between totals to midnight (site and Browns Road data) versus totals to 9am (BoM / SILO records);
- Interpolation or infilling errors due to temporal or spatial infilling or averaging (in the SILO data);
- True variations in rainfall in space and time due to weather patterns, e.g. topographic effects and/or the effects of localised weather systems.

These measurement errors or true variations will propagate into any rainfall-runoff modelling and simulation of daily flow around Area 3B. Smaller catchments will be less prone to spatial variation in rainfall across the catchment, but maybe affected by not having a truly local rainfall record. Therefore, while the rainfall gauging network at Dendrobium (including SILO and WaterNSW data) is considered adequate, the potential localisation of rainfall patterns will result in some unavoidable discrepancies between modelled and observed flows.

Appendix C: Flow gauge data

Flow data for the Dendrobium area is available from a series of flow gauges owned by IMC and currently operated by the hydrographic consultants ALS. The details of these are summarised in Table C1.

These gauging stations provide estimates of stream flow via:

(A) A structure behind which water pools and flows over. Structures can be:
   a. natural, e.g. a rock bar, or
   b. man-made, e.g. a half-pipe flume.

(B) A sensor and logger that measure and record the water level ("stage") in the pool at 15-minute intervals

(C) A "rating curve" which is a chart or graph of discharge (flow) versus stage for each gauging station. The rating curve is developed via periodic measurements of flow in the channel at a known water level.

(D) Estimates of mean daily flow are then provided.

IMC commissioned an independent hydrologist (Enviromon) to systematically identify and quantify the accuracy or error involved in each part of the process (Enviromon, 2019 and Enviromon, 2020). This process has been carried out for a selection of gauging sites (provided in C5, below), and is currently being applied to the remaining in gauging sites, with some fine-tuning of the method for gauging sites where 'underflow' occurs (i.e. flow beneath the monitoring structure). The objective is to re-assess each gauging station for each future End of Panel report, and to use the results to reduce uncertainty where practicable (i.e. additional data-gathering and improved measurement methods).

Table C1 Flow gauge information

Watercourse	Site	Area	Easting (z56)	Northing (z56)	Z_Elevation [mAHD]	Catchment area [km^2]	Installation	Structure type		Logger
Wongawilli Ck	WWU	u/s A3B	290808	6189716	352.94	3.211	Stainless Steel housing	Natural control		Orpheus
Wongawilli Ck	WWL	d/s A3A,B	290975	6197526	261.86	20.079	Stainless Steel housing	Natural control		Diver
Wongawilli Ck	WWL_A	d/s A3A,B	290962	6197370	263.22	19.602	PVC housing	Half pipe	225 mm	Orpheus
WC21	WC21S1	A3B	290529	6194255	283.07	2.434	Stainless Steel housing	Natural control		Diver
WC15	WC15S1	A3B	290754	6192239	324.71	1.192	PVC housing	Natural control		Diver
WC12	WC12S1	A3B	290964	6191459	322.34	0.380	Polypipe housing	Weir and half pipe flume	150 mm	Orpheus
LA2	LA2S1	A3B	288364	6191364	324.65	0.824	Polypipe housing	Weir and half pipe flume	150 mm	Orpheus
LA3	LA3S1	A3B	288385	6191548	323.82	0.375	Polypipe housing	Weir and half pipe flume	150 mm	Orpheus
LA4	LA4S1	A3B	288134	6192565	322.98	0.817	Stainless Steel housing	Modified control	150 mm	Diver
ND1	ND1S1	A3B	288607	6190491	325.11	1.130	Polypipe housing#	Weir and half pipe flume	150 mm	Orpheus
NDC1	NDC1S1	A3B	288473	6190485	324.4	3.747	PVC housing#	Weir and half pipe flume	225 mm	Orpheus
DC13	DC13S1	A3B	289401	6194605	339.50	1.638	PVC housing	Natural control		Diver
Donalds Castle	DCS2	A3B	289502	6194572	341.27	1.084	PVC housing	Natural control		Diver
Donalds Castle	DCU	A3B	289407	6195577	322.42	6.219	Stainless Steel housing	Natural control		Diver
SC10	SC10S1	A3A	293608	6192516	333.03	2.771	Stainless Steel housing	Natural control		Diver, recently updated to Orpheus
SC10C	SC10CS1	A3A	293358	6192433	340.78	0.817	Stainless Steel housing	Natural control		Diver
Sandy Ck	SCL2	A3A	293819	6192648	328.61	7.029	Stainless Steel housing	Modified control (leaky)		Diver
	2022205	A3A	293819	6192648	328.61	7.029	WaterNSW site	Modified control (leaky)		Unknown
LC5	LC5S1	A3A,C	293043	6195327	318.1	1.861	Polypipe housing#	Weir and half pipe flume	225 mm	Orpheus
CR36	CR36S1	A3C	291487	6197650	272.82	1.7	PVC housing	Weir and half pipe flume	225 mm	Orpheus
WC20	WC20s1	A3C	290906	6194133	303.86	0.39	PVC housing	Weir and half pipe flume	150 mm	Orpheus

Watercourse	Site	Area	Easting (z56)	Northing (z56)	Z_Elevation [mAHD]	Catchment area [km^2]	Installation	Structure type		Logger
WC24	WC24s1	A3C	290863	6194658	286.9	0.5	PVC housing	Weir and half pipe flume	150 mm	Orpheus
WC26	WC26s1	A3C	290703	6195411	277.85	0.55	PVC housing	Weir and half pipe flume	150 mm	Orpheus
LC6	LC6s1	A3C	293571	6194873	314.5	1.17	PVC housing	Weir and half pipe flume	150 mm	Orpheus
LA8	LA8S1	A5	285764	6193225	331.56	0.93	Polypipe housing	Weir and half pipe flume	150 mm	Orpheus
LA13A	LA13AS1	A5	285401	6194826	319.93	1.04	Polypipe housing	Weir and half pipe flume	150 mm	Orpheus level, Diver EC
LA13	LA13S1	A5	285384	6194777	320.35	2.79	PVC housing	Weir and half pipe flume	225 mm	Orpheus
AR31	AR31S1	A5	283999	6197770	270.7	2.96	Polypipe housing	Weir and half pipe flume	225 mm	Orpheus level, Diver EC
AR32	AR32S1	A5	283945	6197576	266.1	1.5	PVC housing	Weir and half pipe flume	150 mm	Orpheus
AR19	AR19S1	A5	285584	6198528	382.91	3.53	Polypipe housing	Weir and half pipe flume	225 mm	Orpheus level, Diver EC
DC8	DC8S1	A5	289249	6197663	301.2	2.61	Polypipe housing	Weir and half pipe flume	225 mm	Orpheus level, Diver EC
CR29	CR29S1	A6	289969	6201109	257.13	2.33	Polypipe housing	Weir and half pipe flume	225 mm	Orpheus level, Diver EC
CR31	CR31S1	A6	290062	6200056	248.33	2.55	Polypipe housing	Weir and half pipe flume	225 mm	Orpheus level, Diver EC
Reference Sites										
O'Hares Ck	213200	Wedderburn	300657	6217589	166.87	73.0		V-notch		
alternative Reference Site										
Bomaderry Ck	215016	Bomaderry	279354	6142065	25.822	31.0	Vandalised, stolen 2019	Natural rock bar and boulders		Vandalised, stolen 2019*
Cordeaux R	2122204	Cordeaux Dam No.1	295413	6188702		9.3^				

Notes:

IMC gauging stations operated by ALS. *Italicised text* = to be confirmed. # plastic housing/pipes damaged in 2022 during flooding.

Reference gauge data from WaterNSW.

* WaterNSW advise that Bomaderry Creek gauging site repeatedly vandalised, equipment stolen (2019-20) and not yet replaced.

^ not from WaterNSW - estimated in GIS

Table C2 ALS data quality codes

DATA QUALITY CODE	DESCRIPTION	
1	Good continuous records	Notes:
2	Reliable Edited Data	Negative values of these codes may be shown on the data quality charts shown later in this Appendix. These indicate where a record has been processed or infilled.
3	Unreliable Edited Data	
5	Non-Continuous Data	
55	Fair quality data	
69	Fair Quality Rating Extrapolated	
104	Records estimated	
109	Poor quality data	
140	Level below CTF (cease-to-flow)	
145	Discharge not reliable Rating under review	
150	Rating table extrapolated due to inadequate gauging information	
151	Data not yet available	
160	Water level below sensor	
161	Poor quality data from debris affecting sensor	
205	Data lost	
255	No data exists	

Table C3 Data quality assessment for Reference Gauges

Watercourse	Gauge Id	Gauge Name	Start Date	End Date	No. of Records	% available	% suspect	% infilled	Status
Wongawilli Ck	300024	WWU	2/11/2007	17/04/2021	5586	99.2%	2.2%	0.8%	Primary Reference
O'Hares Creek	213200	Wedderburn (213200)	2/02/1978	19/04/2023	16513	99.9%	0.0%	0.0%	Primary Reference
Bomaderry Creek	215016	Bomaderry Creek at Bomaderry (215016)	4/07/2003	10/05/2020	6156	99.0%	1.0%		Alternative Reference – **equipment vandalised, not viable.**

Additional Reference Sites might be adopted for future analysis – a subset of Area 5 sites (LA8S1, DC8S1, AR19S1) will continue to be monitored and be used as Reference Sites.

* WaterNSW advise that Bomaderry Creek gauging site repeatedly vandalised, equipment stolen (2019-20) and after May-2020, not yet replaced.

Table C4 Data quality assessment for Area 3A and 3B and relevant Assessment Sites

Assessment Sites			Summary - Pre-Mining data						Summary - Post-Mining data					
Watercourse	Hydstra No.	Gauge Name	Start Date	End Date	No. of Records	% available	% suspect	% infilled	Start Date	End Date	No. of Records	% available	% suspect	% infilled
Donalds Castle Creek	300023	DCU	2/11/2007	8/02/2013	1926	100.0%	0.0%	0.0%	9/02/2013	18/04/2023	3721	99.1%	18.3%	0.1%
DC13	300067	DC13S1	27/06/2012	8/02/2013	227	100.0%	0.0%	0.0%	9/02/2013	26/04/2023	3729	91.8%	10.8%	2.0%
Donalds Castle Creek	300068	DCS2	27/06/2012	9/07/2013	378	100.0%	0.0%	0.0%	10/07/2013	26/04/2023	3578	98.3%	8.4%	1.7%
Wongawilli Creek	300022	WWL	2/11/2007	8/02/2010	830	96.4%	3.8%	3.6%	9/02/2010	17/04/2023	4816	98.1%	3.5%	0.0%
Wongawilli Creek	300022A	WWLA							23/08/2018	17/04/2023	1699	95.6%	15.5%	0.7%
WC21	300069	WC21S1	20/06/2012	4/10/2013	472	99.8%	0.2%	0.2%	5/10/2013	17/04/2023	3482	96.6%	12.7%	0.0%
WC15	300071	WC15S1	20/06/2012	27/01/2017	1683	91.2%	15.9%	9.0%	28/01/2017	26/04/2023	2280	95.1%	23.8%	0.0%
WC12	300092	WC12S1	5/04/2019	17/10/2020	562	100.0%	5.0%	0.0%	18/10/2020	26/04/2023	921	98.3%	9.5%	0.0%
LA4	300070	LA4S1	24/09/2012	31/03/2015	919	100.0%	0.0%	0.0%	1/04/2015	21/04/2023	2943	77.7%	28.8%	0.2%
LA3	300091	LA3S1	3/02/2019	27/04/2019	84	100.0%	2.4%	0.0%	28/04/2019	21/04/2023	1455	99.9%	6.0%	0.1%
LA2	300090	LA2S1	4/02/2019	29/02/2020	391	100.0%	14.6%	0.0%	1/03/2020	21/04/2023	1147	100.0%	2.18%	0.0%
ND1	300093	NDS1	3/03/2019	17/04/2021	777	100.0%	8.8%	0.0%	18/04/2021	21/04/2023	734	100.0%	7.90%	0.0%
SC10	300018	SC10S1	28/10/2007	16/09/2011	1420	96.9%	3.2%	0.0%	17/09/2011	20/04/2023	4234	9884%	473%	80%
SC10C	300019	SC10CS1	2/11/2007	16/09/2011	1415	95.1%	5.1%	4.9%	17/09/2011	20/04/2023	4234	9676%	2241%	29%
Sandy Ck	WaterNSW	2122205	1/05/2011		0				1/05/2011	20/04/2023	3818	89%	0%	6.0%

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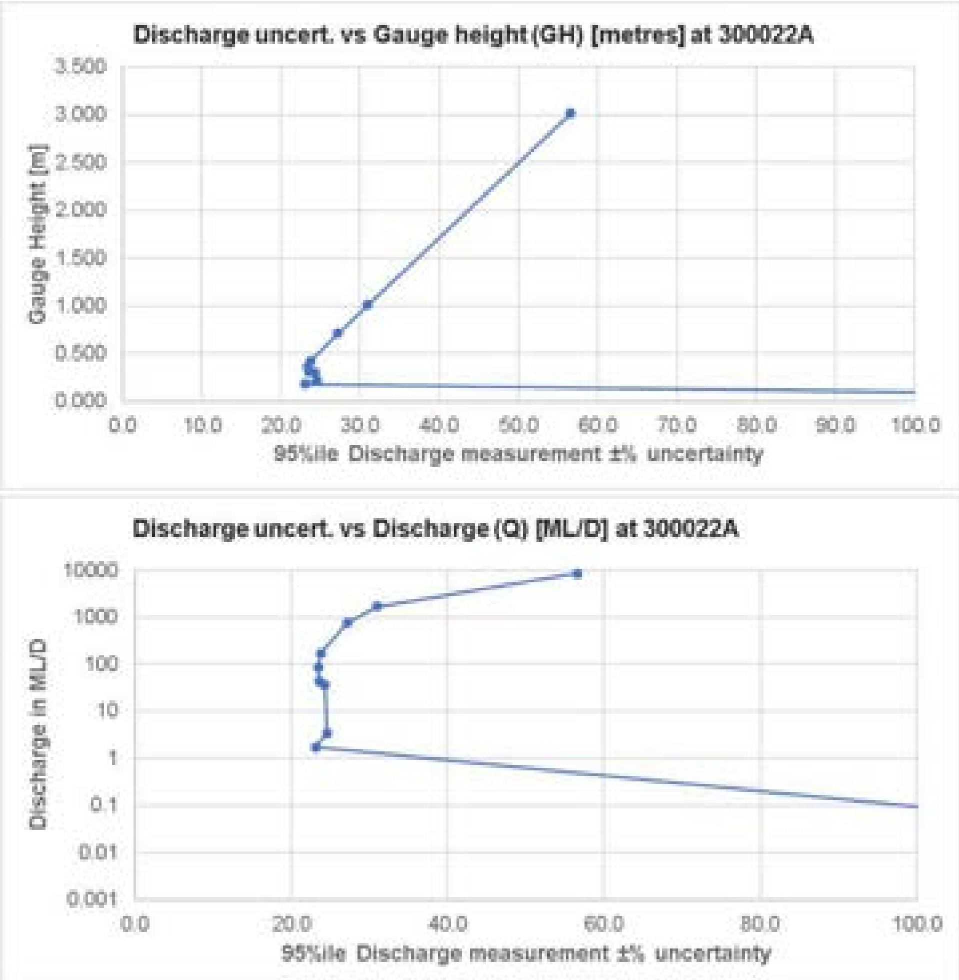
“Suspect” data based on raw data assigned ALS quality codes >145.

C5) Flow gauge uncertainty (assessed by Enviromon)

Gauge 300022A – WWL_A



The use of an artificial control (halfpipe) leads to generally lower uncertainty than for the natural control sites (e.g. DCS2, WC21 or WWL). High flow uncertainty related to flow above the structure and few high flow gaugings. High flow gaugings, possibly via alternative methods, are recommended.

Comments from Enviromon:

1) There are 13 rating table points, but only 2 of which are within the half pipe depth, to explain and define its low flow rating, which is insufficient to cover this range of most interest;

For example, after CTF level of 0.012m, there are 0.022m (10mm above CTF), then 0.024m (12mm above CTF), then 0.178m (54mm above the top of the half pipe, and spread across the wide bund).

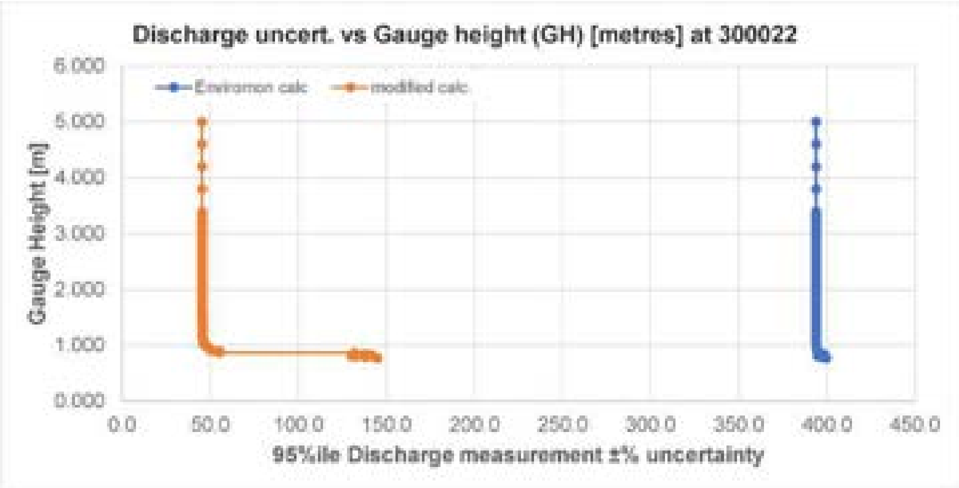
2) ALS could be asked to consider using the generic 225mm half pipe rating done by Enviromon for South32, which does have far more rating points;

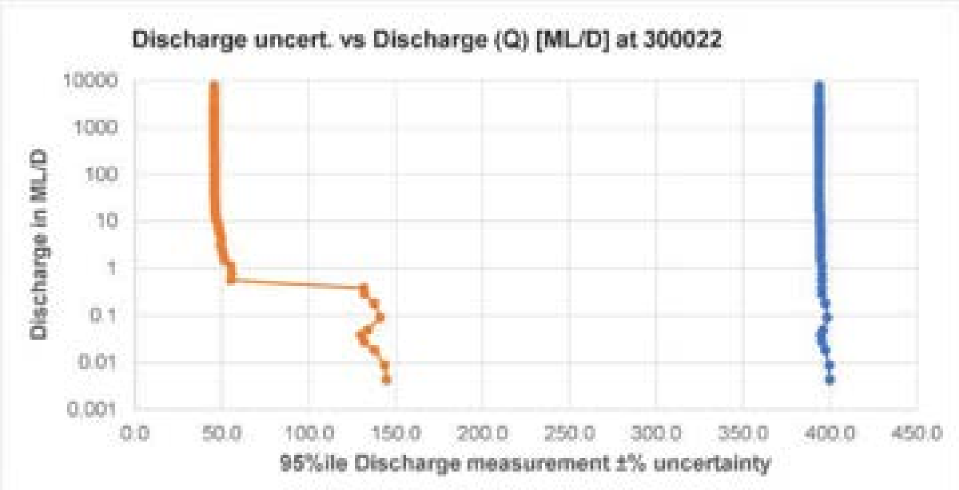
3) Most of the low flow gaugings have been done with a pygmy meter held in the centre line of the half pipe. Although practical, this method is unconventional.

ALS could be asked to prove this method against, say, an experimental half pipe setup in their office, versus a V-notch measured flow to the half pipe.

4) In very low flows (e.g. at gauge height 0.022m), discharge uncertainty is dominated by the effects of level measurement uncertainty, whereas for depths above the half pipe, uncertainty is dominated by the uncertainty attributable to the scatter of field gaugings about the rating.

Gauge 300022 – WWL





Enviromon developed the blue uncertainty curve, and a modified version of that has been calcualted by Watershed HydroGeo (orange series). The high uncertainty at low flow relates to underflow at the (permeable) control. High flow gaugings, possibly via alternative methods, are recommended.

<u>Comments from Enviromon:</u>

1) There are 263 rating table change points- which is really excessive for such a site;
   It is expected that 10 to 20 would be sufficient, like for site DCU (300023).

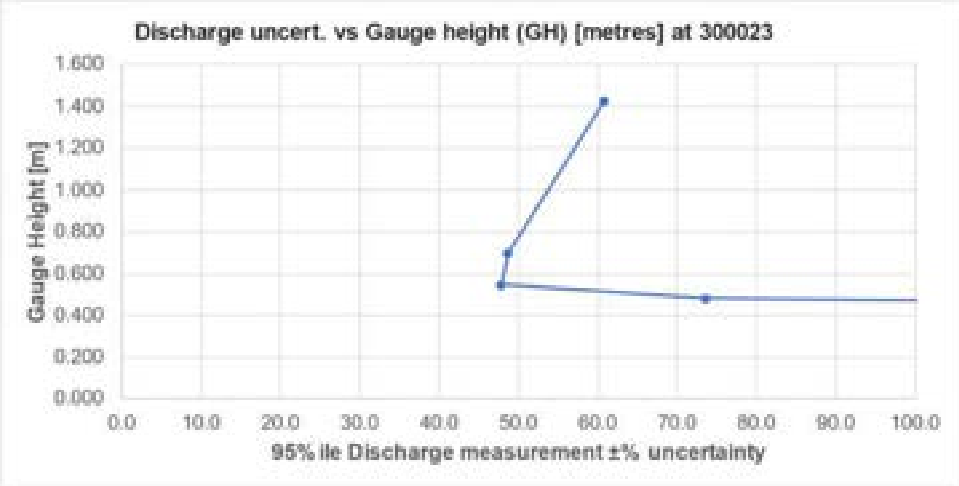
2) Note the comment in sheet 1 concerning the mismatch between precise CTF level and rounded off CTF level (0.700 vs 0.7085) which needs confirmation/correction.

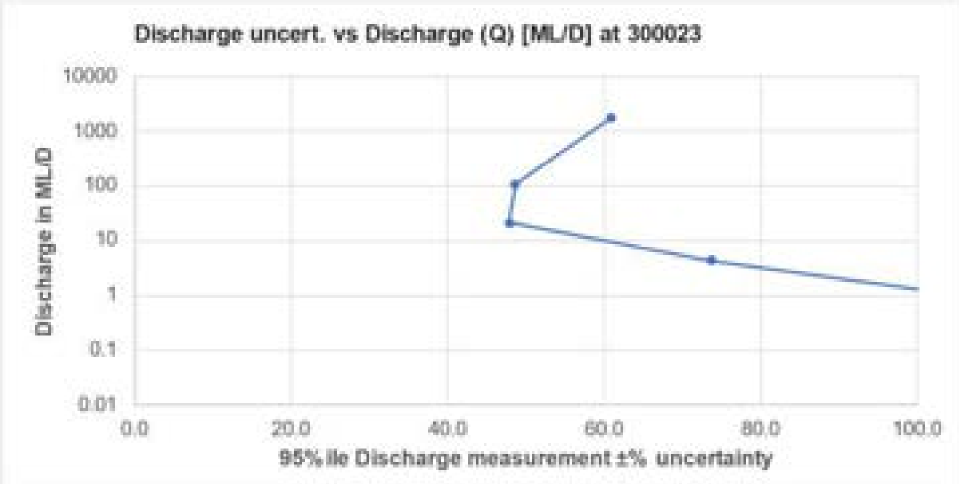
3) Out of the 32 gaugings taken only 18 were suitable for uncertainty analysis, as the other 14 were either no flow or flow so low that a valid gauging could not be taken, OR LEAKAGE PAST THE CONTROL WAS OBSERVED

4) Level uncertainty used is the generic +/-8.2mm for a Diver sensor, as there were no comparative field difference readings to analyse

5) The very high uncertainty due to gauging deviations is mostly due to "leakage" effects- for example the three gaugings taken on 24/10/2019 which each showed more than 600% deviation mismatch. Using these to quantify low-flow uncertainty alone (and not moderate/high flow uncertainty) is the basis for the orange chart series.

Gauge 300023 – DCU





<u>Comments from Enviromon:</u>

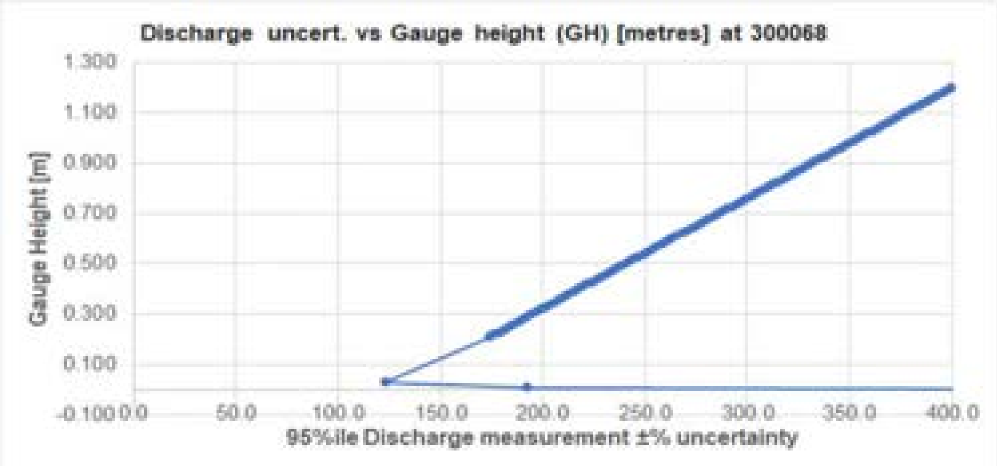
1) Out of the 29 gauging records, only 9 were valid for this analysis, due to 20 being either zero flow or so low that no valid measurement could be taken

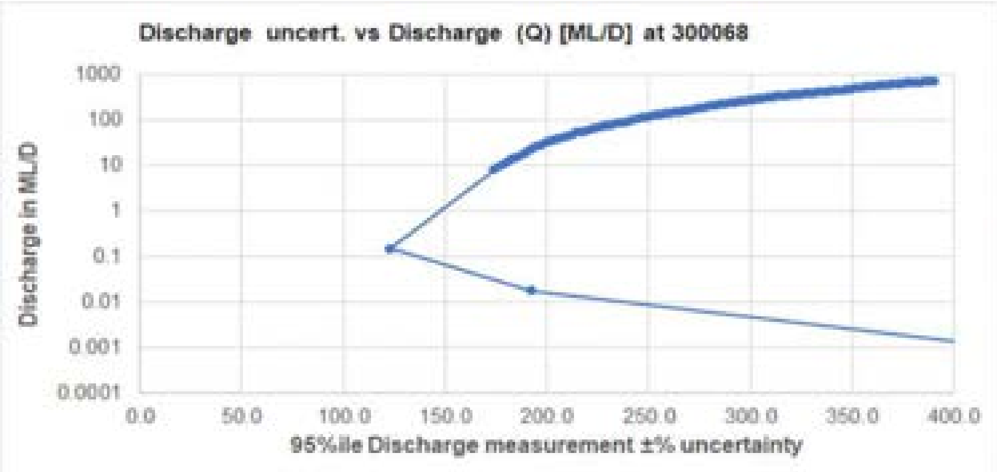
2) Gauging 28 on 4/3/21 had the highest deviation- South 32 noted leakage:- Serviced by S32. Pygmy av. = 0.05844 MLD and comment of 'approx. 10% leakage'

Could this be a general issue with this site?

3) Level uncertainty used is the generic +/-8.2mm for a Diver sensor, as there were no comparative field difference readings to analyse

Gauge 300098 – DCS2





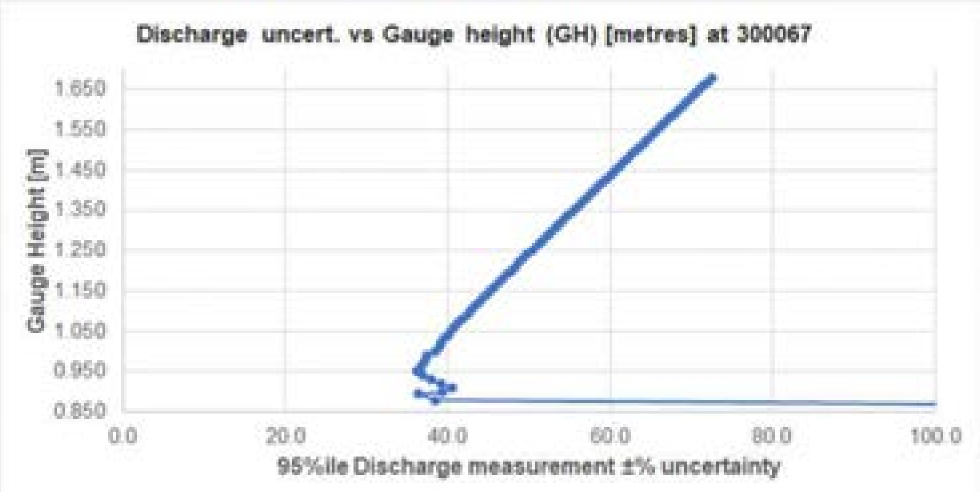
Enviromon (2022) noted that there is not a tight reliable and unique rating relationship between water level and discharge, ranging from -36% to +175% different from the rating. Based on this analysis, Enviromon has sent questions to ALS relating to the quality of gaugings used to develop the rating curve and the rock bar control.

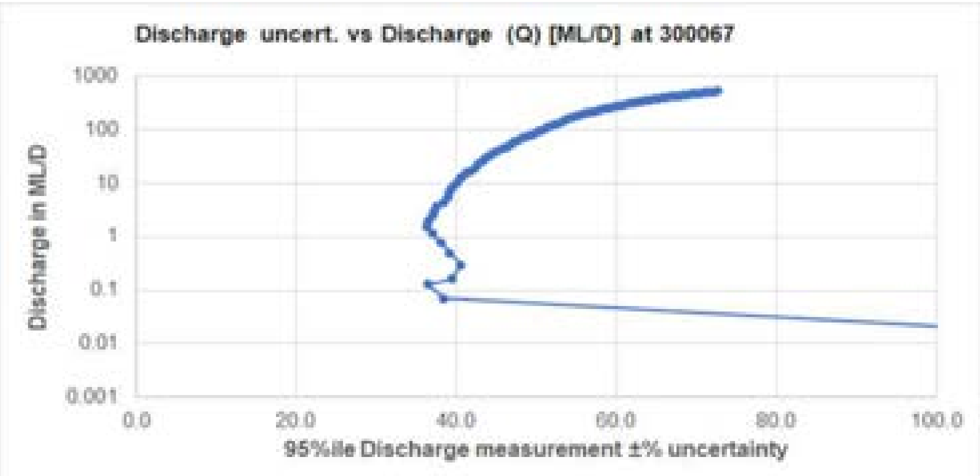
High flow gaugings, possibly via alternative methods, are required to improve high flow.

Comments from Enviromon:

This site is affected by intermittent leakage past the control, which causes gauging deviations of greater than 100% in at least 2 of the 7 valid gaugings, and hence very high "scatter of gaugings" rating uncertainty. If this leakage, which could be related to mining subsidence and fracturing, cannot be located and sealed, then relocation should be considered (or grouting beneath the control?).

Gauge 300067 – DC13S1

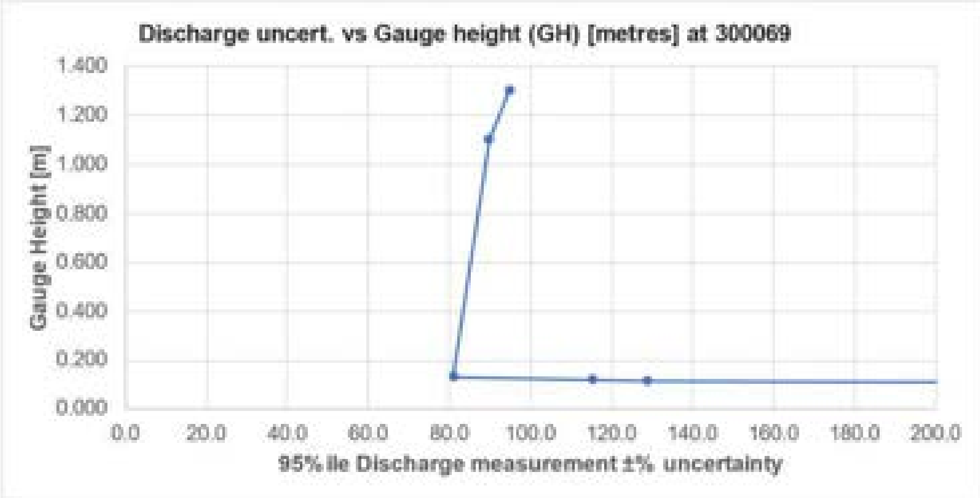


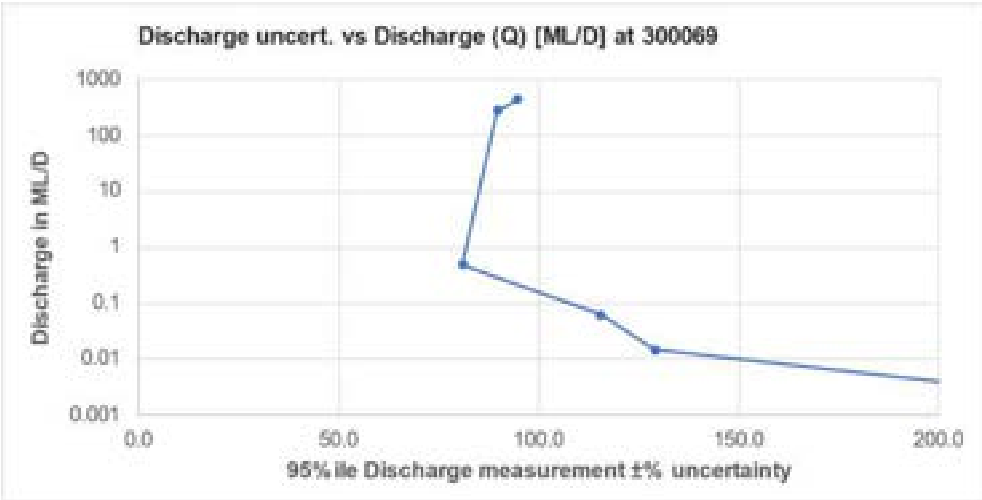


Comments from Enviromon:

Enviromon (2022) noted that there is not a tight reliable and unique rating relationship between water level and discharge, ranging from -29% to +44% different from the rating. The rock bar control makes low flow measurement very sensitive to level measurement uncertainty. Enviromon has sent questions to ALS relating to the quality of gaugings used for the rating curve and other issues.

Gauge 300069 – WC21S1

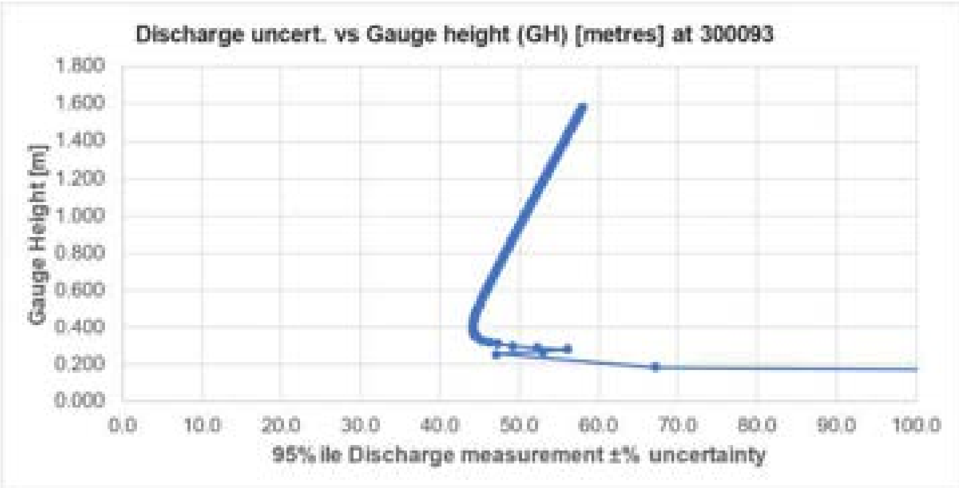




Comments from Enviromon:

1) There is not a tight reliable and unique rating relationship between water level and discharge, ranging from -76% to +121% different from the rating. Intermittent leakage under the control is suspected as the main cause of this scatter of gaugings (which could be mining-related?).
2) Based on this analysis, Enviromon has sent questions to ALS relating to the quality of gaugings used to develop the rating curve and the rock bar control. If the location of the low flow leakage cannot be found then site relocation should be considered (or grouting beneath the control?).
3) High flow gaugings are required to improve high flow rating.

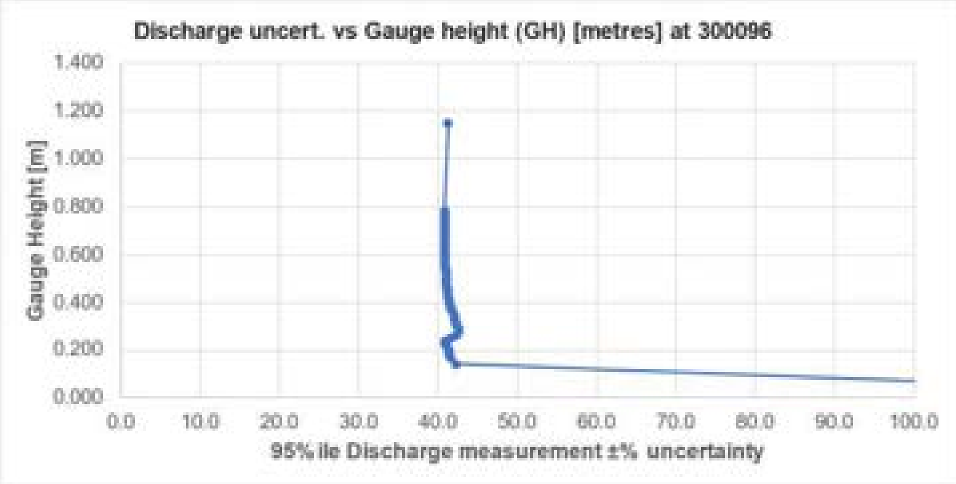
Gauge 300022A – ND1

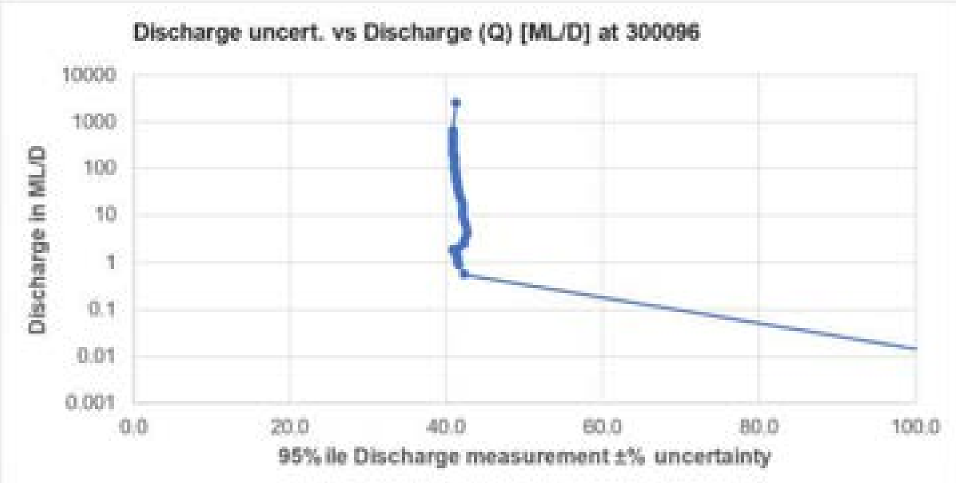


<u>Comments from Enviromon:</u>

4) There are 139 rating table change points- which seems excessive for such a site;
5) The last 2 gaugings are done with pygmy meter in half pipe, and show similar rating differences (e.g. circa 30%) as volumetrics
6) On sheet 5 "Gauge height uncertainty"- the calculated (from field differences) uncertainty of 0.007238 is greater than the generic Orpheus value of 0.0066, then raise this as an issue with ALS
7) The sudden zig-zag in uncertainty at 0.255m is because this is when flow starts to break out of the half pipe and spread wide across the bund, with rapid increase in discharge for small increase in level. This slowly recovers as level rises further and discharge does not increase so much per mm of level rise.

Gauge 300096 – CR36



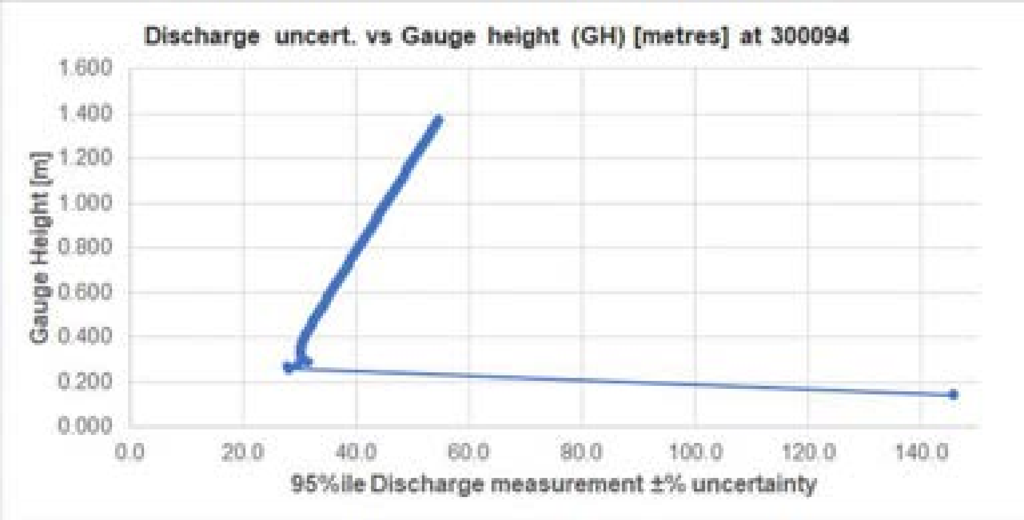


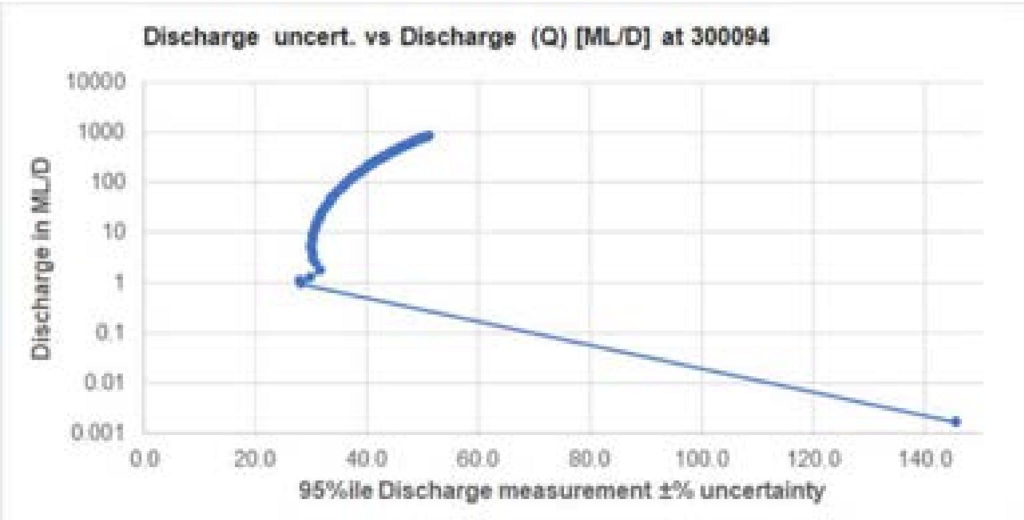
The use of an artificial control (halfpipe) leads to generally lower uncertainty than for the natural control sites (e.g. DCS2, WC21).

Comments from Enviromon:

8) There are 68 rating table change points- which seems excessive for such a site;
9) Most of the gaugings are at very small flowrates and depths, making the uncertainty of individual gaugings (and hence the rating curve plotted through them) to also be higher;
10) Note the existence of the one high gauging at 0.91m, quite a rarity- this stops the extra uncertainty of rating curve extension for most of the range of interest.
11) The % deviation varies of similar magnitude whether gauging is volumetric or pygmy meter in half pipe

Gauge 300094 – LC5S1



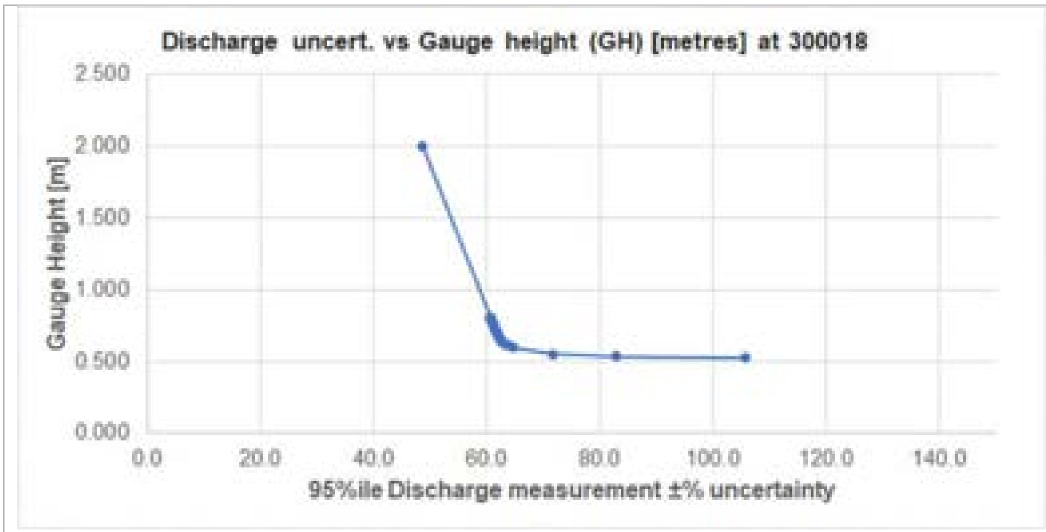


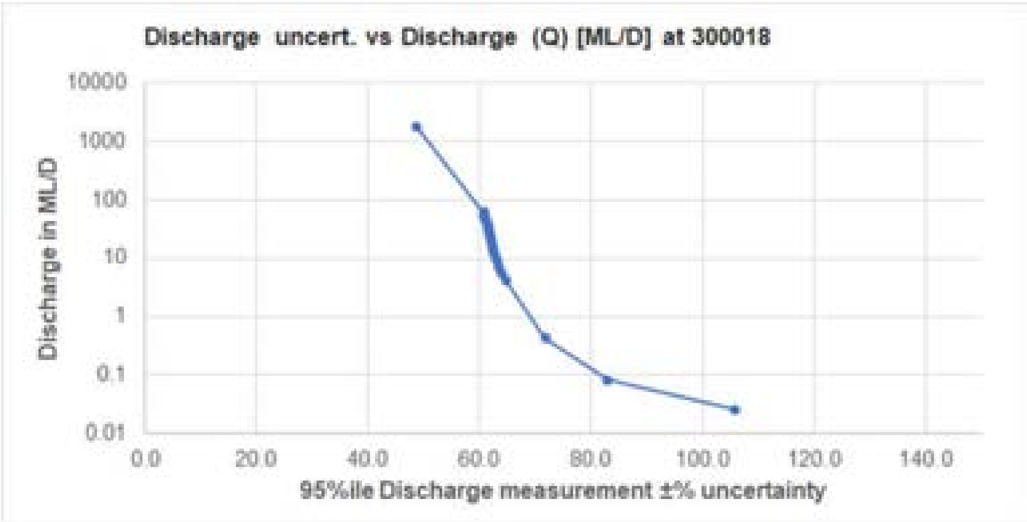
The use of an artificial control (halfpipe) leads to generally lower uncertainty than for the natural control sites (e.g SC10S1 and SC10CS1).).

Comments from Enviromon:

12) There are 126 rating table change points- which seems excessive for such a site;
13) The portion of the rating table covering the half pipe depth range is only 2 points. Although noting that only one gauging has been captured in this range, more points could be added if a generic 225mm half pipe rating were to be developed and used- as suggested in the review document (provided separately to ALS);
14) 21 of 32 gaugings exceeded ±10% differences from the rating- why so many with such large differences?;

Gauge 300018 – SC10S1



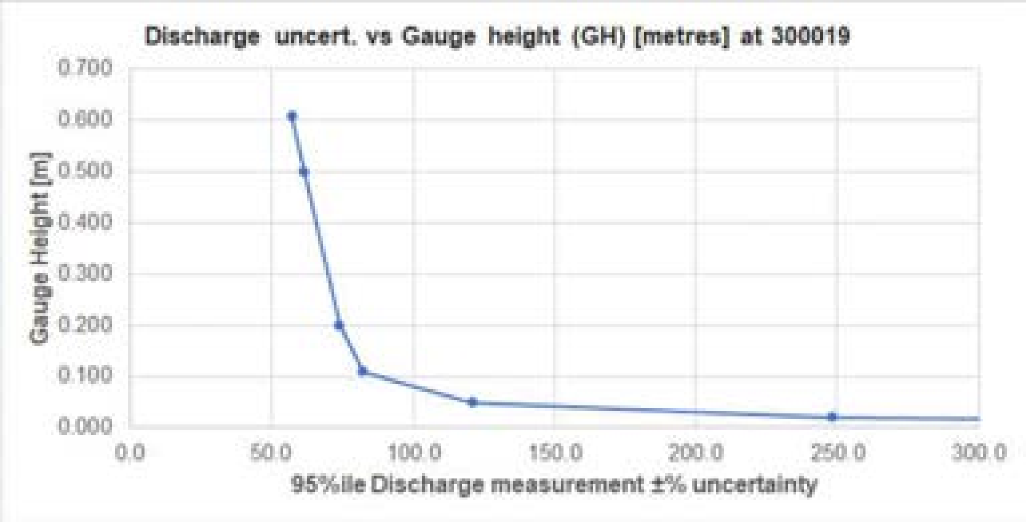


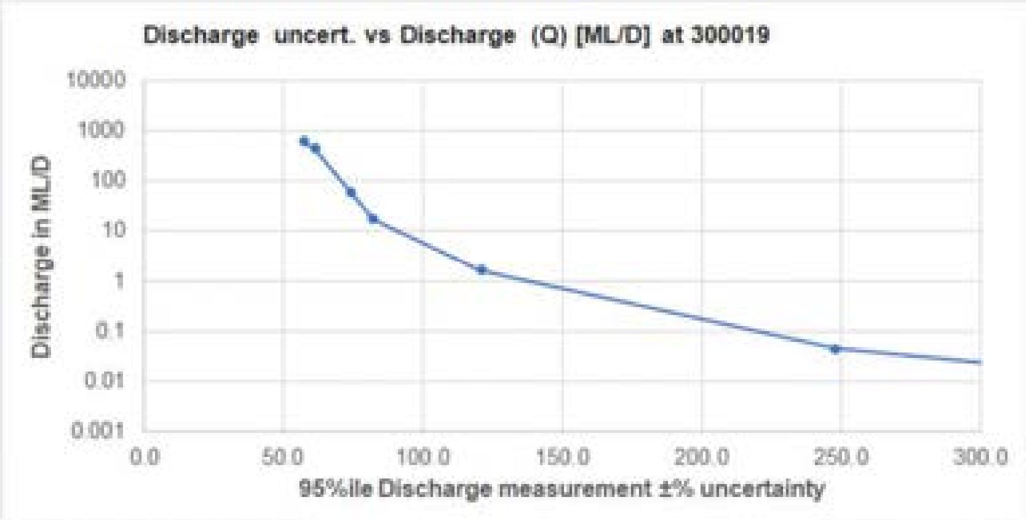
The reliance an natural control at this site leads to higher uncertainty than for the artificial/flume sites.

Comments from Enviromon:

1) 23 of 32 gaugings exceeded ±10% differences from the rating—ALS to address why there are so many with significant differences;

Gauge 300019 – SC10CS1



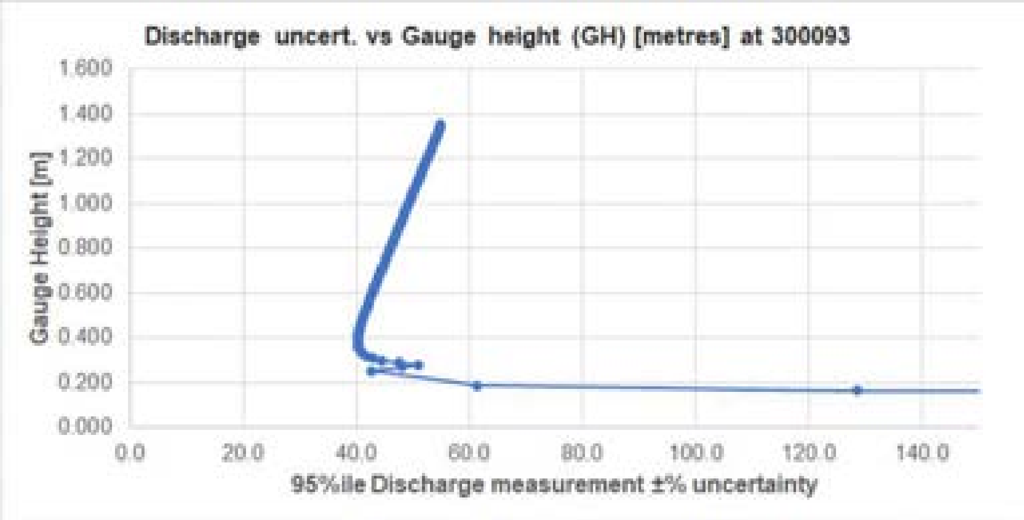


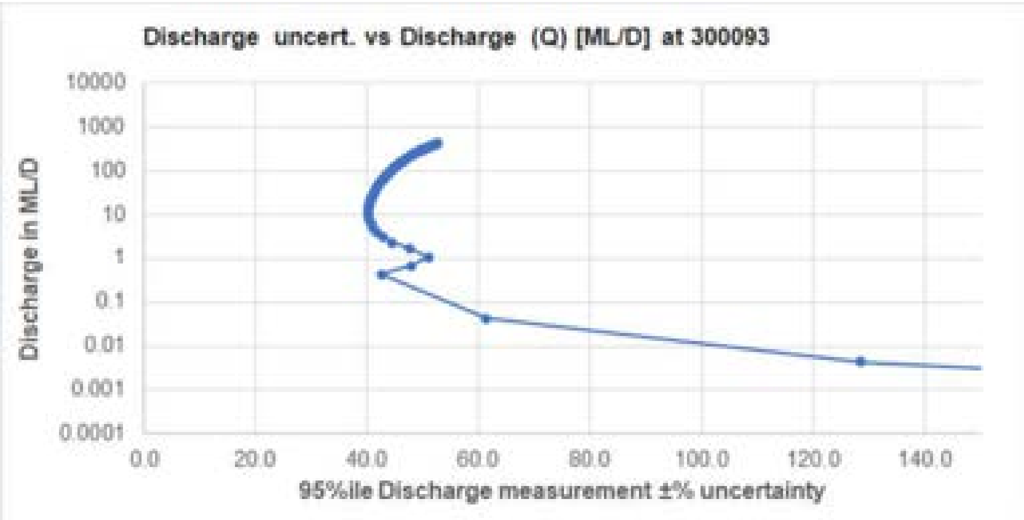
The reliance an natural control at this site leads to higher uncertainty than for the artificial/flume sites.

<u>Comments from Enviromon:</u>

1) 22 of the 24 gaugings have deviations greater than 10%, and 19 greater than 20%- ALS to address why there are so many with significant differences;
2) 18 of the 24 gaugings are in the depth range from CTF to 0.05 m, but the rating only has 3 points covering this range- ALS to address why only 3 points used. Is it related to the fact that many of the gaugings show large deviations (see point 1, above)?
3) Level measurement uncertainty is high at this site, mainly due to two particular field check differences (26mm on 10/2/21,and 23mnm on 23/11/22). The hypotheses are that the sensor could be becoming faulty, or are these large differences due to inaccuracy in field measurements. ALS to consider.

Gauge 300093 – ND1S1 (NDT1S1)





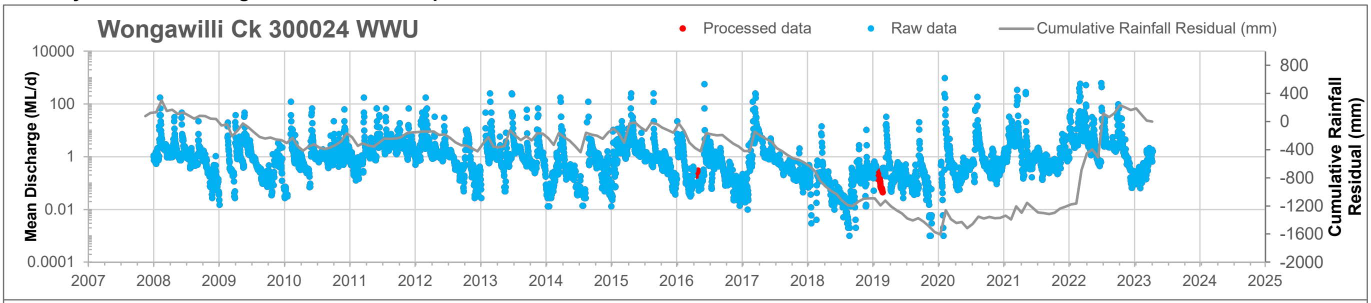
The use of an artificial control (halfpipe) leads to generally lower uncertainty than for the natural control sites (e.g. SC10S1 and SC10CS1).

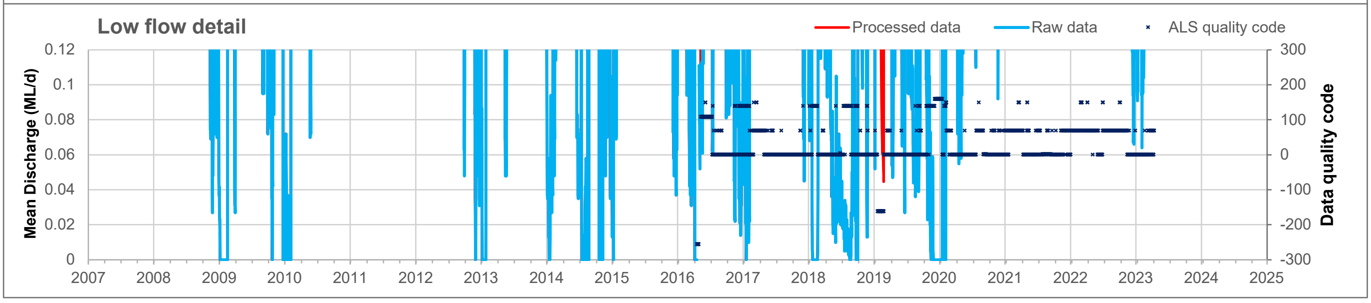
Comments from Enviromon:

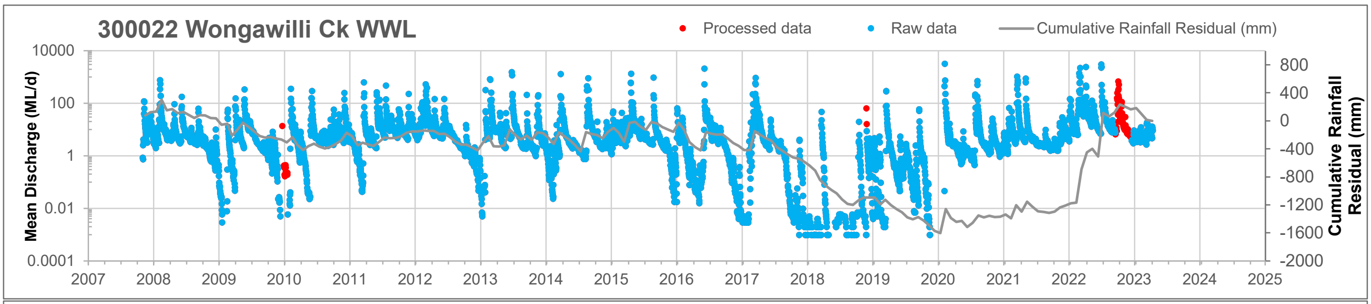
1) There are 139 rating table change points- which seems excessive for such a site;
2) 18 of the 24 gaugings are within the half pipe depth range. The portion of the rating table covering the half pipe depth range is only 5 points. As much of the flow is in this range at the site, more rating points could be added to give more sensitivity. More points could be added if a generic 150mm half pipe rating were to be developed and used- as suggested in the review document;
3) 15 of 24 gaugings exceeded ±10% differences from the rating- ALS to address why there are so many with significant differences.

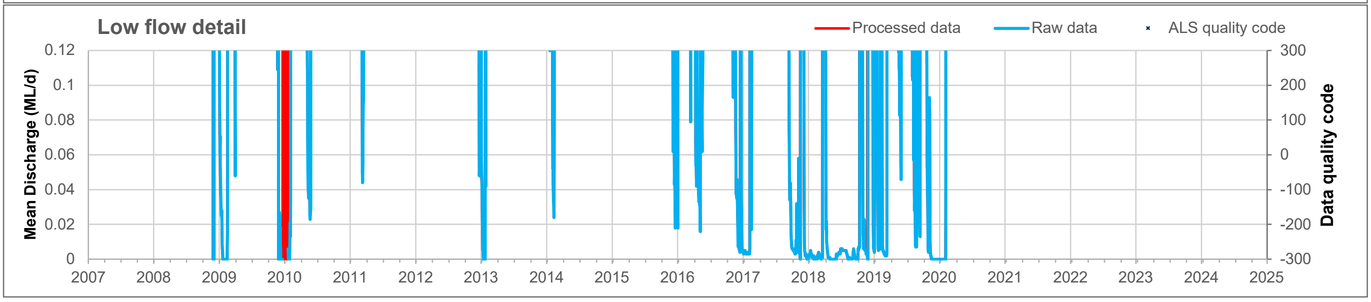
C6) Summary charts illustrating ‘raw’ flow data and processed flow data used for TARP Assessments

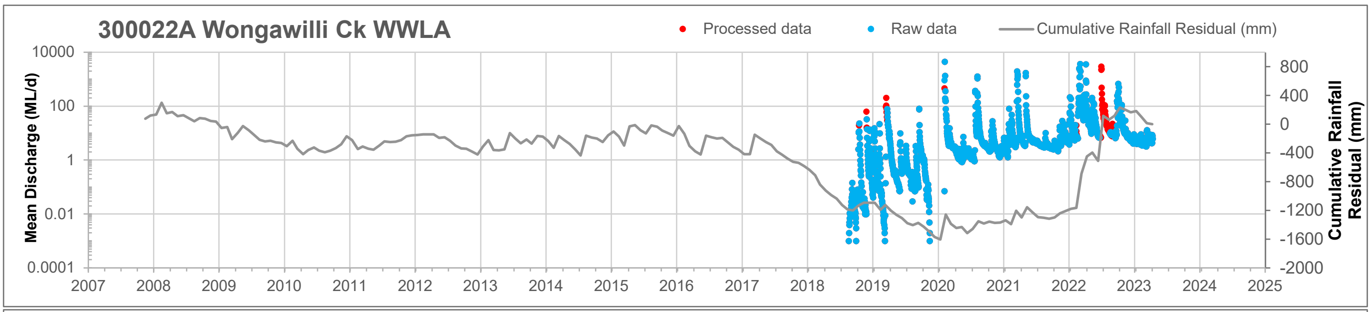
Summary charts illustrating ‘raw’ flow data and processed or infilled flow data used for TARP Assessments

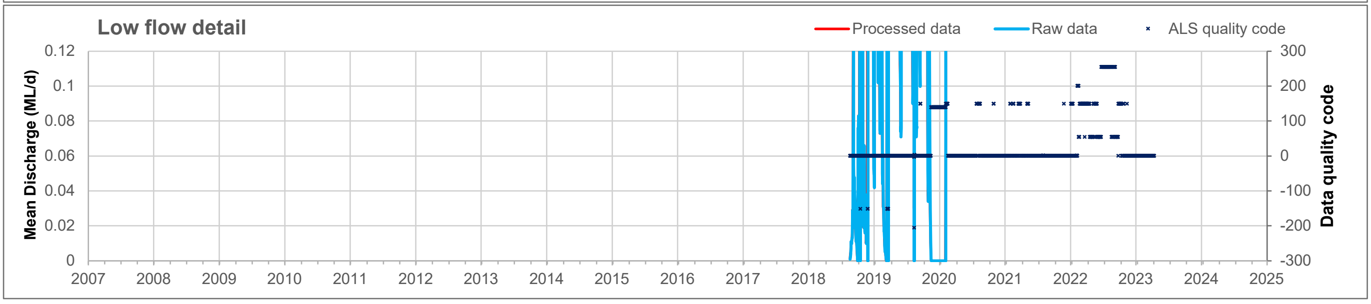












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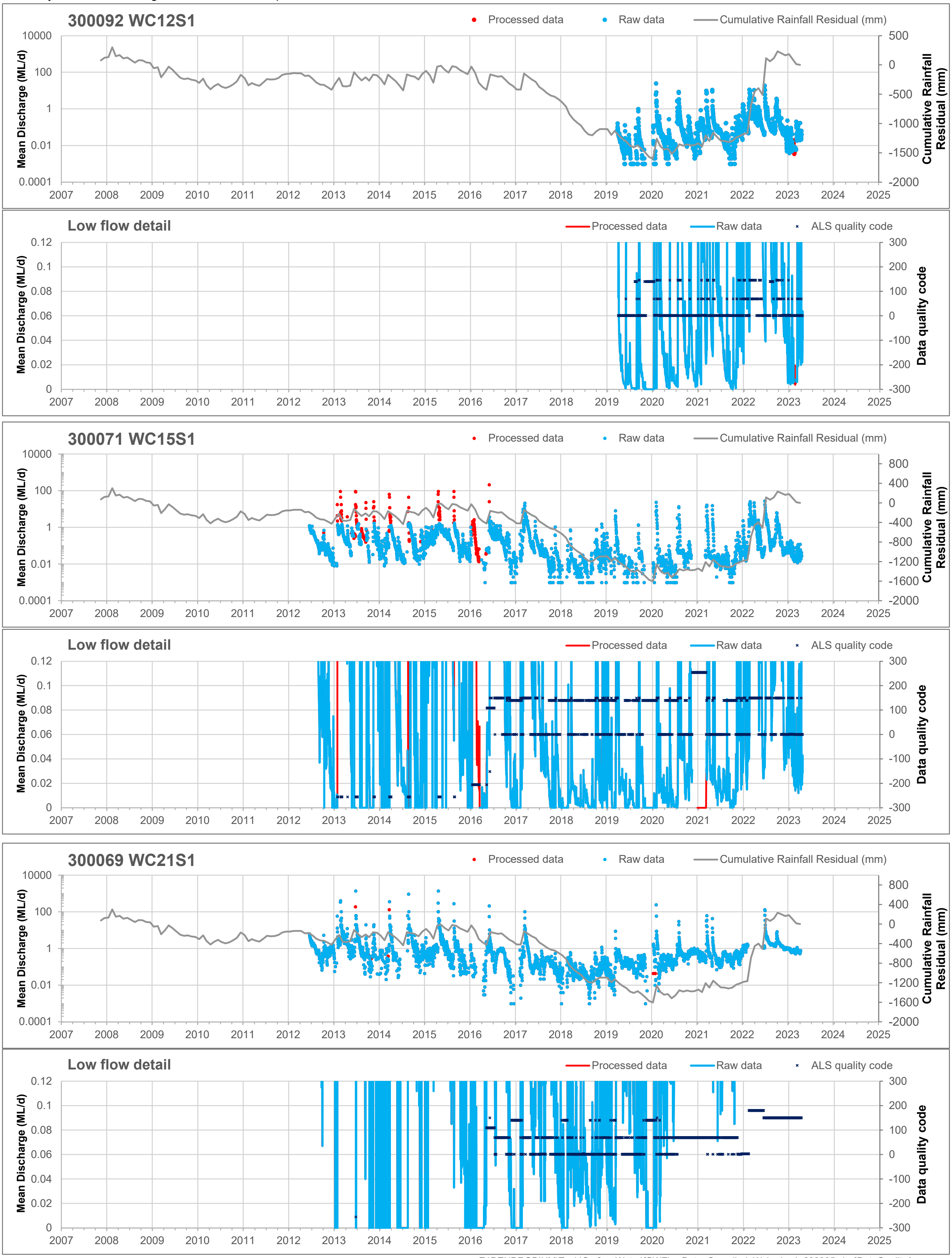
Summary charts illustrating ‘raw’ flow data and processed or infilled flow data used for TARP Assessments



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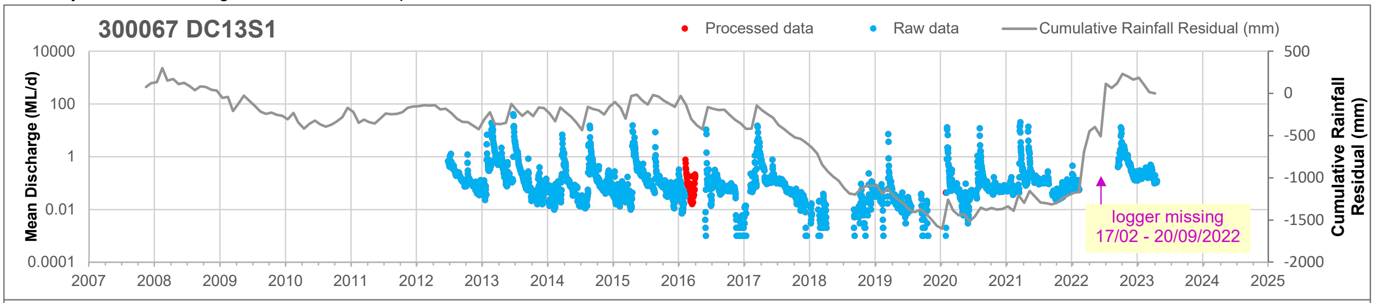

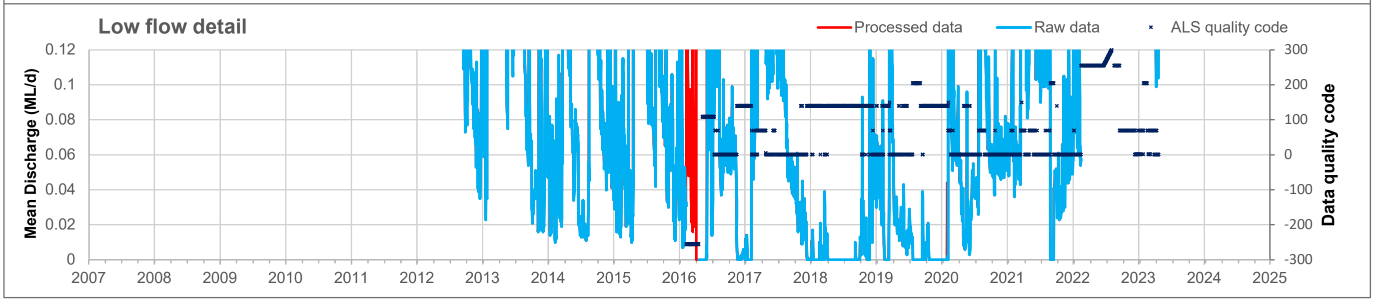

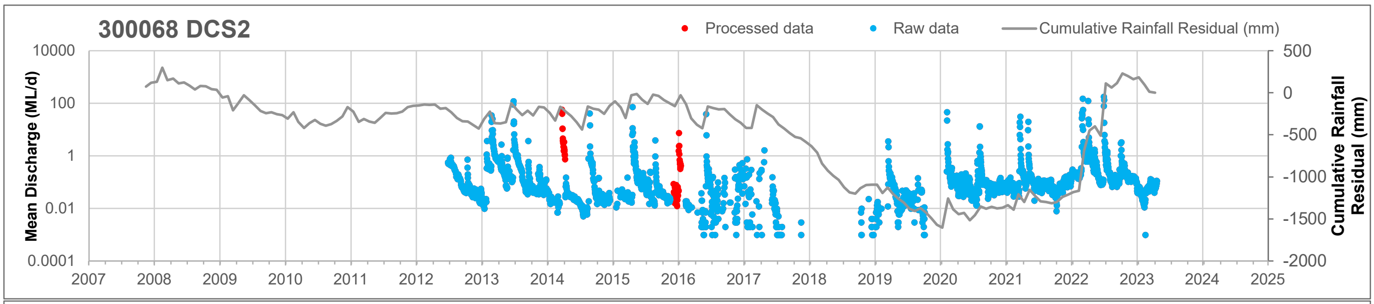

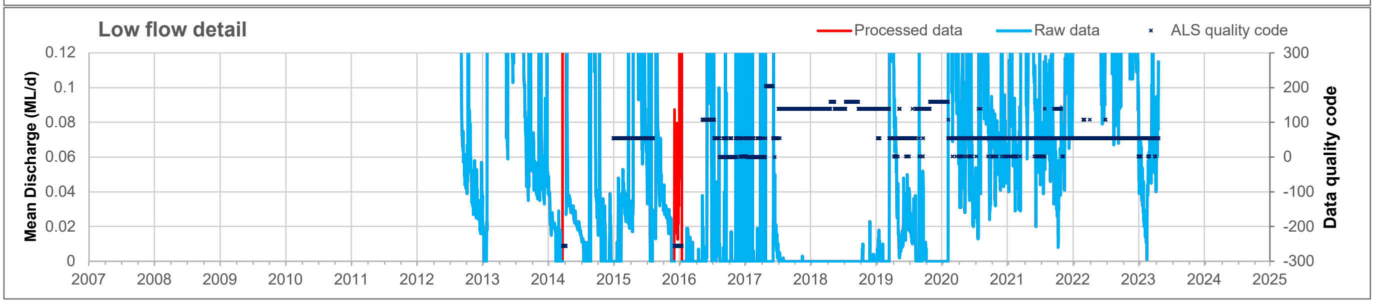

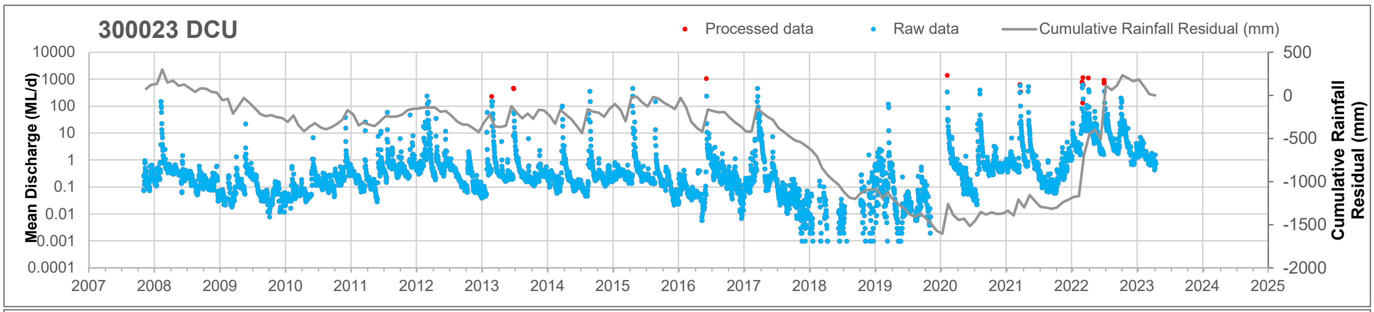

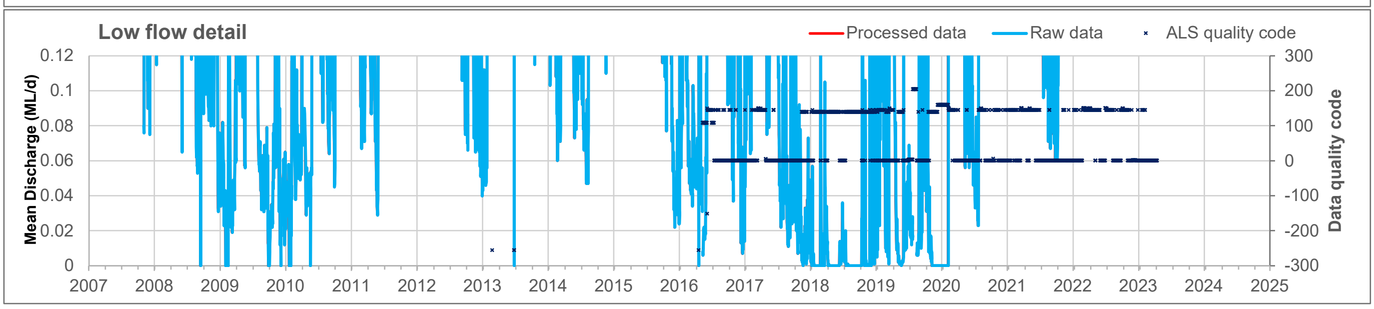

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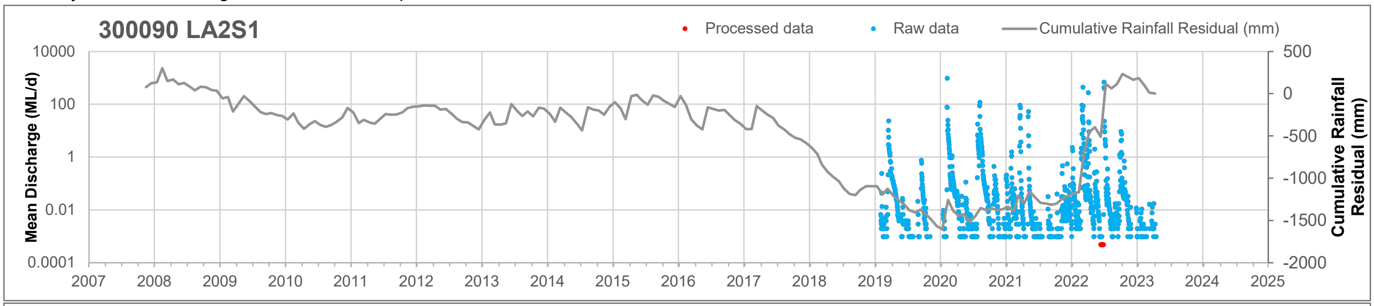
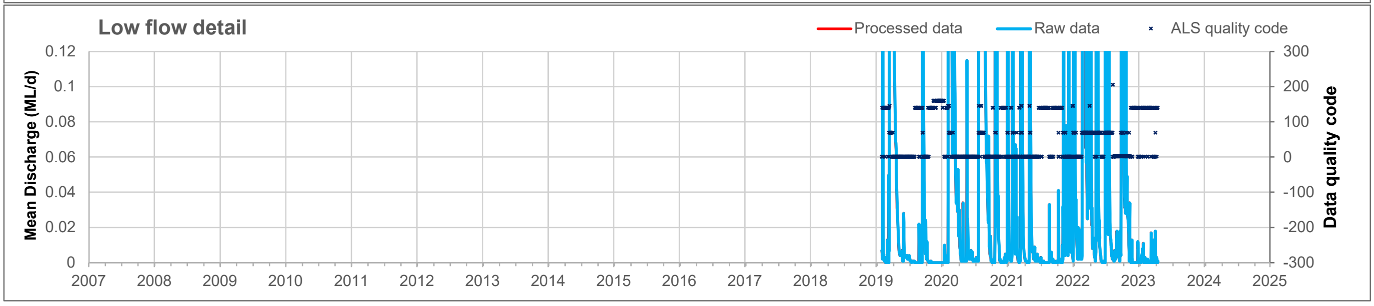
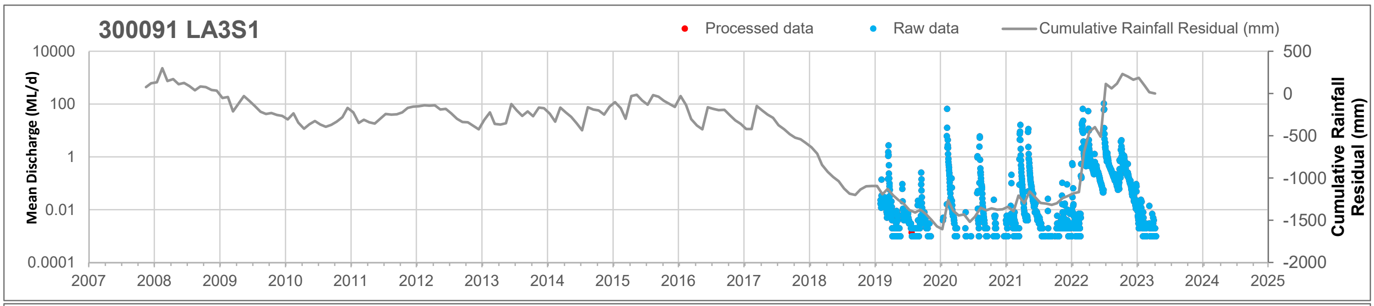
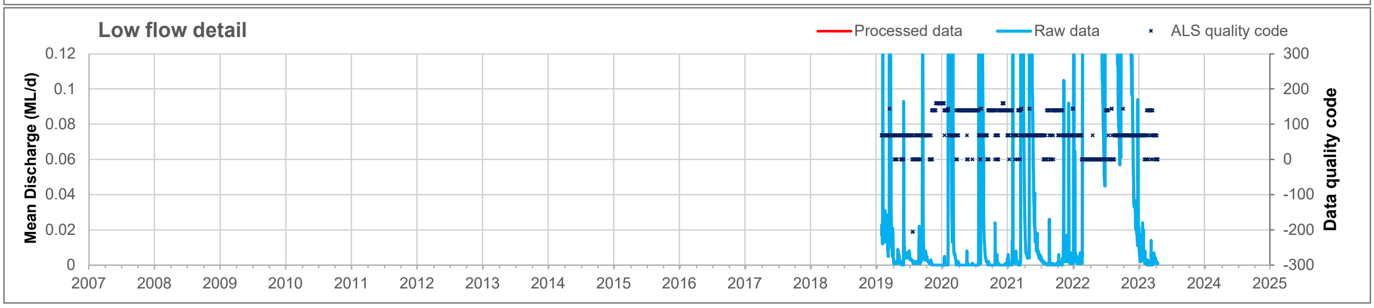
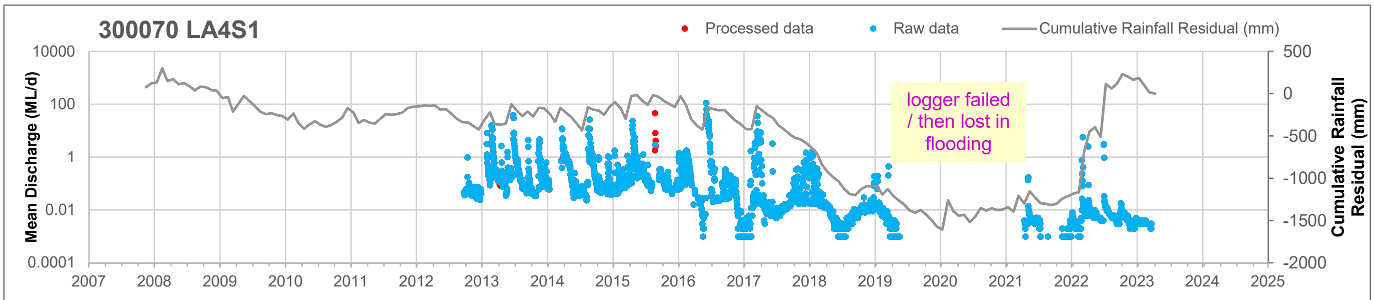
Summary charts illustrating 'raw' flow data and processed or infilled flow data used for TARP Assessments

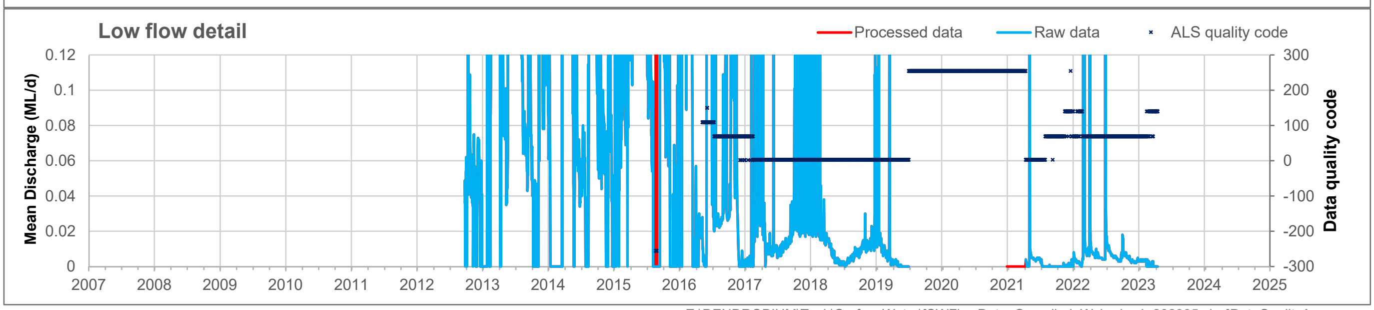












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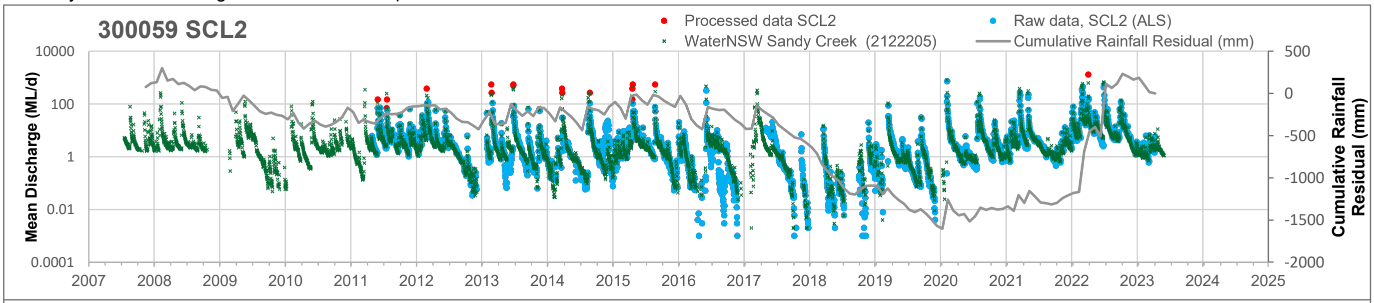
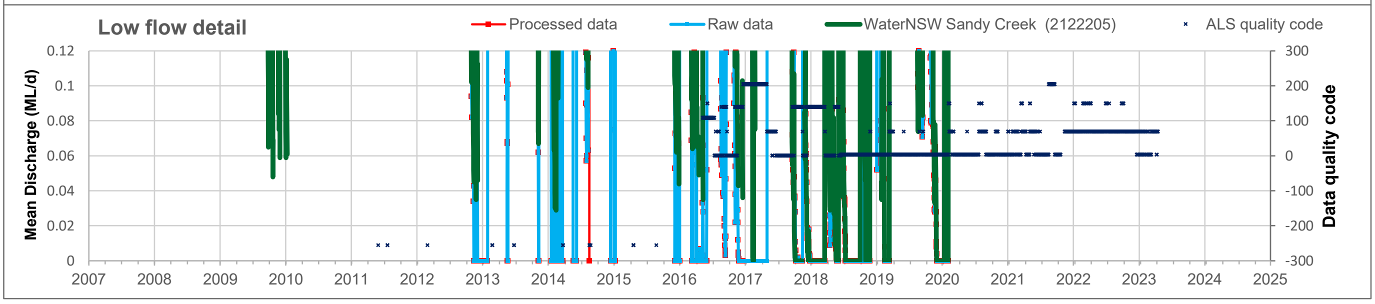
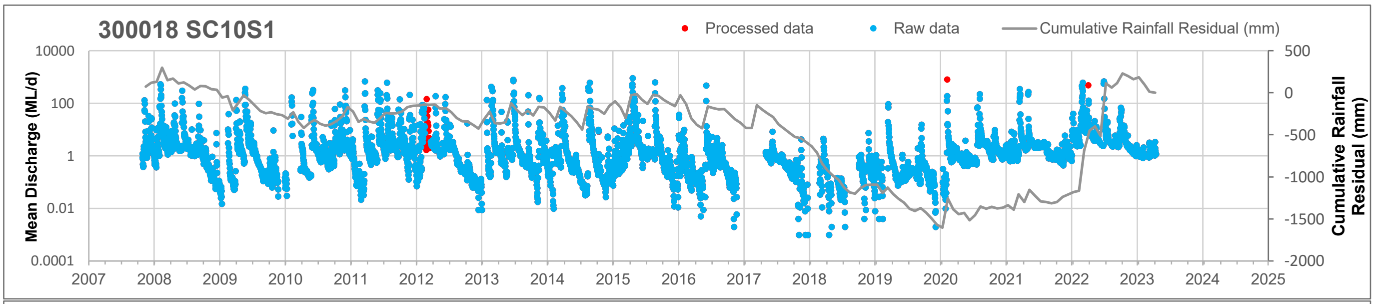
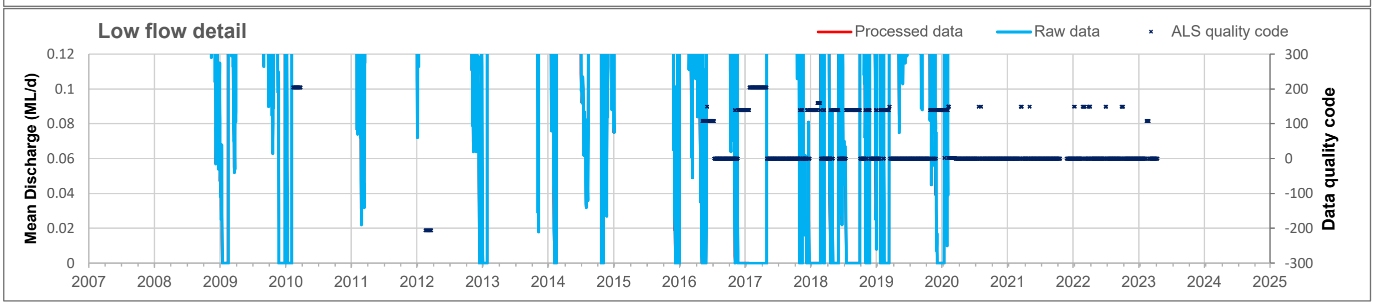
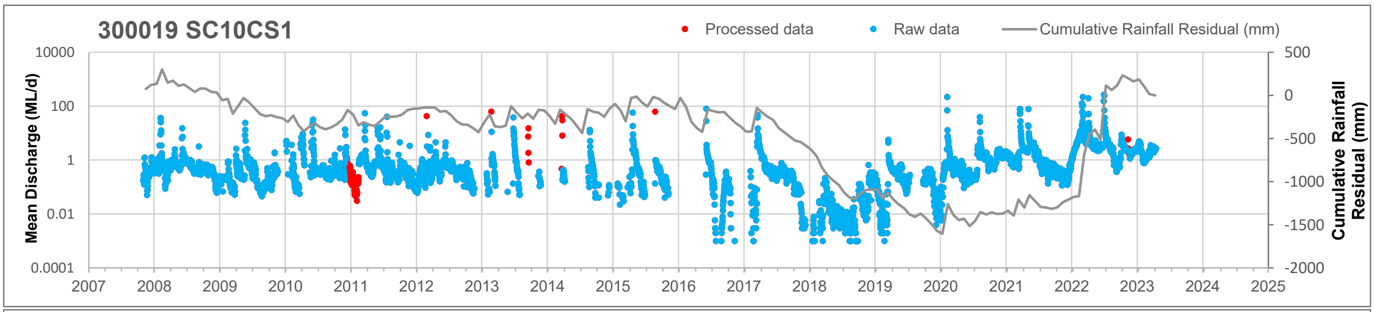
Summary charts illustrating 'raw' flow data and processed or infilled flow data used for TARP Assessments

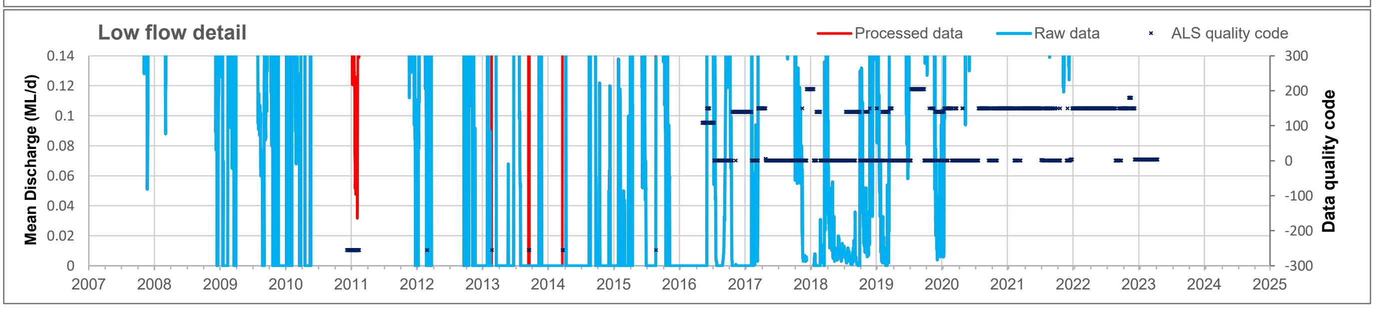












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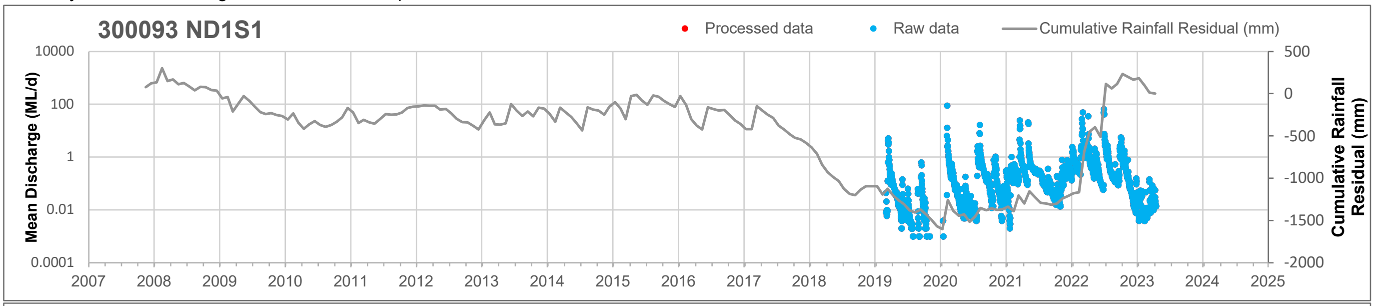
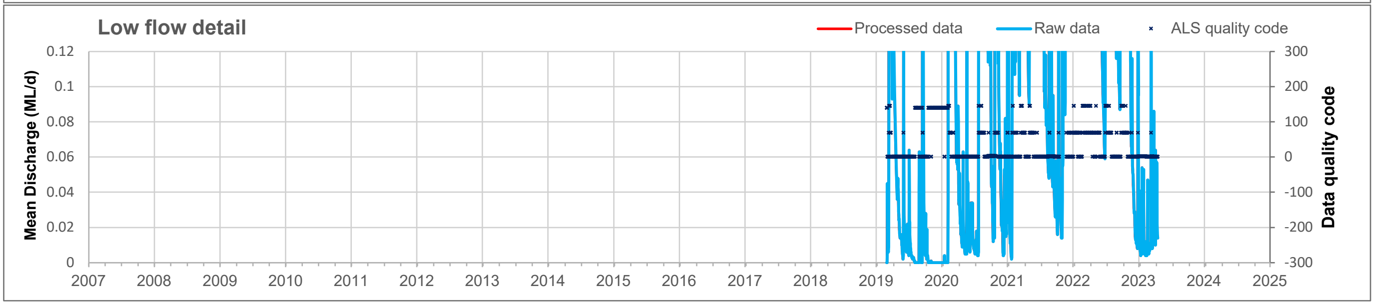
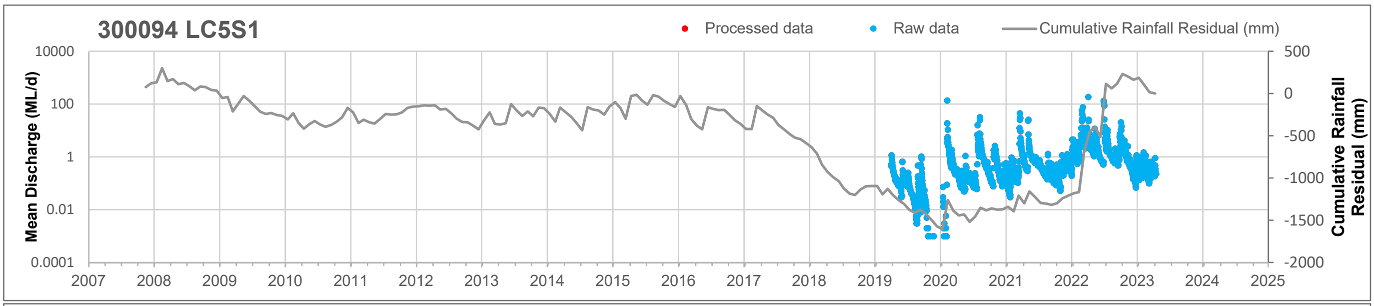
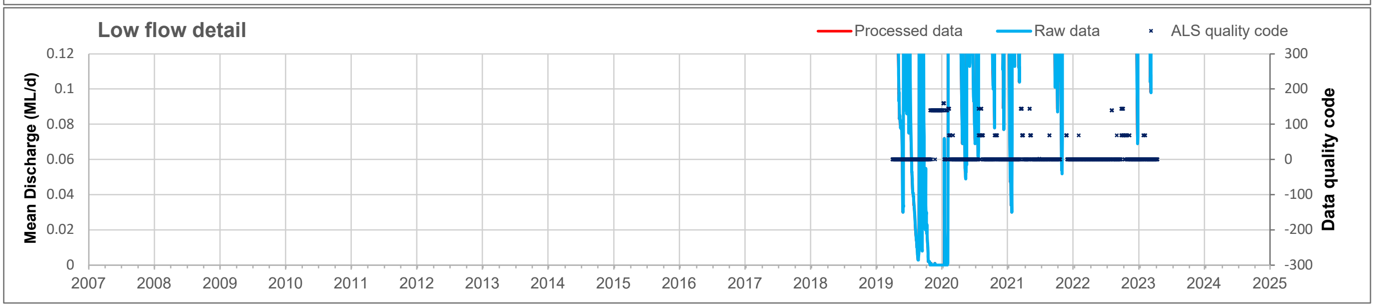
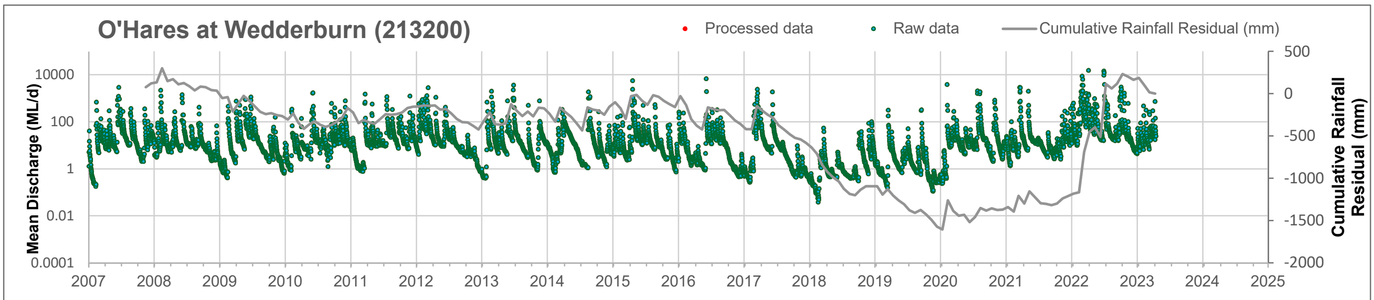
Summary charts illustrating ‘raw’ flow data and processed or infilled flow data used for TARP Assessments

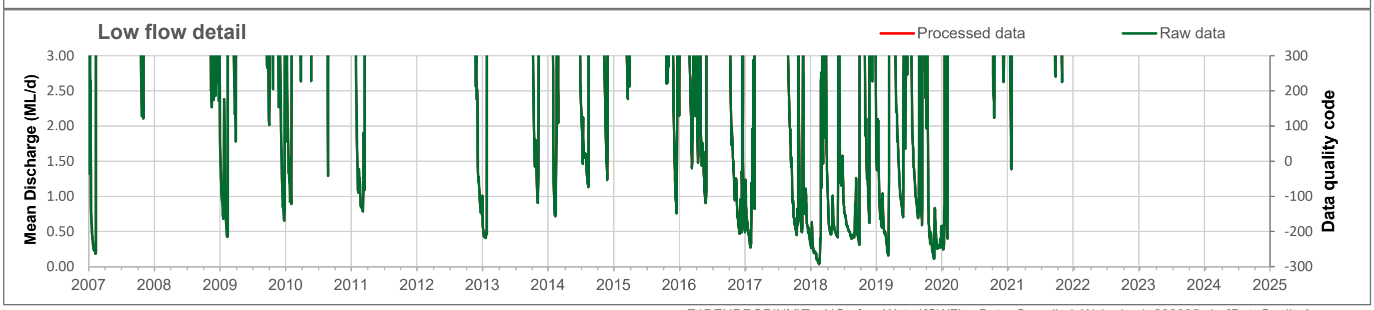






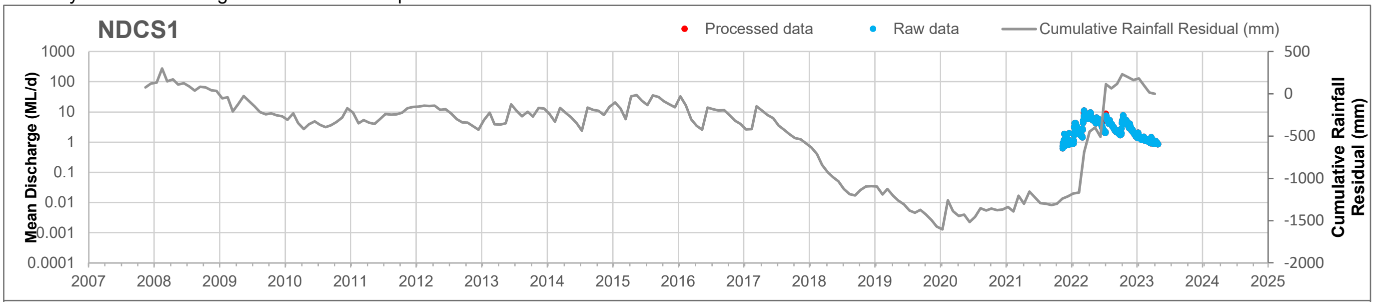


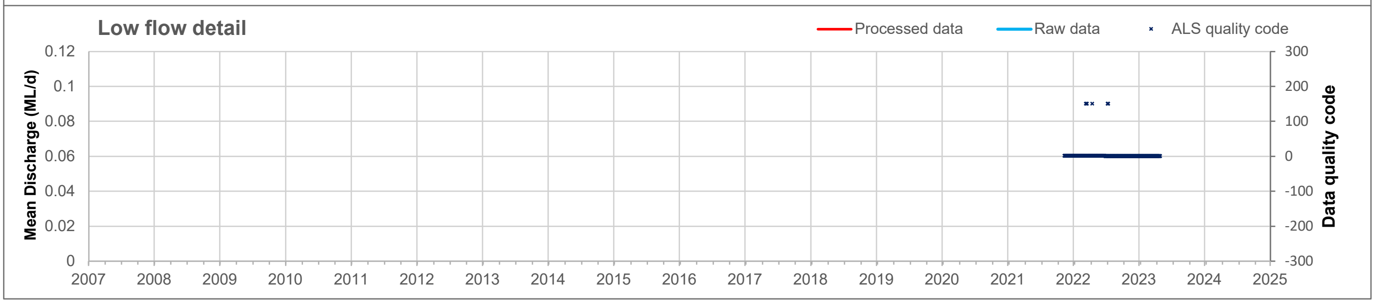


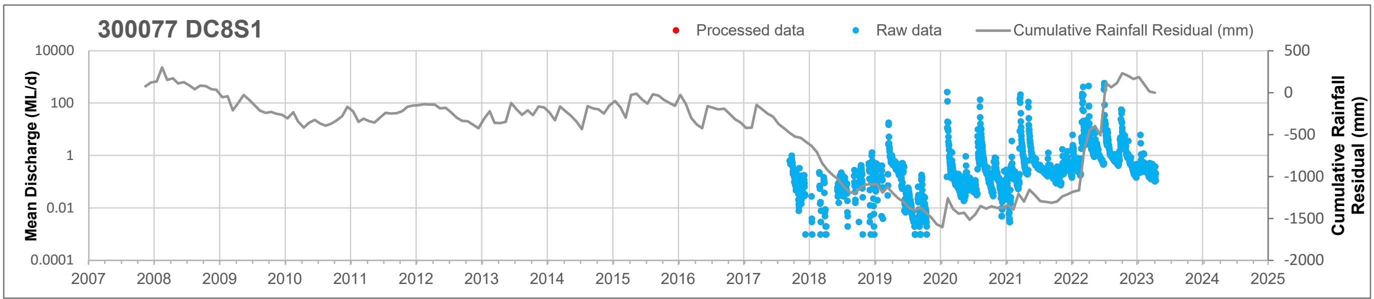


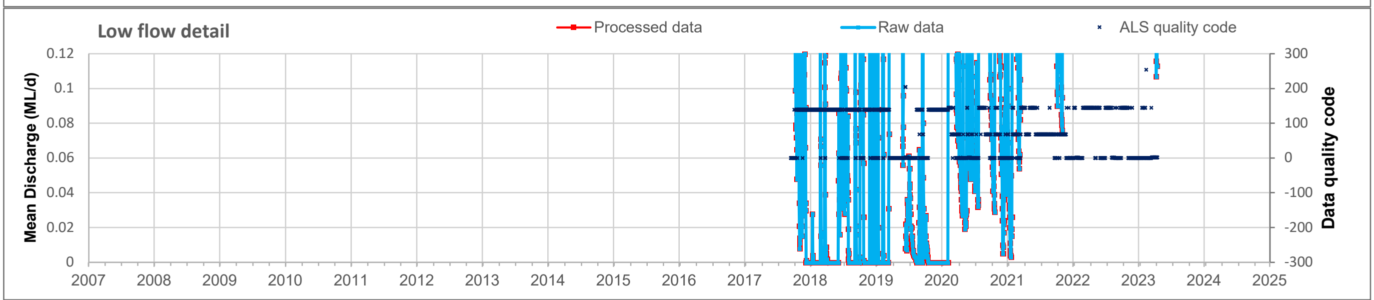
E:\DENDROBIUM\Tech\SurfaceWater\[SWFlowData_Compiled_Wshed_v4_202305.xlsx]DataQualityAssessment

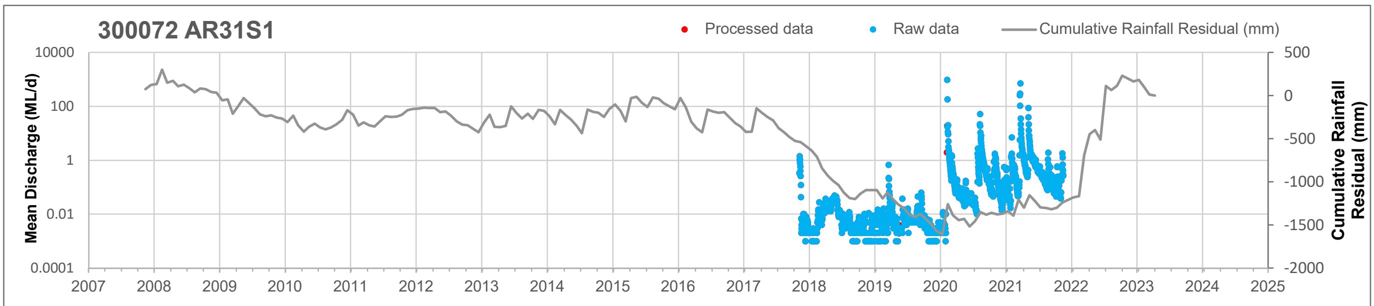
Summary charts illustrating ‘raw’ flow data and processed or infilled flow data used for TARP Assessments

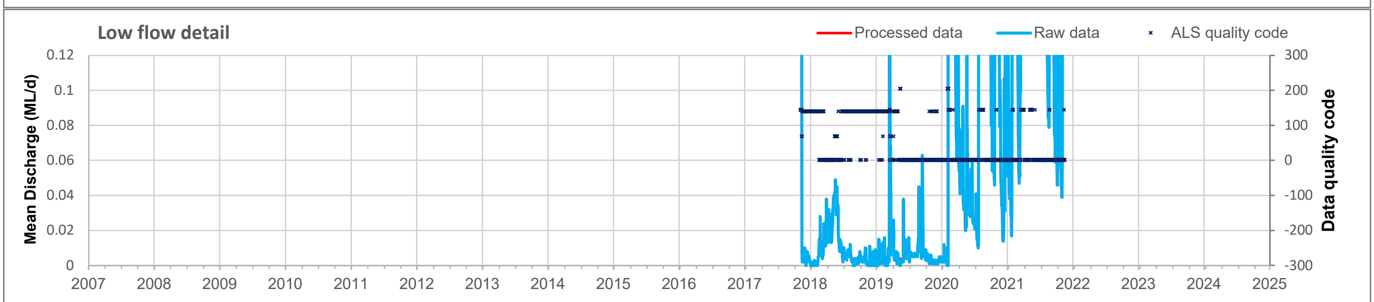






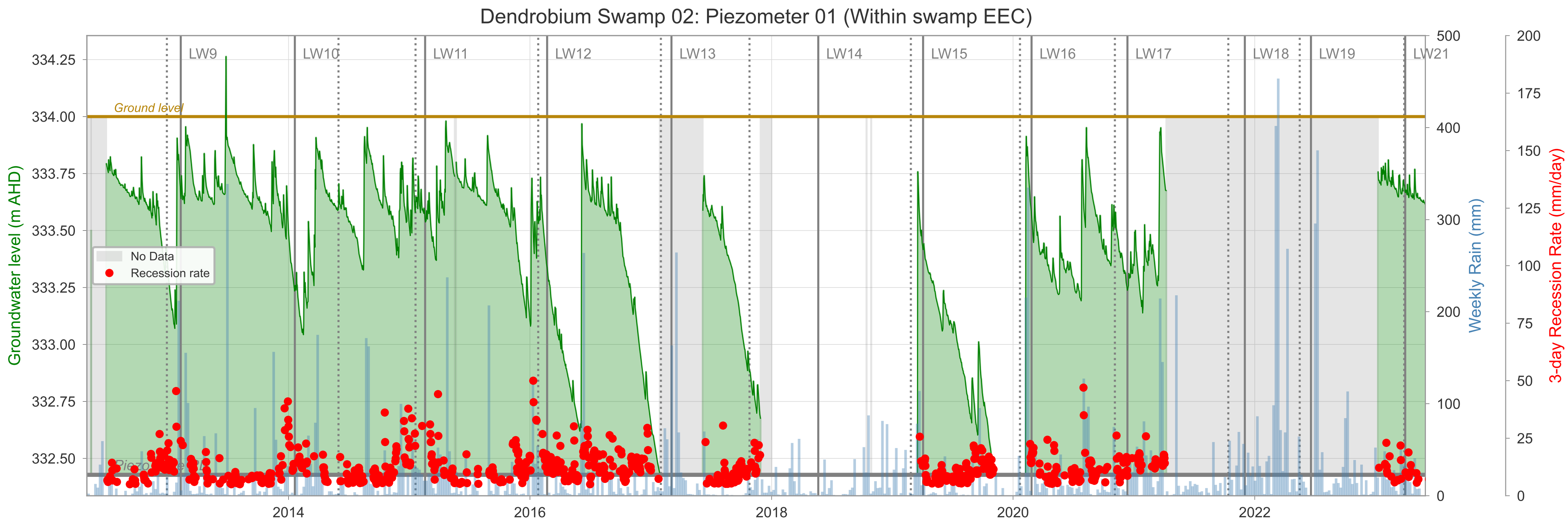


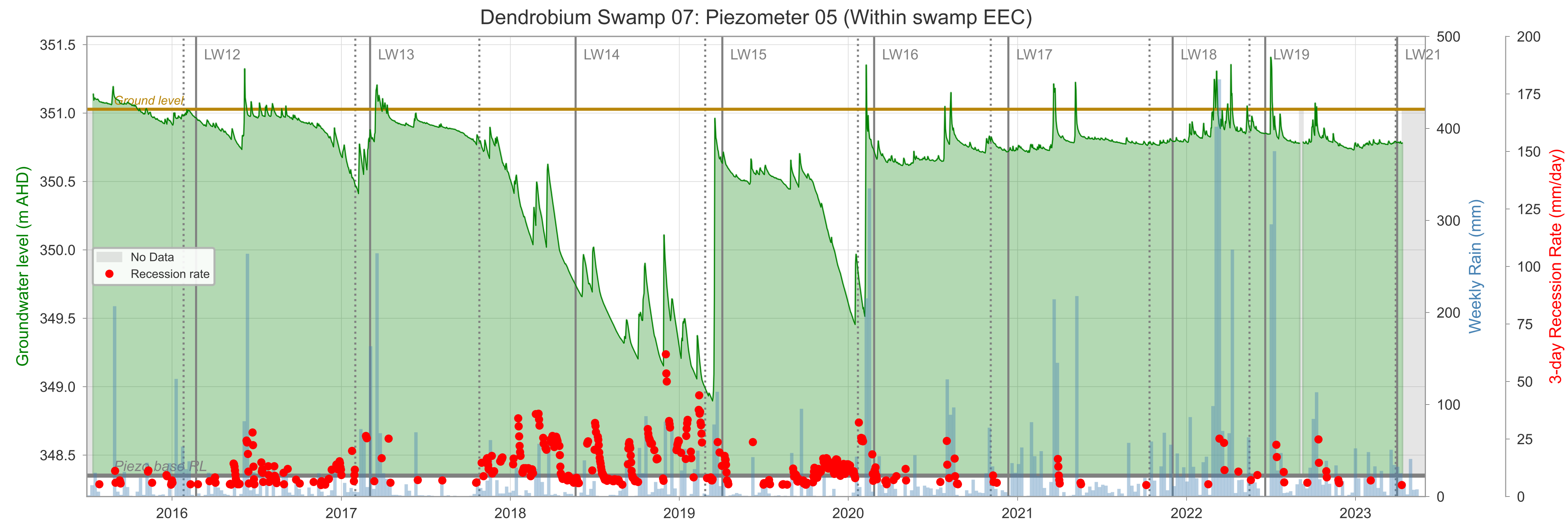


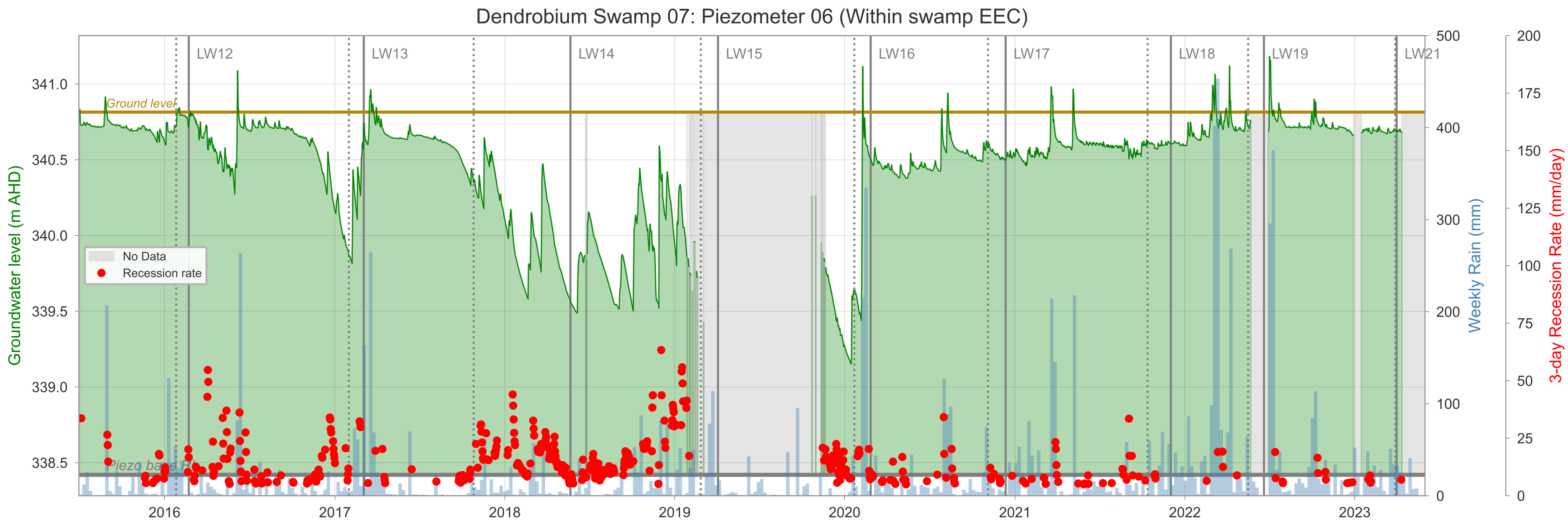


E:\DENDROBIUM\Tech\SurfaceWater\[SWFlowData_Compiled_Wshed_v4_202305.xlsx]DataQualityAssessment

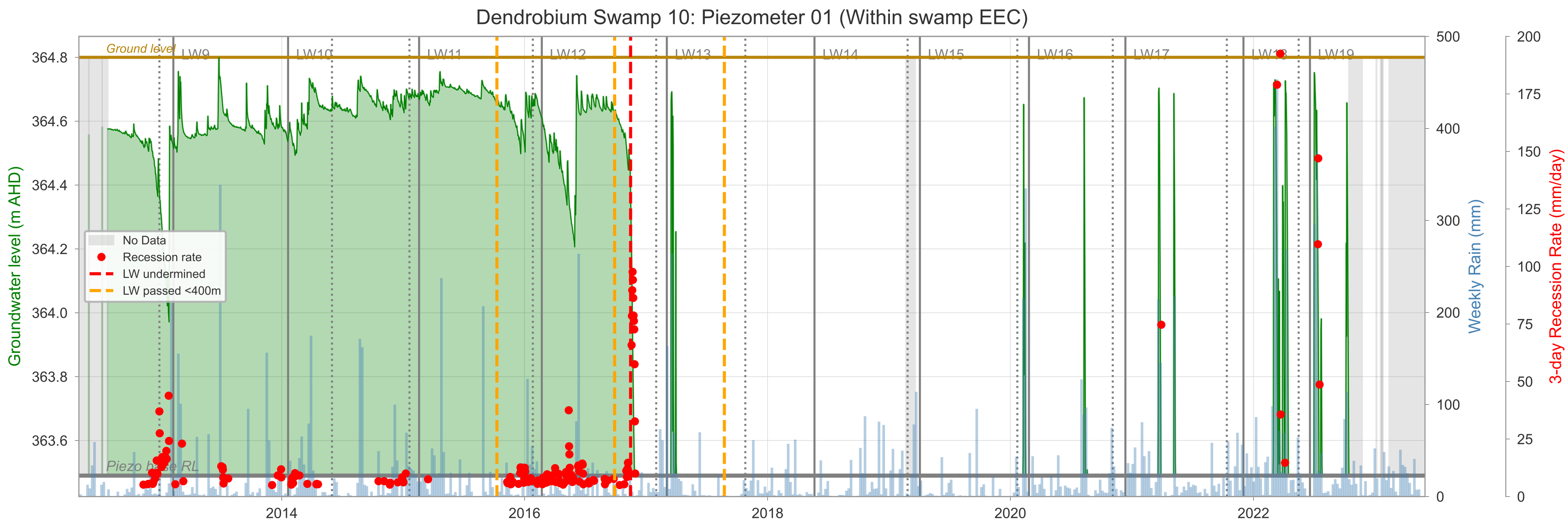
Appendix D: Shallow groundwater hydrographs


Dendrobium Swamp 02: Piezometer 01 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
334.25
334.00
333.75
333.50
333.25
333.00
332.75
332.50
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2014
2016
2018
2020
2022

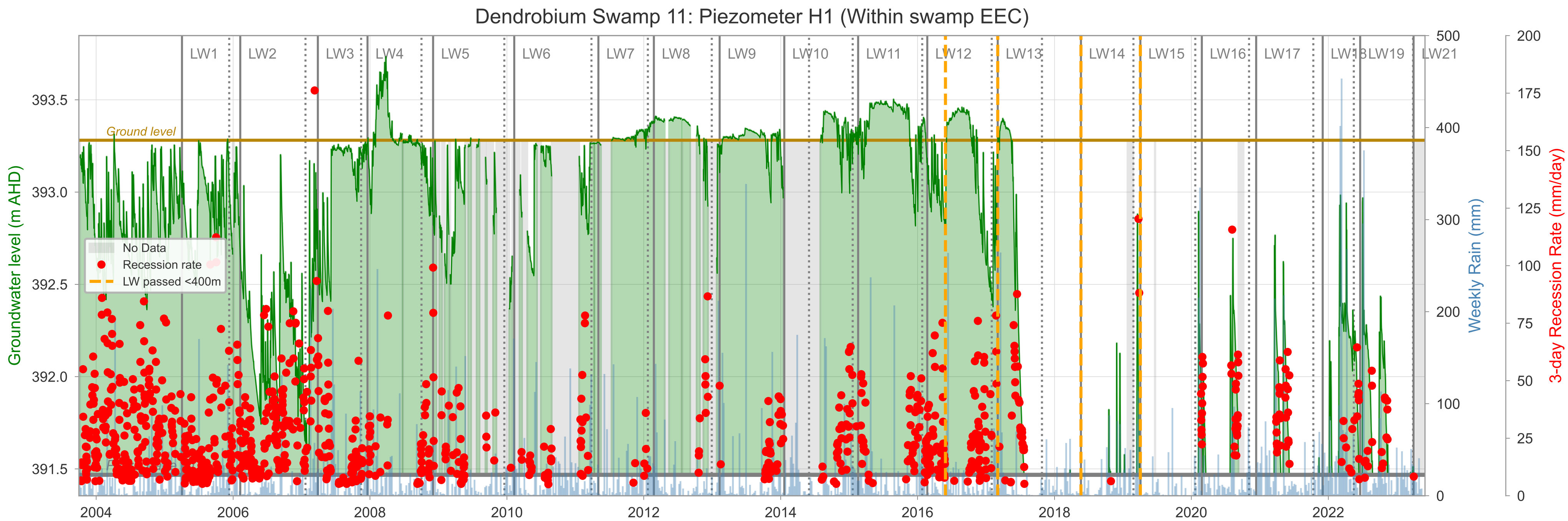

Dendrobium Swamp 07: Piezometer 05 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
Piezo base RL
No Data
Recession rate
351.5
351.0
350.5
350.0
349.5
349.0
348.5
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023



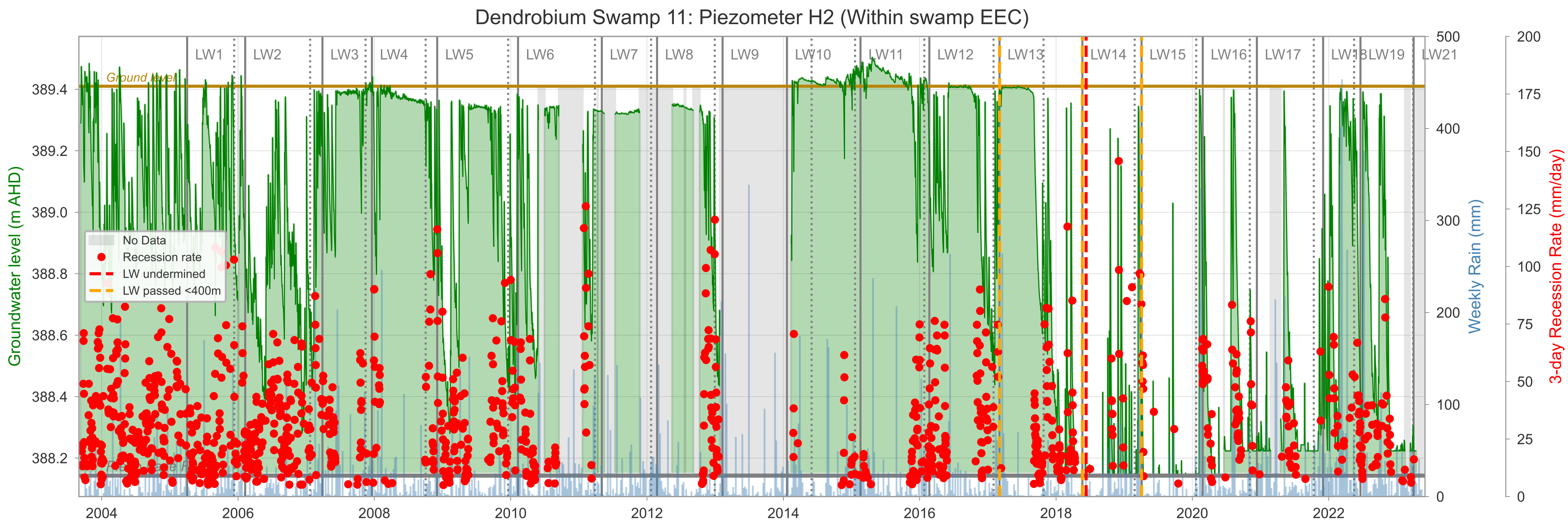
Dendrobium Swamp 07: Piezometer 06 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
Piezo base RL
No Data
Recession rate
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21



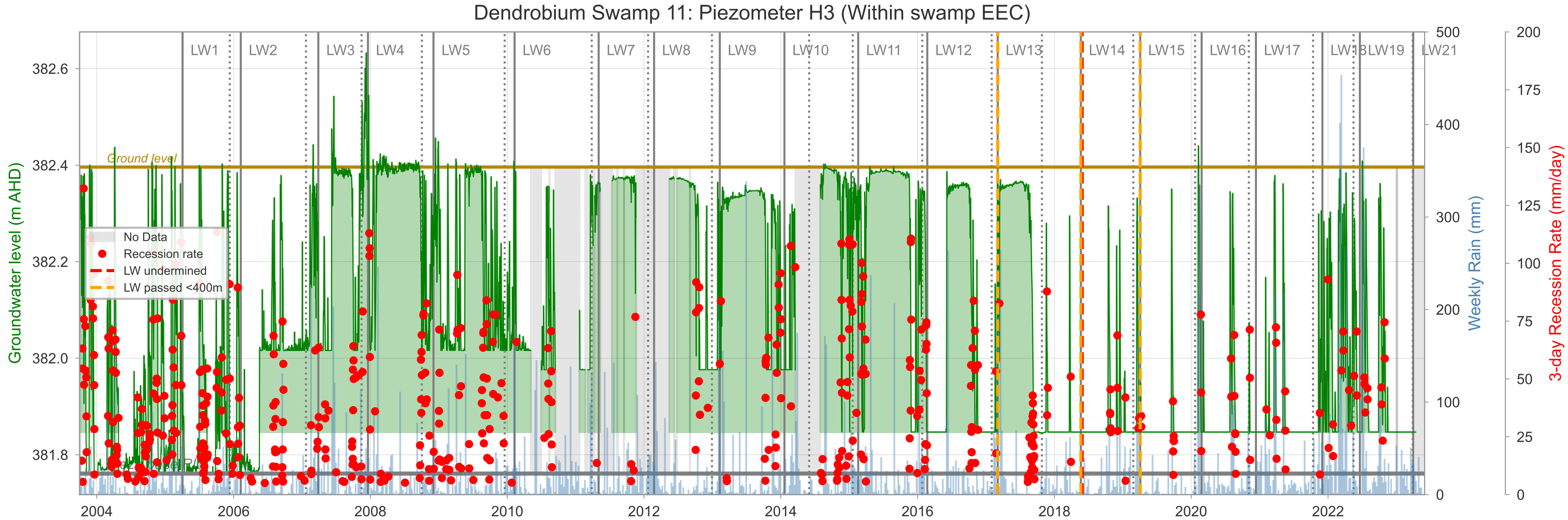
Dendrobium Swamp 10: Piezometer 01 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
Piezo base RL
No Data
Recession rate
LW undermined
LW passed <400m
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

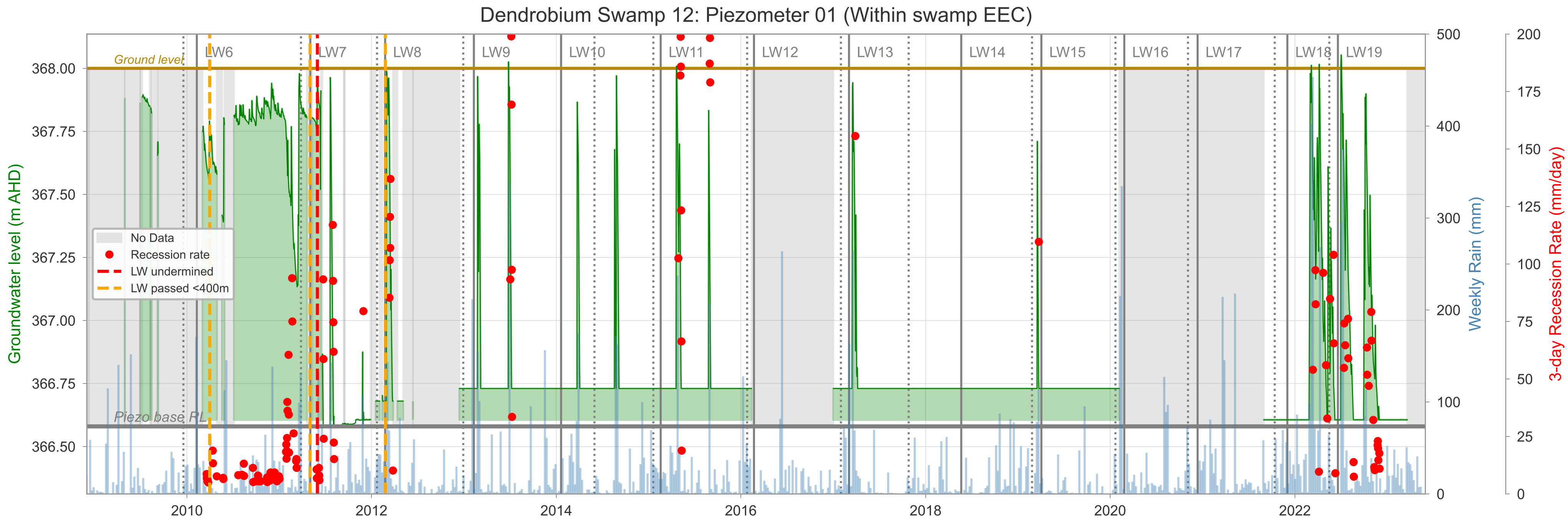


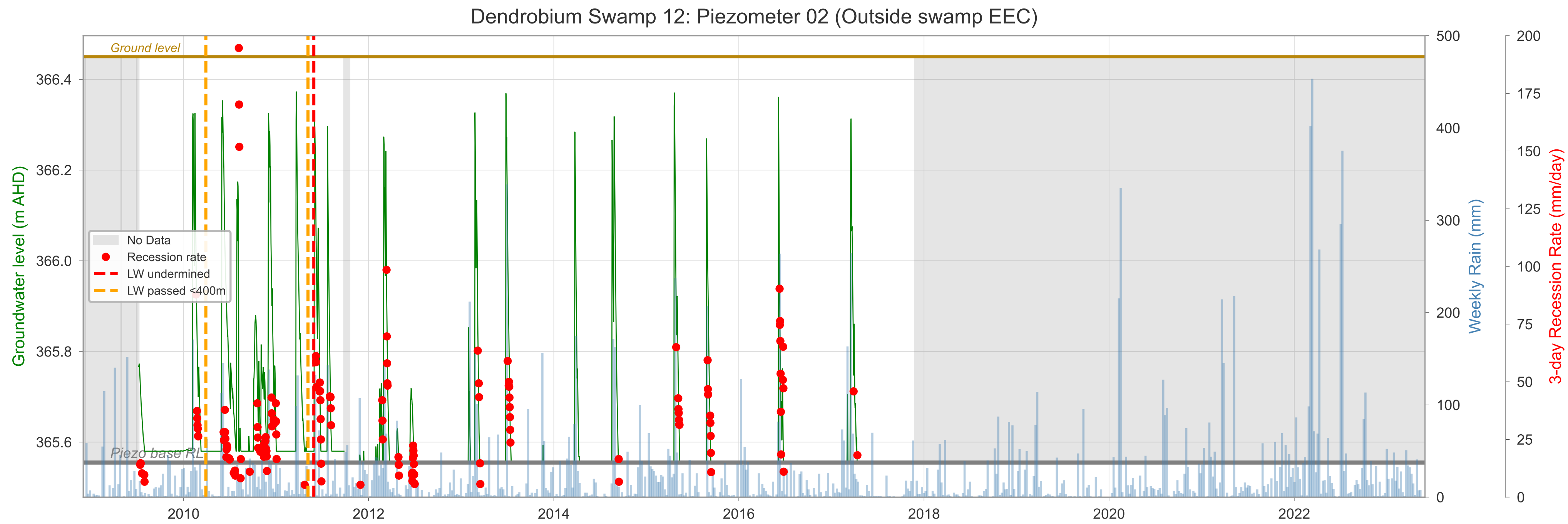
Dendrobium Swamp 11: Piezometer H1 (Within swamp EEC)
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

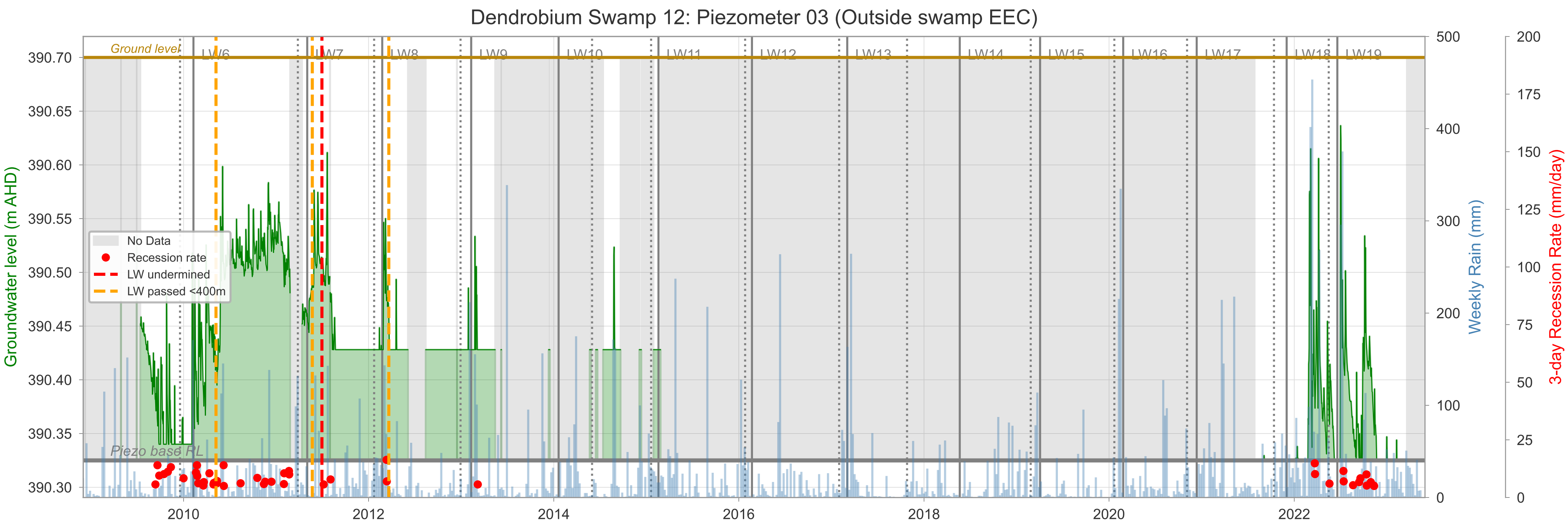


Dendrobium Swamp 11: Piezometer H2 (Within swamp EEC)
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
LW undermined
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

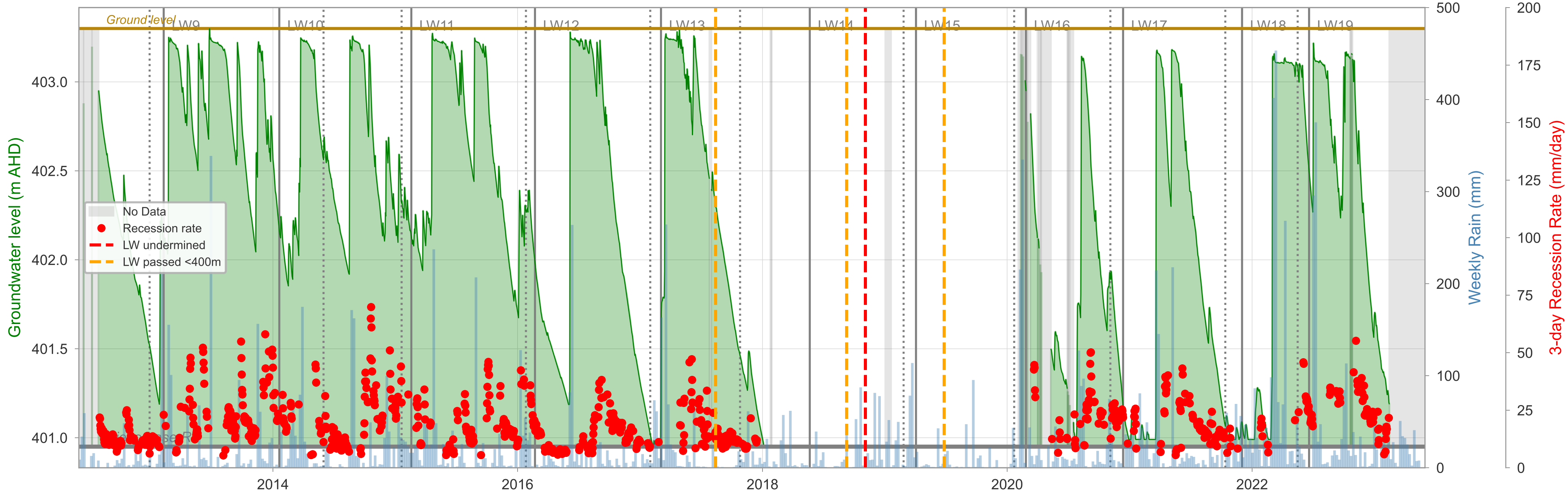

Dendrobium Swamp 11: Piezometer H3 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
No Data
Recession rate
LW undermined
LW passed <400m
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21


Dendrobium Swamp 12: Piezometer 01 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
Piezo base RL
No Data
Recession rate
LW undermined
LW passed <400m
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

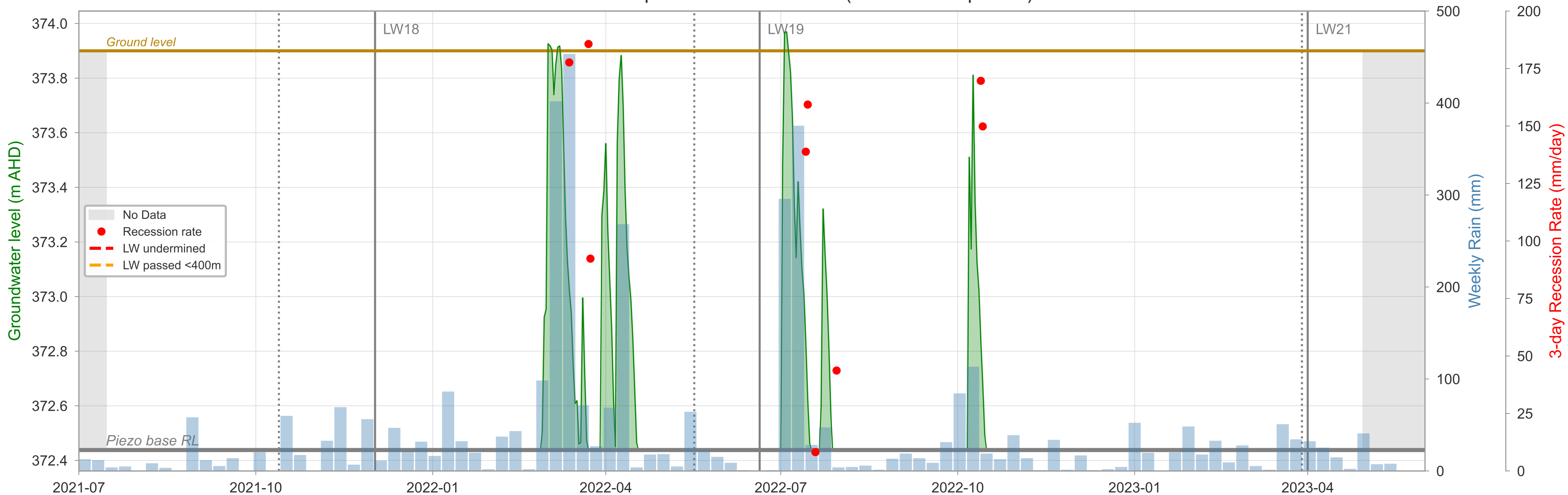

Dendrobium Swamp 12: Piezometer 02 (Outside swamp EEC)
Ground level
Piezo base RL
No Data
Recession rate
LW undermined
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
366.4
366.2
366.0
365.8
365.6
2010
2012
2014
2016
2018
2020
2022
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

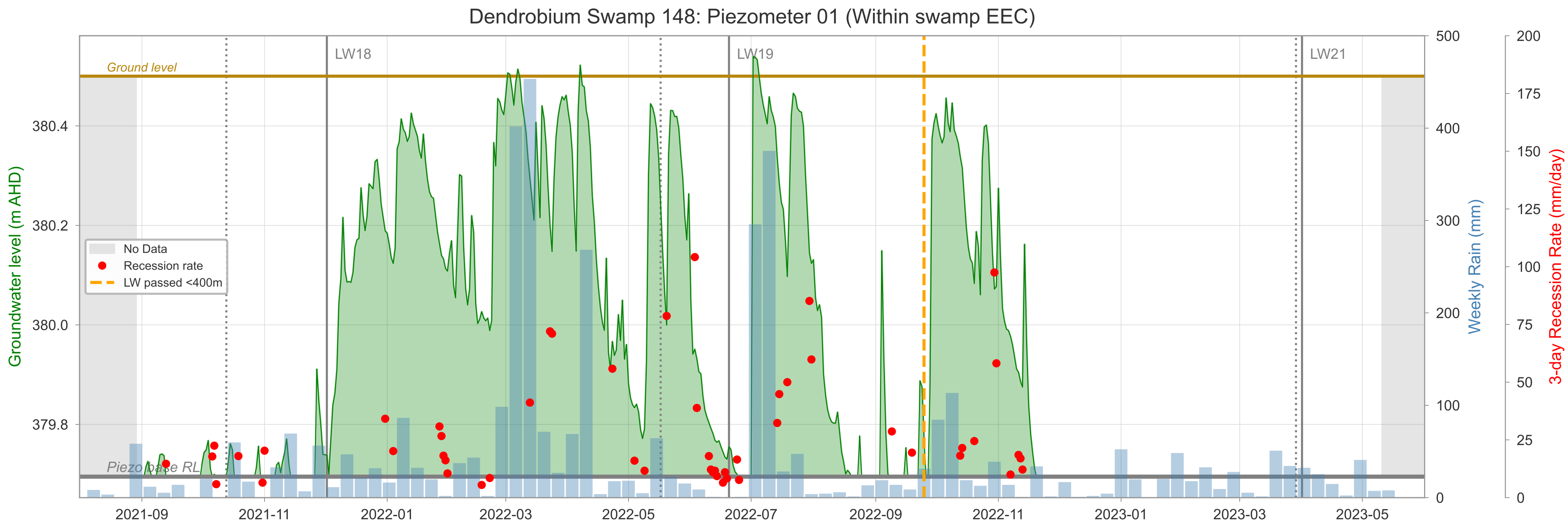

Dendrobium Swamp 12: Piezometer 03 (Outside swamp EEC)
Ground level
Piezo base RL
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
No Data
Recession rate
LW undermined
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
390.70
390.65
390.60
390.55
390.50
390.45
390.40
390.35
390.30
2010
2012
2014
2016
2018
2020
2022
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

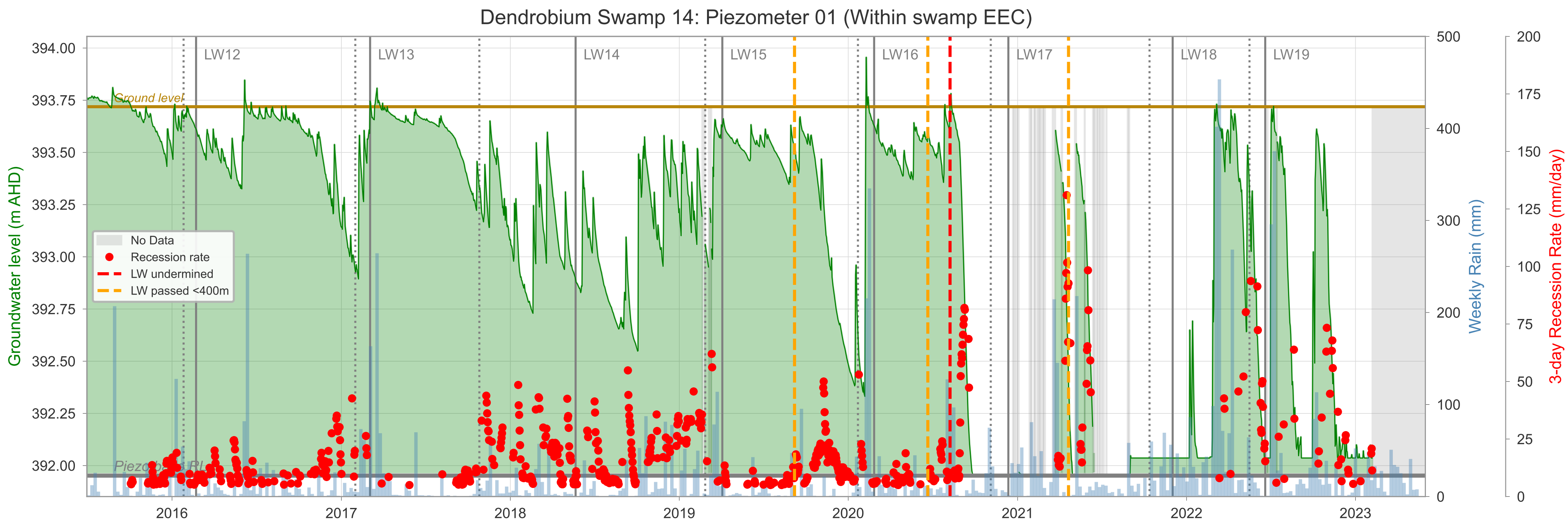
Dendrobium Swamp 13: Piezometer 01 (Within swamp EEC)

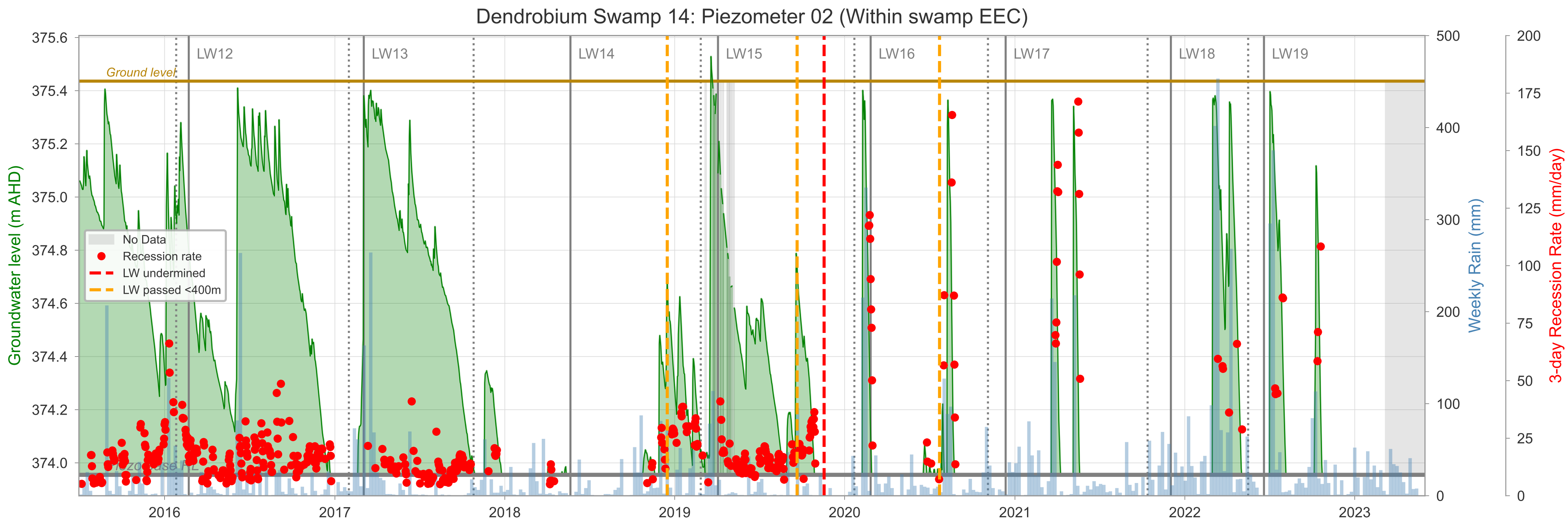


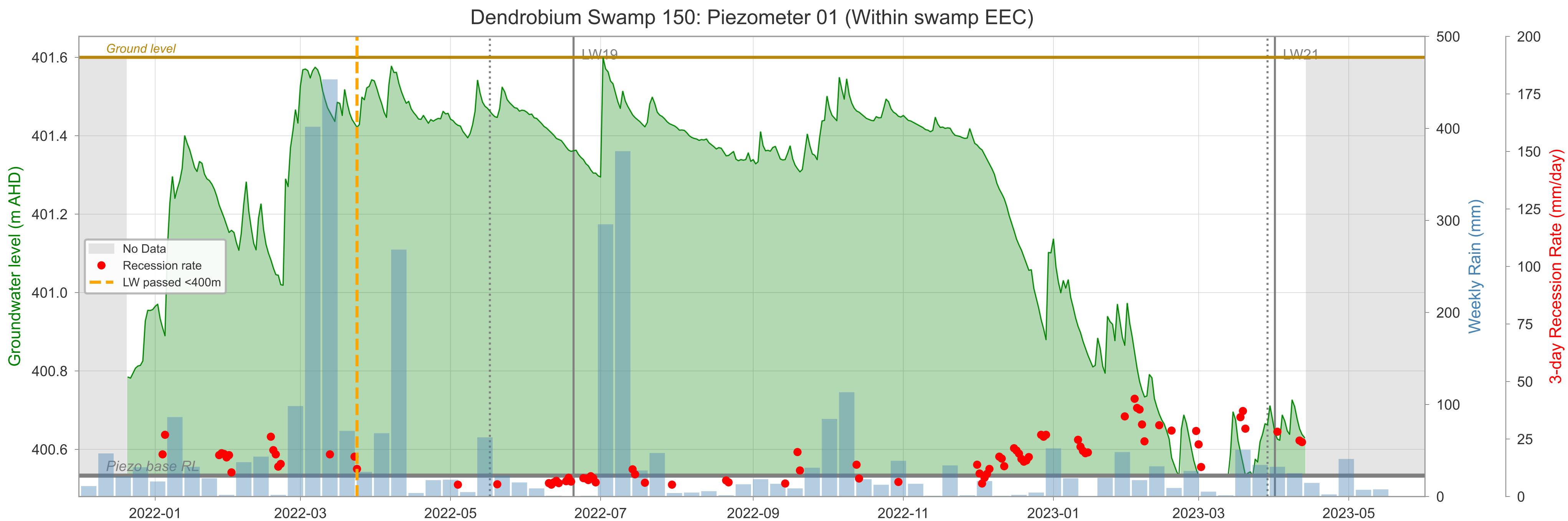
Dendrobium Swamp 146: Piezometer 01 (Within swamp EEC)

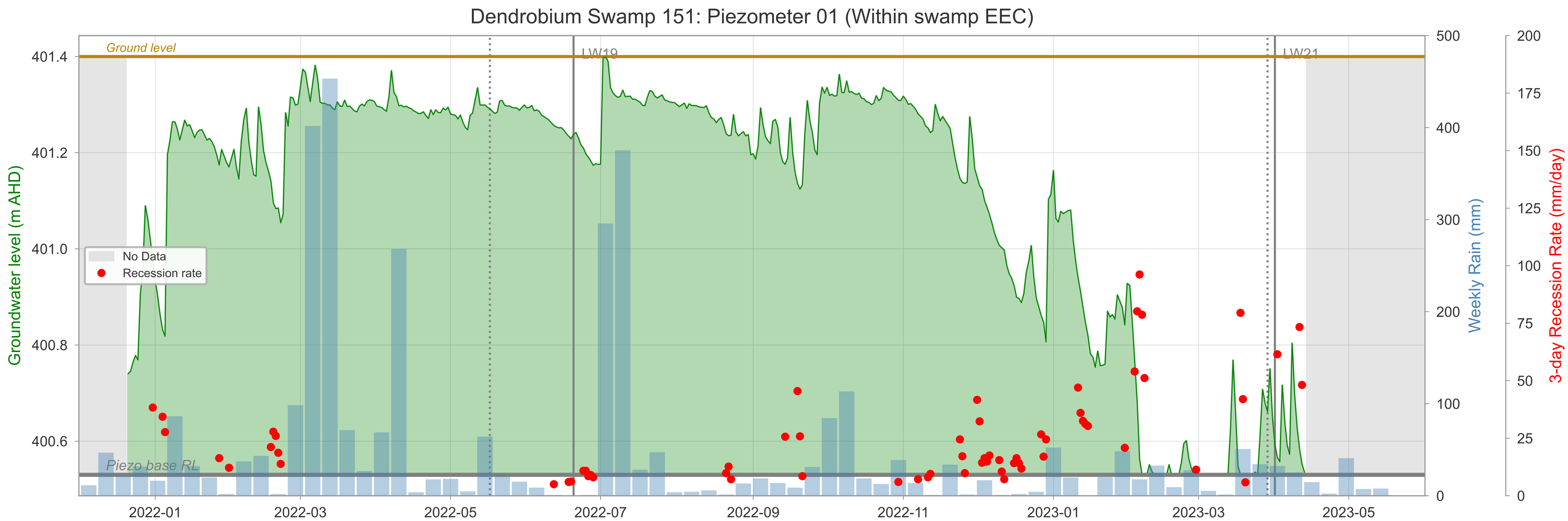



Dendrobium Swamp 148: Piezometer 01 (Within swamp EEC)
Ground level
Piezo base RL
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
380.4
380.2
380.0
379.8
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

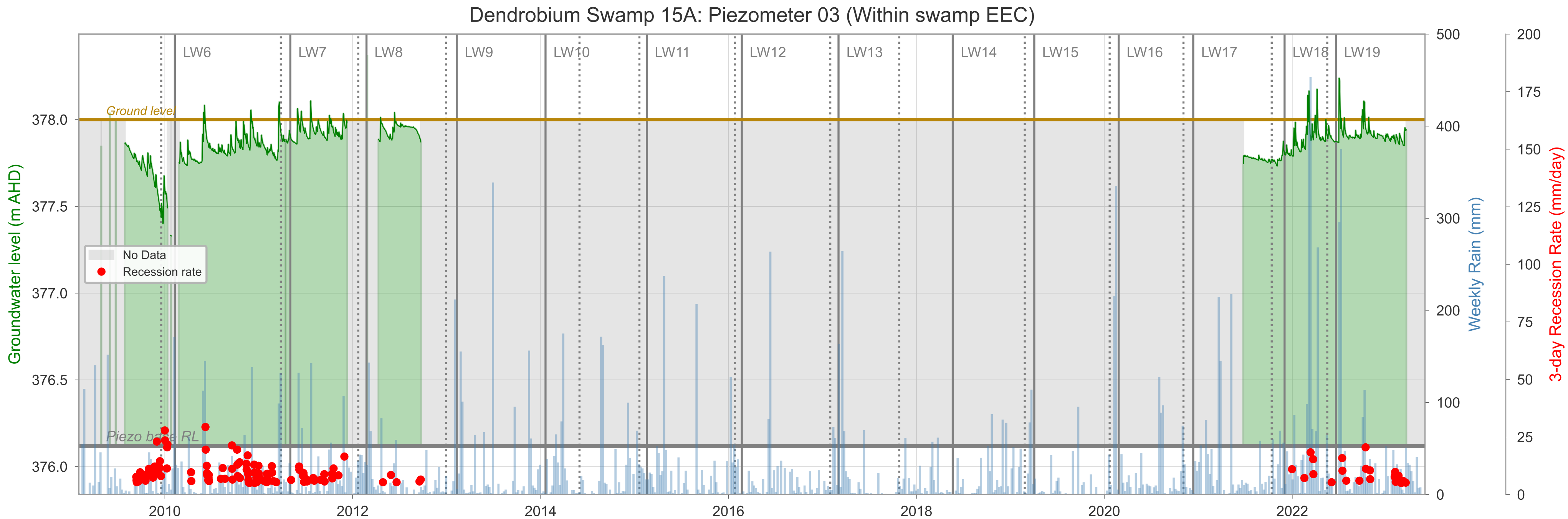

Dendrobium Swamp 14: Piezometer 01 (Within swamp EEC)
Ground level
Piezo base RL
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
No Data
Recession rate
LW undermined
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
394.00
393.75
393.50
393.25
393.00
392.75
392.50
392.25
392.00
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023


Dendrobium Swamp 14: Piezometer 02 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
Piezo base RL
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
No Data
Recession rate
LW undermined
LW passed <400m
2016
2017
2018
2019
2020
2021
2022
2023

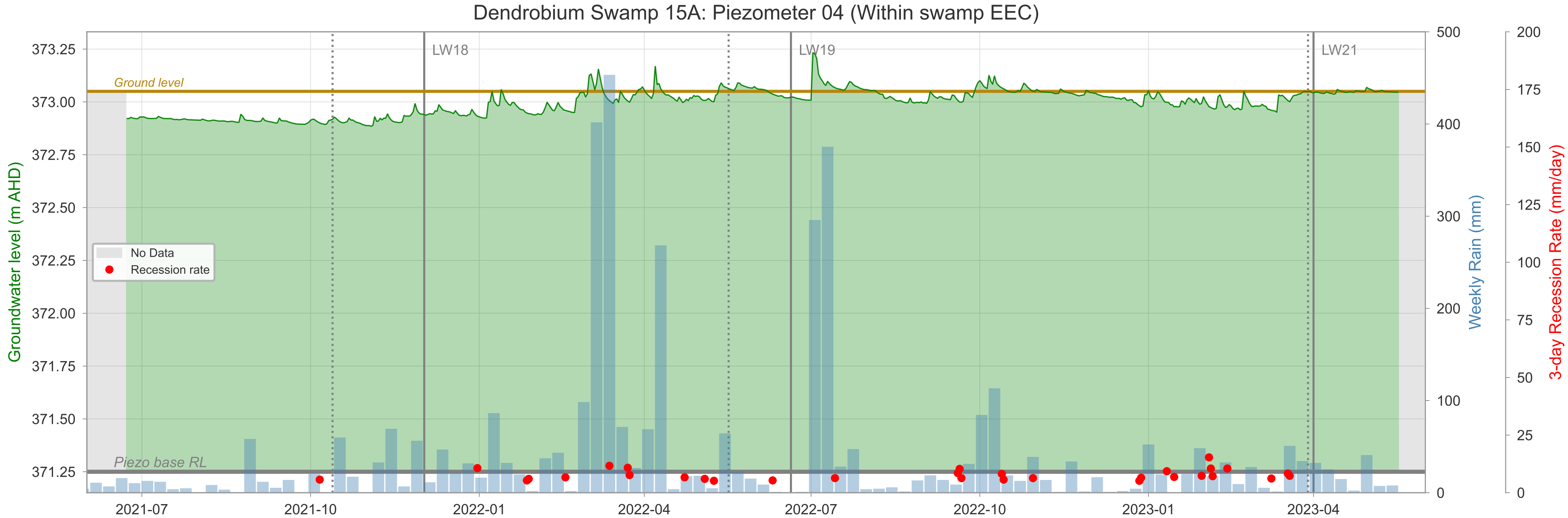

Dendrobium Swamp 150: Piezometer 01 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
Piezo base RL
LW19
LW21
No Data
Recession rate
LW passed <400m
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

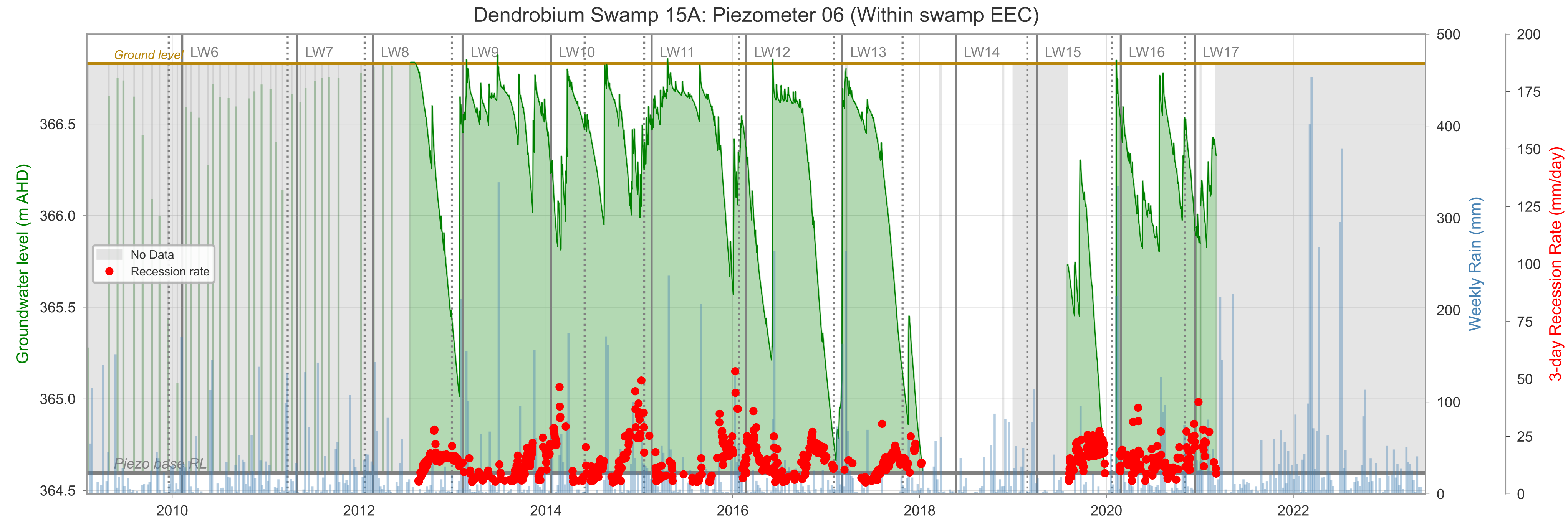


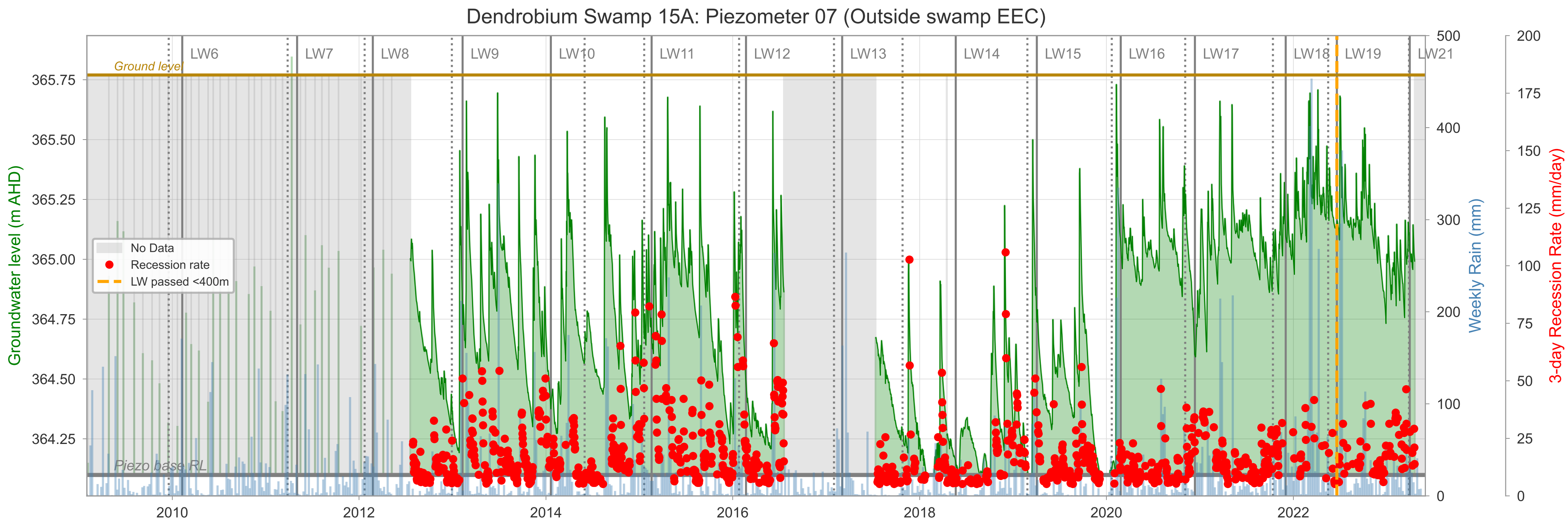
Dendrobium Swamp 151: Piezometer 01 (Within swamp EEC)
Ground level
Piezo base RL
LW19
LW21
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
401.4
401.2
401.0
400.8
400.6
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

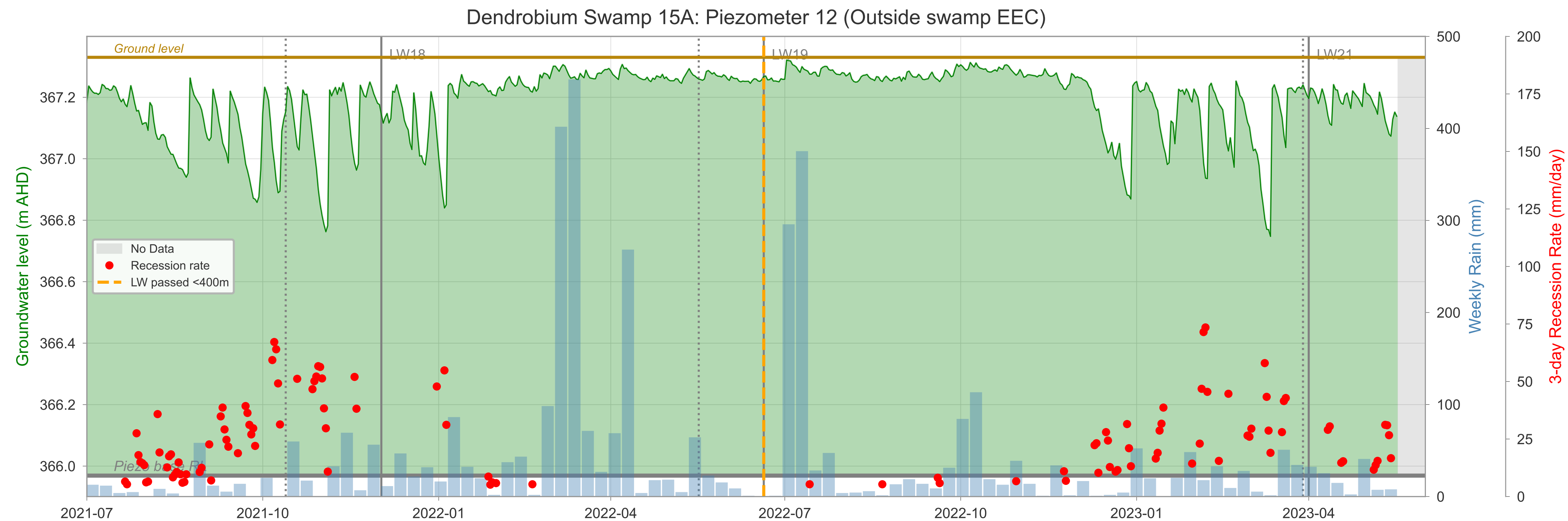


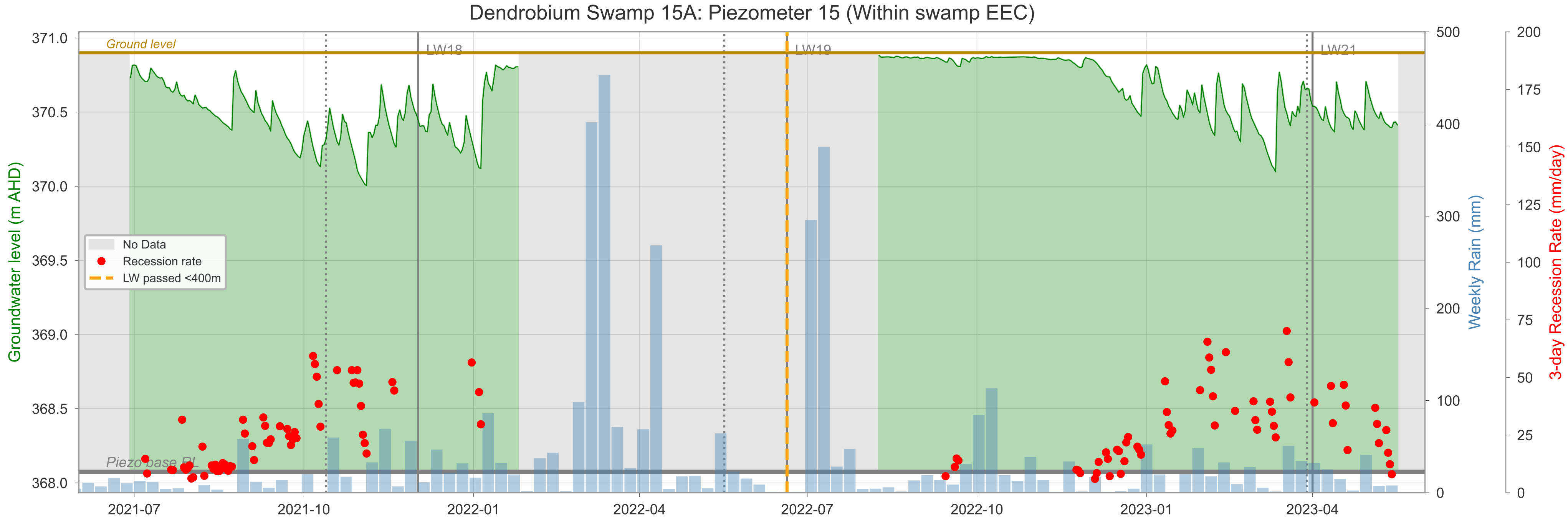
Dendrobium Swamp 15A: Piezometer 03 (Within swamp EEC)
Ground level
Piezo base RL
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
378.0
377.5
377.0
376.5
376.0
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2010
2012
2014
2016
2018
2020
2022

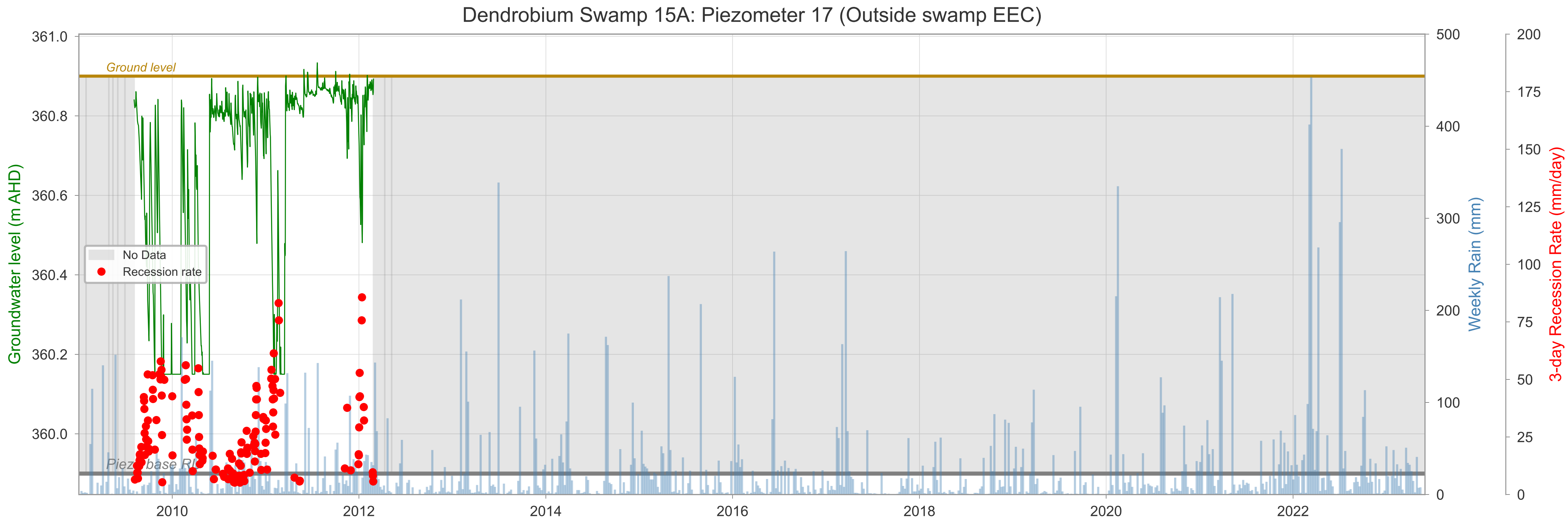

Dendrobium Swamp 15A: Piezometer 04 (Within swamp EEC)
LW18
LW19
LW21
Ground level
Piezo base RL
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
373.25
373.00
372.75
372.50
372.25
372.00
371.75
371.50
371.25
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

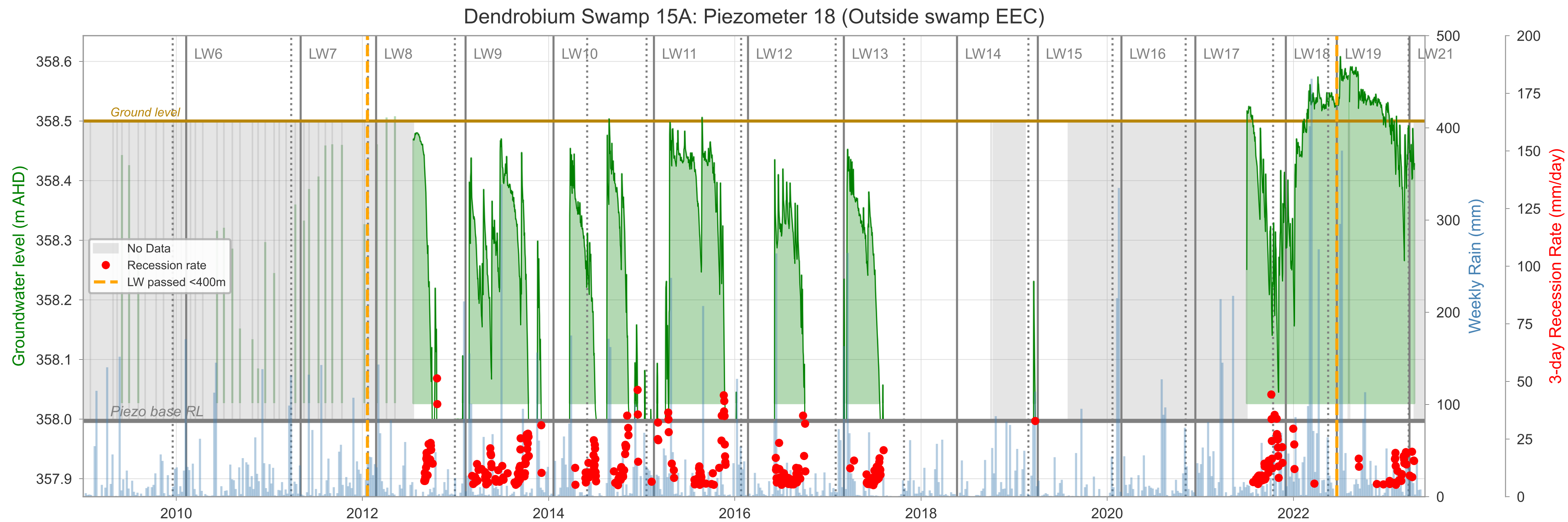

Dendrobium Swamp 15A: Piezometer 06 (Within swamp EEC)
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
Ground level
Piezo base RL
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
366.5
366.0
365.5
365.0
364.5
2010
2012
2014
2016
2018
2020
2022


Dendrobium Swamp 15A: Piezometer 07 (Outside swamp EEC)
Ground level
Piezo base RL
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
365.75
365.50
365.25
365.00
364.75
364.50
364.25
2010
2012
2014
2016
2018
2020
2022
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

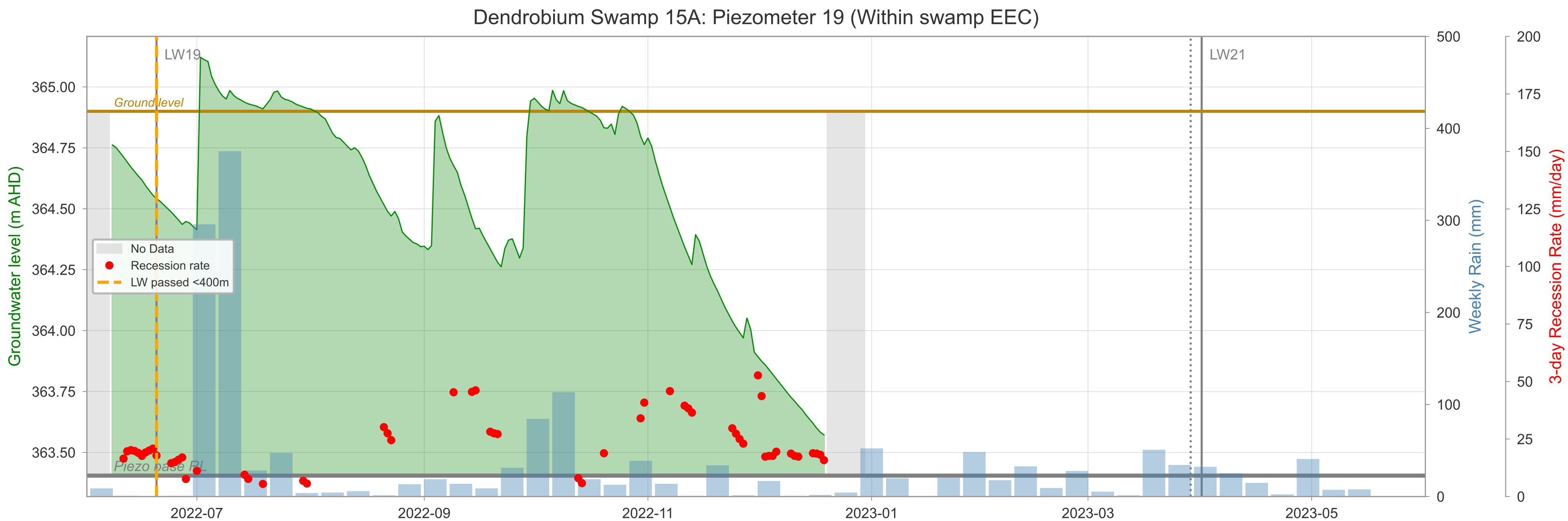

Dendrobium Swamp 15A: Piezometer 12 (Outside swamp EEC)
Ground level
Piezo base RL
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
367.2
367.0
366.8
366.6
366.4
366.2
366.0
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0


Dendrobium Swamp 15A: Piezometer 15 (Within swamp EEC)
Ground level
LW18
LW19
LW21
Piezo base RL
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
371.0
370.5
370.0
369.5
369.0
368.5
368.0
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

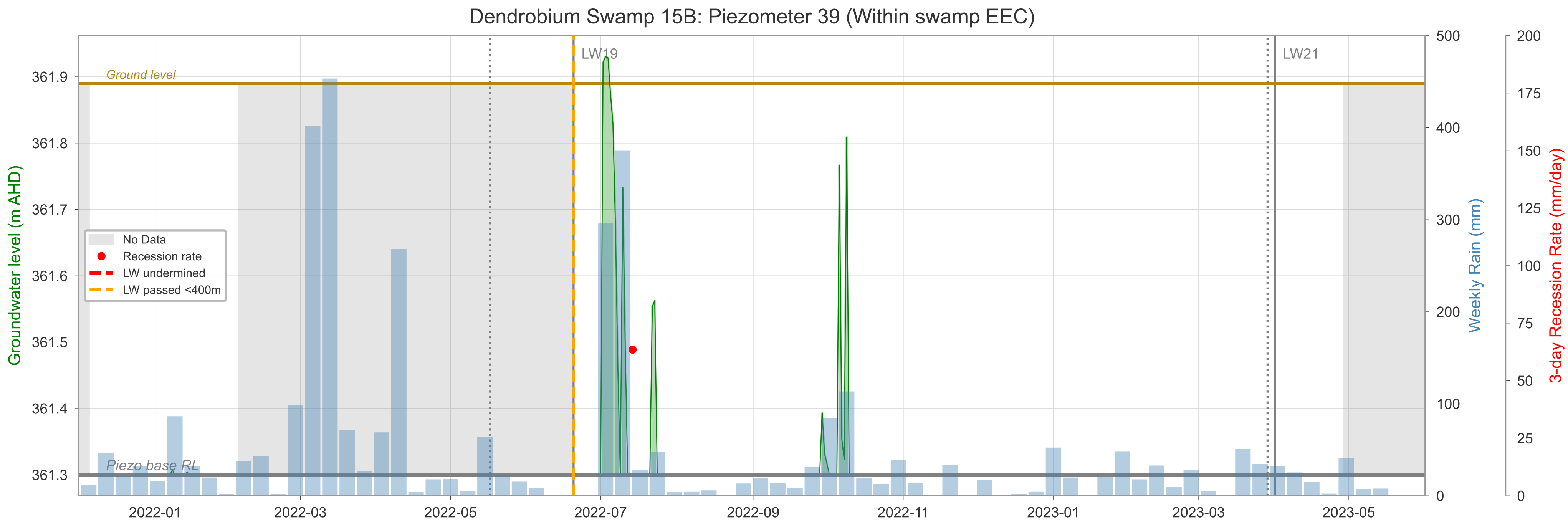

Dendrobium Swamp 15A: Piezometer 17 (Outside swamp EEC)
Ground level
Piezo base RL
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
361.0
360.8
360.6
360.4
360.2
360.0
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2010
2012
2014
2016
2018
2020
2022



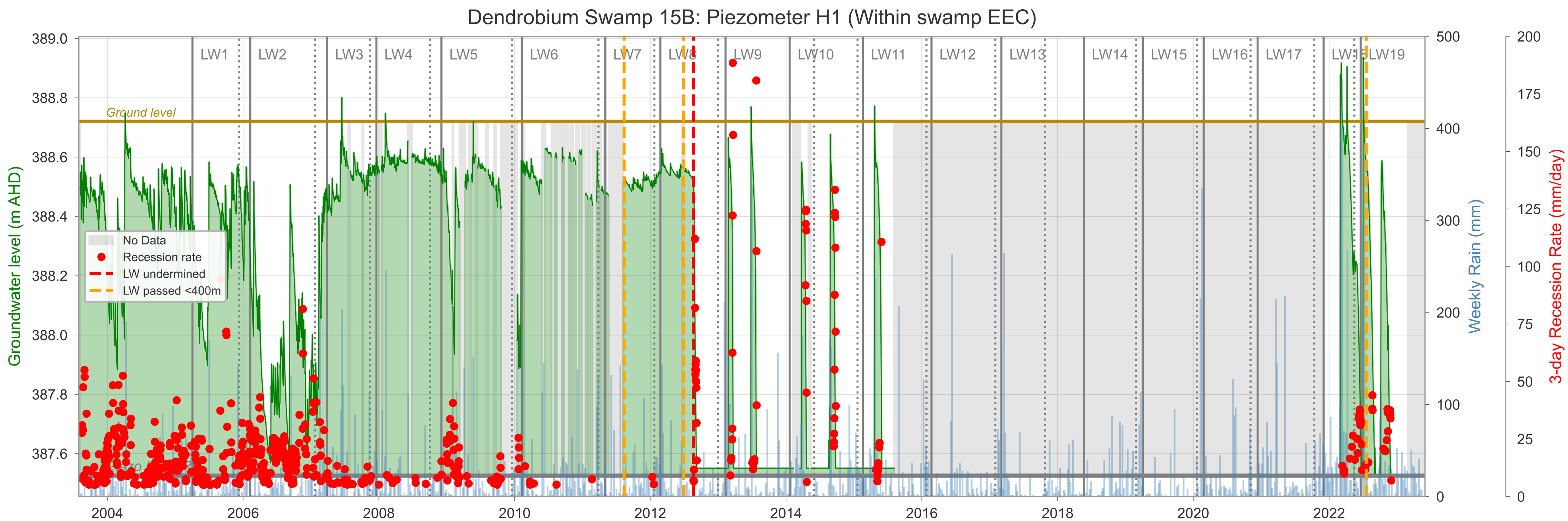
Dendrobium Swamp 15A: Piezometer 18 (Outside swamp EEC)
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
Piezo base RL
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
358.6
358.5
358.4
358.3
358.2
358.1
358.0
357.9
2010
2012
2014
2016
2018
2020
2022
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0



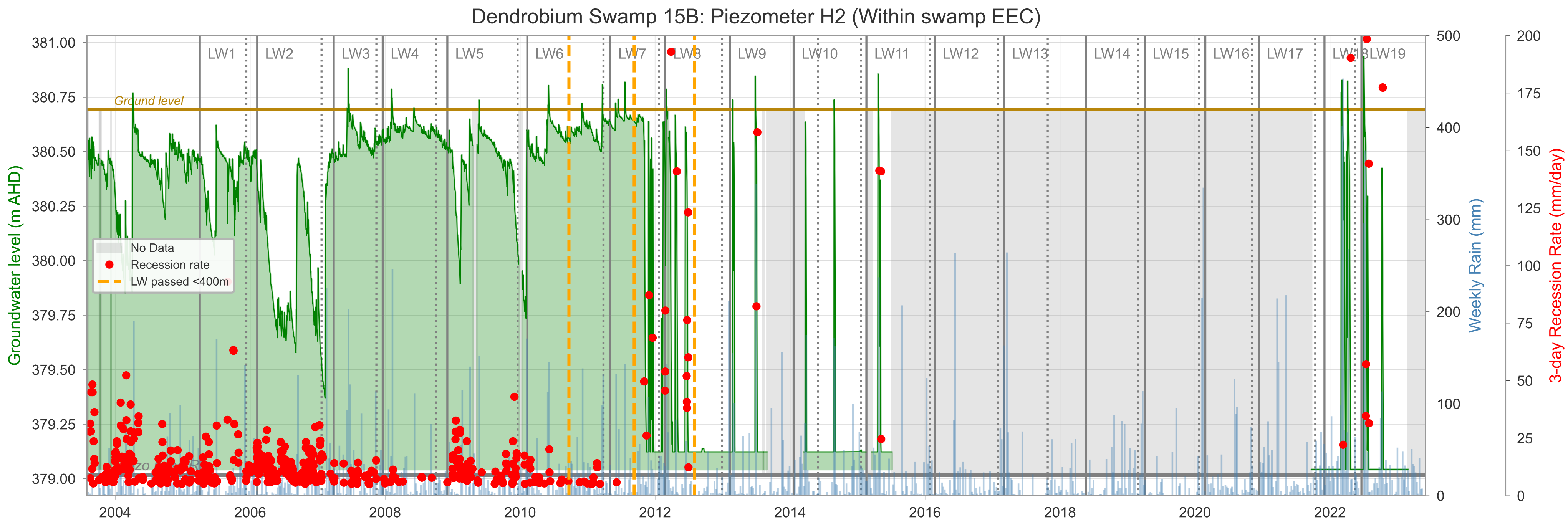
Dendrobium Swamp 15A: Piezometer 19 (Within swamp EEC)
LW19
LW21
Ground level
Piezo base RL
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
365.00
364.75
364.50
364.25
364.00
363.75
363.50
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

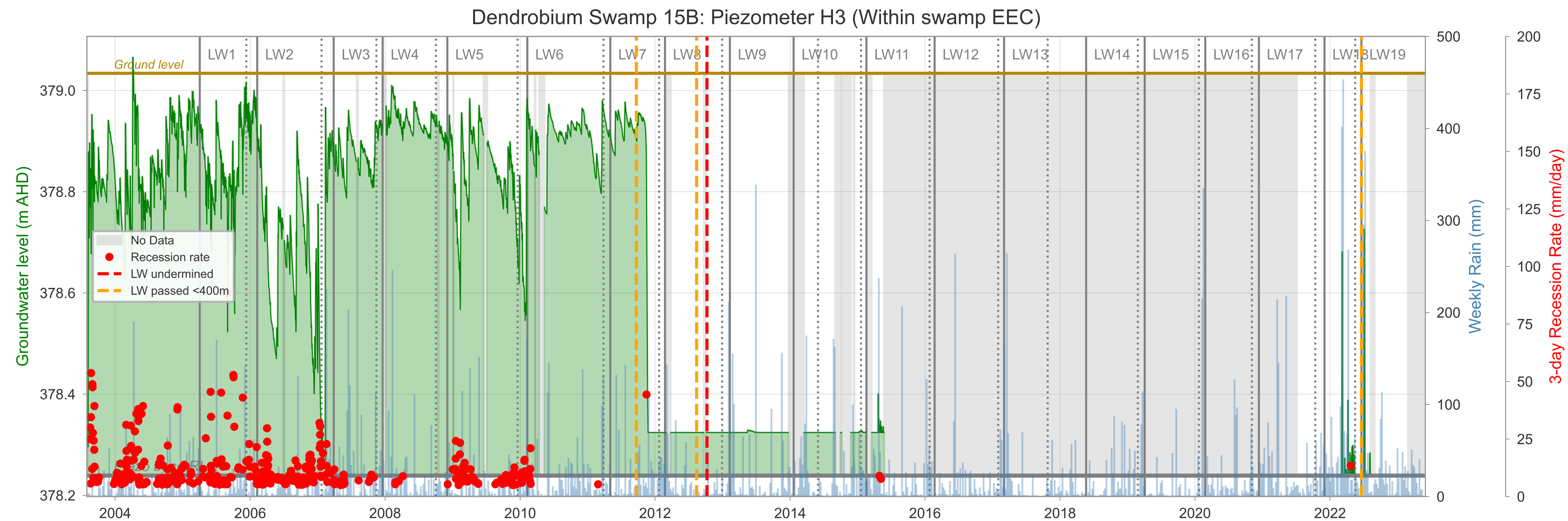


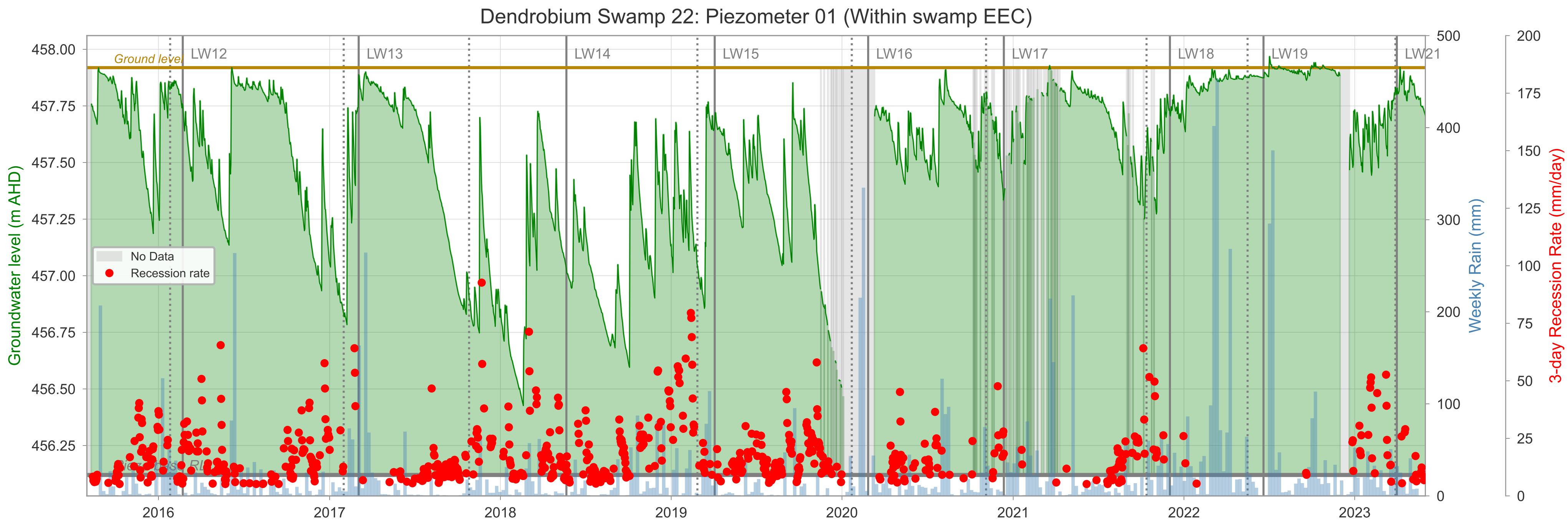
Dendrobium Swamp 15B: Piezometer 39 (Within swamp EEC)
Ground level
Piezo base RL
No Data
Recession rate
LW undermined
LW passed <400m
LW19
LW21
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
361.9
361.8
361.7
361.6
361.5
361.4
361.3
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

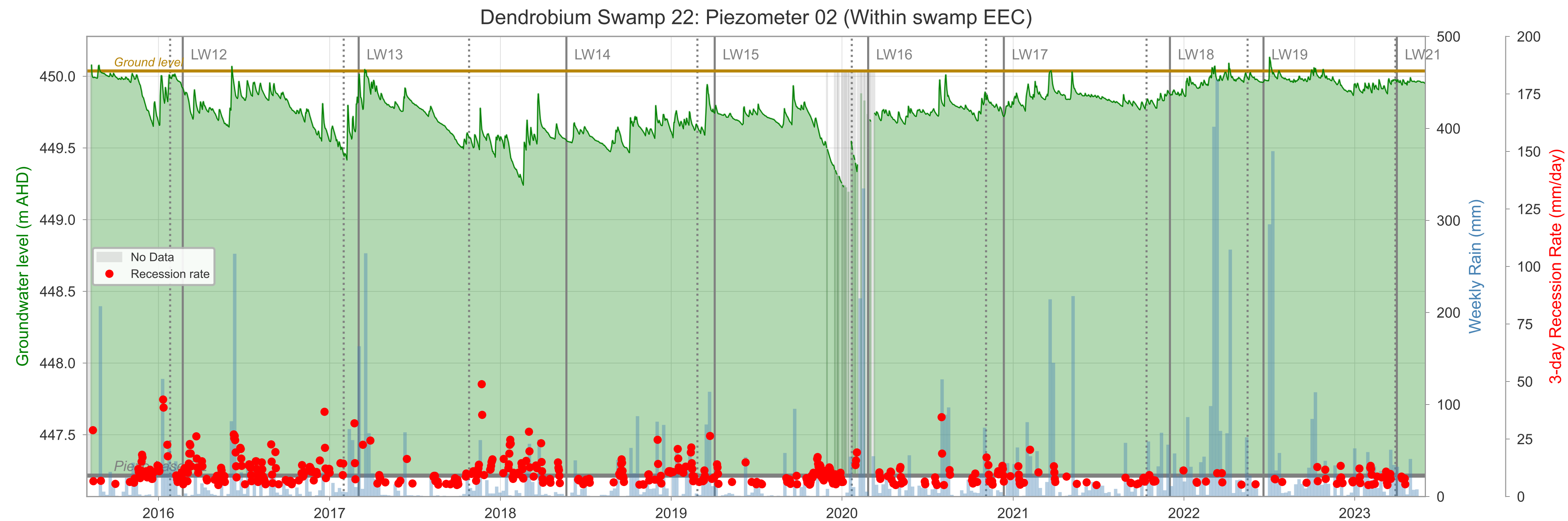


Dendrobium Swamp 15B: Piezometer H1 (Within swamp EEC)
Ground level
No Data
Recession rate
LW undermined
LW passed <400m
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
389.0
388.8
388.6
388.4
388.2
388.0
387.8
387.6
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

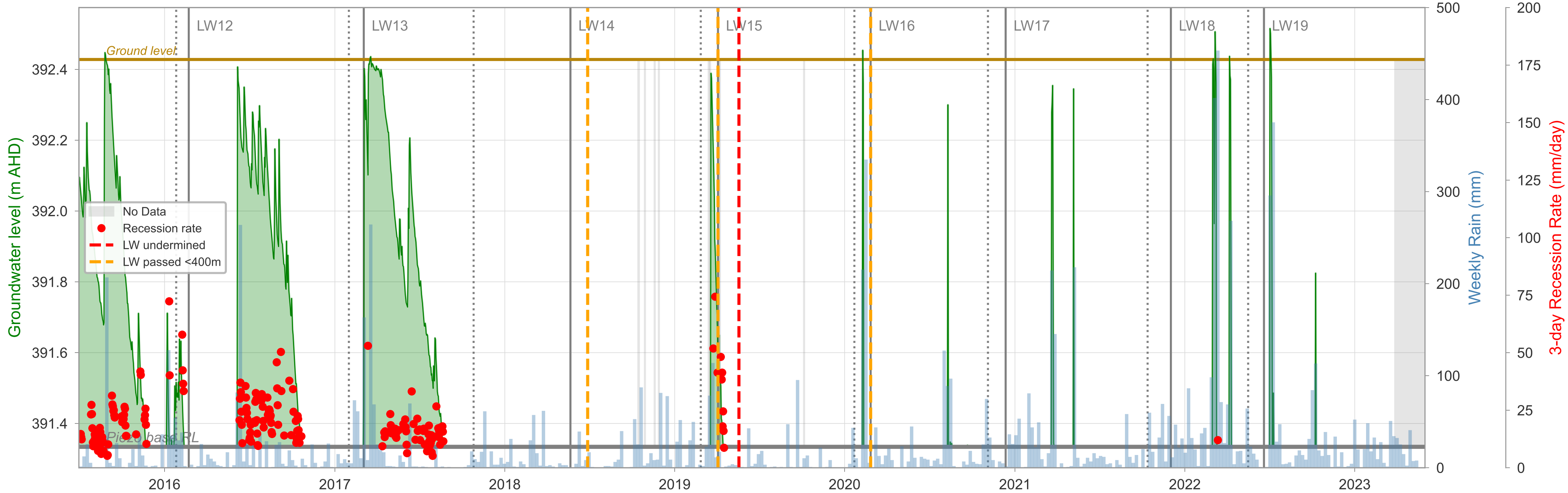

Dendrobium Swamp 15B: Piezometer H2 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
No Data
Recession rate
LW passed <400m
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19


Dendrobium Swamp 15B: Piezometer H3 (Within swamp EEC)
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
Ground level
No Data
Recession rate
LW undermined
LW passed <400m
LW1
LW2
LW3
LW4
LW5
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19

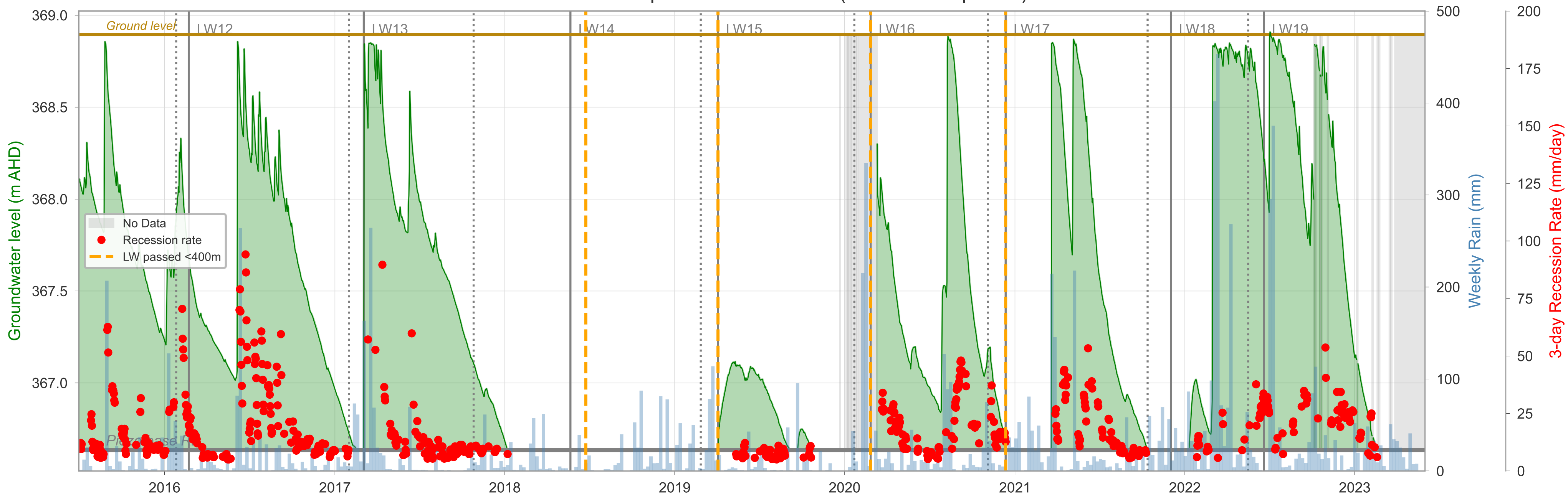

Dendrobium Swamp 22: Piezometer 01 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

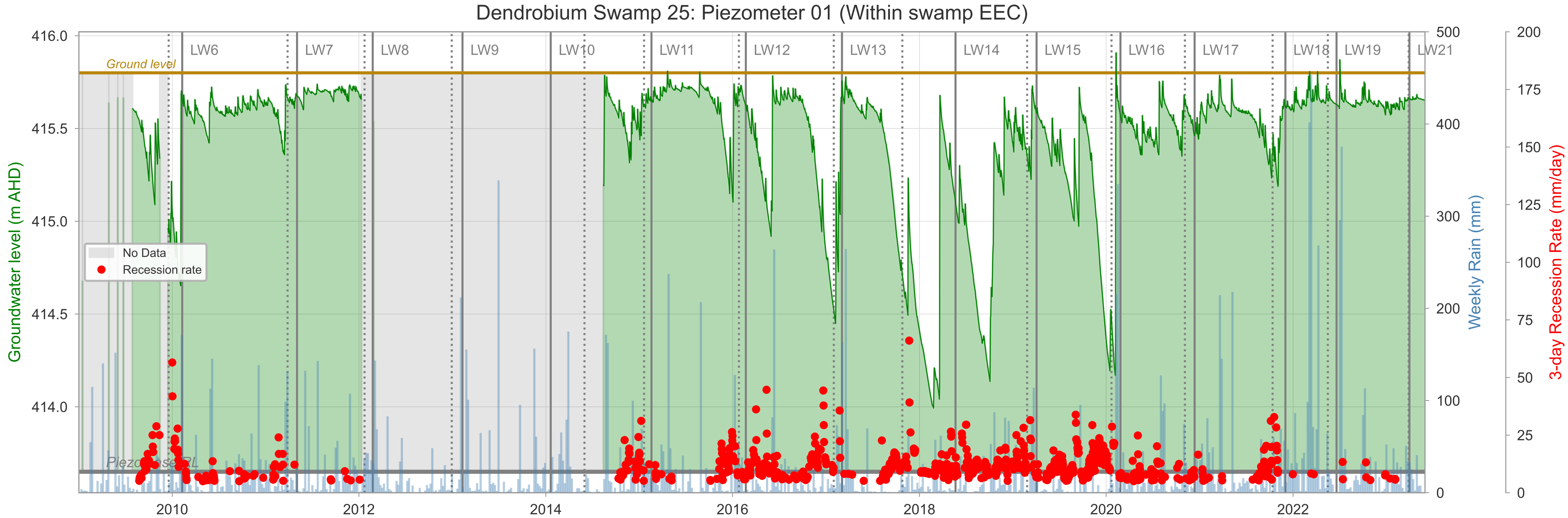

Dendrobium Swamp 22: Piezometer 02 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

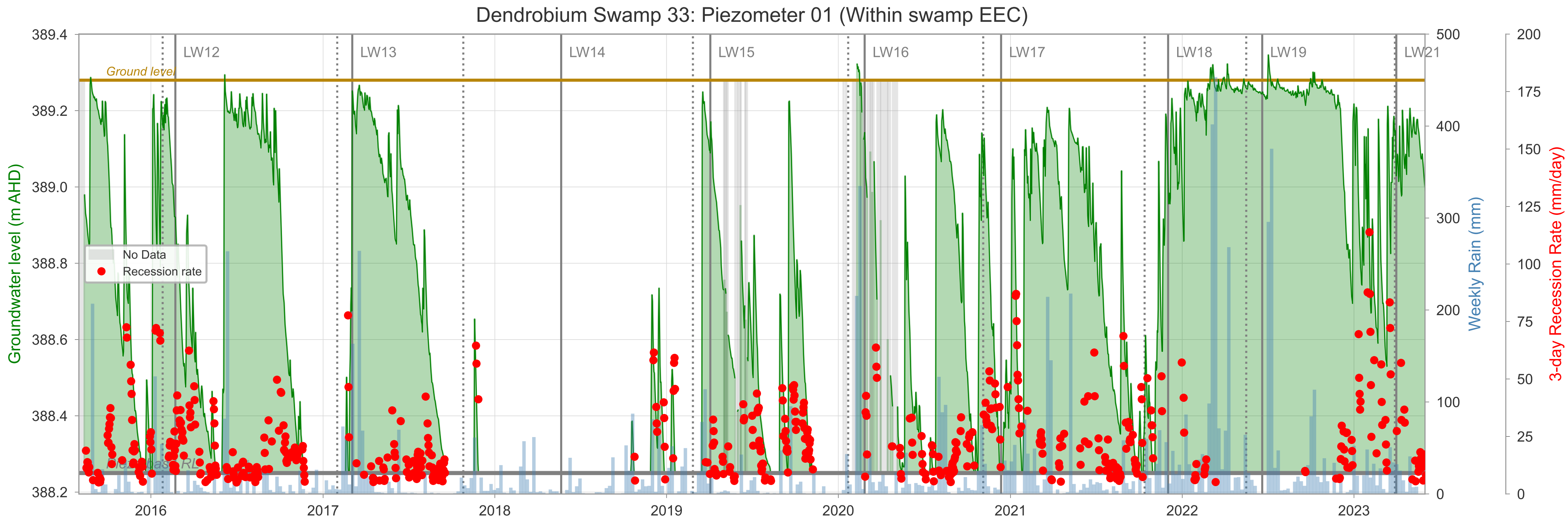
Dendrobium Swamp 23: Piezometer 01 (Within swamp EEC)

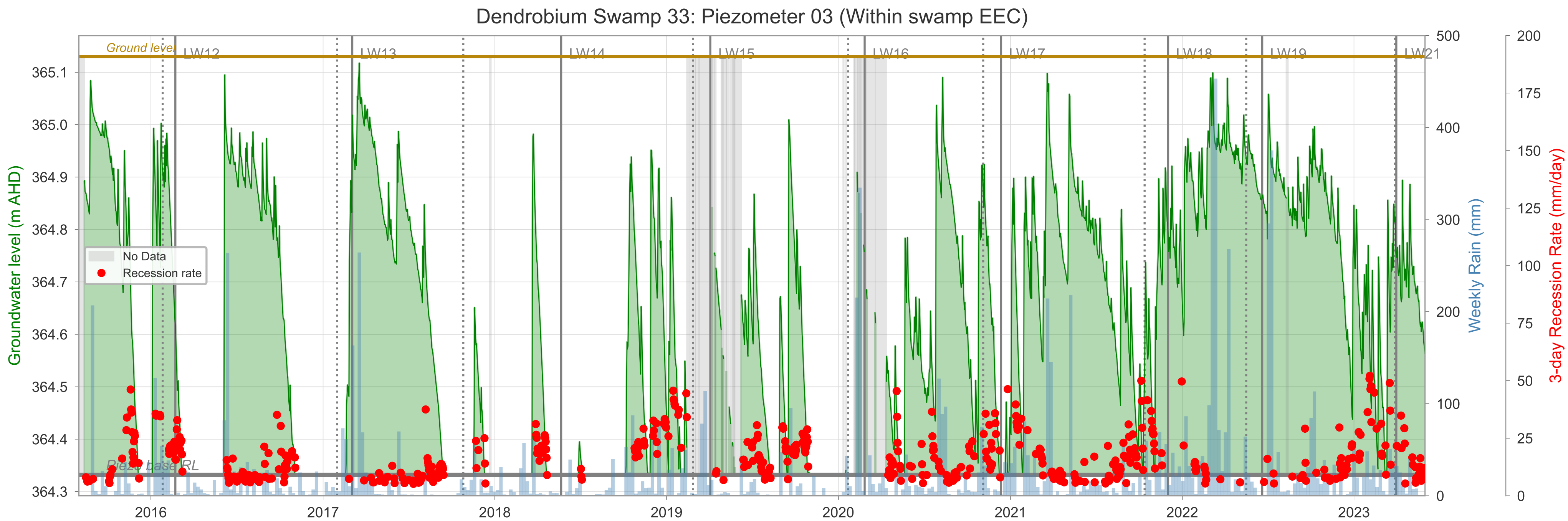


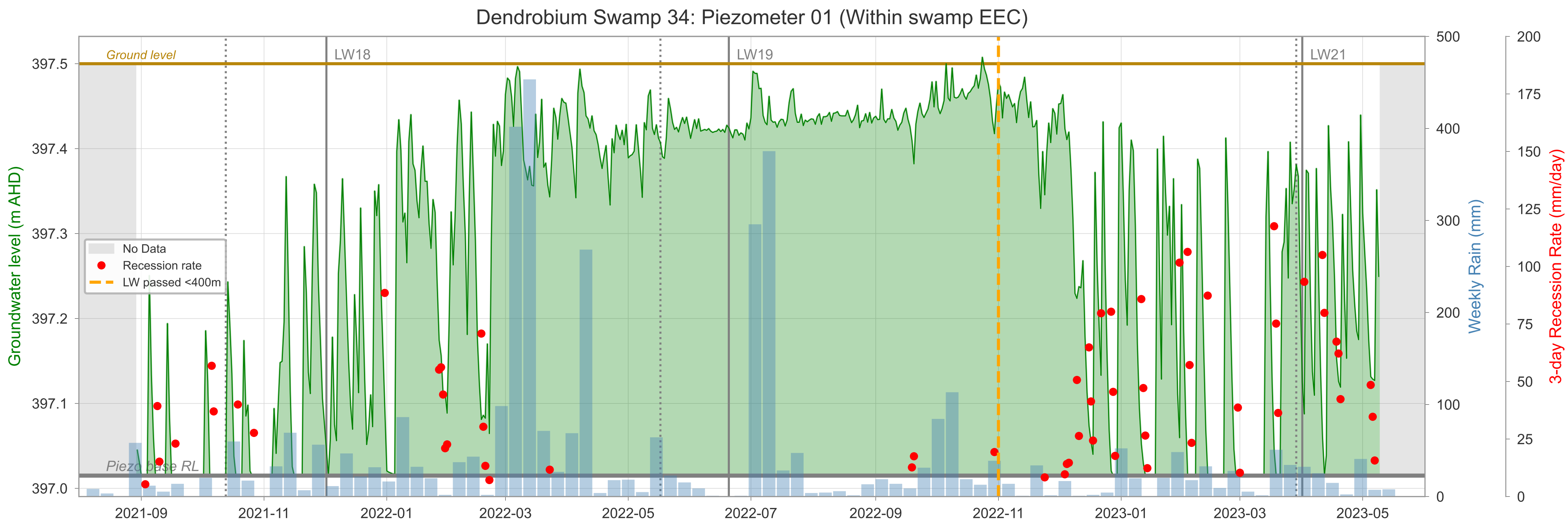
Dendrobium Swamp 23: Piezometer 02 (Within swamp EEC)

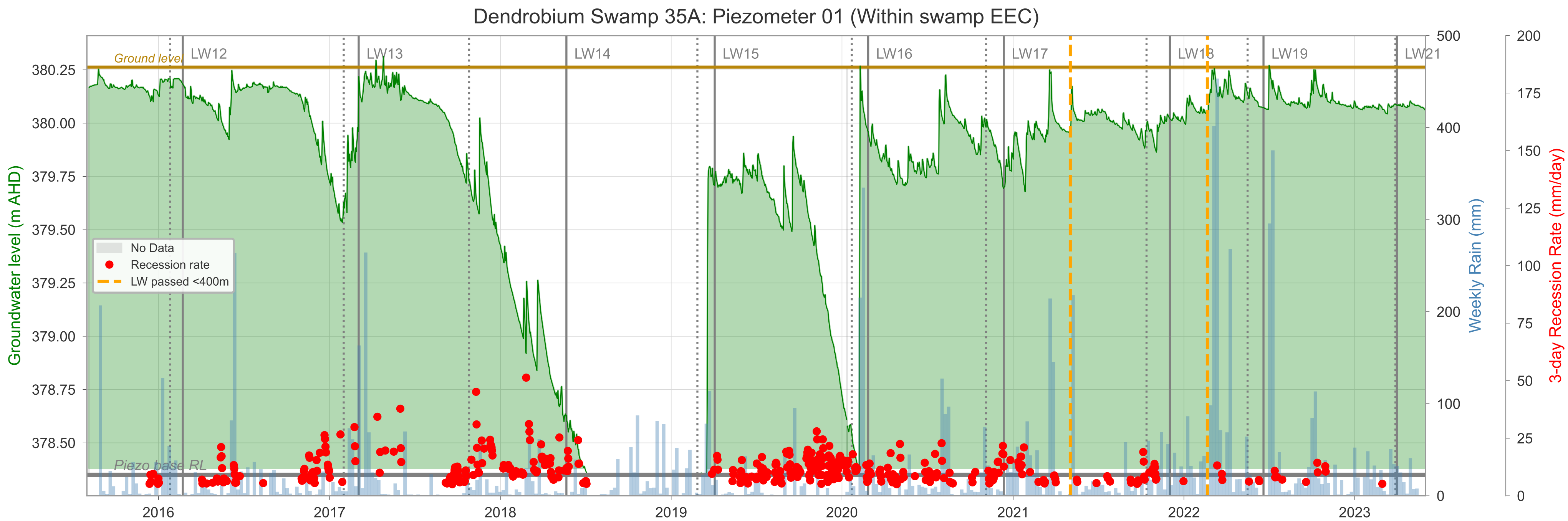



Dendrobium Swamp 25: Piezometer 01 (Within swamp EEC)
LW6
LW7
LW8
LW9
LW10
LW11
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
416.0
415.5
415.0
414.5
414.0
2010
2012
2014
2016
2018
2020
2022
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

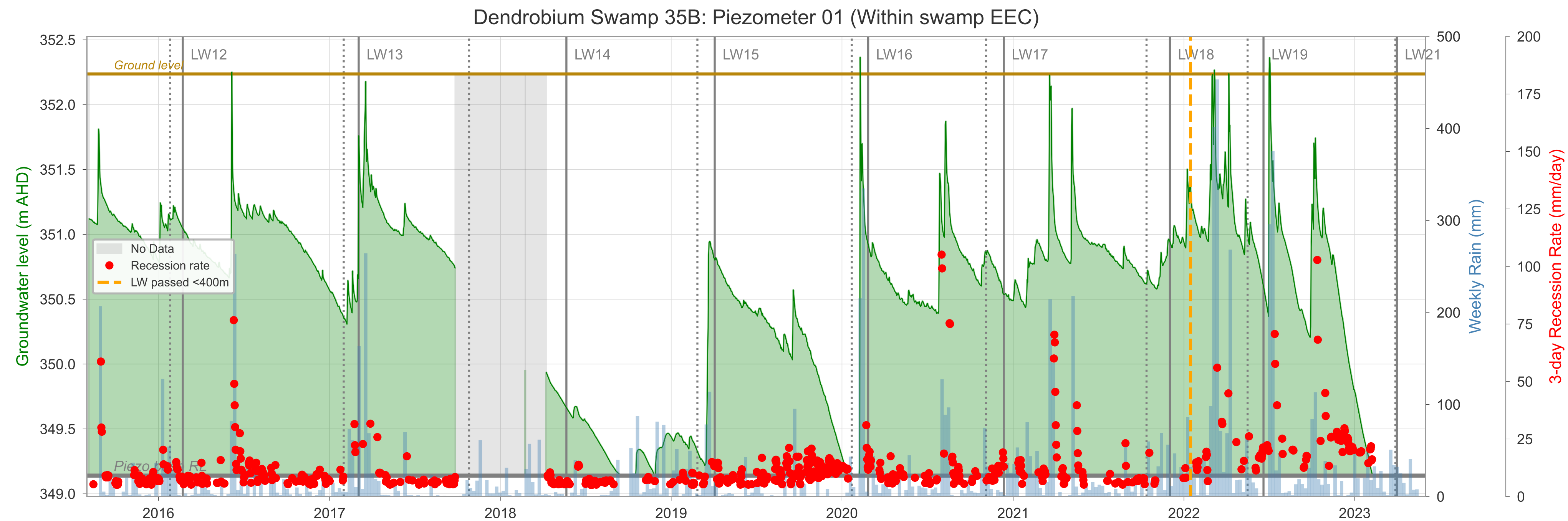

Dendrobium Swamp 33: Piezometer 01 (Within swamp EEC)
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
389.4
389.2
389.0
388.8
388.6
388.4
388.2
2016
2017
2018
2019
2020
2021
2022
2023
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0


Dendrobium Swamp 33: Piezometer 03 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
2016
2017
2018
2019
2020
2021
2022
2023

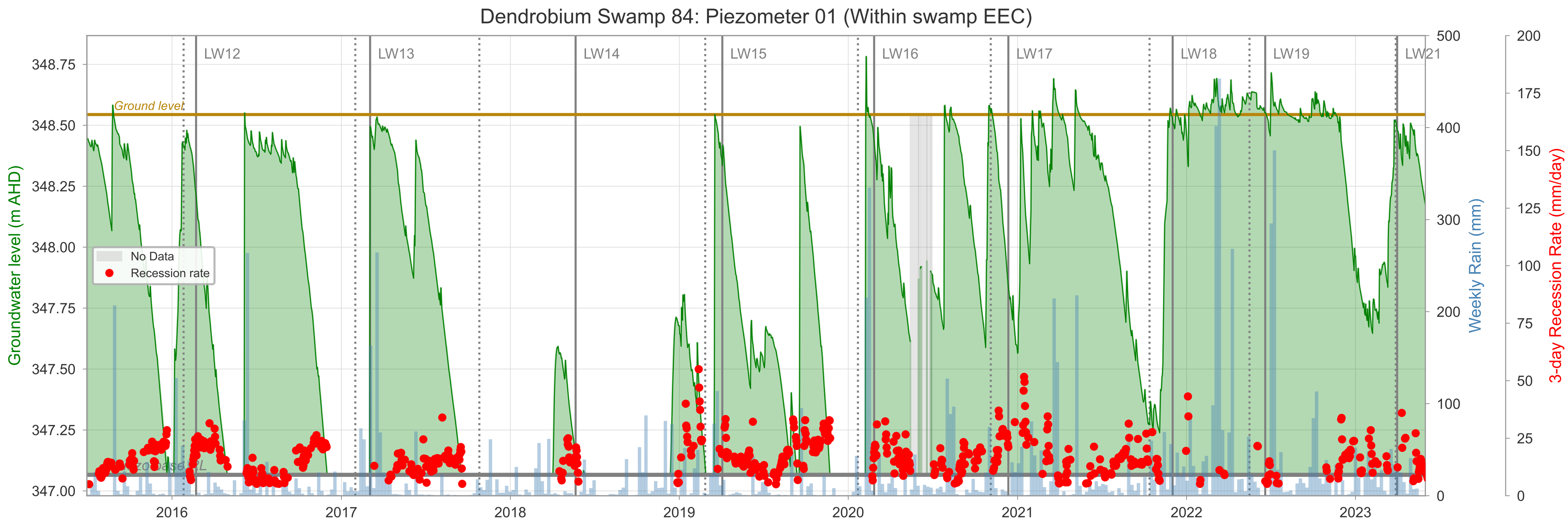

Dendrobium Swamp 34: Piezometer 01 (Within swamp EEC)
Ground level
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

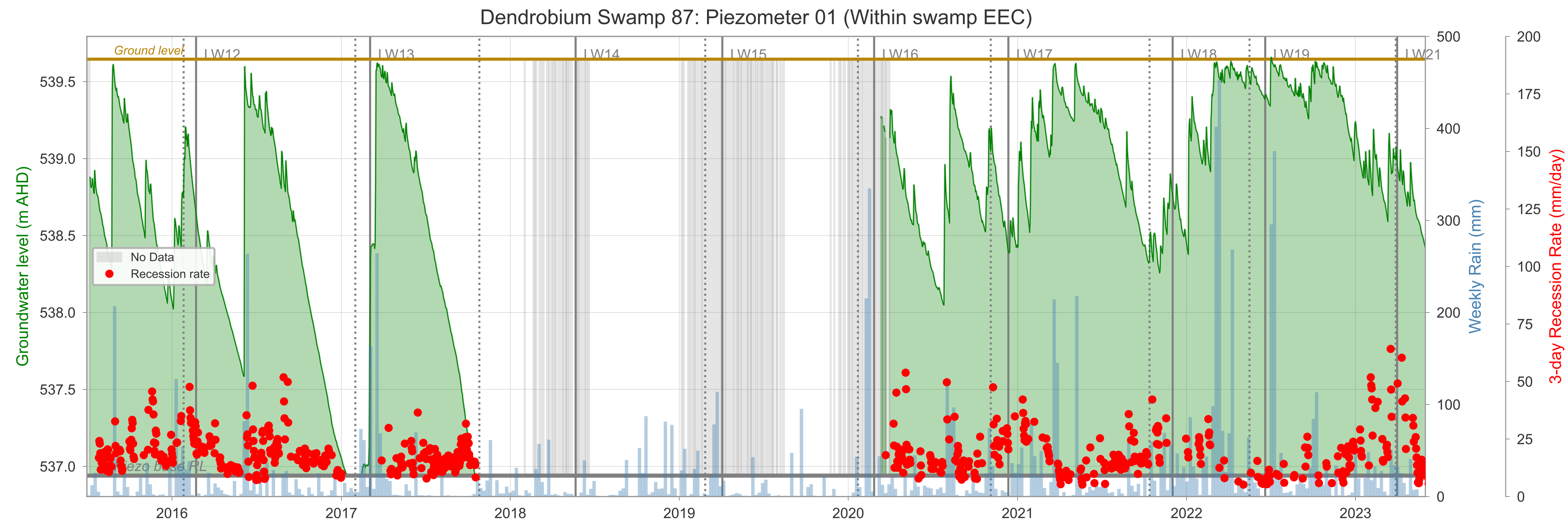


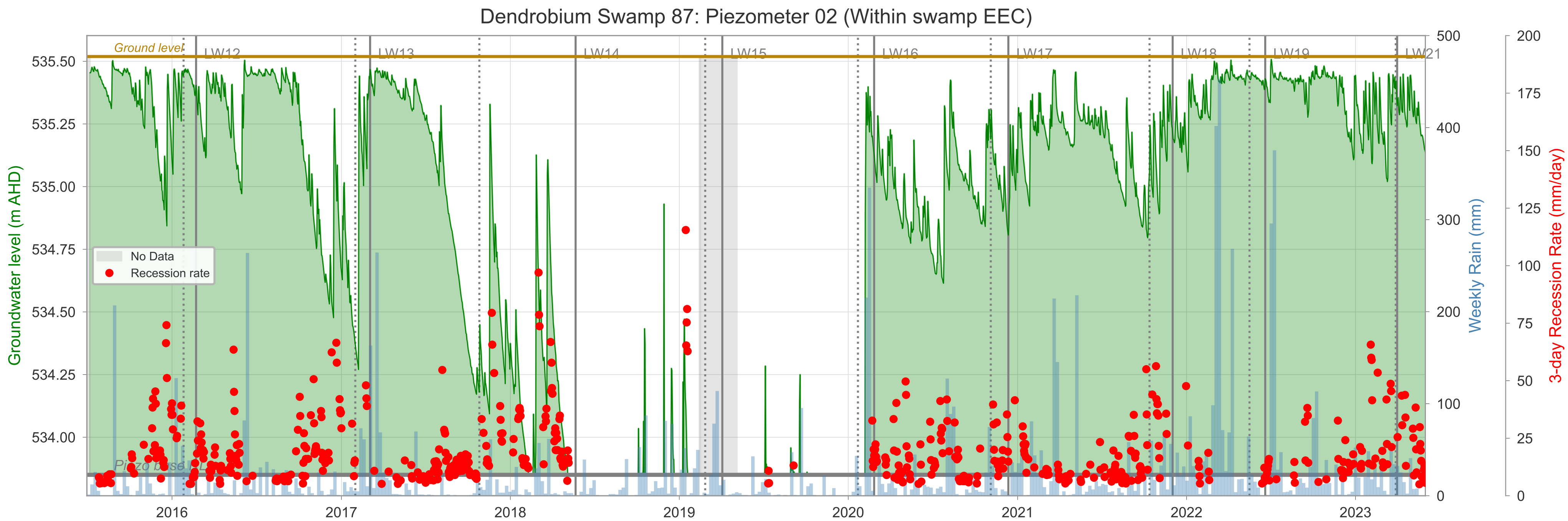
Dendrobium Swamp 35A: Piezometer 01 (Within swamp EEC)
Ground level
Piezo base RL
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

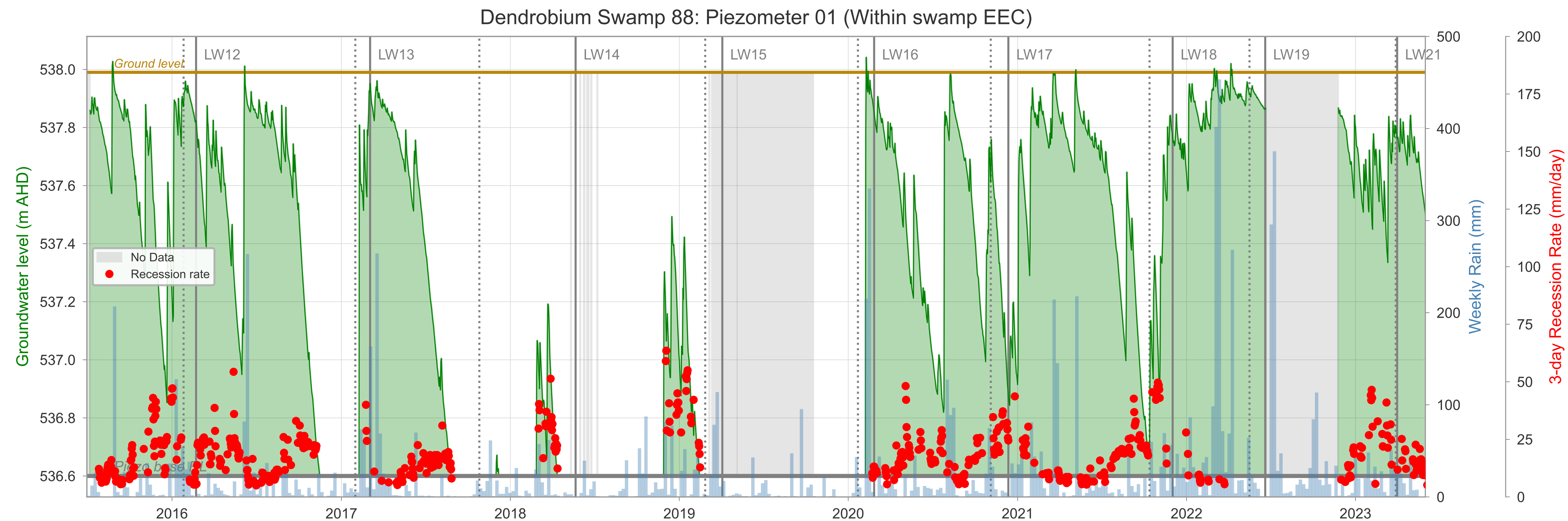


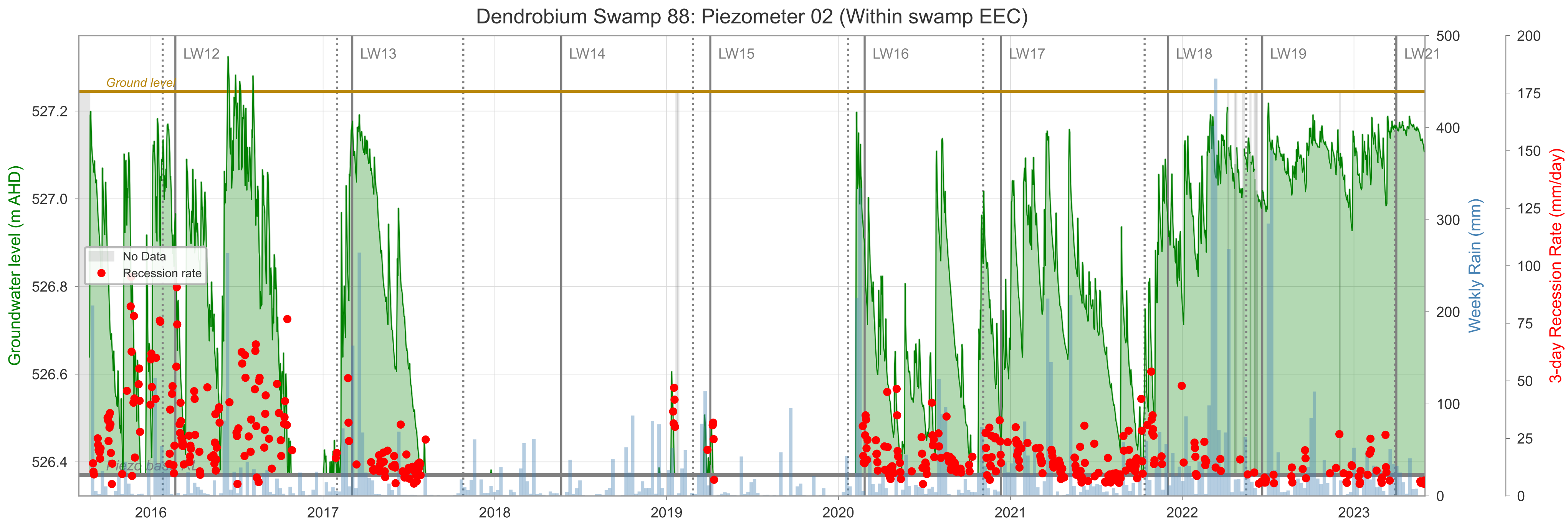
Dendrobium Swamp 35B: Piezometer 01 (Within swamp EEC)
Ground level
Piezo base RL
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
LW passed <400m
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)

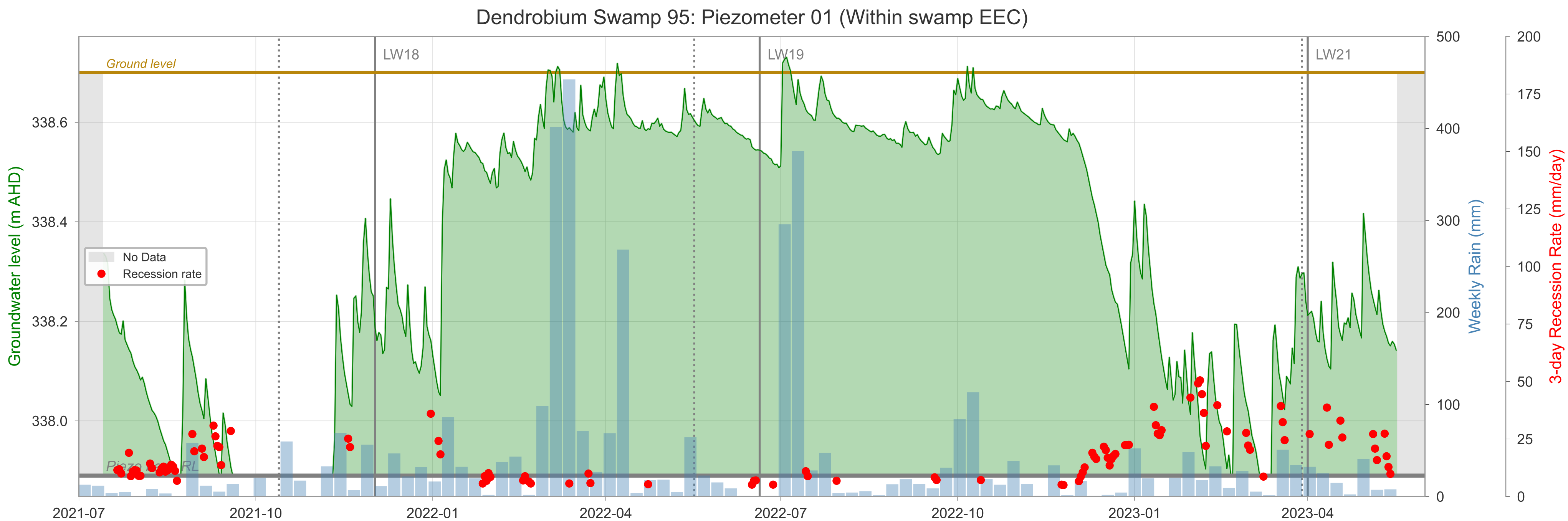

Dendrobium Swamp 84: Piezometer 01 (Within swamp EEC)
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
348.75
348.50
348.25
348.00
347.75
347.50
347.25
347.00
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023


Dendrobium Swamp 87: Piezometer 01 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
539.5
539.0
538.5
538.0
537.5
537.0
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023

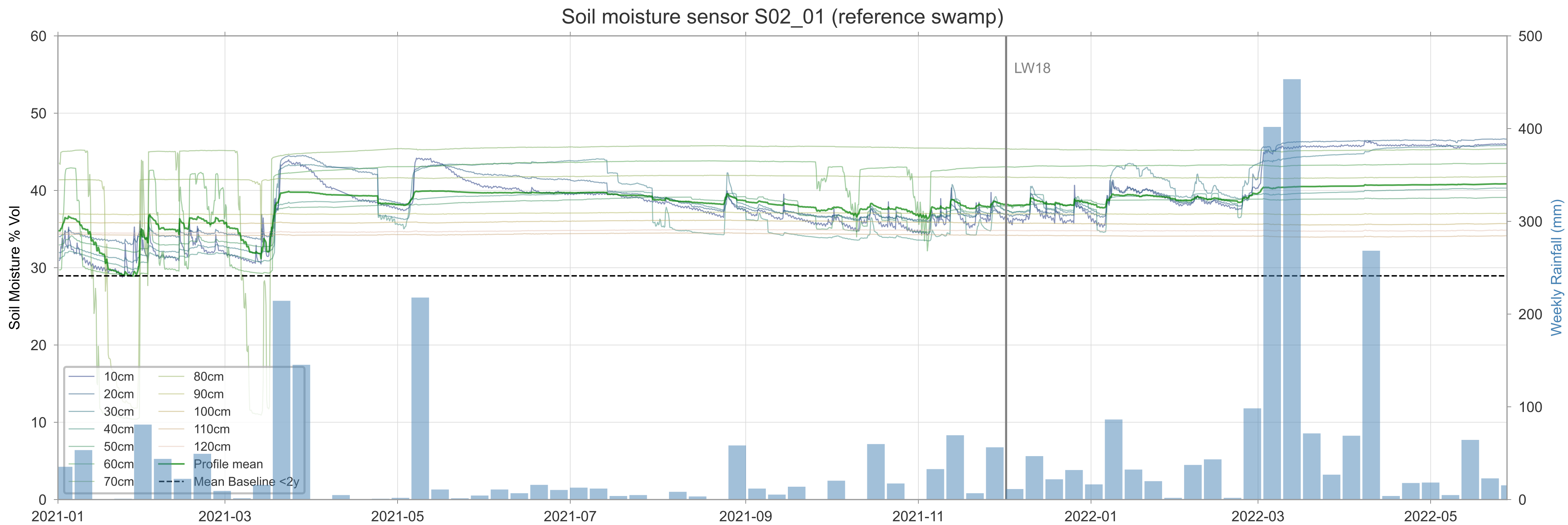

Dendrobium Swamp 87: Piezometer 02 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
535.50
535.25
535.00
534.75
534.50
534.25
534.00
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023

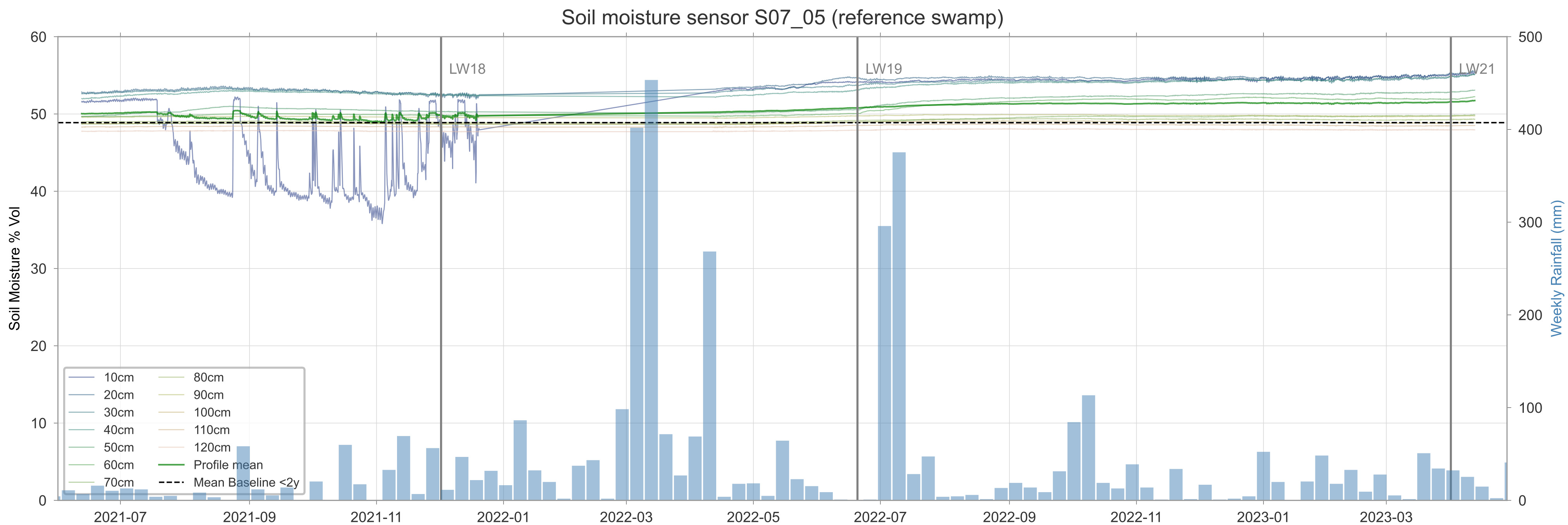

Dendrobium Swamp 88: Piezometer 01 (Within swamp EEC)
Ground level
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
538.0
537.8
537.6
537.4
537.2
537.0
536.8
536.6
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0
2016
2017
2018
2019
2020
2021
2022
2023

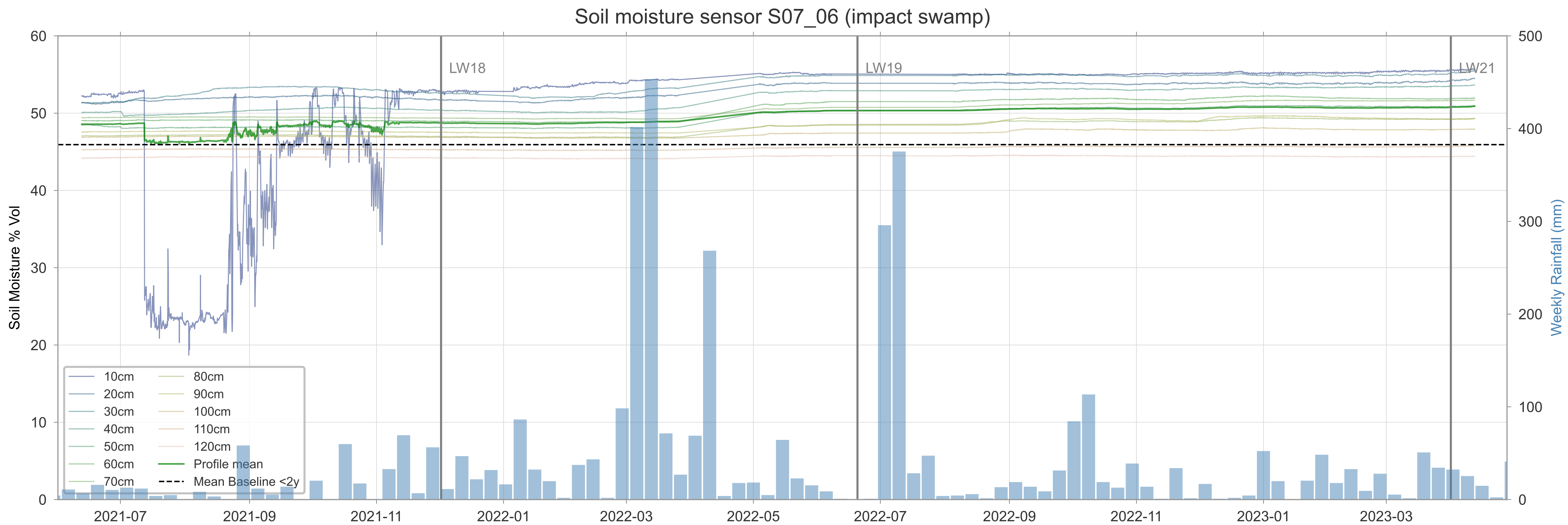

Dendrobium Swamp 88: Piezometer 02 (Within swamp EEC)
LW12
LW13
LW14
LW15
LW16
LW17
LW18
LW19
LW21
Ground level
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
527.2
527.0
526.8
526.6
526.4
2016
2017
2018
2019
2020
2021
2022
2023
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0


Dendrobium Swamp 95: Piezometer 01 (Within swamp EEC)
LW18
LW19
LW21
Ground level
No Data
Recession rate
Piezo base RL
Groundwater level (m AHD)
Weekly Rain (mm)
3-day Recession Rate (mm/day)
338.6
338.4
338.2
338.0
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04
500
400
300
200
100
0
200
175
150
125
100
75
50
25
0

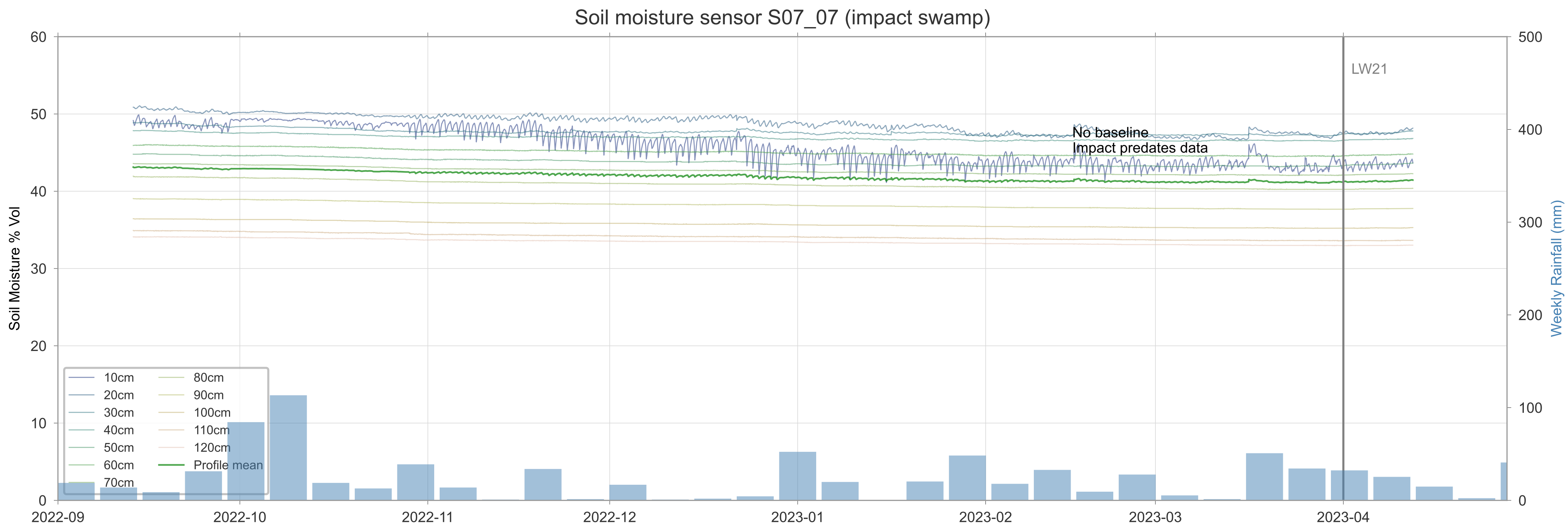
Appendix E: Soil moisture hydrographs


Soil moisture sensor S02_01 (reference swamp)
LW18
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
2021-01
2021-03
2021-05
2021-07
2021-09
2021-11
2022-01
2022-03
2022-05

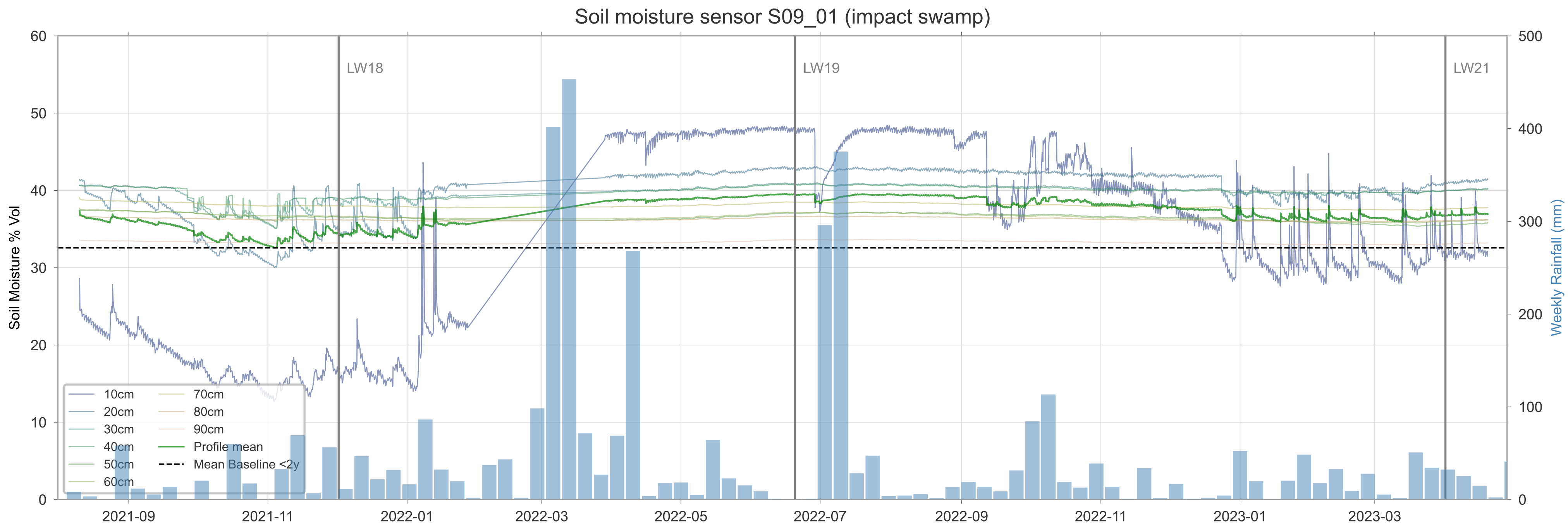

Soil moisture sensor S07_05 (reference swamp)
LW18
LW19
LW21
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
2021-07
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03



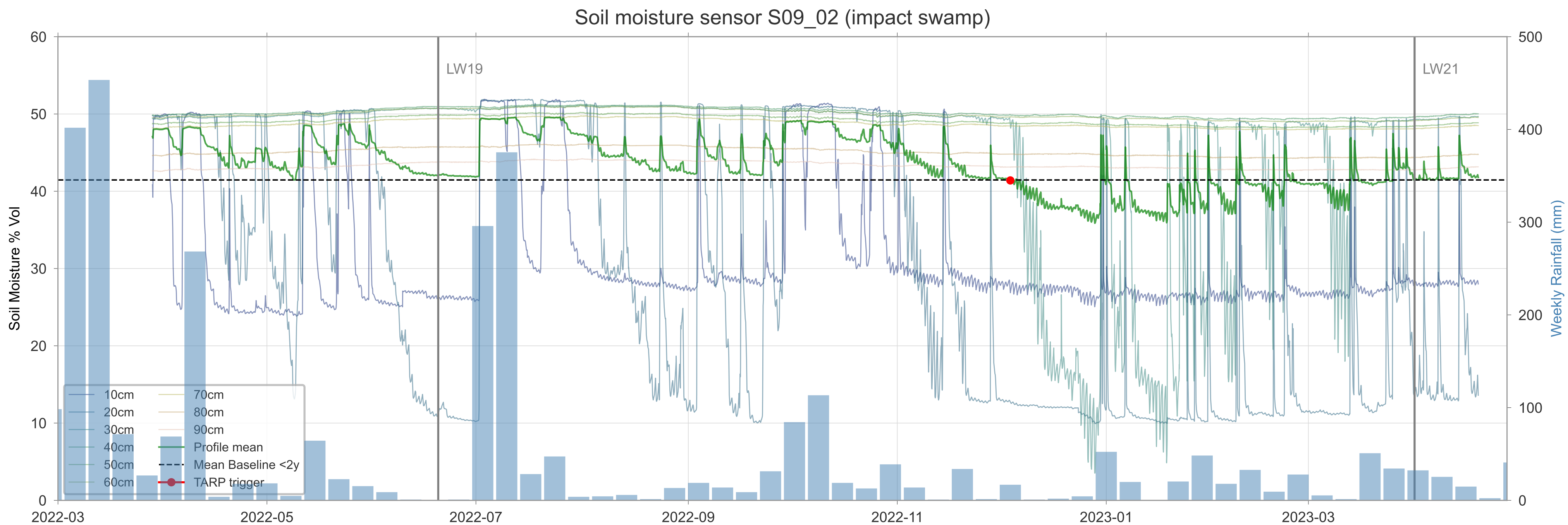
Soil moisture sensor S07_06 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
2021-07
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03



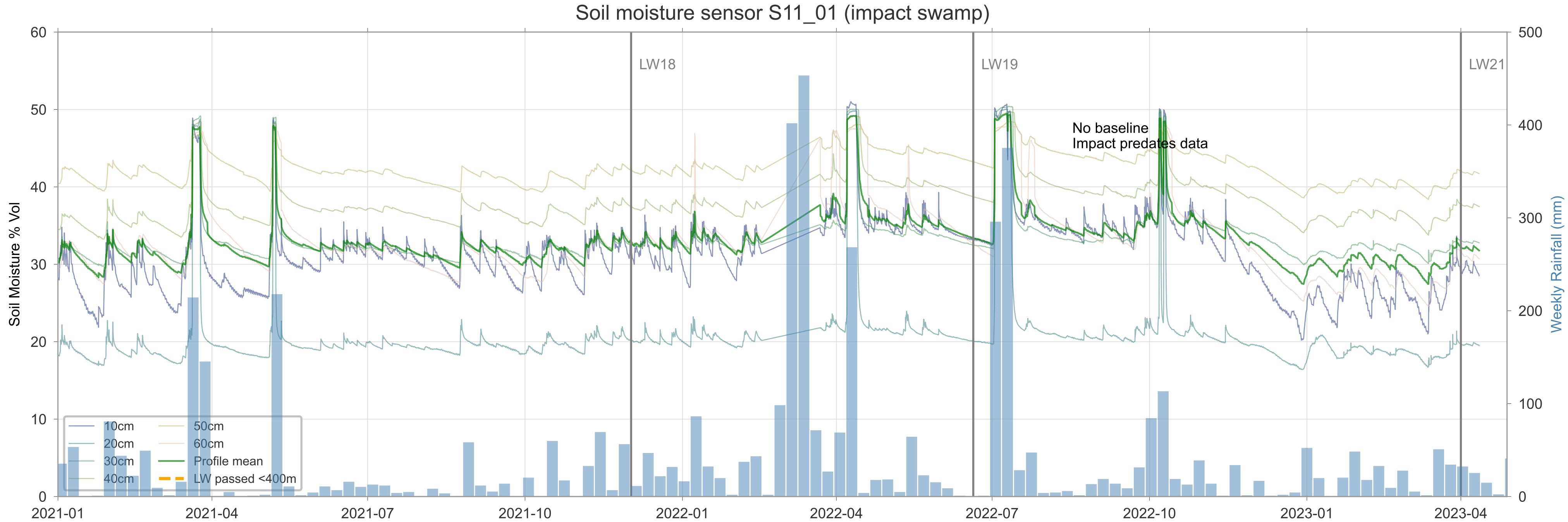
Soil moisture sensor S07_07 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW21
No baseline
Impact predates data
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
2022-09
2022-10
2022-11
2022-12
2023-01
2023-02
2023-03
2023-04

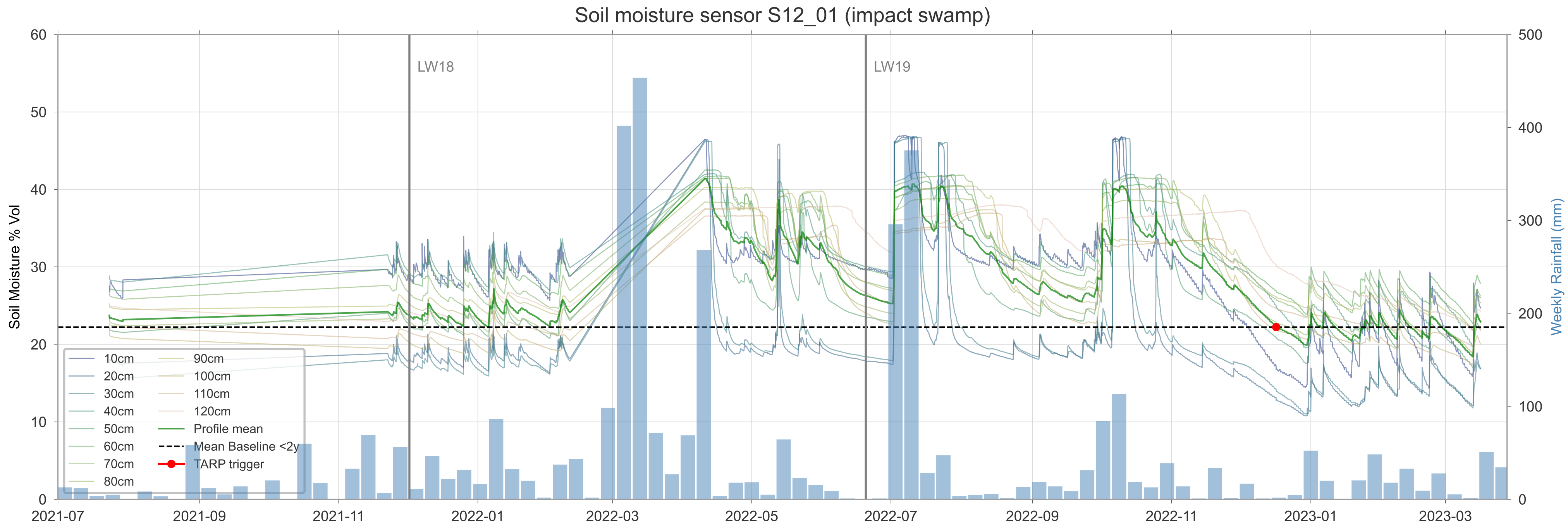


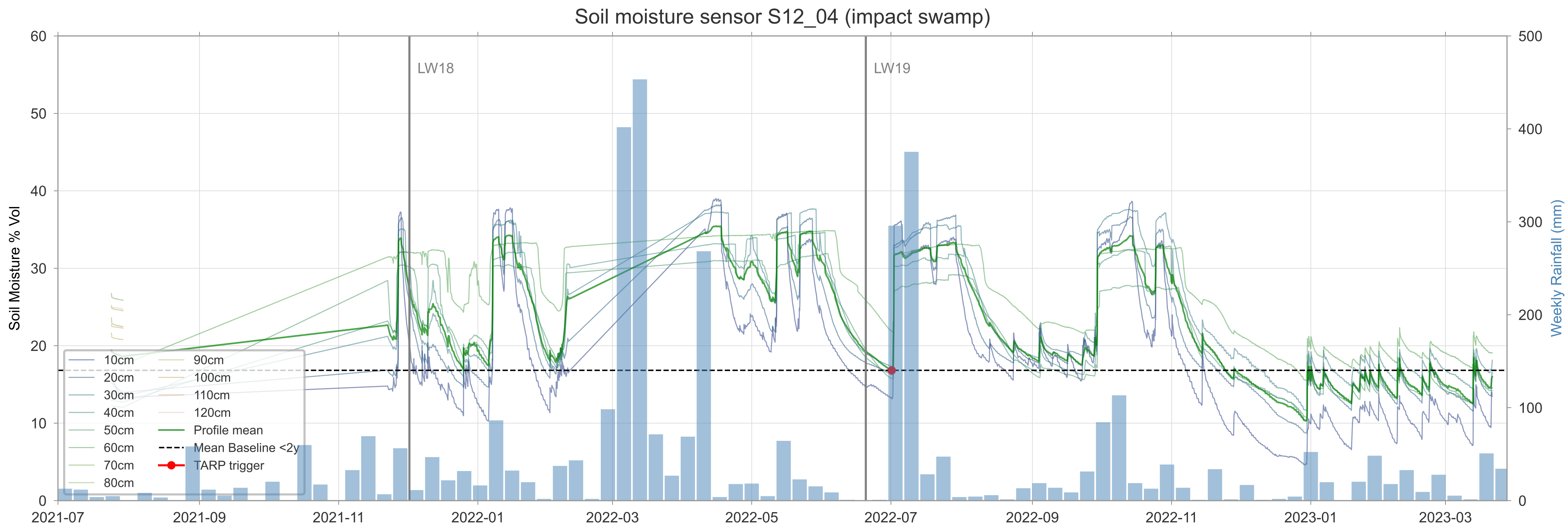
Soil moisture sensor S09_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

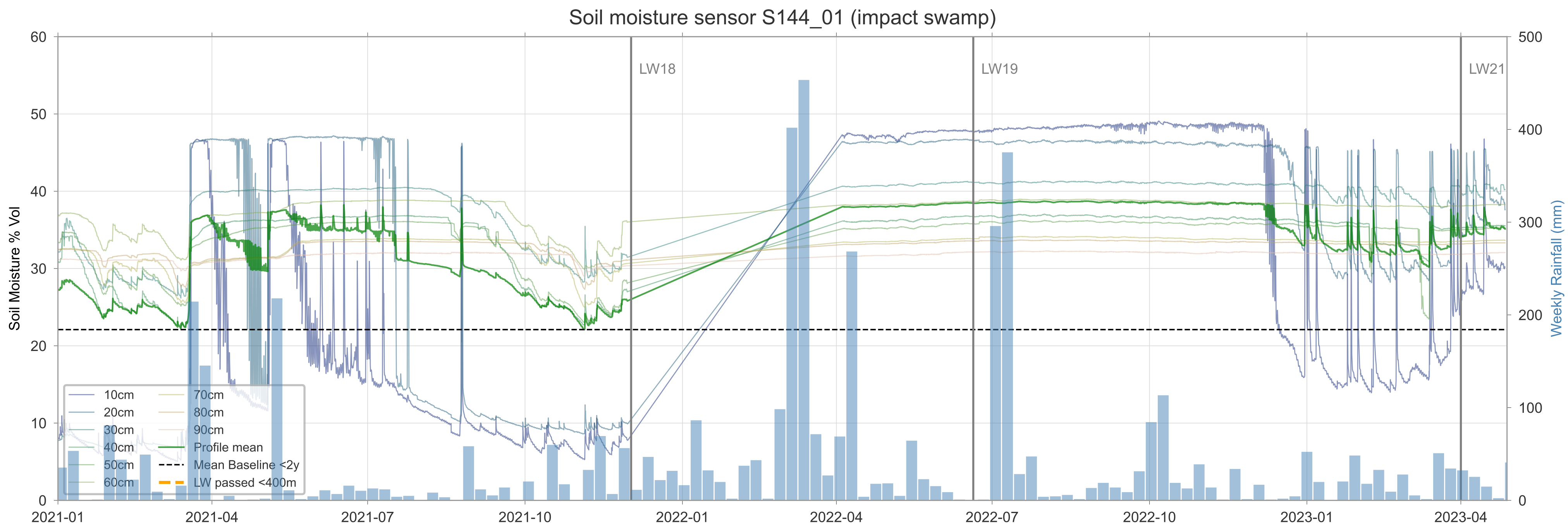


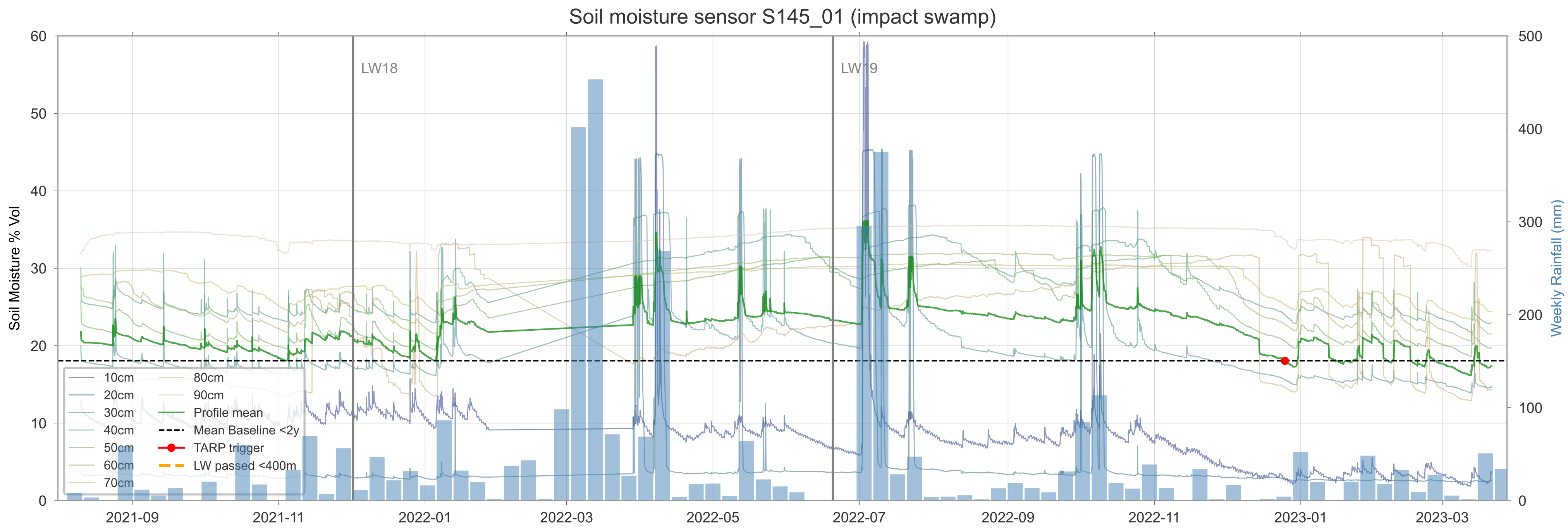
Soil moisture sensor S09_02 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
TARP trigger
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

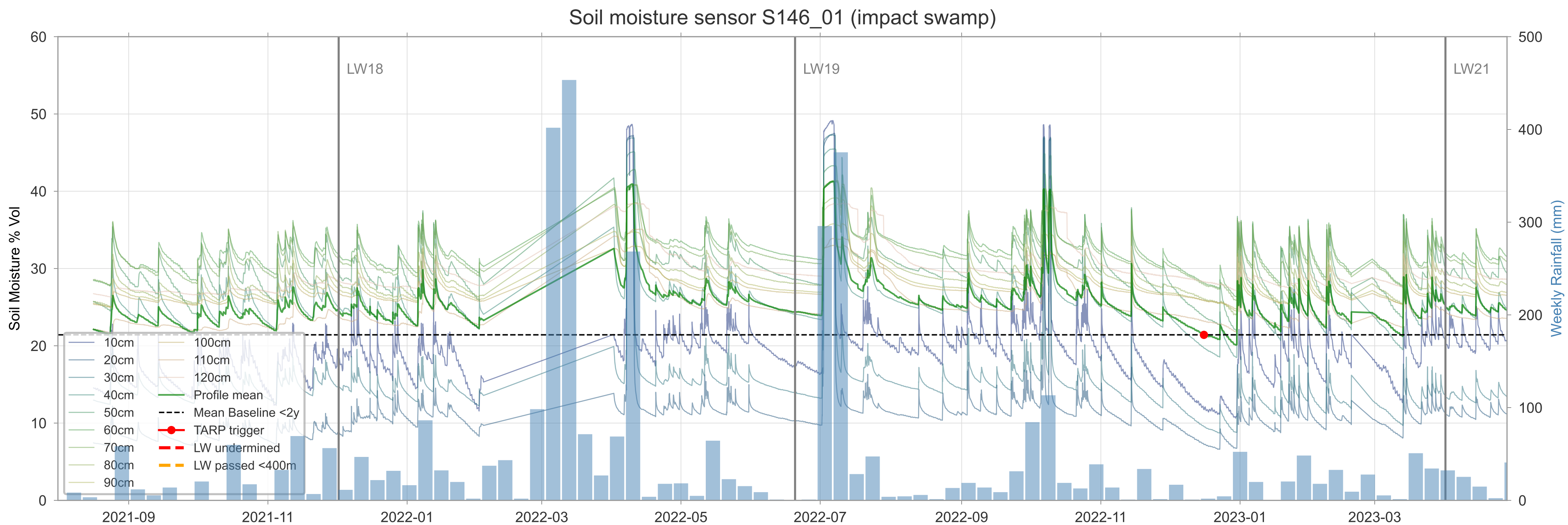

Soil moisture sensor S11_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
No baseline
Impact predates data
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
LW passed <400m
2021-01
2021-04
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

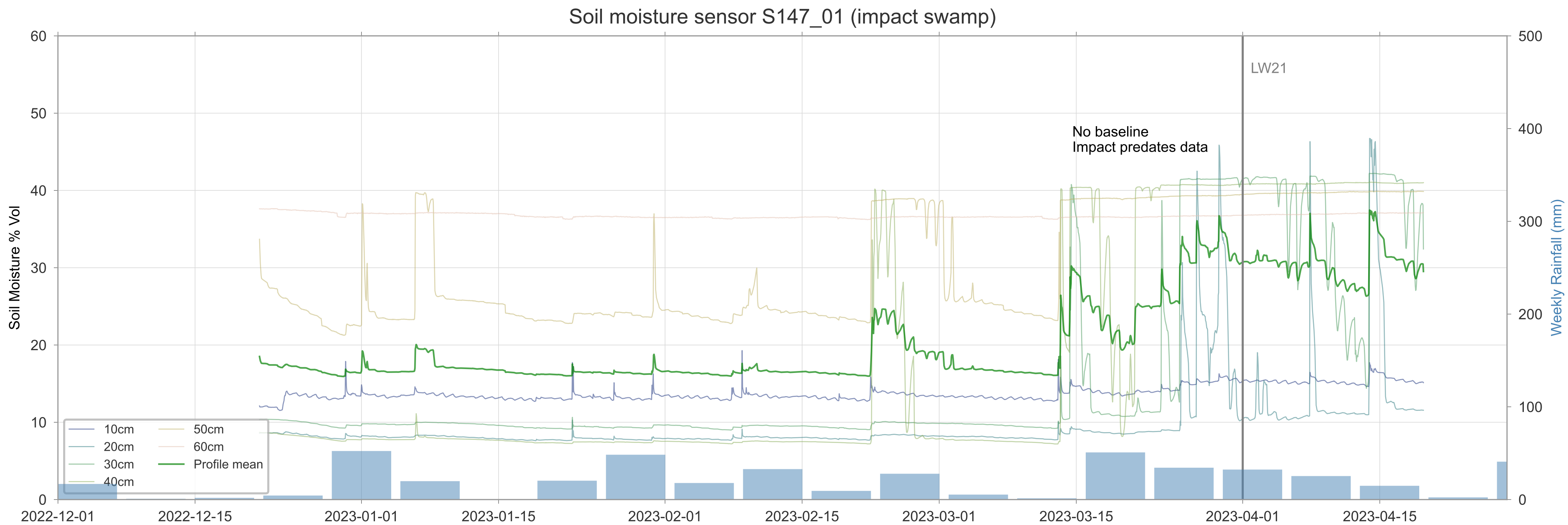

Soil moisture sensor S12_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
2021-07
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

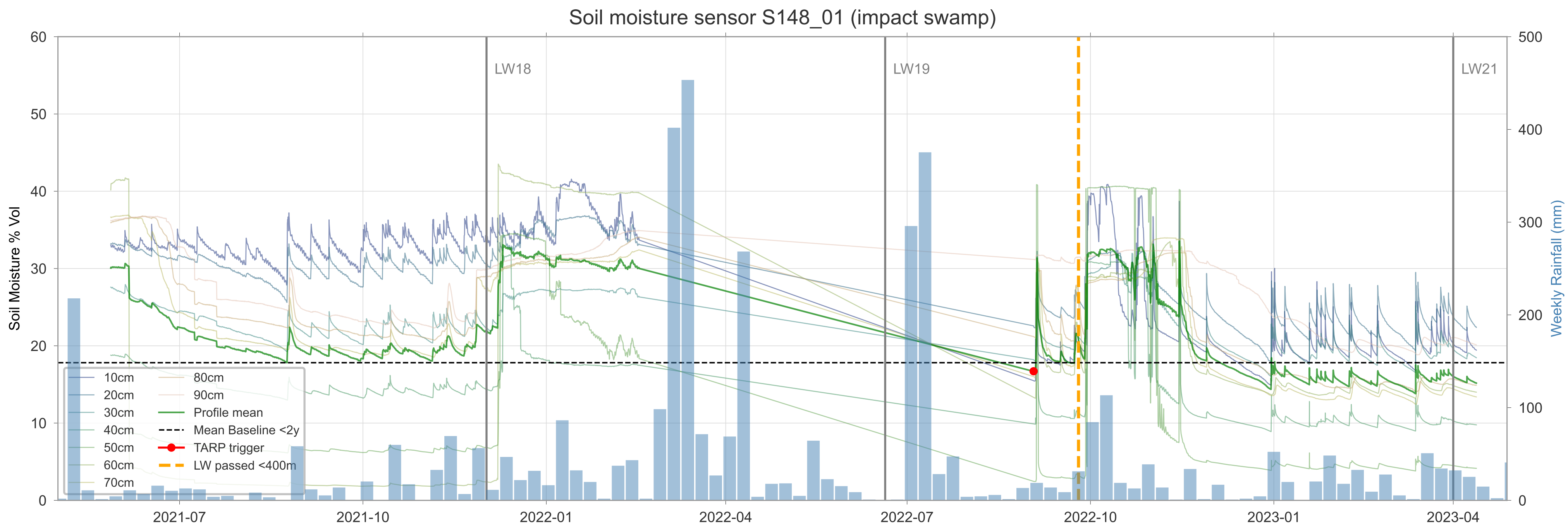

Soil moisture sensor S12_04 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
2021-07
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

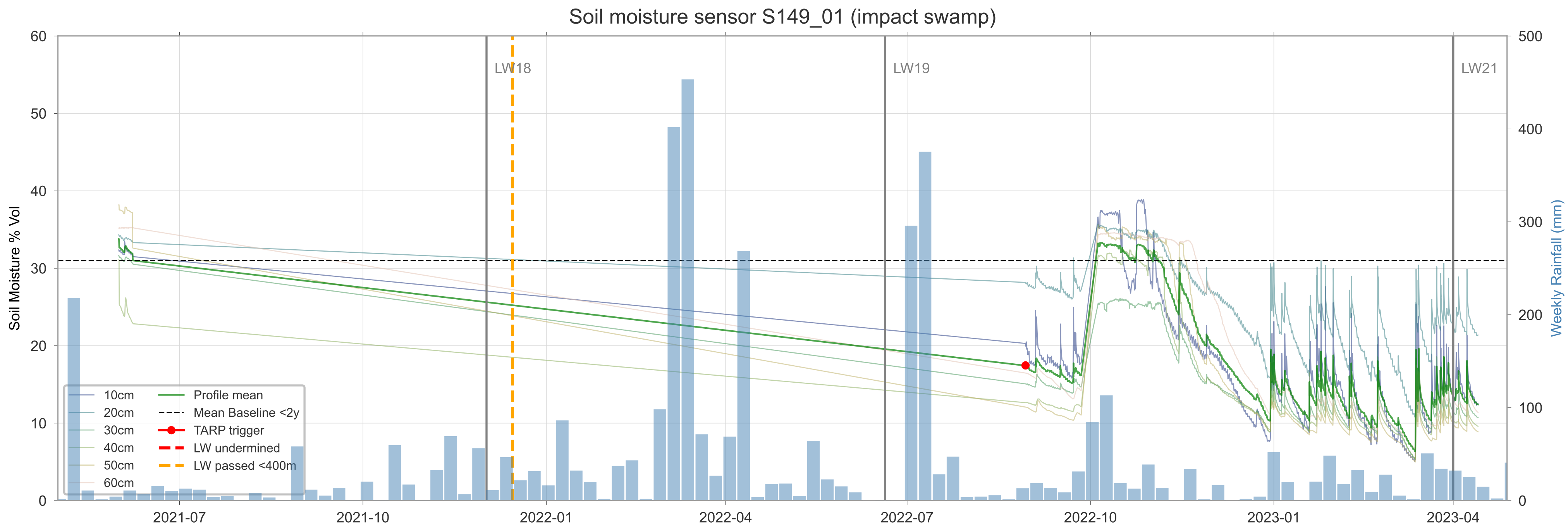

Soil moisture sensor S144_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
LW passed <400m
2021-01
2021-04
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

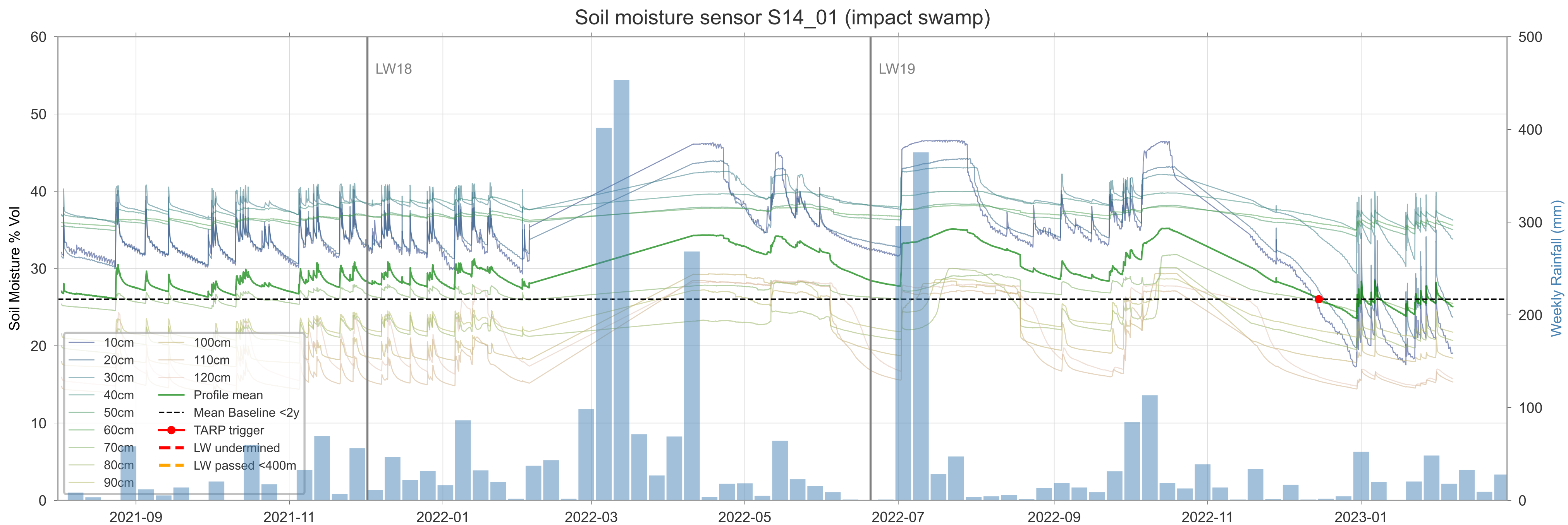

Soil moisture sensor S145_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
TARP trigger
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

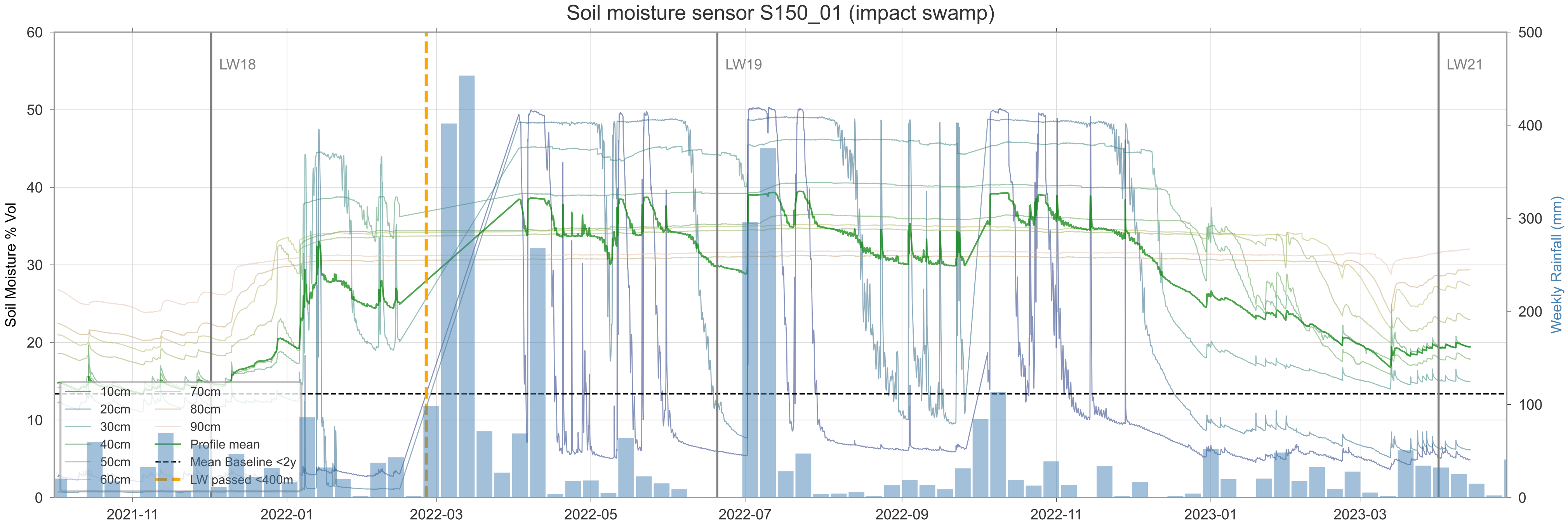

Soil moisture sensor S146_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
LW undermined
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

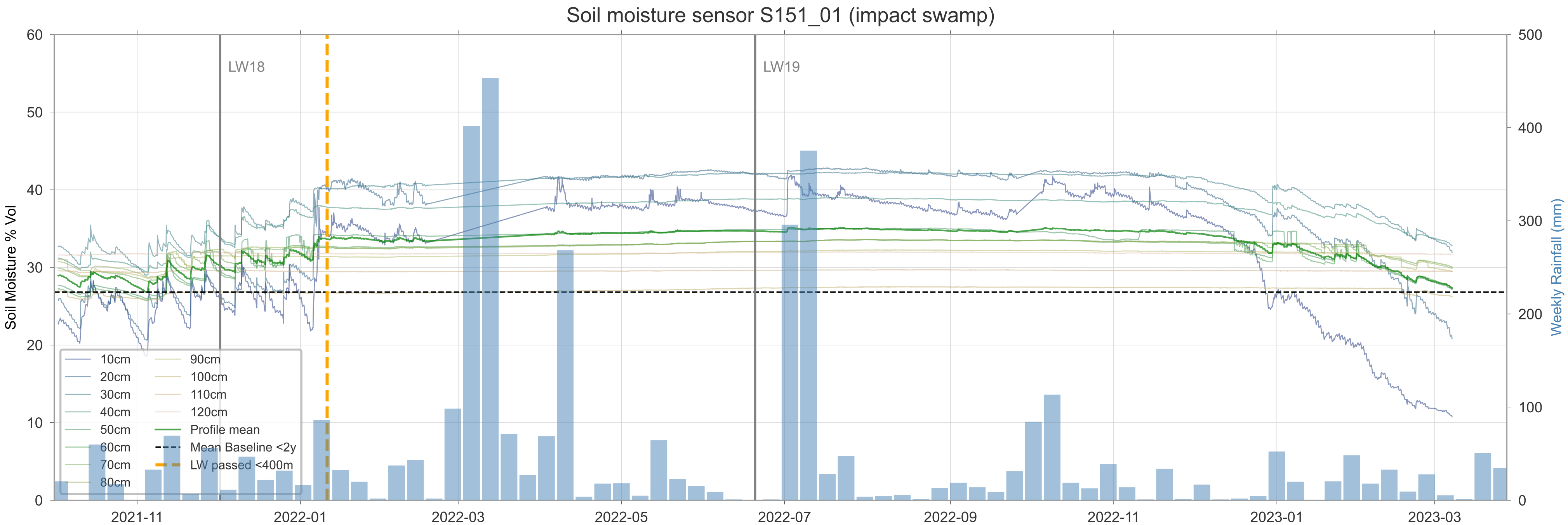

Soil moisture sensor S147_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW21
No baseline
Impact predates data
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
2022-12-01
2022-12-15
2023-01-01
2023-01-15
2023-02-01
2023-02-15
2023-03-01
2023-03-15
2023-04-01
2023-04-15

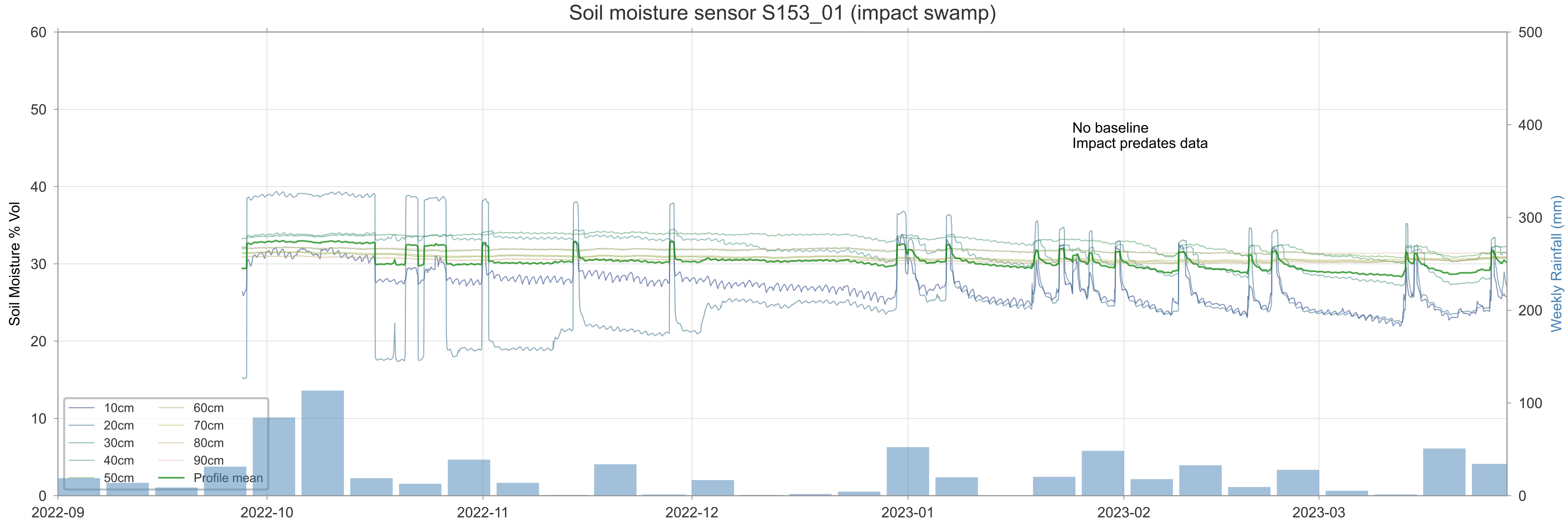

Soil moisture sensor S148_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
TARP trigger
LW passed <400m
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

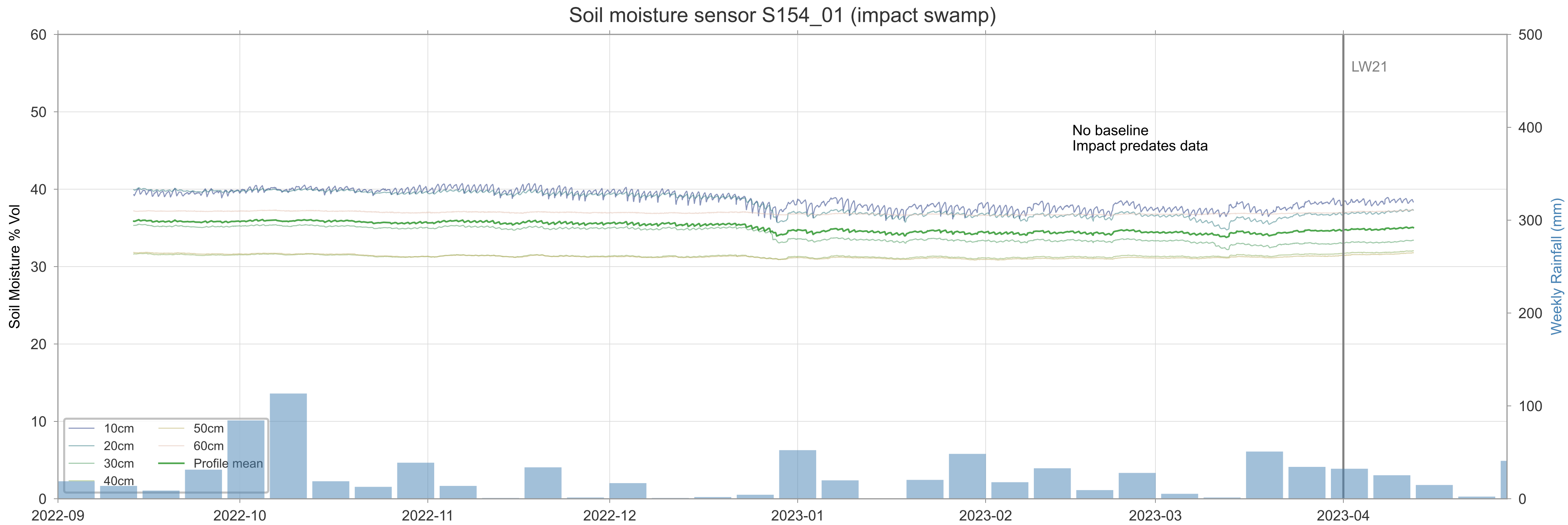

Soil moisture sensor S149_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
Mean Baseline <2y
TARP trigger
LW undermined
LW passed <400m
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01
2023-04

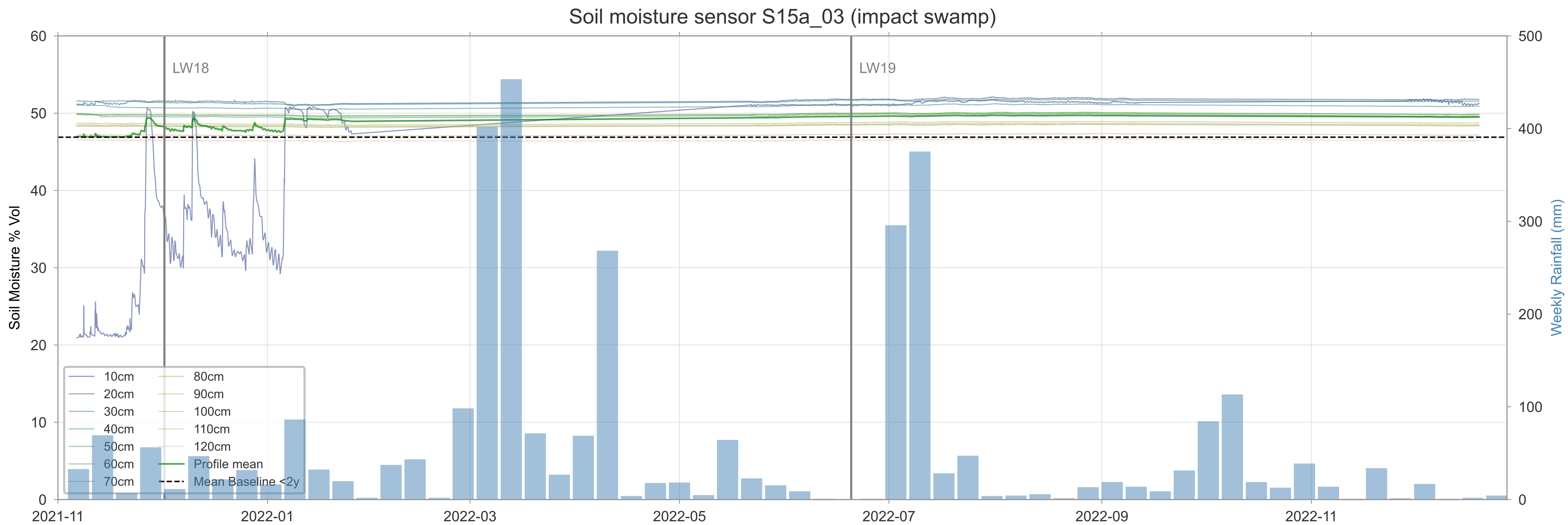

Soil moisture sensor S14_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
LW undermined
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01

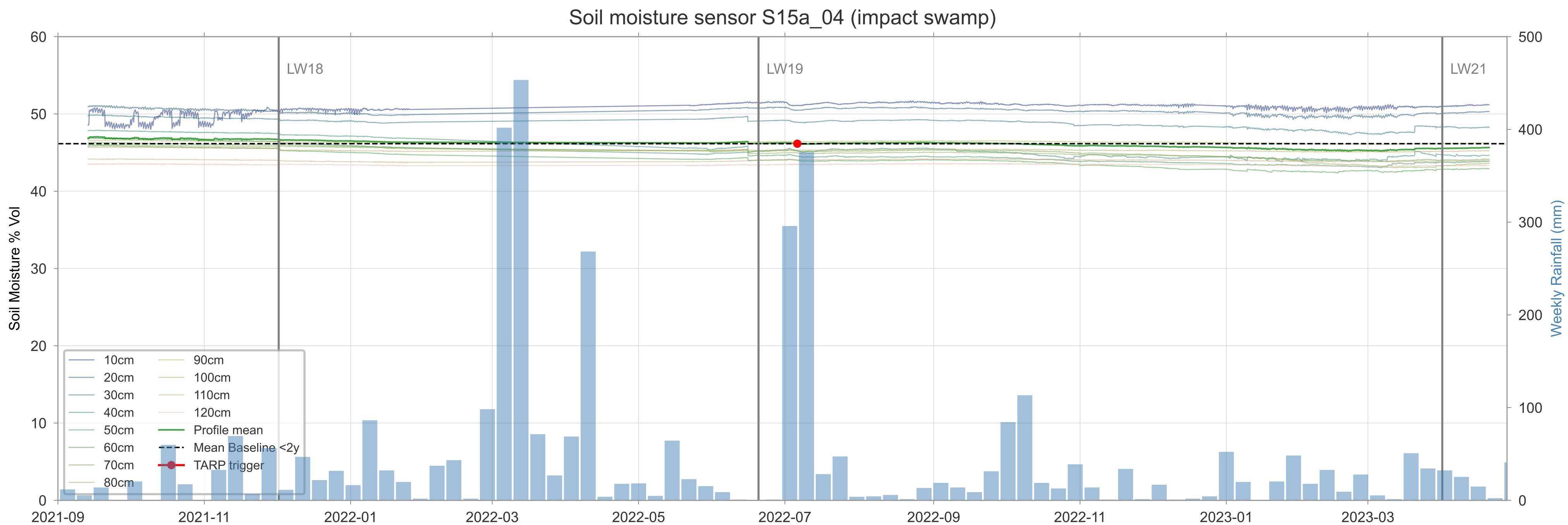

Soil moisture sensor S150_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
Mean Baseline <2y
LW passed <400m
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

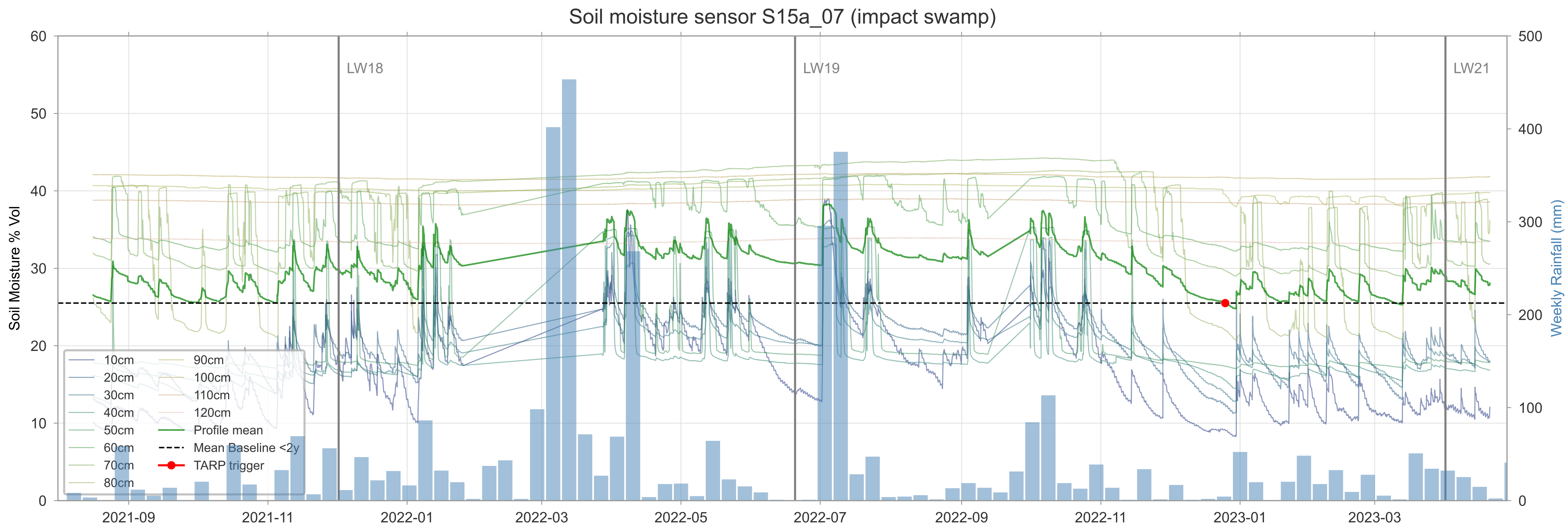

Soil moisture sensor S151_01 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
LW passed <400m
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

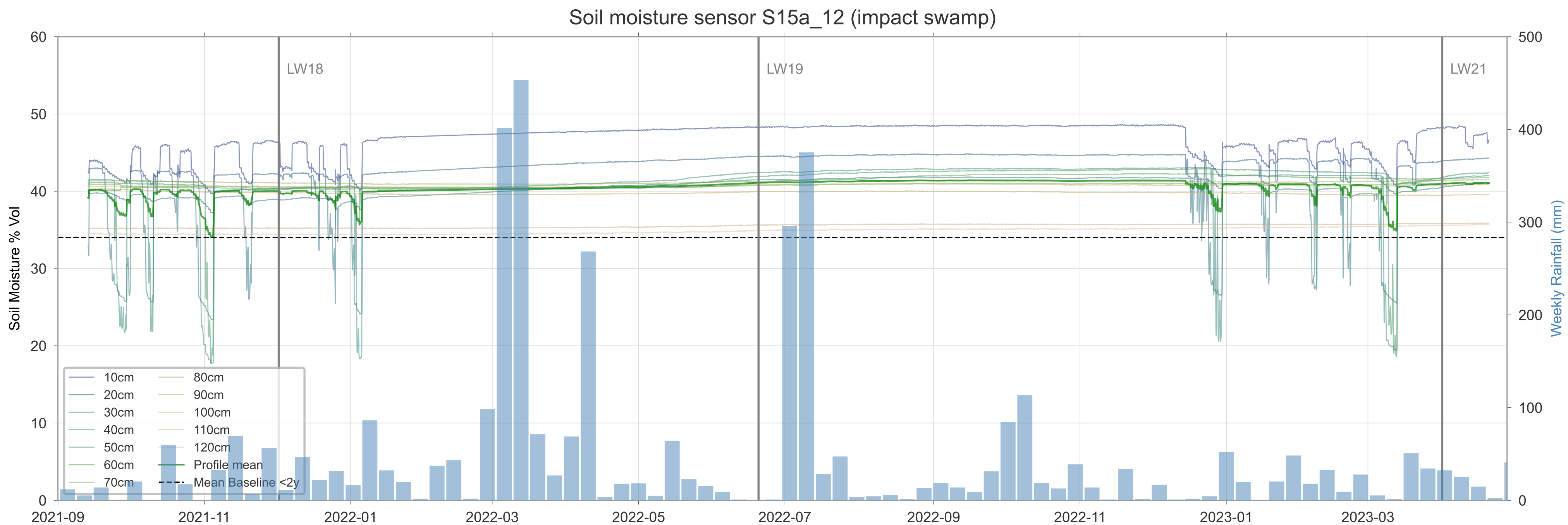

Soil moisture sensor S153_01 (impact swamp)
No baseline
Impact predates data
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
Profile mean
2022-09
2022-10
2022-11
2022-12
2023-01
2023-02
2023-03

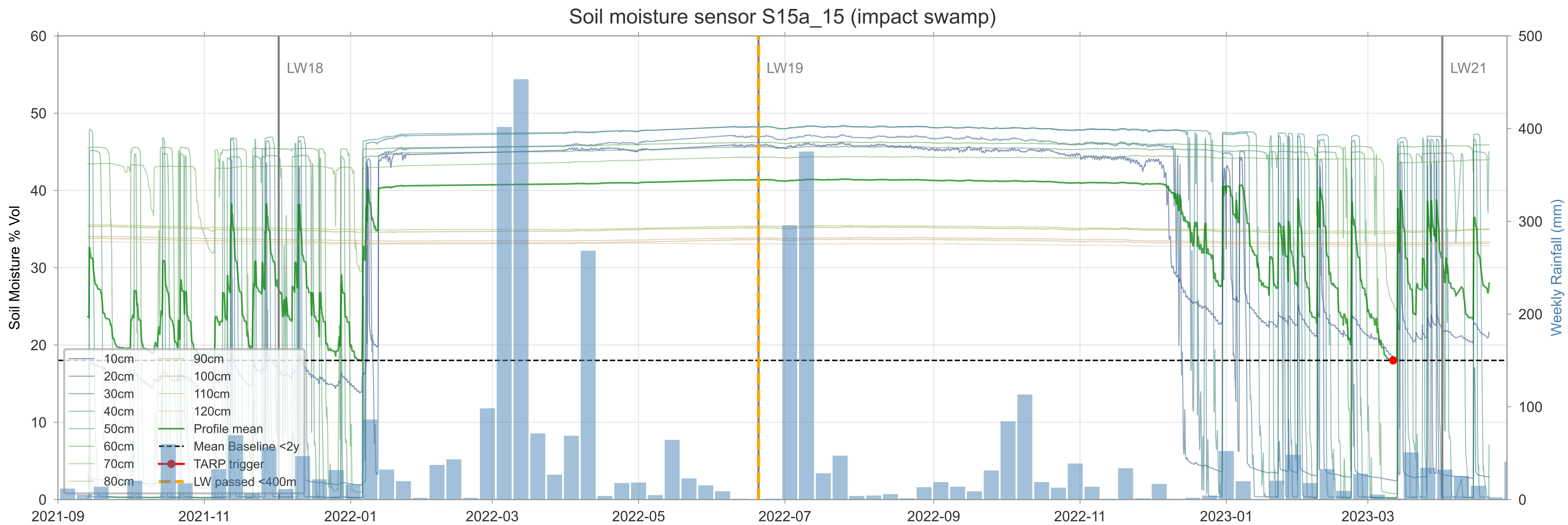

Soil moisture sensor S154_01 (impact swamp)
LW21
No baseline
Impact predates data
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
2022-09
2022-10
2022-11
2022-12
2023-01
2023-02
2023-03
2023-04

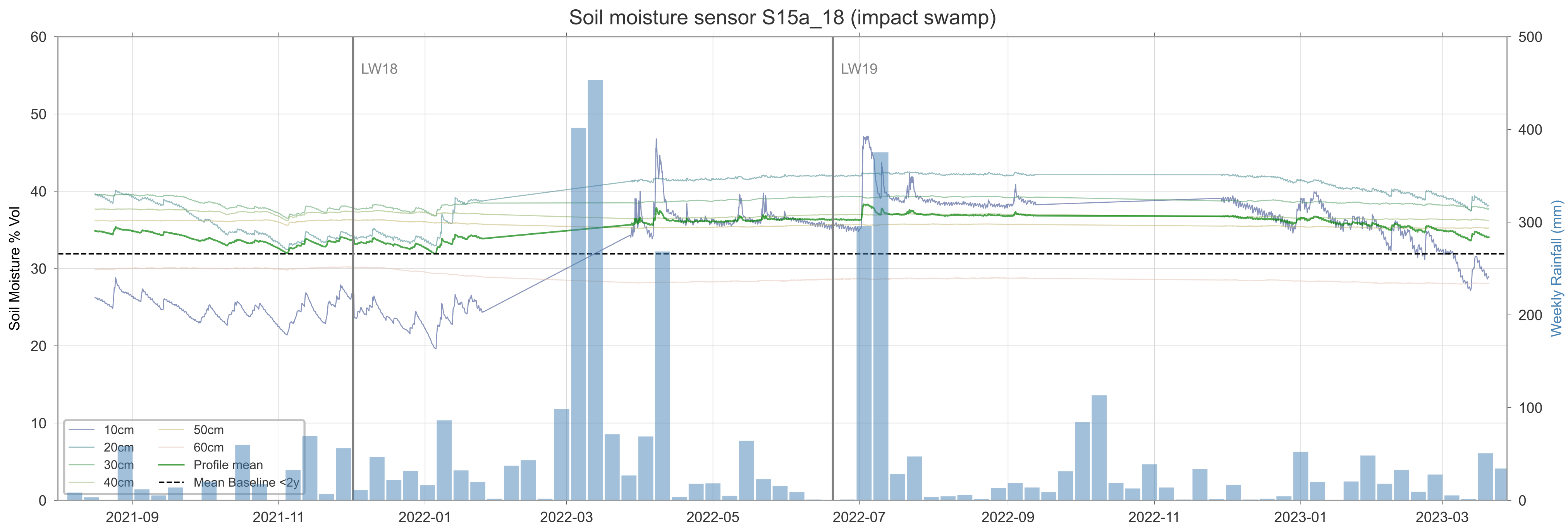

Soil moisture sensor S15a_03 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11

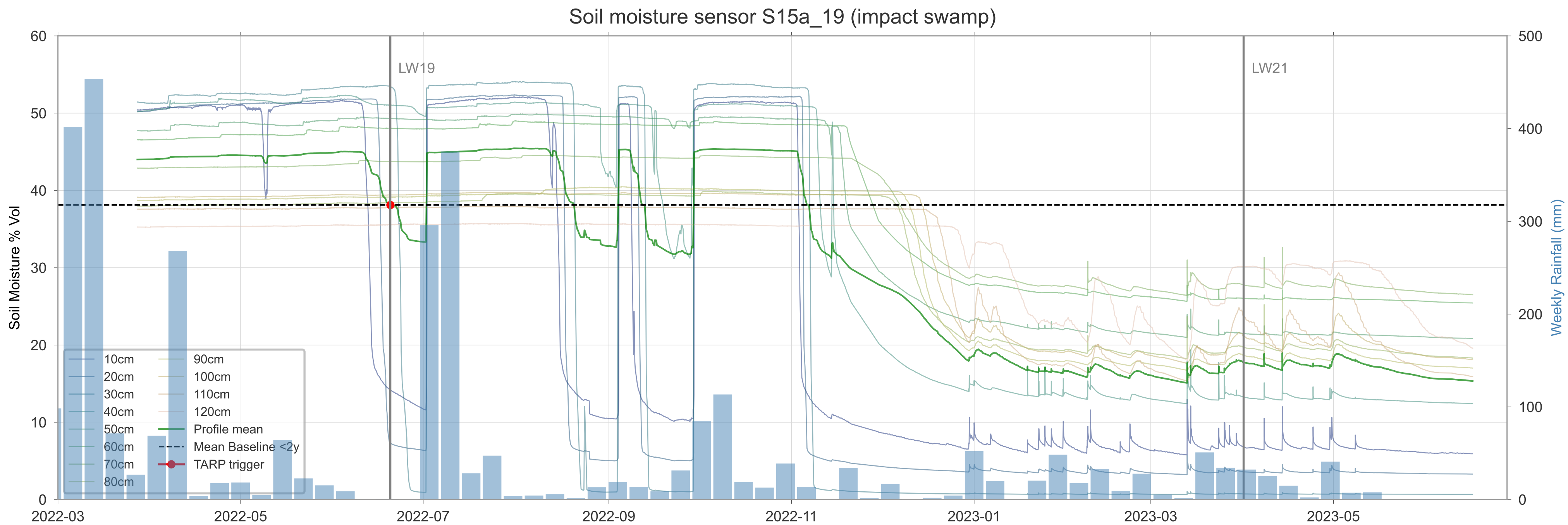

Soil moisture sensor S15a_04 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

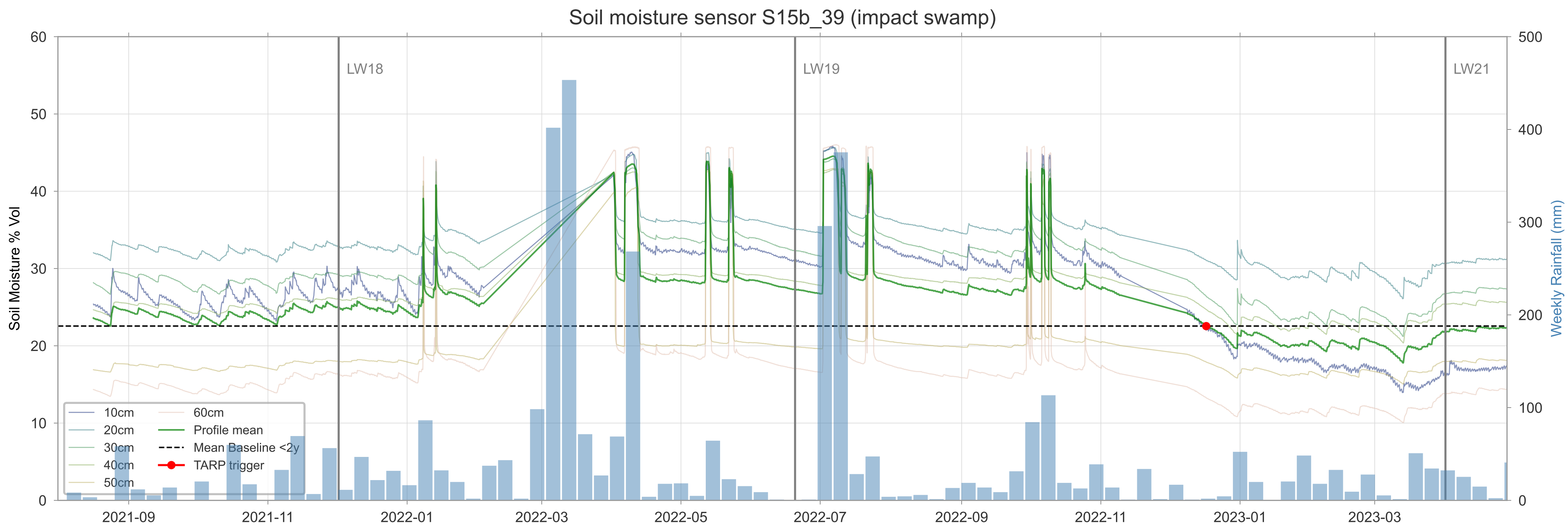

Soil moisture sensor S15a_07 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

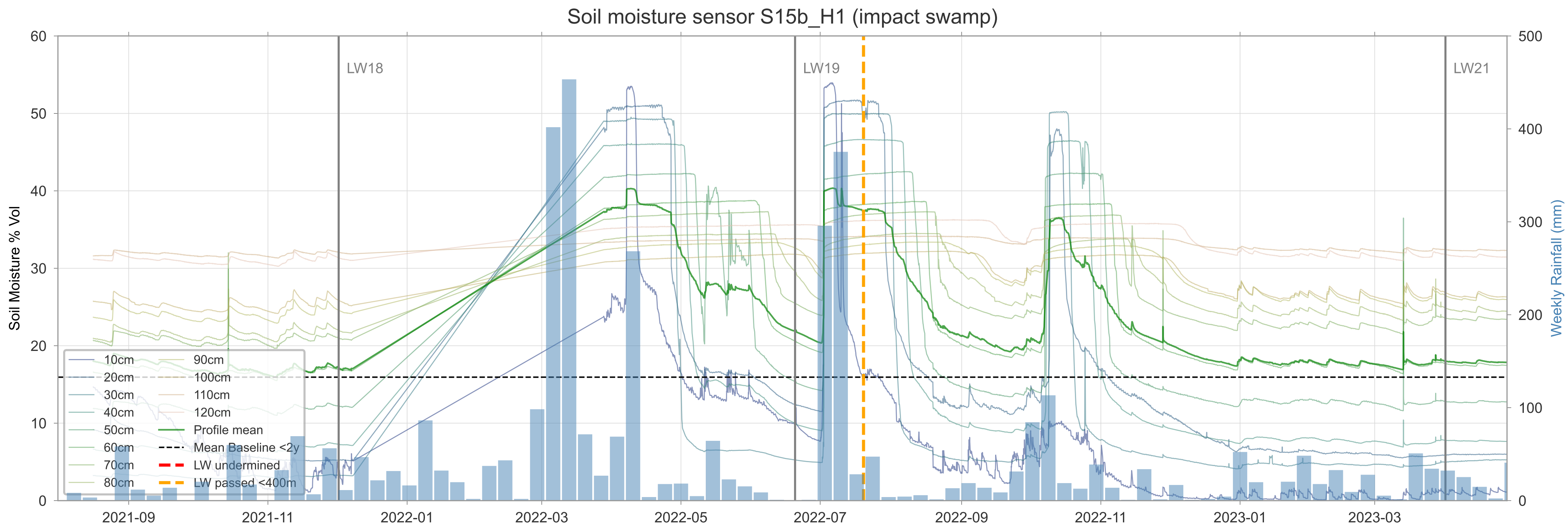

Soil moisture sensor S15a_12 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

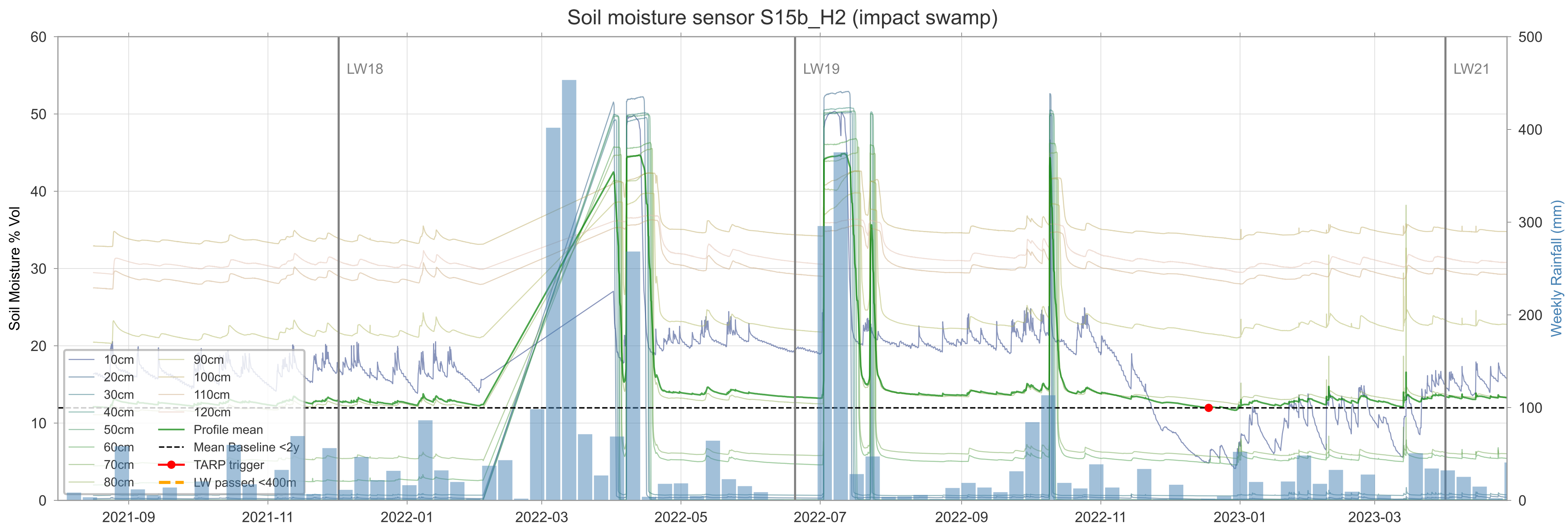

Soil moisture sensor S15a_15 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

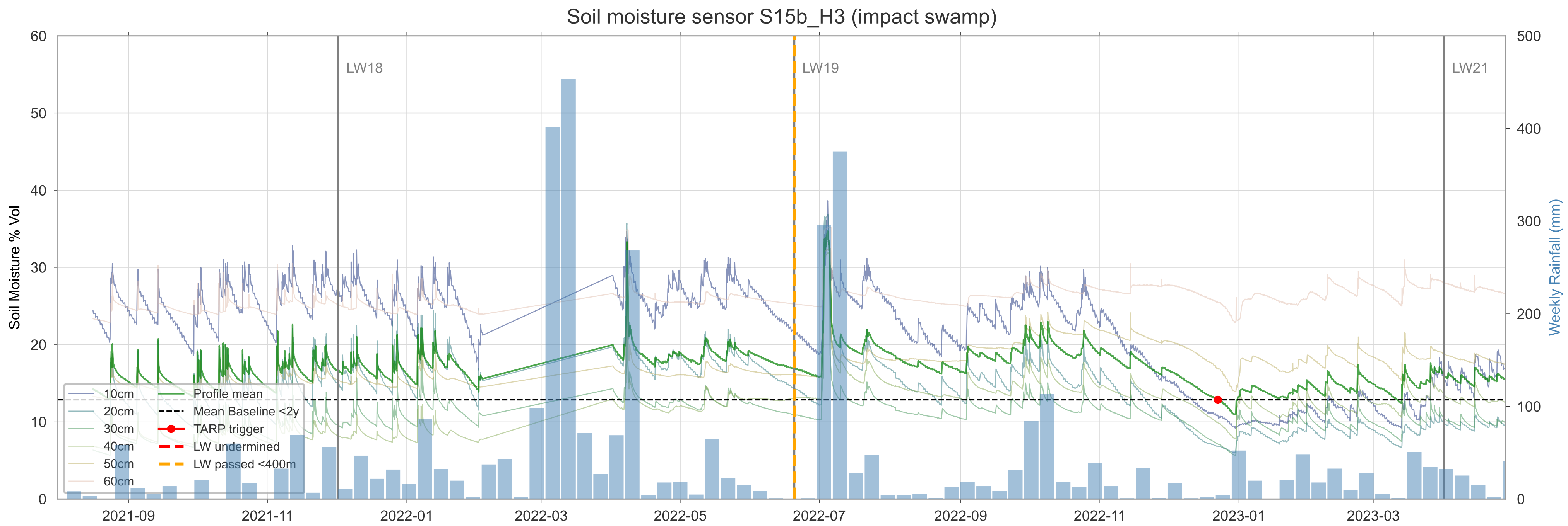

Soil moisture sensor S15a_18 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
Mean Baseline <2y
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

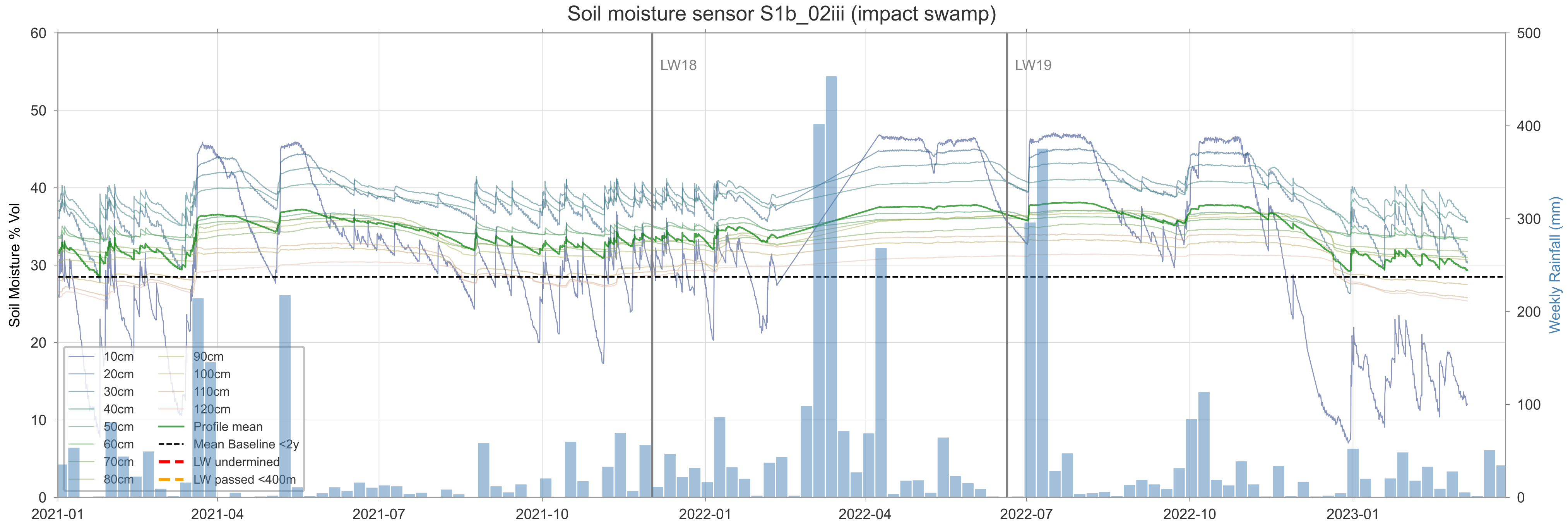

Soil moisture sensor S15a_19 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03
2023-05

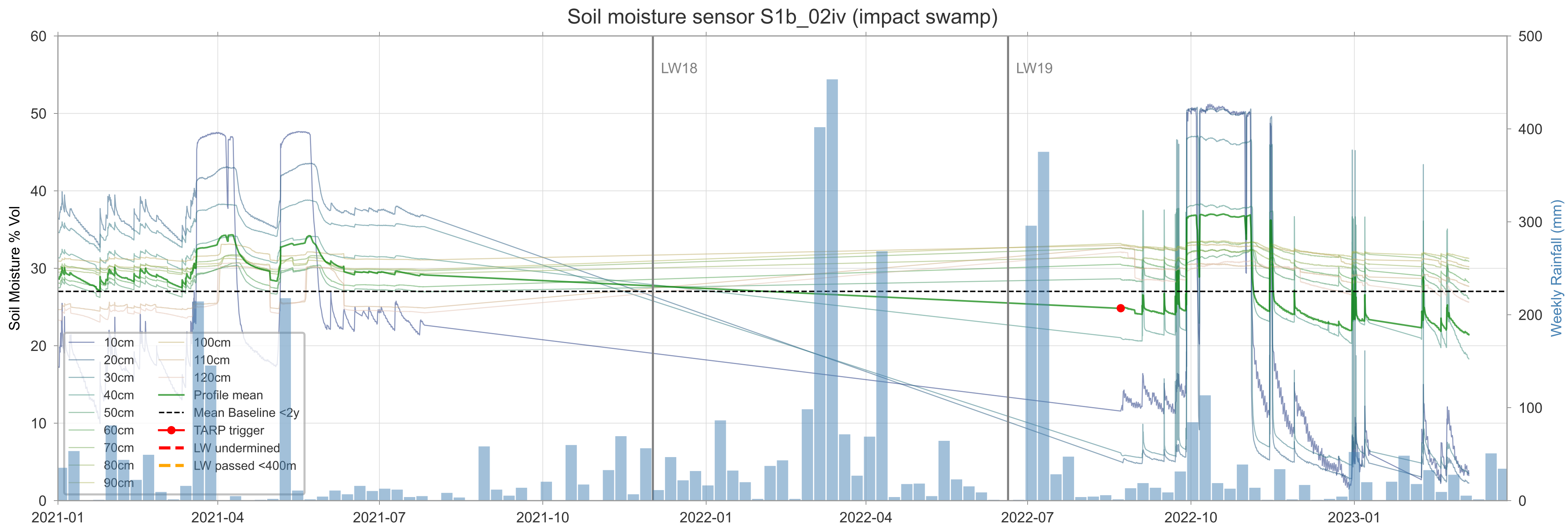

Soil moisture sensor S15b_39 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
Mean Baseline <2y
TARP trigger
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

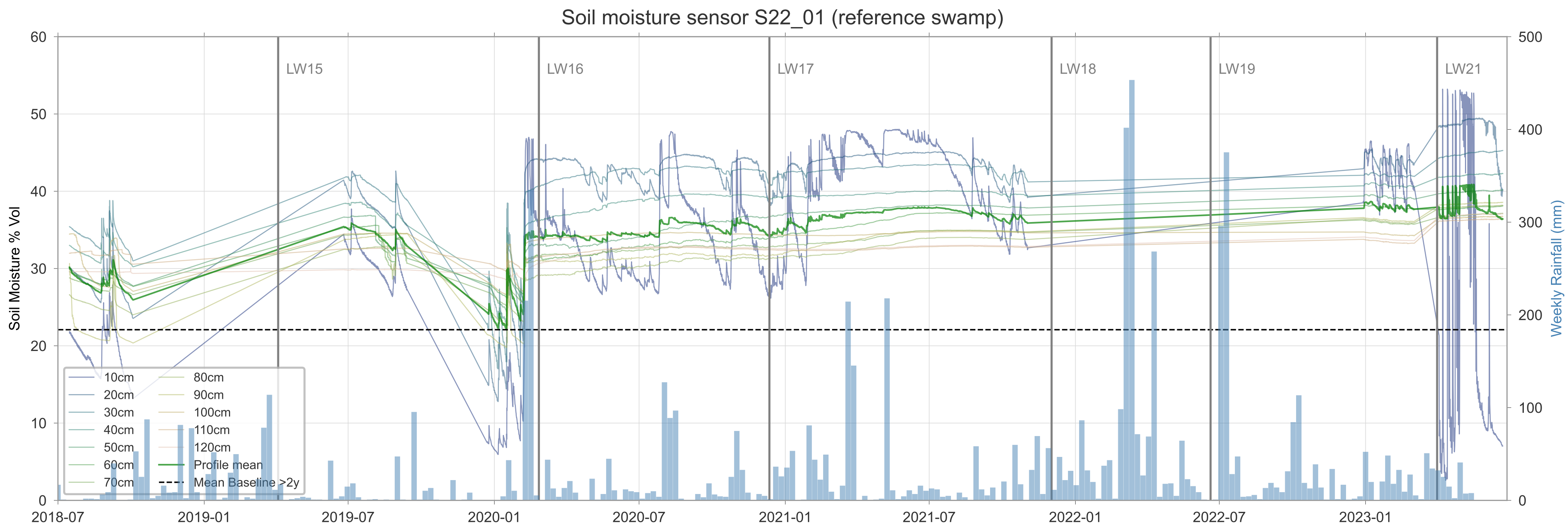

Soil moisture sensor S15b_H1 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
LW undermined
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

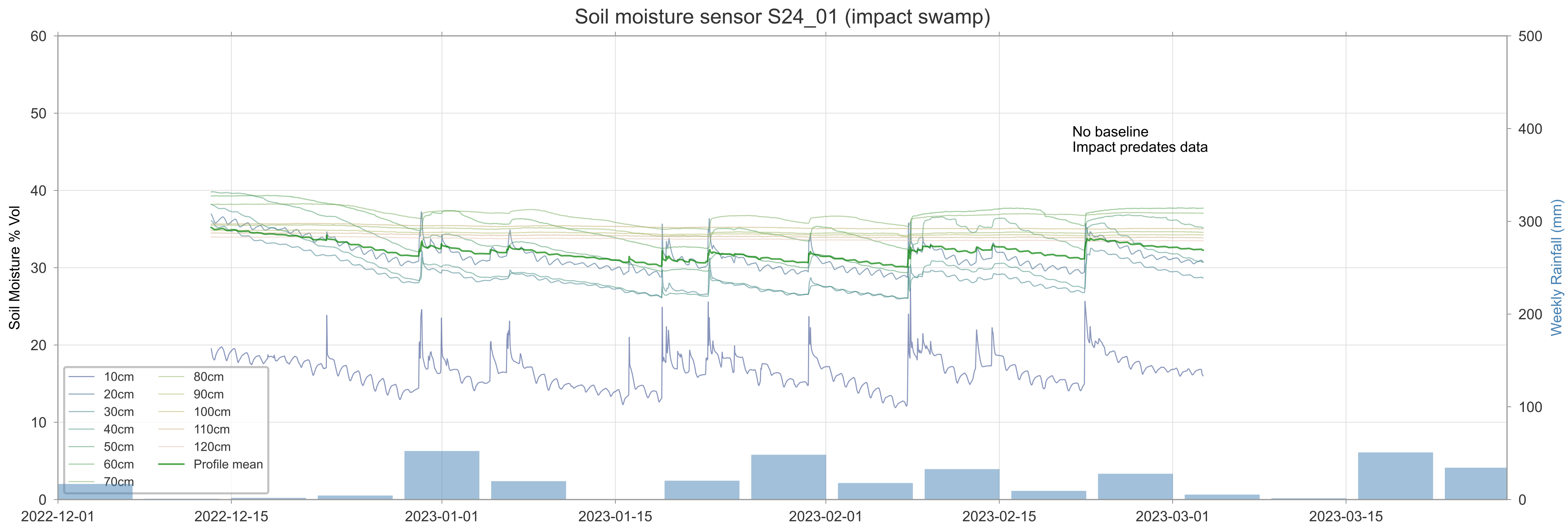

Soil moisture sensor S15b_H2 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
LW passed <400m
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03

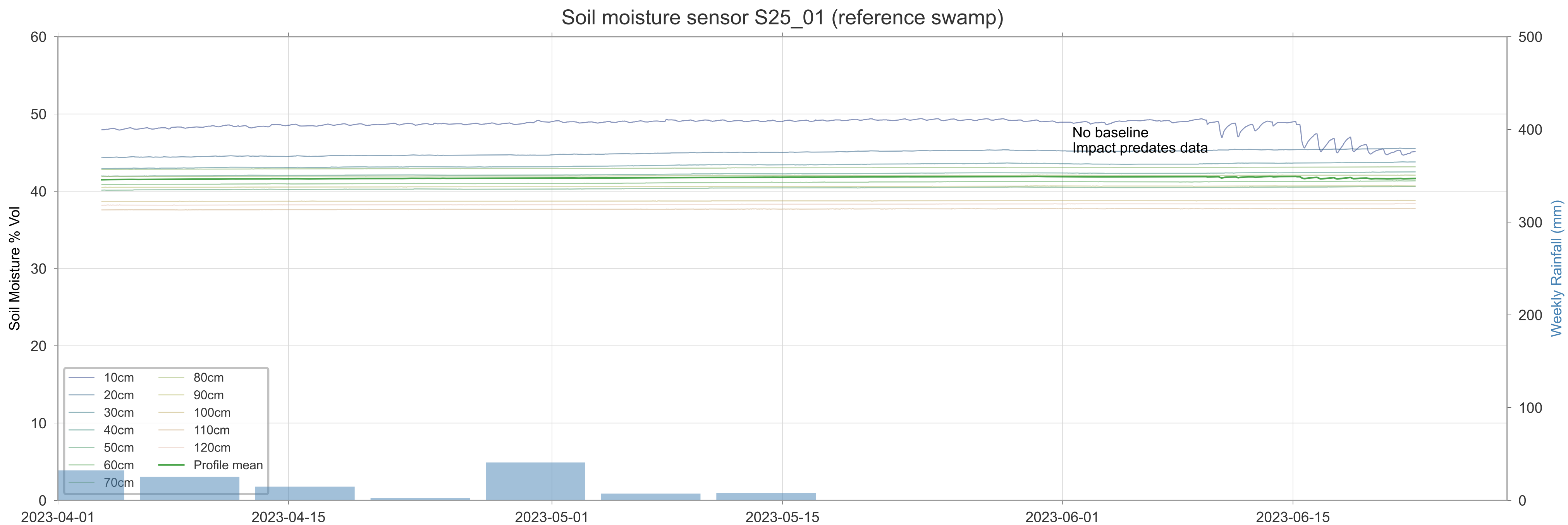

Soil moisture sensor S15b_H3 (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
Profile mean
Mean Baseline <2y
TARP trigger
LW undermined
LW passed <400m
0
10
20
30
40
50
60
0
100
200
300
400
500
2021-09
2021-11
2022-01
2022-03
2022-05
2022-07
2022-09
2022-11
2023-01
2023-03


Soil moisture sensor S1b_02iii (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
LW undermined
LW passed <400m
0
10
20
30
40
50
60
0
100
200
300
400
500
2021-01
2021-04
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01


Soil moisture sensor S1b_02iv (impact swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW18
LW19
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline <2y
TARP trigger
LW undermined
LW passed <400m
2021-01
2021-04
2021-07
2021-10
2022-01
2022-04
2022-07
2022-10
2023-01


Soil moisture sensor S22_01 (reference swamp)
Soil Moisture % Vol
Weekly Rainfall (mm)
LW15
LW16
LW17
LW18
LW19
LW21
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
Mean Baseline >2y
2018-07
2019-01
2019-07
2020-01
2020-07
2021-01
2021-07
2022-01
2022-07
2023-01


Soil moisture sensor S24_01 (impact swamp)
No baseline
Impact predates data
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
2022-12-01
2022-12-15
2023-01-01
2023-01-15
2023-02-01
2023-02-15
2023-03-01
2023-03-15


Soil moisture sensor S25_01 (reference swamp)
No baseline
Impact predates data
Soil Moisture % Vol
Weekly Rainfall (mm)
10cm
20cm
30cm
40cm
50cm
60cm
70cm
80cm
90cm
100cm
110cm
120cm
Profile mean
2023-04-01
2023-04-15
2023-05-01
2023-05-15
2023-06-01
2023-06-15