

FIGURES

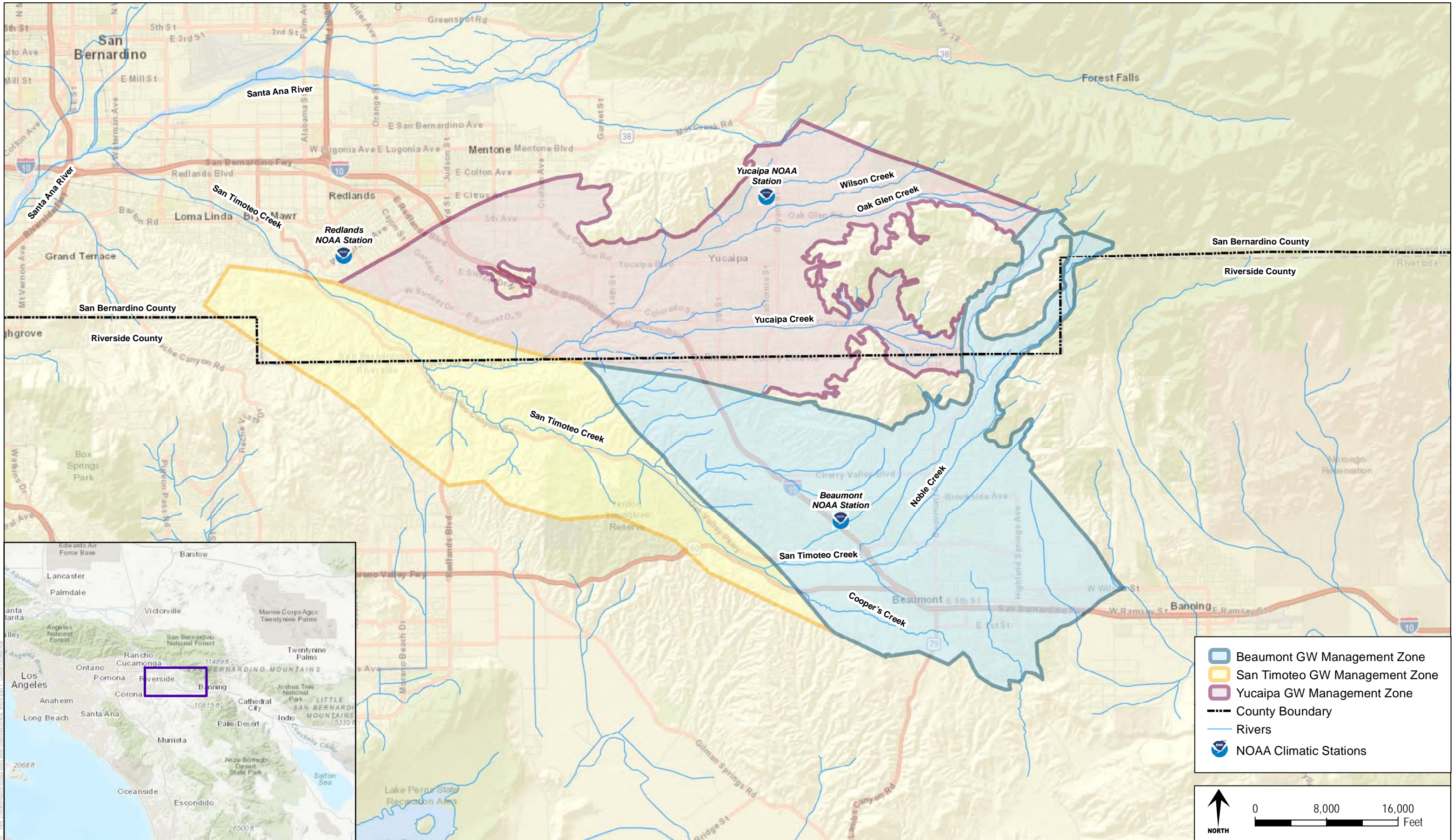
2020 Annual Maximum Benefits Monitoring Program Report

for the

**Beaumont, San Timoteo and Yucaipa Groundwater
Management Zones**

in the

Upper Santa Ana River Basin



SOURCE: ESRI, Microsoft

Maximum Benefit Monitoring Program - 2020 Annual Report

FIGURE 1
Beaumont, San Timoteo and Yucaipa Management Zone Boundaries

April 2021

Cumulative Departure from Mean Monthly Rainfall at the Redlands, Beaumont and Yucaipa NOAA Climatic Stations

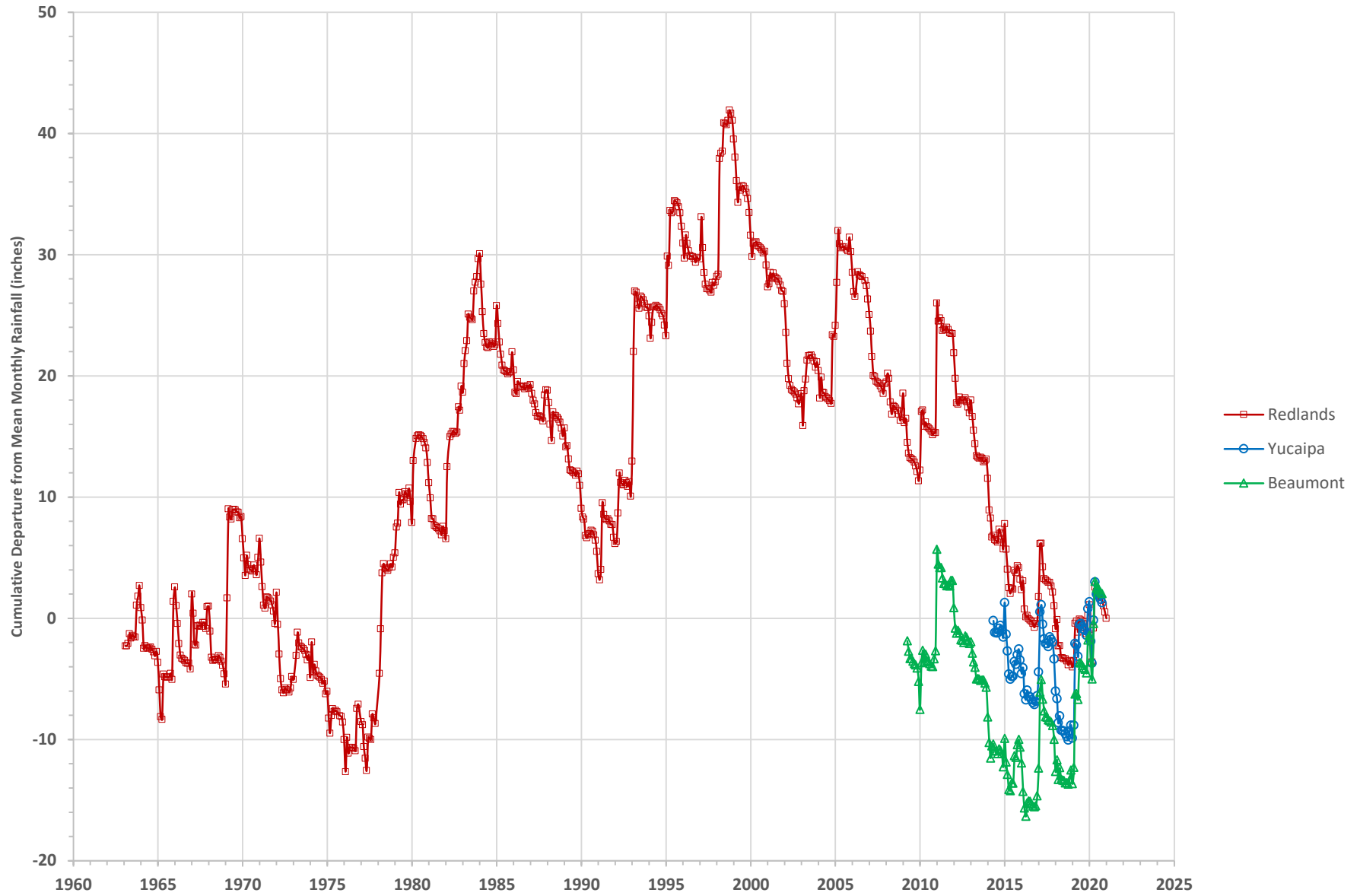
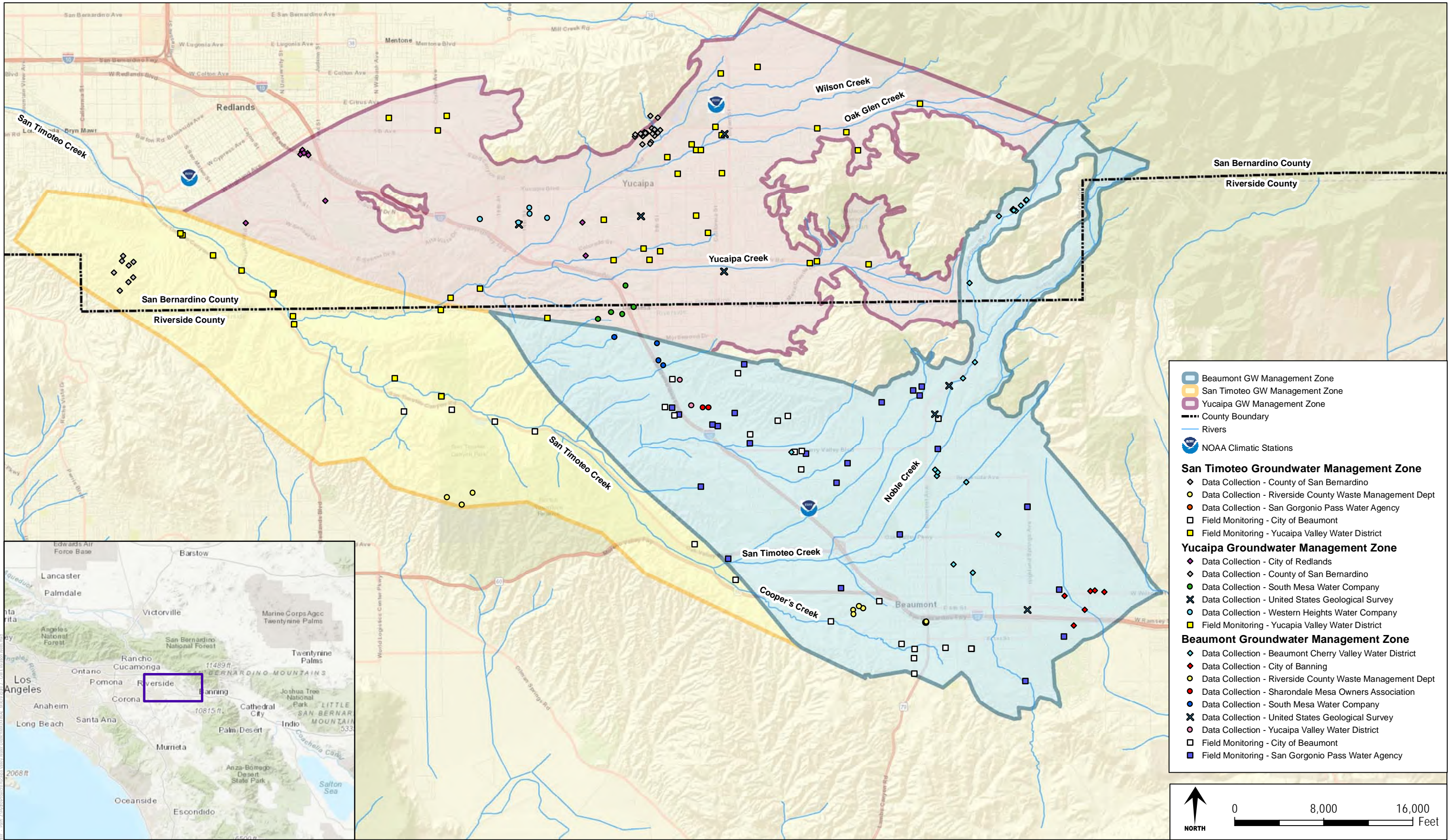
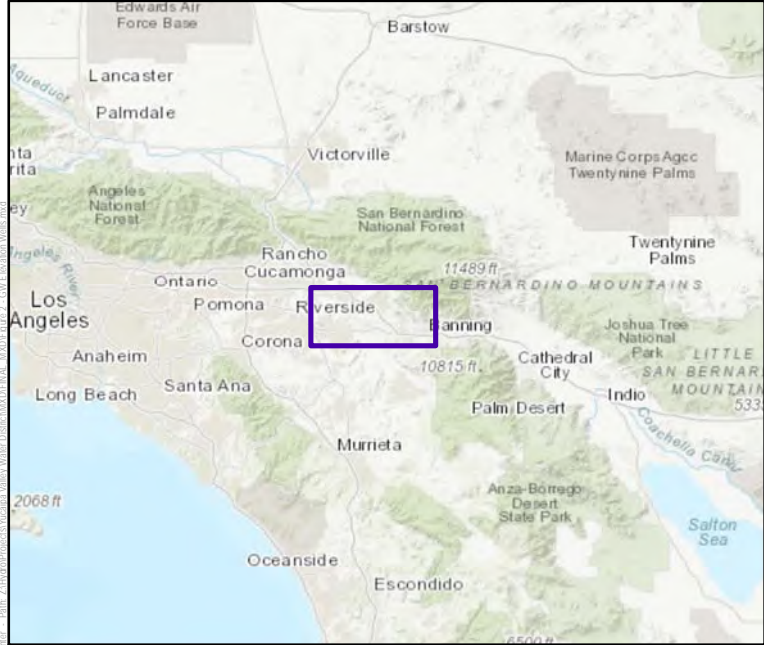


Figure 2



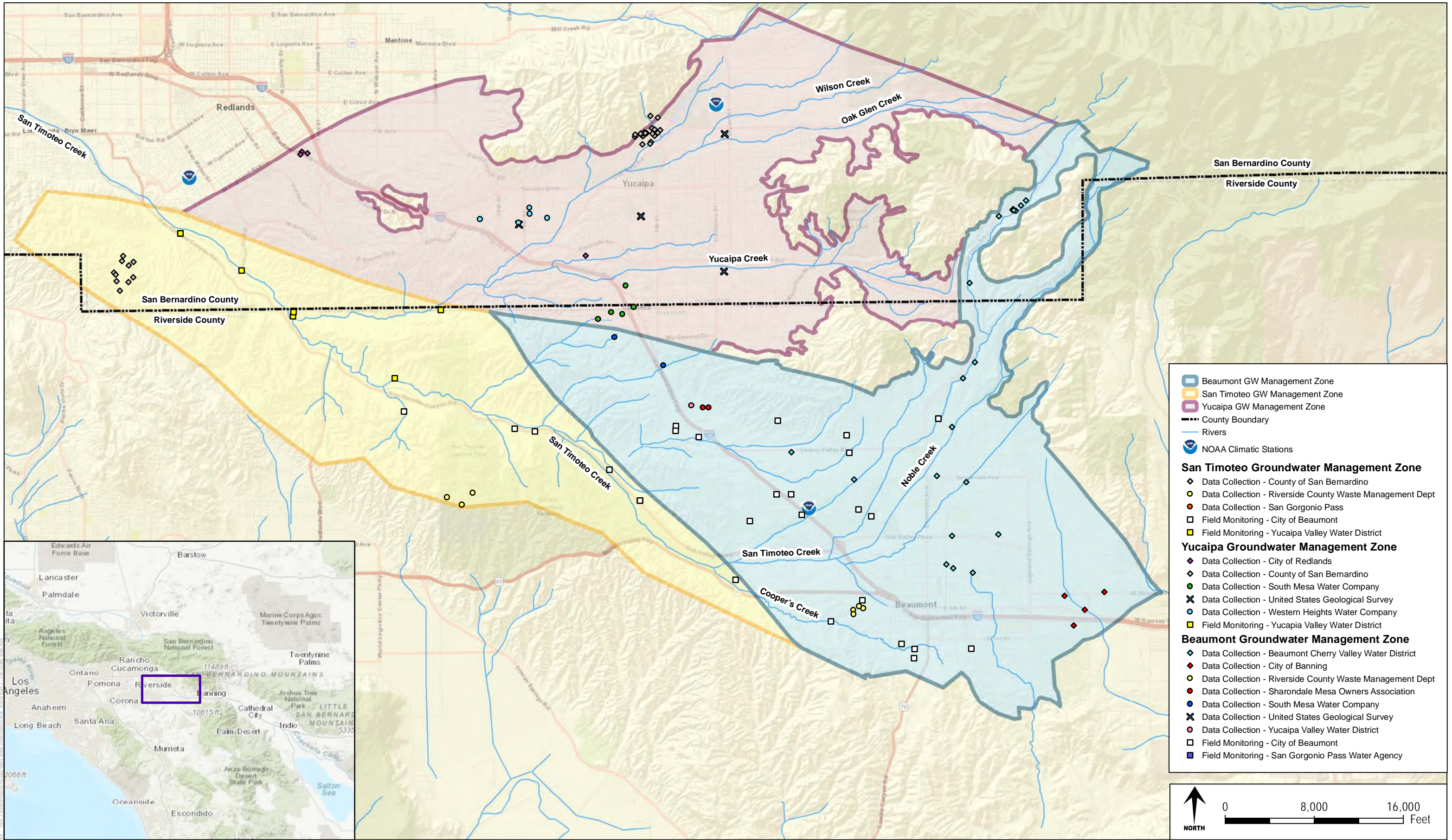
- Beaumont GW Management Zone
 - San Timoteo GW Management Zone
 - Yucaipa GW Management Zone
 - - - County Boundary
 - Rivers
 - NOAA Climatic Stations
- San Timoteo Groundwater Management Zone**
- ◆ Data Collection - County of San Bernardino
 - Data Collection - Riverside County Waste Management Dept
 - Data Collection - San Gorgonio Pass Water Agency
 - Field Monitoring - City of Beaumont
 - Field Monitoring - Yucaipa Valley Water District
- Yucaipa Groundwater Management Zone**
- ◆ Data Collection - City of Redlands
 - ◆ Data Collection - County of San Bernardino
 - Data Collection - South Mesa Water Company
 - ✕ Data Collection - United States Geological Survey
 - Data Collection - Western Heights Water Company
 - Field Monitoring - Yucaipa Valley Water District
- Beaumont Groundwater Management Zone**
- ◆ Data Collection - Beaumont Cherry Valley Water District
 - ◆ Data Collection - City of Banning
 - Data Collection - Riverside County Waste Management Dept
 - Data Collection - Sharondale Mesa Owners Association
 - Data Collection - South Mesa Water Company
 - ✕ Data Collection - United States Geological Survey
 - Data Collection - Yucaipa Valley Water District
 - Field Monitoring - City of Beaumont
 - Field Monitoring - San Gorgonio Pass Water Agency



SOURCE: ESRI, Microsoft



FIGURE 3
Wells Monitored for Groundwater Levels in the Beaumont, San Timoteo and Yucaipa Groundwater Management Zones



SOURCE: ESRI, Microsoft

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Maximum Benefit Monitoring Program - 2020 Annual Report

FIGURE 4
Wells Monitored for Groundwater Quality in the Beaumont, San Timoteo and Yucaipa Groundwater Management Zones

April 2021

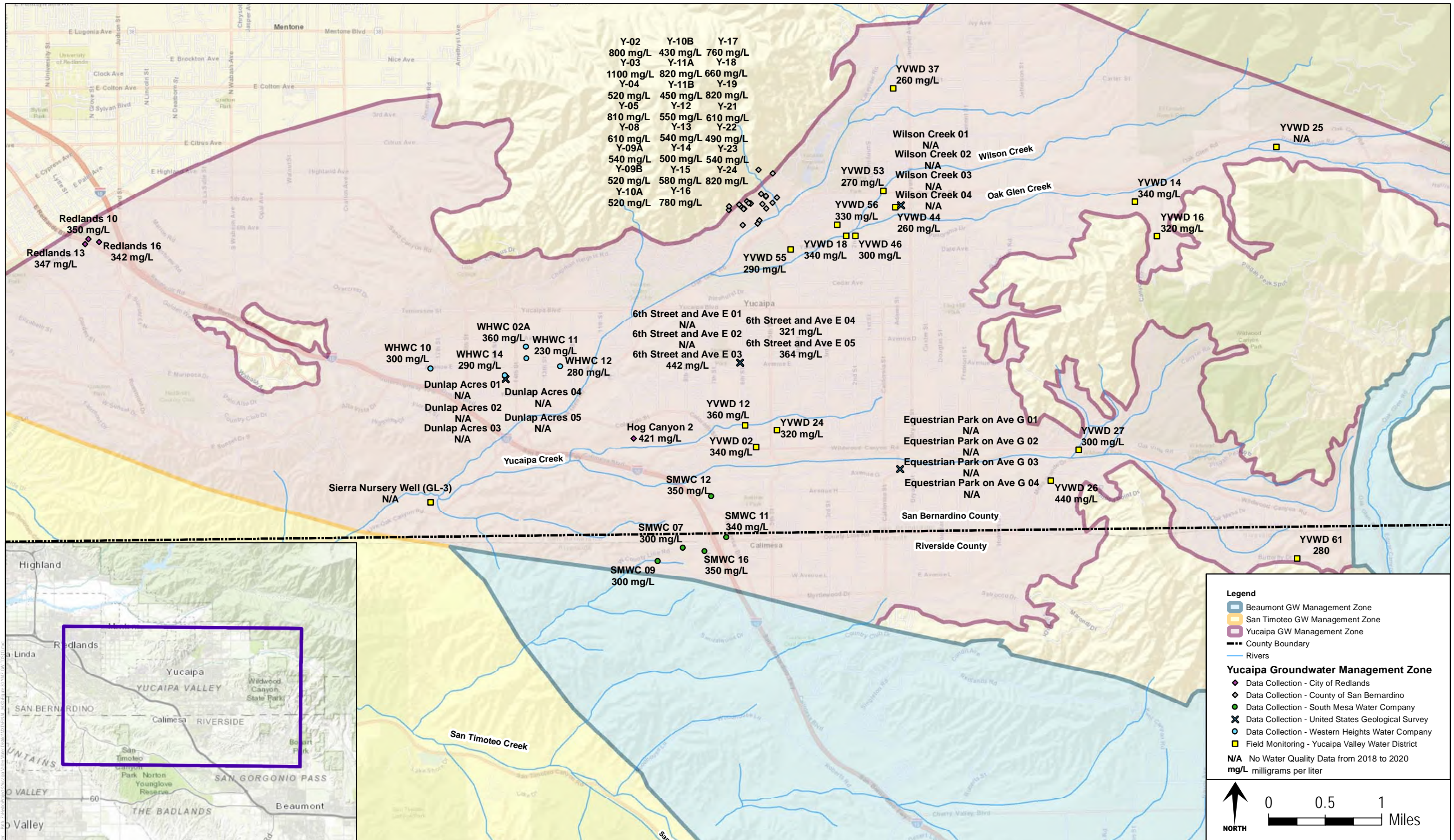


FIGURE 5
Maximum Concentrations of Total Dissolved Solids (TDS) in Groundwater in the Yucaipa Groundwater Management Zone from 2018 to 2020

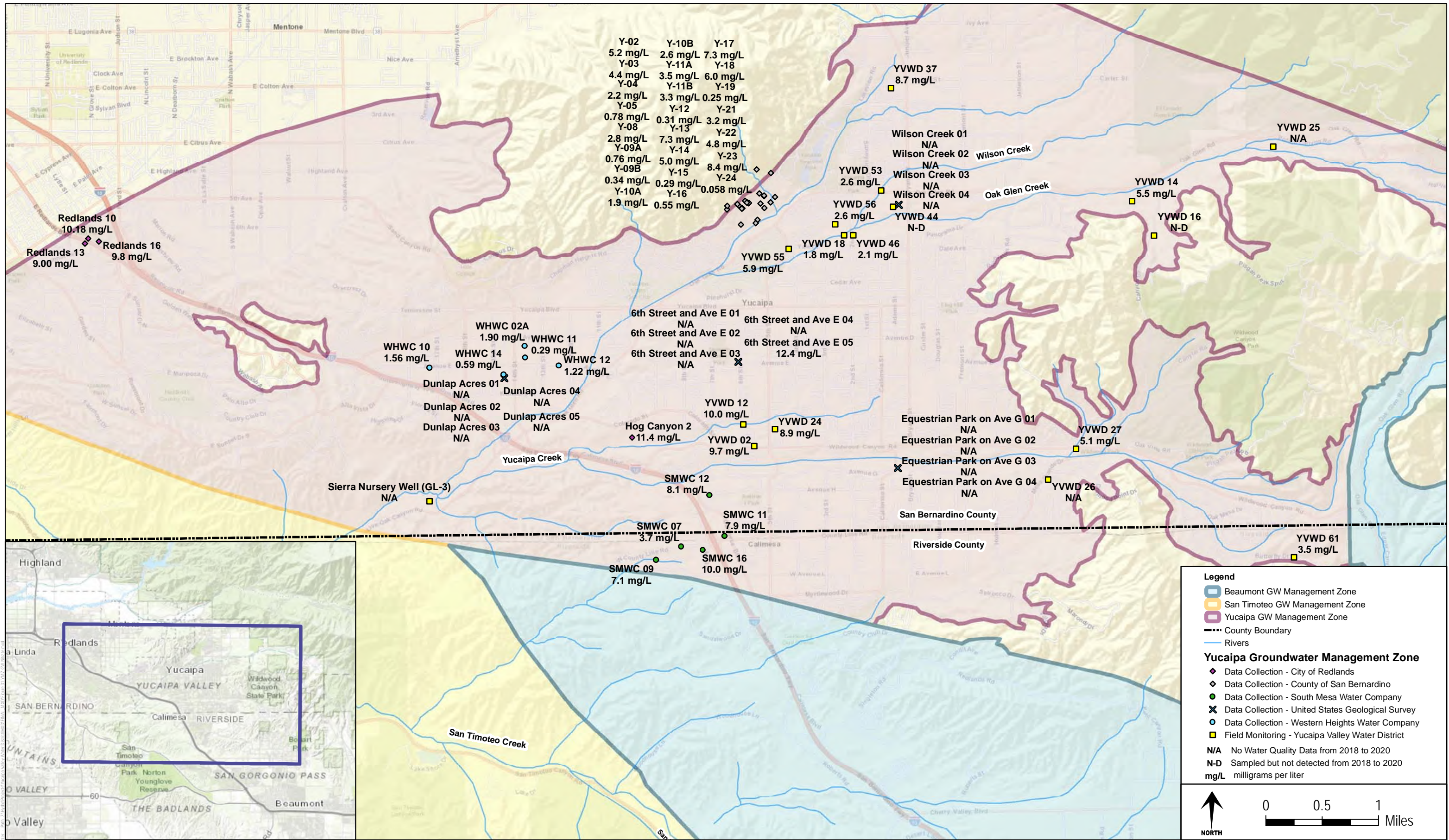
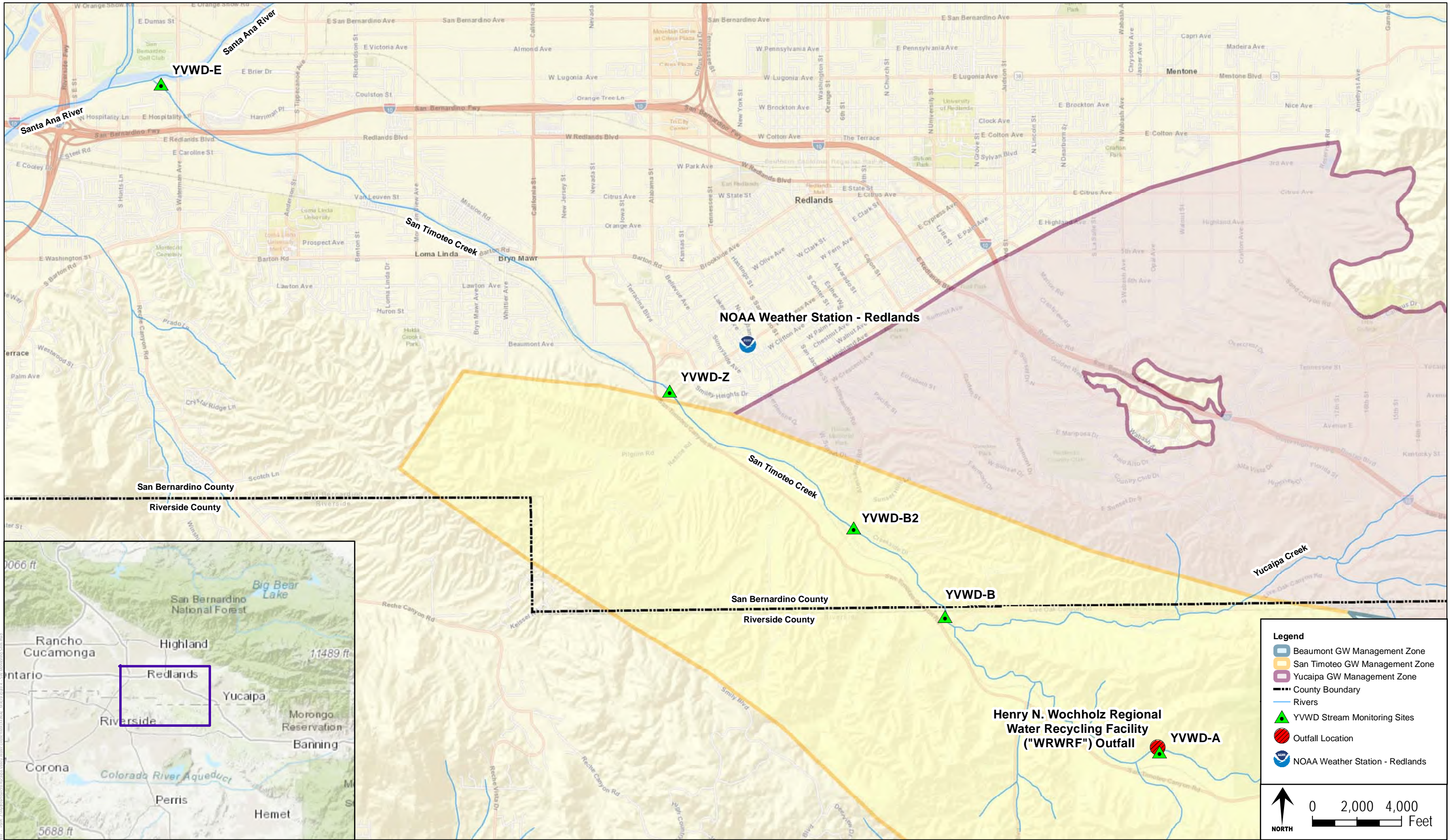


FIGURE 6
 Maximum Concentrations of Nitrate (as Nitrogen) in Groundwater in the Yucaipa Groundwater Management Zone from 2018 to 2020



Legend

- Beaumont GW Management Zone
- San Timoteo GW Management Zone
- Yucaipa GW Management Zone
- County Boundary
- Rivers
- ▲ YVWD Stream Monitoring Sites
- Outfall Location
- ⊙ NOAA Weather Station - Redlands

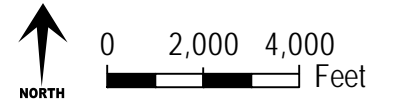


FIGURE 7
 Surface Water Monitoring Sites in the San Timoteo Groundwater Management Zone

Stream Flow at YVWD-A

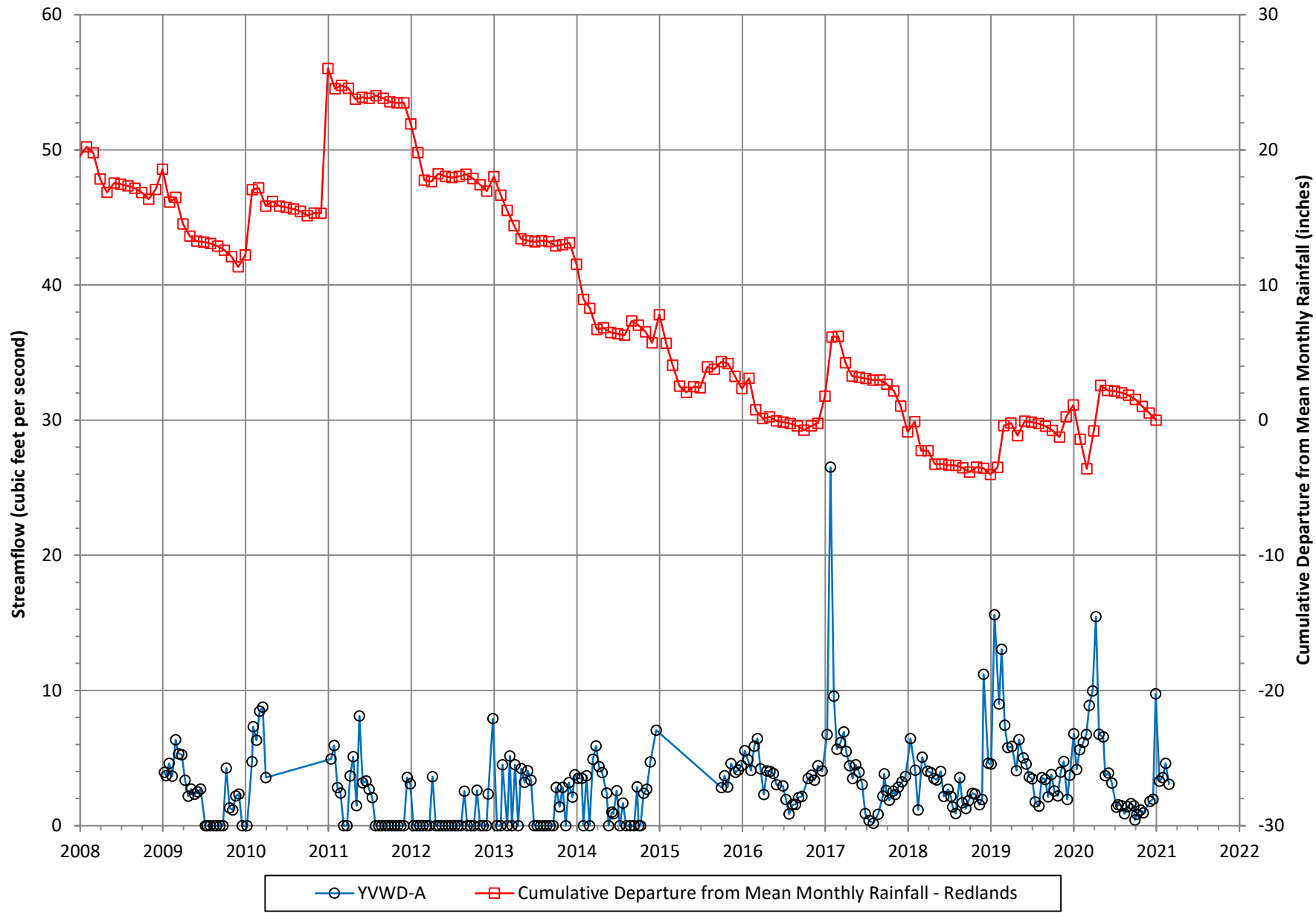


Figure 8

Stream Flow at YVWD-B and YVWD-B2

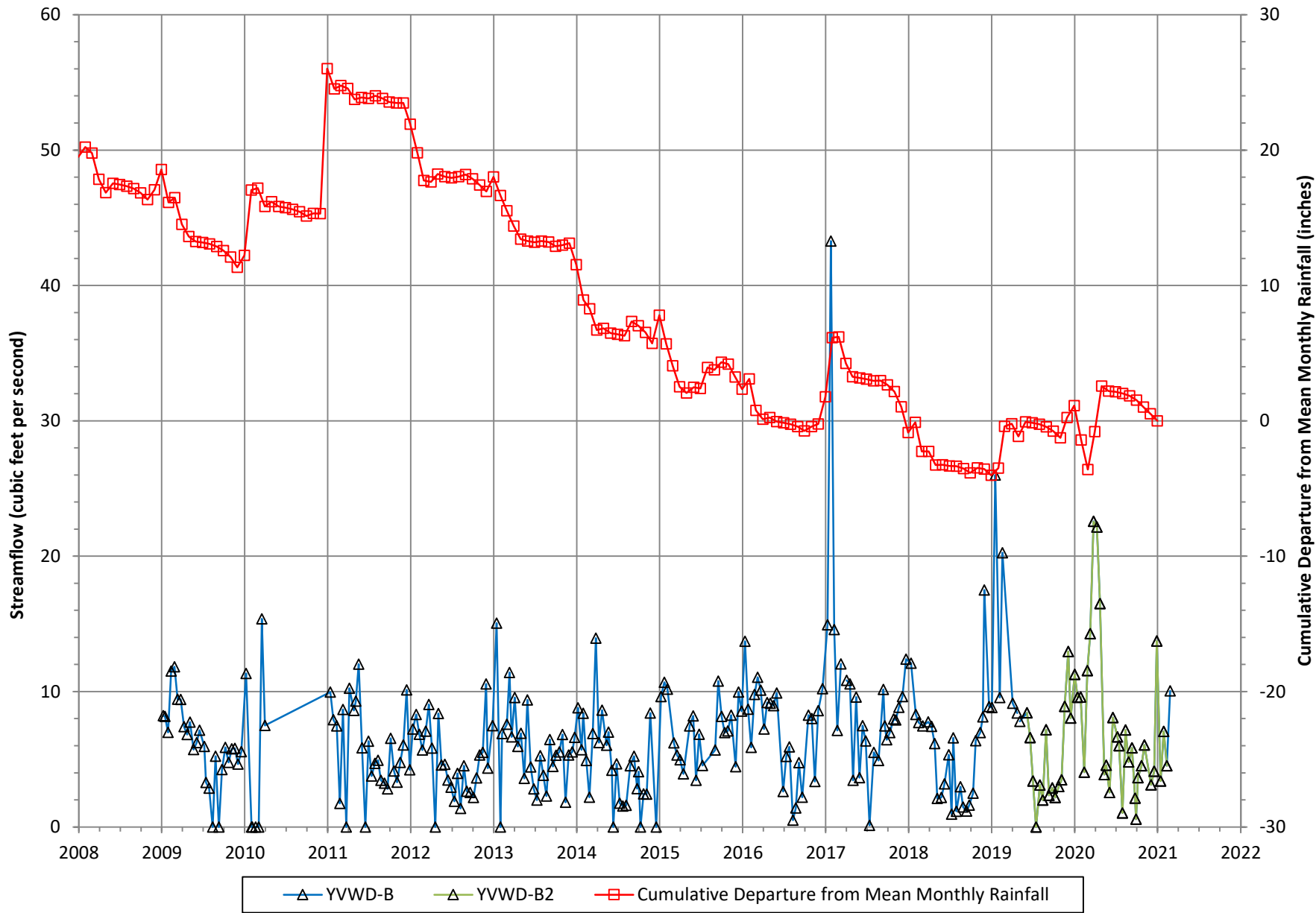


Figure 9

Stream Flow at YVWD-C and YVWD-Z

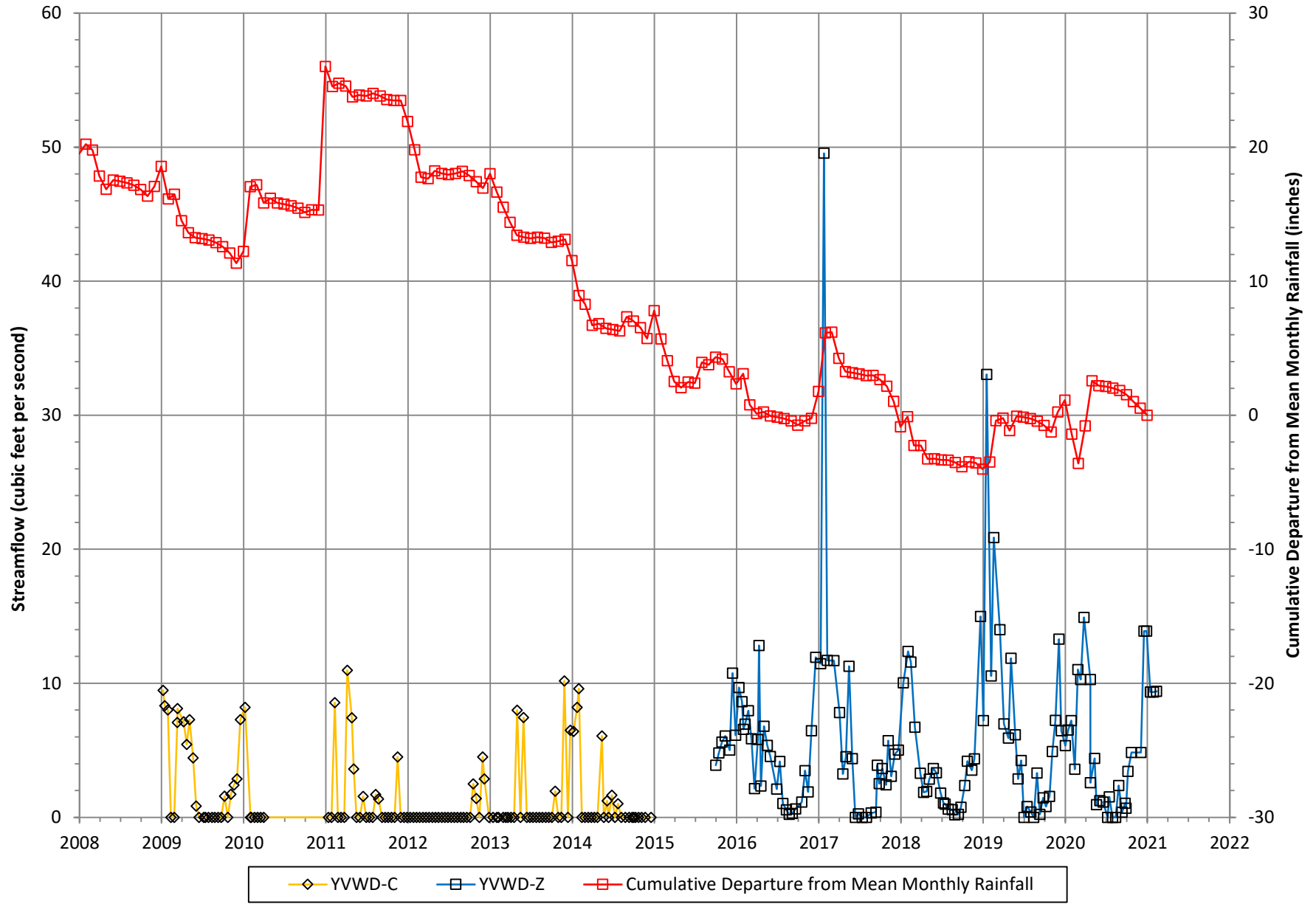


Figure 10

Total Dissolved Solids and Stream Flow at YVWD-A

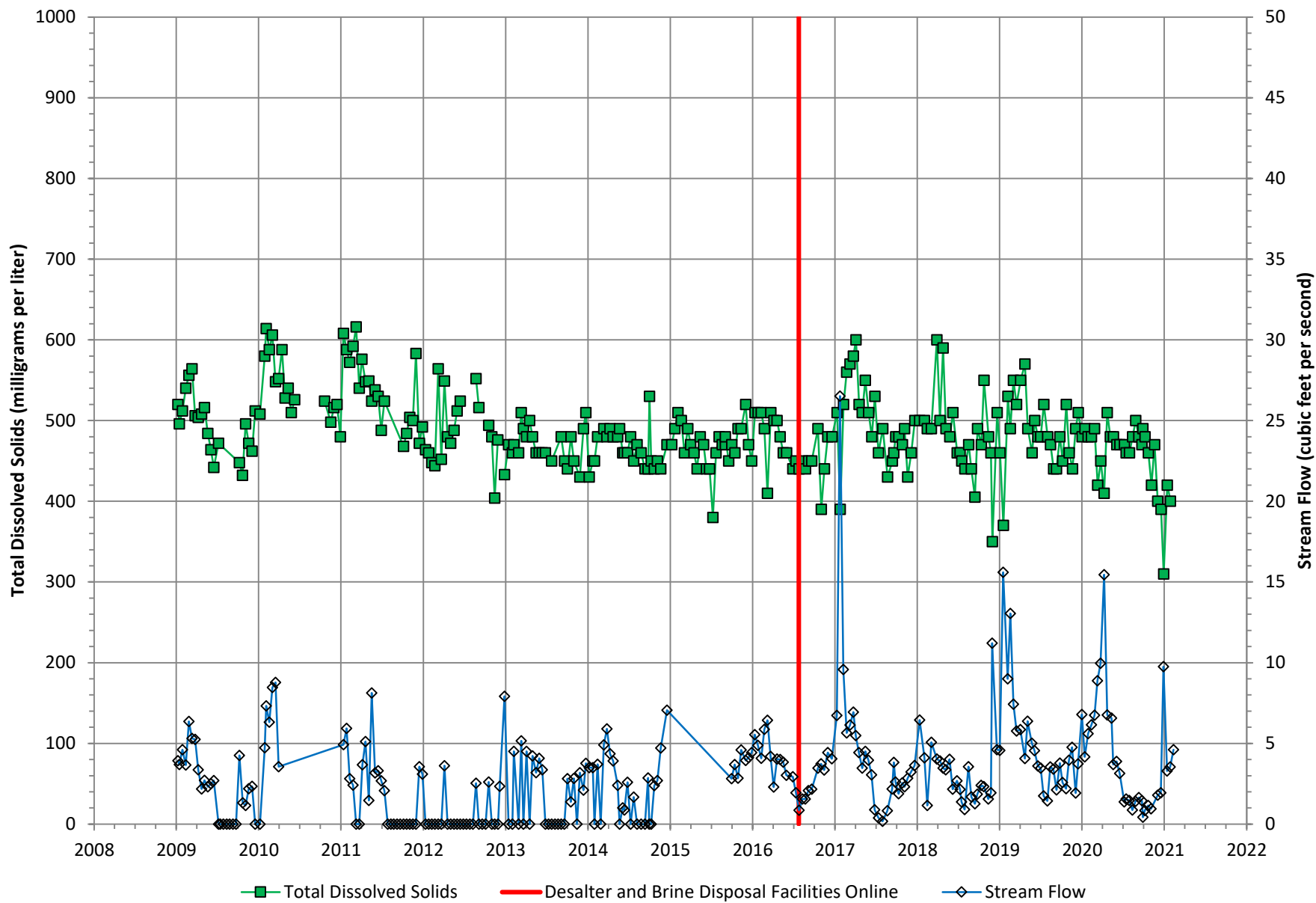


Figure 11

Nitrate (as Nitrogen) and Stream Flow at YVWD-A

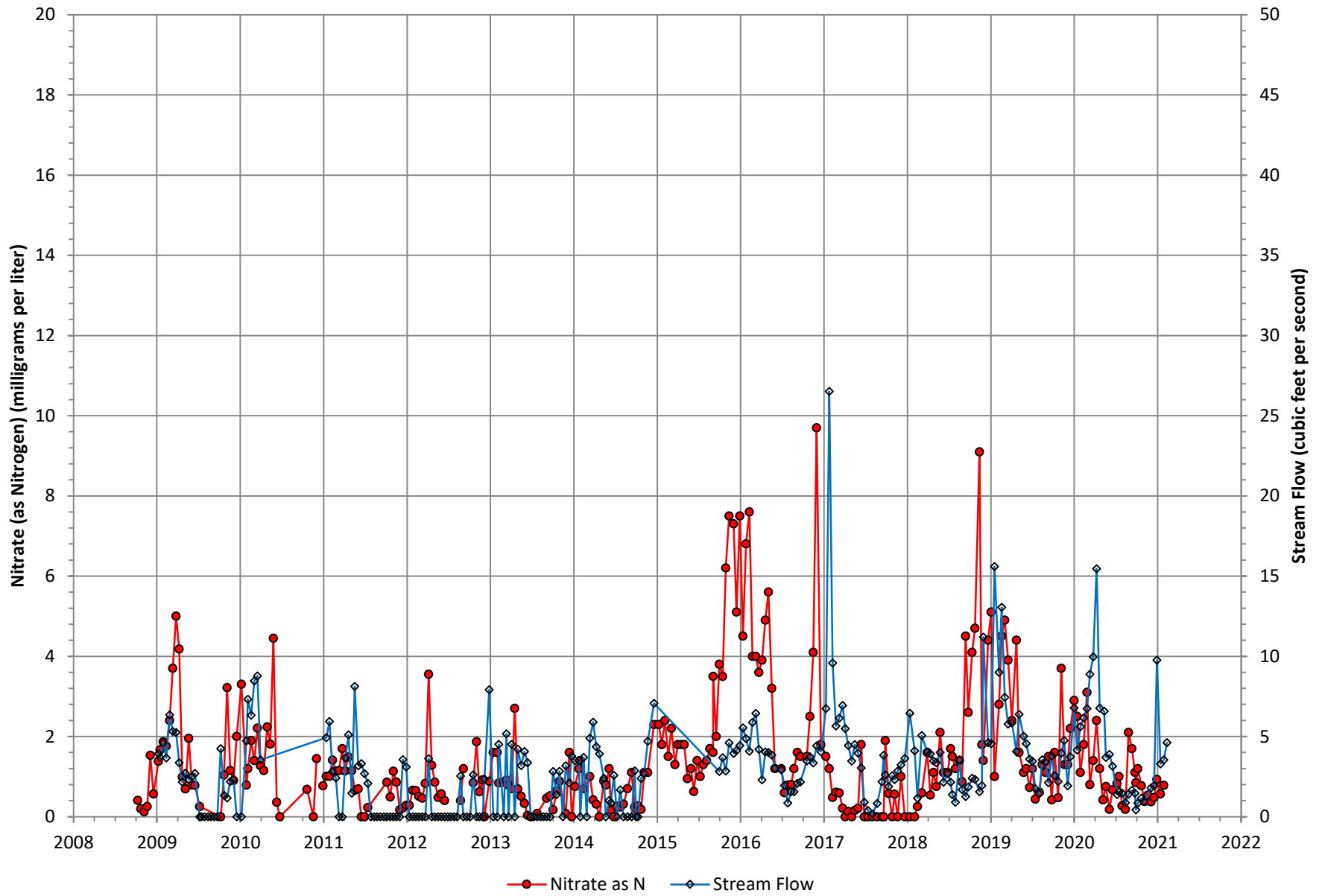


Figure 12

Total Dissolved Solids and Stream Flow at YVWD-B and YVWD-B2

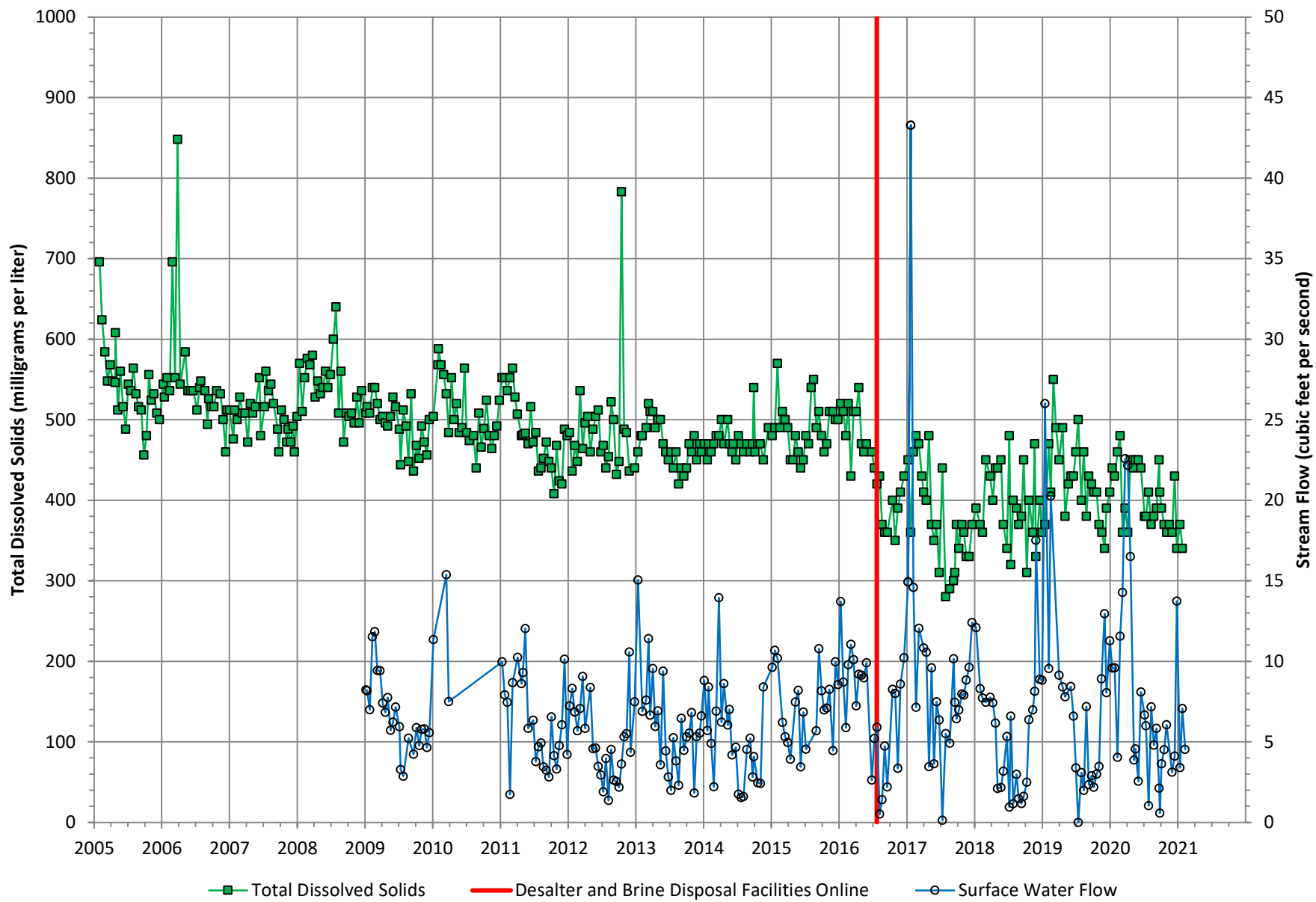


Figure 13

Nitrate (as Nitrogen) and Stream Flow at YVWD-B and YVWD-B2

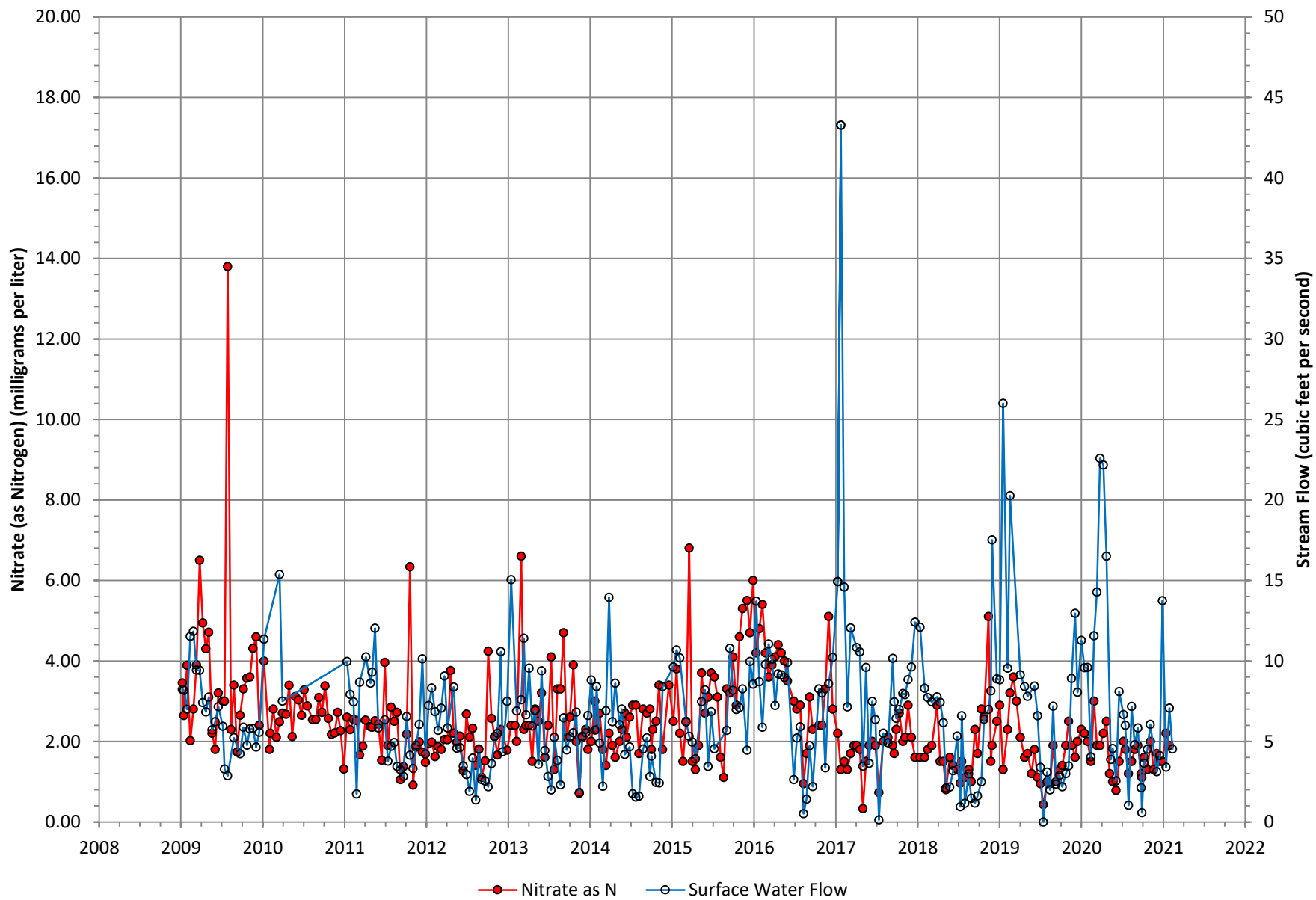


Figure 14

Total Dissolved Solids and Stream Flow at YVWD-Z (and YVWD-C)

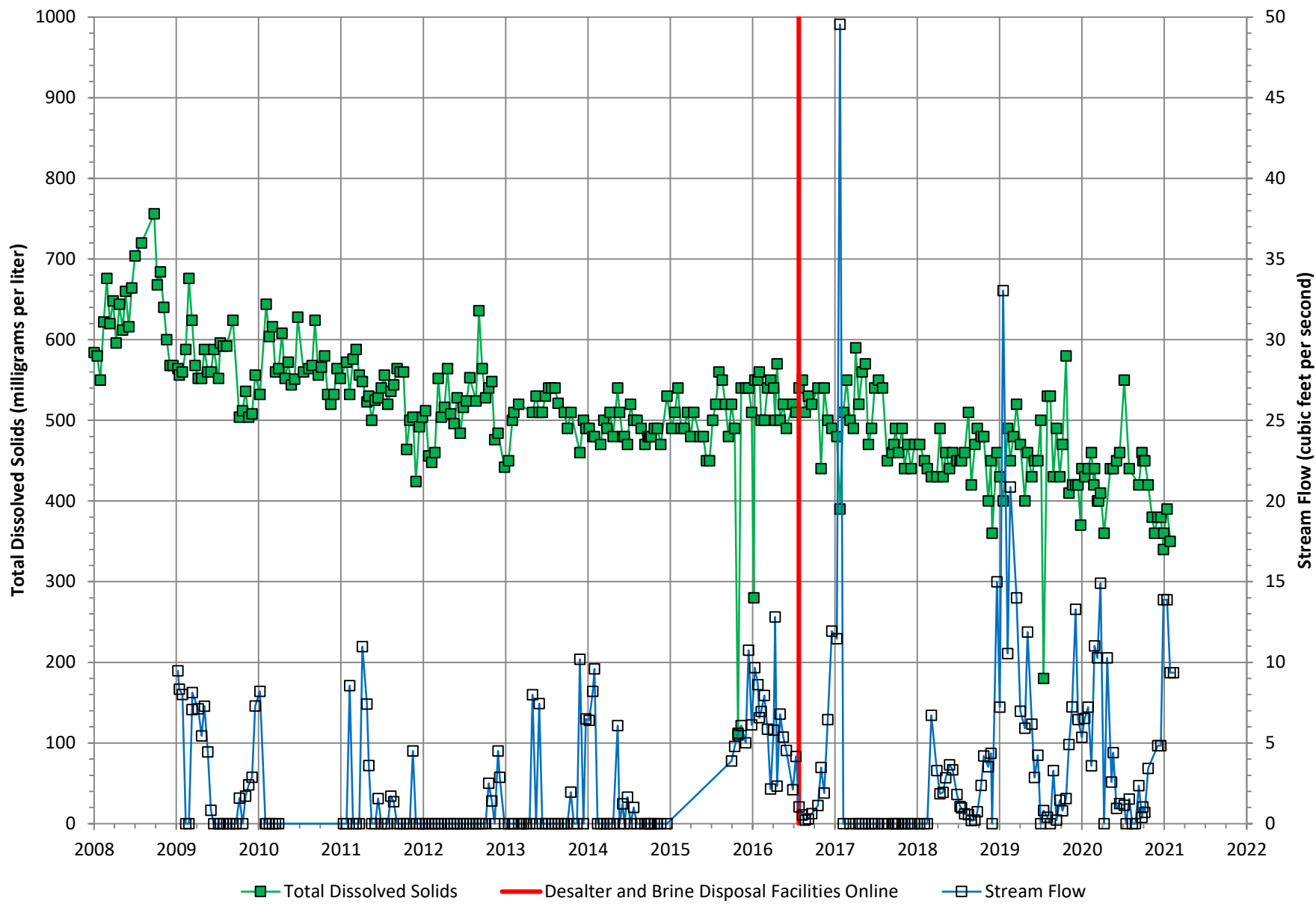


Figure 15

Nitrate (as Nitrogen) and Stream Flow at YVWD-Z (and YVWD-C)

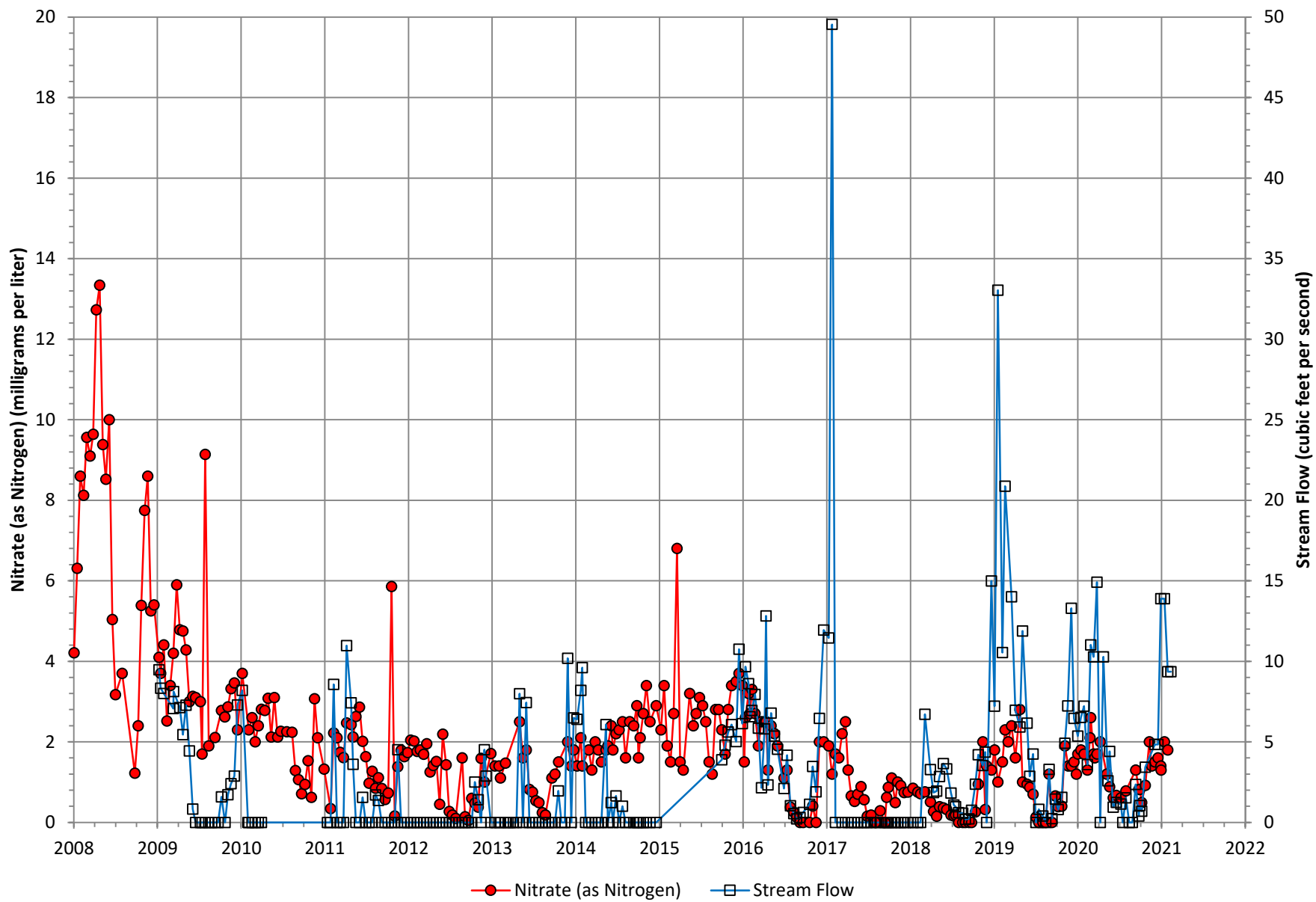


Figure 16

Total Dissolved Solids at YVWD-E

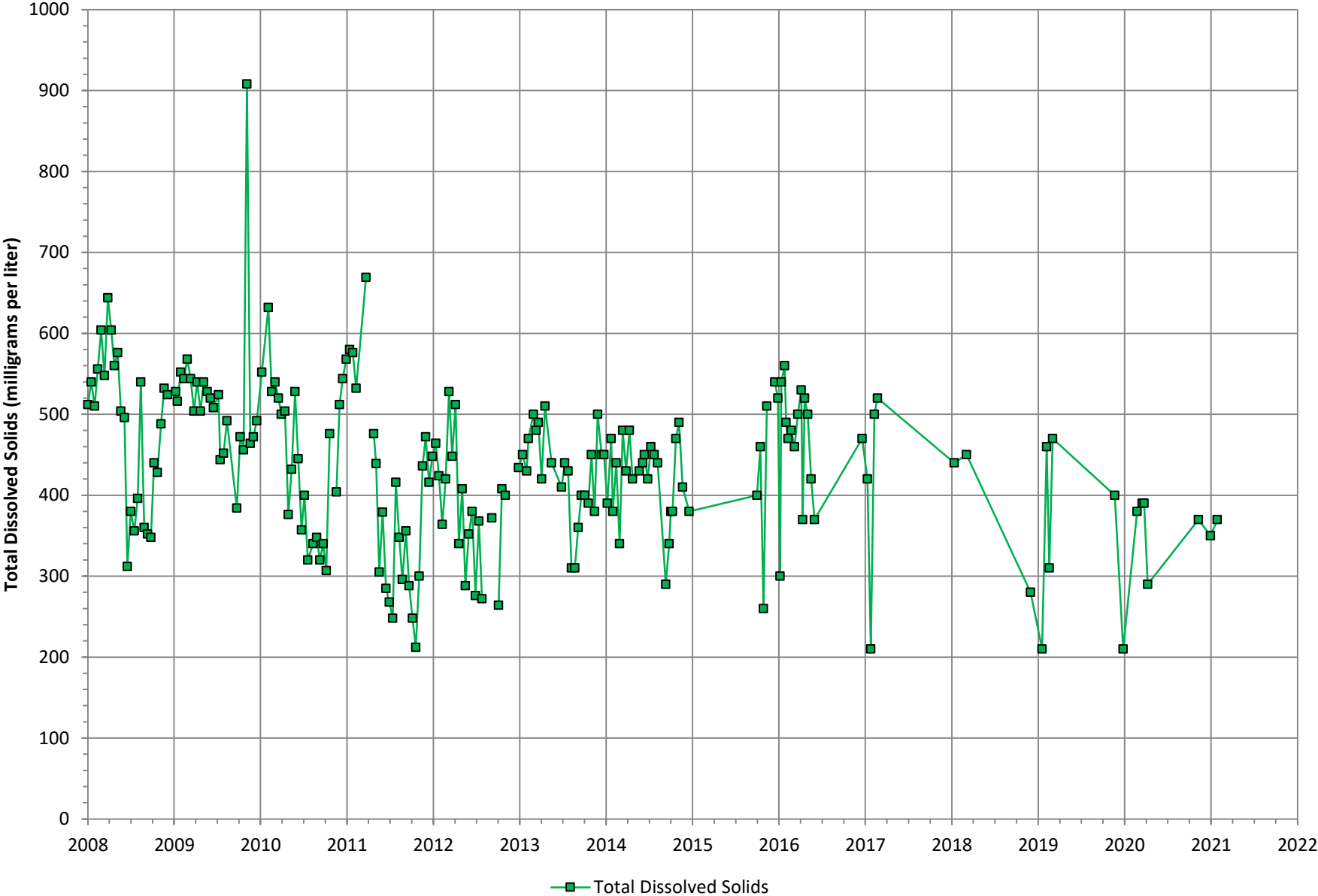


Figure 17

Nitrate (as Nitrogen) at YVWD-E

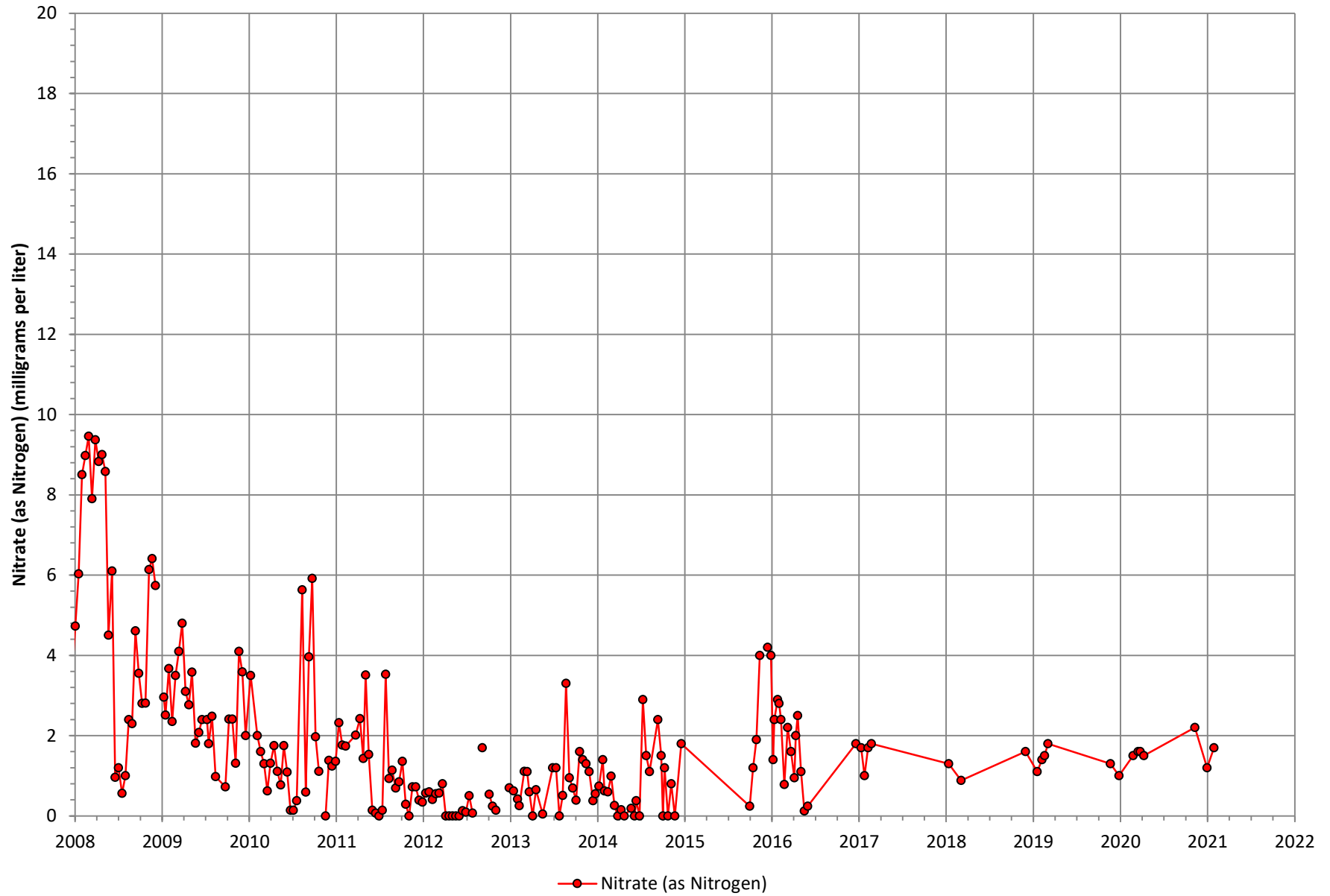


Figure 18

Total Dissolved Solids and Monthly Discharges of Recycled Water at WRWRF OutFall

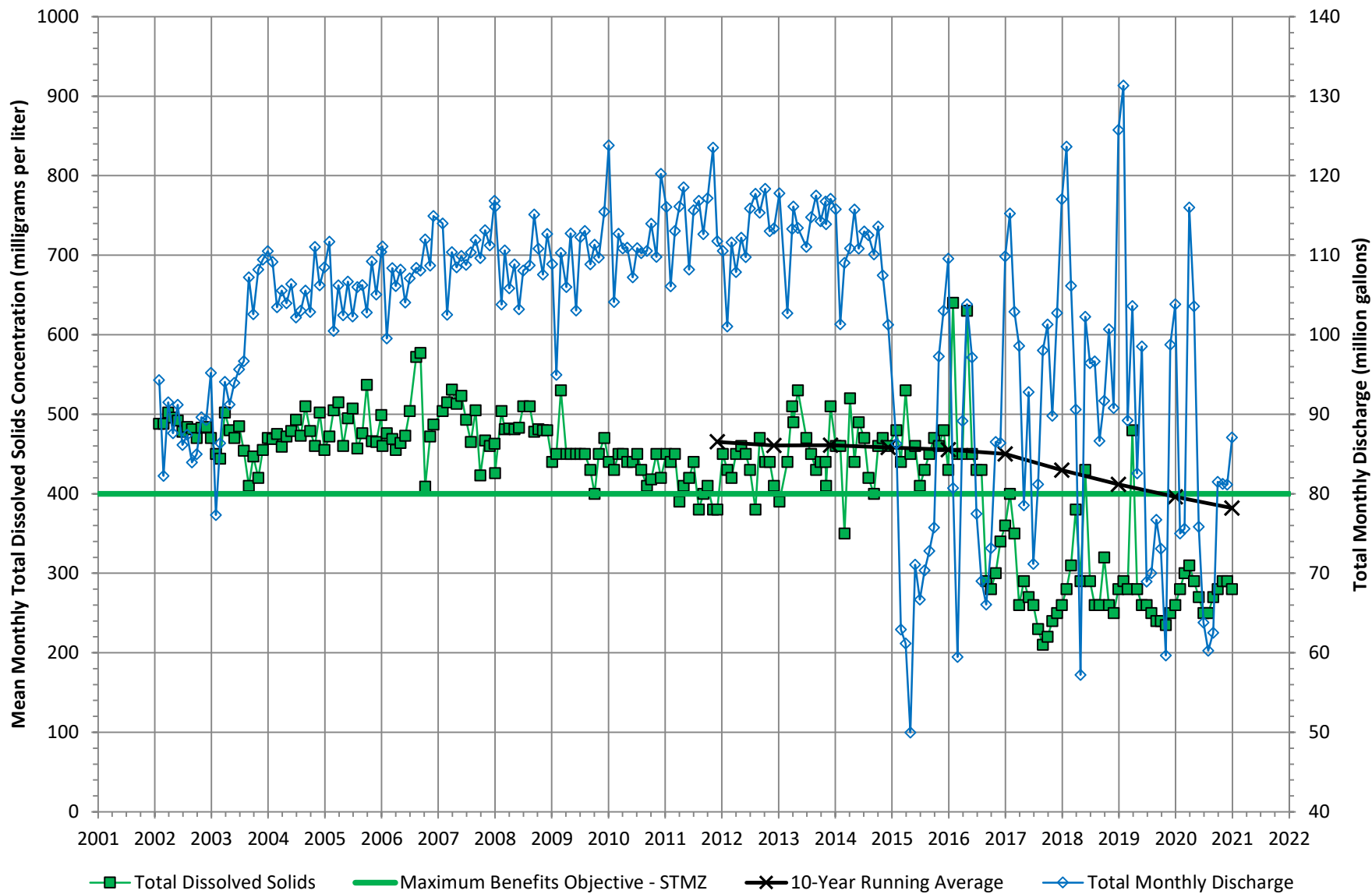


Figure 19

Nitrate (as N) and Monthly Discharges of Recycled Water from WRWRF to San Timoteo Creek

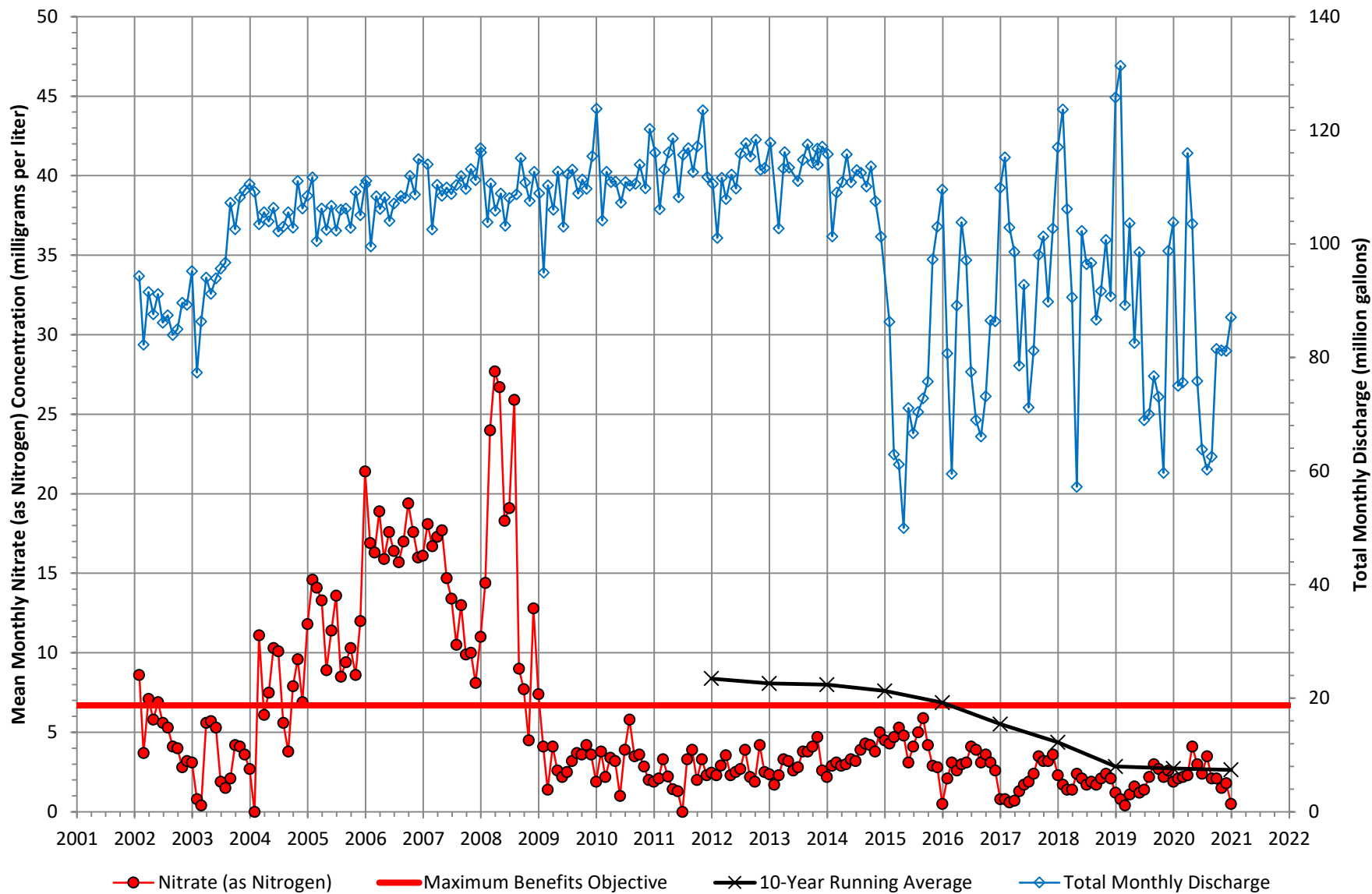
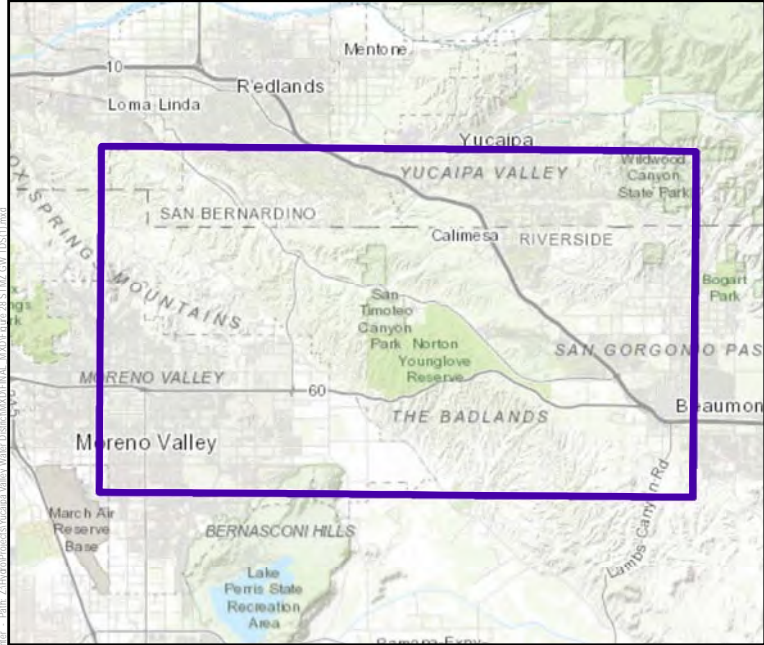
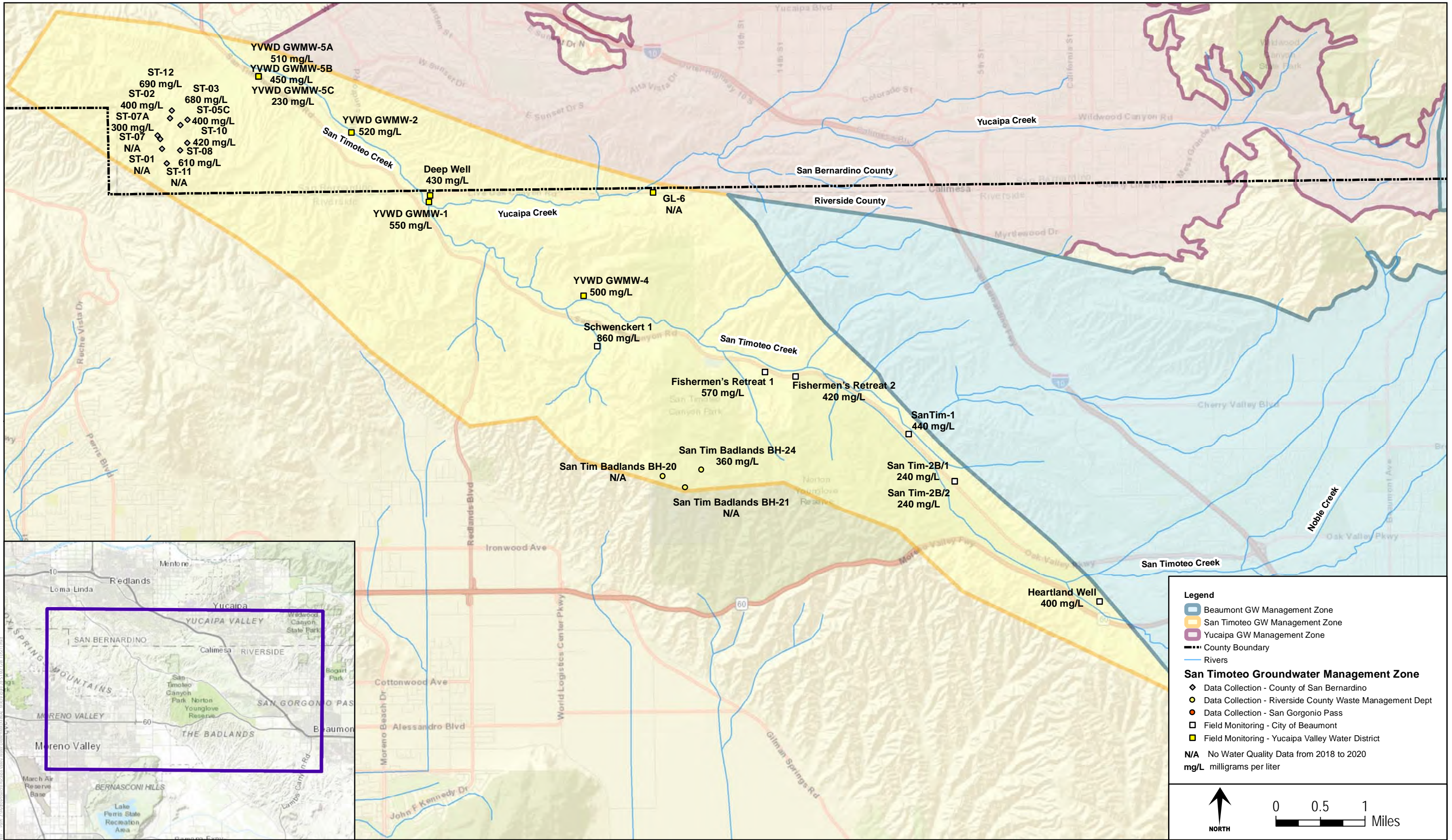


Figure 20



Legend

- Beaumont GW Management Zone
- San Timoteo GW Management Zone
- Yucaipa GW Management Zone
- County Boundary
- Rivers

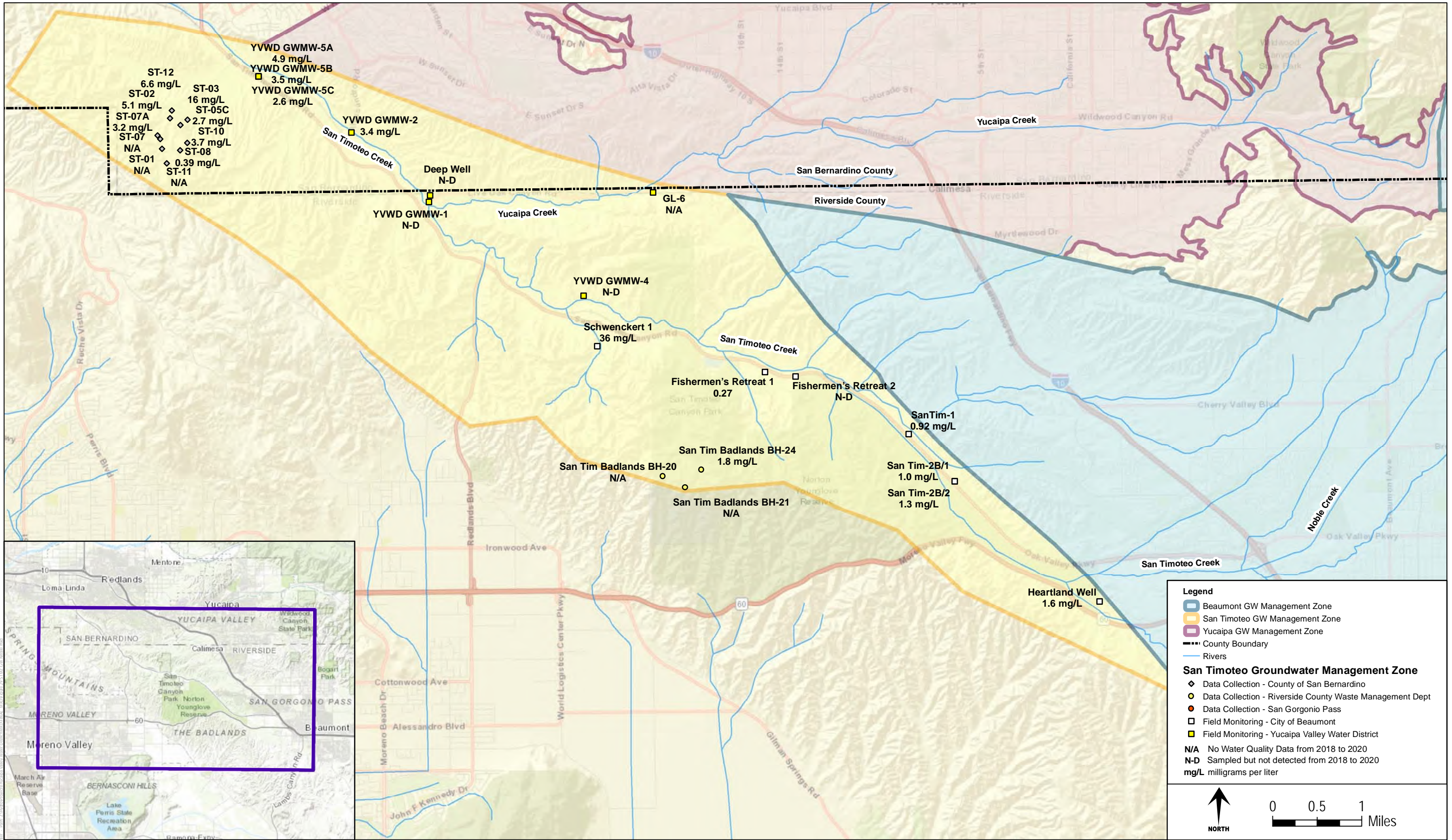
San Timoteo Groundwater Management Zone

- ◆ Data Collection - County of San Bernardino
- Data Collection - Riverside County Waste Management Dept
- Data Collection - San Geronio Pass
- Field Monitoring - City of Beaumont
- Field Monitoring - Yucaipa Valley Water District

N/A No Water Quality Data from 2018 to 2020
 mg/L milligrams per liter

Scale: 0 0.5 1 Miles

North Arrow: NORTH



ST-12
6.6 mg/L

ST-02
5.1 mg/L

ST-07A
3.2 mg/L

ST-07
N/A

ST-01
N/A

ST-03
16 mg/L

ST-05C
2.7 mg/L

ST-10
3.7 mg/L

ST-08
0.39 mg/L

ST-11
N/A

YVWD GMMW-5A
4.9 mg/L

YVWD GMMW-5B
3.5 mg/L

YVWD GMMW-5C
2.6 mg/L

YVWD GMMW-2
3.4 mg/L

Deep Well
N-D

YVWD GMMW-1
N-D

GL-6
N/A

YVWD GMMW-4
N-D

Schwenckert 1
36 mg/L

Fishermen's Retreat 1
0.27

Fishermen's Retreat 2
N-D

SanTim-1
0.92 mg/L

San Tim Badlands BH-20
N/A

San Tim Badlands BH-24
1.8 mg/L

San Tim Badlands BH-21
N/A

San Tim-2B/1
1.0 mg/L

San Tim-2B/2
1.3 mg/L

Heartland Well
1.6 mg/L

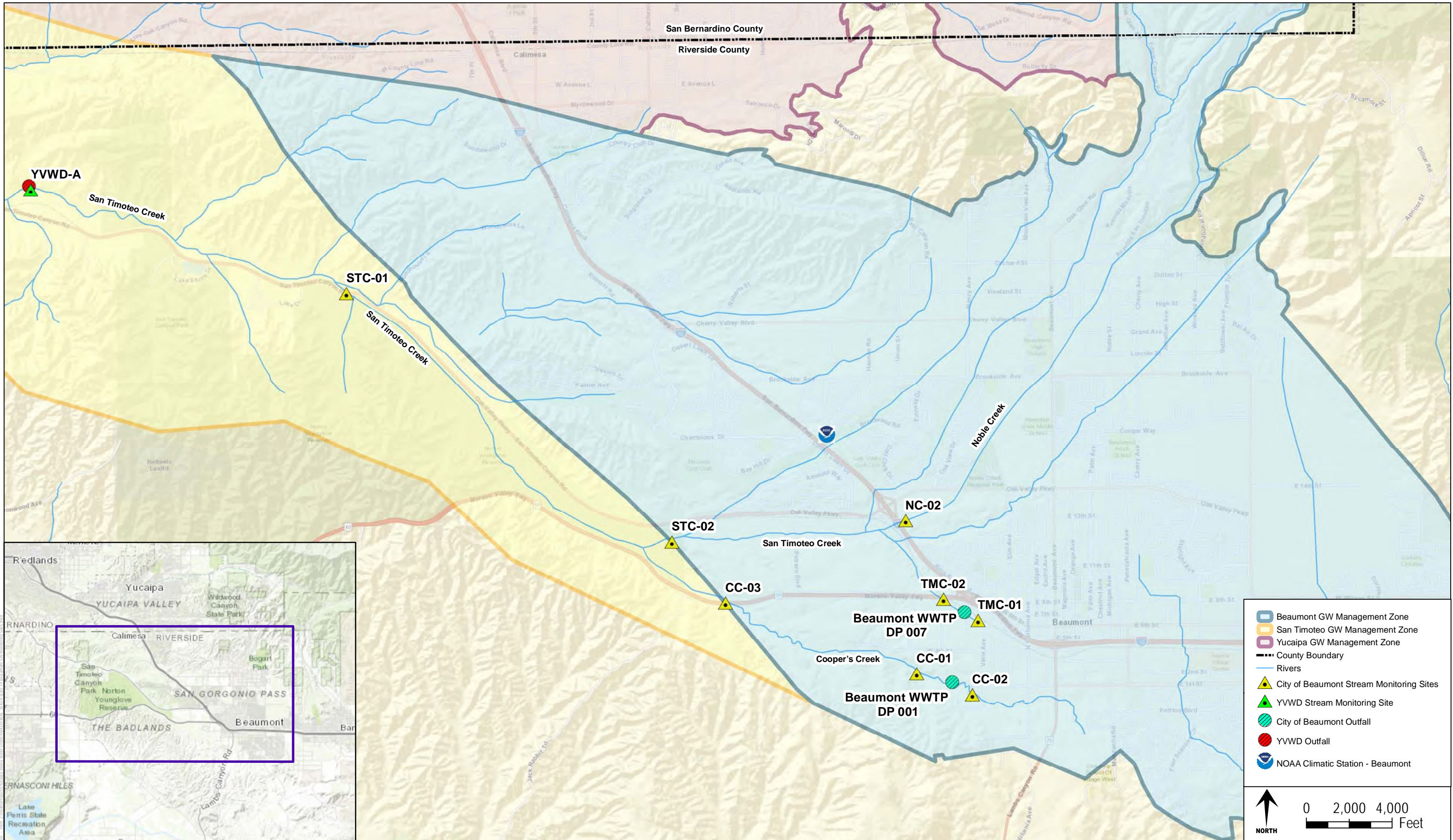


FIGURE 23

Surface Water Monitoring Sites in the San Timoteo and Beaumont Groundwater Management Zones

Stream Flow at CC-01

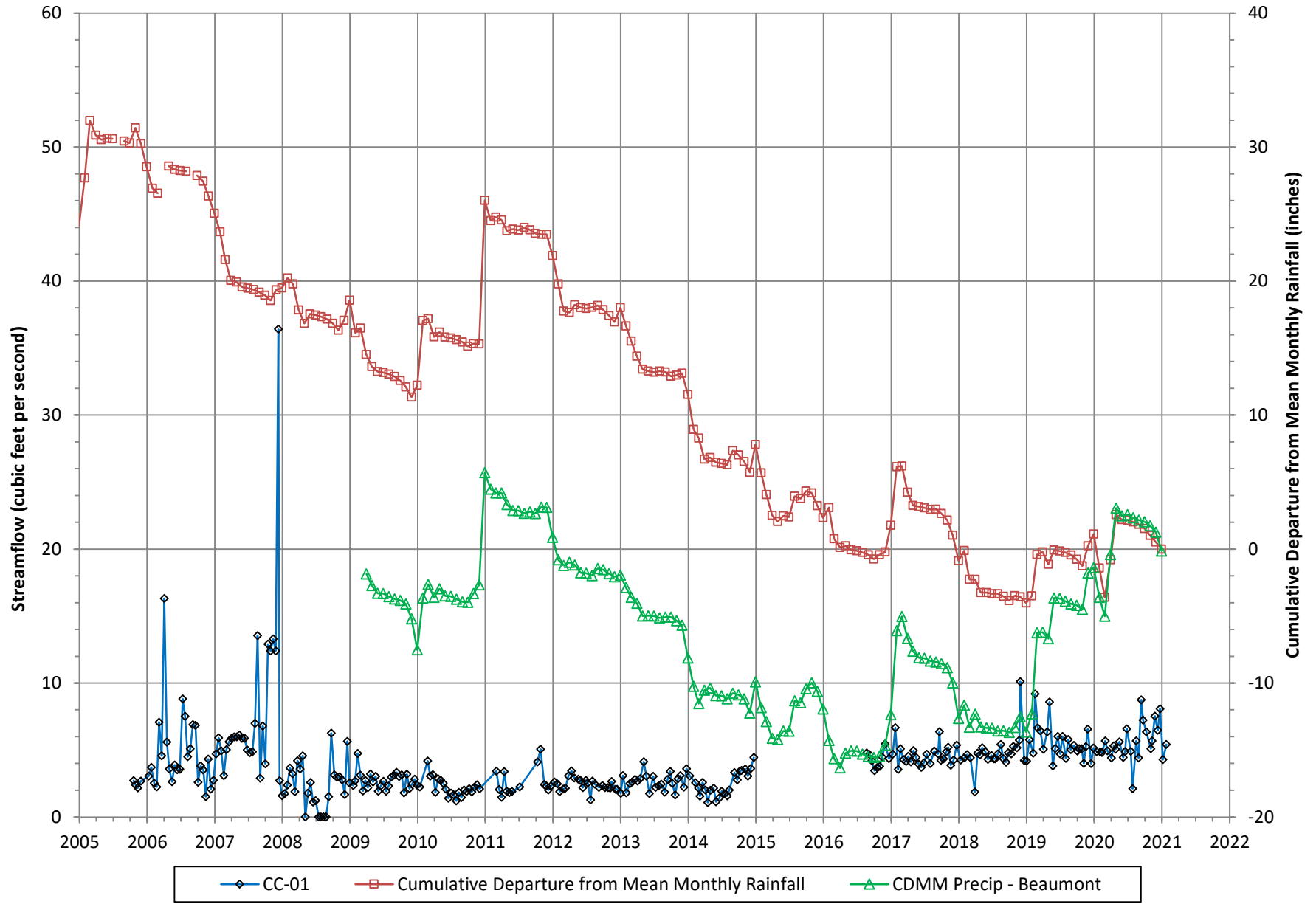


Figure 24

Stream Flow at CC-03

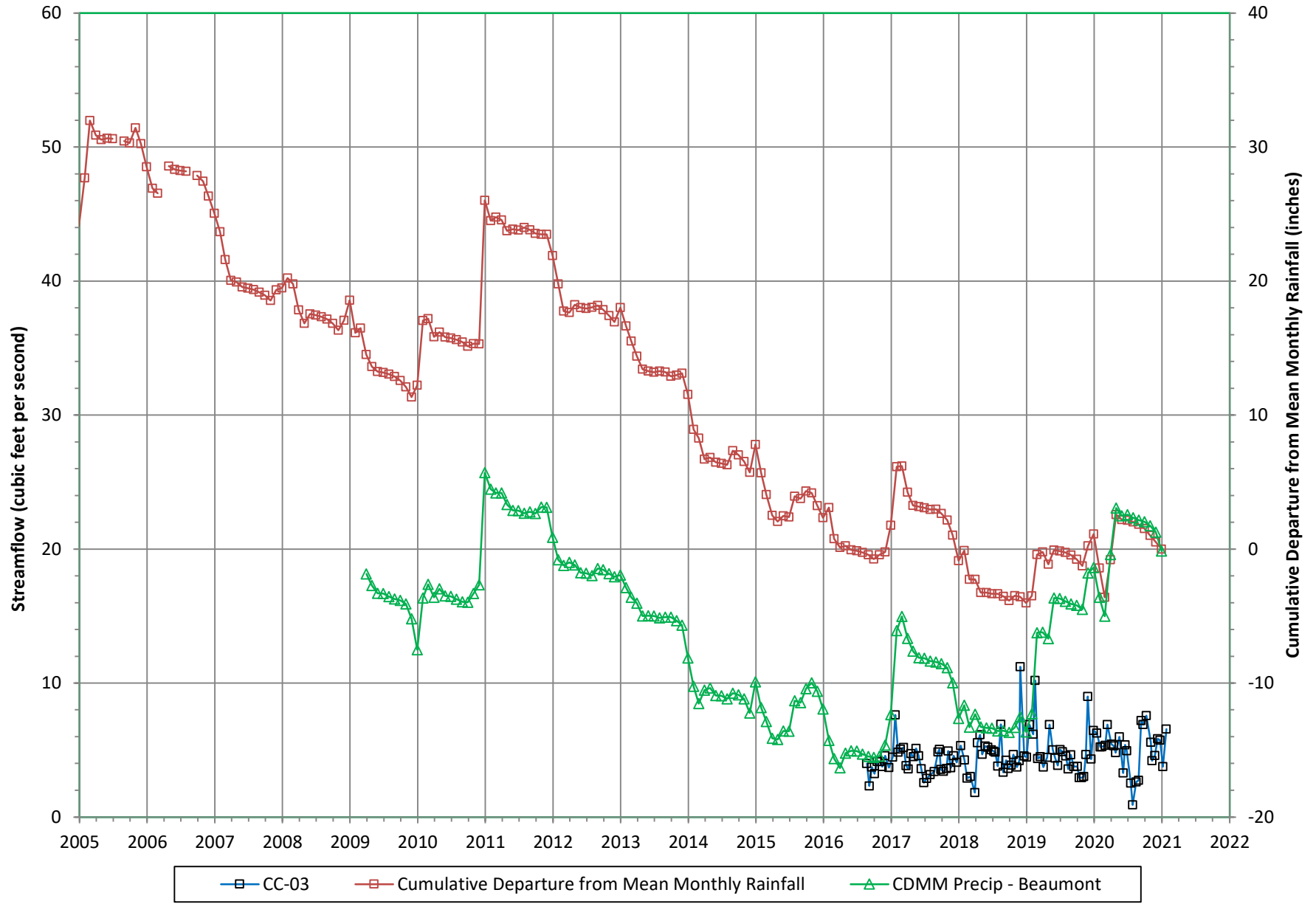


Figure 25

Total Dissolved Solids and Stream Flow at CC-01

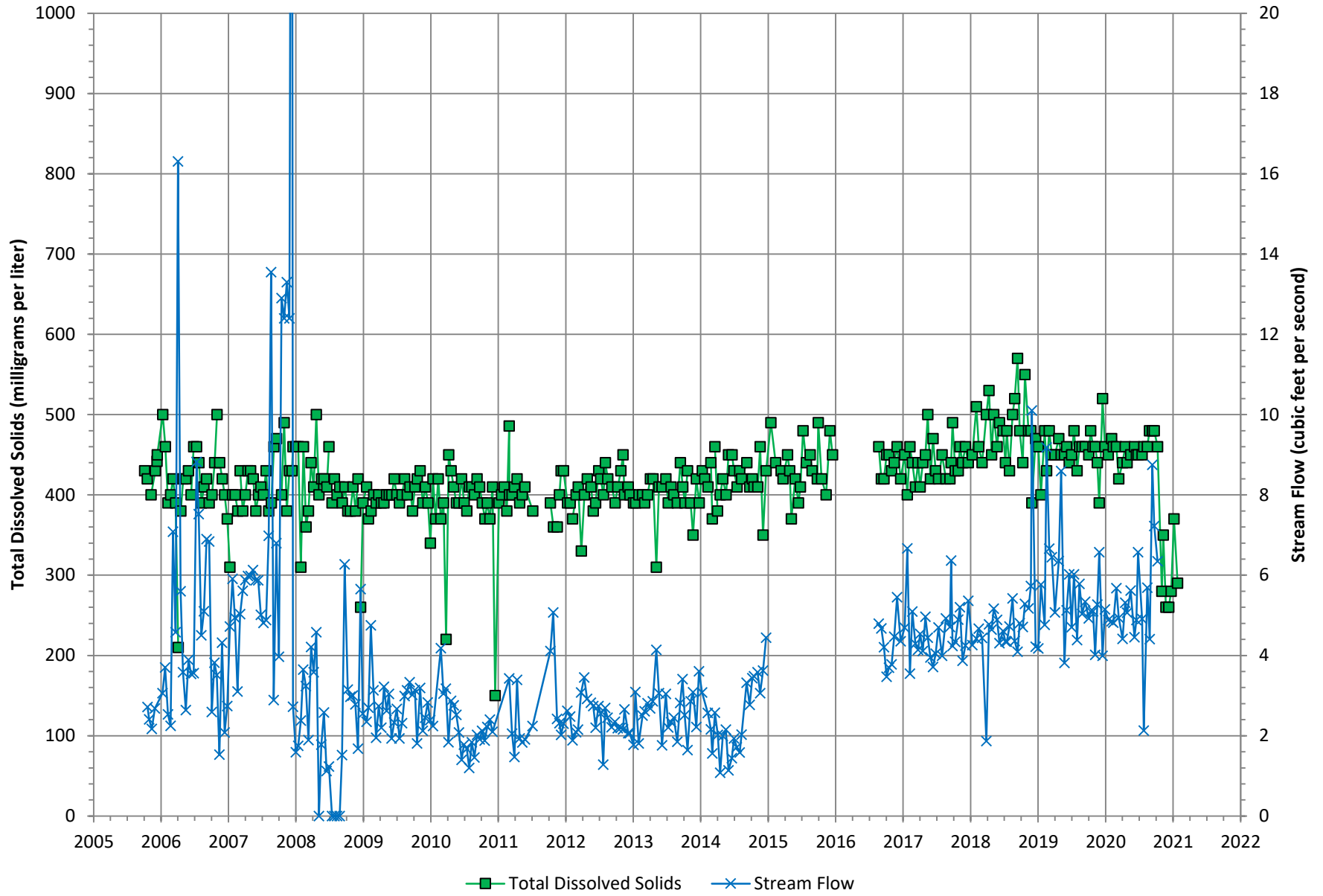


Figure 26

Nitrate (as Nitrogen) and Stream Flow at CC-01

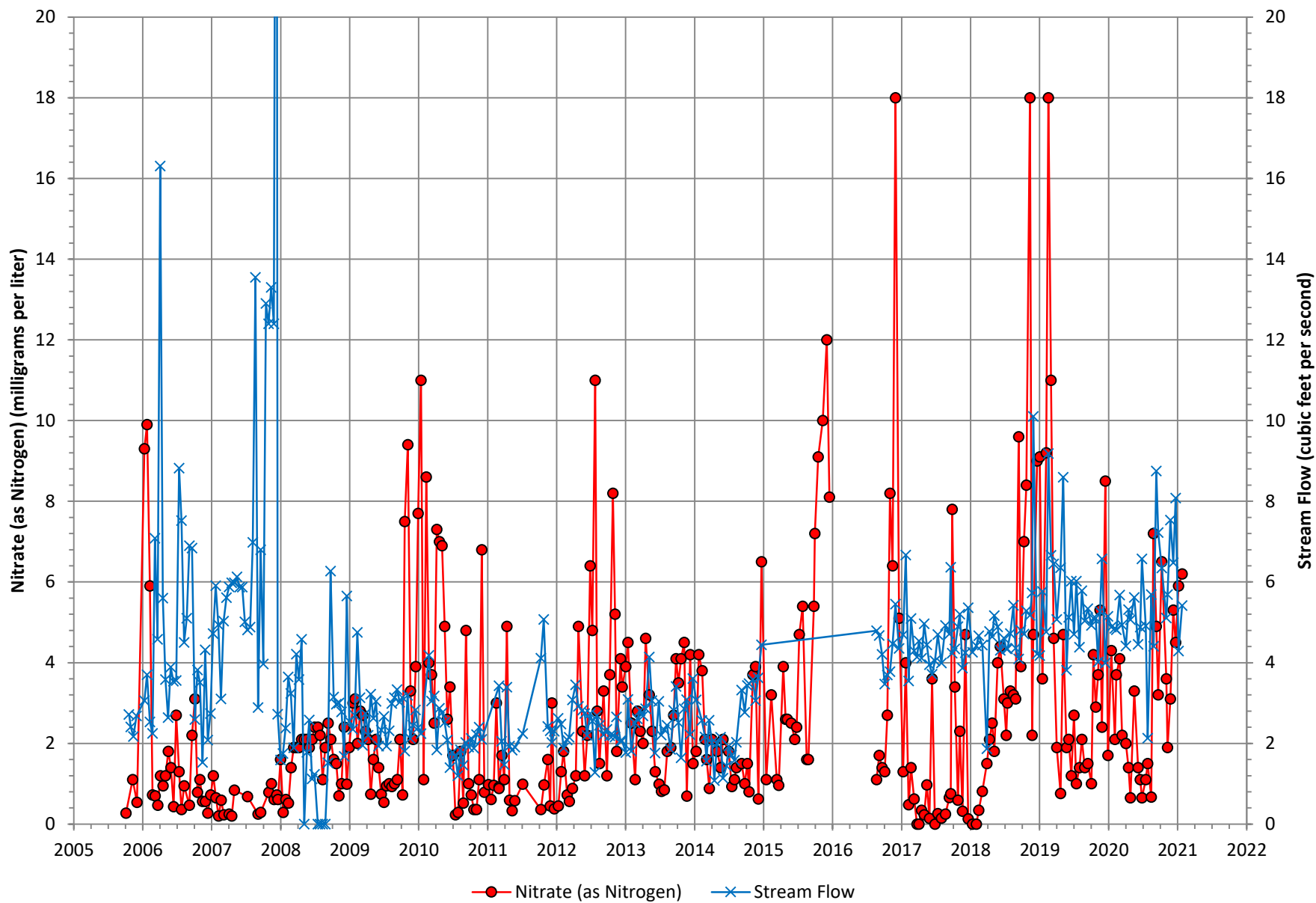


Figure 27

Total Dissolved Solids and Stream Flow at CC-03

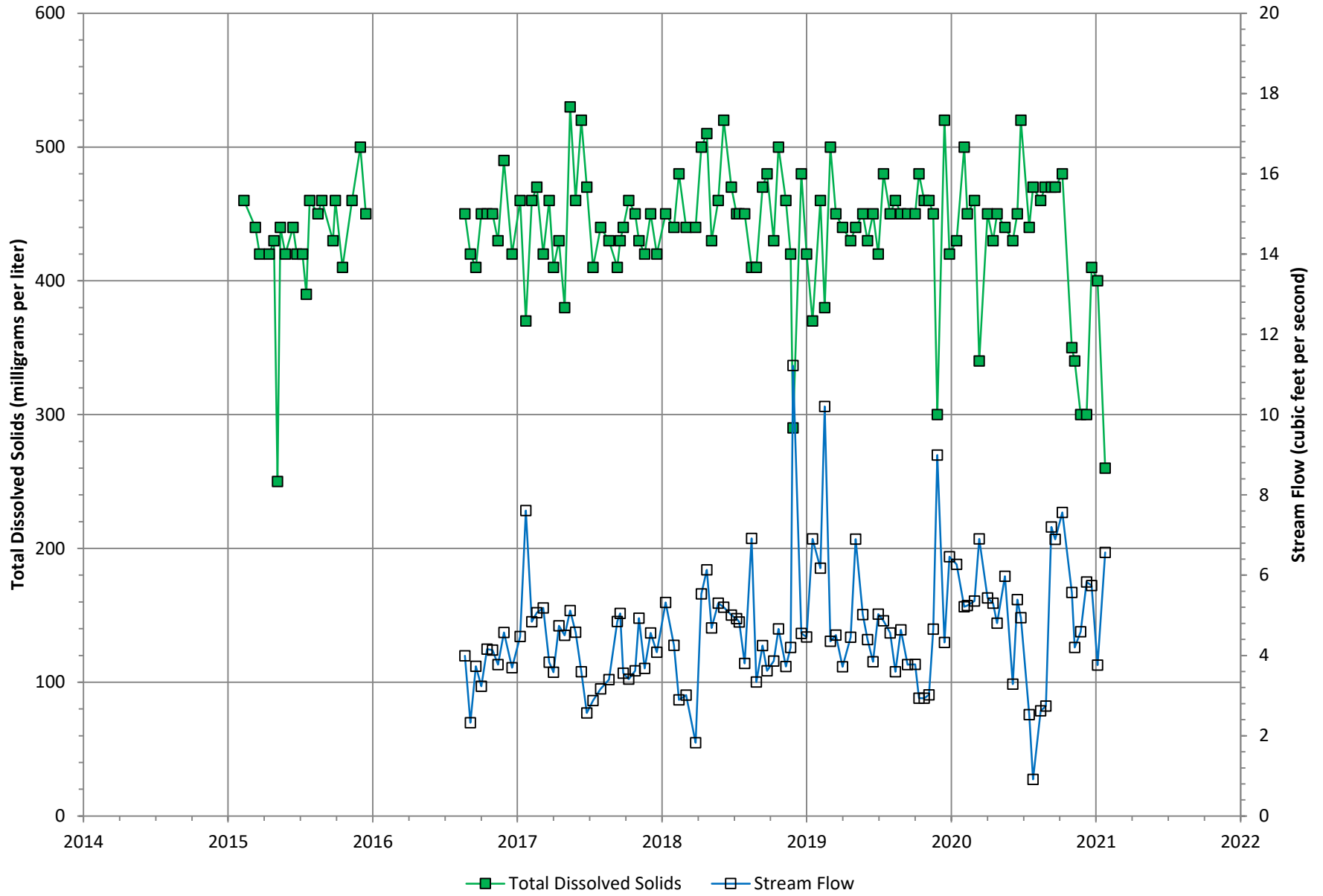


Figure 28

Nitrate (as Nitrogen) and Stream Flow at CC-03

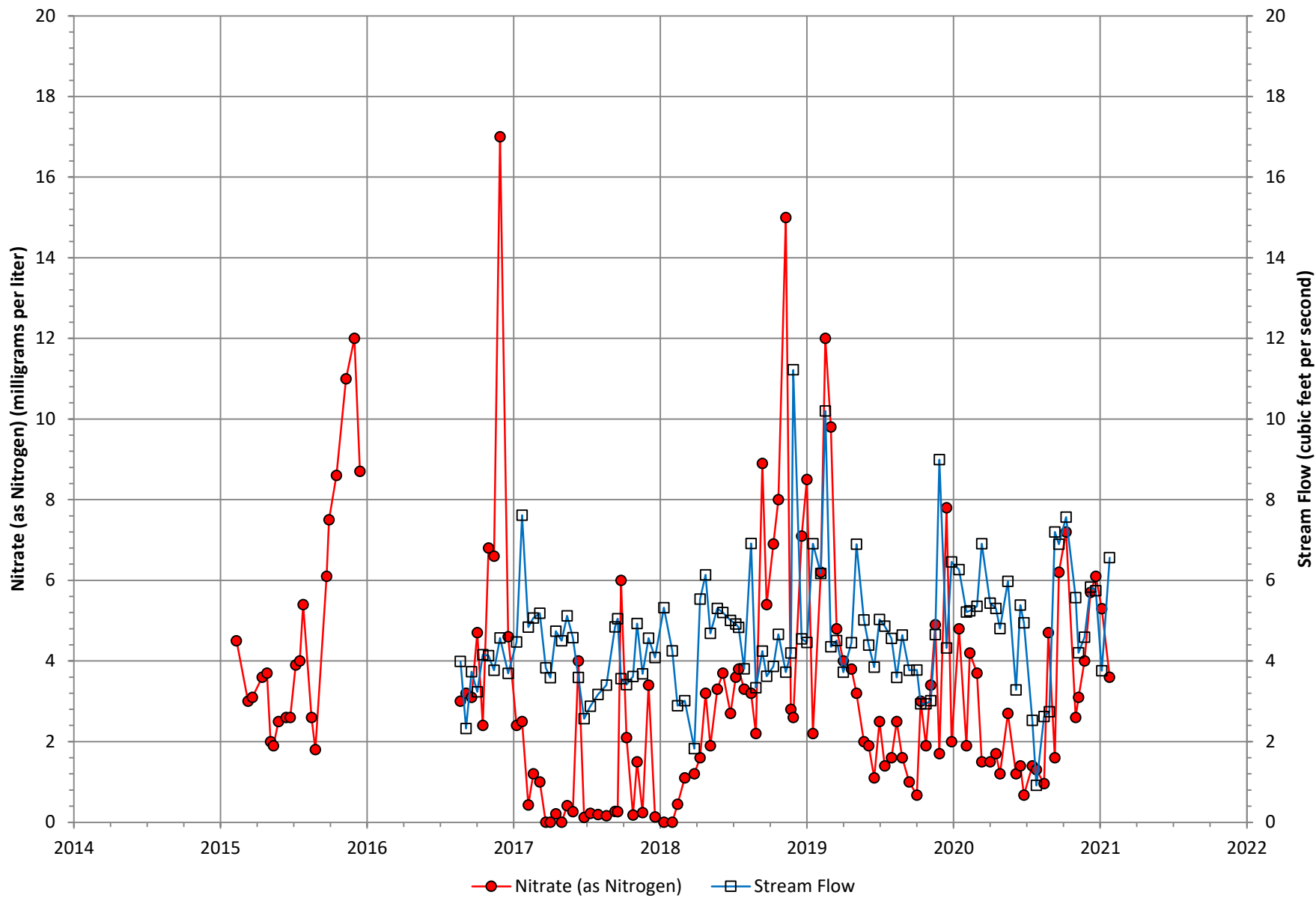


Figure 29

Stream Flow at STC-01

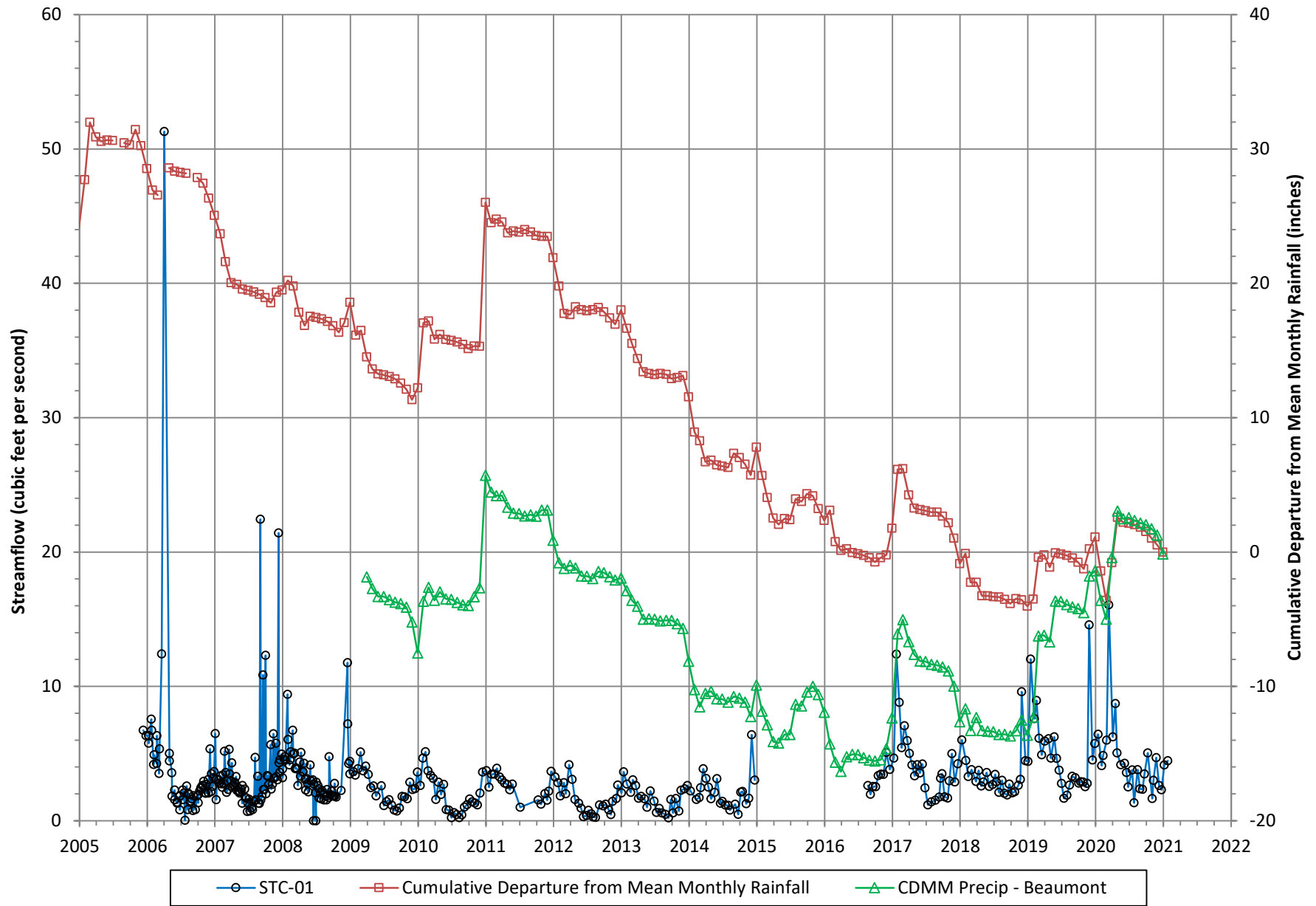


Figure 30

Total Dissolved Solids and Stream Flow at STC-01

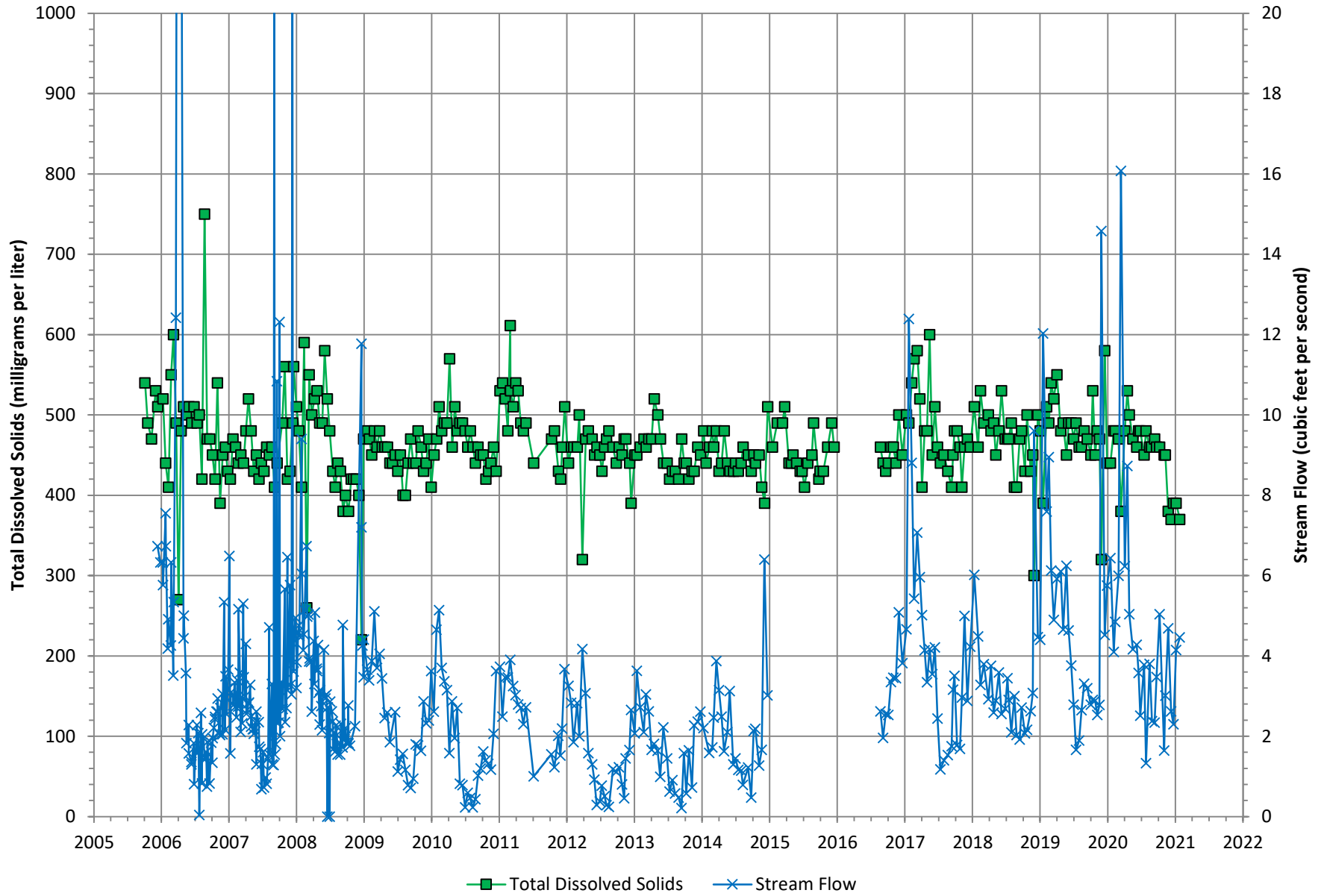


Figure 31

Nitrate (as Nitrogen) and Stream Flow at STC-01

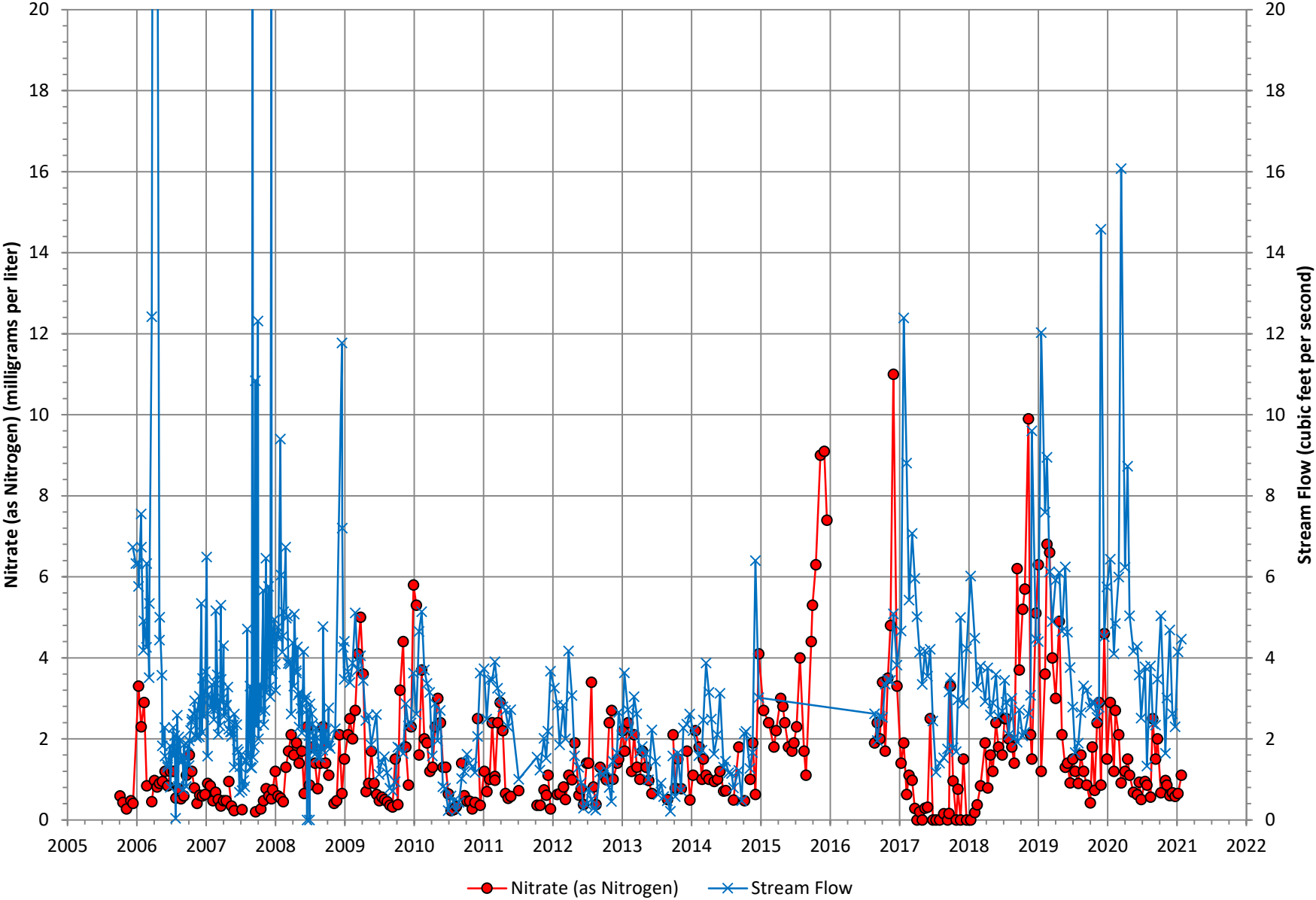


Figure 32

TDS and Monthly Discharges at DP-001 Outfall

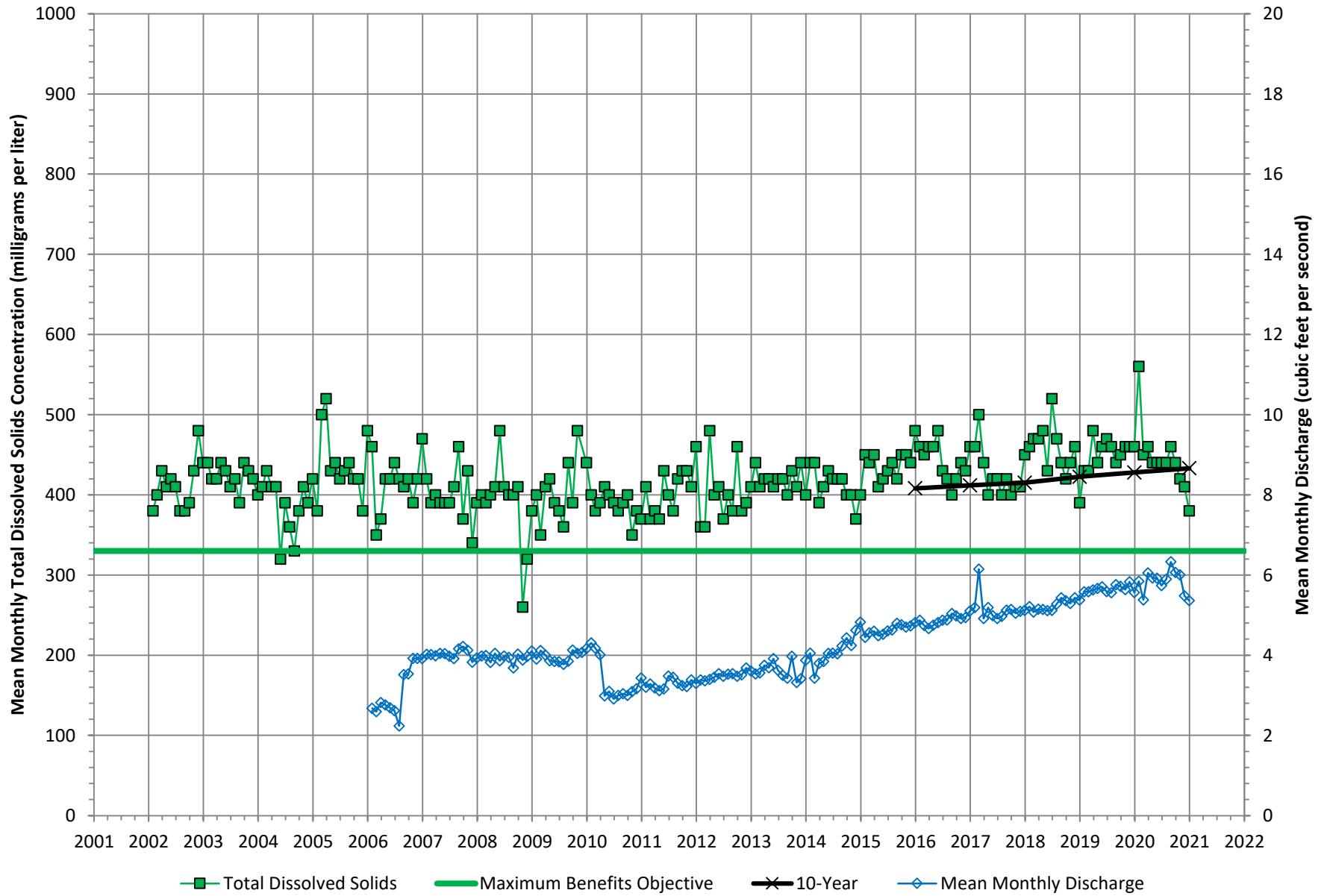


Figure 33

Nitrate (as Nitrogen) and Mean Monthly Discharge at DP-001 Outfall

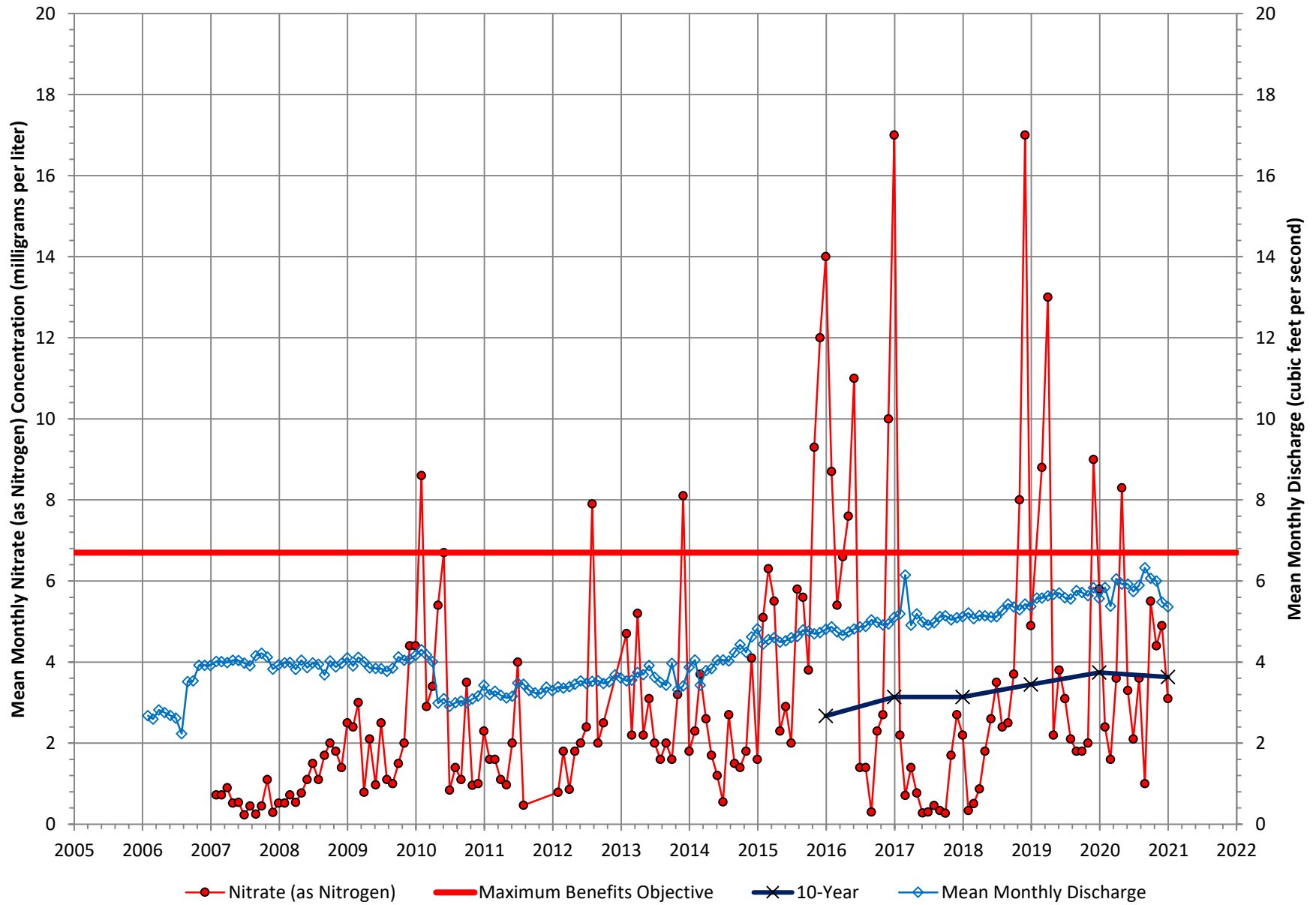


Figure 34

