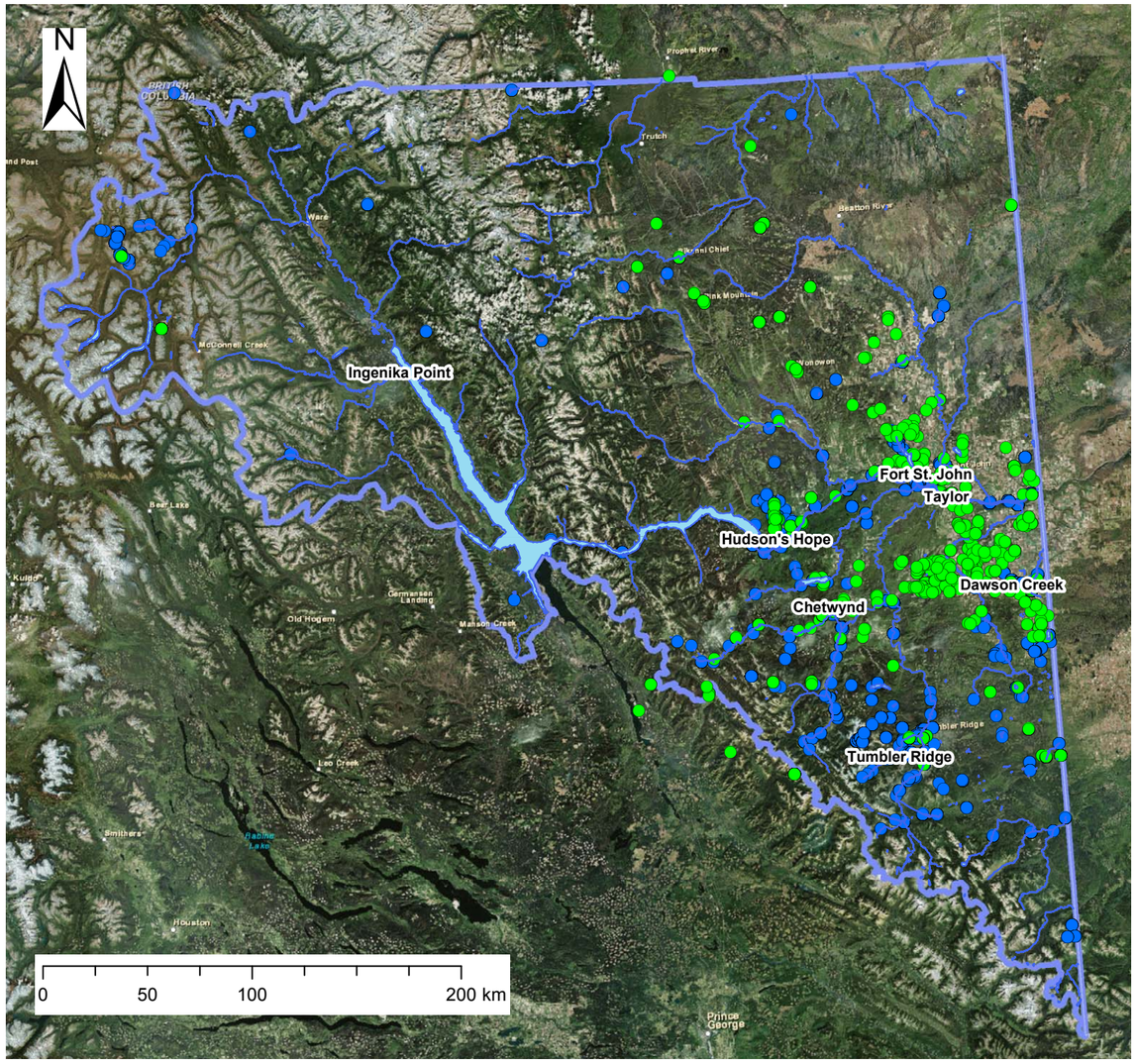
WATER CHEMISTRY

Surface Water and Groundwater Chemistry Data

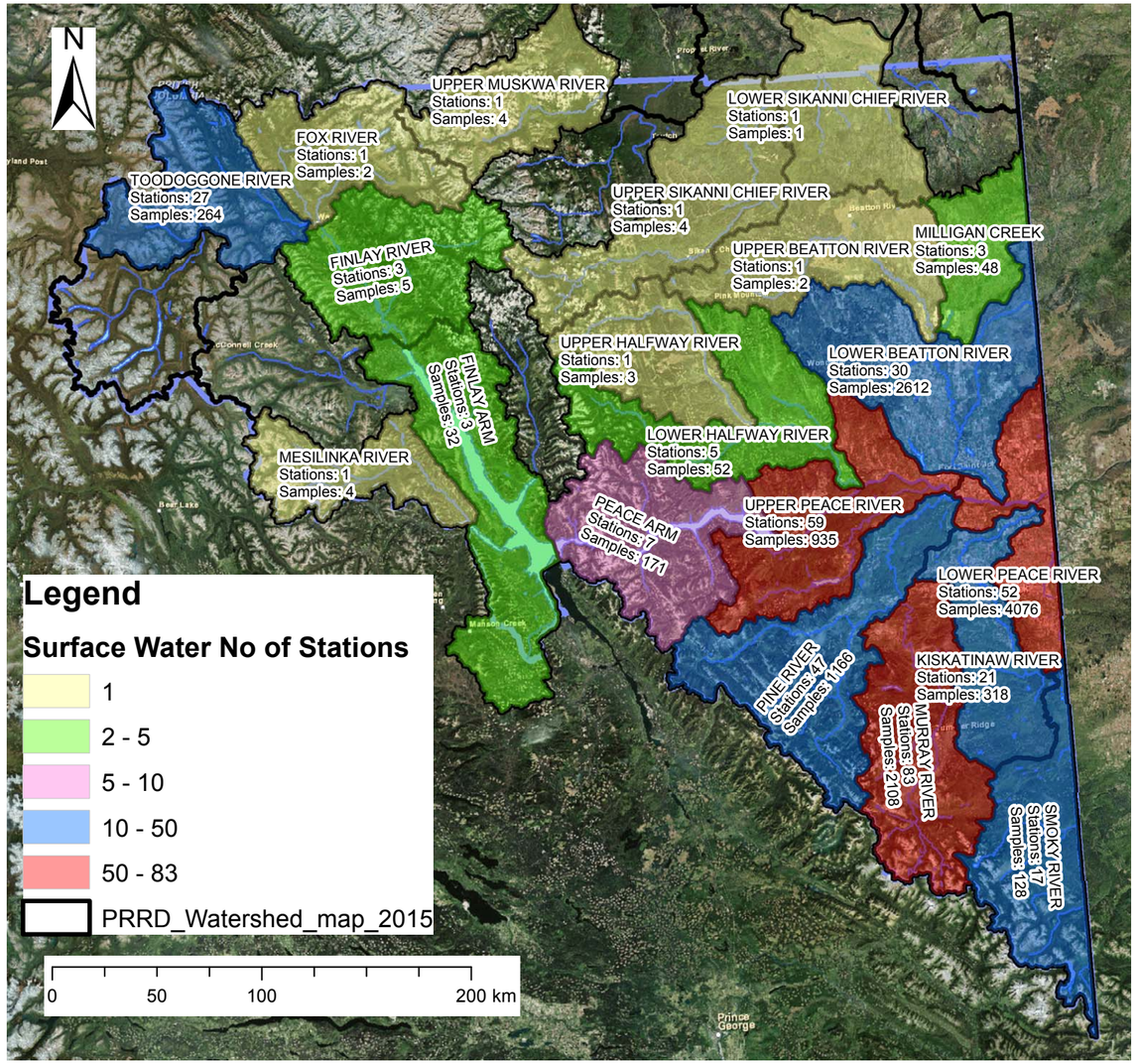


- Groundwater
- Surface water

PRRD Database

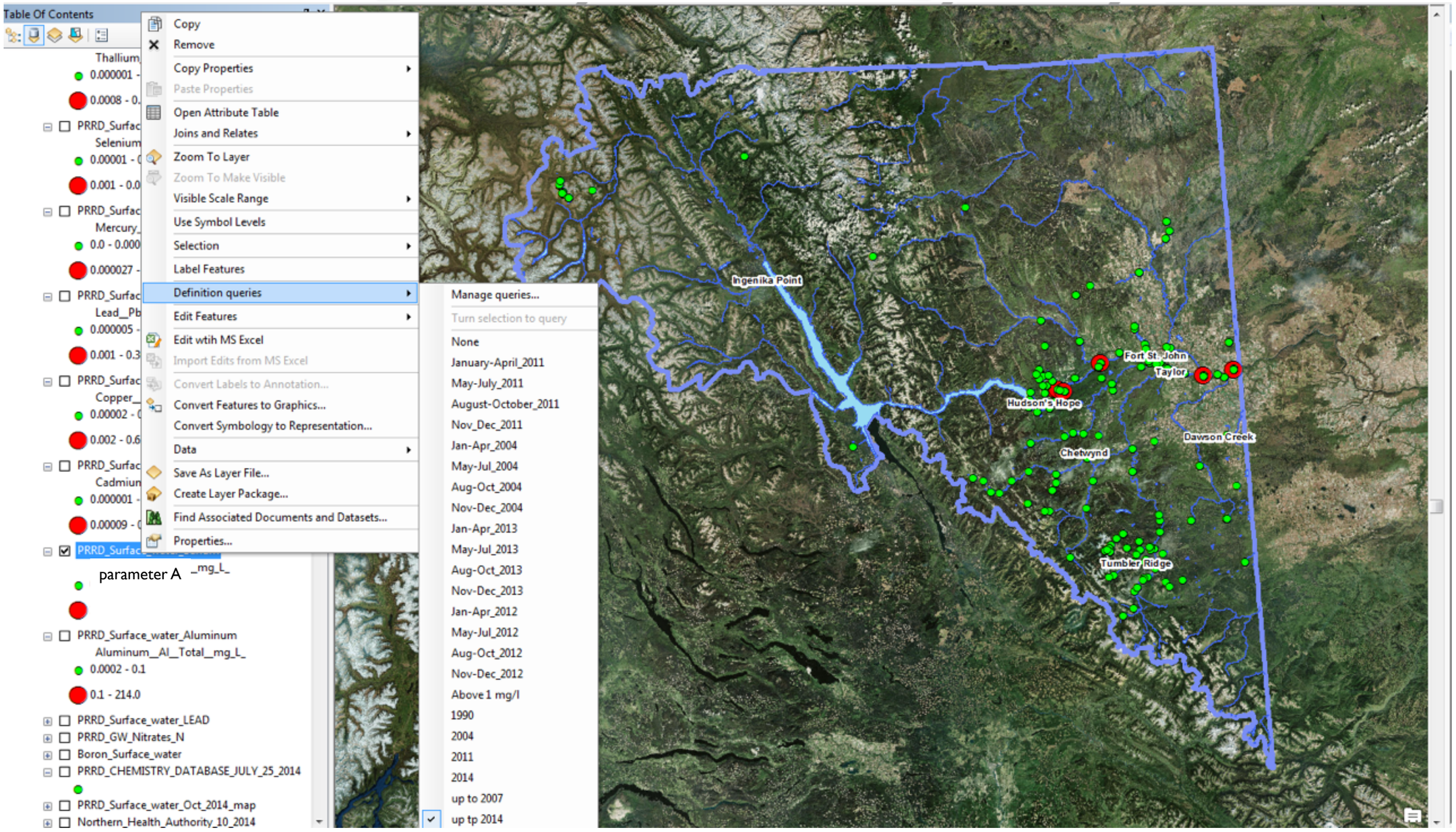
Total Samples	Monitoring sites	Water Source
935	468	Groundwater
11,935	364	Surface water
12,870	832	Total

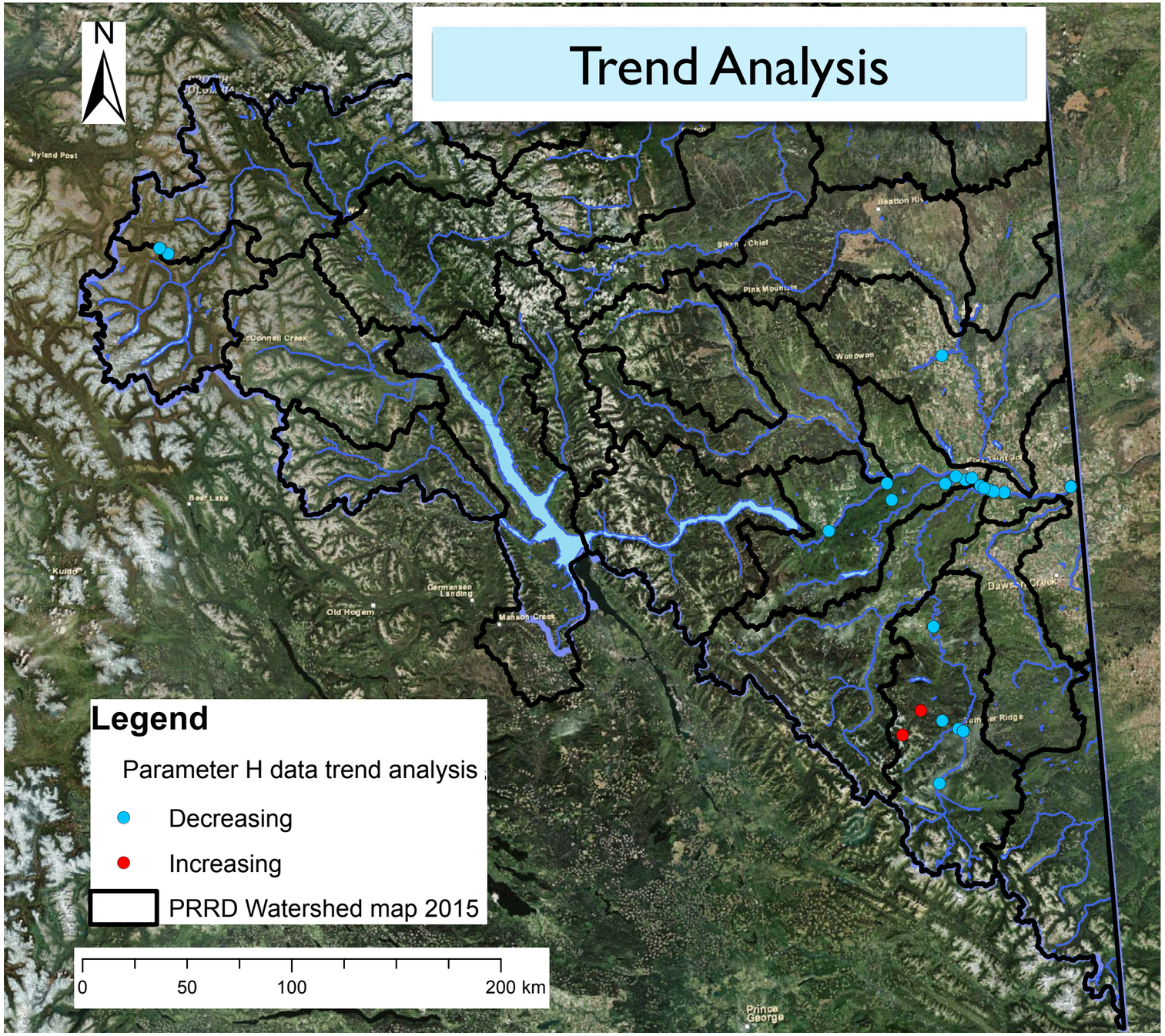
Stations & Samples per Watershed



Watershed	Number of stations	Number of samples
FINLAY ARM	3	32
FINLAY RIVER	3	5
FOX RIVER	1	2
KISKATINAW RIVER	21	318
LOWER BEATTON RIVER	30	2612
LOWER HALFWAY RIVER	5	52
LOWER PEACE RIVER	52	4076
LOWER SIKANNI CHIEF RIVER	1	1
MESILINKA RIVER	1	4
MILLIGAN CREEK	3	48
MURRAY RIVER	83	2108
PEACE ARM	7	171
PINE RIVER	47	1166
SMOKY RIVER	17	128
TOODOGGONE RIVER	27	264
UPPER BEATTON RIVER	1	2
UPPER HALFWAY RIVER	1	3
UPPER MUSKWA RIVER	1	4
UPPER PEACE RIVER	59	935
UPPER SIKANNI CHIEF RIVER	1	4
Total	**364**	**11935**

Query Function





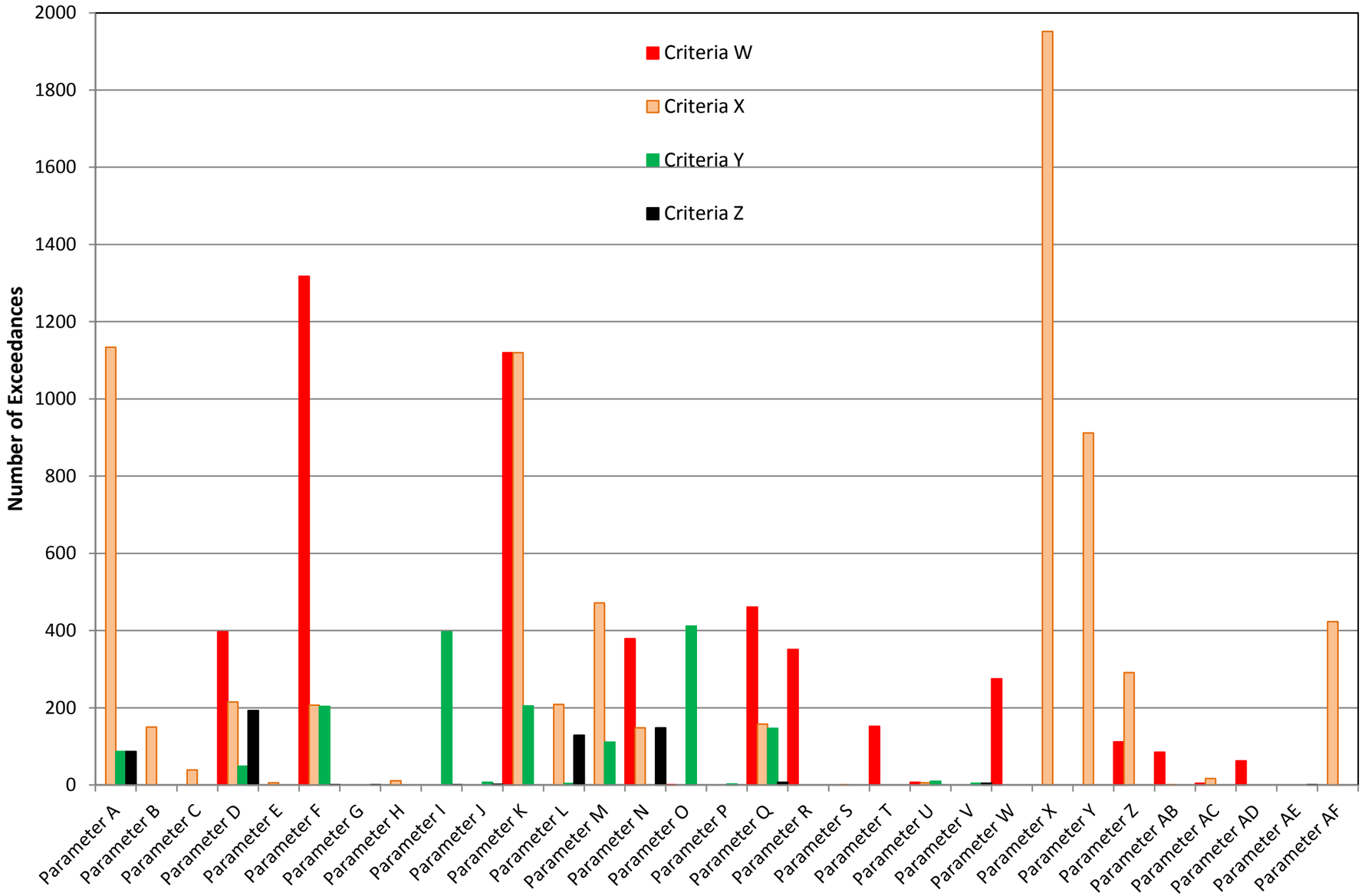
Manage queries...

Turn selection to query

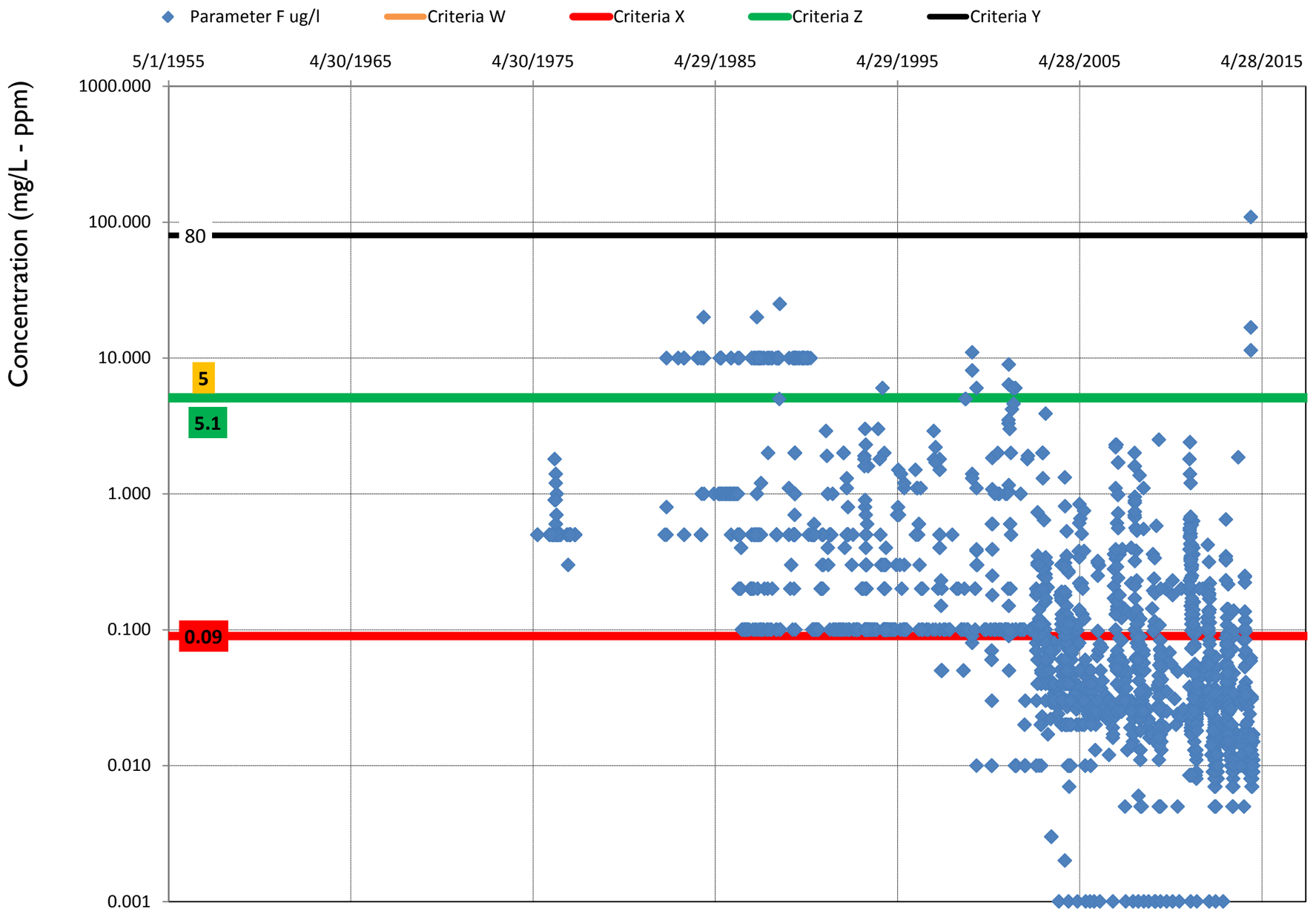
- Parameter A
- Parameter B
- Parameter C
- Parameter D
- Parameter E
- Parameter F
- Parameter G
- [x] Parameter H
- Parameter I
- Parameter J
- Parameter K
- Parameter L
- Parameter M
- Parameter N
- Parameter O
- Parameter P
- Parameter Q
- Parameter R
- Parameter S
- Parameter T
- Parameter U
- Parameter V
- Parameter W
- Parameter X
- Parameter Y
- Parameter Z

Mann Kendall Trend Analysis

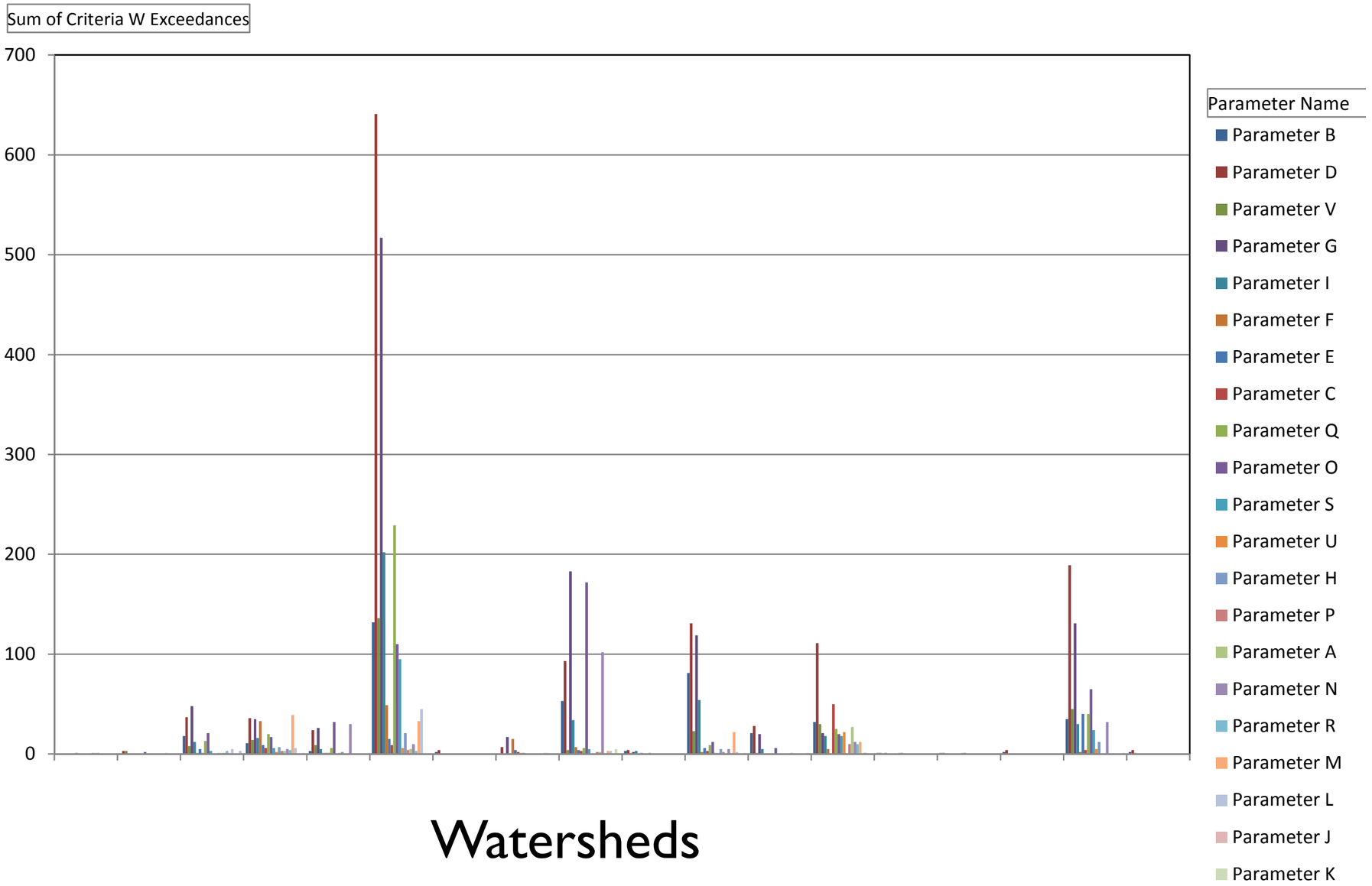
Surface Water - Whole Region
Parameters Above Guidelines



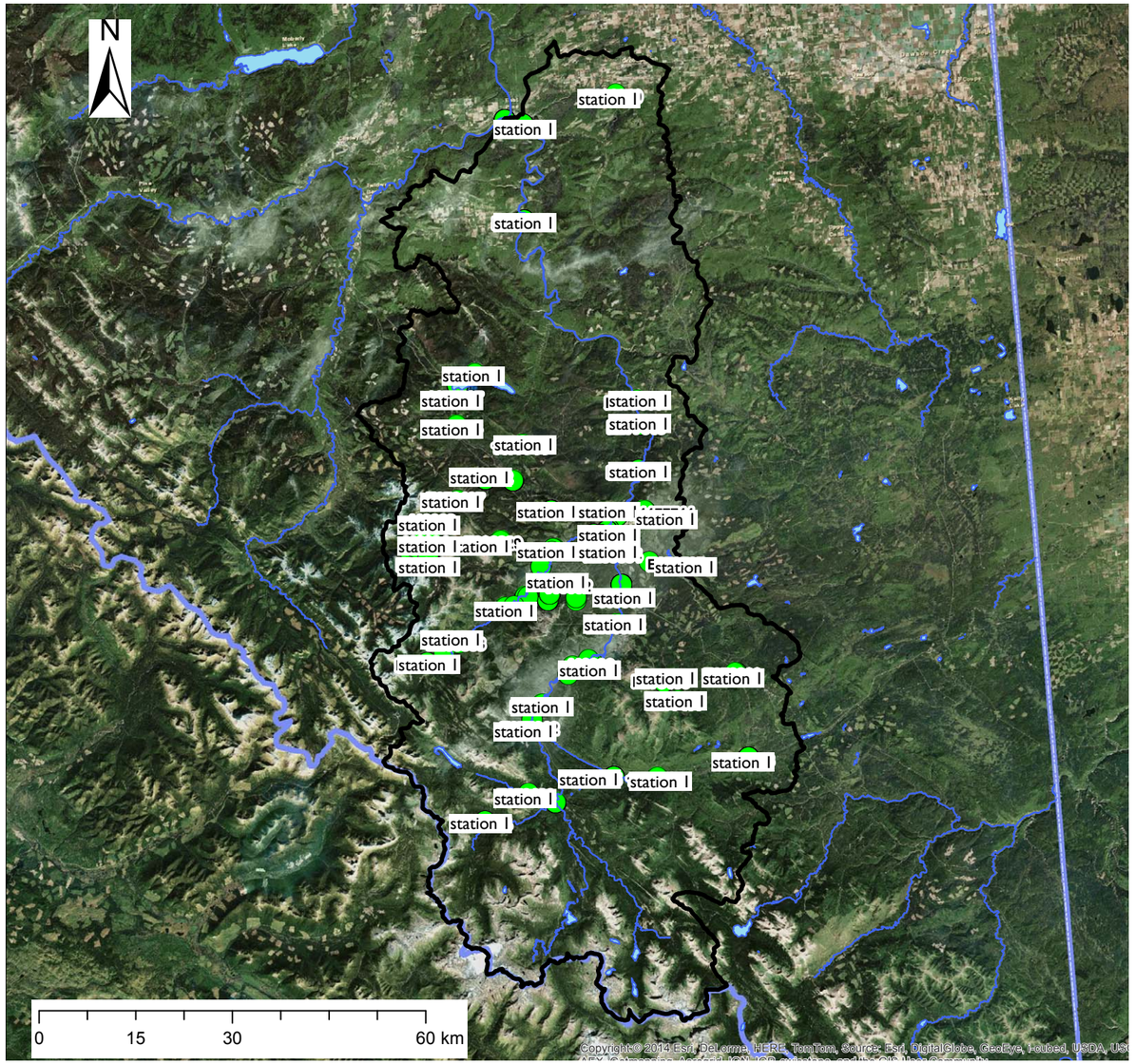
Parameter F - Whole Region

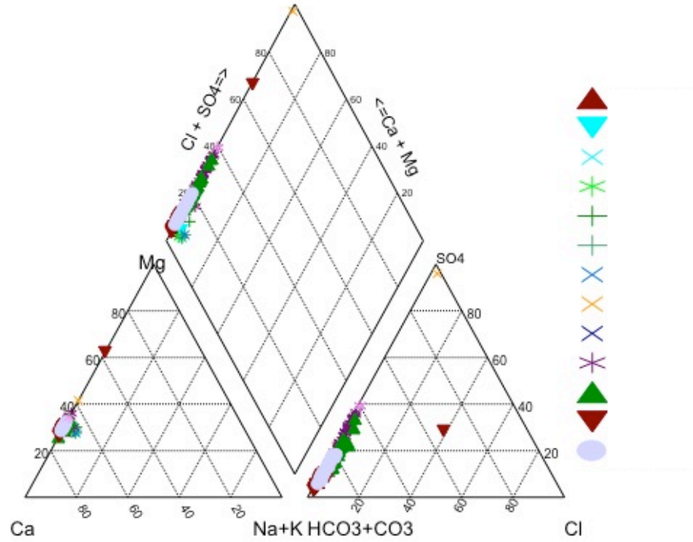


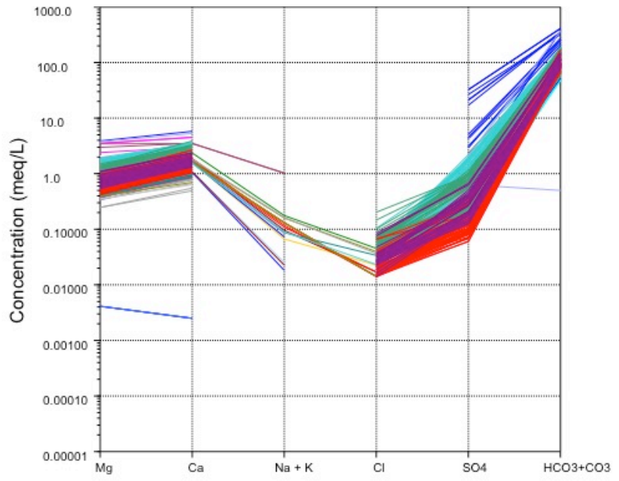
Surface Water
Water Chemistry per Watershed (Criteria A)



Surface Water
Water Chemistry per Station in Watershed

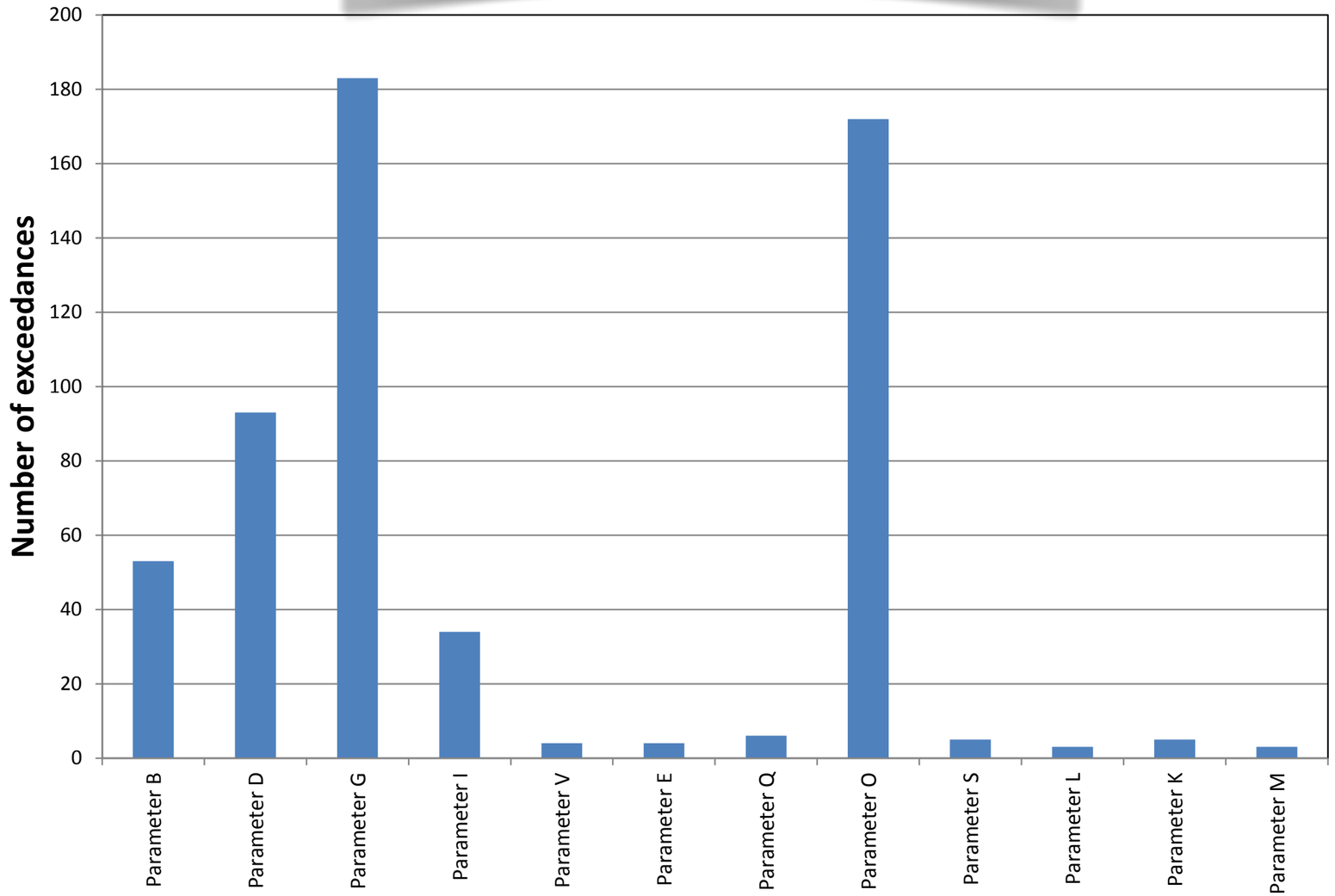






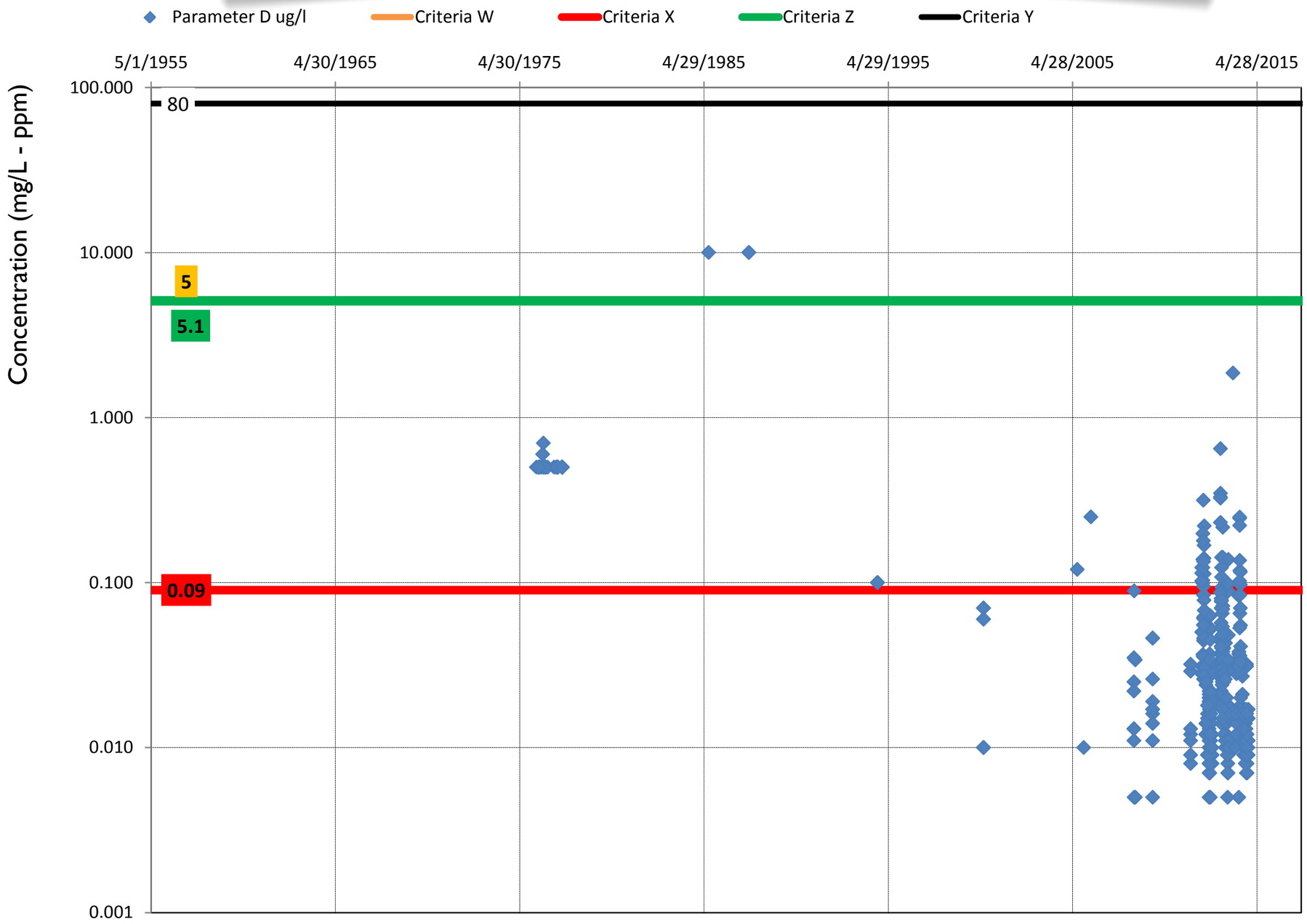
Sum of Criteria W Exceedances

Surface Water
Watershed A

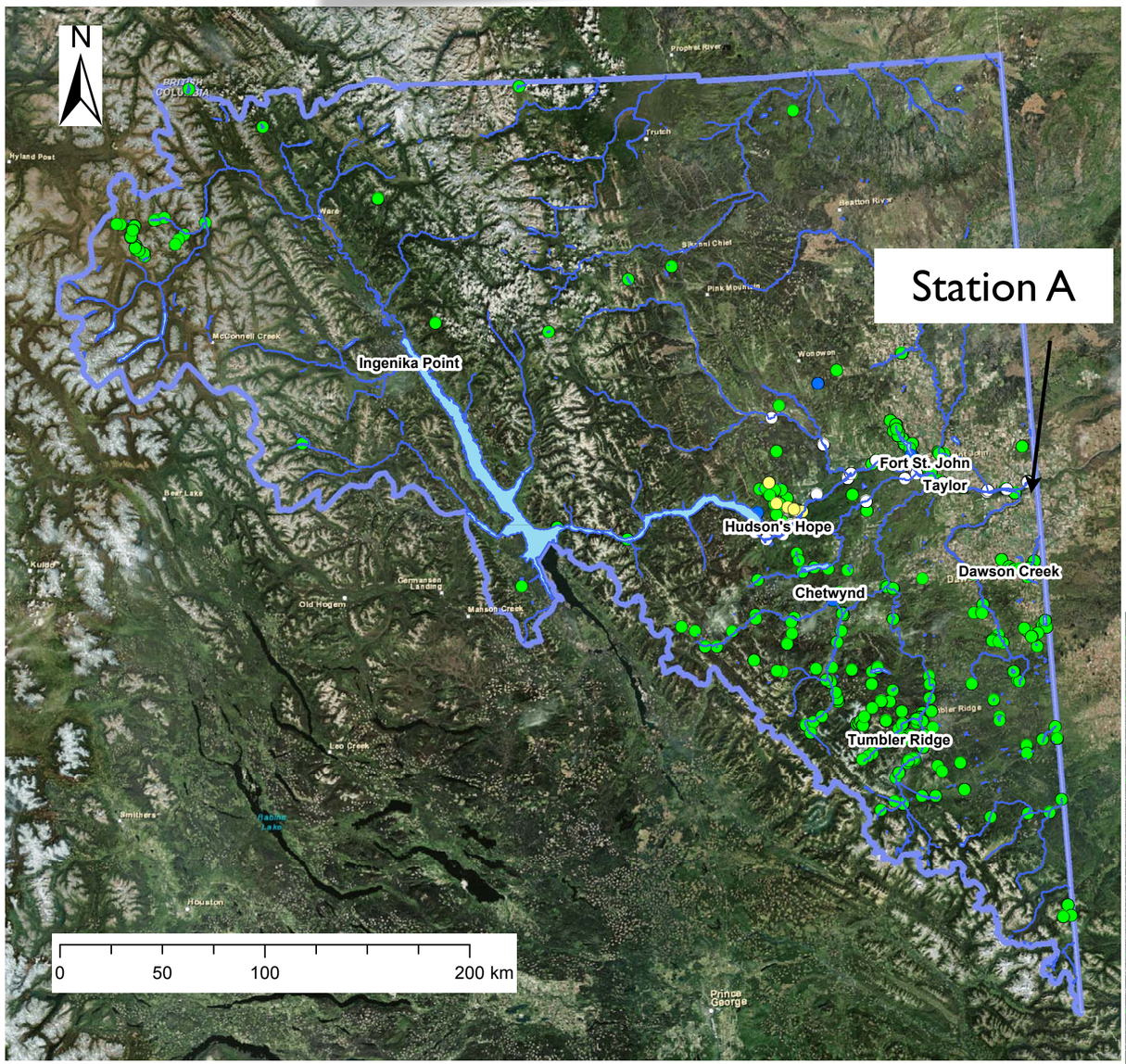


Parameter Name

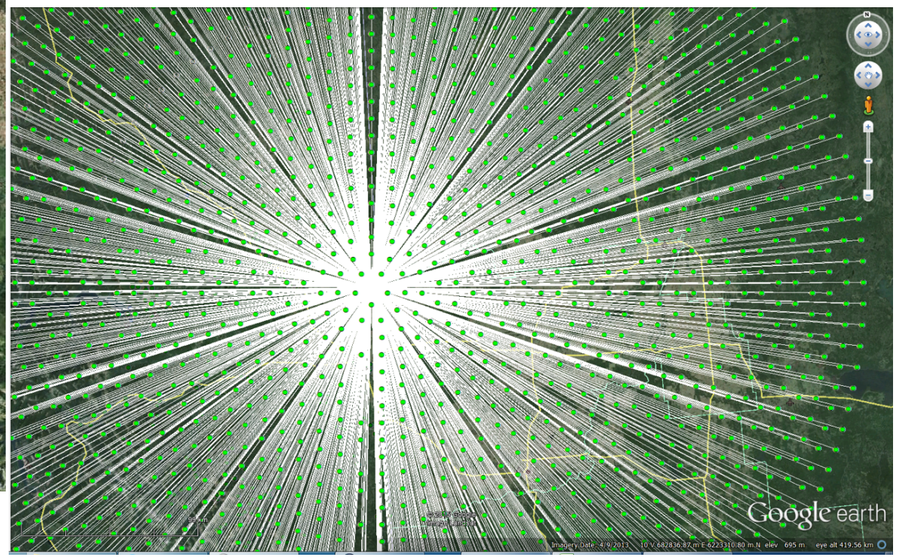
Parameter D - Watershed A



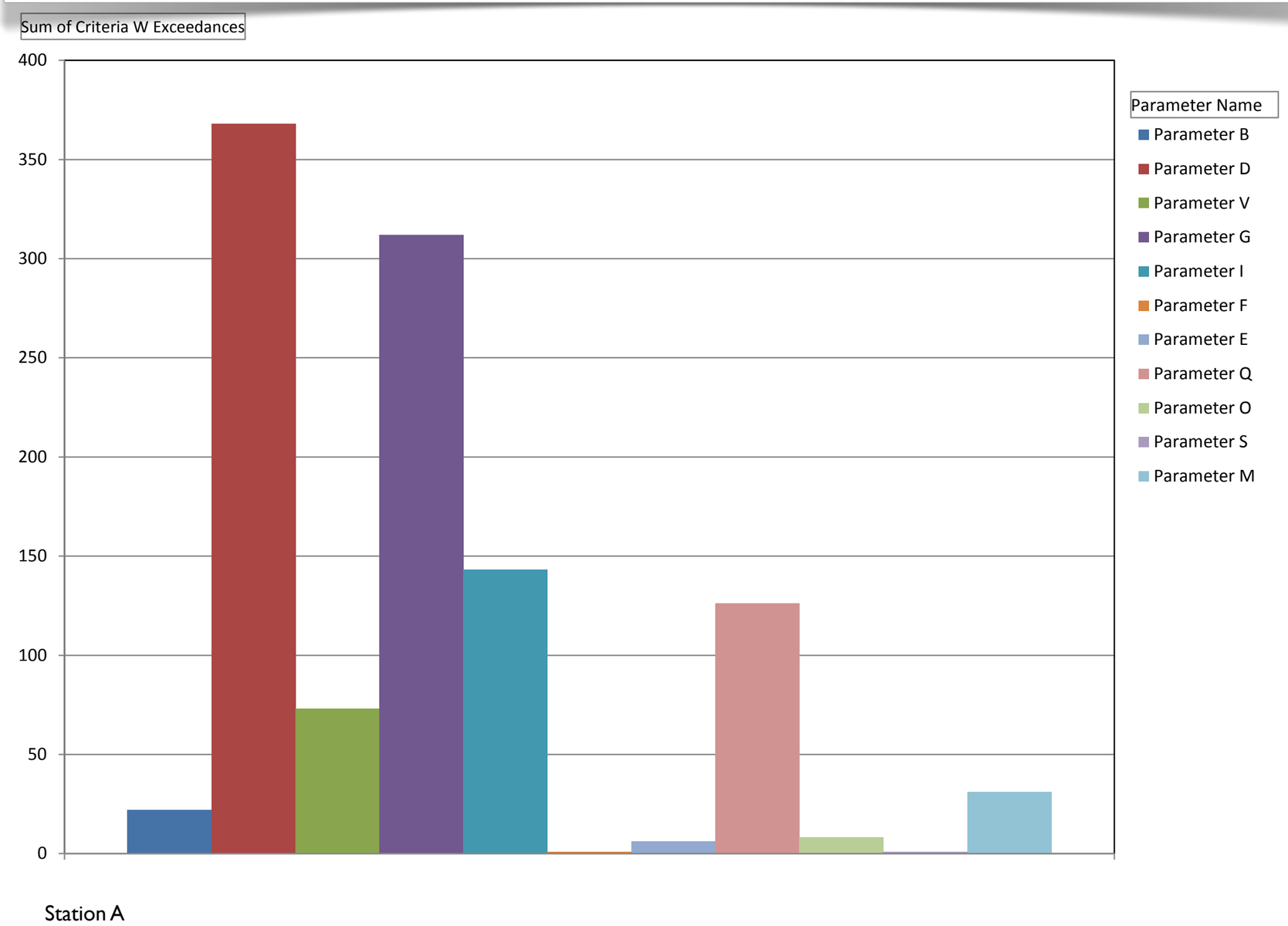
Surface Water
Water Chemistry per Station



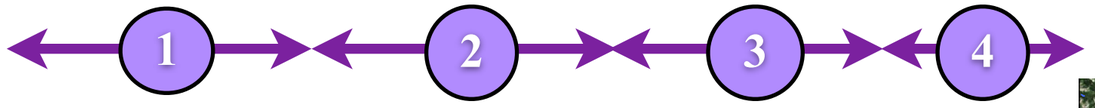
Station A	Number of Samples	Sampled From	Sampled To
	2071	1984	2013

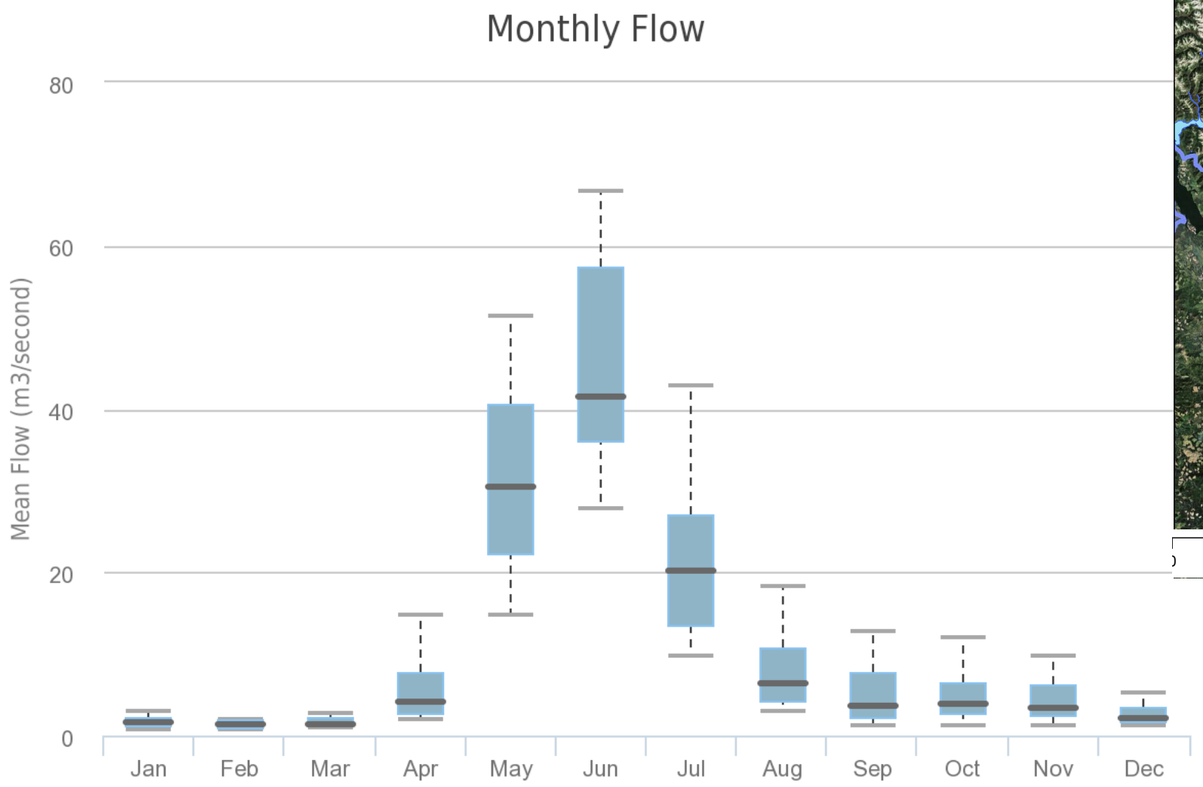


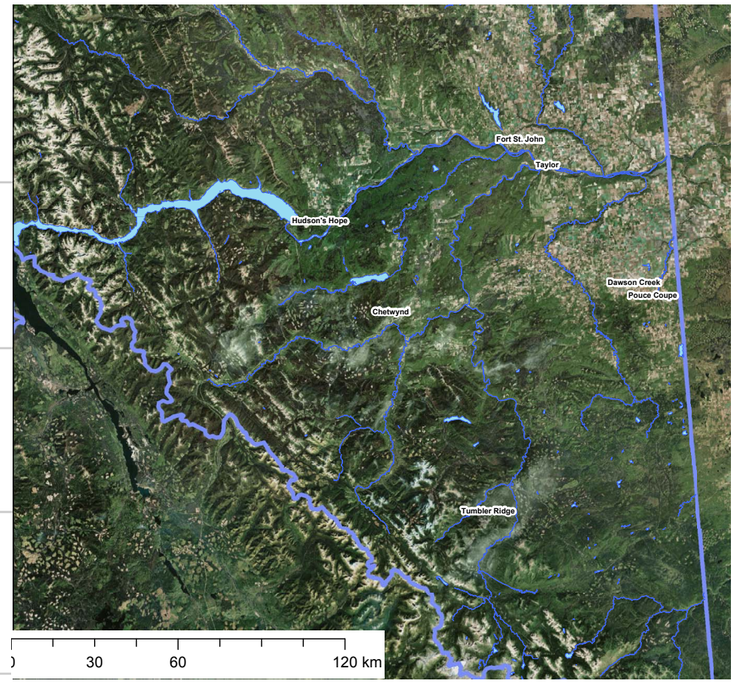
Surface Water
Water Chemistry per Station - Samples/Parameters Above Criteria W Guidelines



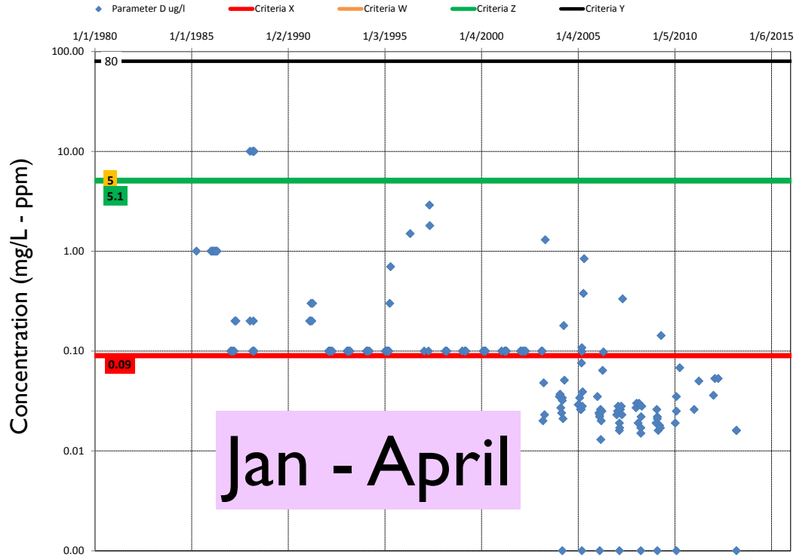
Seasonal Fluctuation of River Flows

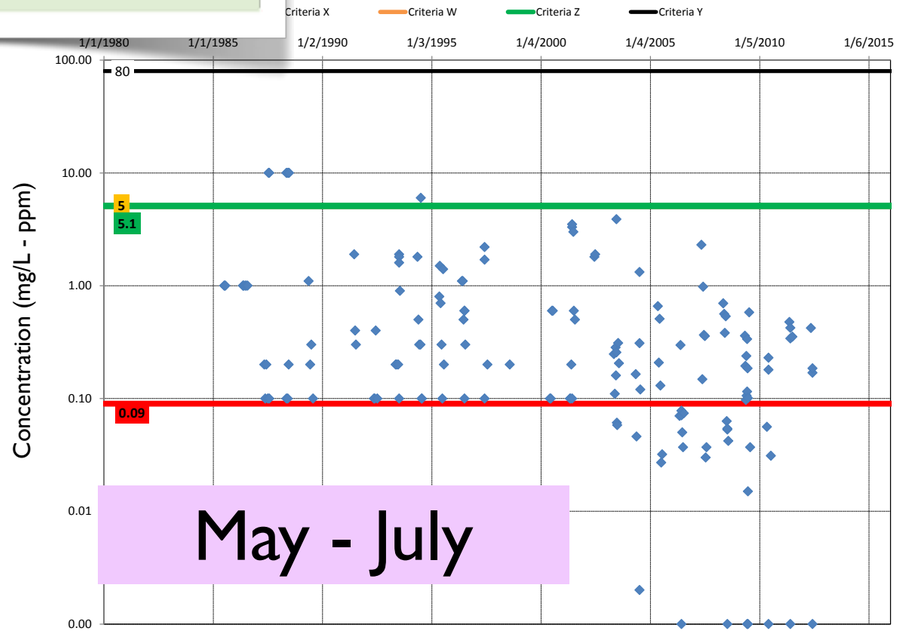


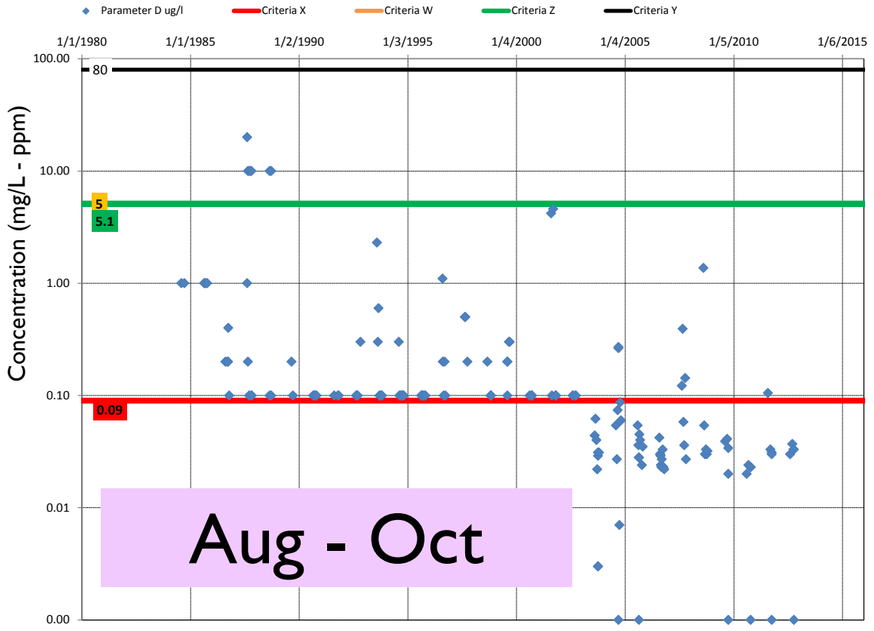


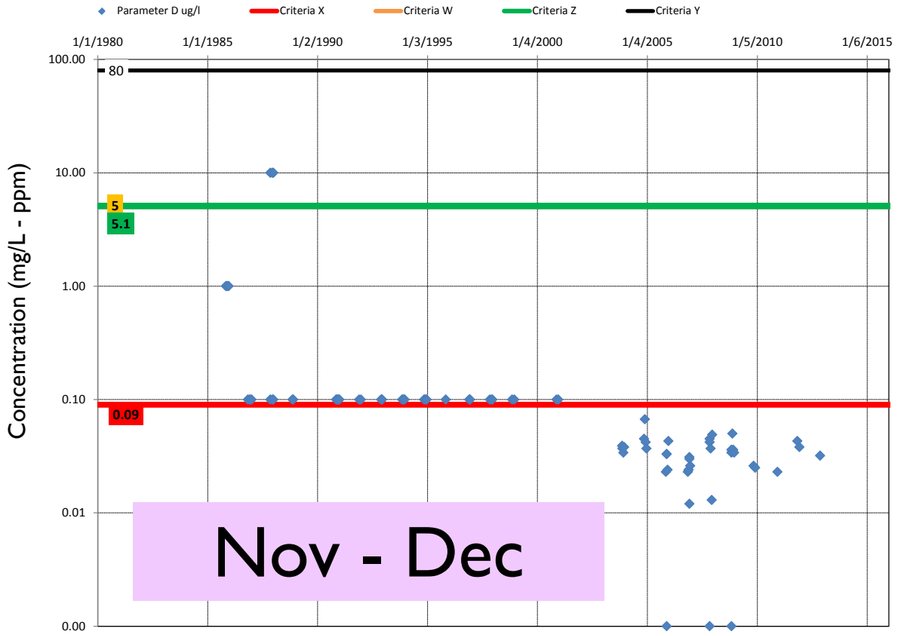


Parameter D vs Seasons
Station A









Data Interpretation Context

- Background values
- Changing detection limits
- Seasonal effects

Next Steps

- Data interpretation, graphing, mapping (peer reviewed)
- Potential application
  - Water for irrigation
- Seasonal effects

Limitations

- lack of data/stations in some watersheds
- Accuracy of older data
- Availability/change of guidelines/criteria
- Time/budget

(photograph: Dr. Gilles Wendling)

THANK YOU

Dr Gilles Wendling & PRRD Team