Spokane River Cadmium, Lead and Zinc TMDL

2013-2015 Monitoring

Spokane River Metals TMDL WAG meeting

By: Robert Steed,

IDEQ , Surface Water Ecologist

April 5, 2016

Spokane River Cd/Pb/Zn TMDL Technical Team

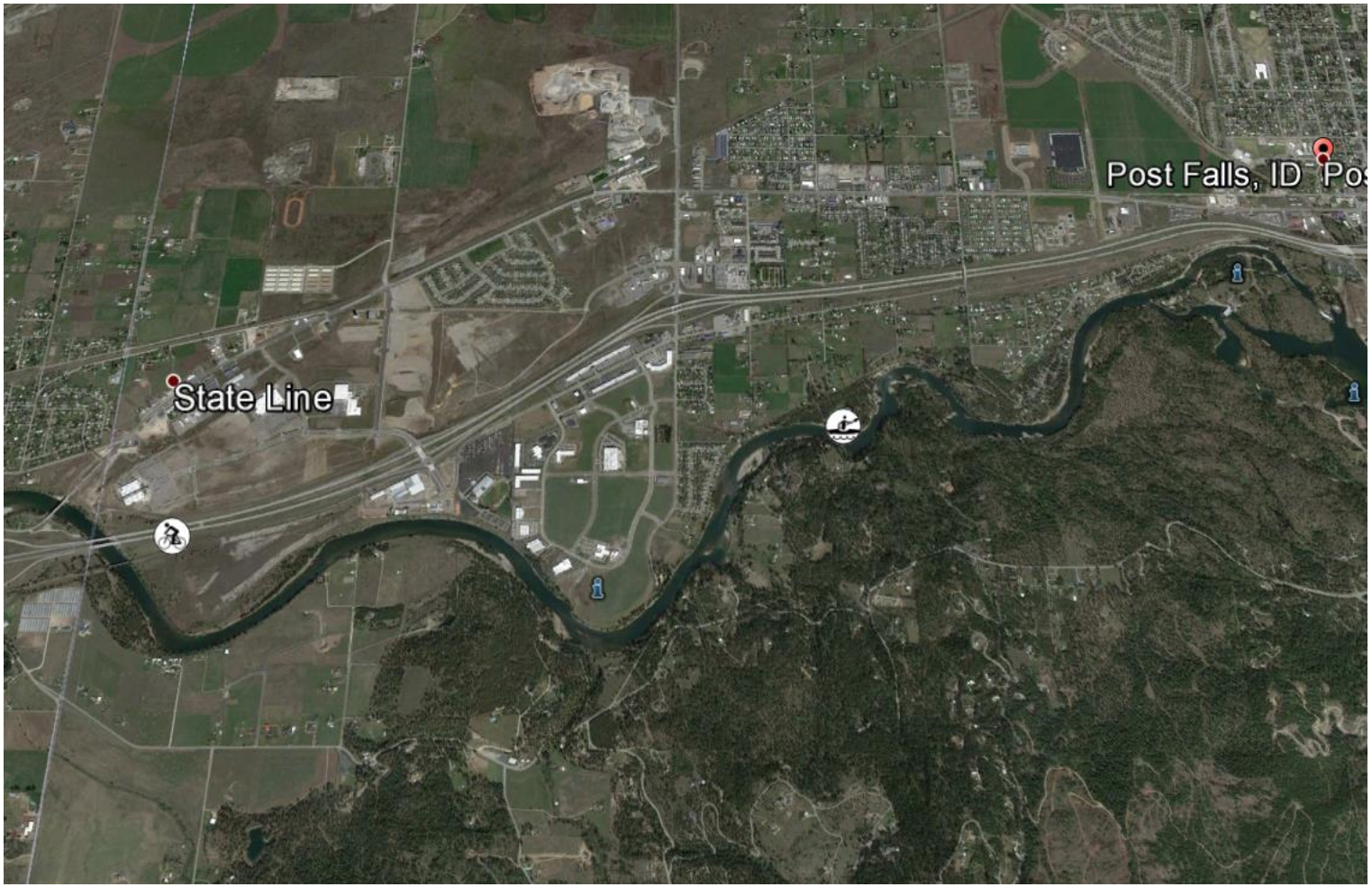
Organization	Area	Name
City of Coeur d' Alene	Waste Water	Don Keil
	Storm Water	Gordon Hobler
City of Post Falls	Waste Water/Stormwater	John Beacham
HARSB	Waste Water	Ken Windram
IDEQ	Administration	Dan Redline
	Management	Tom Herron
	TMDL	Robert Steed
	Water Quality Standards	Don Essig?
EPA	TMDL	~~Martha Turvey~~ (retired)
Kootenai County	Local Government	Rusty Shepard
Panhandle BAG	Mining Representative	Bill Rust
Kootenai Environmental Alliance	Environmental Interest	Adrienne Cronebaugh
Avista Utilities	Water Quality	Meghan Lunney

QAPP

Stateline Station

Stateline Station

Stateline Station



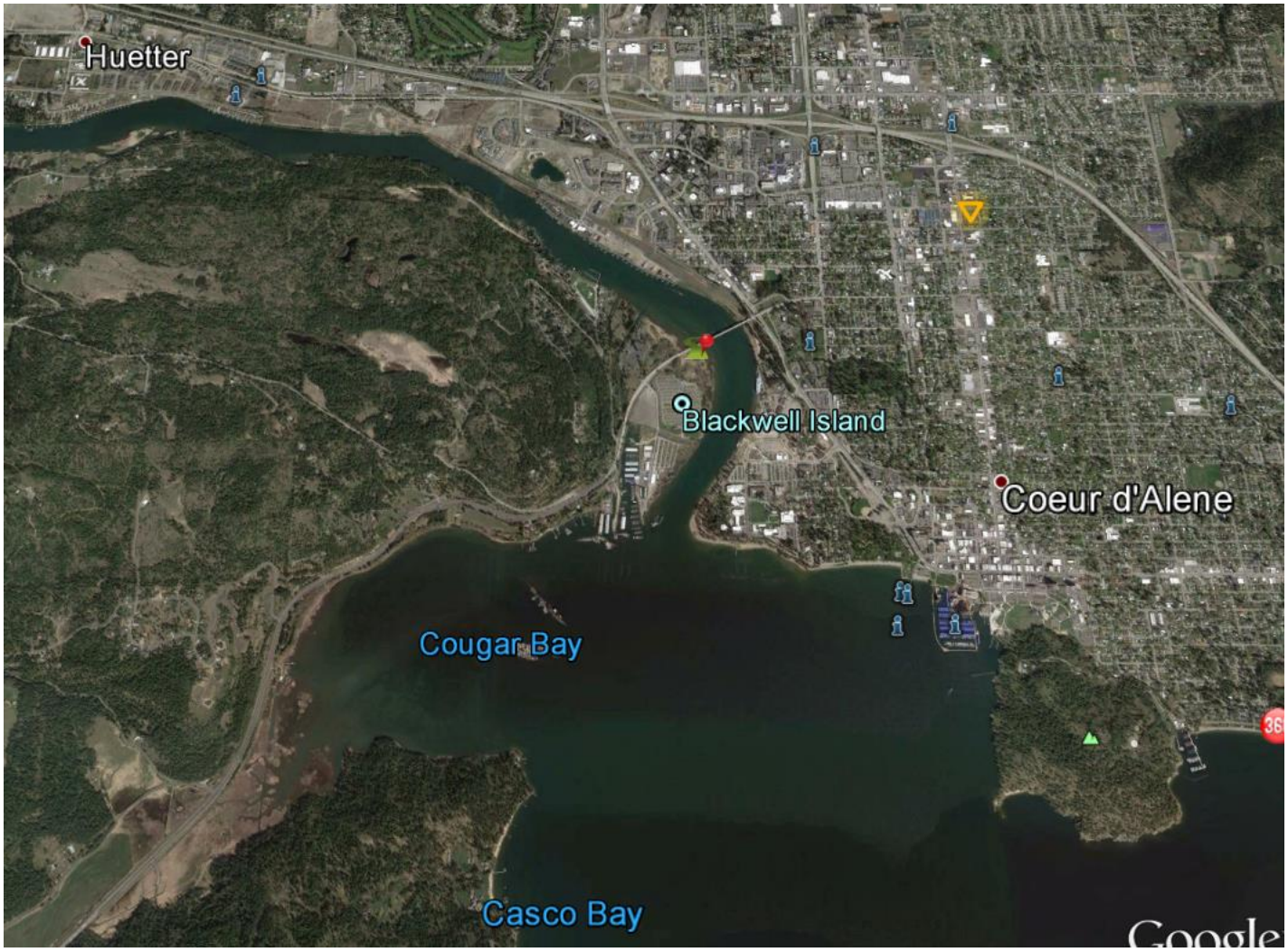
Stateline Station

Stateline Station

NIC Station

NIC Station

NIC Station


Huetter
Blackwell Island
Coeur d'Alene
Cougar Bay
Casco Bay
Google

NIC Station

Four Day Averages

Prep Lab Filtration

Samples

DEQAA628 2 of 2
TIME: 11:29
HNO3
DEQAA628 1 of 2
TIME: 11:29
HNO3
01/29/2015

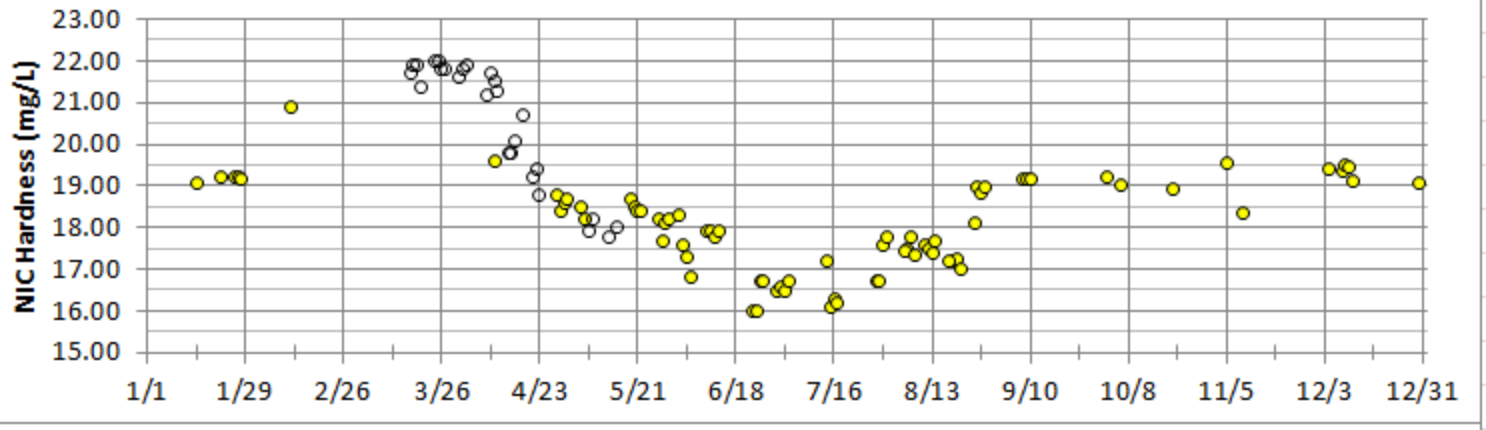
Two Years of Washing Dishes

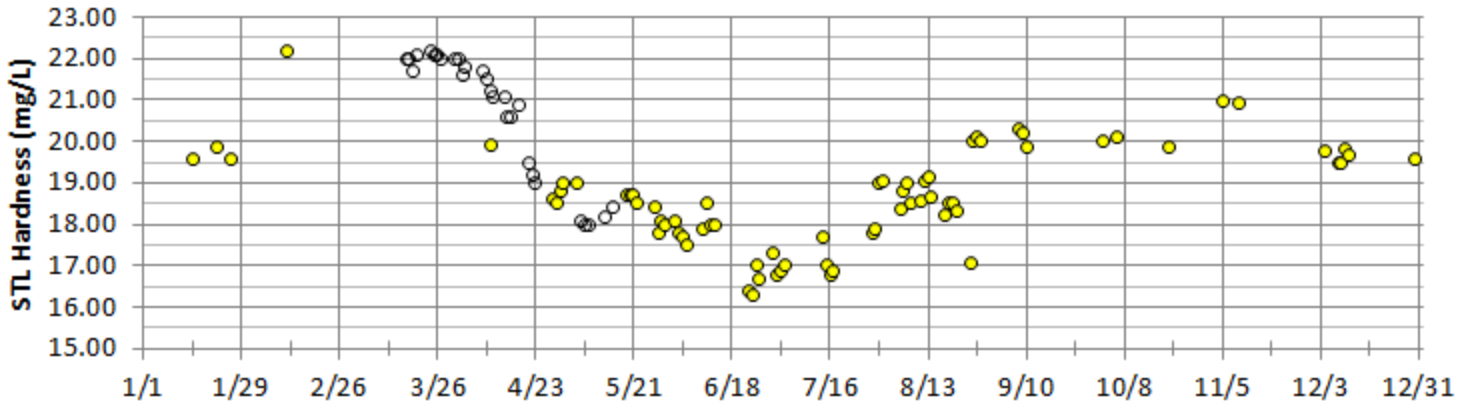
Other Locations

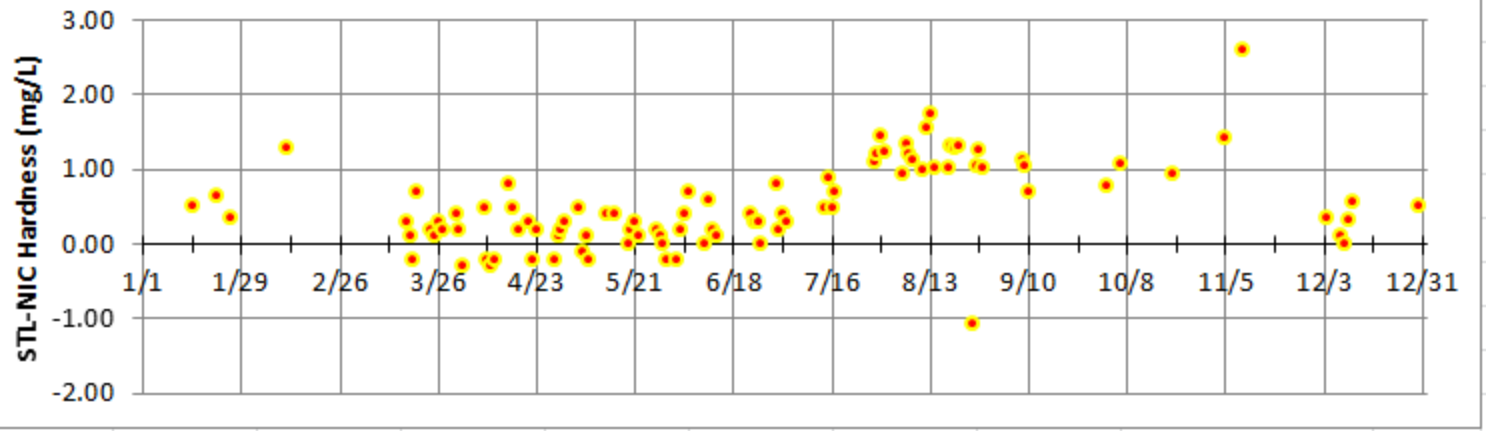
Analytes

Parameter	Reporting Limits (mg/L)	Analytical Method
total Zn	0.0050	EPA 200.8
total Cd	0.00020	
total Pb	0.000250	
dissolved Ca	0.040	EPA 200.7
dissolved Mg	0.200	
dissolved Zn	0.0050	EPA 200.8
dissolved Cd	0.00020	
dissolved Pb	0.000200	

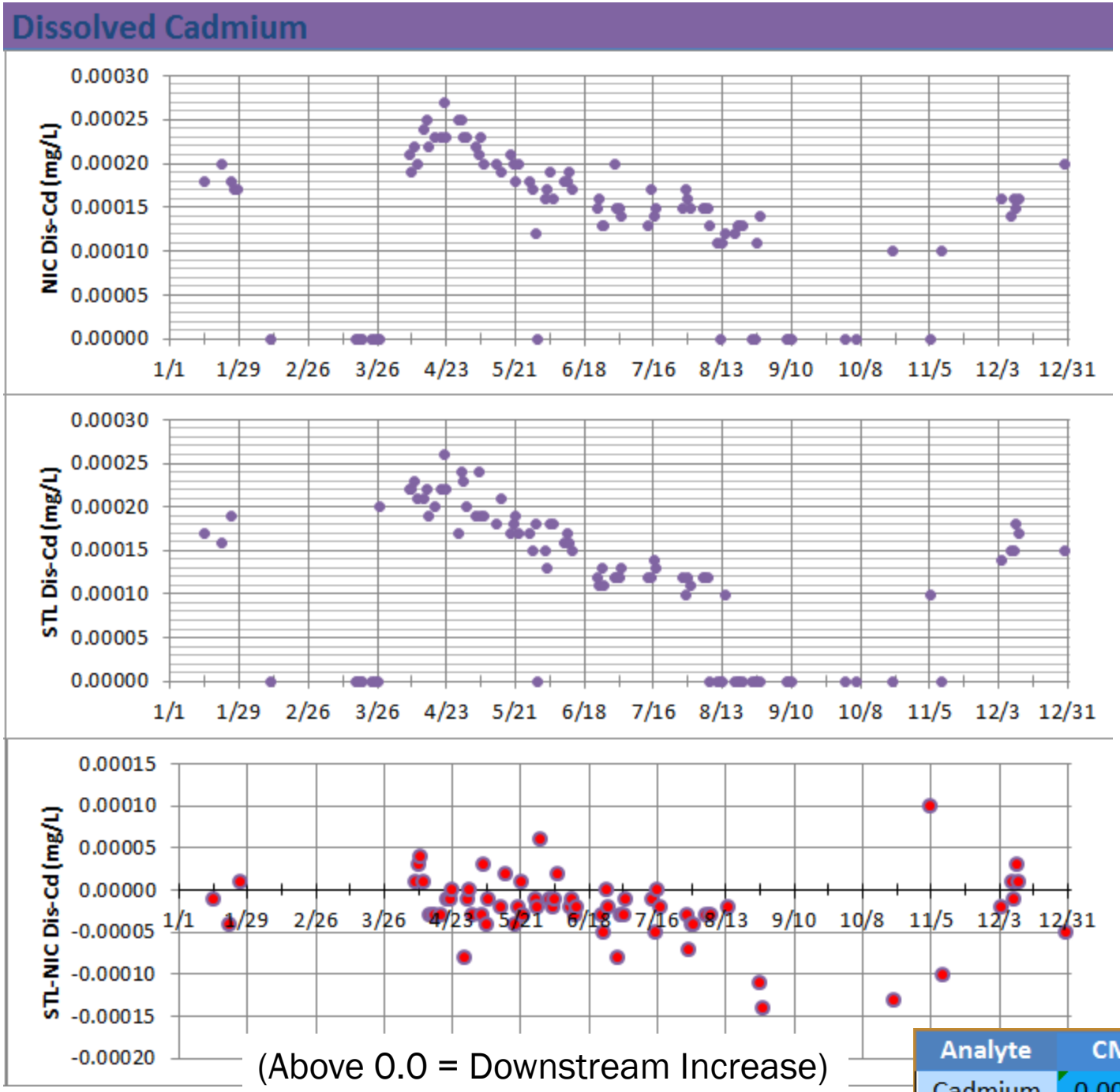
Hardness


NIC Hardness (mg/L)
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
1/1
1/29
2/26
3/26
4/23
5/21
6/18
7/16
8/13
9/10
10/8
11/5
12/3
12/31


STL Hardness (mg/L)
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
1/1
1/29
2/26
3/26
4/23
5/21
6/18
7/16
8/13
9/10
10/8
11/5
12/3
12/31

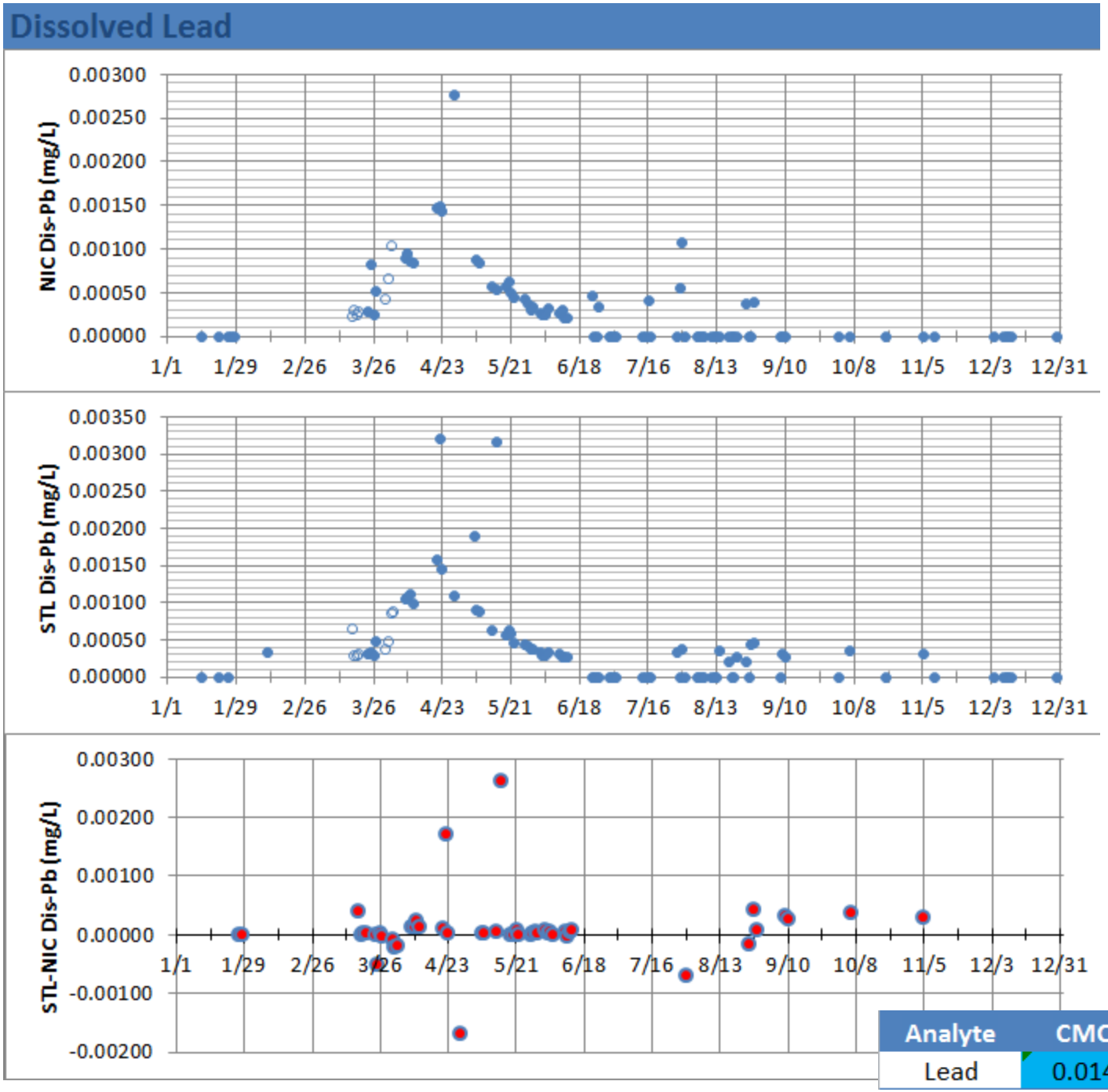

STL-NIC Hardness (mg/L)
3.00
2.00
1.00
0.00
-1.00
-2.00
1/1
1/29
2/26
3/26
4/23
5/21
6/18
7/16
8/13
9/10
10/8
11/5
12/3
12/31

Dis-Cadmium



Analyte	CMC	CCC
Cadmium	0.00035	0.00022

Dis-Lead

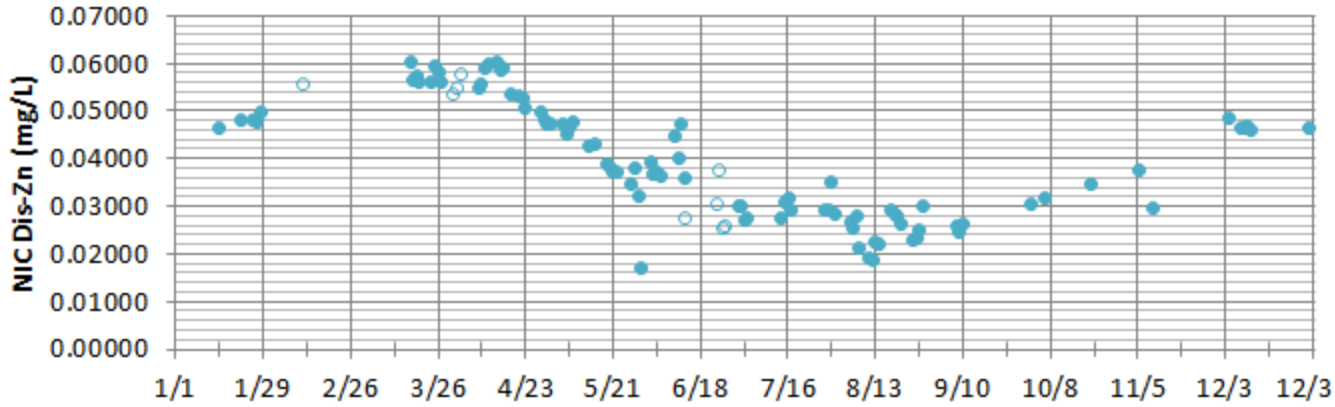


Analyte	CMC	CCC
Lead	0.014	0.00054

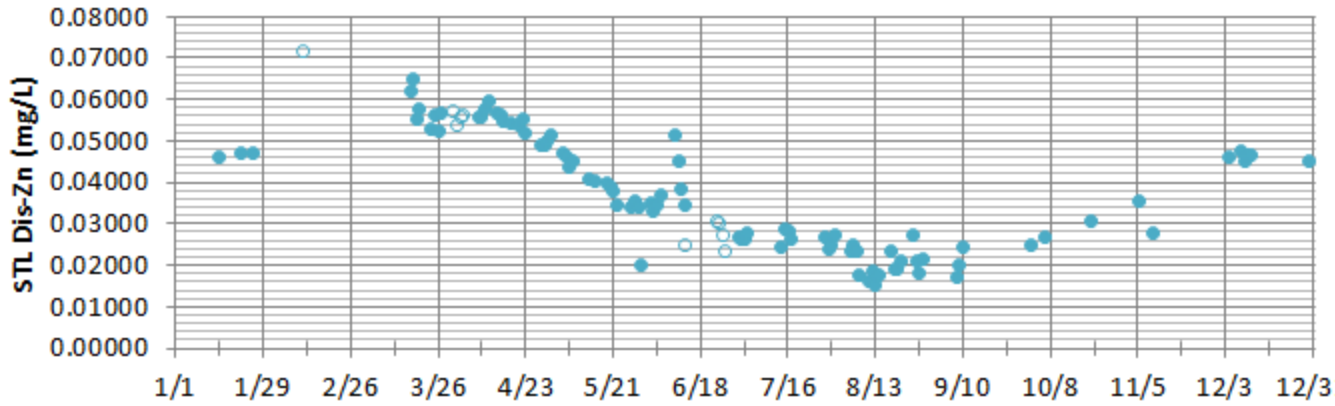
Dis-Zinc

Dissolved Zinc

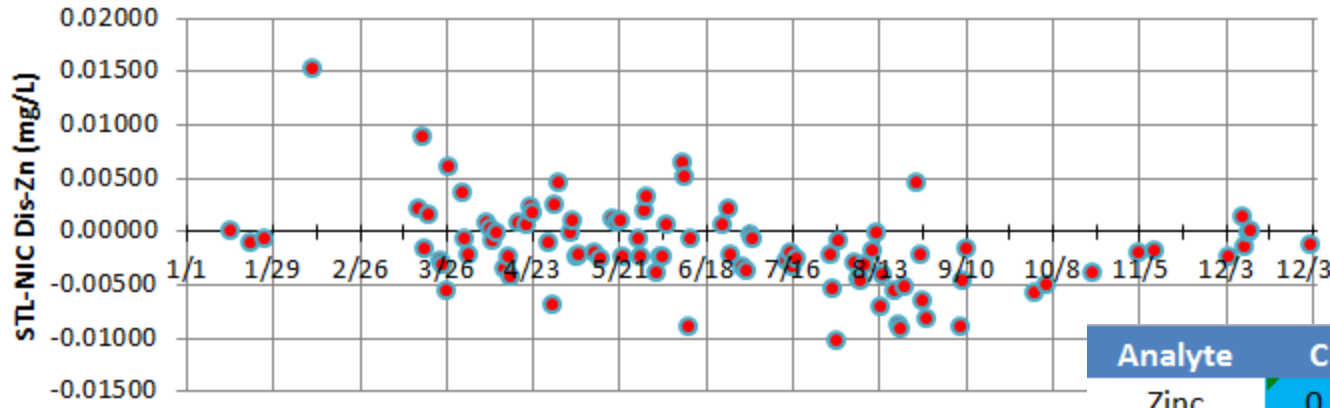
Upstream



Downstream

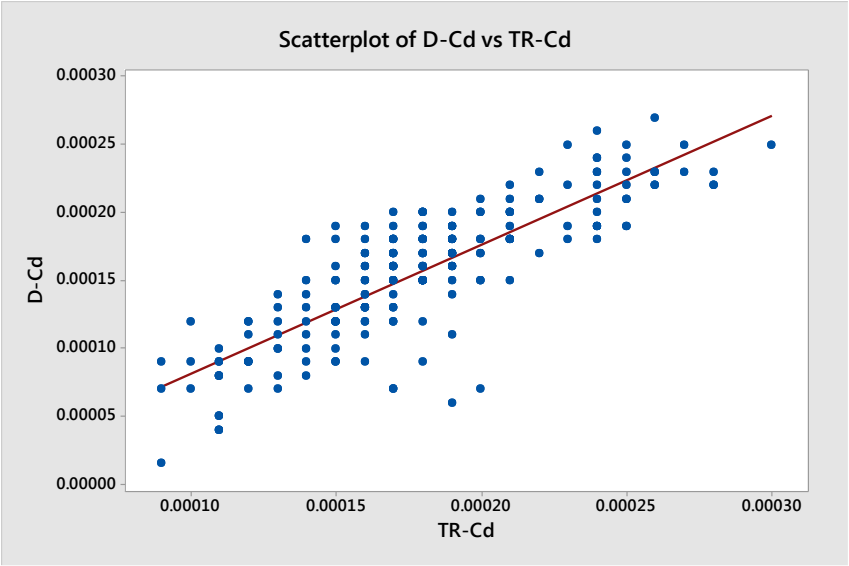


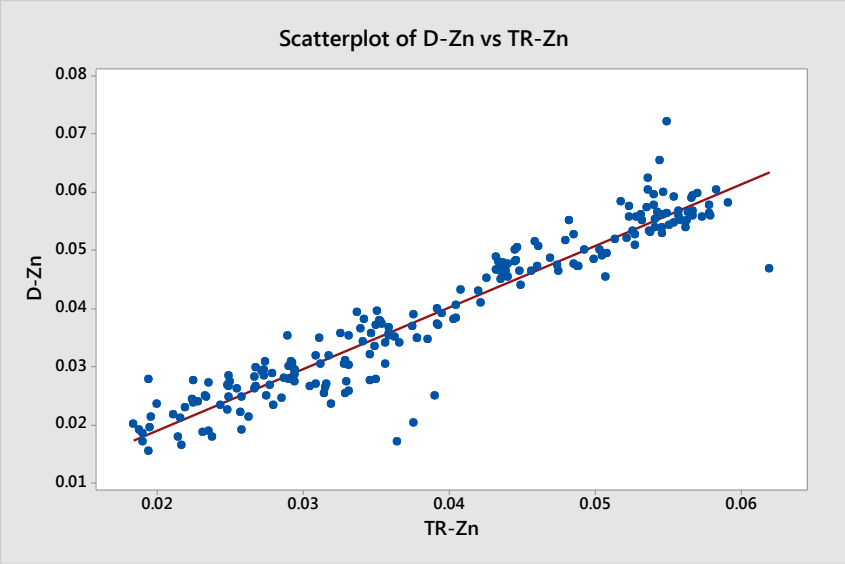
Change

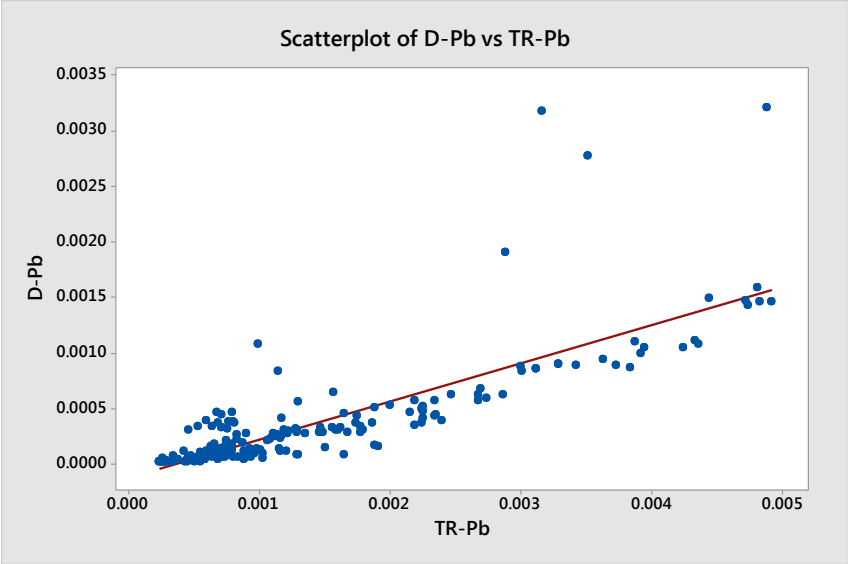


Analyte	CMC	CCC
Zinc	0.036	0.036

Dissolved to Total Recoverable Regressions







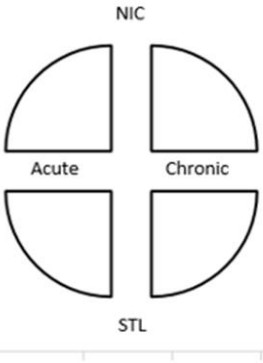
Criteria Compliance

Station	Analyte	Criterion	Ascending	Descending	Lake Level	Drawdown	Rain on Snow
NIC	Dis-Cd	Acute (CMC)	no 0/32	no 0/35	no 0/21	no 0/5	no 0/14
STL	Dis-Cd	Acute (CMC)	no 0/33	no 0/35	no 0/21	no 0/5	no 0/13
NIC	Dis-Pb	Acute (CMC)	no 0/32	no 0/35	no 0/21	no 0/5	no 0/14
STL	Dis-Pb	Acute (CMC)	no 0/33	no 0/35	no 0/21	no 0/5	no 0/13
NIC	Dis-Zn	Acute (CMC)	**yes 32/32**	**yes 15/35**	no 0/21	**yes 1/5**	**yes 14/14**
STL	Dis-Zn	Acute (CMC)	**yes 33/33**	**yes 9/35**	no 0/21	no 0/5	**yes 13/13**

Station	Analyte	Criterion	Ascending	Descending	Lake Level	Drawdown	Rain on Snow
NIC	Dis-Cd	Chronic (CCC)	**yes 4/7**	**yes 1/11**	no 0/8	no 0/5†	no 0/2
STL	Dis-Cd	Chronic (CCC)	no 0/9	no 0/12	no 0/7	no 0/5†	no 0/2
NIC	Dis-Pb	Chronic (CCC)	**yes 2/4**	**yes 2/10**	no 0/8	no 0/5†	no 0/2
STL	Dis-Pb	Chronic (CCC)	**yes 3/5**	**yes 1/11**	no 0/7	no 0/5†	no 0/2
NIC	Dis-Zn	Chronic (CCC)	**yes 7/7**	**yes 4/11**	no 0/8	**yes 1/5†**	**yes 2/2**
STL	Dis-Zn	Chronic (CCC)	**yes 9/9**	**yes 2/12**	no 0/7	no 0/5†	**yes 2/2**

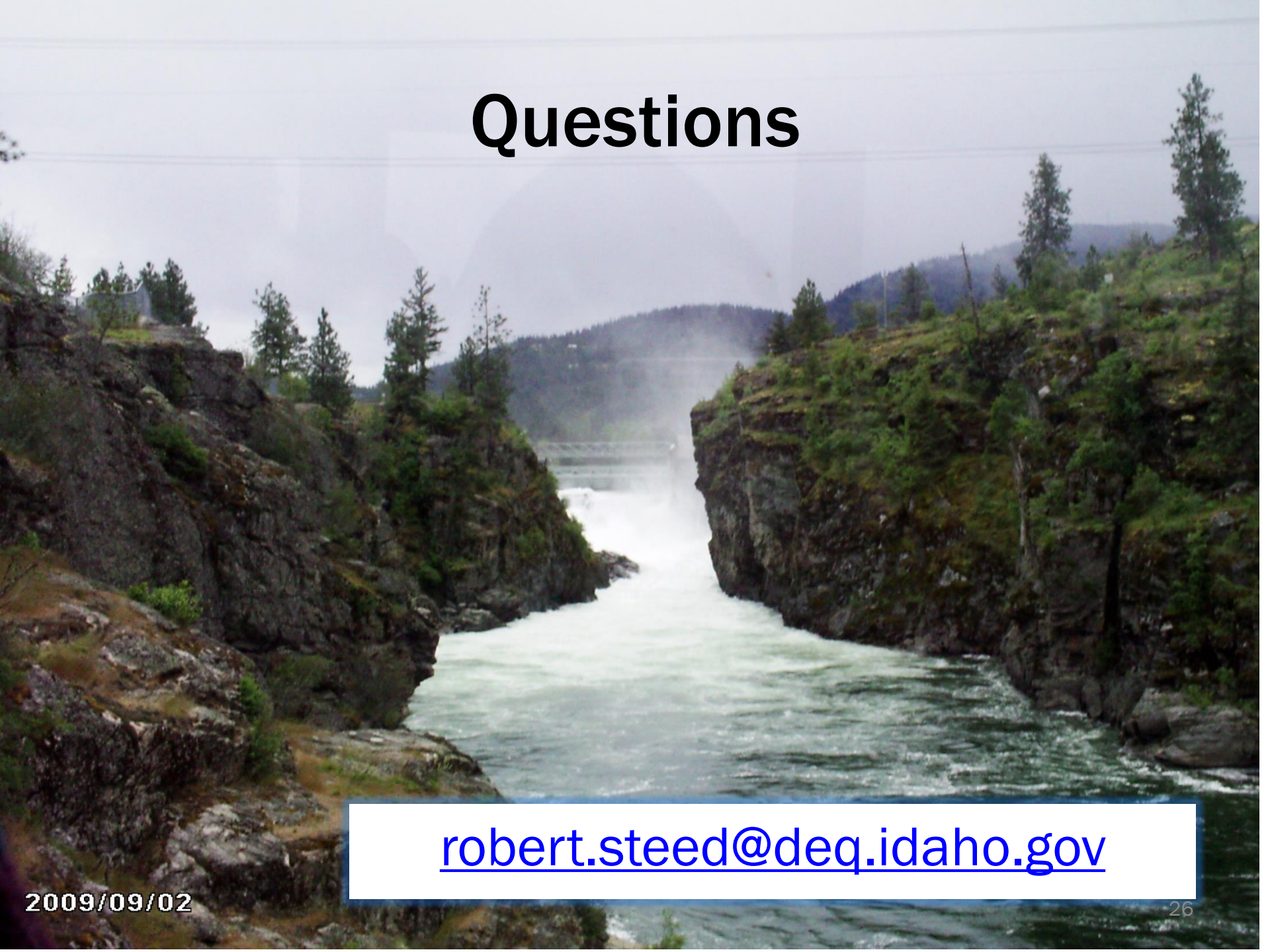
Likely Outcomes

Total Mass Daily Load Criteria by Cycle



	Ascending	Descending	Regulated	Draw Down	Rain on Snow
Cd Cadmium					
Pb Lead					
Zn Zinc					

Questions



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Next Steps

- Determine Next Meeting(s)
- Develop Agenda
- Call for Data
- Review Strategy Paper
- WAG
  - Operating Procedures
  - List of named members for BAG