Regulation 85 – Nutrients Management Control

Stakeholder Meeting

January 26, 2015

COLORADO
Department of Public Health & Environment

Agenda

- Introduction, agenda review, and meeting objectives
- Re-cap of Sept. meeting & triennial review process
- Monitoring/data submittal update & form
- CLEAN Center Update
- Data Analysis
- Brainstorm data update
- Stormwater Report
- Next Steps

Re-Cap of September Meeting & Triennial Review Process

September Meeting

- Reviewed the Reg. 85 Stakeholder Process
- Overview of the implementation of Reg. 85
- Monitoring Requirement Update
- Brainstorming

Triennial Review Informational Hearing

Sep. 2015

- Memo to WQCC summarizing Reg. 85 implementation.
- Recommended next steps.

Oct. 2015

- TRIH.
- Public input.
- WQCC decides if regulation should be updated.

Future

- If WQCC decides regulation should be updated will schedule a RMH.

Regulation 85 RMH would follow normal rulemaking process

- Notice (WQCC and Colorado Register)
- Party status
- Proponents prehearing statements
- Responsive prehearing statements
- Rebuttal statements
- Prehearing conference
- Rulemaking hearing

Triennial Review Informational Workshop Schedule

Effluent Limits	• Report out • June 2015
Monitoring	• Report out • June 2015
Data Summary & Analysis	• Two years of monitoring data • August 2015
Recommendations	• Implementation of regulation is going OK! • August/September 2015
Regulation 31	• Report out • August 2015

Cooling Tower Reports

- Due February 28, 2015 to WQCD
- Two year report Nov. 2012 - Oct. 2014
- Start working with WQCD to get those reports in.

2014 Data Submittal

- 2014 nutrient data due April 15, 2015
- New user friendly form available
  - All facilities received the form in Jan., most pre-populated
- WQCD encourages early submission!!!
  - Start working on submitting it NOW!

Timeline

Now - May	• Data validation/QA
June	• Data validation/QA • Publish Data to STORET
July	• Data Analysis
August	• Data Analysis
September	• WQCD report to WQCC
October	• WQCC Reg. 85 TRIH

2014 Nutrient Data Submittal Update & Presentation of Form

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CLEAN Center Update

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CLEAN Center Update

- Contracting with CSU/CLEAN Center to develop:
  - basic nutrient assessment tools
  - statewide nutrient model
  - decision support tools for nutrients
- 2/17/15 CLEAN Center Stakeholder Meeting at CSU Fort Collins

Data Assessment Summary

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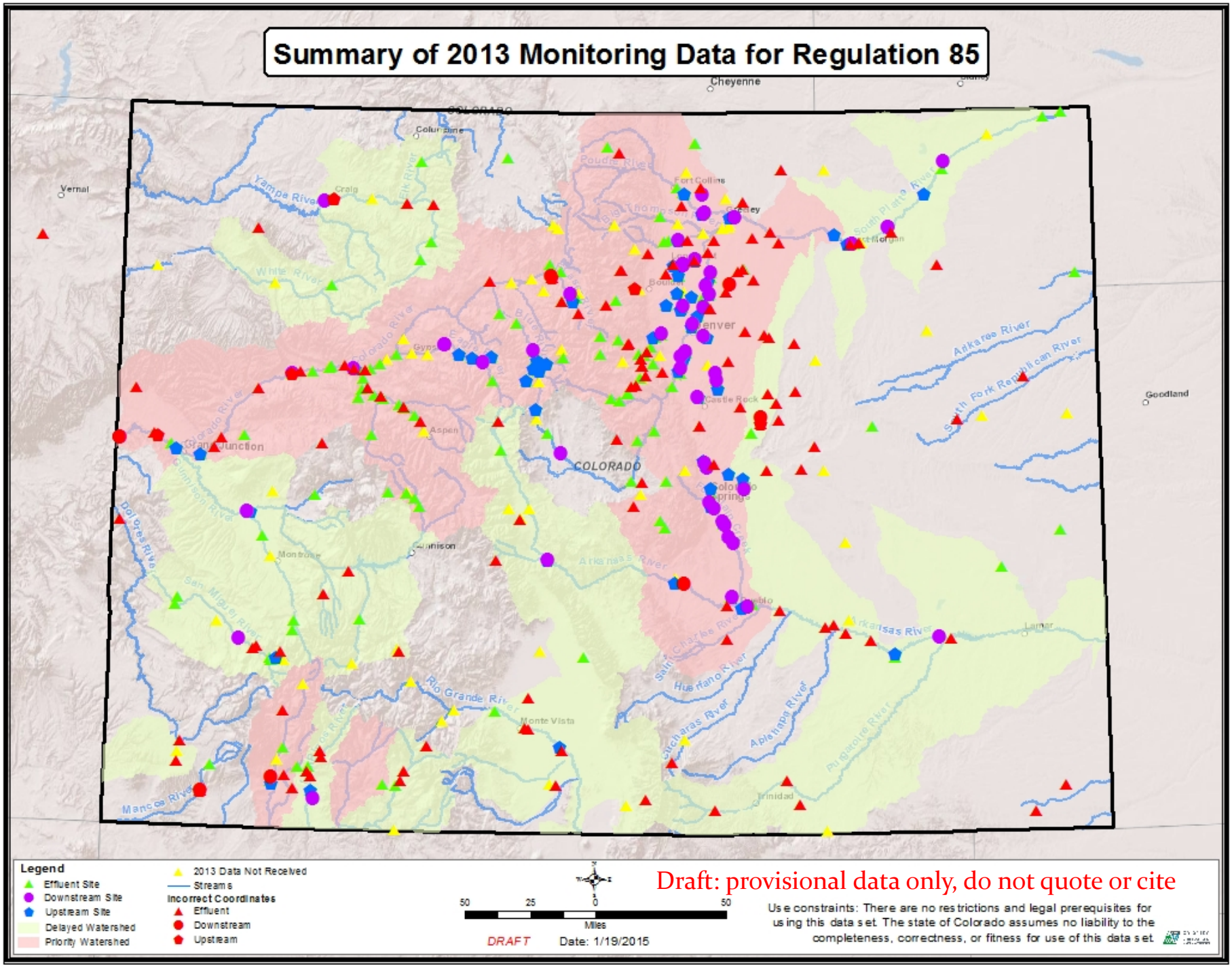
Summary of 2013 Monitoring Data for Regulation 85



Call for Help With Data Quality Check

143 out 430 Stations have questionable coordinates

2014-2015 stakeholder meeting materials

Jan. 26, 2015

CDPHE, Bldg A, Sabin-Cleere, 1:30-4:30 p.m.

1. Go to Website

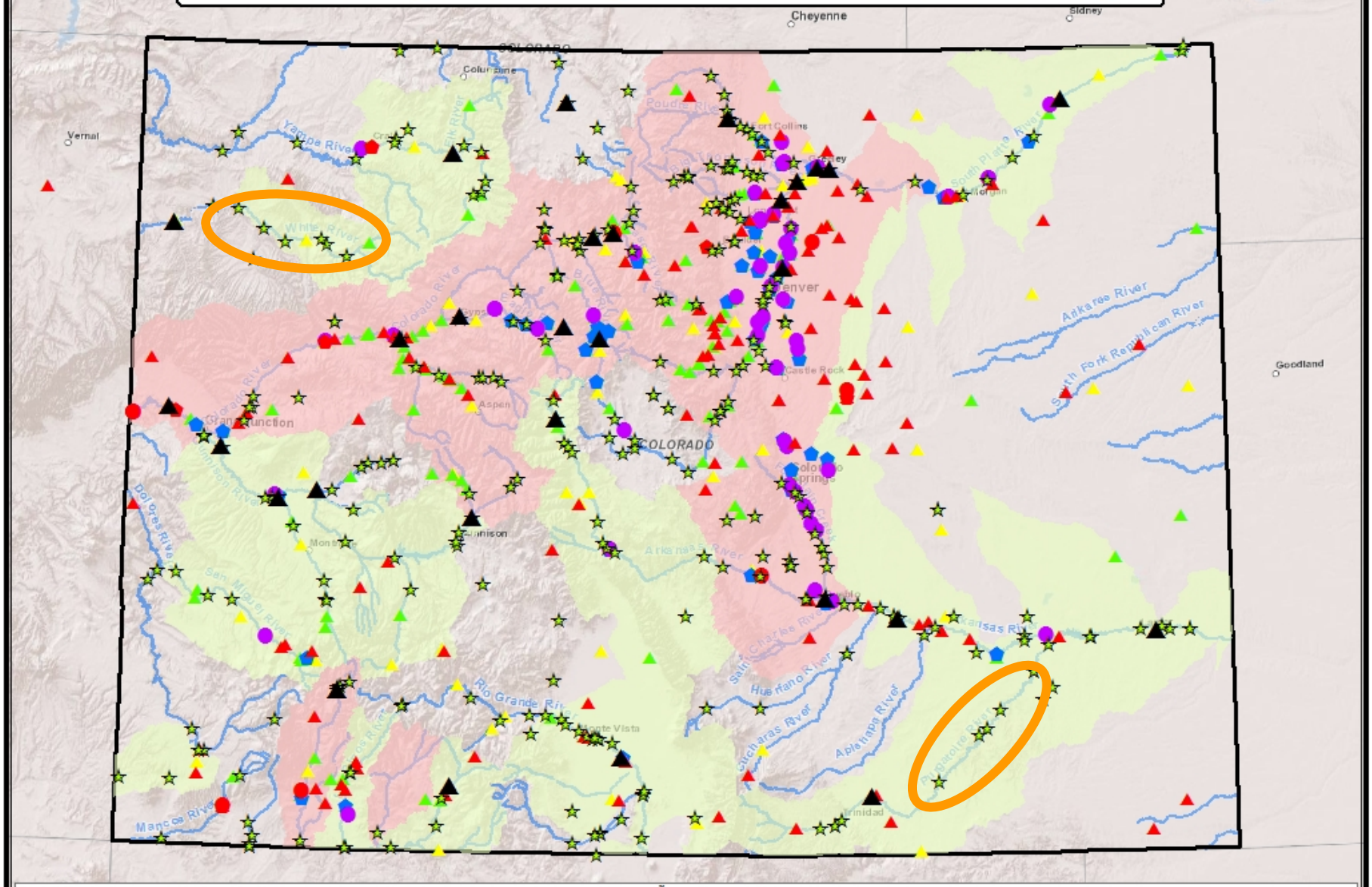
- Agenda.
- Memo: Reg. 85 Triennial Review Information Hearing overview and schedule.
- Updated analysis opportunities: group brainstorm list (10/20/14).
- The division has identified multiple nutrient monitoring stations which, when plotted on a map, do not fall on or very near a body of water and requests that individual facilities check the locations of their monitoring stations.
  - ***2*** List of monitoring stations for which the location is questioned by the division.
  - ***3*** Instructions for checking the coordinates of monitoring locations.

	A	B	C	D	E	F
1	Permit	Station ID	Provided Longitude	Provided Latitude	Description	STORET Search ID
2	CO0000001	CO0000001-001A	-105.286	39.544	Wastewater Treatment Plant Effluent	21COL001_WQX-CO0000001-001A
3	CO0000012	CO0000012-001A	-108.35272	39.100112	Wastewater Treatment Plant Effluent	21COL001_WQX-CO0000012-001A

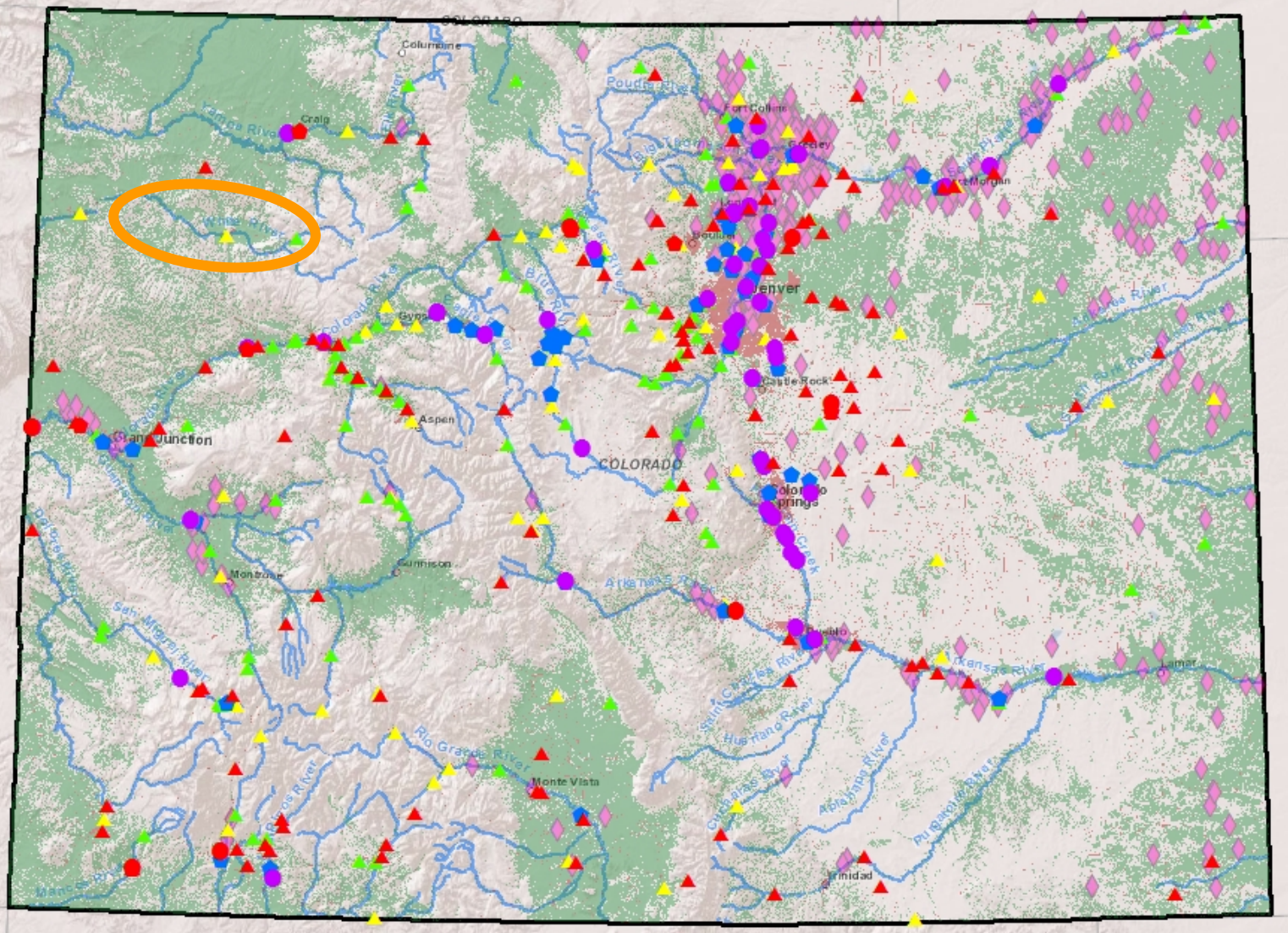
4 Email corrections to CDPHE_Nutrients@state.co.us

https://www.colorado.gov/pacific/cdphe/reg-85-nutrients-2015-triennial-review-0

2013 Monitoring Data for Regulation 85 - Trend Sites and Gages



2013 Monitoring Data for Regulation 85 and Potential Nonpoint Source Contributions



Legend

- Effluent Site
- Downstream Site
- Upstream Site
- 2013 Data Not Received
- Streams

Incorrect Coordinates

- Effluent
- Downstream
- Upstream

- Cafo Facility
- Agricultural Lands
- Developed Lands

50 25 0 50
Miles

DRAFT

Date: 1/19/2015

Draft: provisional data only, do not quote or cite

Use constraints: There are no restrictions and legal prerequisites for using this data set. The state of Colorado assumes no liability to the completeness, correctness, or fitness for use of this data set.

Preliminary Data Analysis

- Used subset of 2013 data from ~250 facilities publically available in STORET.
- Looking effluent data vs effluent limits in Reg. 85.
- Instream vs. Interim Values in Reg. 31.

Parameter	Annual Median	95th %
TP (mg/L)	1.0 (0.7)[1]	2.5 (1.75)
TIN (mg/L)	15 (7)	20 (14)

1 – limit applied when preliminary effluent limits requested before (after) May 31, 2012

Parameter[1]	Rivers and Streams	
	Cold	Warm
TP (mg/L)	0.110	0.170
TN (mg/L)	1.250	2.010

1 – allowable exceedance frequency 1-in-5 years

Number of effluent samples by size of facility

Size class (MGD)	# of facilities with data in STORET	Expected 2013 data (from 250 facilities in STORET)	Received 2013 data (from 250 facilities in STORET)[1]	Expected 2014 data (ALL facilities)	Total data for TRIH
<0.05	75	375	376	726	1102
0.05 – 0.19	58	290	304	462	766
0.2 - 0.49	35	175	220	306	526
0.5 - 0.99	24	130	155	222	377
1.0 - 4.99	44	405	575	888	1463
>5.0	14	150	358	276	634

1 – Numbers reflect count of individual total phosphorus data points

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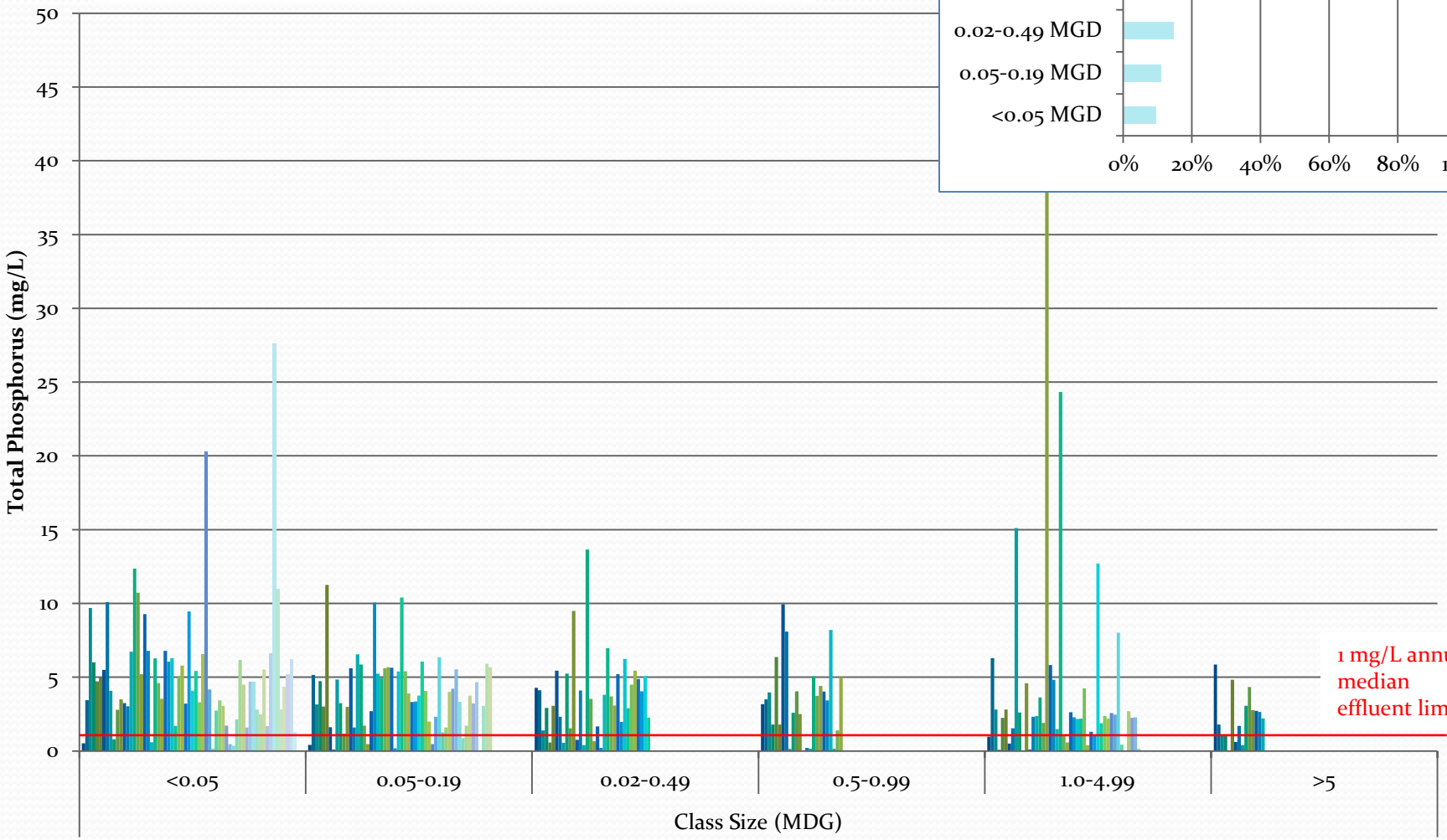
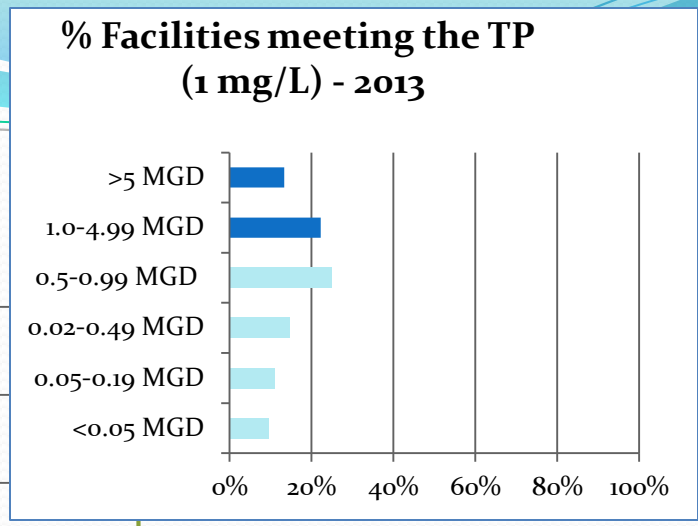
Total Phosphorus - 2013 Effluent Data Organized by Size (MDG)





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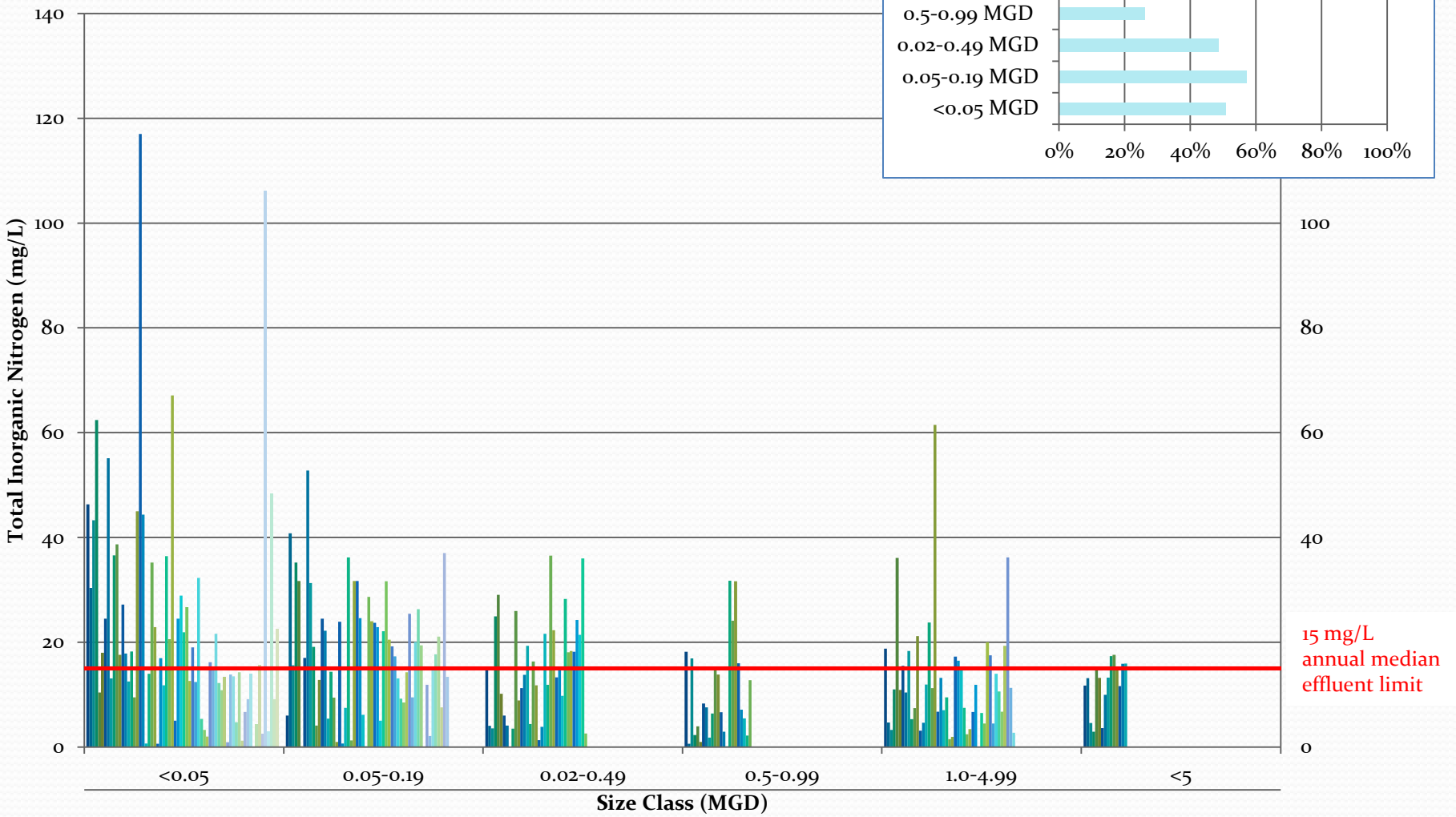
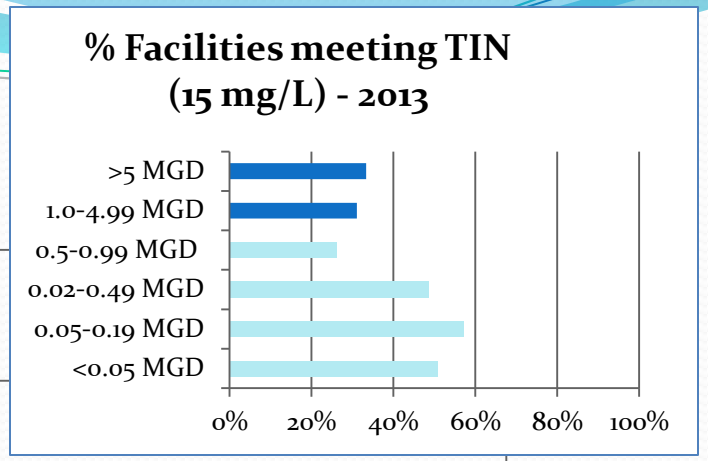
Total Inorganic Nitrogen - 2013 Effluent Data Organized by Size (MGD)





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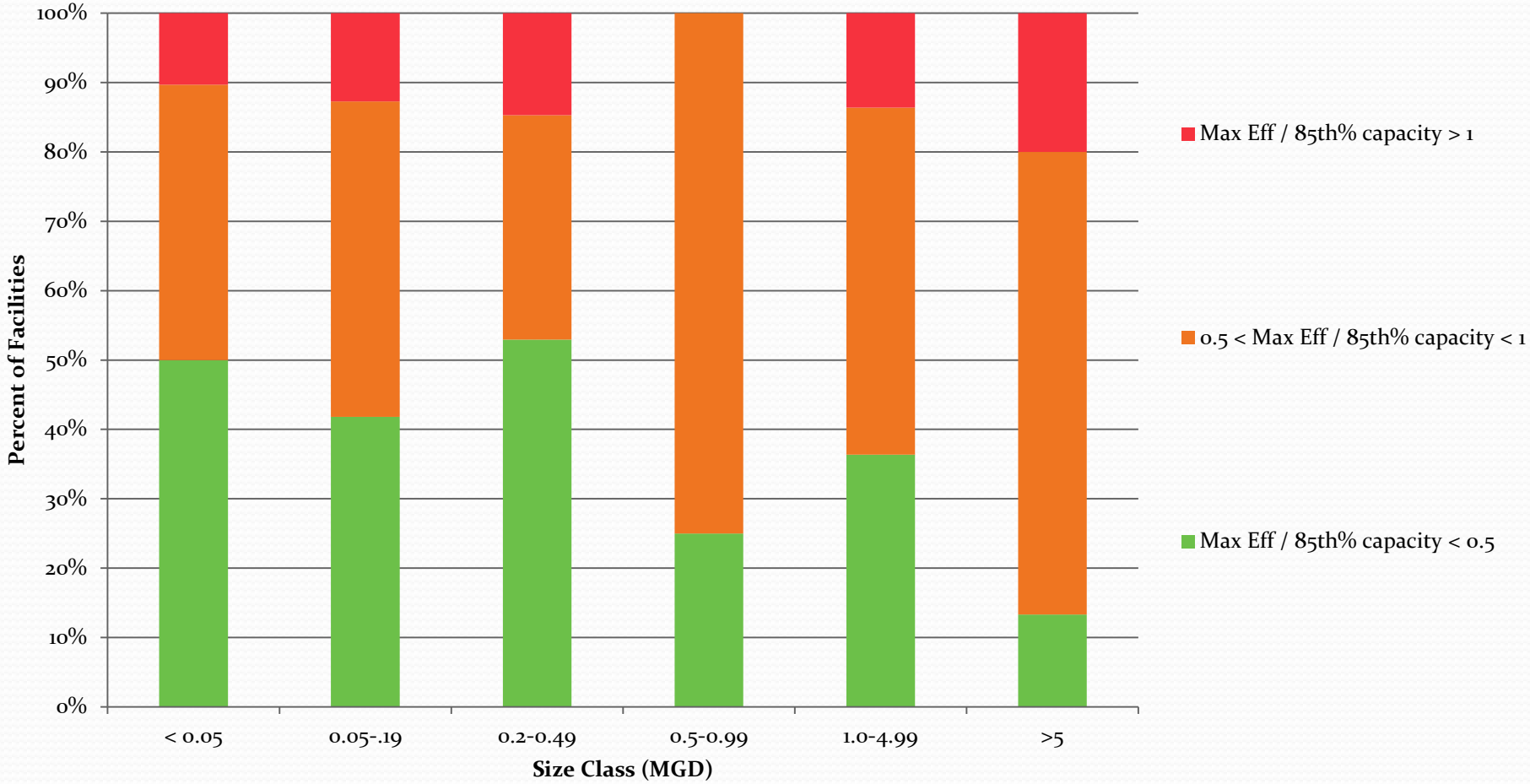
Percent of Facilities Reaching Design Capacity
Max. Effluent Flow over 85th % Capacity
(Source: 2013 Reg. 85 data reports)



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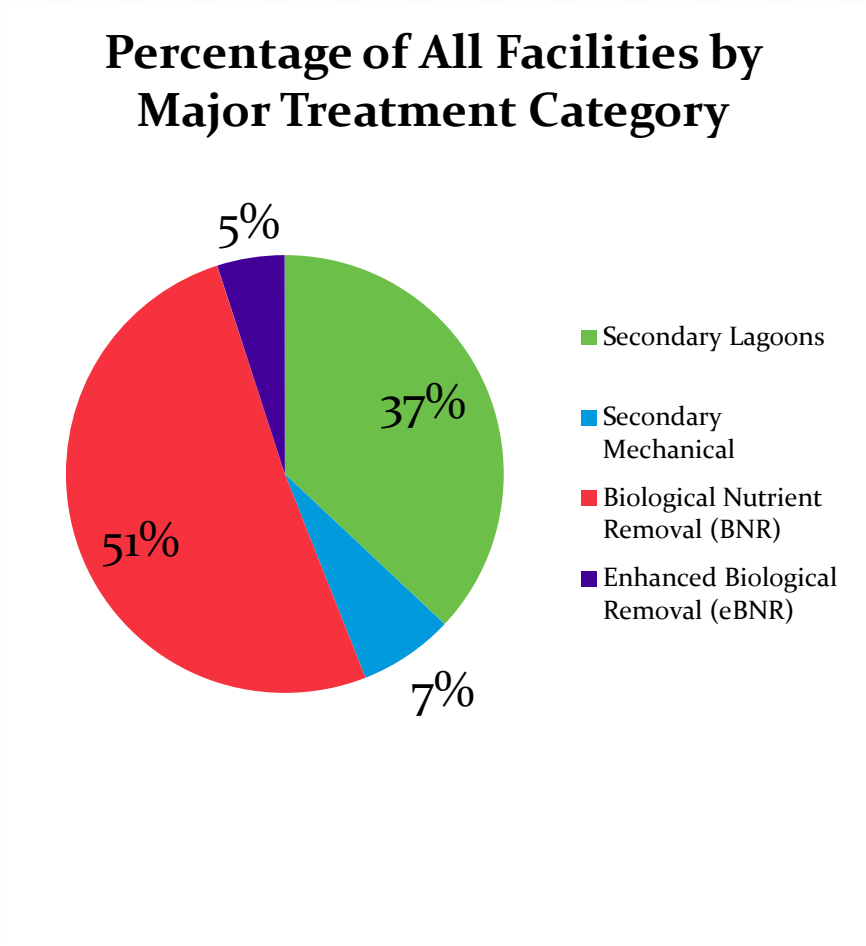
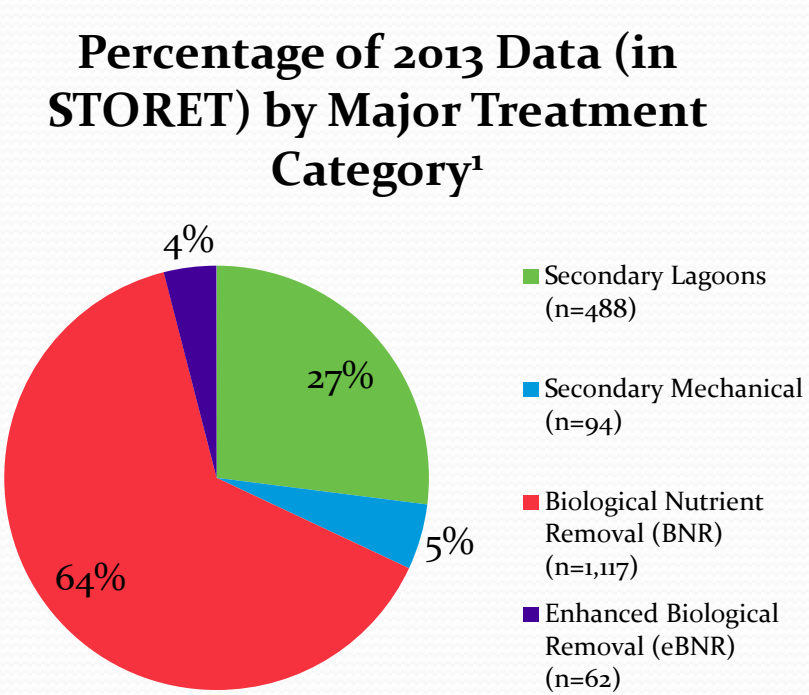
Facilities by Treatment Category





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1 – Numbers reflect count of individual total phosphorus data points

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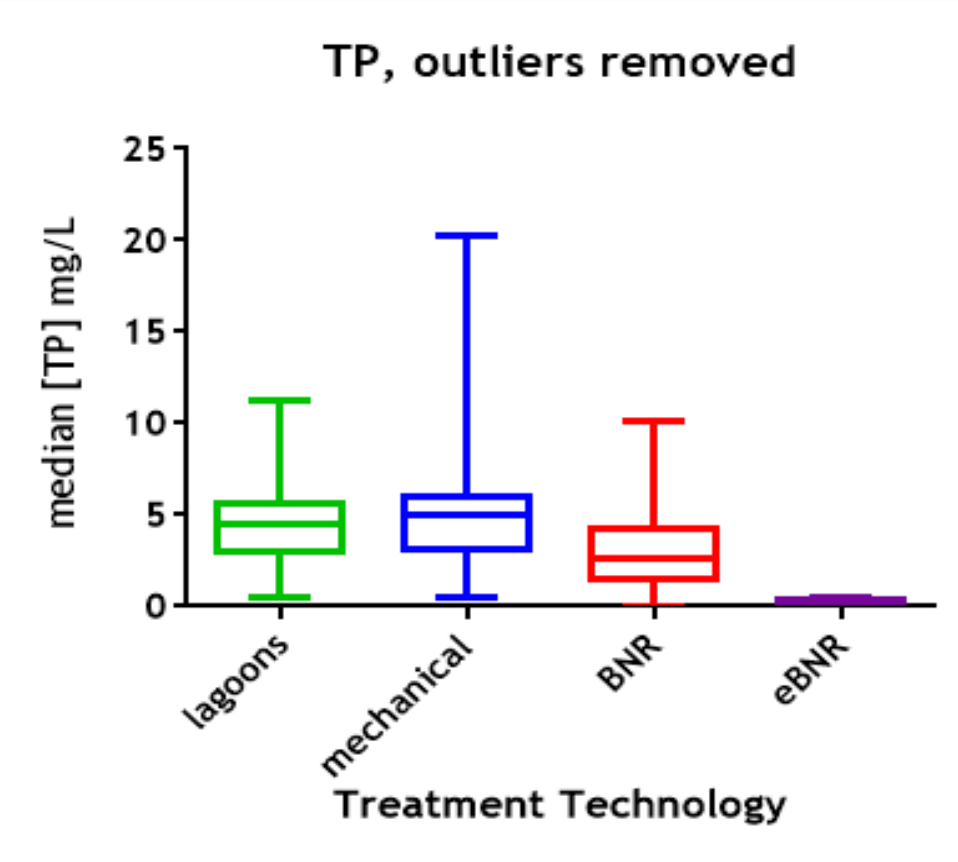
Effluent Quality (Total Phosphorus) by Treatment Category



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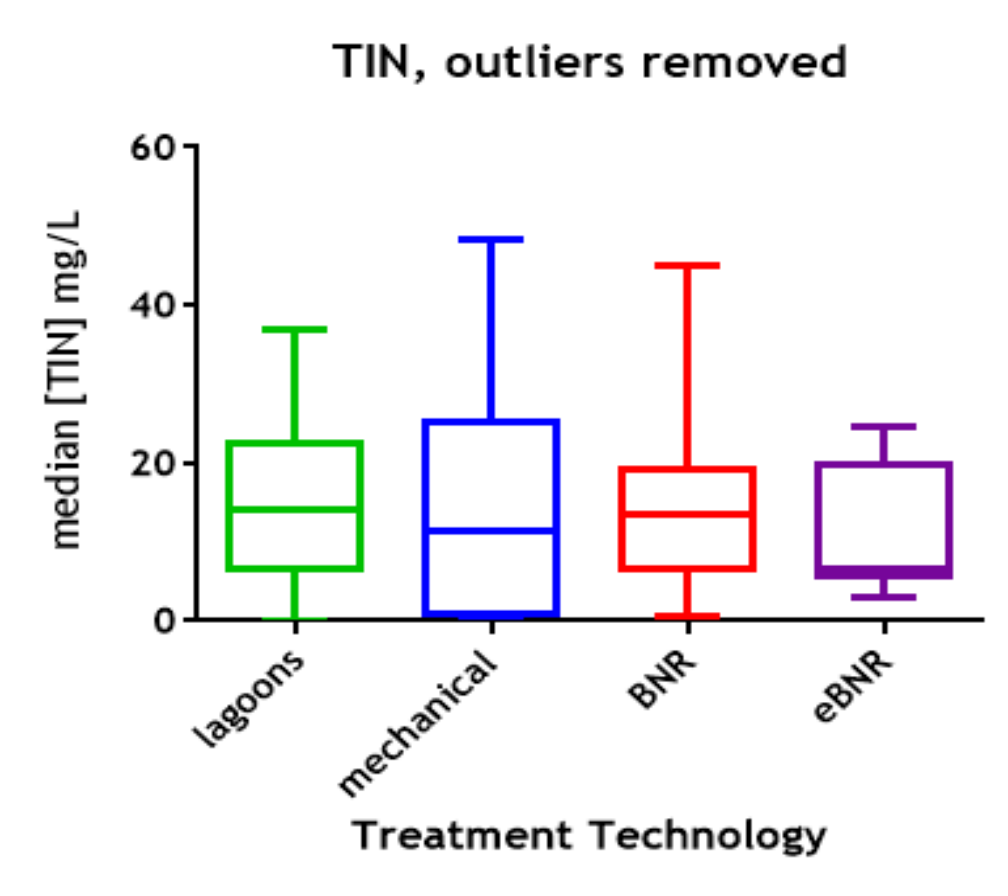
Effluent Quality (Total Inorganic Nitrogen) by Treatment Category



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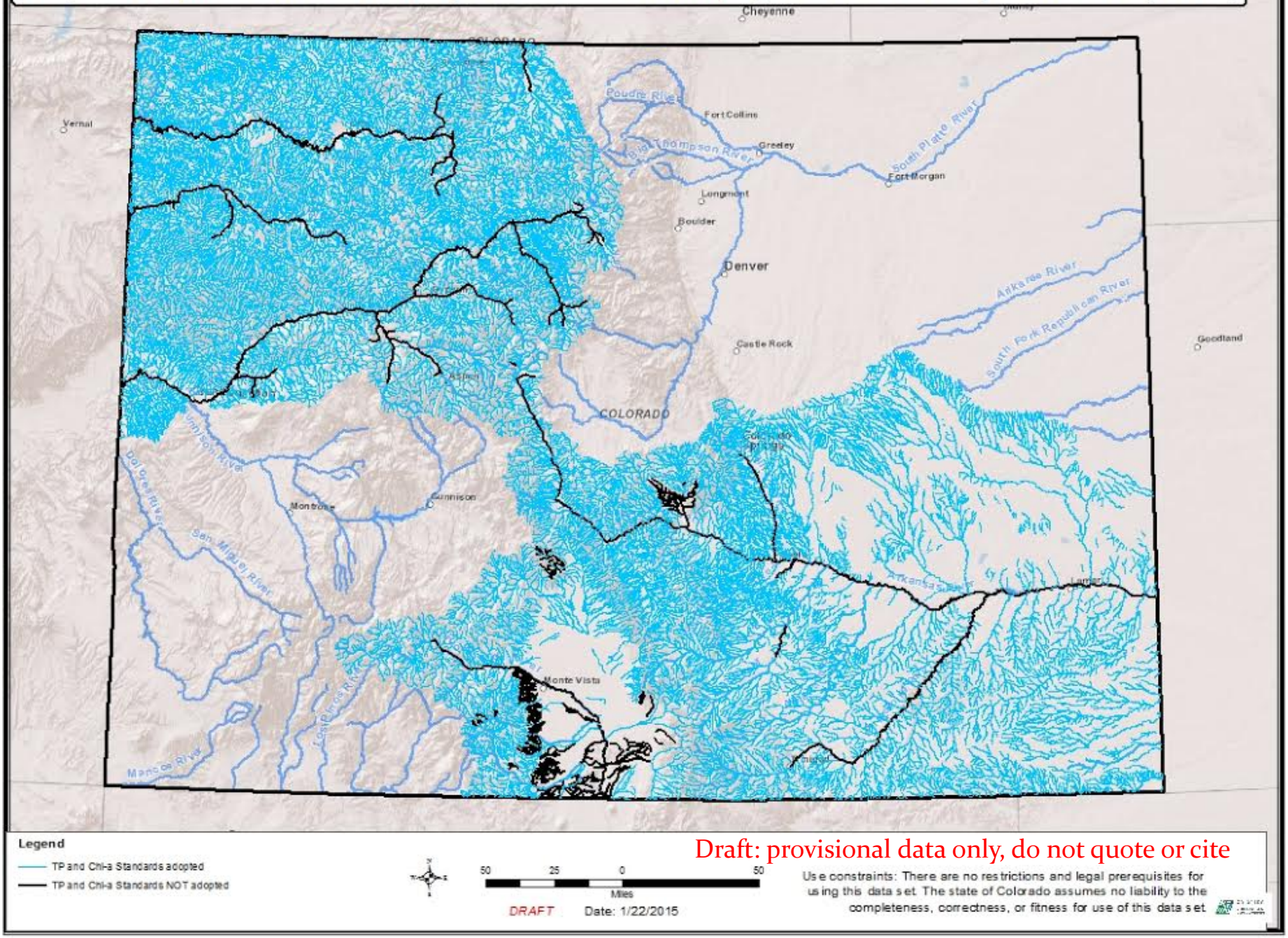
WQCC Adoption of Total Phosphorus and Chlorophyll a Standards (as of Jan 1, 2015)



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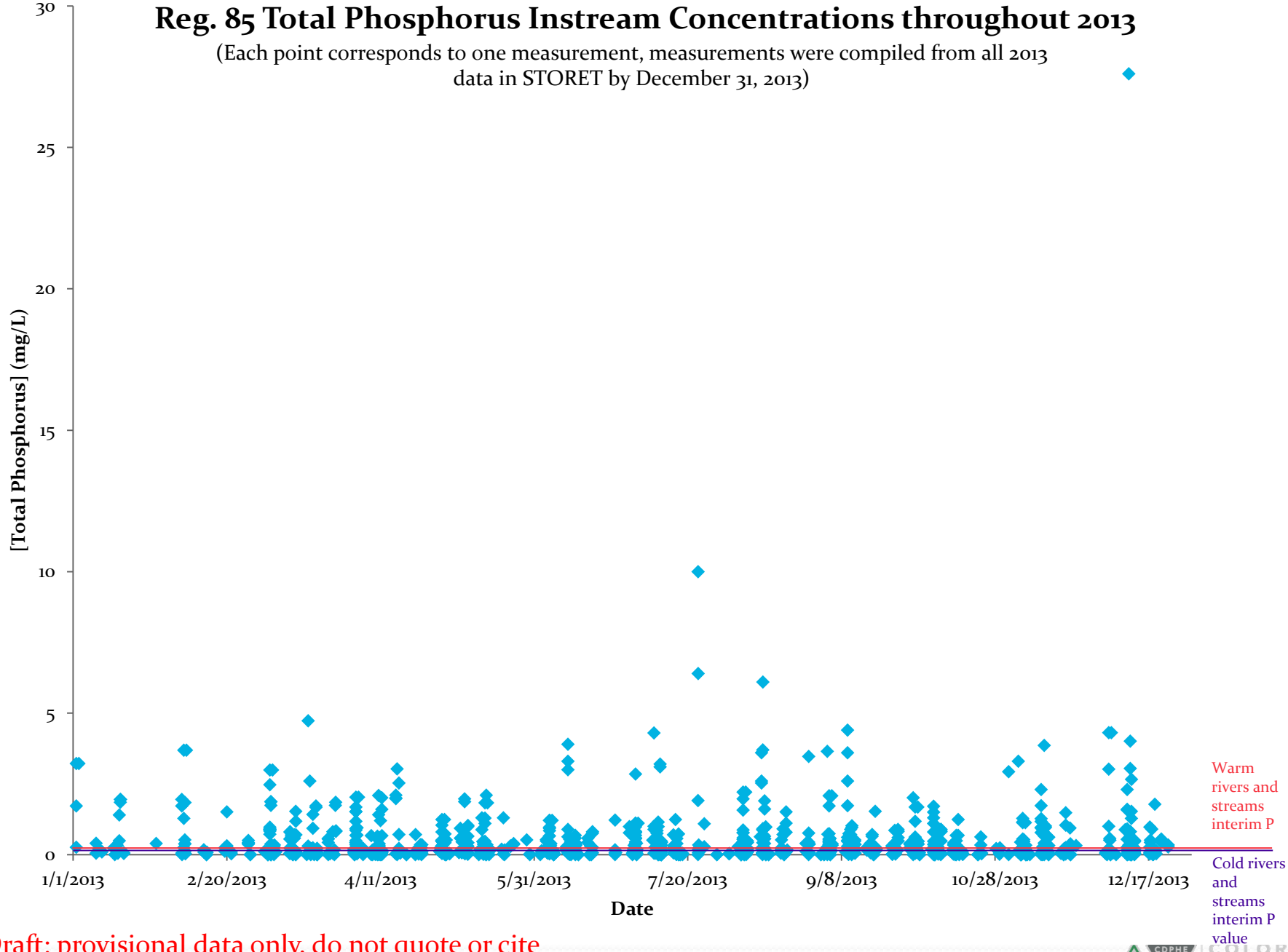
Reg. 85 Total Phosphorus Instream Concentrations throughout 2013

(Each point corresponds to one measurement, measurements were compiled from all 2013 data in STORET by December 31, 2013)



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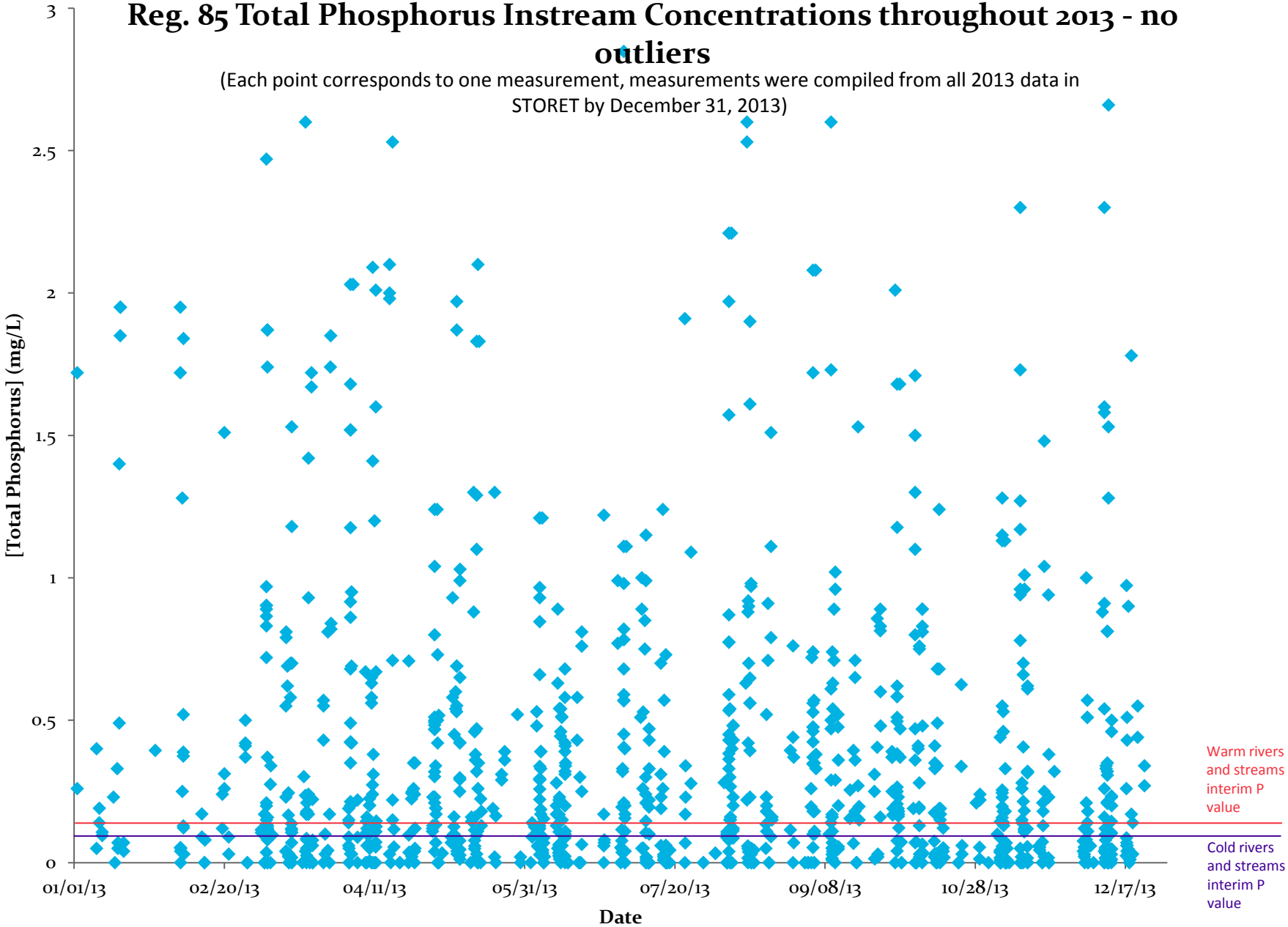
Reg. 85 Total Phosphorus Instream Concentrations throughout 2013 - no outliers

(Each point corresponds to one measurement, measurements were compiled from all 2013 data in STORET by December 31, 2013)



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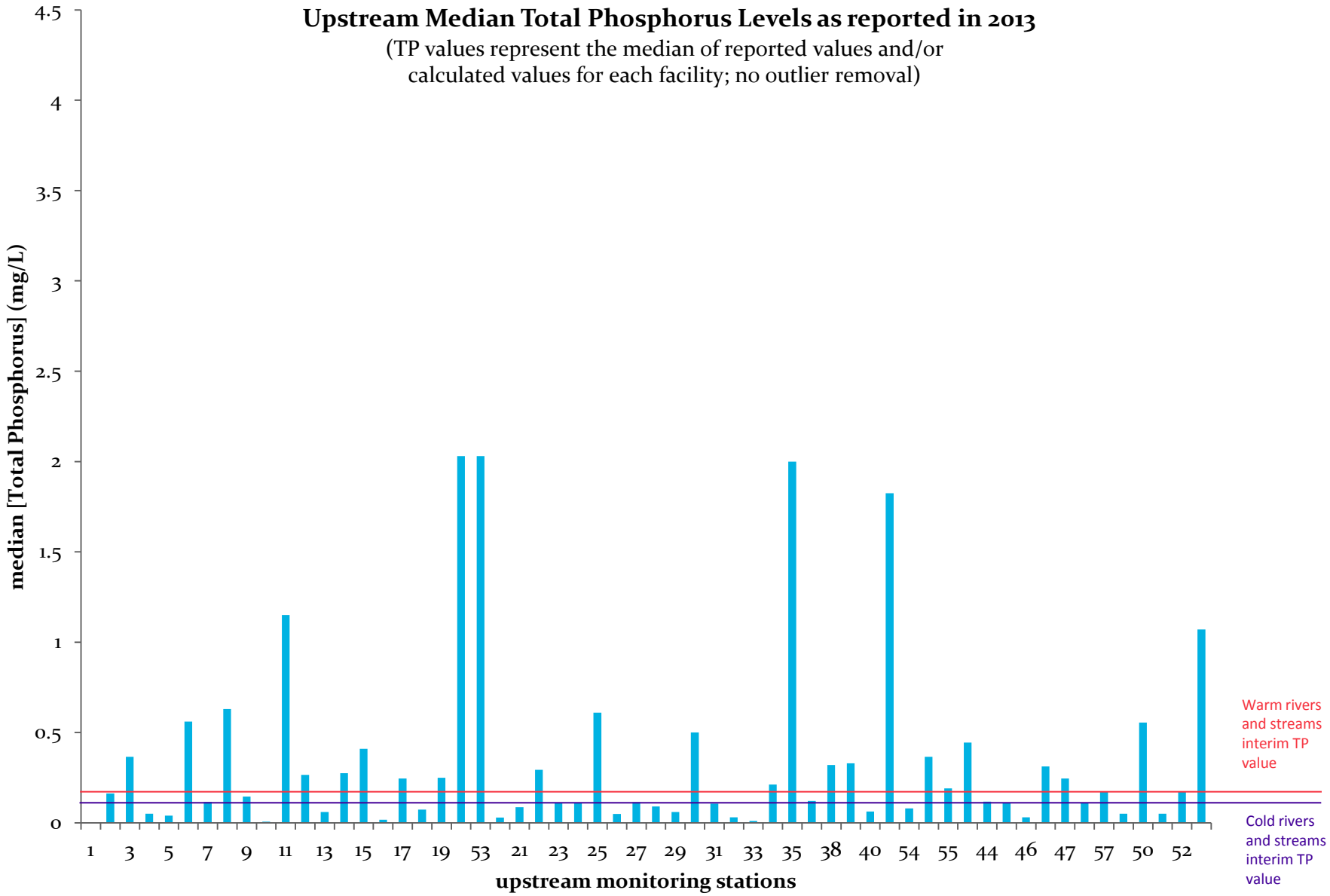

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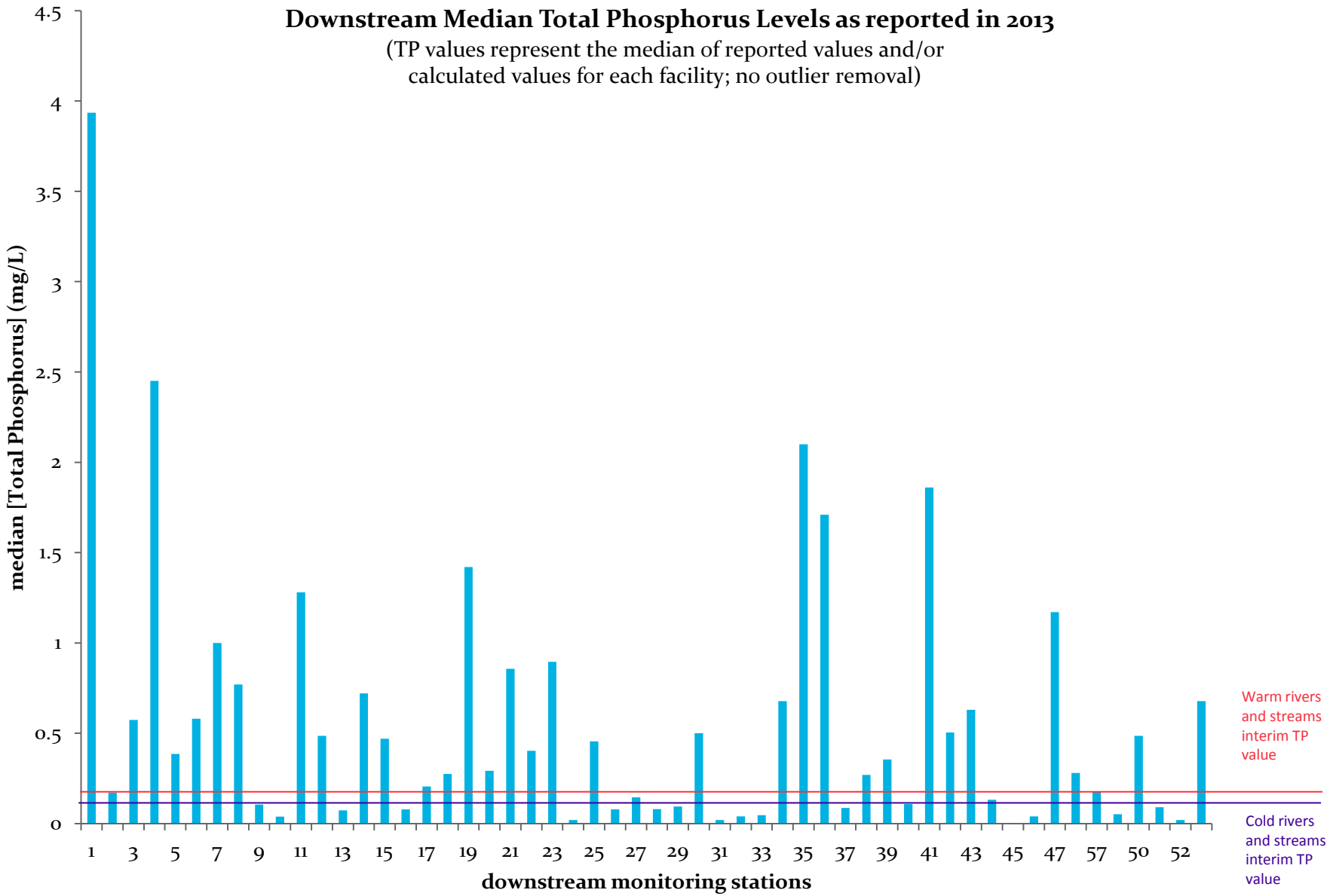
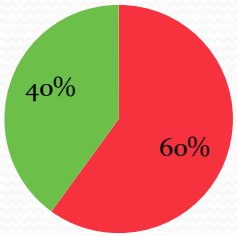
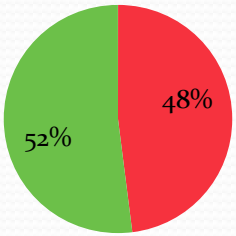
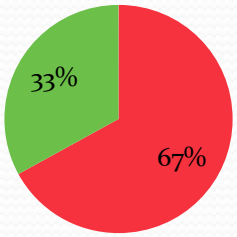
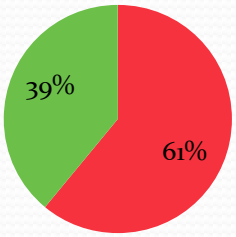


Draft: provisional data only, do not quote or cite

Summary of all instream TP data as compared to interim values

	COLD interim value (0.110 mg/L)	**WARM** interim value (0.170 mg/L)
Upstream		
Downstream		

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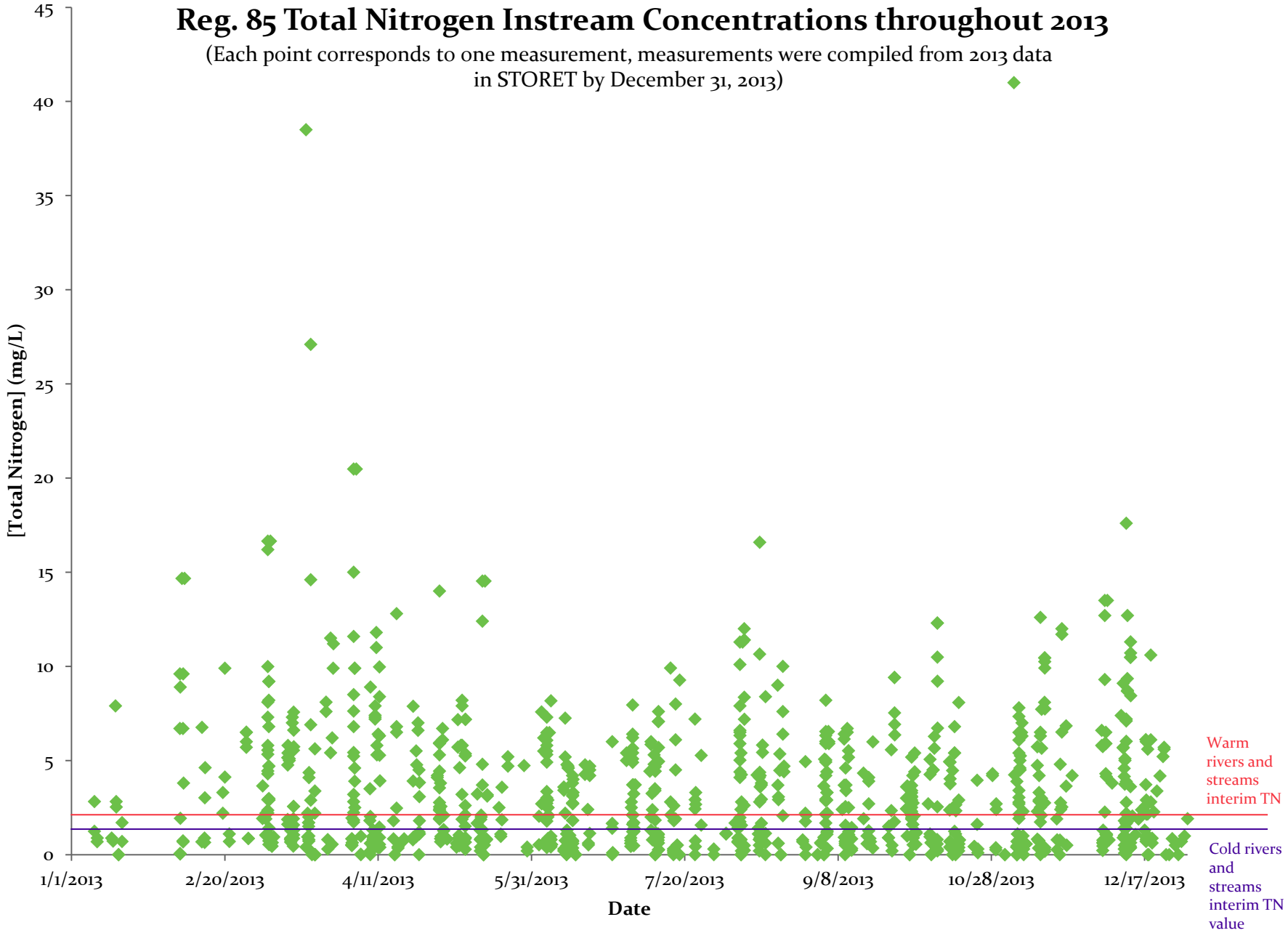
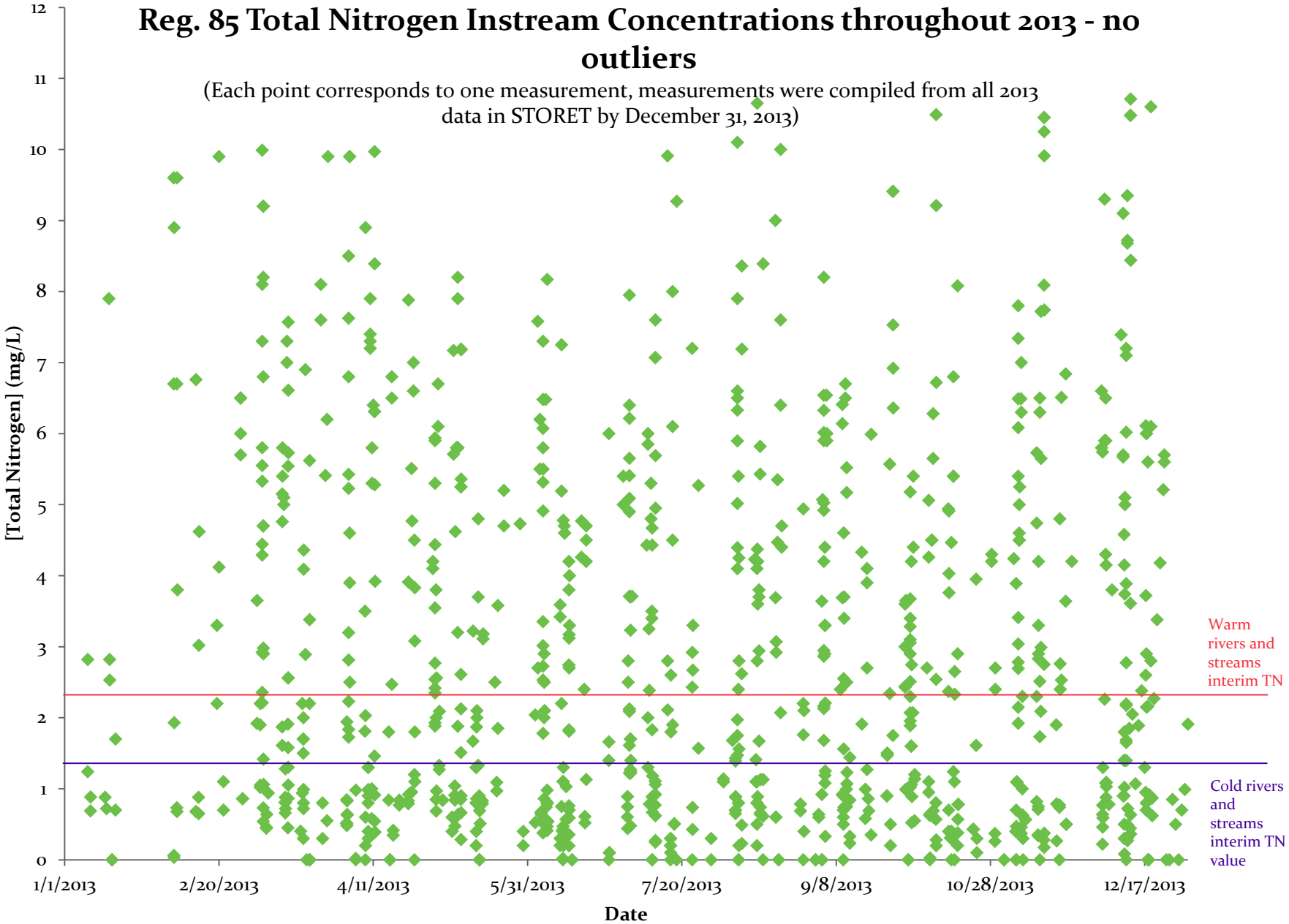


Draft: provisional data only, do not quote or cite

Reg. 85 Total Nitrogen Instream Concentrations throughout 2013 - no outliers

(Each point corresponds to one measurement, measurements were compiled from all 2013 data in STORET by December 31, 2013)



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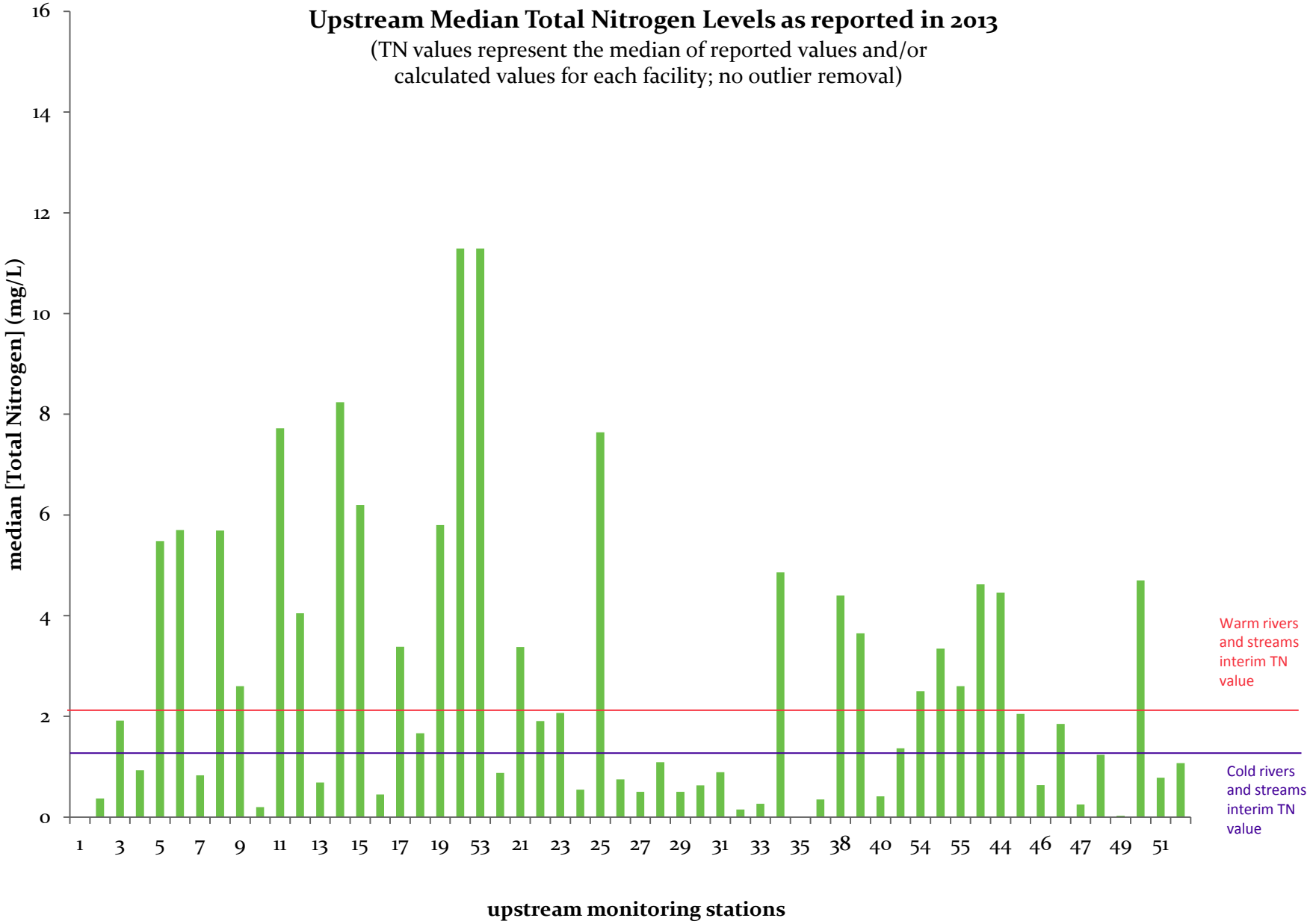

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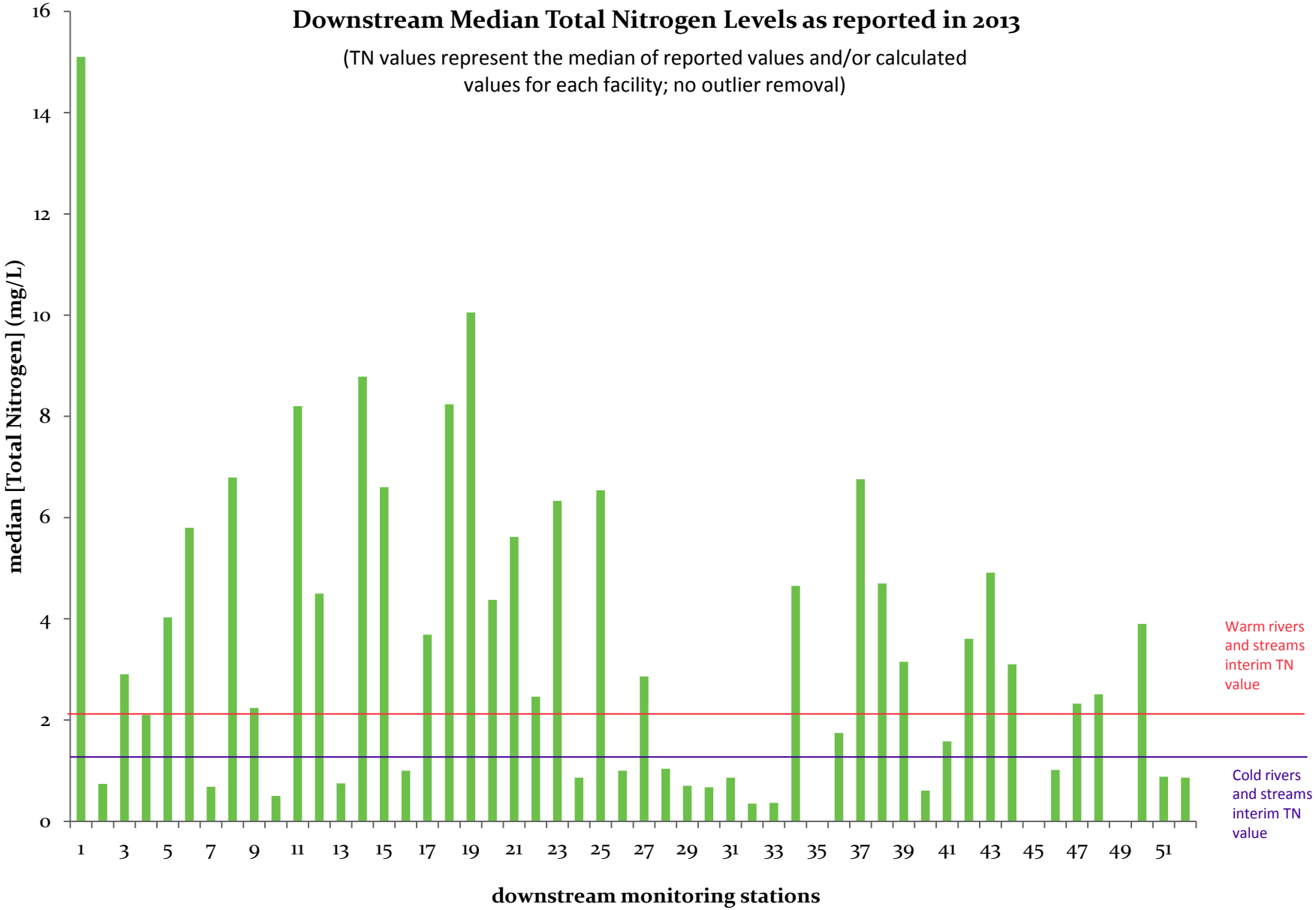

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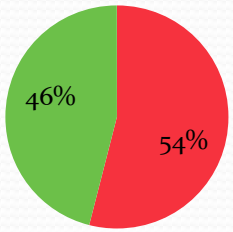
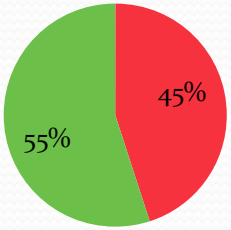
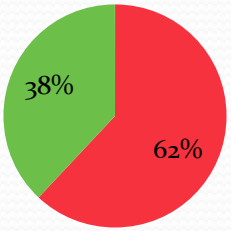
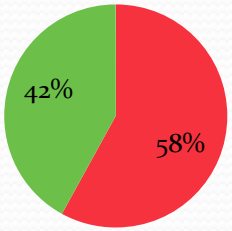
Summary of all instream TN data as compared to interim values

	COLD interim value (1.25 mg/L)	**WARM** interim value (2.01 mg/L)
Upstream		
Downstream		

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Follow-up on Brainstorming Exercise from September Meeting

- Updated brainstorming document on TRIH webpage
- As resources and time allow will include these considerations in developing information for TRIH
- If can't address by TRIH will consider if issues can be addressed in time for RMH
- Some issues may be better address in 2nd Triennial Review of Regulation 85

STORMWATER REPORT

COLORADO
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Data Collection – Municipal Separate Storm Sewer System (MS4)

- 85.6(3)
  - Applicable to cities, towns, counties, and city and counties with MS4 permits
  - Purpose was to determine the approximate nitrogen and phosphorus contribution
    - identify information that exists
    - If there was a need for additional information or monitoring to be conducted in the future nitrogen and phosphorus contribution to state waters due to discharges from MS4.
  - Did not require monitoring
    - The Commission recognizes that existing data and studies exist that establish concentration ranges for wet weather discharges from a variety of land uses.
    - Commission did not require MS4 permittees to duplicate these efforts.

Data Collection –MS4

- Discharge Assessment Data Report:
  - Documents the availability of existing data, and a "Gap Analysis" that identifies the need for additional information
  - Objectives:
    - Allow for the determination of representative estimates that quantify MS4 discharge flows and associated concentrations, and loads.
    - include representative annual or seasonal information to define significant nutrient loads from different land uses due to rainfall events, snowmelt events, and/or dry weather flows.

Data Collection –MS4

- Status
  - Collaborative Report **www.colorado.gov/pacific/cdphe/clean-water-nutrients**
    - Colorado Stormwater Council, UDFCD, and 56 MS4 permittees
    - Report has been accepted by the Division and in the process of obtaining individual confirmations from the participants
  - Individual Entity Report
    - City of Boulder
    - Has been submitted, WQCD in discussions with the city.

Data Collection –MS4

- Collaborative Report – Short Summary
  - Thorough review of Colorado and National Data
  - Identification on concentration information and on availability of tools for determining flow/loading
  - Identified significant Event Mean Concentration-based urban runoff data that can be used to characterize conditions in Colorado

Regulation No. 85 Contacts

- For Qs regarding the data submittal form:
  - Tatyana DiMascio
  - Robert Hillegas
- For Qs regarding detection limits and methods:
  - Arne Sjodin
  - Kristy Richardson
- For Qs on the Triennial Review Process for Reg. 85:
  - Nicole Rowan
  - Aimee Konowal