

Overview for 2012

Consent Agreement Item	Actual Value for 2012	Limit
Annual Loading (Lbs P)	32.05	175
Max 3 Month Loading (Lbs P)	23.49 (January)	55
Hatchery Flow (mgd)	7.0	20
Adult Coho (Individuals)	18,942	20,000
Adult Chinook (Individuals)	628	1,000
Lake Median TP (mg/m ³)	7.77	8.0
% Compliance with 8 mg/m ³	64	95

Figure 1. Data summary for the 2012 Annual Report.

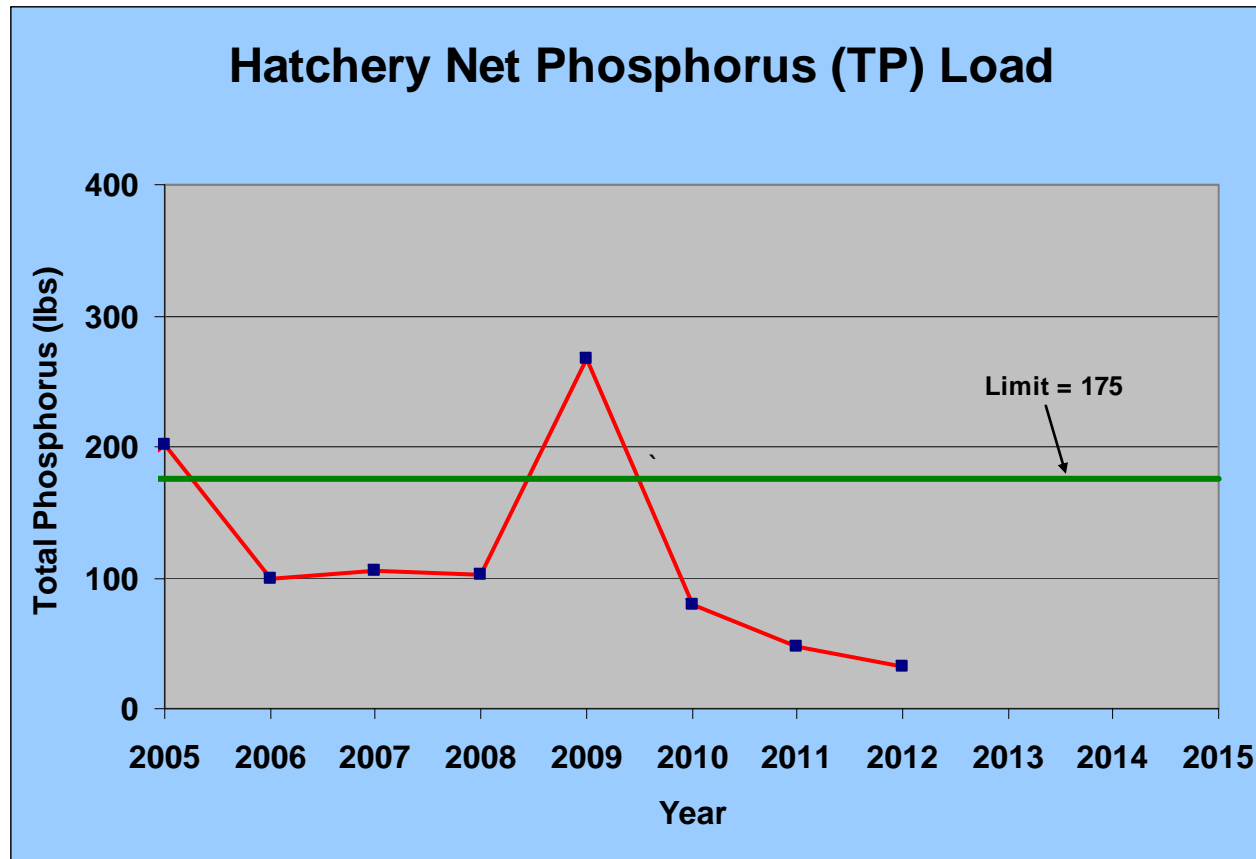


Figure 2. Annual Hatchery phosphorus loadings to the Platte River from 2005 to 2012.

Upper Discharge - Outfall 0002 - Phosphorus for Year 2012

Method: Sigma Automatic 72hr, Average Value: 11.821

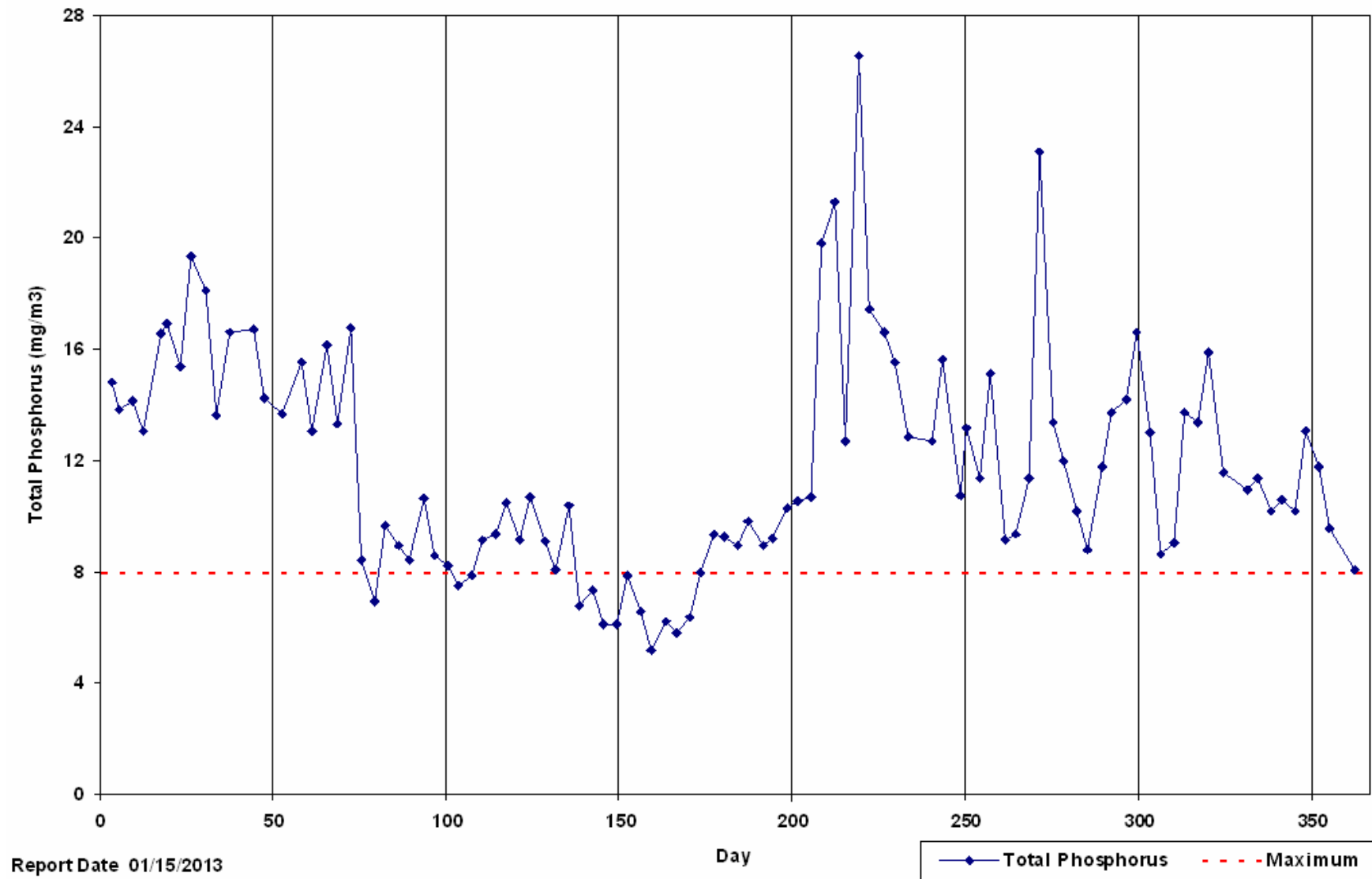
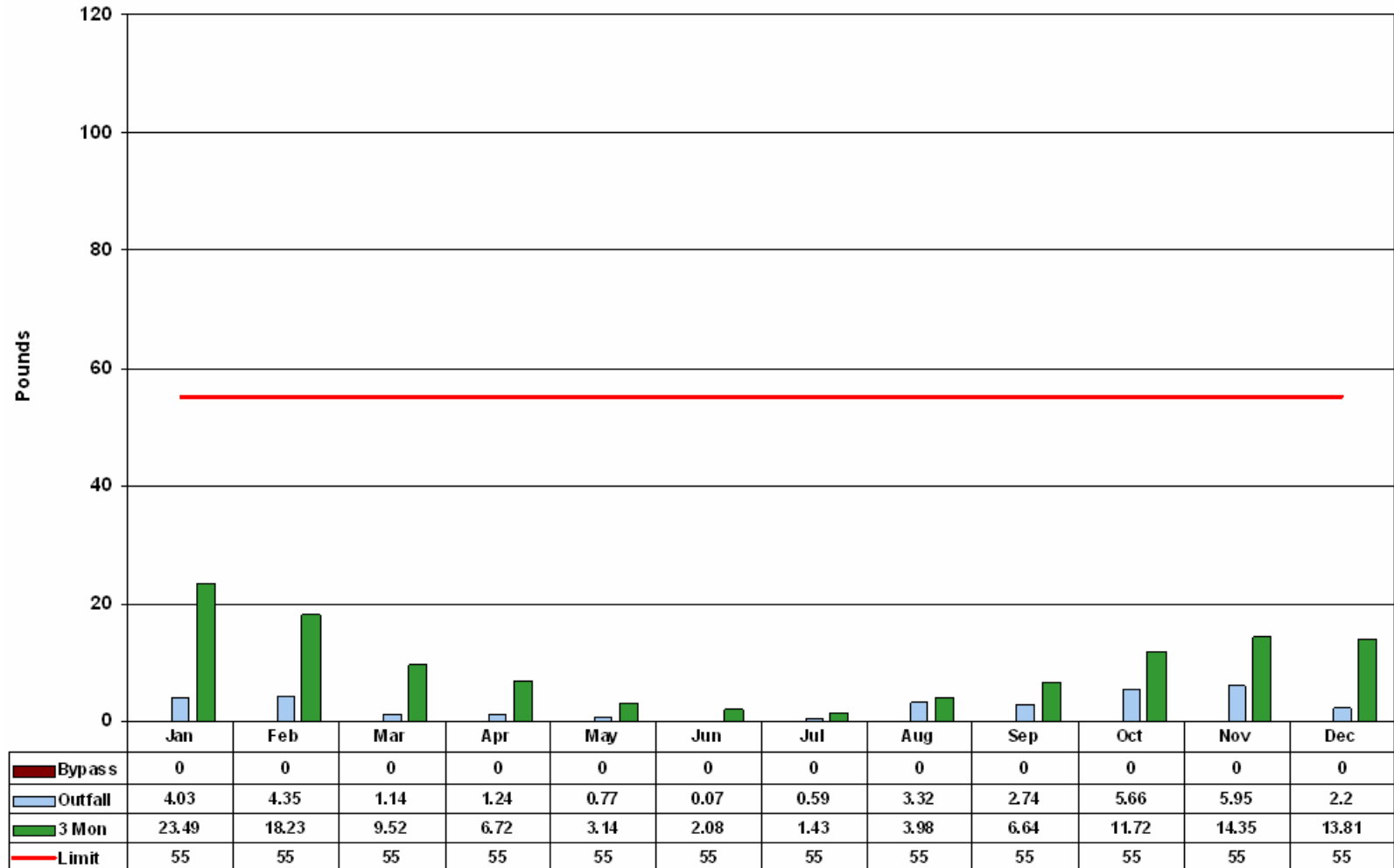


Figure 3. Measured phosphorus concentrations at the Upper Discharge in 2012.

Hatchery Average Monthly Net Load for 2012

Total Net Load is 32.05 Pounds for Method Sigma Automatic 72hr (Sigma72)



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Figure 4. Hatchery monthly (blue bars) and 3-month cumulative (green bars) phosphorus loadings to the Platte River. The 3-month cumulative phosphorus discharge limit is displayed on the red line.

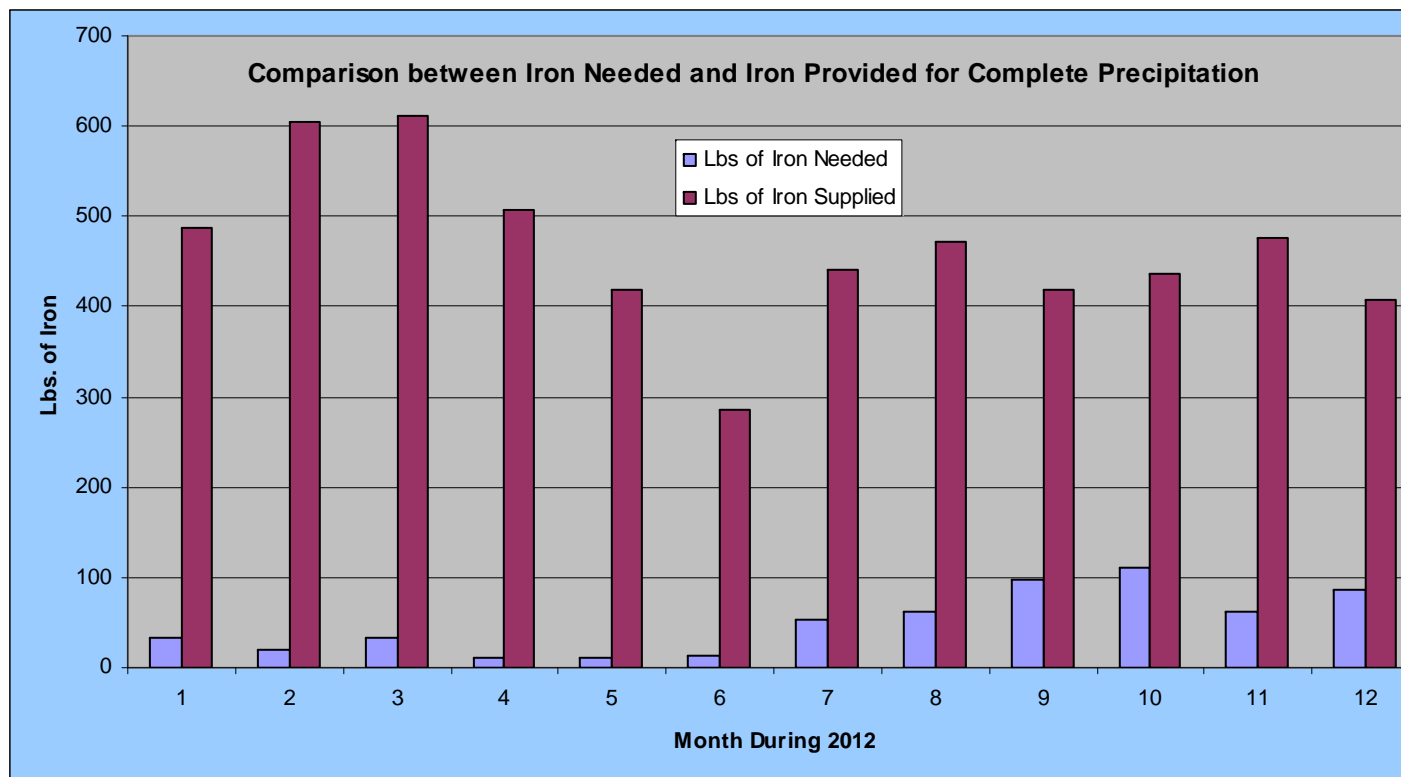


Figure 5 . Comparison between Iron Needed and Iron Provided in 2012 for Complete Phosphorus Precipitation.

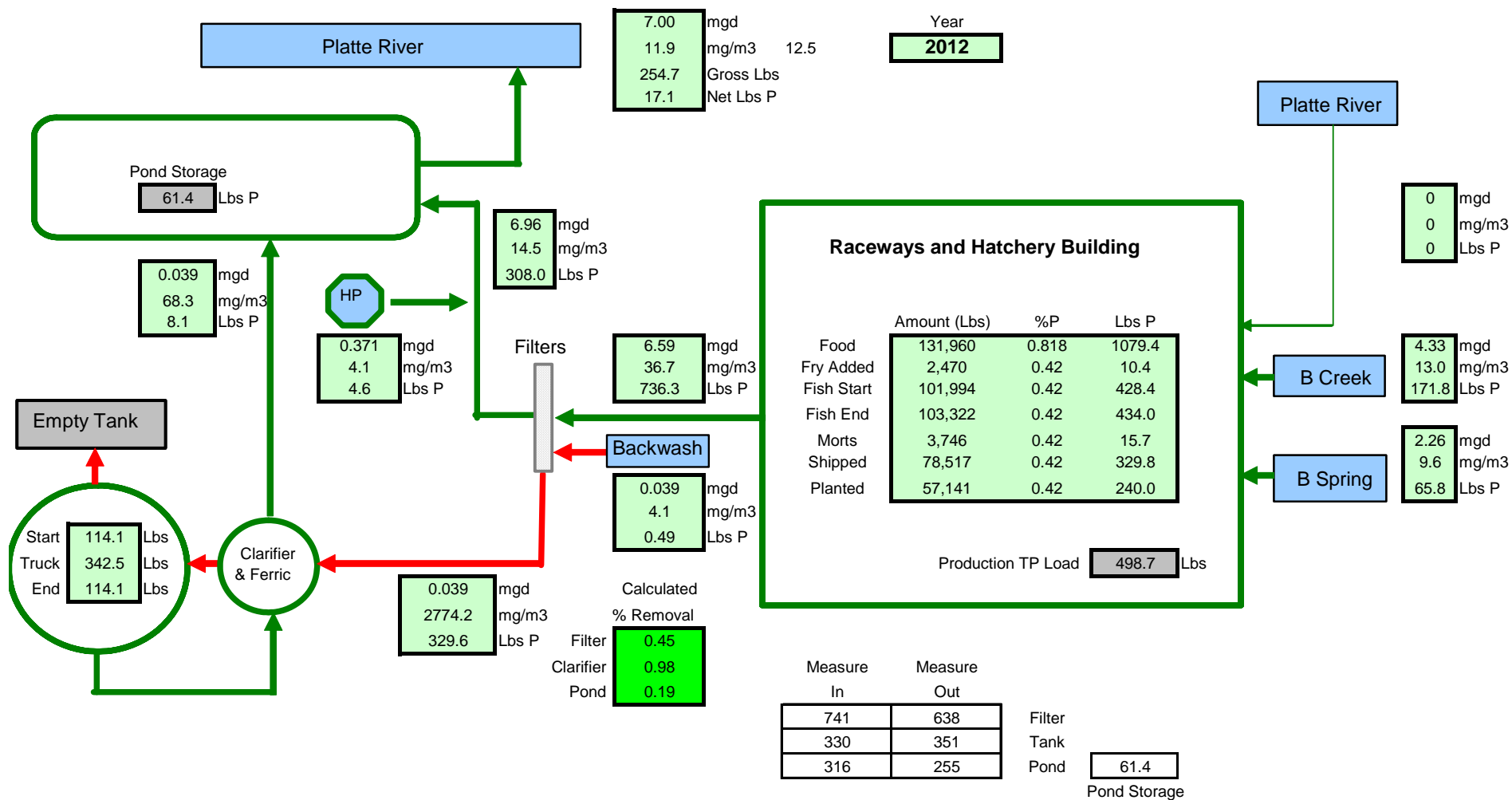


Figure 6. Annual summary of the 2012 Hatchery phosphorus mass balance model.

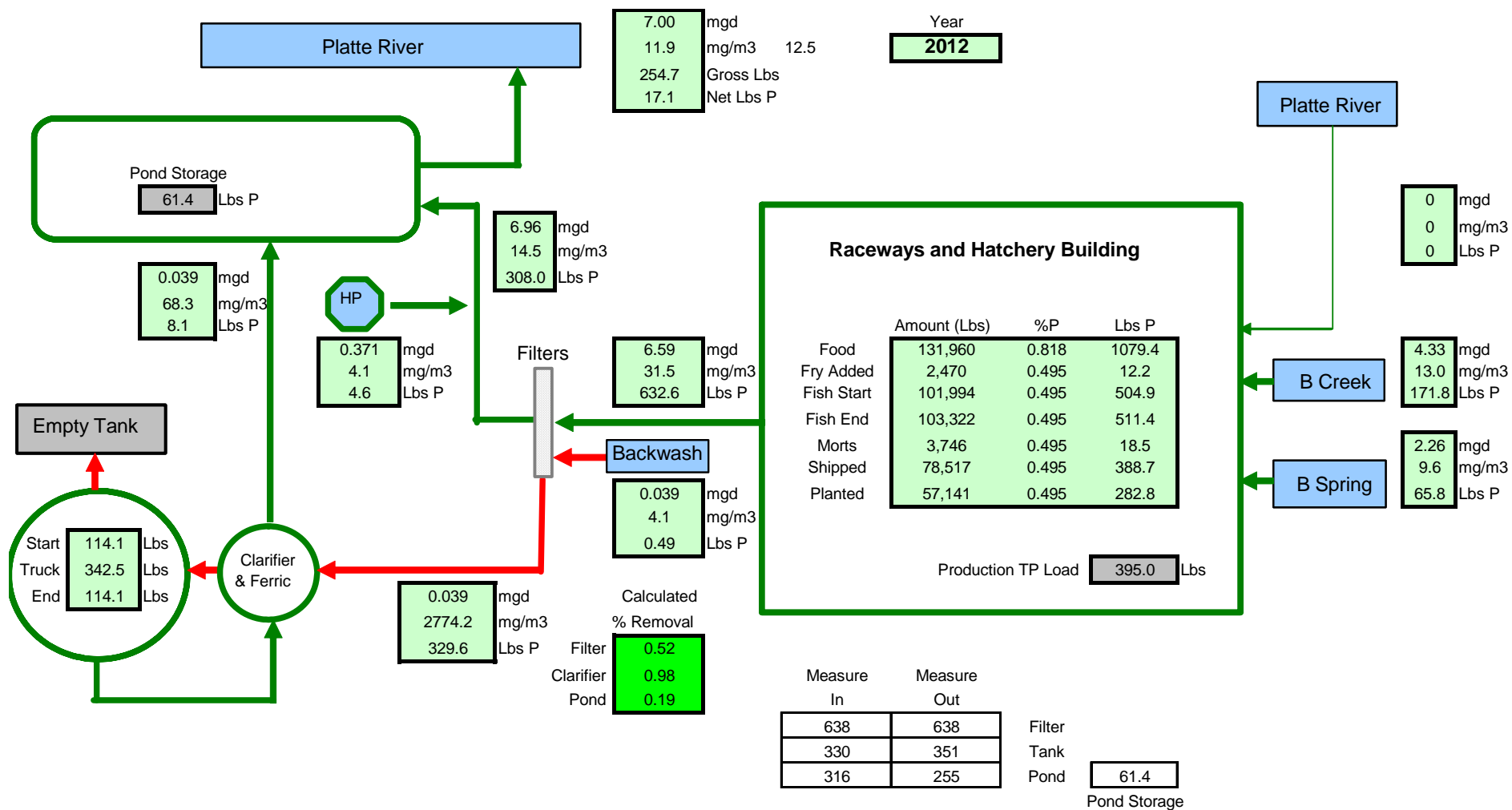


Figure 7. Annual summary of the 2012 Hatchery phosphorus mass balance model.

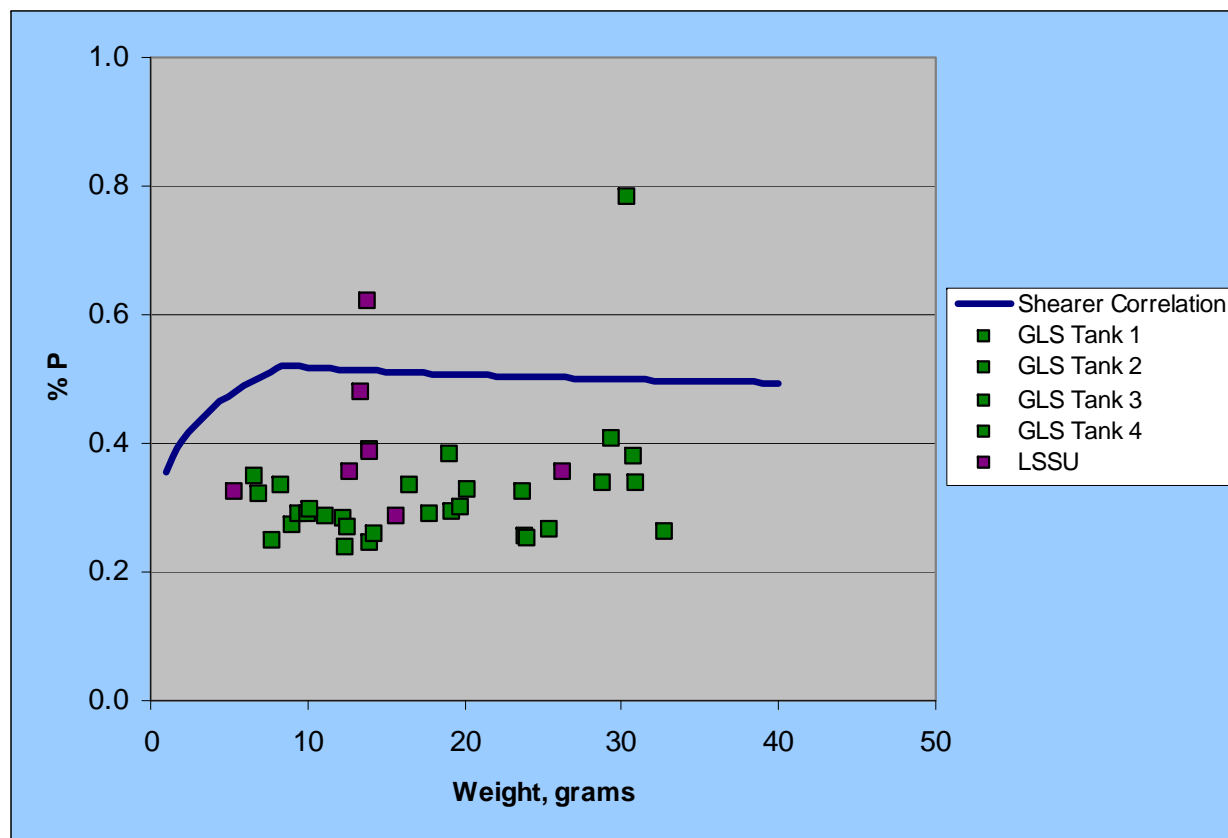


Figure 8. Fish Tissue Phosphorus as function of body weight (Shearer, 1995) vs LSSU and GLS measurements.

Big Platte Lake - Median Phosphorus for Year 2012

Average Median Phosphorus for Year is 7.77 (Above Limit 125 of 366 Days, 34%)

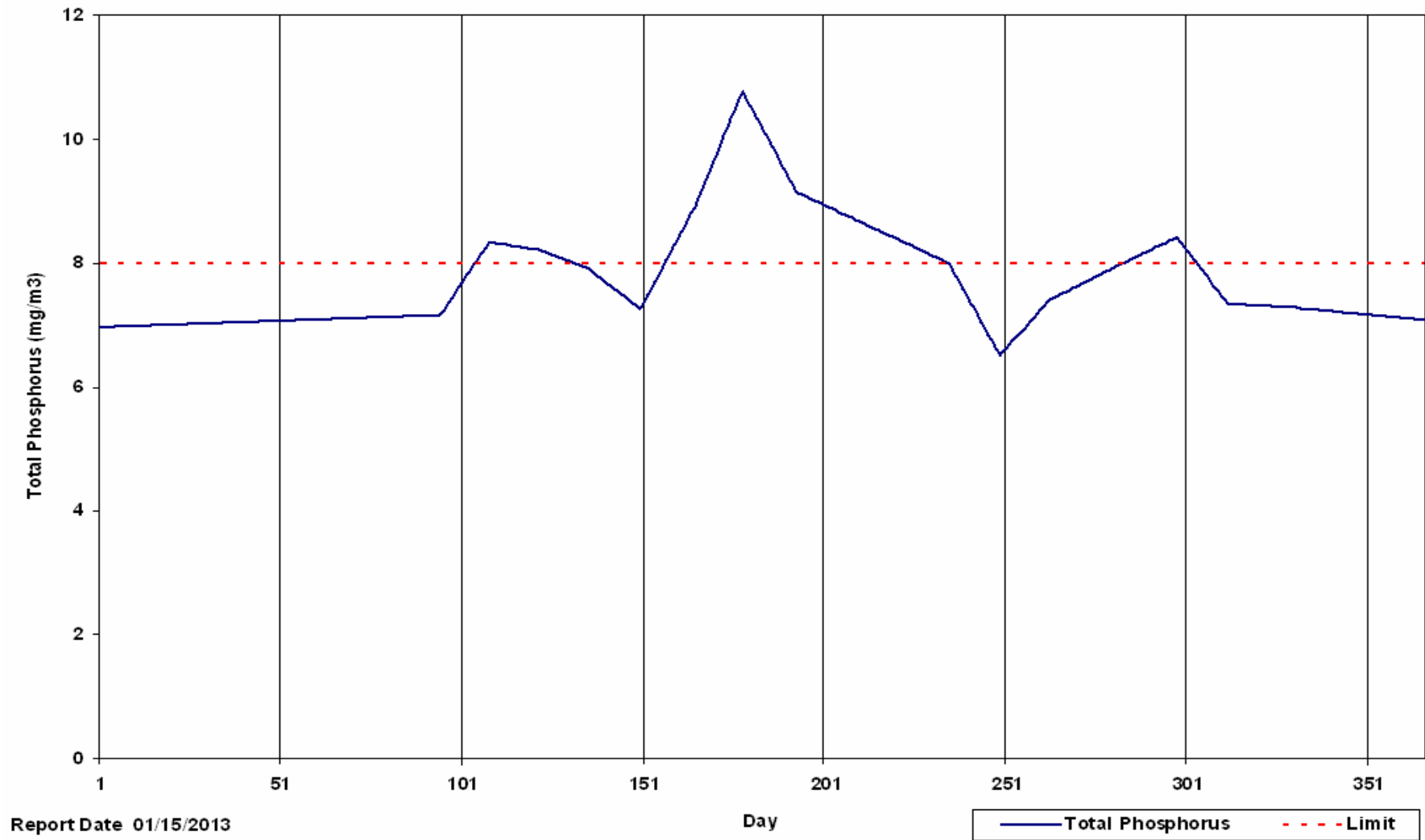


Figure 9. Volume-weighted total phosphorus concentrations in Big Platte Lake during 2012.

Big Platte Lake Secchi Depth for 2012

Average Secchi Value: 14.441 (Minimum: 9.5, Maximum: 20.5, Hatchery Avg: 14.444, PLIA Avg: 14.706)

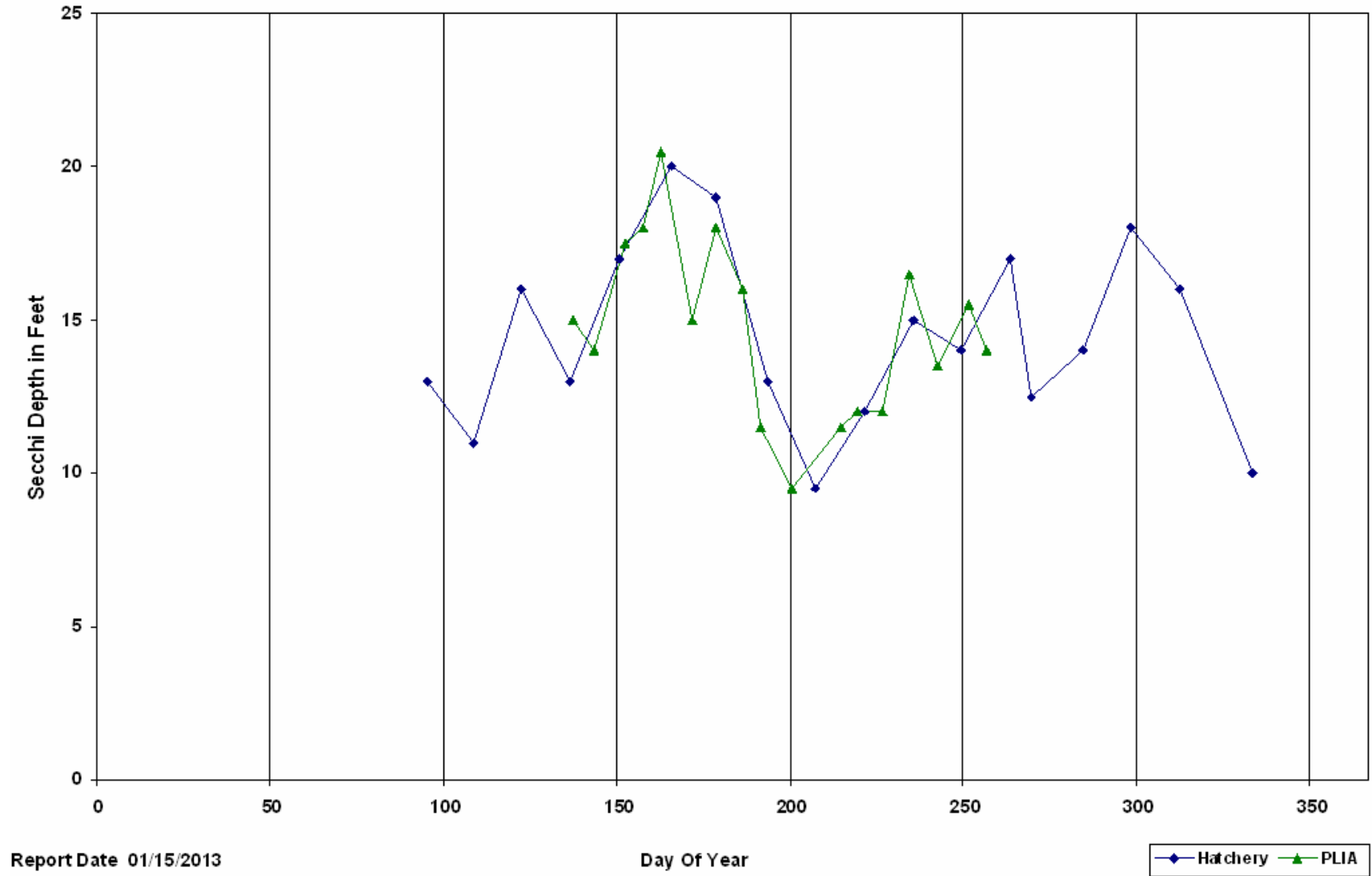


Figure 10. Big Platte Lake Secchi depth measurements for 2012.

Big Platte Lake Dissolved Oxygen (2012 at All Depths)

Anoxic at 45 Feet: 1.0 Days, 60 Feet: 77.3 Days, 75 Feet: 84.7 Days, 90 Feet: 91.1 Days

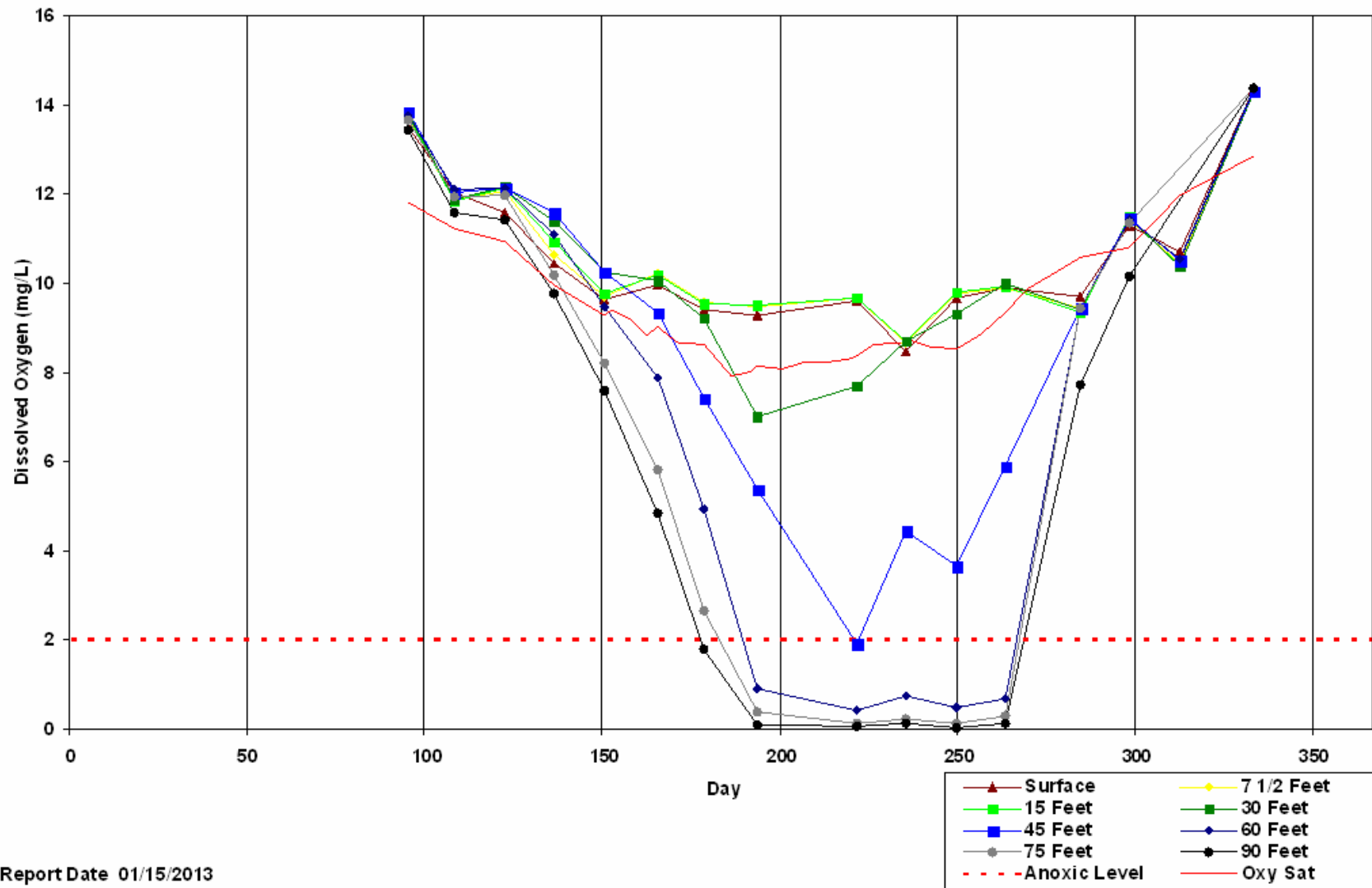


Figure 11. Dissolved oxygen measurements by depth in Big Platte Lake during 2012.

Big Platte Lake Temperature (2012 at All Depths)

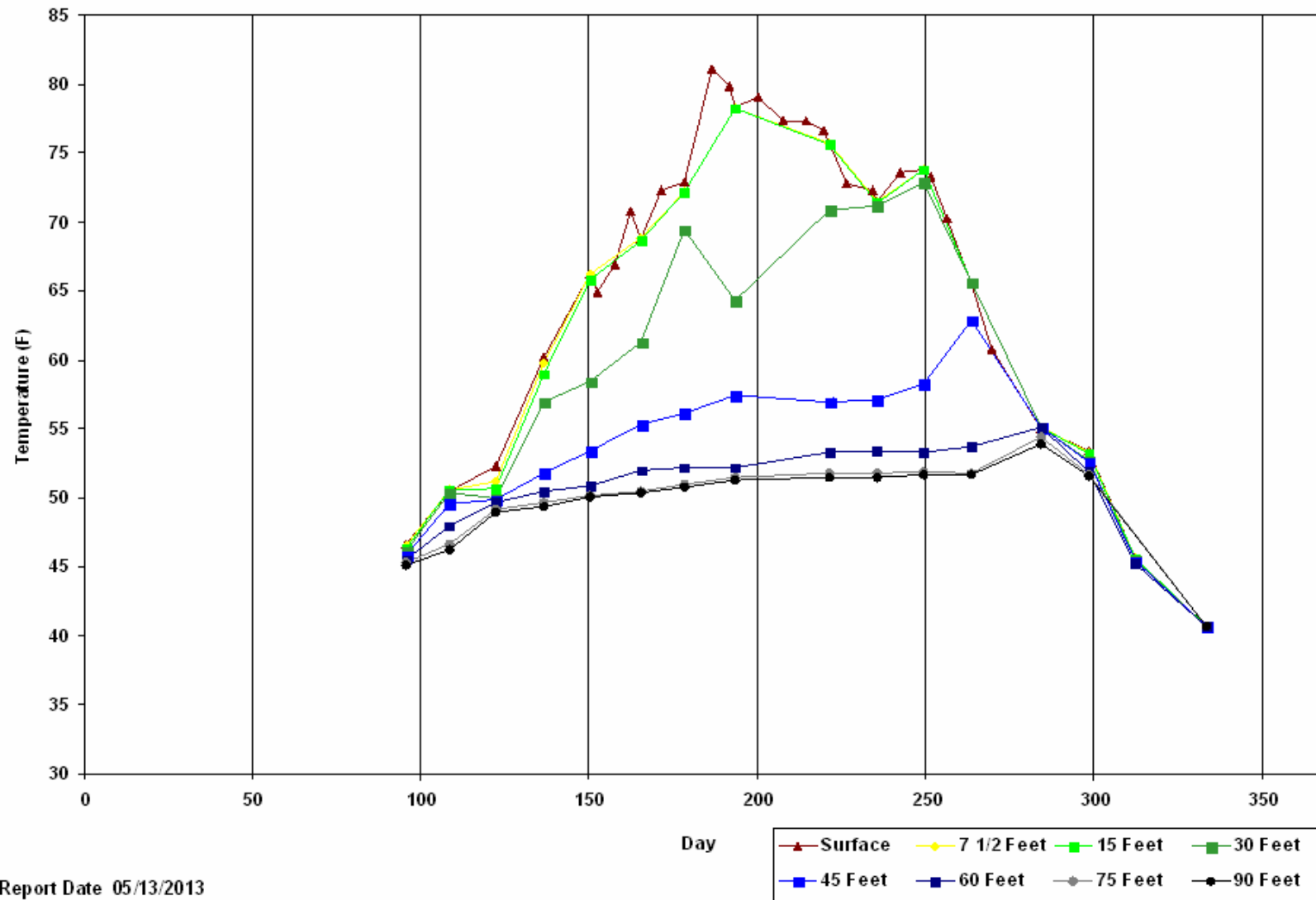


Figure 12. Temperature measurements by depth in Big Platte Lake during 2012.

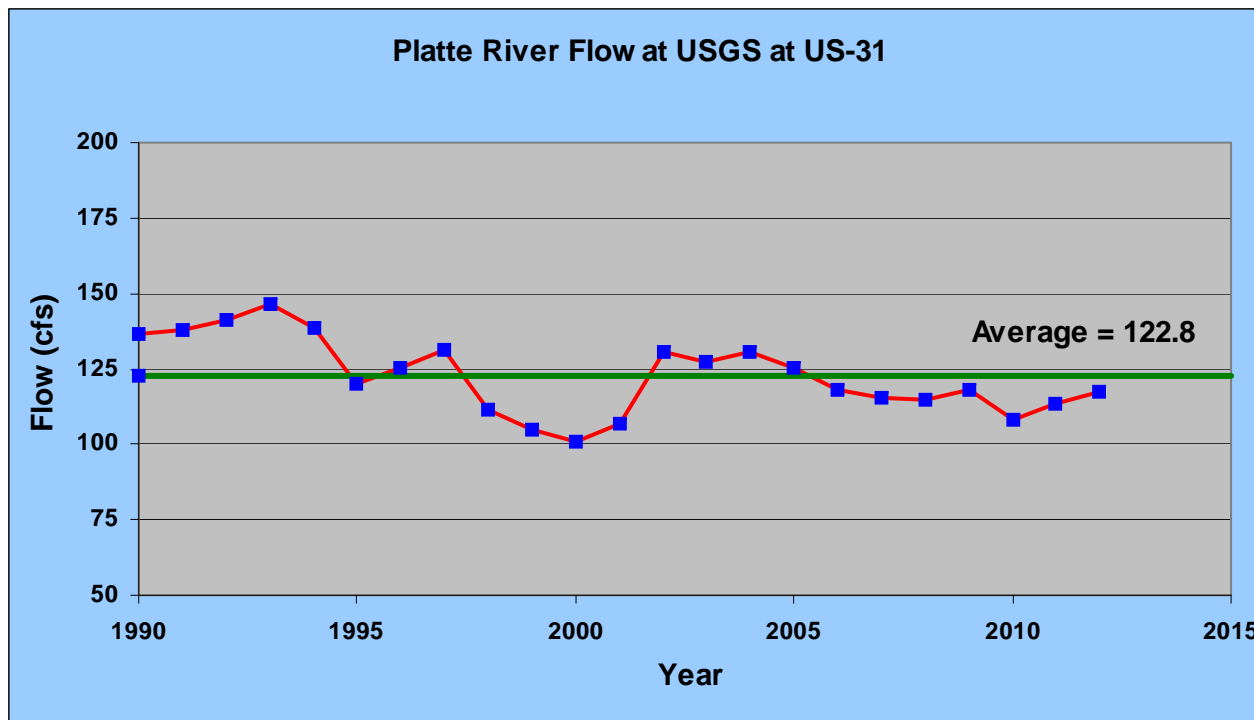


Figure 13. Average annual discharge of the Platte River at the USGS Gauging Station 04126740 at Honor, MI.

2012 Flow of Platte River at US - 31 (cfs)

Method: 24 hour average, US31 Average: 117.7, Sampled Average: 116.8

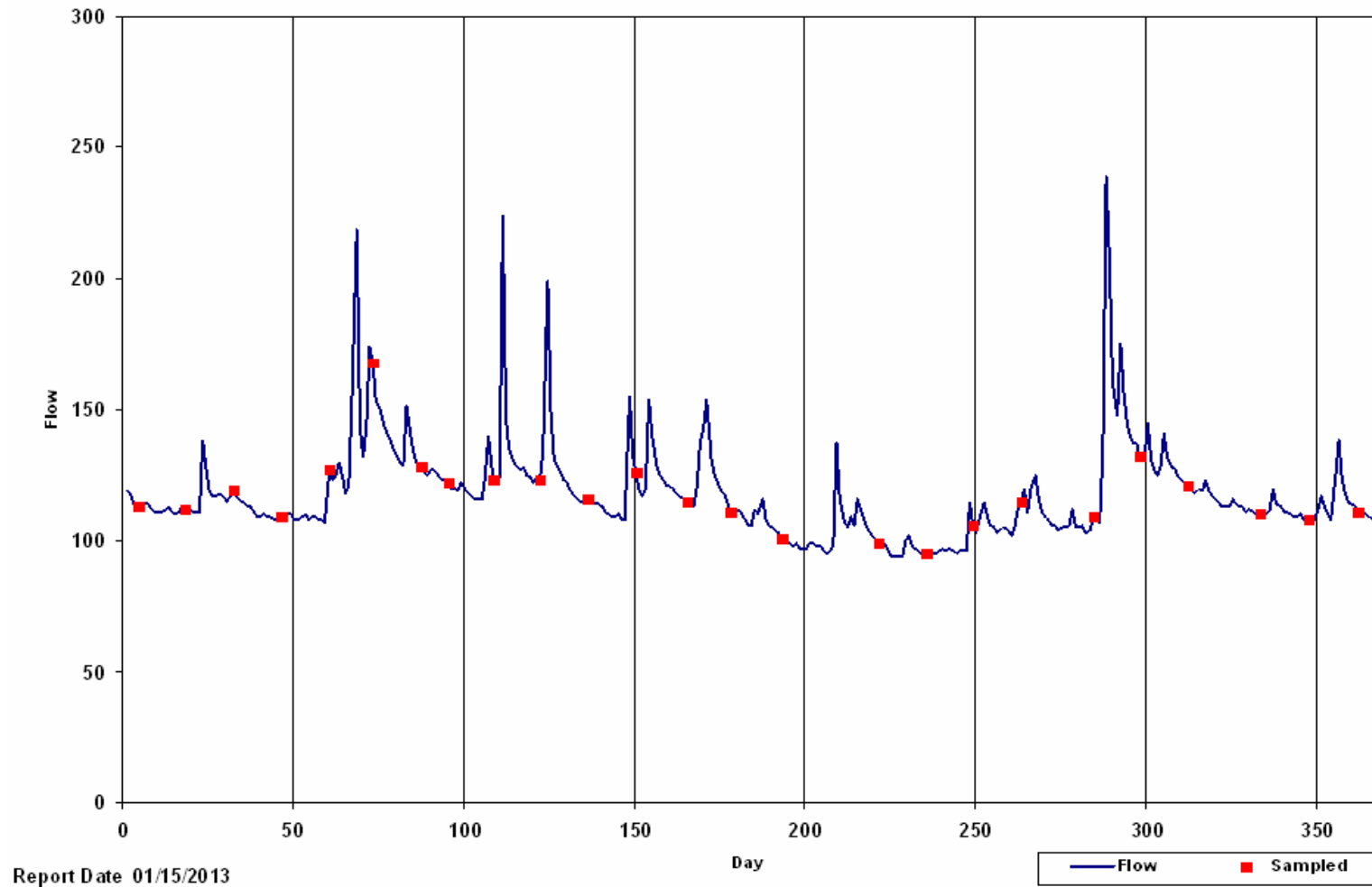


Figure 14. Daily average flows of Platte River in 2012 at the USGS Station 04126740 at Honor, MI and on dates when water quality sampling occurred at that site.

Platte River at US 31 - USGS - Phosphorus & Turbidity for Year 2012

Method: Stream Dip Sample, Average Phos: 11.510, Average Turb: 3.201

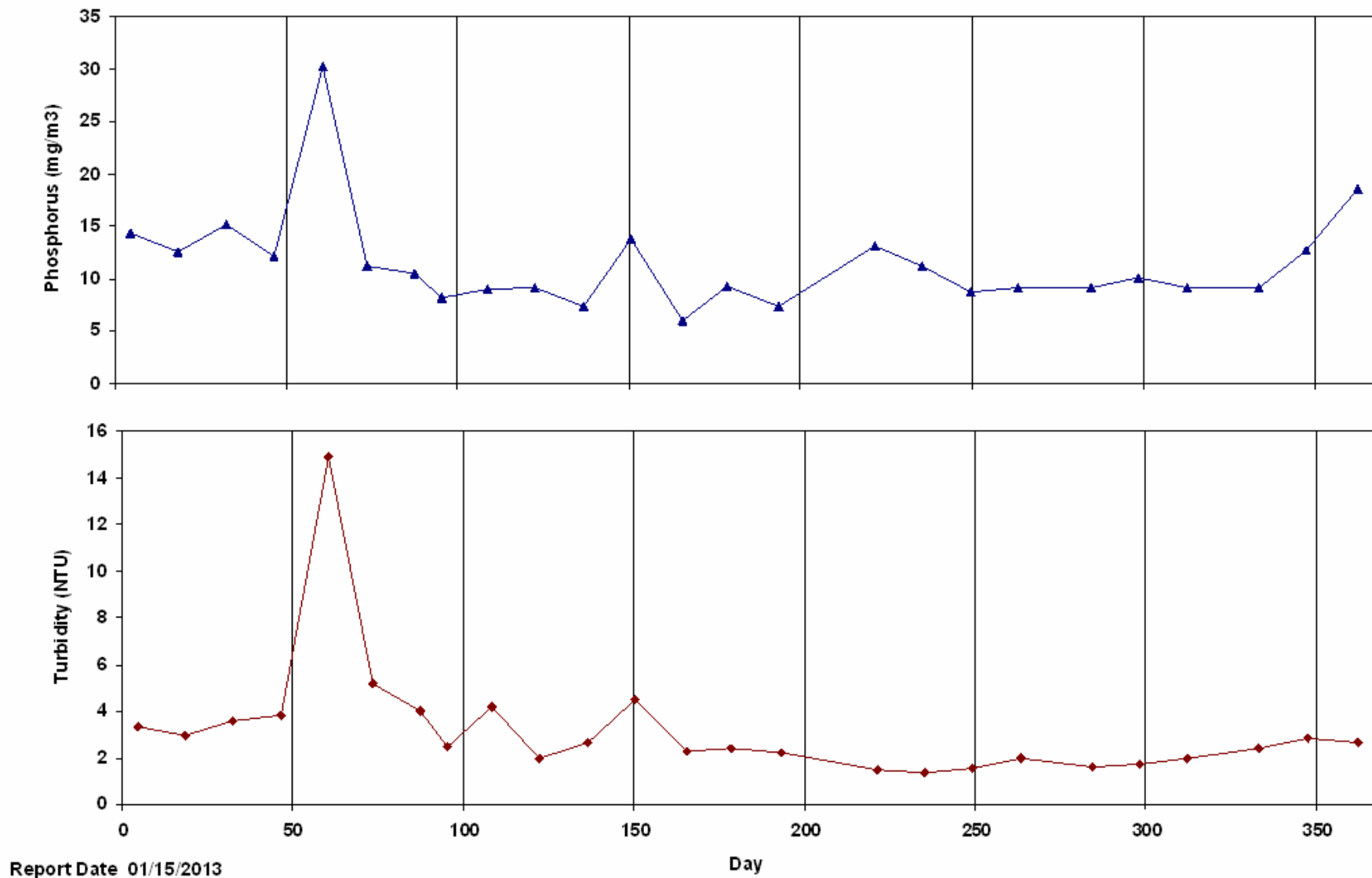


Figure 15. Total Phosphorus and Turbidity of Platte River at USGS during 2012.

North Branch Deadsteam Dr. - Phosphorus & Turbidity for Year 2012

Method: Stream Dip Sample, Average Phos: 12.384, Average Turb: 3.288

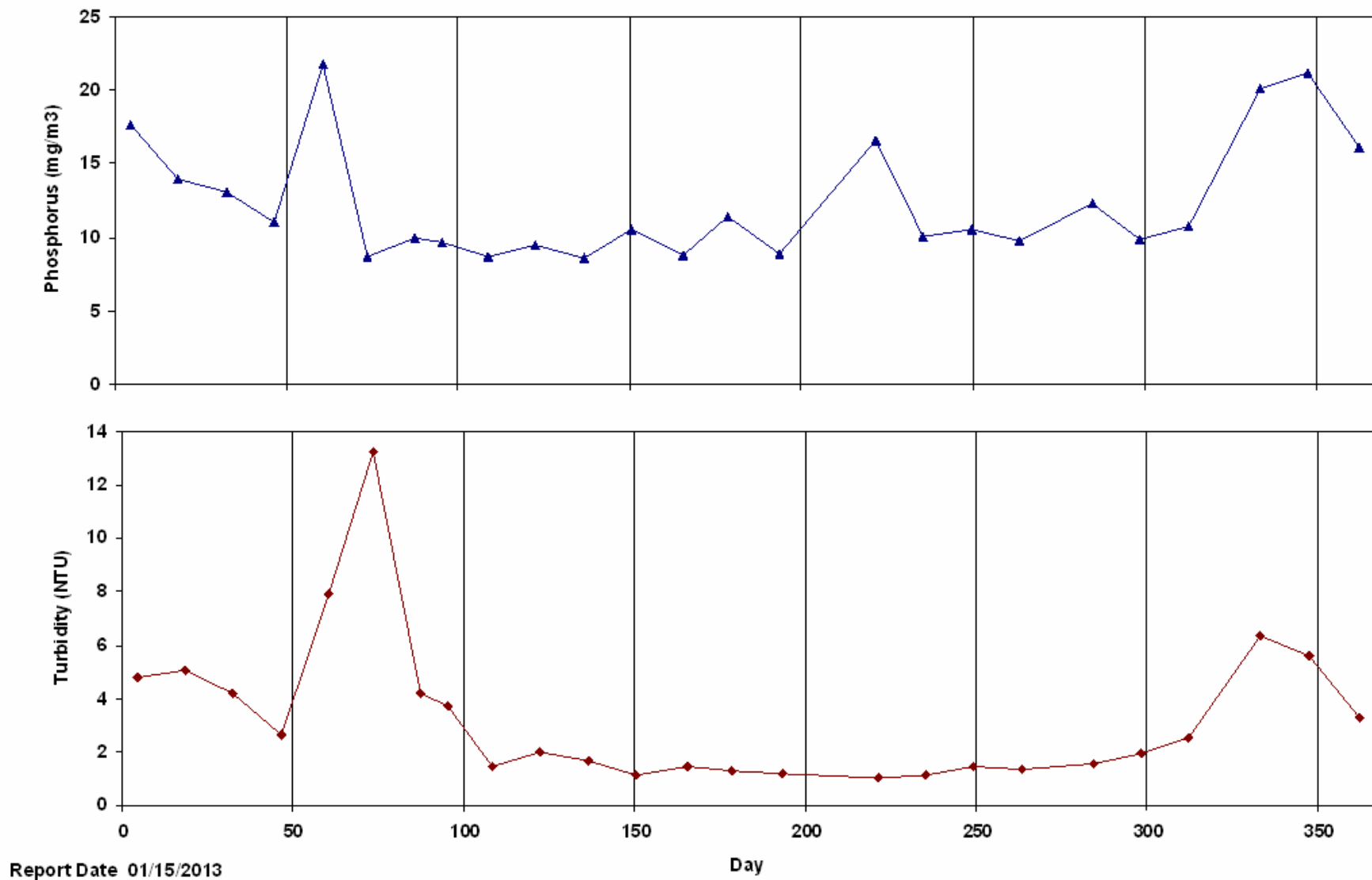
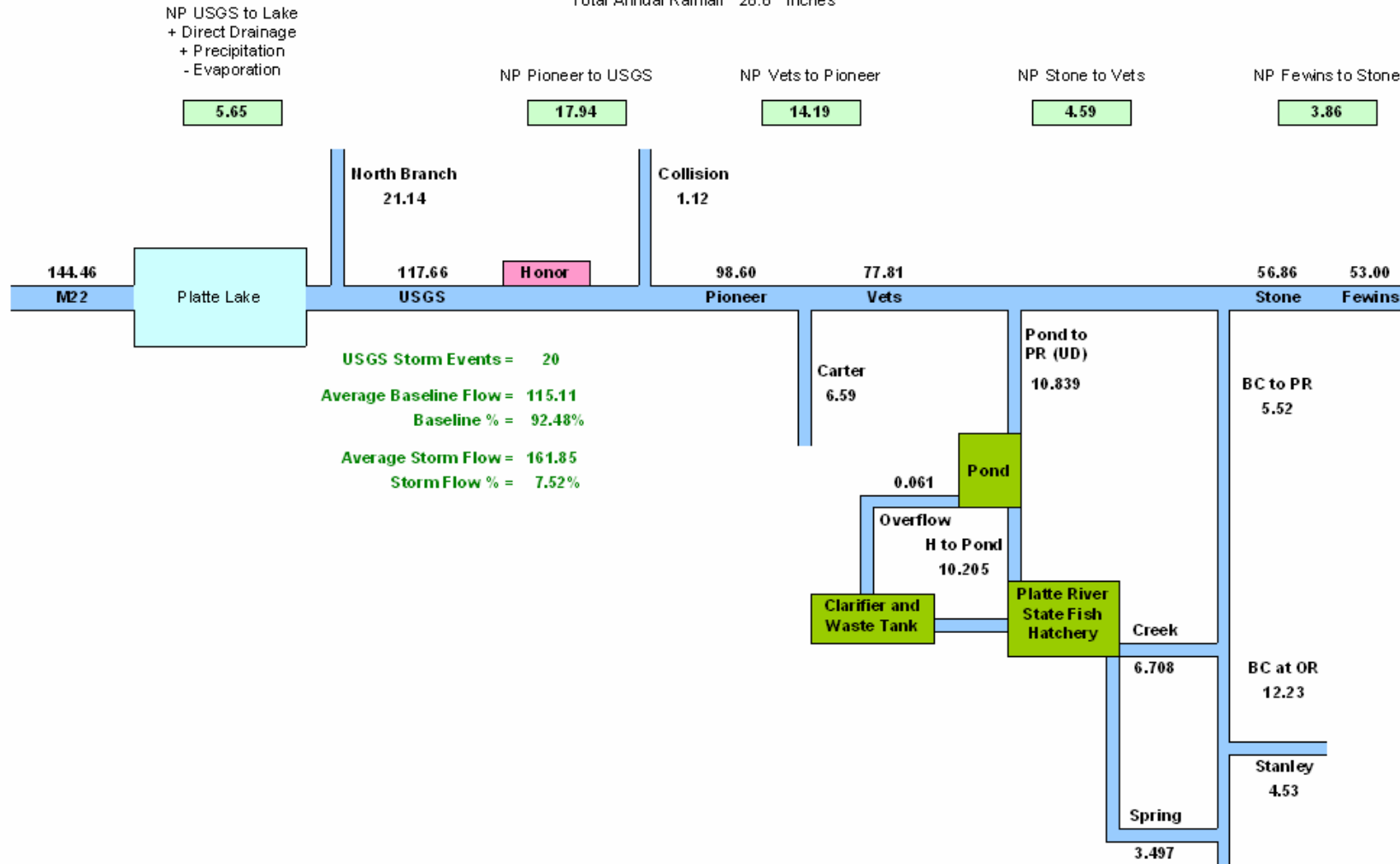


Figure 16. Total Phosphorus and Turbidity of North Branch Platte River at Deadstream Rd. during 2012.

Annual Average Watershed Flow Balance for 2012

all flows cfs

Total Annual Rainfall 28.6 Inches

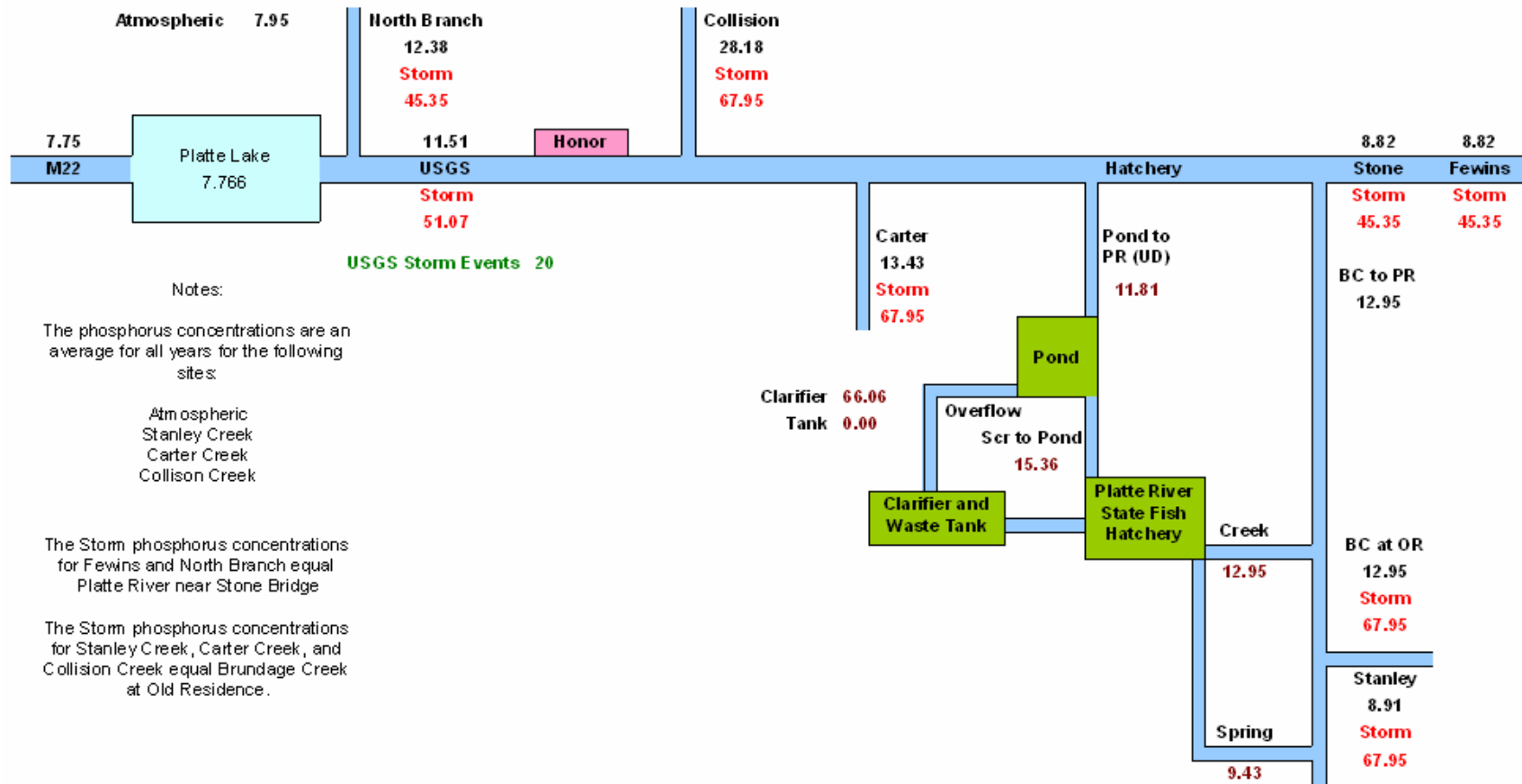


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Platte River Watershed

Figure 17. Watershed Flow Balance for 2012.

Annual Average Watershed TP Concentrations for 2012



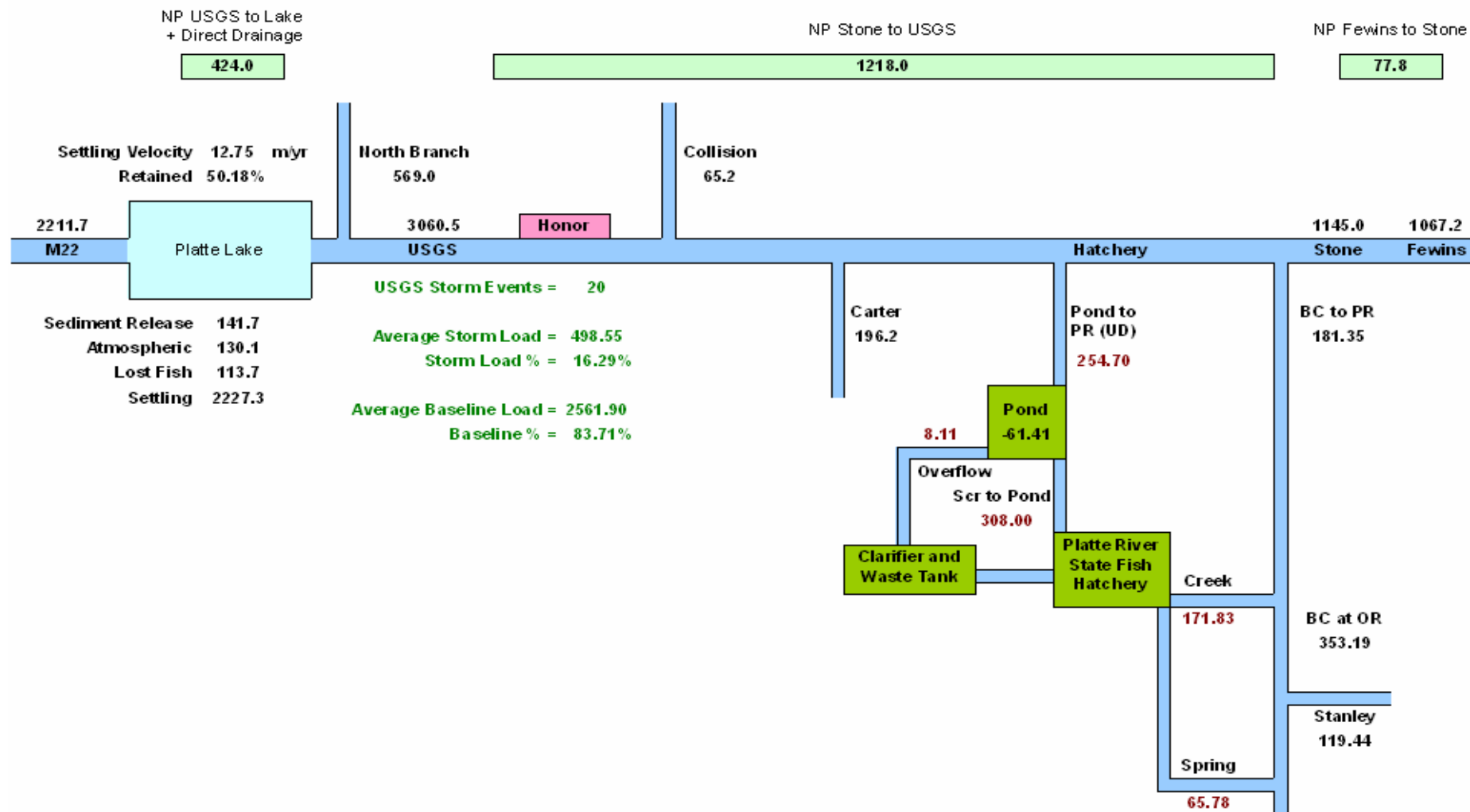
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Platte River Watershed

Figure 18. Annual Average Total Phosphorus Concentrations for 2012.

Annual Average Watershed Load Balance for 2012

all loads annual pounds



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Platte River Watershed

Figure 19. Watershed Phosphorus Load Balance for 2012.