Overview for 2011

Consent Agreement Item	Actual Value for 2011	Limit
Annual Loading (Lbs P)	47.7	175
Max 3 Month Loading (Lbs P)	25.21 (Dec)	55
Hatchery Flow (mgd)	6.92	20
Adult Coho (Individuals)	15,018	20,000
Adult Chinook (Individuals)	377	1,000
Lake Median TP (mg/m^3)	7.52	8.0
% Compliance with 8 mg/m^3	65	95

Figure 1. Data summary for the 2010 Annual Report.

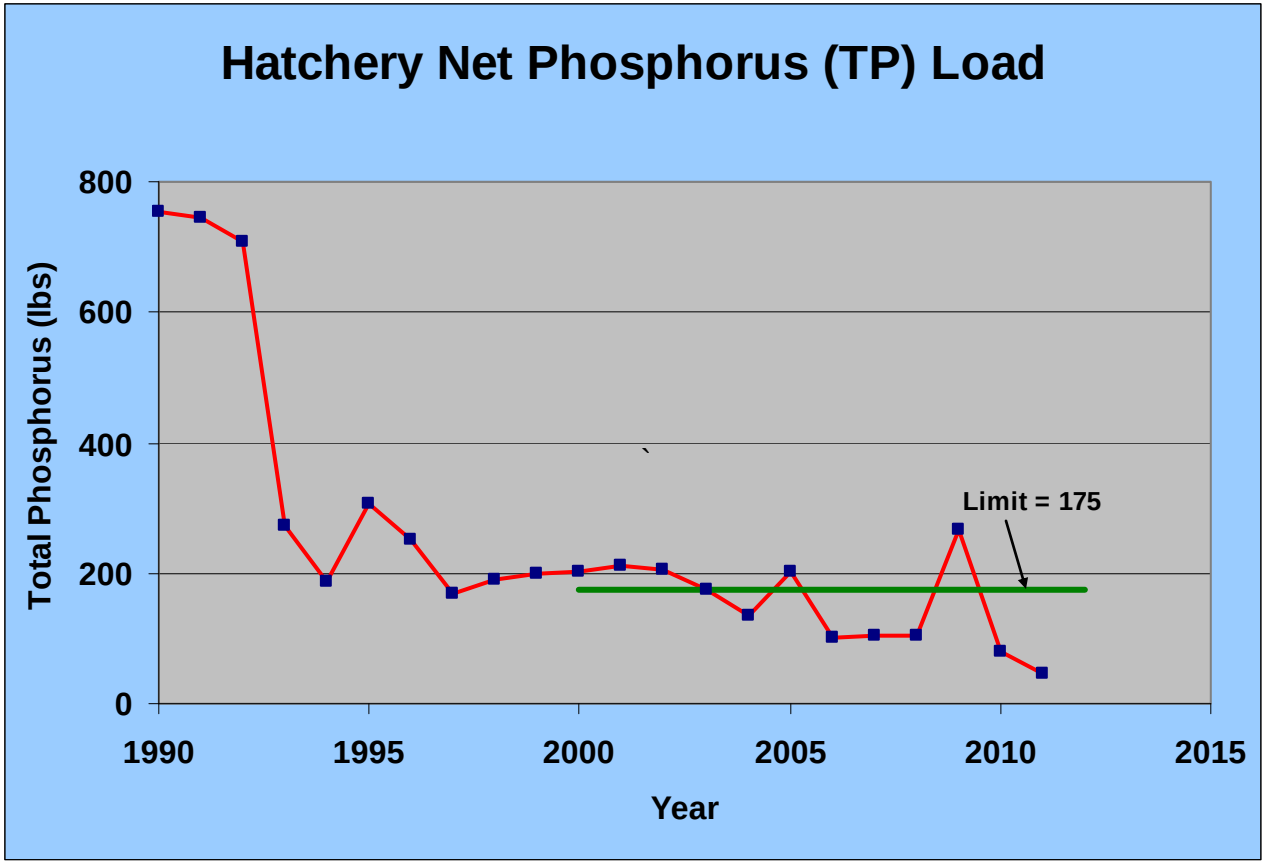

Figure 2. Annual Hatchery phosphorus loadings to the Platte River from 1990 to 2011. Net Load for 2011 = 47.7 Lbs.

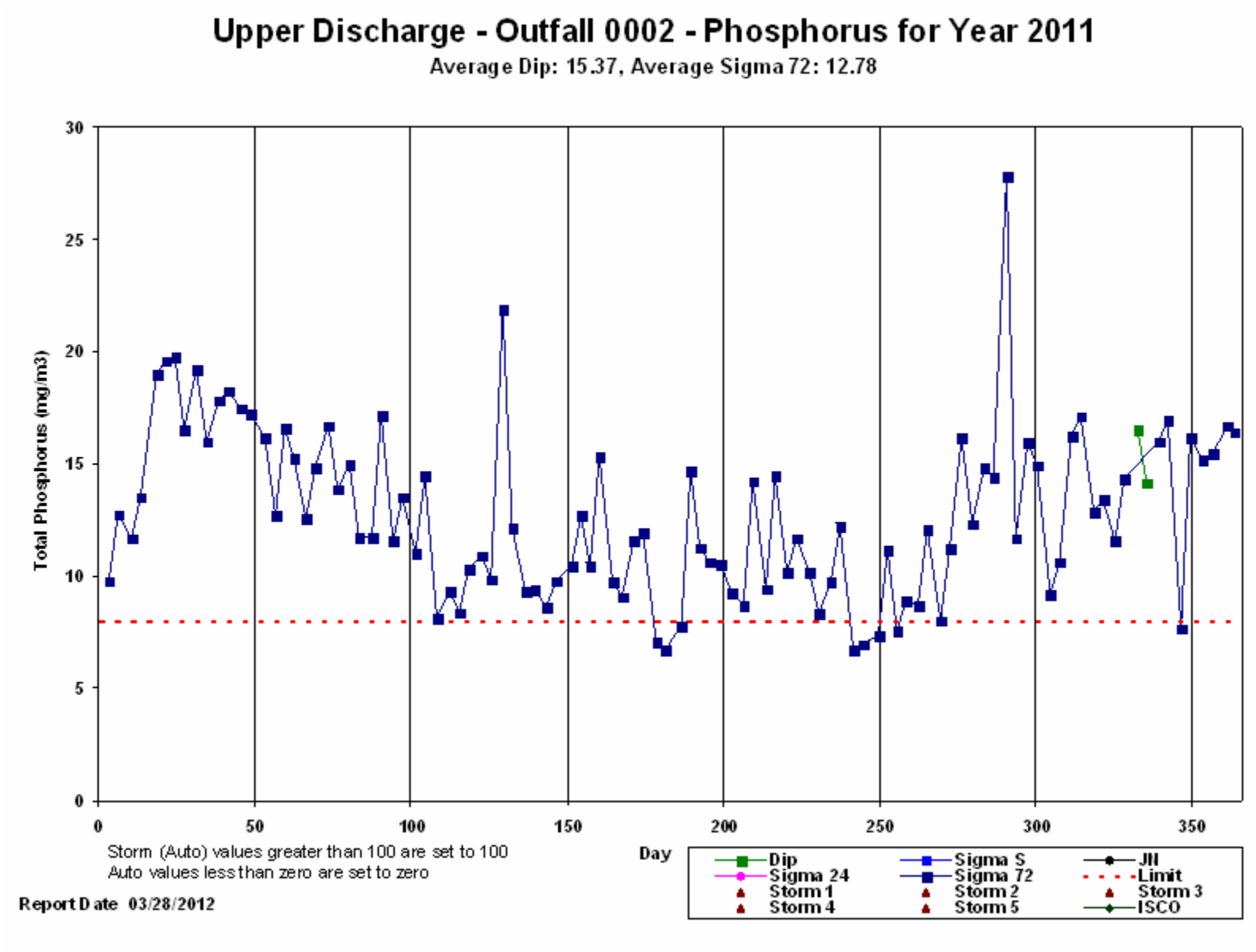

Figure 3. Measured phosphorus concentrations at the Upper Discharge in 2011.

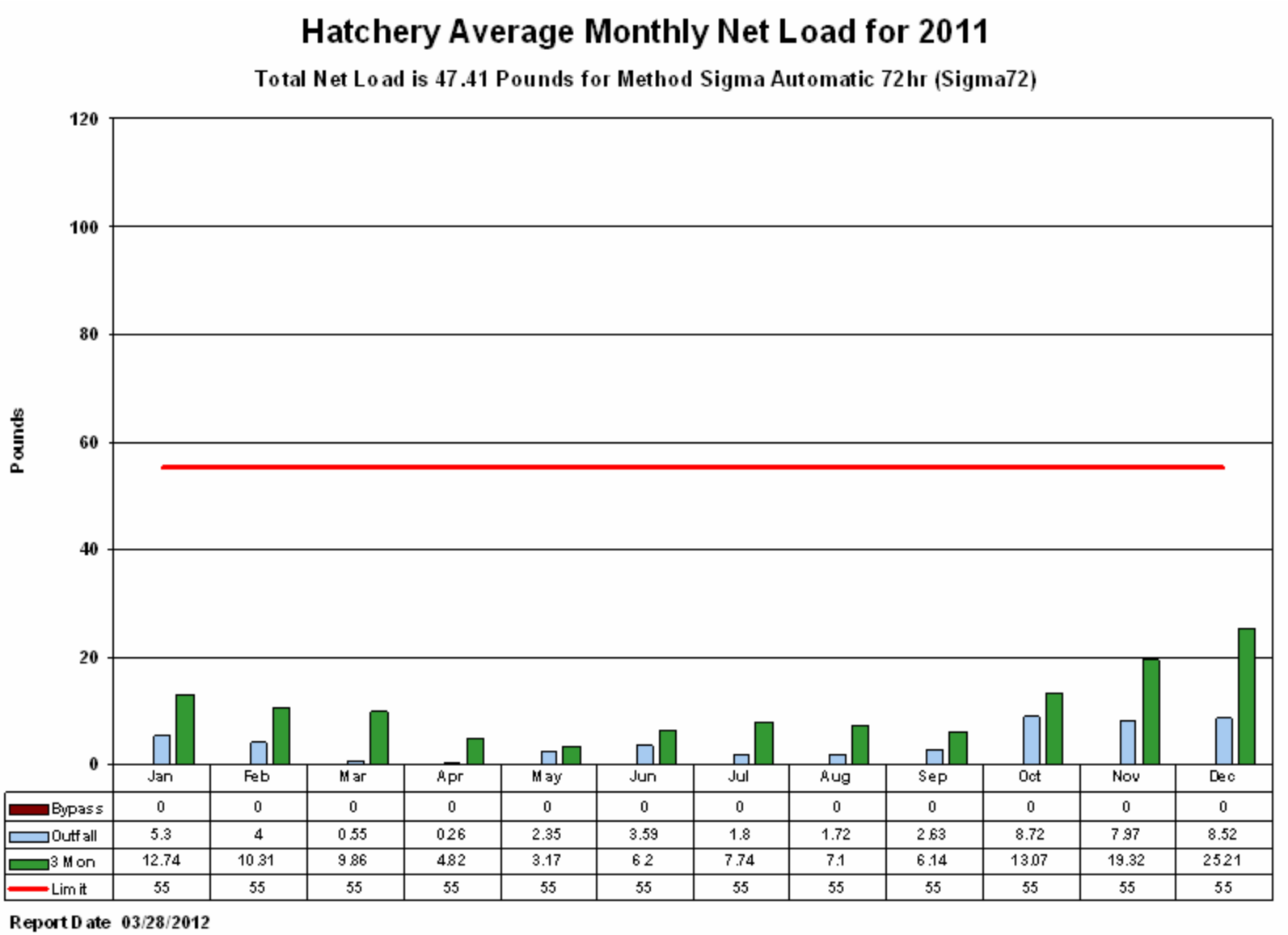

Figure 4. Hatchery monthly (blue bars) and 3-month cumulative (green bars) phosphorus loadings to the Platte River. The 3-month cumulative phosphorus discharge limit is displayed on the red line.

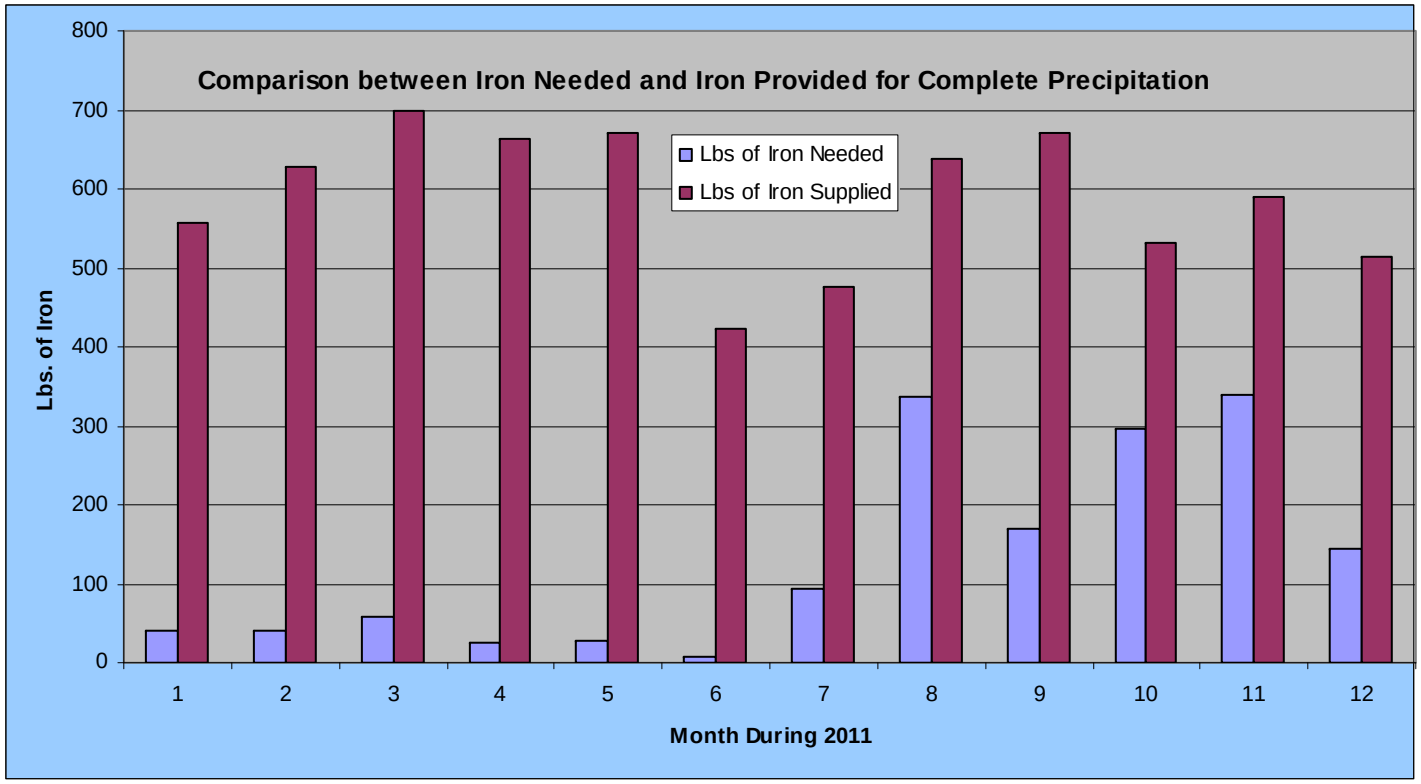

Figure 5. Monthly application rates of ferric chloride to reduce phosphorus in the Hatchery loadings to the Platte River.

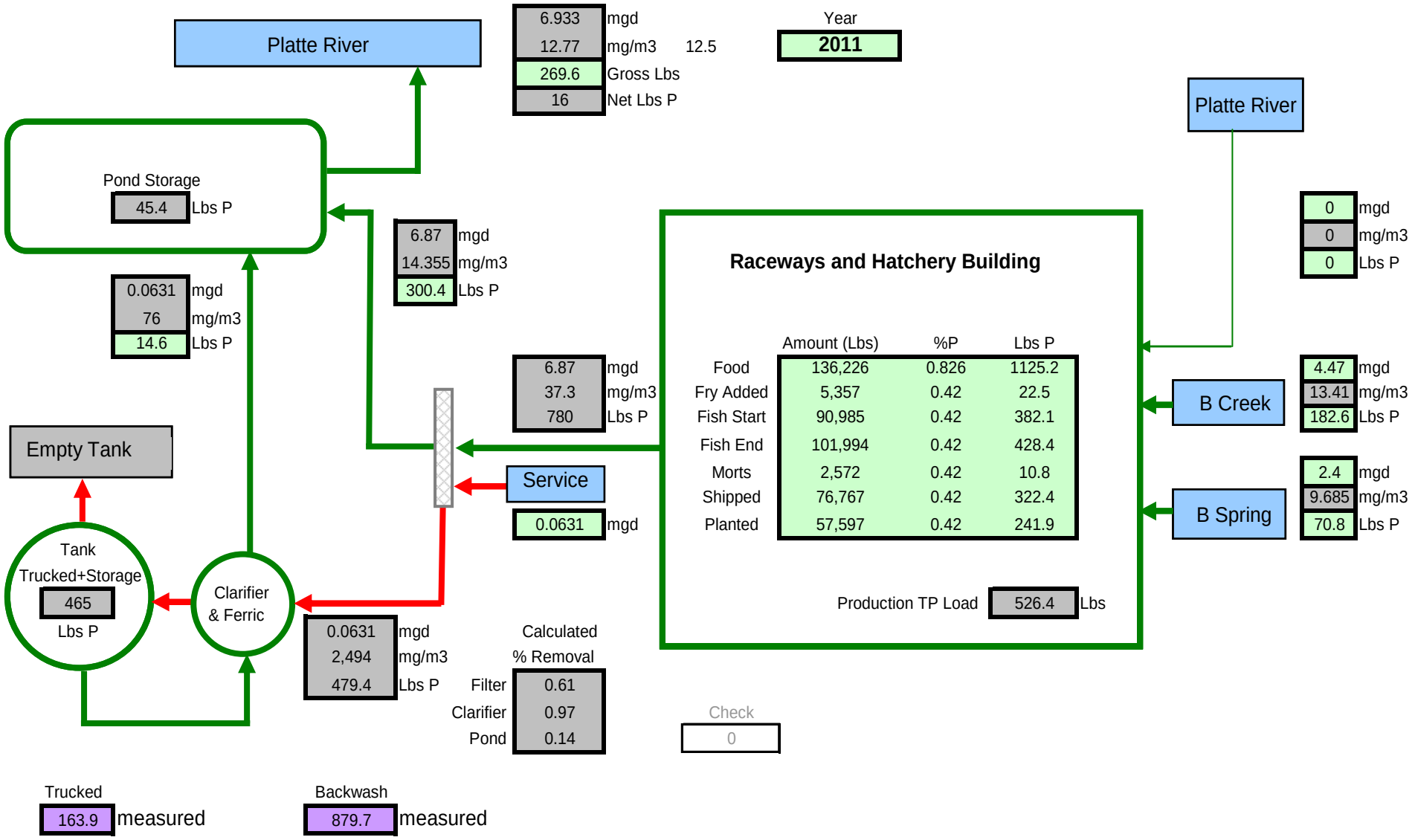

Figure 6. 2011 Hatchery phosphorus mass balance model.

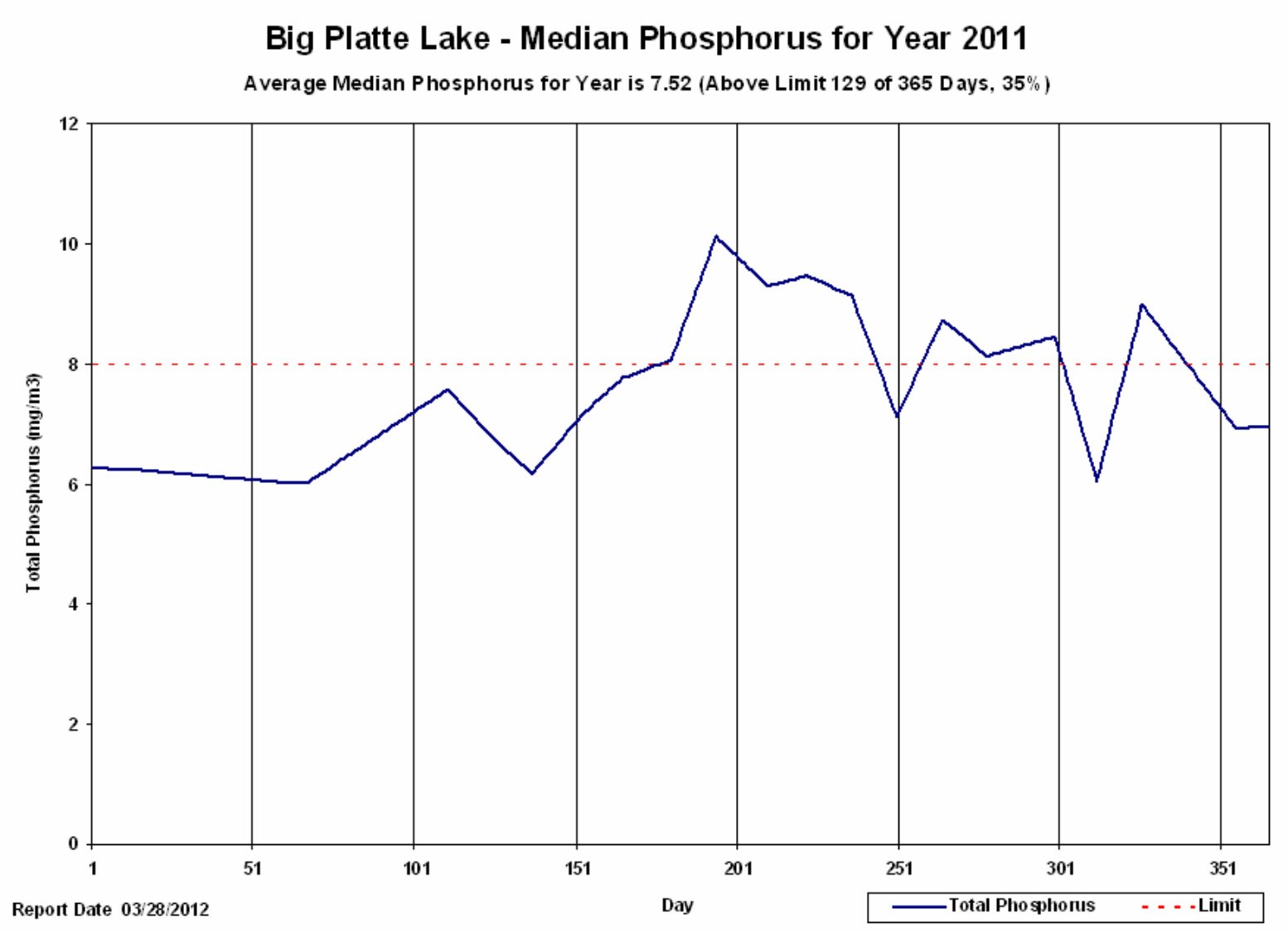

Figure 7. Volume-weighted total phosphorus concentrations in Big Platte Lake during 2011.

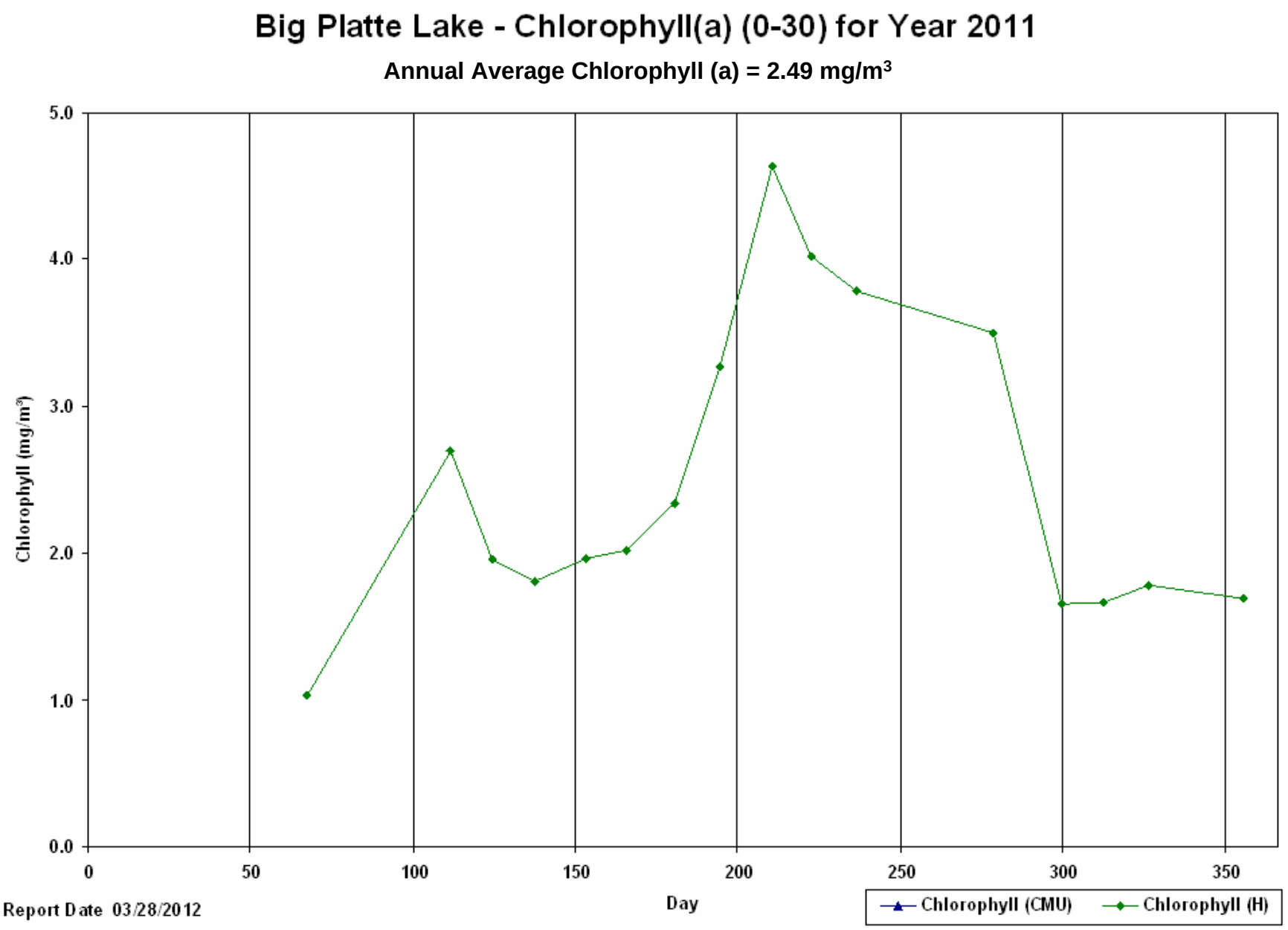

Figure 8. Big Platte Lake Chlorophyll (mg/m^3) in 2011.

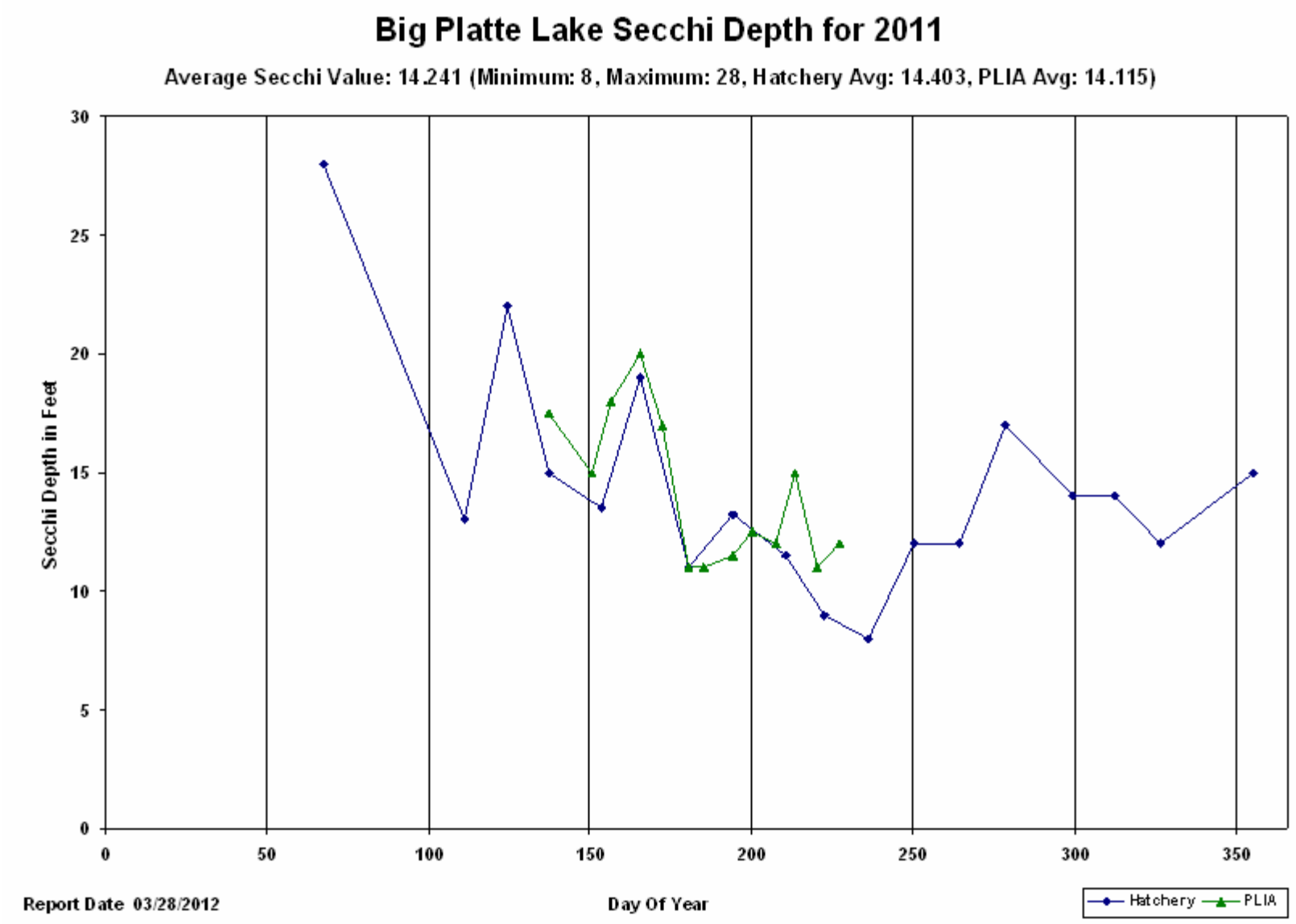

Figure 9. Big Platte Lake Secchi depth measurements for 2011.

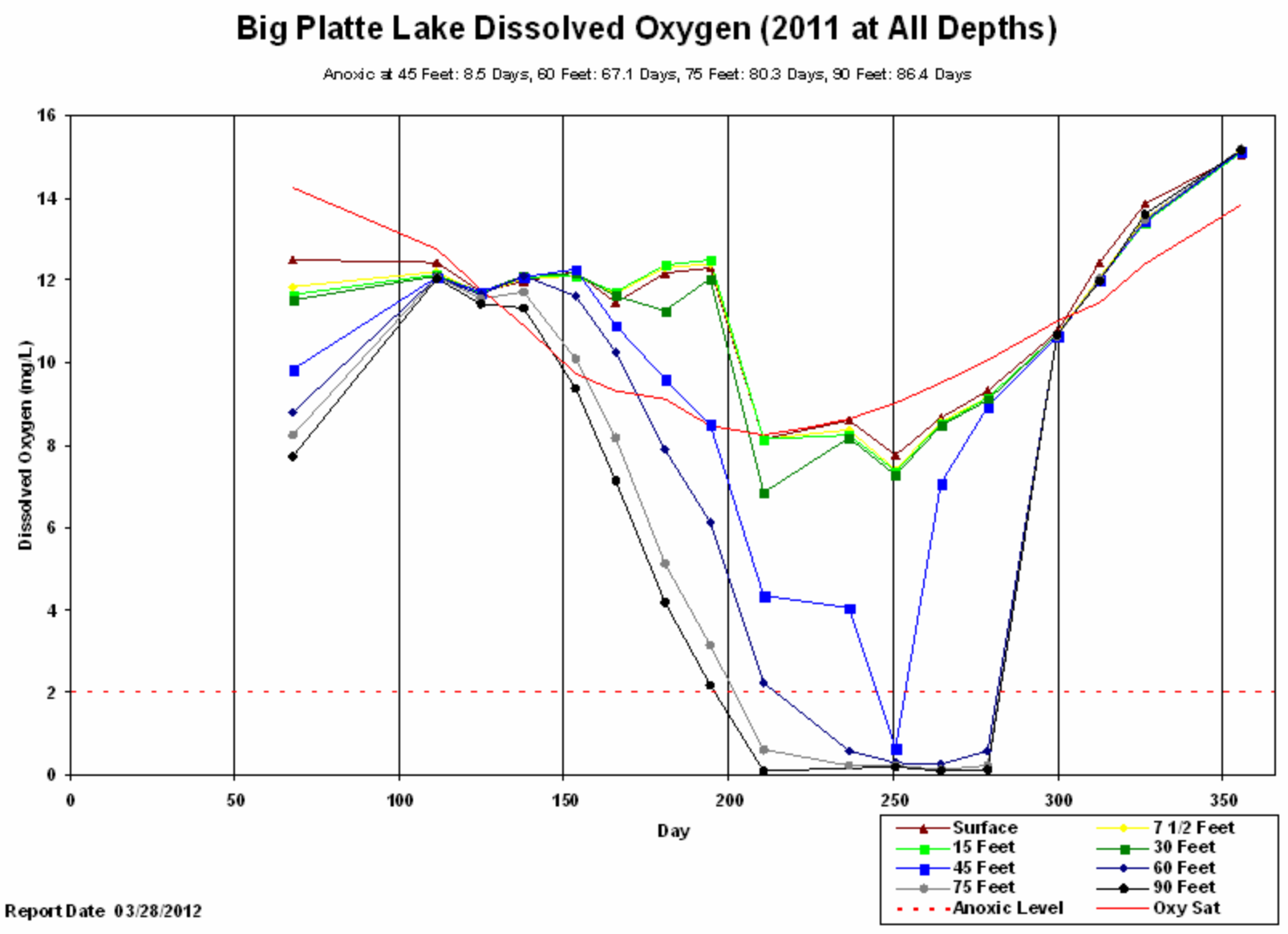

Figure 10. Dissolved oxygen measurements by depth in Big Platte Lake during 2011.

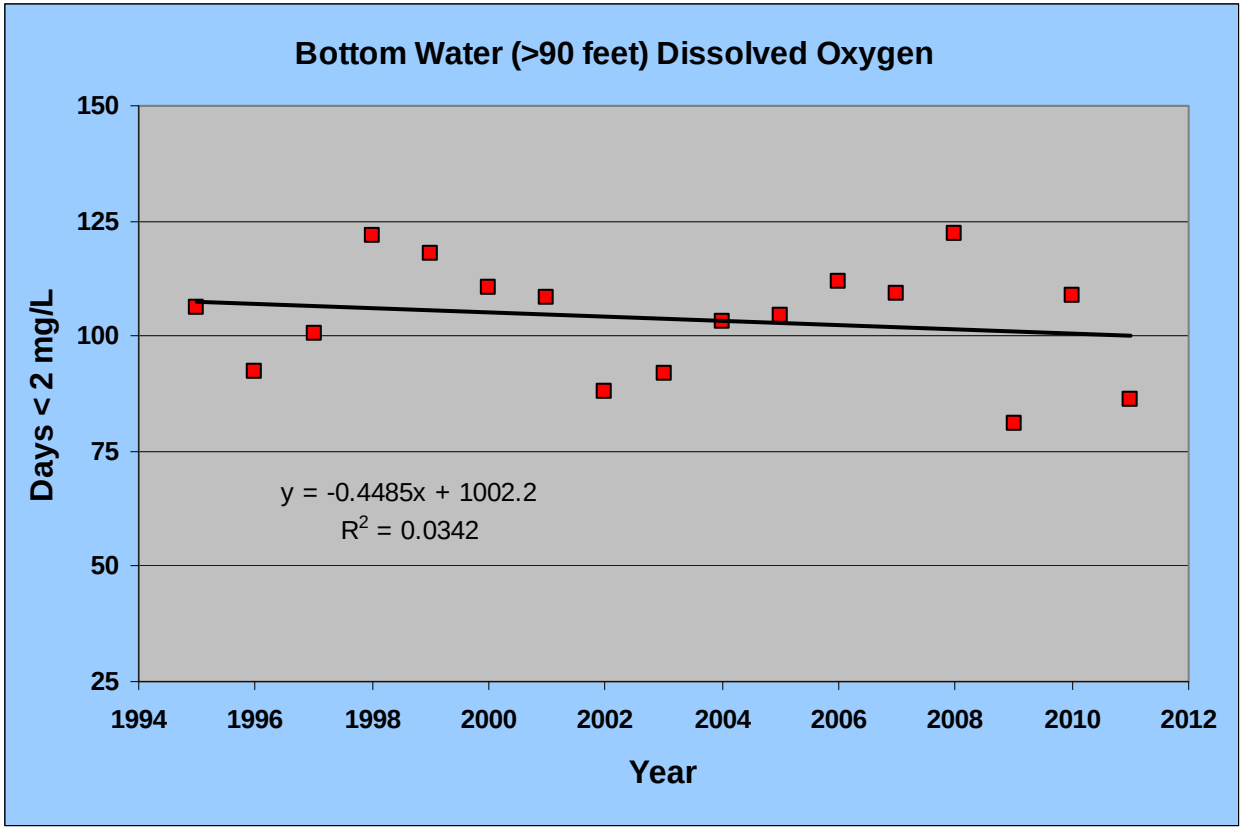

Figure 11. Long-term trend for the Number of Days when Dissolved Oxygen Concentrations Are less than 2 mg/L at depths greater then 90 feet in Big Platte Lake.

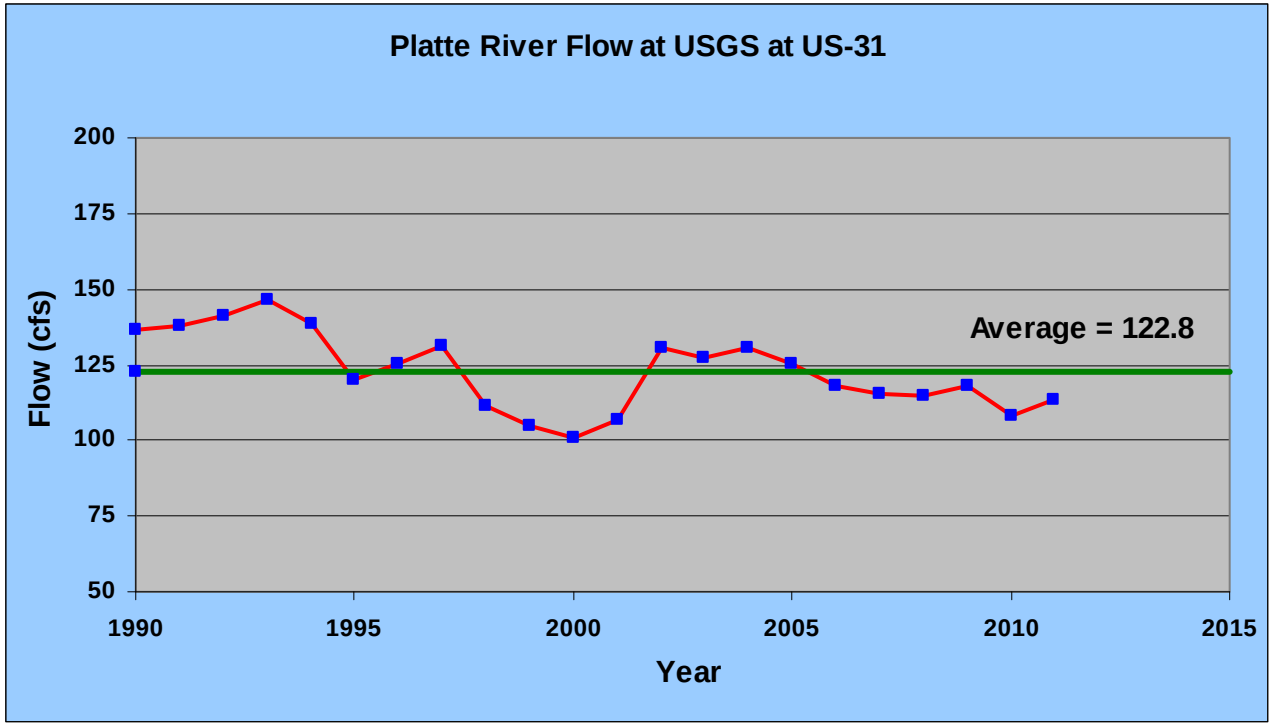

Figure 12. Mean annual discharge of the Platte River at the USGS Gauging Station 04126740 at Honor, MI. Mean Average Flow for 2011 = 113.6 cfs.

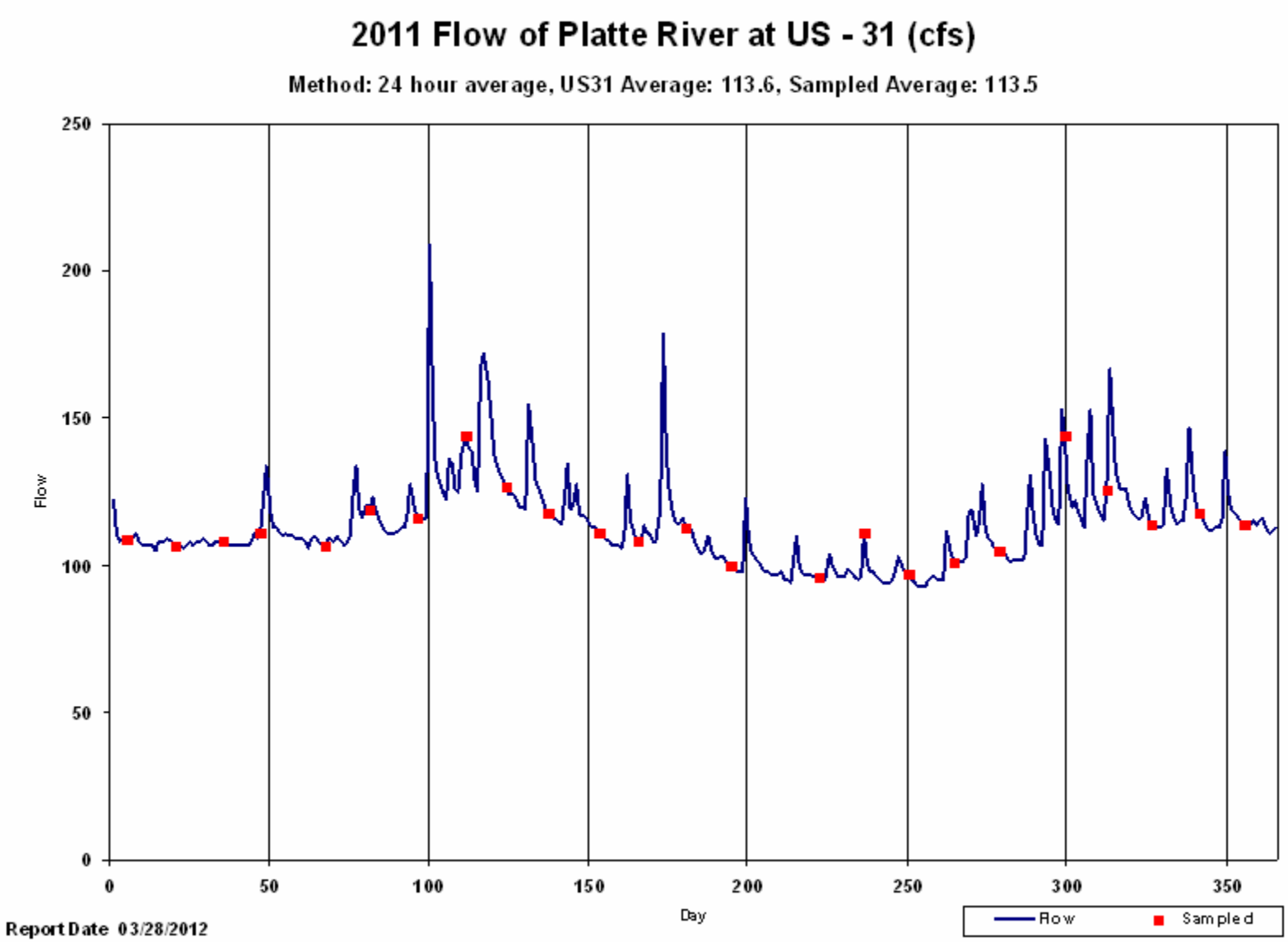

Figure 13. Daily average flows of Platte River in 2011 at the USGS Station 04126740 at Honor, MI and the water quality sampling dates at this site.

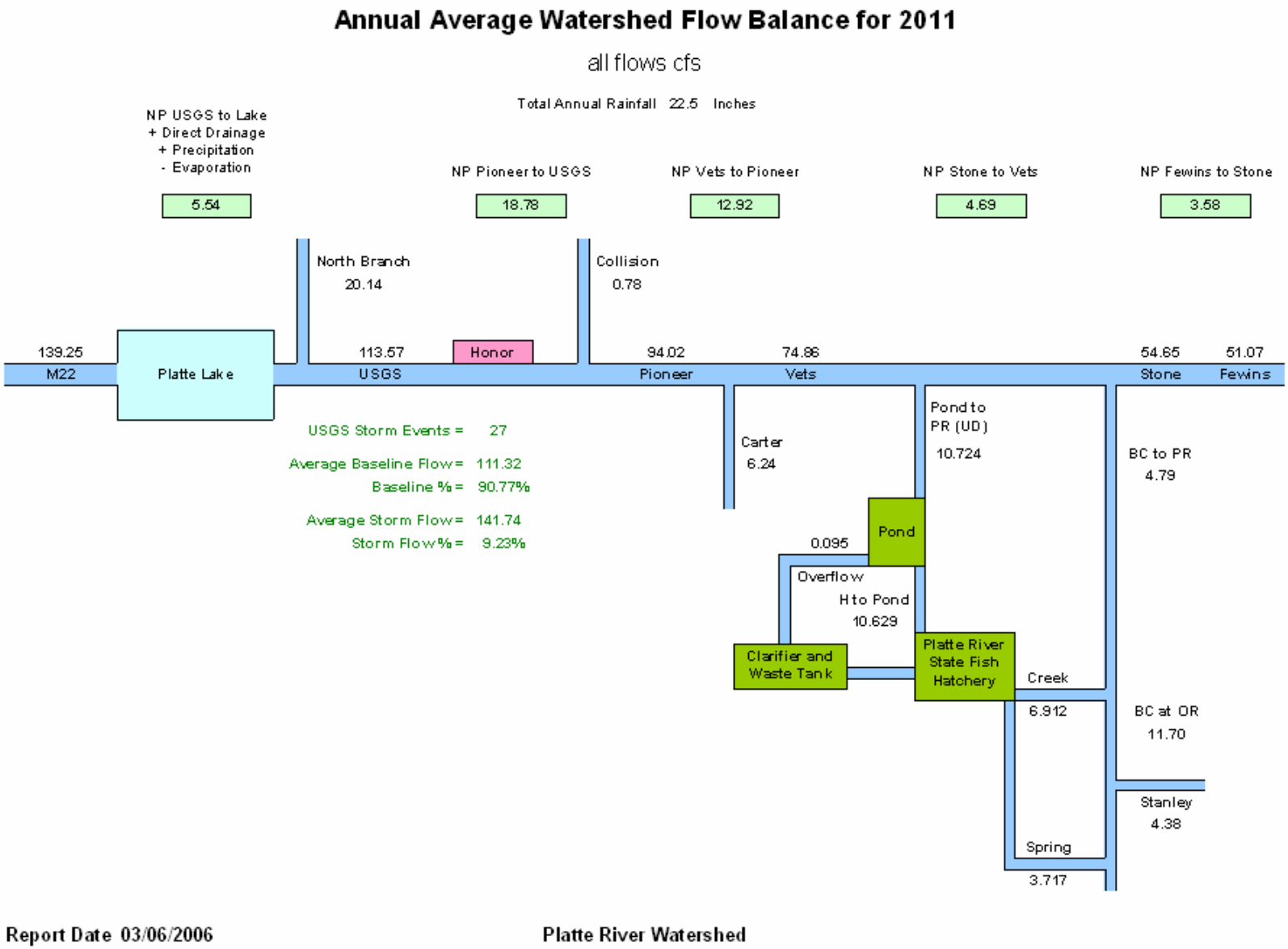

Figure 14. Watershed Flow Balance for 2011.

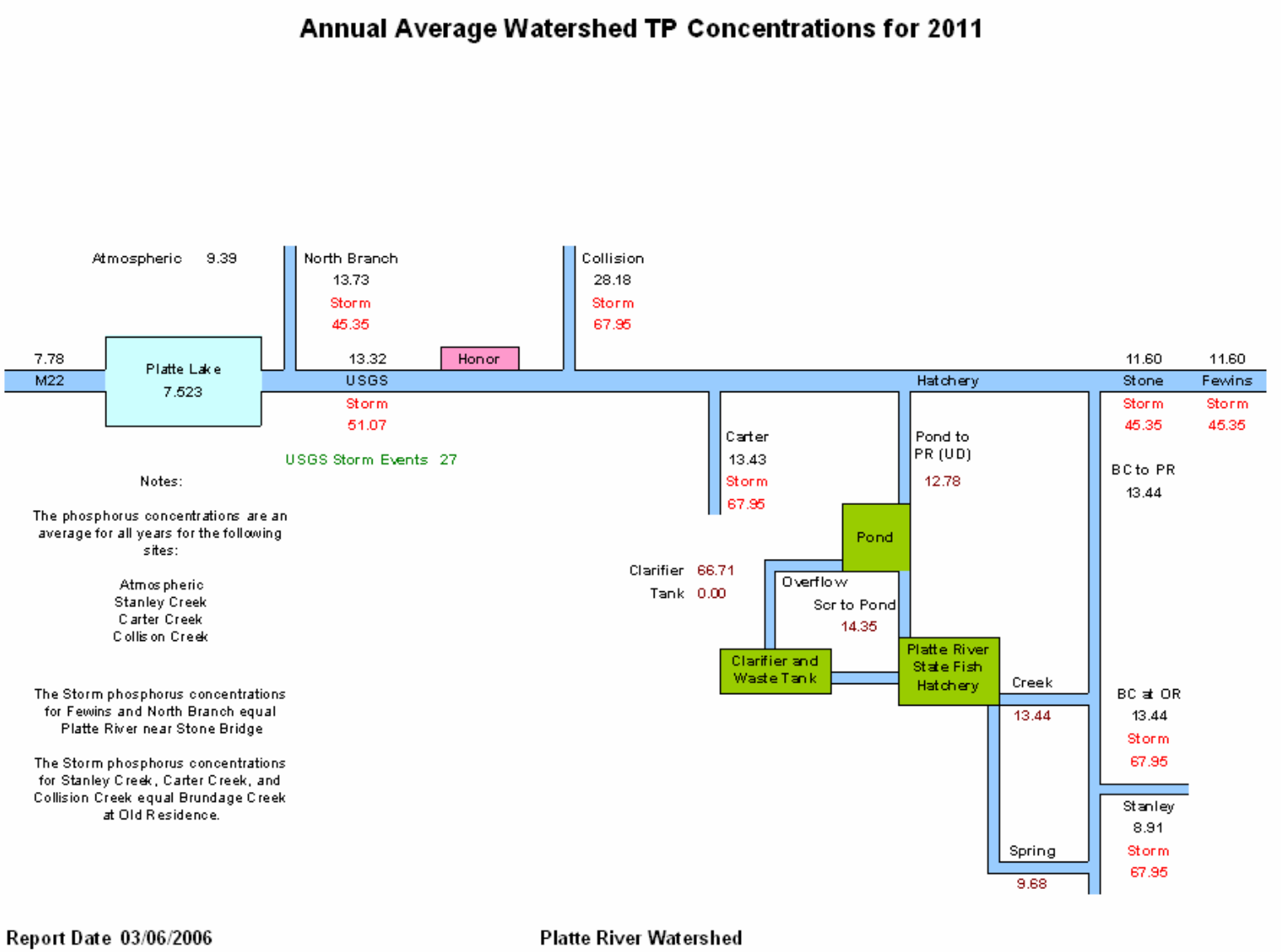

Figure 15. Annual Average Total Phosphorus concentrations for 2011

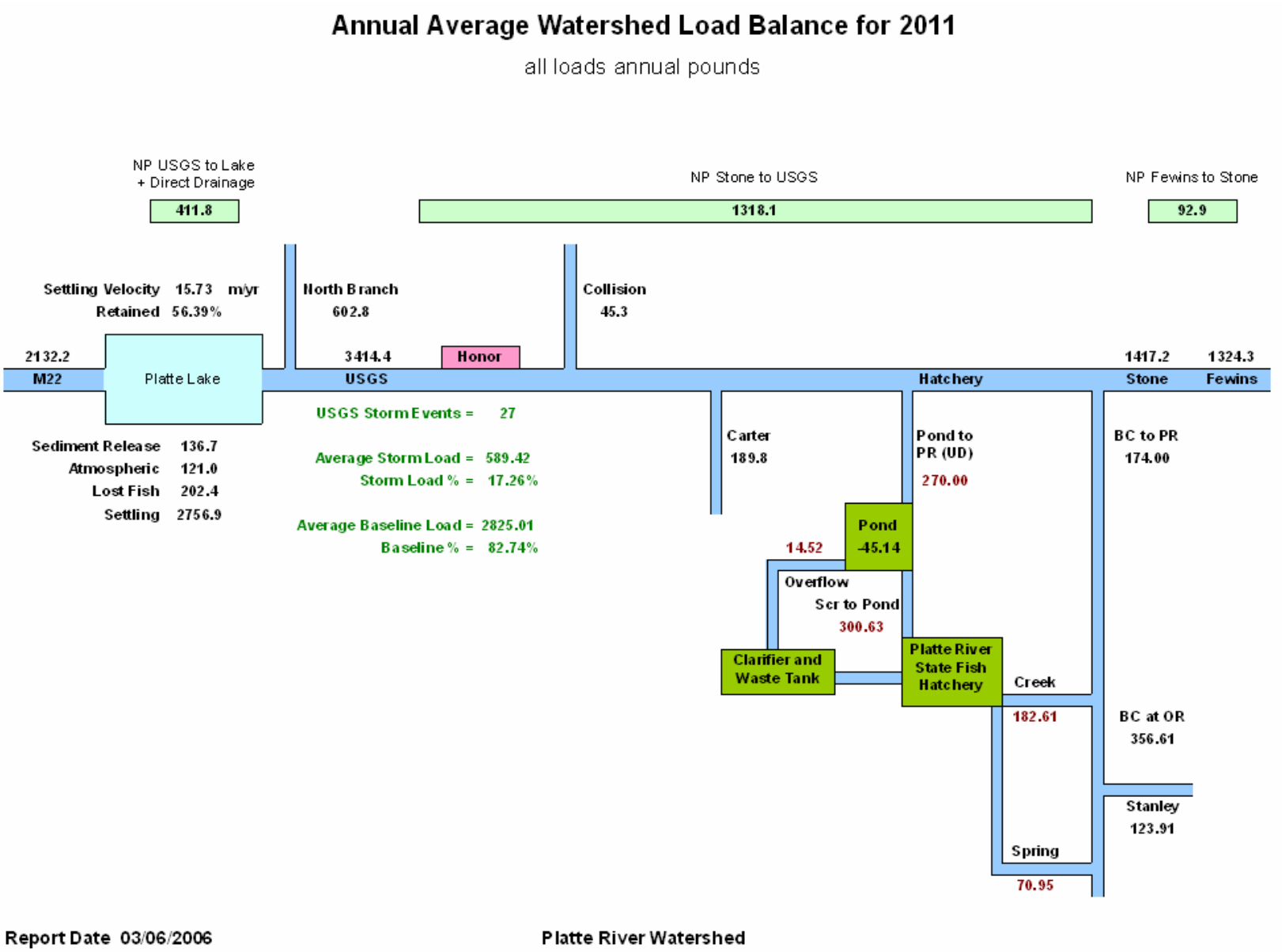

Figure 16. Watershed Phosphorus Load Balance for 2011