



SPOKANE COUNTY DIVISION OF UTILITIES

# *Spokane County Regional Water Reclamation Facility*



## DO TMDL – POINT SOURCE REDUCTION UPDATES

David Moss, PE – Water Reclamation Manager

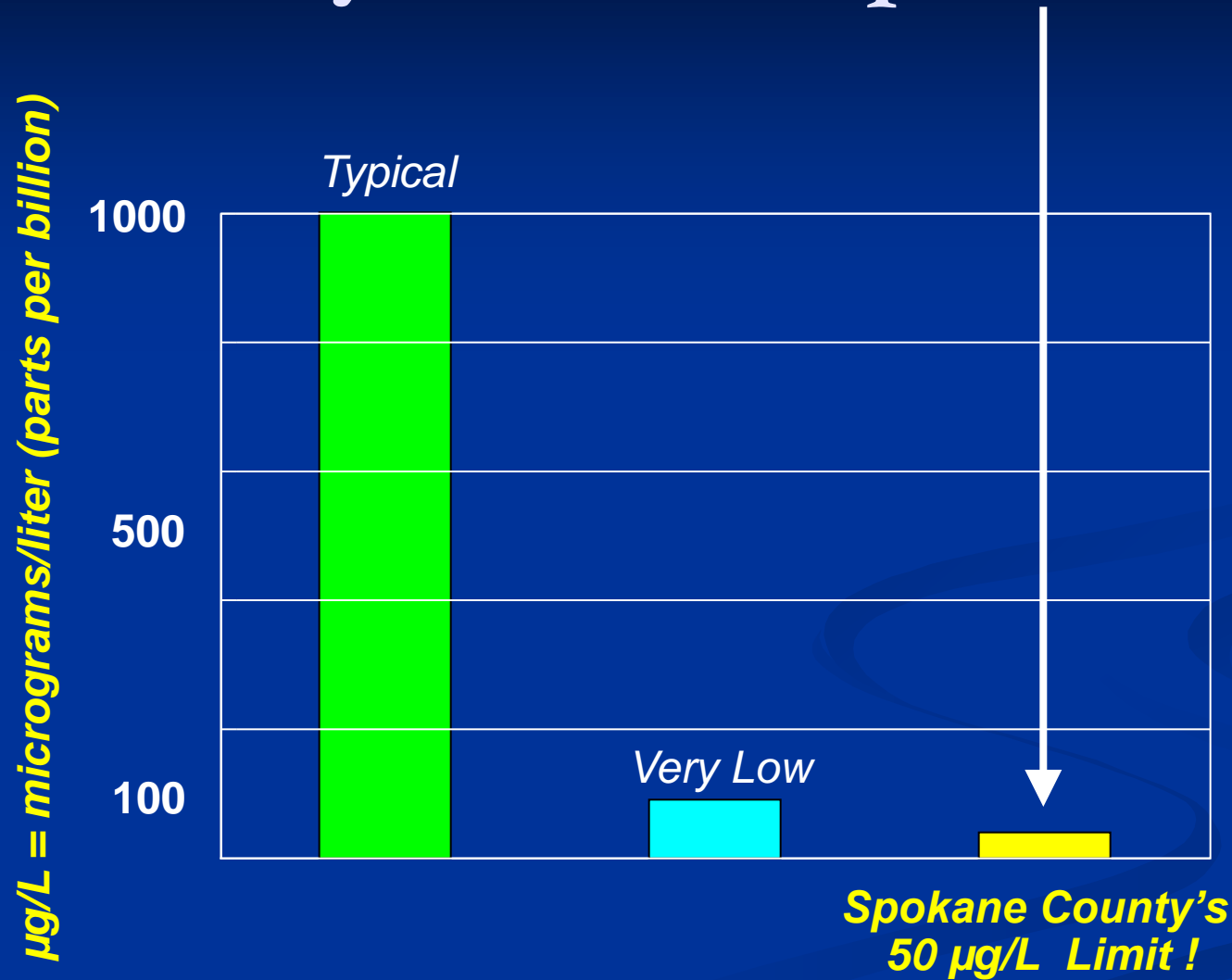
April 15, 2014

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# Project Schedule (past 5 years)

2009	2010	2011	2012	2013
Facilities Plan	Final Approval x	NPDES Permit X		
Design		Spokane County Regional Water Reclamation Facility		
	Construction	Start-up	Optimization	
			Operations → → → → →	
Conveyance System – Design, Permits, R / W, Construction, Start-up/Optimization				

# Extremely Low Phosphorus Limit

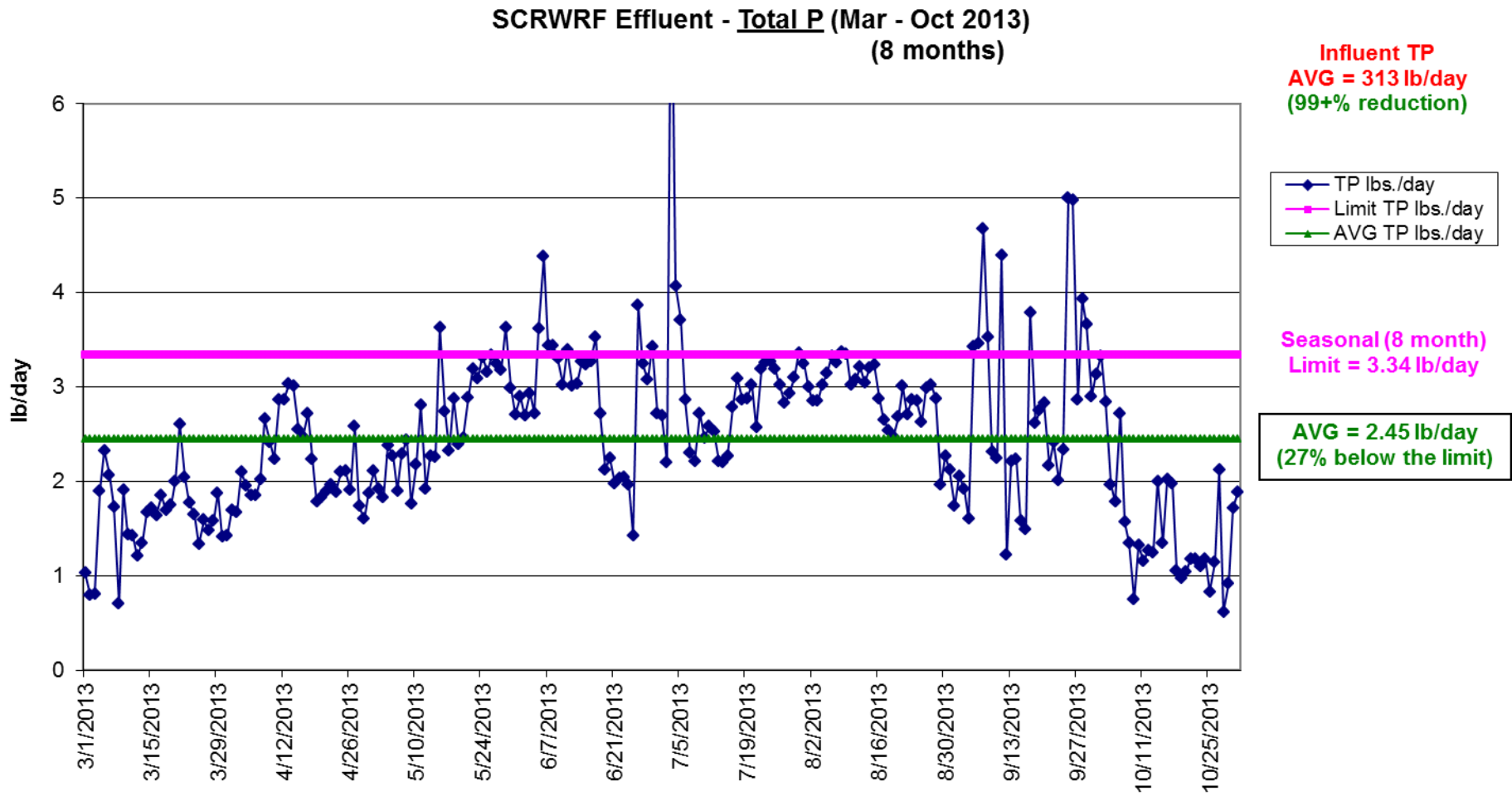


# Ultrafiltration Membranes

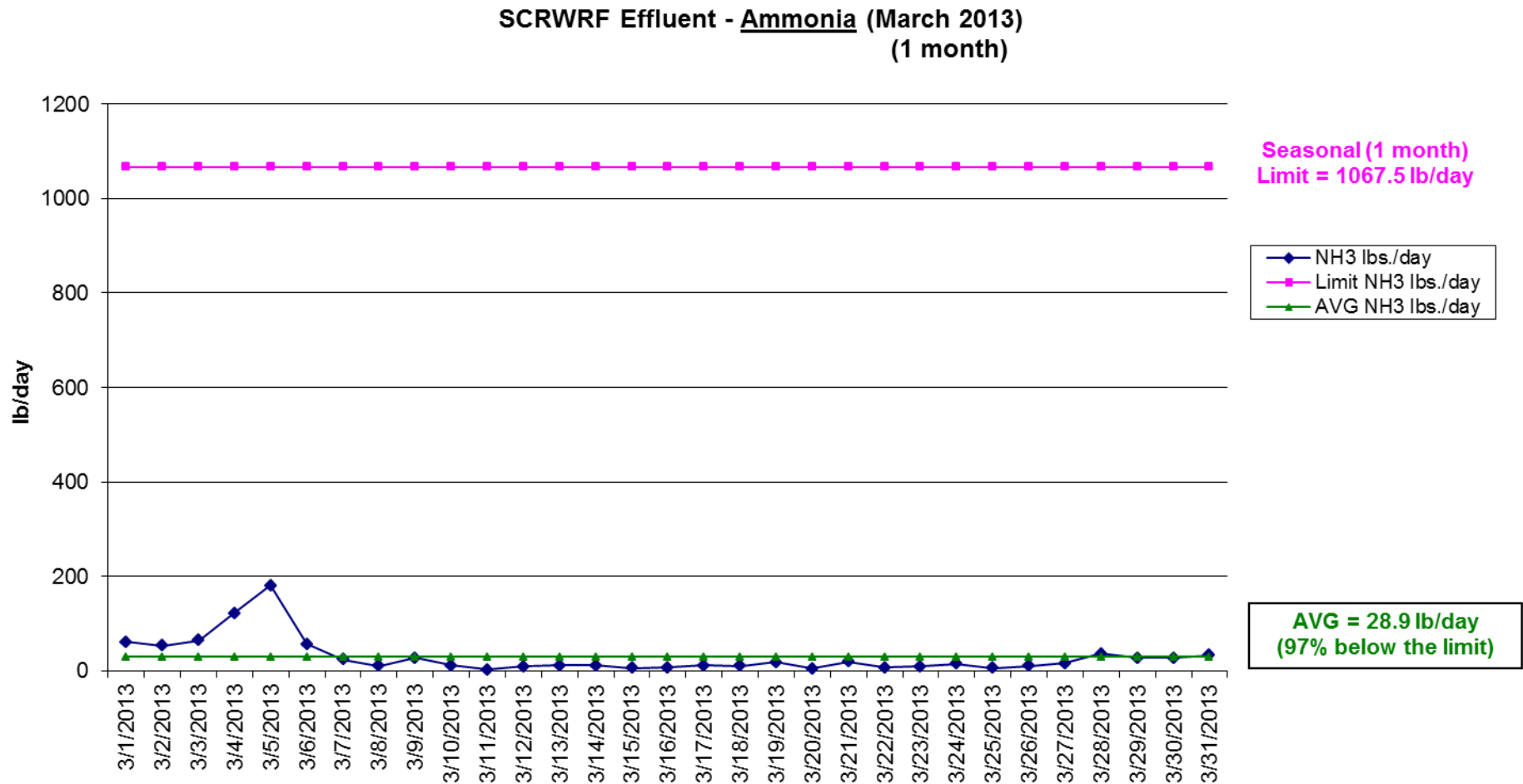


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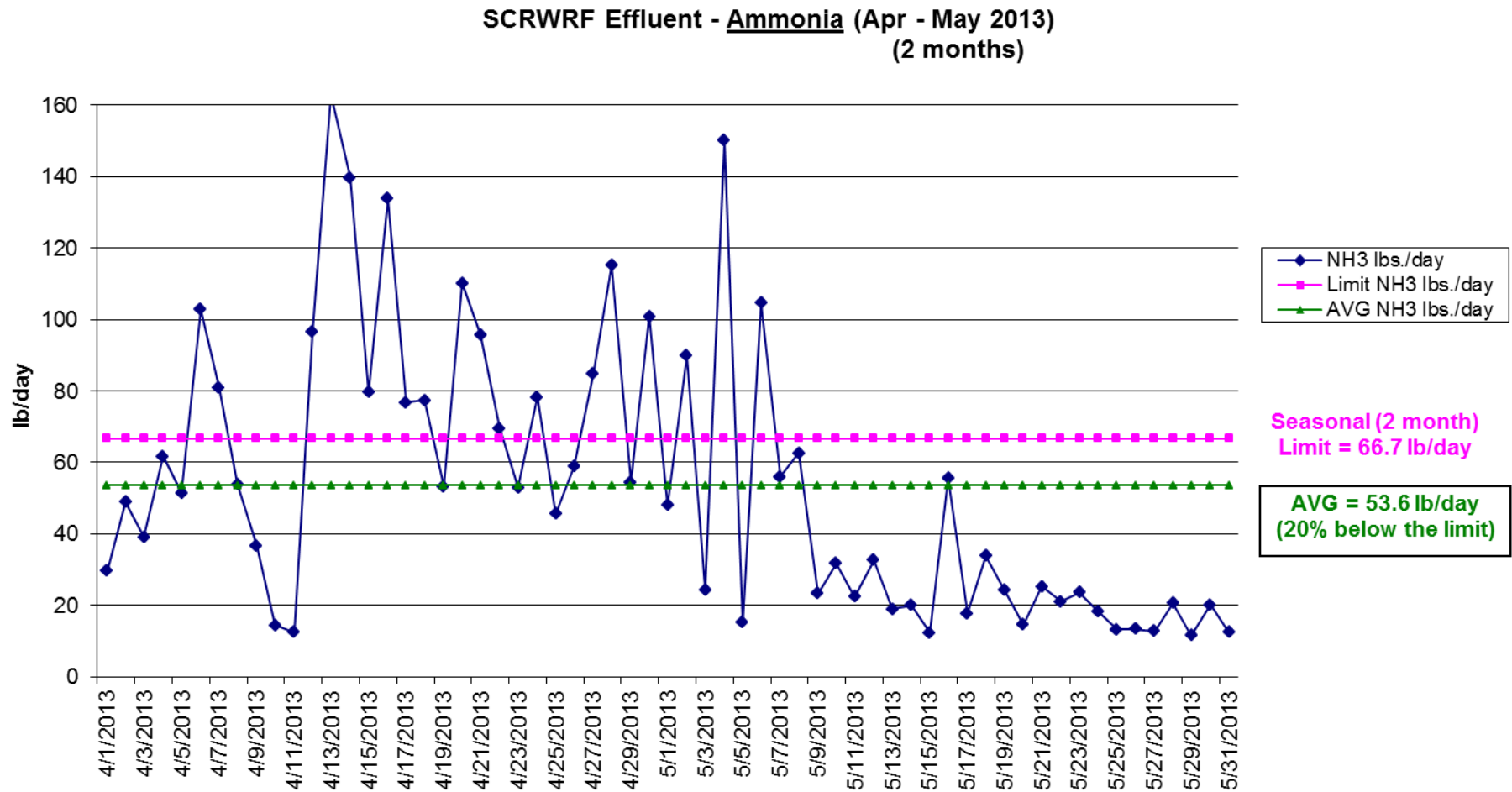
# Phosphorus Treatment (8 months)



# Ammonia Treatment (March 2013)

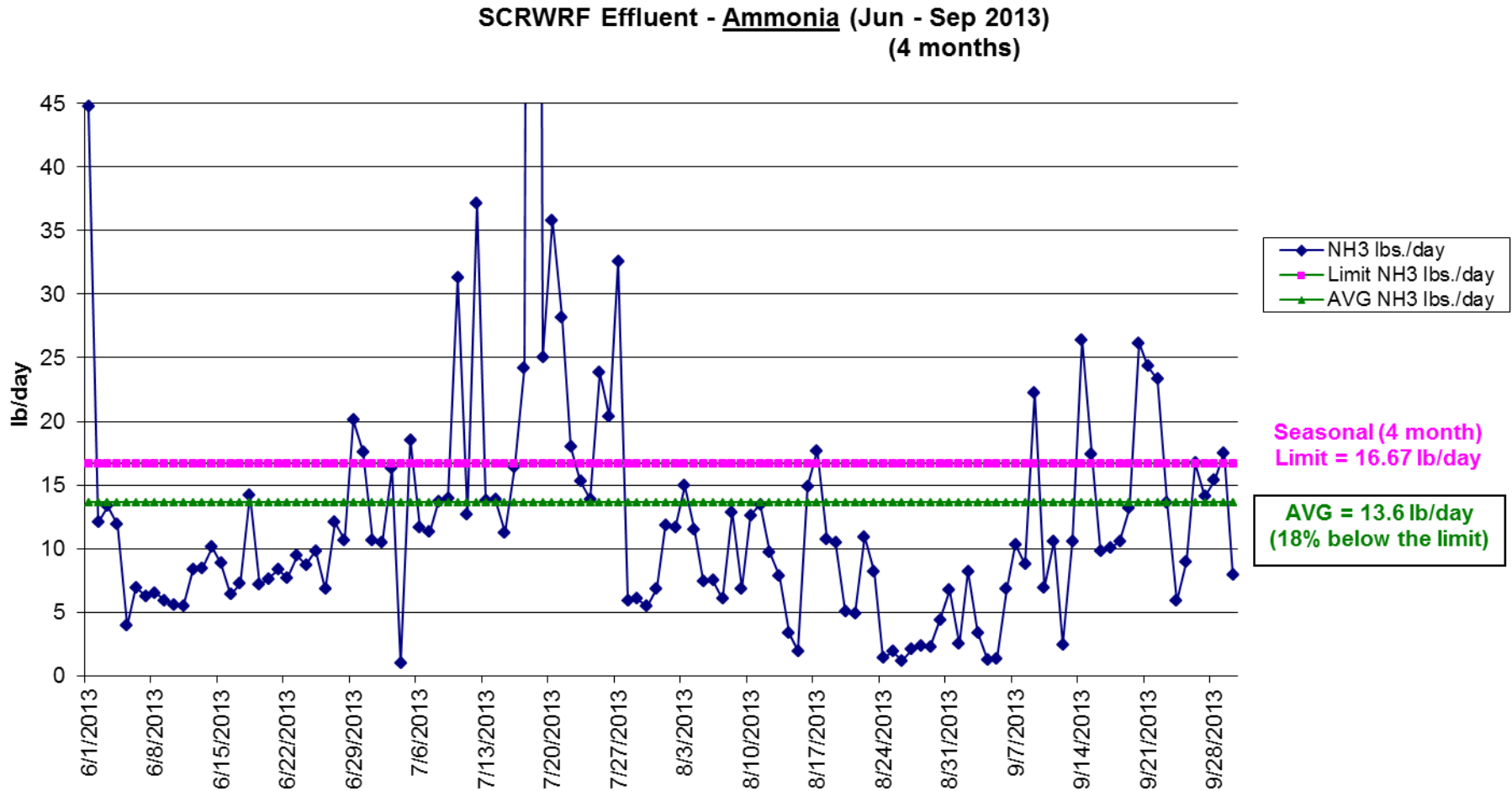


# Ammonia Treatment (April - May)



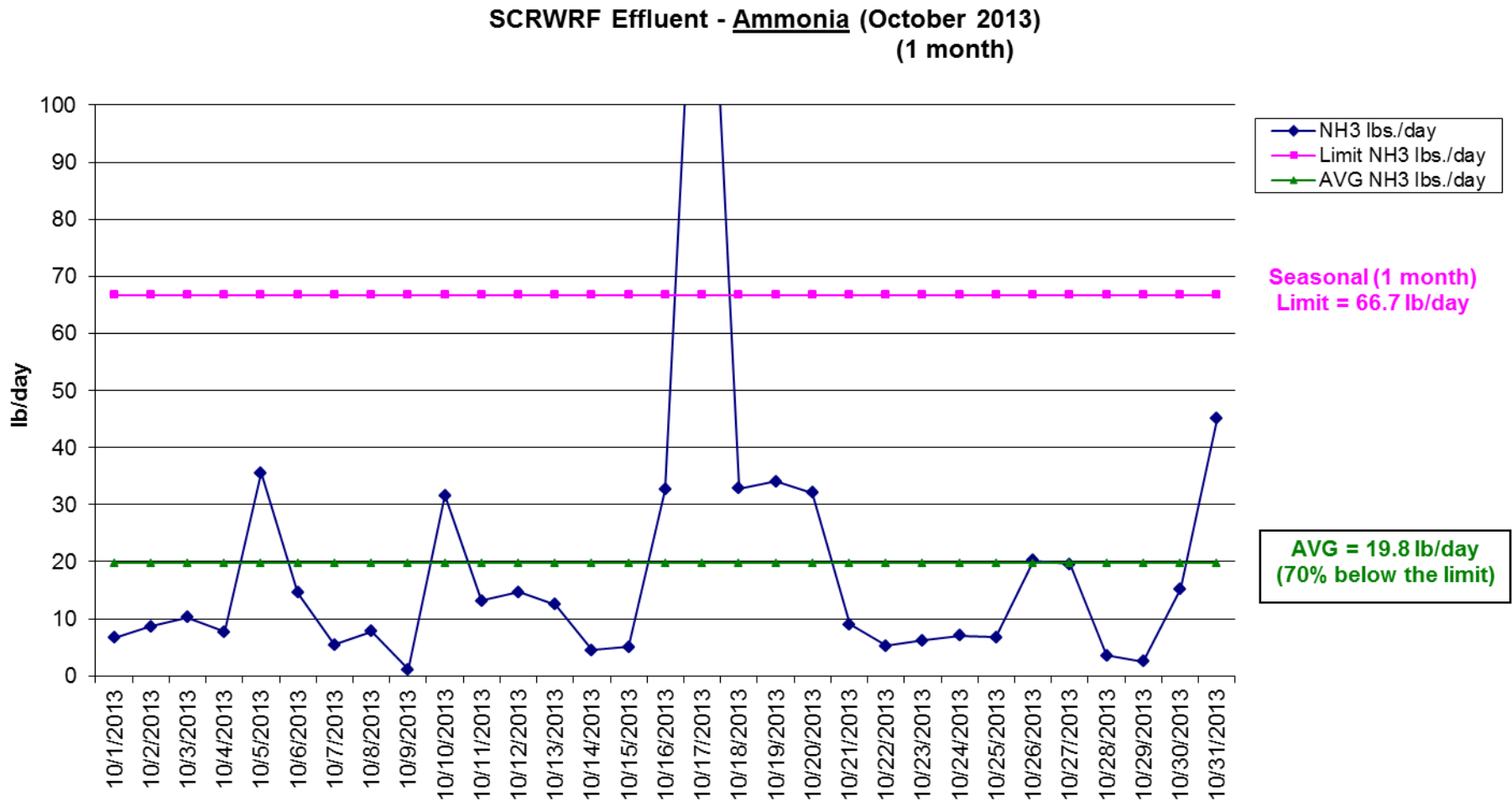


# Ammonia Treatment (June - September)





# Ammonia Treatment (October 2013)



# Carbonaceous Biochemical Oxygen Demand (CBOD) – 2013 Status

- The County's NPDES permit limit (monthly average) for CBOD is 2.0 mg/L (133 lbs/day)
- The lab detection limit for CBOD is 2.0 mg/L
- Essentially every day is “non-detect” and the DMR value is reported as <2.0 mg/L

# Total Phosphorus Treatment – 2013

- Phosphorus “season” in County’s NPDES permit is March thru October (8 months)
- Total pounds of Phosphorus into SCRWRF = 77,000 lbs *[70,000 lbs in 2012]*
- Total pounds of Phosphorus out of SCRWRF = 600 lbs *[700 lbs in 2012]*
- Total Phosphorus reduction from SCRWRF treatment = 99.2% *[99.0% in 2012]*



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