

Thesis Errata Page

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This document lists errors found in the submitted version of Paula Kalinosky's MSc thesis, *Quantifying Solids and Nutrient Recovered Through Street Sweeping in a Suburban Watershed* (April 2015), together with corrections. Only errors relevant to statistical analysis have been listed.

List of Errors

The following errors were found in Section 2.5.2 – Regression Analysis

Location	Error	Correction
p 26, Table 7	Values the published table contained a unit conversion error.	<i>See revised tables below</i>
p 27, Table 8	Values the published table contained a unit conversion error.	<i>See revised tables below</i>
p 64, Table 13	Values the published table contained a unit conversion error.	<i>See revised tables below</i>
p 66, Table 15	Values the published table contained a unit conversion error.	<i>See revised tables below</i>

Revised Tables

Table 1. Multiple linear regressions relating the average per sweep recovered yield of solids for each route to the average tree canopy cover (within 6.1 m (20 ft) from the curb) and average sweeping frequency (all sweepings included).

Solids	Solids (kg/curb-meter) = $\beta_0 + \beta_1(\text{Canopy Cover}^{\S}) + \beta_2(\text{Average Sweeping Interval}^{\S})$				
	β_0	$\beta_1(\text{canopy cover})$	$\beta_2(\text{sweeping interval})$	R ²	p-value
Sweeper Waste	2.6E-03	1.4E-01*	1.5E-03	0.63	0.0206
Fines	1.0E-02	5.2E-02	1.0E-03	0.55	0.0902
Coarse Organics	-5.7E-03	5.7E-02	2.0E-04	0.79	0.0038
Total P	-5.6E-06	1.4E-05	1.1E-06	0.86	0.0027
Fine P	2.3E-06	4.6E-05	8.5E-07	0.81	0.0072
Coarse P	-7.9E-06	9.3E-05	2.8E-07	0.89	0.0013
Leached P	-2.8E-07	4.2E-06	1.8E-08	0.75	0.0157
Total N	-6.5E-05	8.7E-04	2.8E-06	0.88	0.0017
Fine N	-1.1E-05	1.9E-04	1.1E-06	0.73	0.0187
Coarse N	-5.4E-05	6.7E-04	2.3E-06	0.90	0.0009
Leached N	5.6E-07	8.2E-06	3.4E-08	0.72	0.0210

*Values for coefficients that are shown in bold are significant at $\alpha = 0.05$.

[§]Canopy cover as a decimal fraction; sweeping interval in days.

Table 2. Multiple linear regressions relating the annual recovered yield of solids (kg/curb-meter/yr) for each route to the tree canopy cover (within 6.1 m (20 ft) from the curb) and average sweeping frequency (all sweepings included).

Solids	Solids (kg/curb-meter/yr) = $\beta_0 + \beta_1(\text{Canopy Cover}^\S) + \beta_2(\text{Average Sweeping Interval}^\S)$				
	β_0	$\beta_1(\text{canopy cover})$	$\beta_2(\text{sweeping interval})$	R ²	p-value
Sweeper Waste	1.53	2.45	-2.80E-02	0.88	0.0019
Fines	1.28	<i>6.87E-01</i>	-2.20E-02	0.72	0.0223
Coarse Organics	<i>7.95E-02</i>	1.19	<i>-3.70E-03</i>	0.94	0.0002
Total P	8.70E-04	2.80E-03	-3.00E-05	0.95	0.0002
Fine P	7.00E-04	<i>7.50E-04</i>	-1.00E-05	0.77	0.0123
Coarse P	<i>1.70E-04</i>	1.99E-03	<i>-1.00E-05</i>	0.92	0.0004
Leached P	<i>1.00E-05</i>	8.00E-05	<i>2.48E-07</i>	0.95	0.0002
Total N	2.54E-03	1.78E-02	-8.00E-05	0.94	0.0002
Fine N	9.10E-04	3.44E-03	-2.00E-05	0.88	0.0017
Coarse N	<i>1.55E-03</i>	1.43E-02	<i>-6.00E-05</i>	0.93	0.0003
Leached N	5.00E-05	1.20E-04	-1.00E-06	0.89	0.0013

*Values for coefficients that are shown in bold are significant at $\alpha = 0.05$.

§Canopy cover as a decimal fraction; sweeping interval in days.

Table 3. Regressions predicting recoverable loads (average) based on the month in which sweeping occurred, over-street tree canopy, and the frequency of sweeping (1, 2, or 4 times per 4-week interval). All coefficients shown were significant at $\alpha = 0.05$.

Log(Load Component, kg/curb-meter) = $\beta_0 + \beta_{\text{month}} + \beta_2(\text{Canopy Cover}^*) + \beta_3(\text{Average Sweeping Interval}^*)$						
Load Component	β_0	β_{month}	β_2	β_3	R ²	p-value
Dry Solids	-1.824	(See Table 15)	3.194	-0.199	0.45	<2.2e-16
Fines	-2.056		1.718	-0.176	0.43	
Coarse Organics	-5.646		9.851	-0.251	0.60	
Total P	-9.406		4.597	-0.239	0.42	
Fine P	-9.435		2.511	-0.245	0.34	
Coarse P	-12.193		9.207	-0.232	0.56	
Leached P	-15.902		8.724	-0.226	0.33	
Total N	-9.511		7.753	-0.218	0.46	
Fine N	-10.295		4.687	-0.213	0.24	6.1e-16
Coarse N	-10.259		9.041	0.225	0.49	2.2e-16
Leached N	-14.121		4.945	-0.162	0.27	9.3e-13

*Over-street canopy cover as a decimal fraction; sweeping interval in weeks.

Table 4. Coefficients for β_1 for regressions described in Table 13. Coefficients which were not significant at $\alpha=0.05$ are shown in *gray italic font*.

Month*	Dry Solids	Fines	Coarse Organics	Total P	Fine P	Coarse P	Leached P	Total N	Fine N	Coarse N	Leached N
April	-0.484	-0.457	<i>0.056</i>	-0.385	-0.383	<i>-0.070</i>	1.179	0.476	0.613	0.503	1.328
May	-0.944	-0.918	<i>-0.102</i>	-0.604	-0.717	<i>0.169</i>	1.628	0.538	0.580	0.646	1.527
June	-1.070	-1.034	<i>-0.183</i>	-0.762	-0.833	<i>0.087</i>	1.116	0.456	0.508	0.556	1.388
July	-1.271	-1.273	-0.533	-1.156	-1.230	-0.388	0.737	<i>0.015</i>	<i>0.057</i>	<i>0.133</i>	<i>0.908</i>
August	-1.166	-1.170	<i>0.045</i>	-0.949	-1.137	<i>0.167</i>	0.742	0.398	<i>0.179</i>	0.679	<i>0.711</i>
September	-1.347	-1.406	<i>0.268</i>	-0.922	-1.301	0.499	0.738	0.470	<i>0.160</i>	0.777	0.225
October	-0.829	-1.323	1.628	<i>-0.029</i>	-0.942	1.910	1.791	1.319	0.611	0.742	1.517
November	-1.116	-1.490	0.918	-0.519	-1.188	1.038	0.990	0.566	<i>-0.094</i>	1.742	<i>0.739</i>

* $\beta_{\text{month}} = 0$ for March (baseline condition).