Sediments Site G Data
Fall Semester 2015-2016

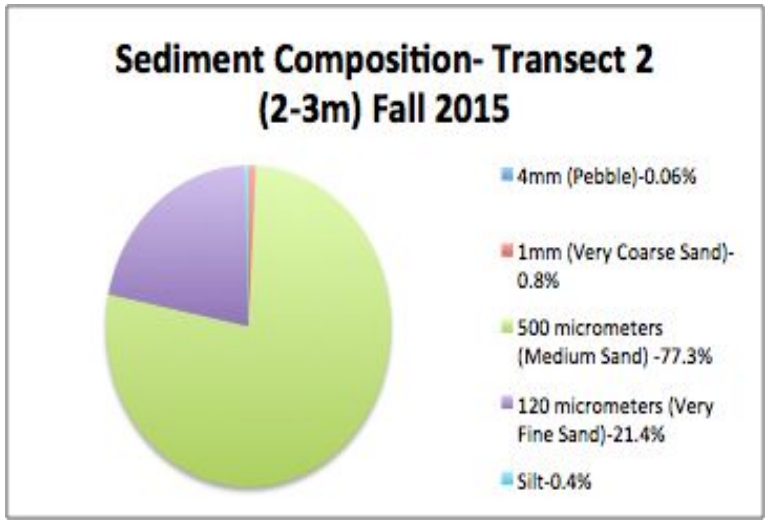
			4 mm		**1mm**		**500 micrometers**		**120 micrometers**		**Silt**		
Sample #	Transect	Dist. from Bank (m)	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	**Total (g)**
1	2	2-3	1.2	0.1%	15.0	0.8%	1438.8	77.3%	398.6	21.4%	7.4	0.4%	1861.0
2	2	5-6	0	0.0%	184.6	9.9%	1318.1	70.4%	362.2	19.3%	7.5	0.4%	1872.4
3	3	2-3	49.4	2.5%	1464.4	72.7%	329.5	16.4%	163.0	8.1%	8.0	0.4%	2014.3
4	3	5-6	0	0.0%	206.9	12.5%	1125.9	68.2%	311.9	18.8%	6.8	0.4%	1651.5
5	4	2-3	8.4	0.4%	1743.6	84.4%	247.7	11.9%	64.6	3.2%	1.5	0.1%	2068.8
6	4	5-6	0	0.0%	259.9	14.7%	1264.2	71.6%	237.4	13.5%	3.5	0.2%	1765

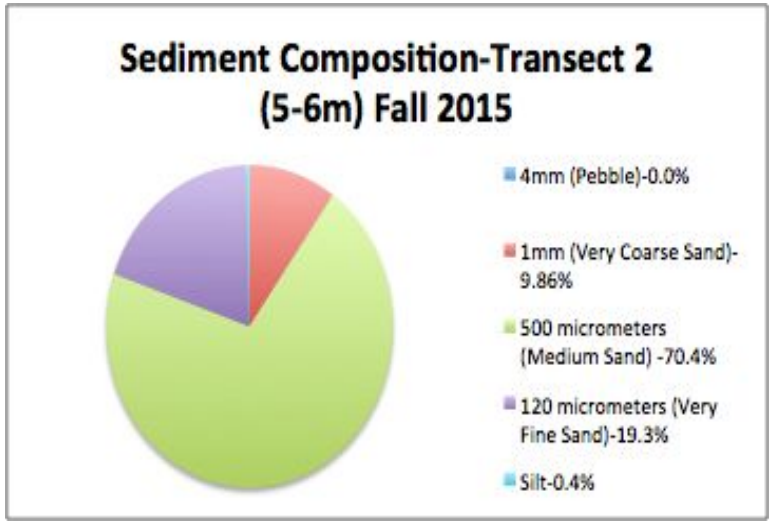
	Transect	Dist. from N Bank	Corbicula	Feature	Potassium	pH	Nitrogen	Phosphorus
1	2	2-3	0	Bed	Med-Low	6.0	trace	low
2	2	4-5	0	Bed	Med-Low	7.0	trace	trace
3	3	2-3	0	Bed	Med-High	6.5	trace	medium
4	3	4-5	0	Bed	Med-Low	6.5	trace	low
5	4	2-3	0	Bed	Low	6.0	trace	medium
6	4	4-5	0	Bed	Med-High	7.0	trace	trace

Transect 2 Site Analysis Fall 2015

			4 mm		**1mm**		**500 micrometers**		**120 micrometers**		**Silt**		
Sample #	Transect	Dist. from Bank (m)	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	**Total (g)**
1	2	2-3	1.2	0.1%	15.0	0.8%	1438.8	77.3%	398.6	21.4%	7.4	0.4%	1861.0
2	2	4-5	0	0.0%	184.6	9.9%	1318.1	70.4%	362.2	19.3%	7.5	0.4%	1872.4

	Transect	Dist. from N Bank (m)	Corbicula	Feature	Potassium	pH	Nitrogen	Phosphorus
1	2	2-3	0	Bed	Med-Low	6.0	trace	low
2	2	4-5	0	Bed	Med-Low	7.0	trace	trace





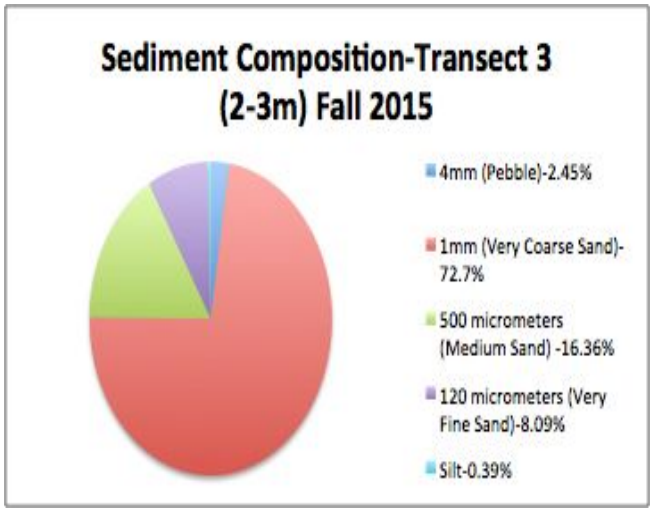
Analysis:

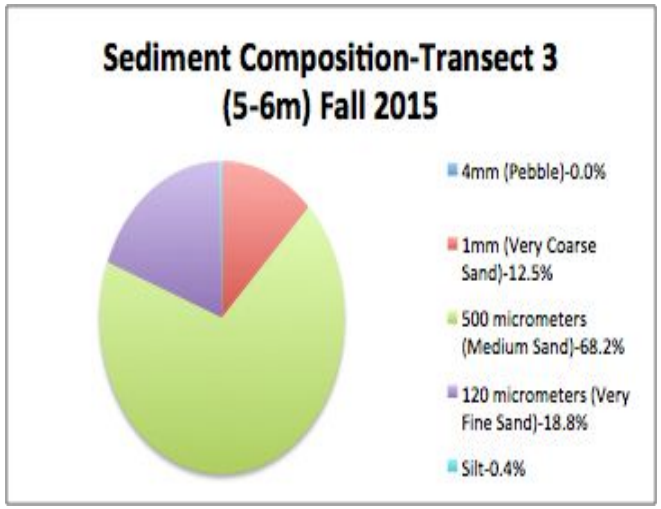
Corbicula: We did not encounter any *Corbicula* within this transect, which means the site is in a healthy condition! Potassium at this transects was at a "healthy" level for both the 2-3m sample and the 5-6m sample. There was, however a problem with the nitrogen levels. There were only trace levels of nitrogen found in transect 2 which is not enough for algae. The phosphorous was also found in trace amounts at the 5-6m mark, but healthy at the 2-3m mark. Phosphorous is also important in plant growth. The pH here was low at the 2-3m mark and barely "healthy" at the 5-6m mark. Too low of a pH would not be beneficial for the organisms living there.

Transect 3 Site Analysis Fall 2015

			4 mm		**1mm**		**500 micrometers**		**120 micrometers**		**Silt**		
Sample #	Transect	Dist. from Bank (m)	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	**Total (g)**
3	3	2-3	49.4	2.5%	1464.4	72.7%	329.5	16.4%	163.0	8.1%	8.0	0.4%	2014.3
4	3	5-6	0	0.0%	206.9	12.5%	1125.9	68.2%	311.9	18.8%	6.8	0.4%	1651.5

	Transect	Dist. from N Bank	Corbicula	Feature	Potassium	pH	Nitrogen	Phosphorus
3	3	2-3	0	Bed	Med-High	6.5	trace	medium
4	3	4-5	0	Bed	Med-Low	6.5	trace	low





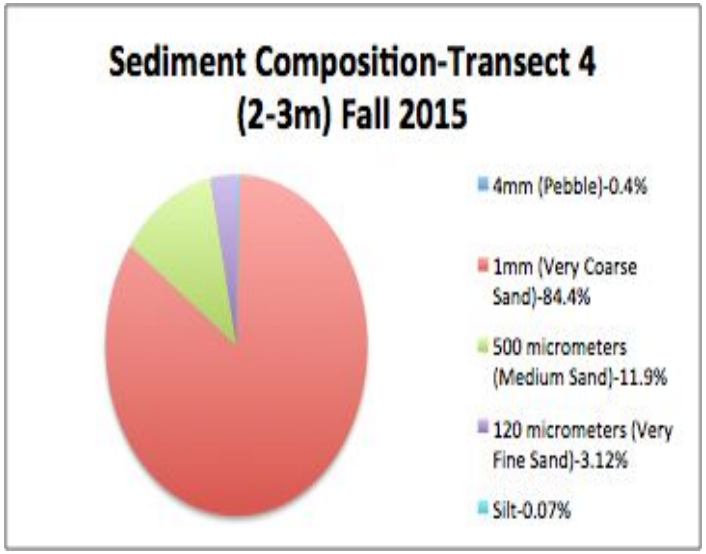
Analysis: We did not encounter any *Corbicula* within this transect, which means the site is in a healthy condition! Potassium was very high at the 2-3m mark and healthy at the 5-6m mark. Too much potassium can

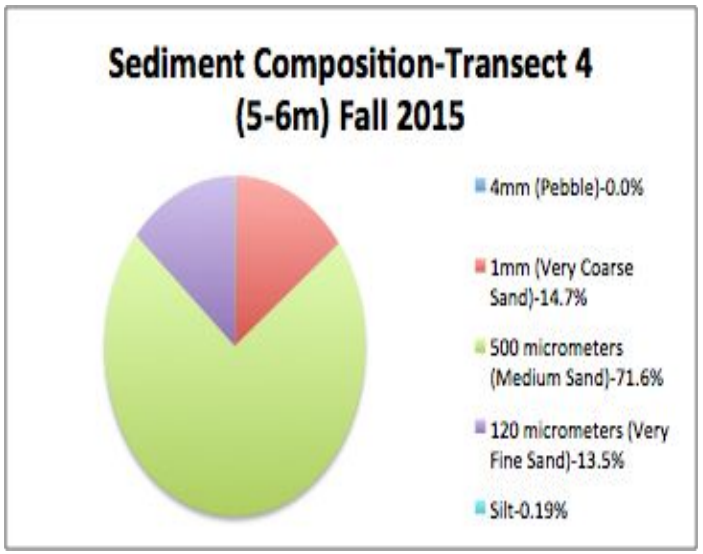
cause the algae to grow too rapidly and disrupt waterways. The nitrogen at this transects was only found in trace amounts. Too little nitrogen is bad for plant growth at the bottom of the food chain. Phosphorous levels were healthy at transect 3. The pH was at the lowest possible value for “healthy”.

Transect 4 Site G Analysis Fall 2015

			4 mm		1mm		500 micrometers		120 micrometers		Silt		
Sample #	Transect	Dist. from N Bank (m)	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Mass (g)	% of total	Total (g)
5	4	2-3	8.4	0.4%	1743.6	84.4%	247.7	11.9%	64.6	3.2%	1.5	0.1%	2068.8
6	4	5-6	0	0.0%	259.9	14.7%	1264.2	71.6%	237.4	13.5%	3.5	0.2%	1765

	Transect	Dist. from N Bank	Corbicula	Feature	Potassium	pH	Nitrogen	Phosphorus
5	4	2-3	0	Bed	Low	6.0	trace	medium
6	4	4-5	0	Bed	Med-High	7.0	trace	trace





Analysis:We did not encounter any *Corbicula* within this transect, which means the site is in a healthy condition. The potassium levels at the 2-3m make were on the lower end of the "healthy" levels while the 5-6m sample had a much higher potassium level. The average of the two was in the healthy range, but too much potassium can cause algae bloom and choke waterways. The phosphorous levels were healthy at the 2-3m mark and found in very trace amount at the 5-6m mark. Plants need phosphorus to grow and support the arcade creek ecosystem. We found only trace nitrogen levels. Nitrogen lower than the "healthy" levels

will make it again harder for algae to grow. The pH of the sediment was slightly under “healthy” levels for the 2-3m mark and just barely “healthy” at the 5-6m mark.

Site G Chemical Testing