NSF Grant OIA-1556770

Comparison of Temperate vs Tropical Total Phosphorus: Total Suspended Solid Ratios

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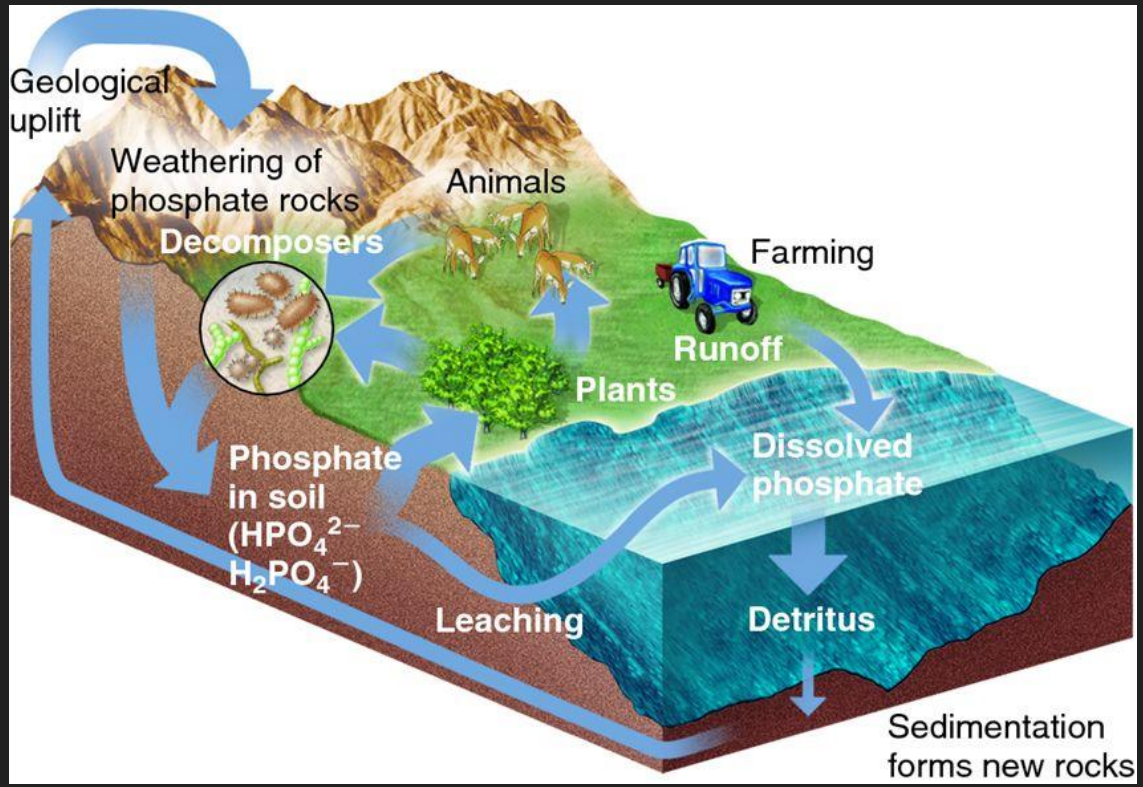
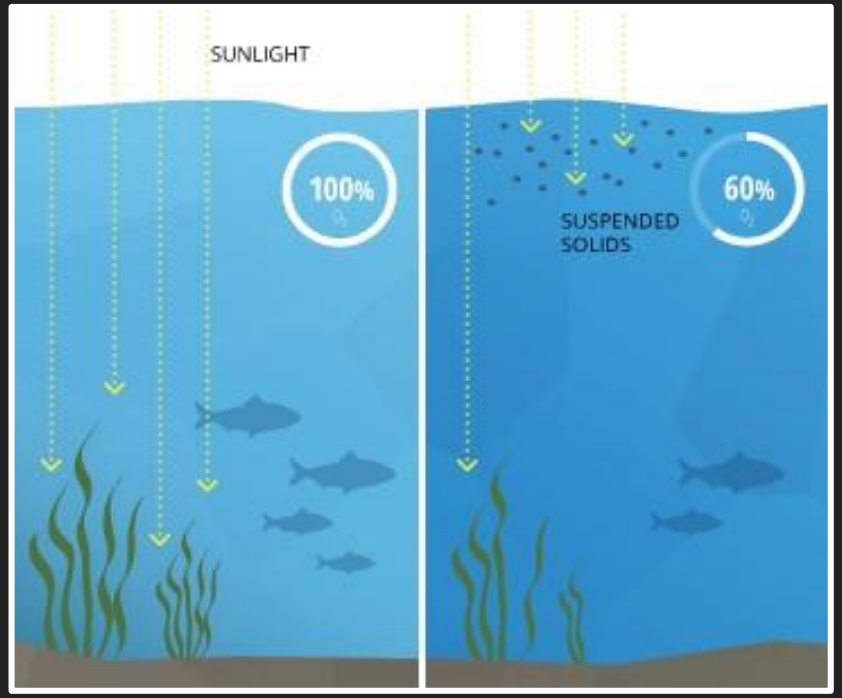
Rutland High School

Total phosphorus? How does it end up in our water?

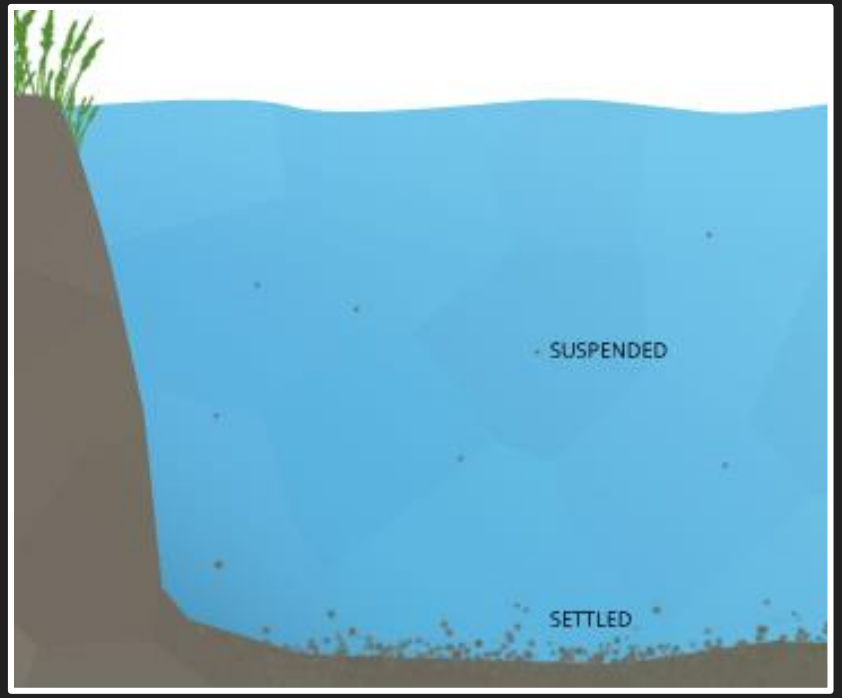


https://socratic.org/questions/how-does-erosion-affect-the-phosphorus-cycle

What are Total Suspended Solids (TSS)



https://www.linkedin.com/pulse/turbidity-total-suspended-solids-water-clarity-ehsan-mousavi



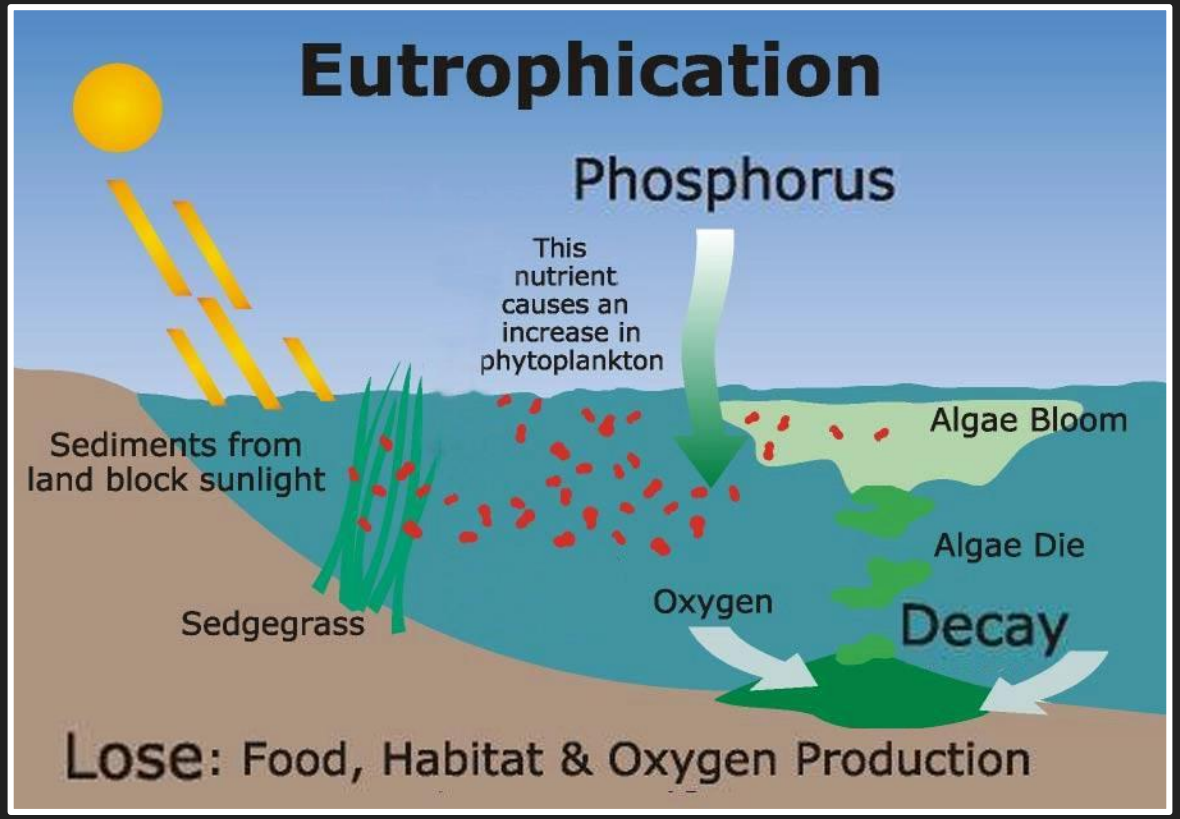
http://www.fondriest.com/environmental-measurements/parameters/water-quality/turbidity-total-suspended-solids-water-clarity/

What can TSS affect?

https://sites.google.com/site/chem4hsc/chemical-monitoring-and-management/eutrophication

https://theecologist.org/2016/aug/22/how-avoid-system-collapse-its-ecology-stupid

How can TP affect TSS

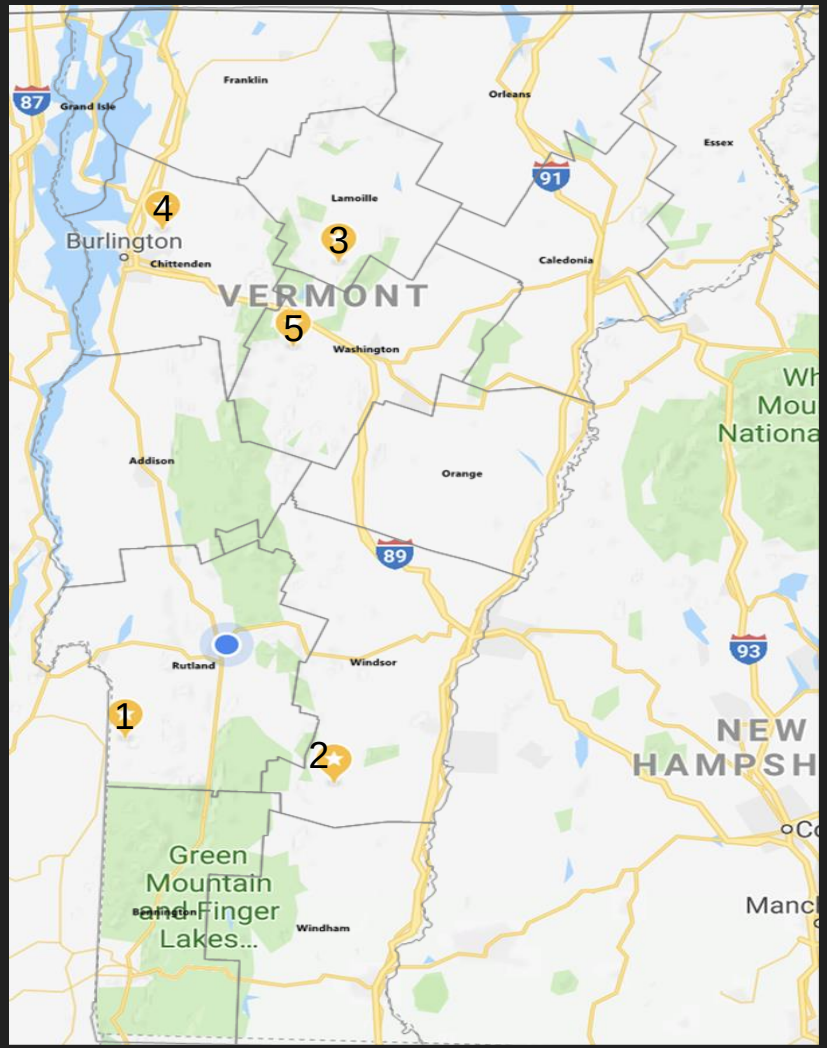


https://convergentmedia980.wordpress.com/2016/03/23/storyboards-for-animation-episodes/eutrophication/

VT and PR

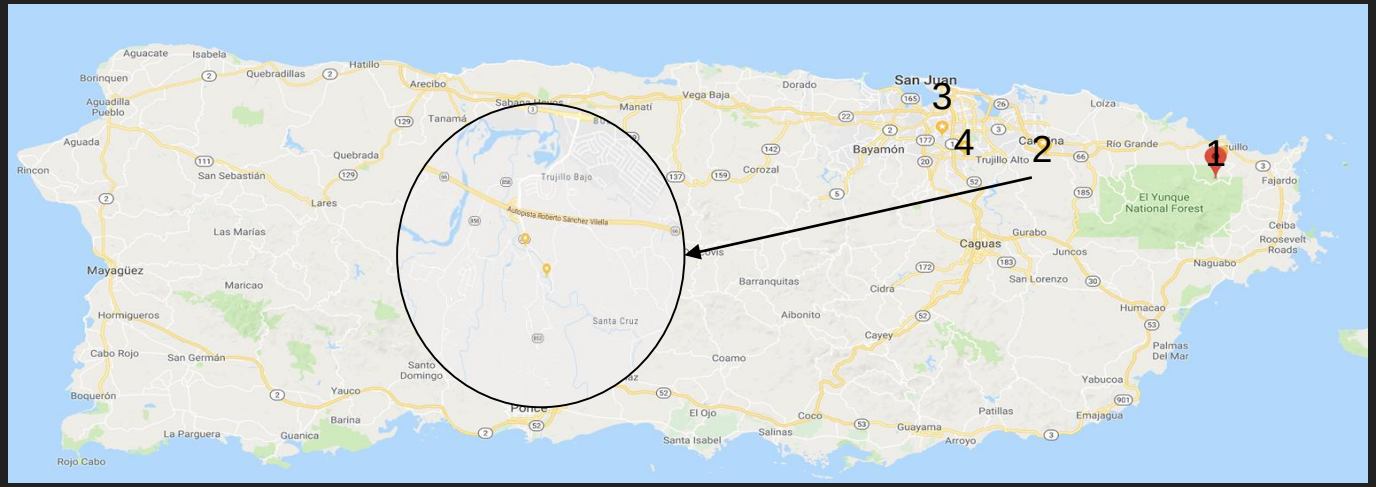
https://en.wikipedia.org/wiki/North_America

VT Rivers
(temperate)

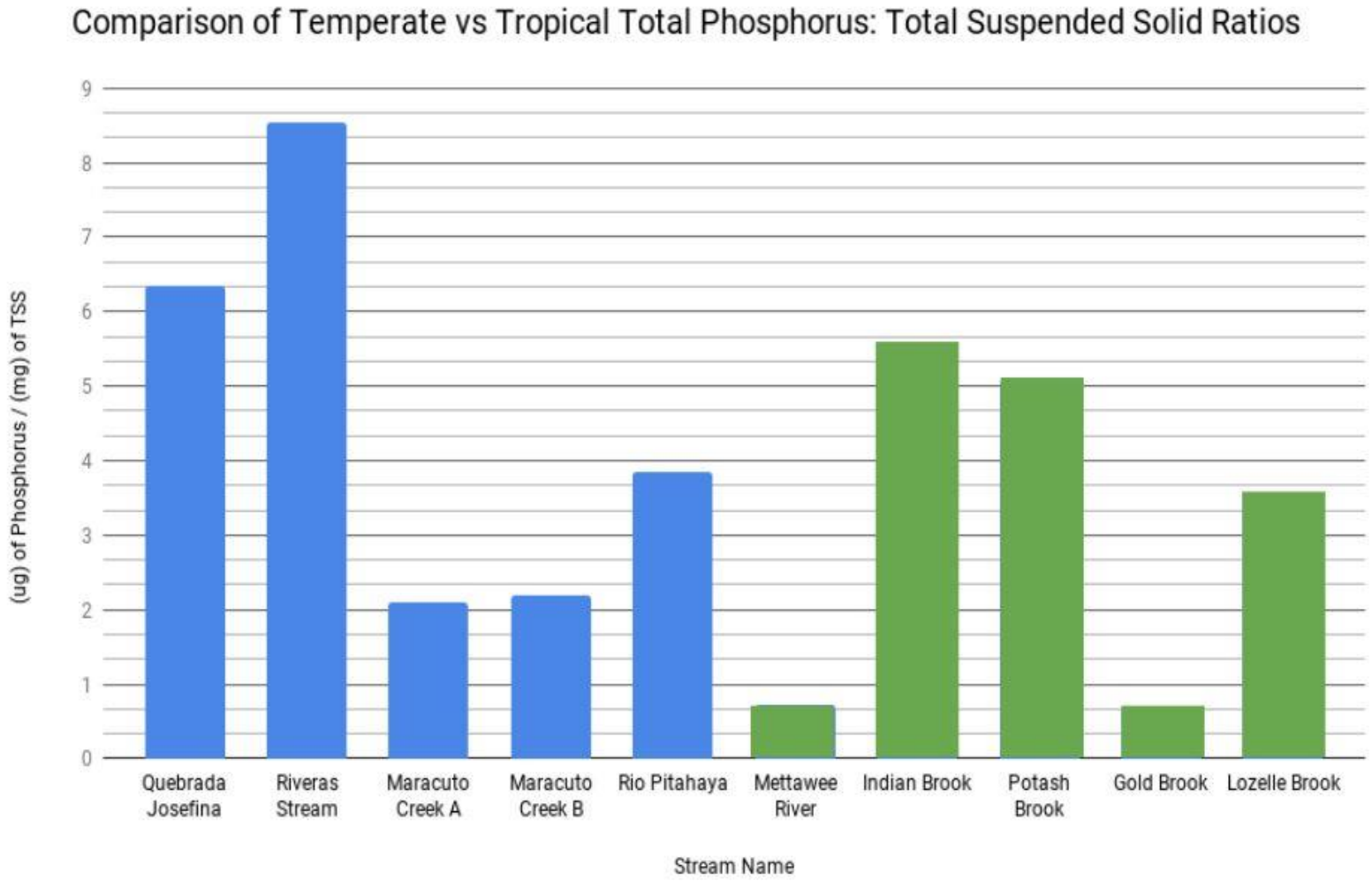


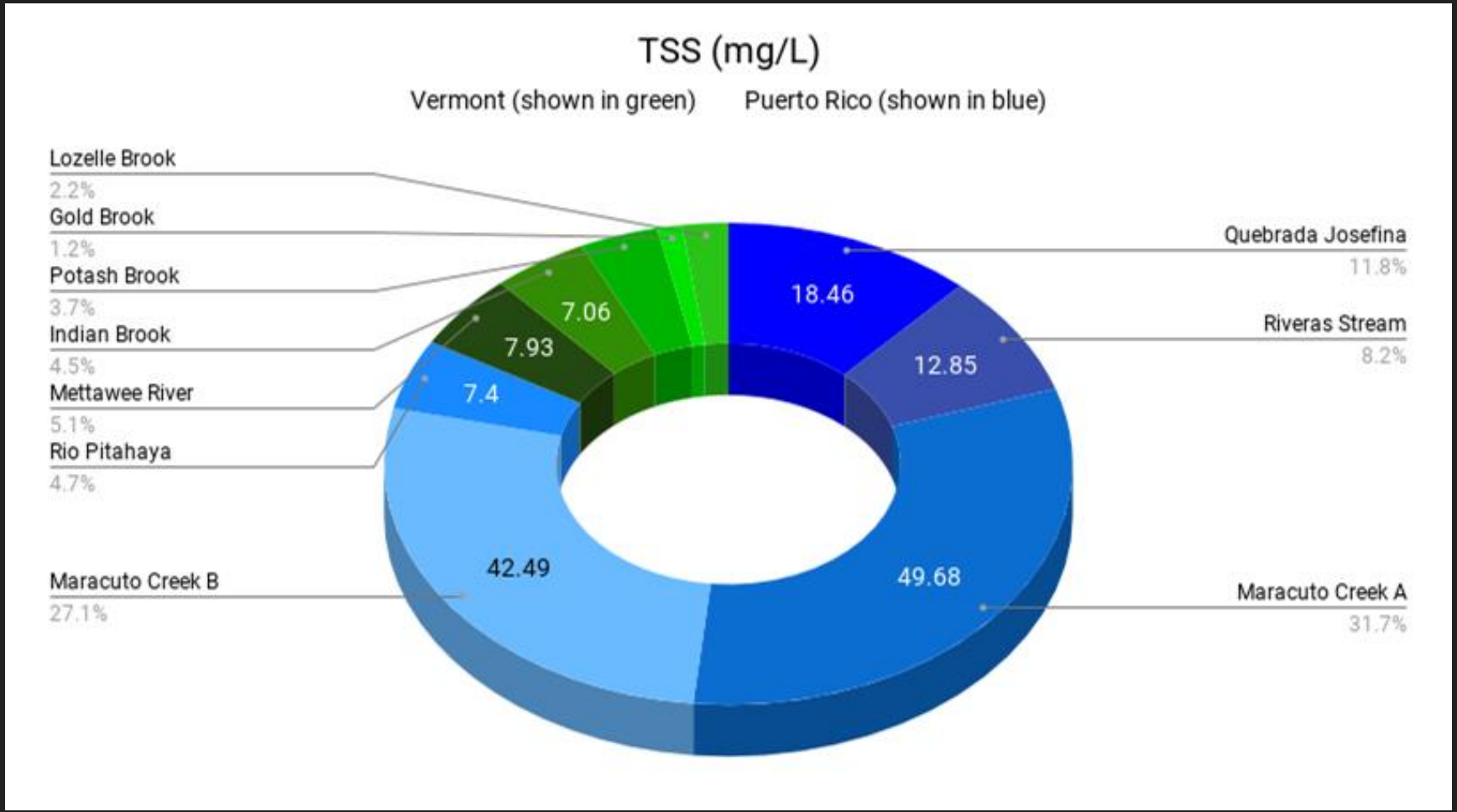
1. Mettawee River
2. Potash Brook
3. Gold Brook
4. Indian Brook
5. Lozelle Brook

Puerto Rico Rivers
(Tropical)



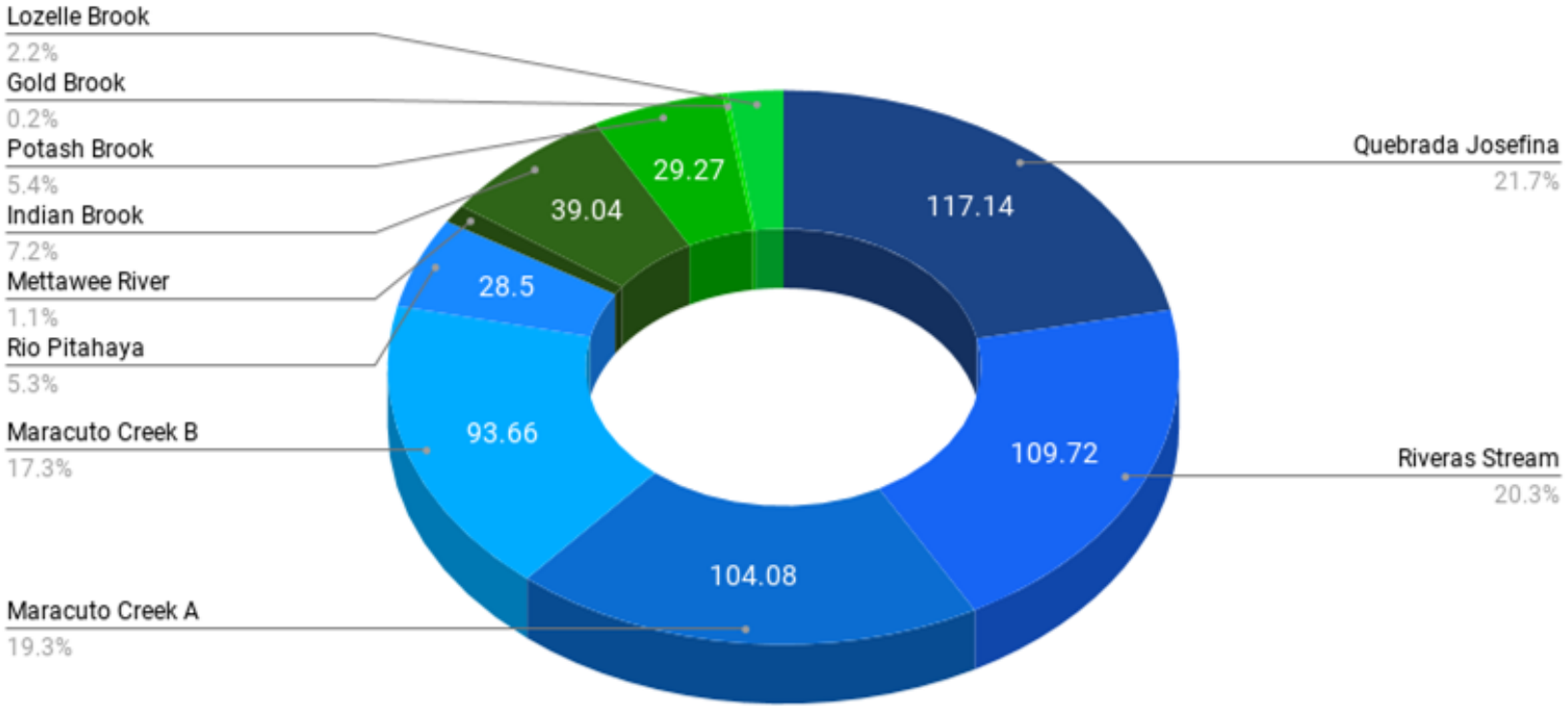
1. Rio Pitahaya
2. Maracuto Creek (A and B)
3. Quebrada Josephina
4. Riveras Stream


Comparison of Temperate vs Tropical Total Phosphorus: Total Suspended Solid Ratios
(ug) of Phosphorus / (mg) of TSS
0
1
2
3
4
5
6
7
8
9
Quebrada Josefina
Riveras Stream
Maracuto Creek A
Maracuto Creek B
Rio Pitahaya
Mettawee River
Indian Brook
Potash Brook
Gold Brook
Lozelle Brook
Stream Name


TSS (mg/L)
Vermont (shown in green)
Puerto Rico (shown in blue)
Lozelle Brook
2.2%
Gold Brook
1.2%
Potash Brook
3.7%
Indian Brook
4.5%
Mettawee River
5.1%
Rio Pitahaya
4.7%
Maracuto Creek B
27.1%
Quebrada Josefina
11.8%
Riveras Stream
8.2%
Maracuto Creek A
31.7%
18.46
12.85
49.68
42.49
7.4
7.93
7.06

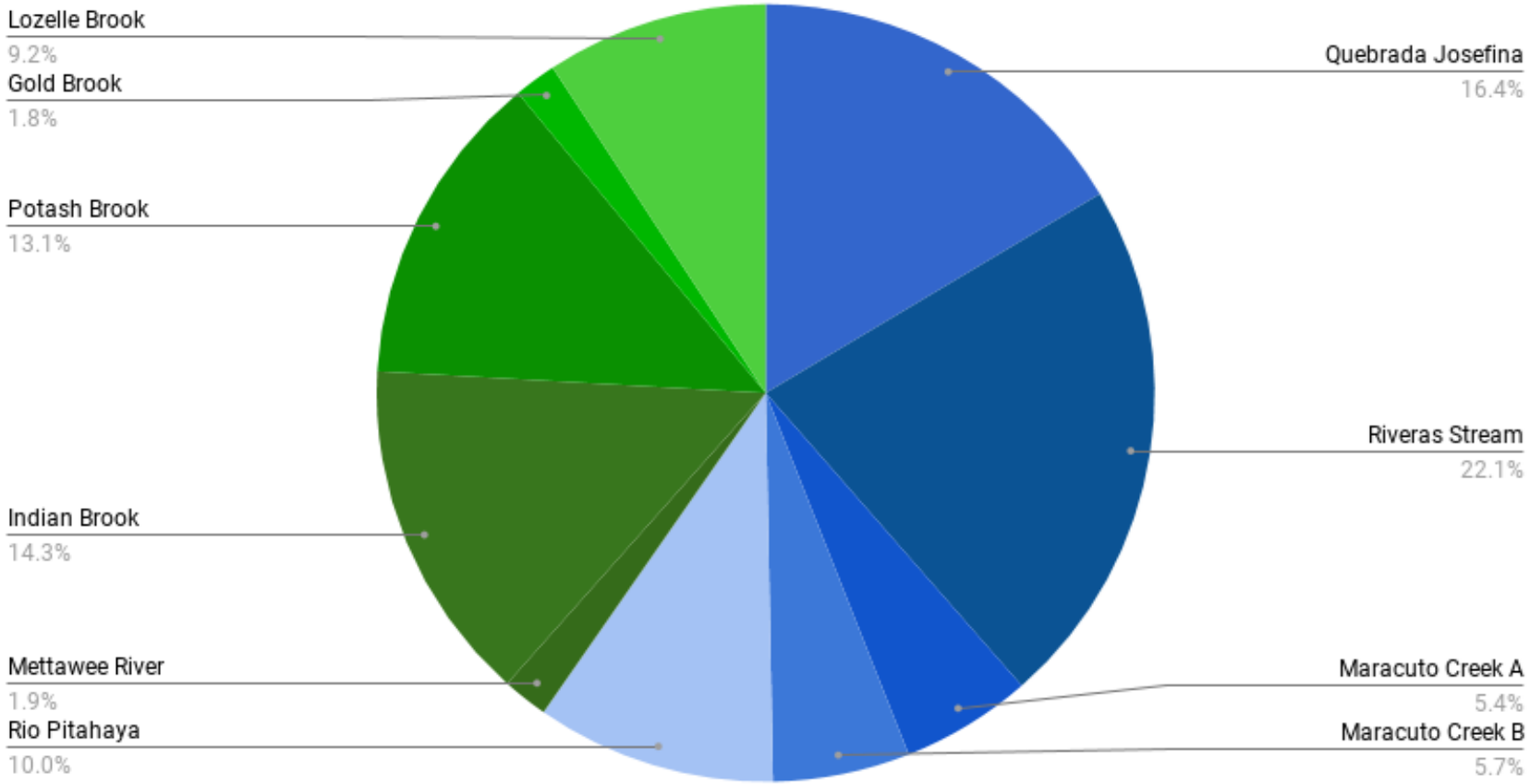
Phosphorus (ug/L)

Vermont (shown in green) *Puerto Rico (shown in blue)*



Comparison of Temperate vs Tropical Total Phosphorus: Total Suspended Solid Ratios

Vermont (shown in shades of Green) Puerto Rico (shown in shades of Blue)



EPSCoR

How has it benefited us?


Thanks for Watching!