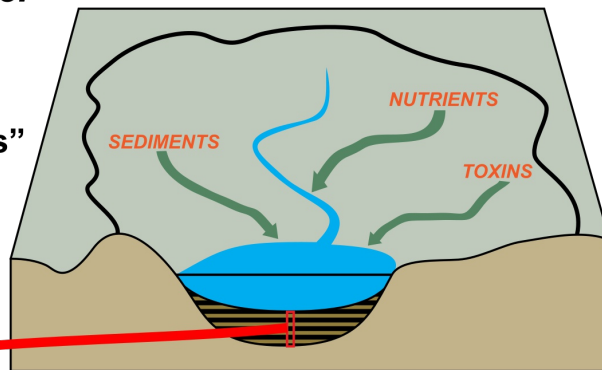


Use of lake-sediment stratigraphy to help set reasonable and feasible Lake St. Croix Total Maximum Daily Load (TMDL)

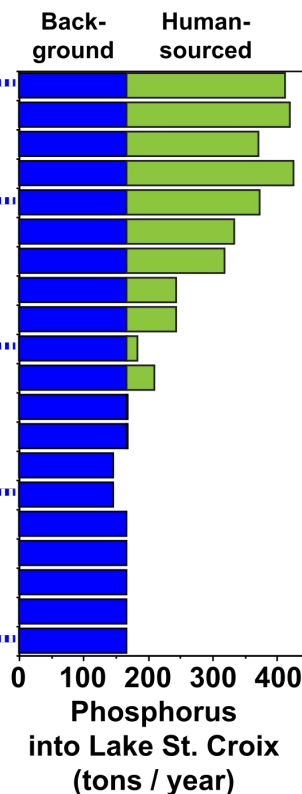
- *Lake sediments offer a way of going back in time to see a more complete picture.*

Lakes collect long-term, watershed-scale “samples”

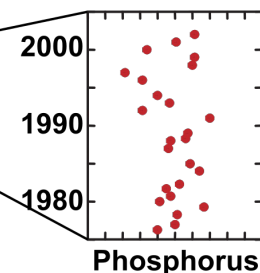
Each slice of a lake-sediment core is a slice of watershed history.



Lake-core data:



Stream-monitoring data:

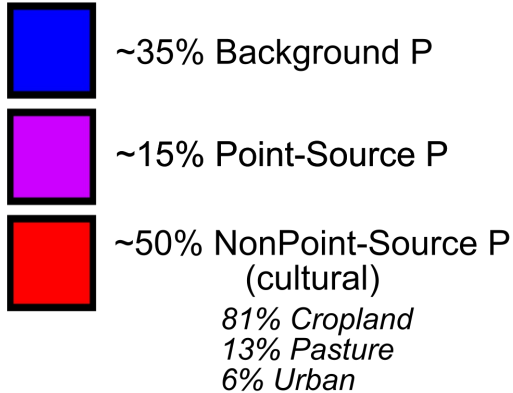


Too short to show clear trends

Period of major change missed completely by monitoring data

Phosphorus (P) sources, historical loads, and reduction goals for Lake St. Croix

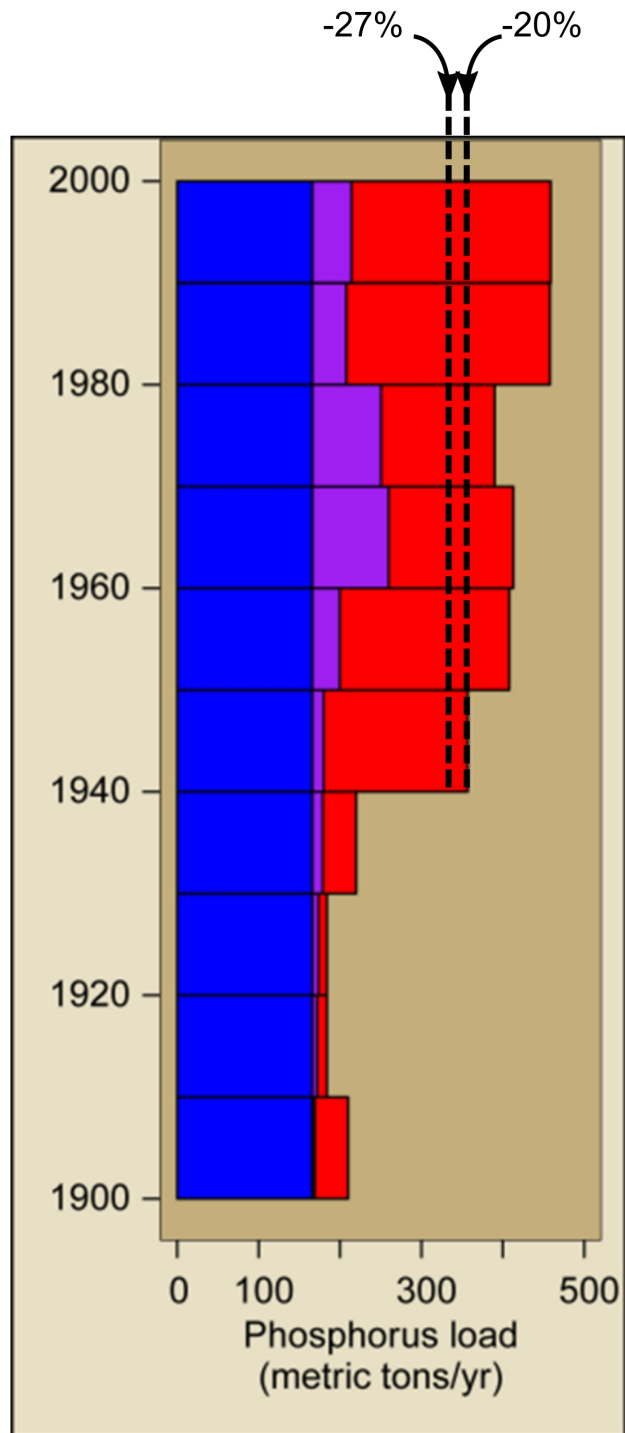
Recent partitioning of P



Phosphorus loads are currently about 3x natural background.

2004: Joint MN-WI agreement for 20% reduction in P load
(turn the clock back to the 1940s)

2012: TMDL report aims for 27% reduction in P load
(added reserve capacity & margin of safety)



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