

# Monitoring Methods for Prioritization and Assessment of Stormwater Practices

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# Background

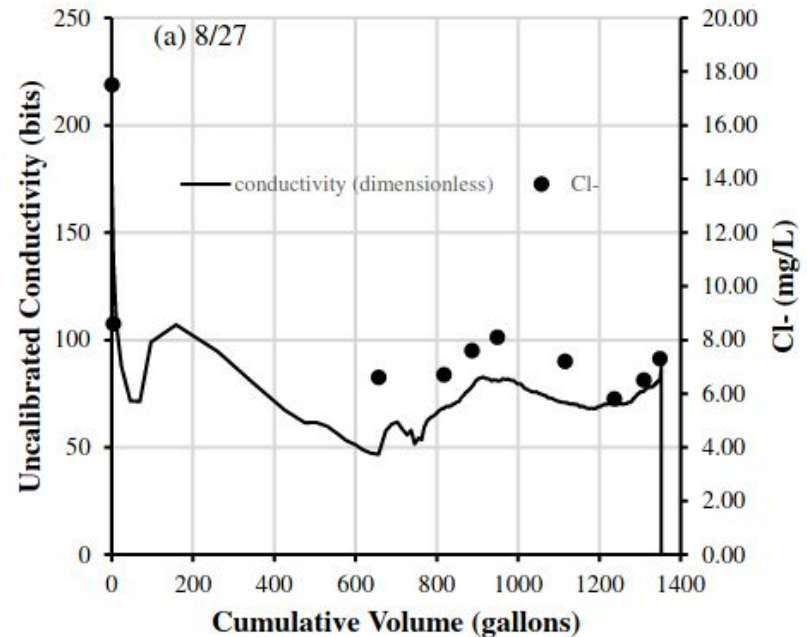
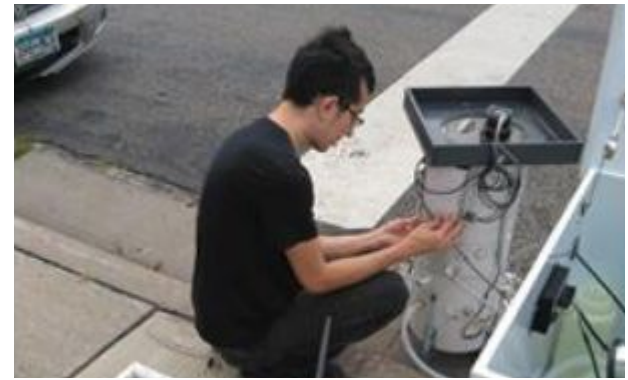
- Stormwater is often monitored by sampling (grab or composite)
- Sample timing (flow paced, time paced, microsampled) is critical for accurate EMC estimation due to first flush effects and storm variability
- Previous studies have simulated sampling strategies for specific watersheds (Ackerman et al. 2011; Ma et al. 2009; etc.) and very general washoff relationships (Shih et al. 1994)

# Goals

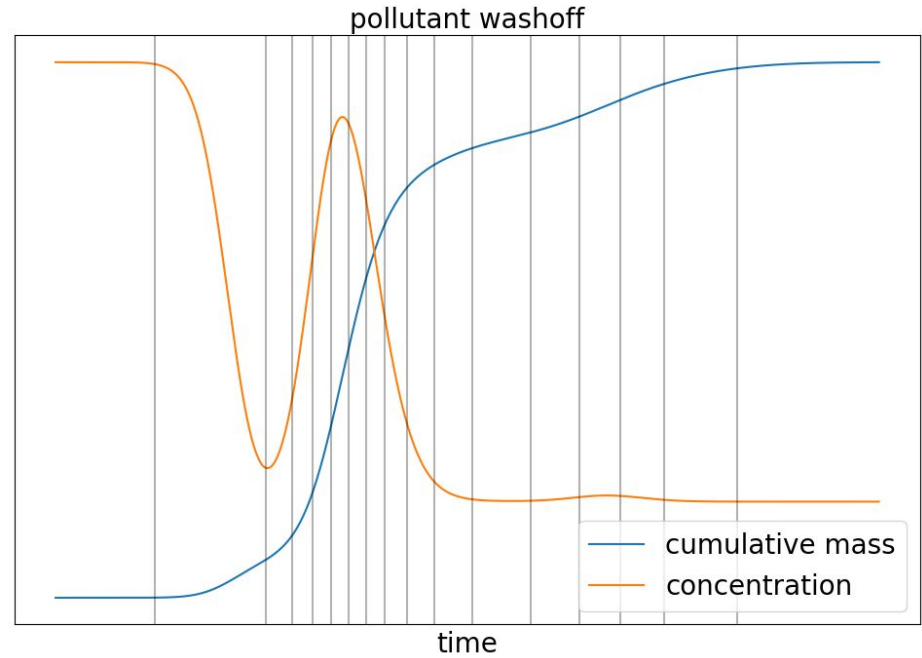
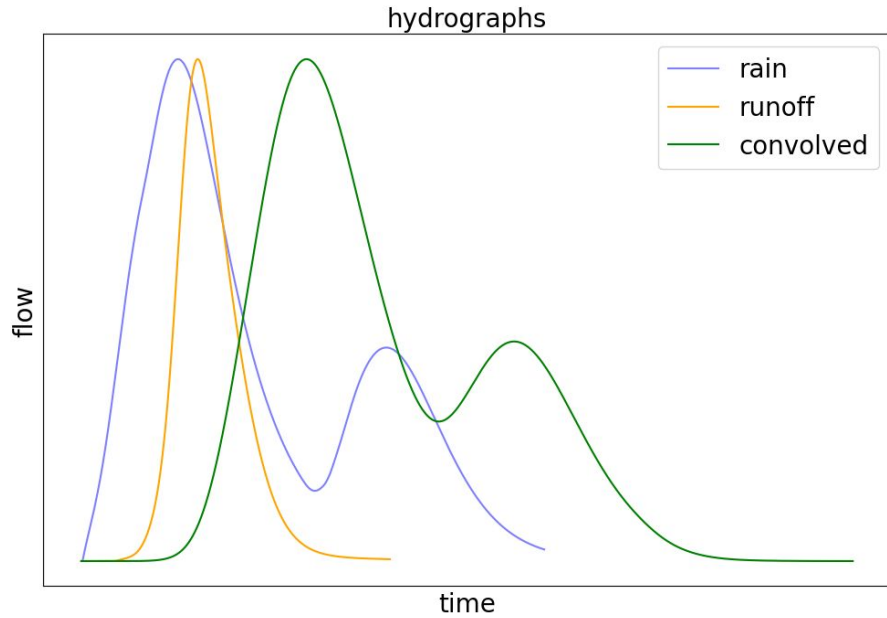
- Compile runoff data from published studies
- Build runoff sampling simulation
- Develop recommendations for sampling approaches
- Evaluate potential benefit of adding inexpensive sensors

# Why?

- Save money, increase accuracy



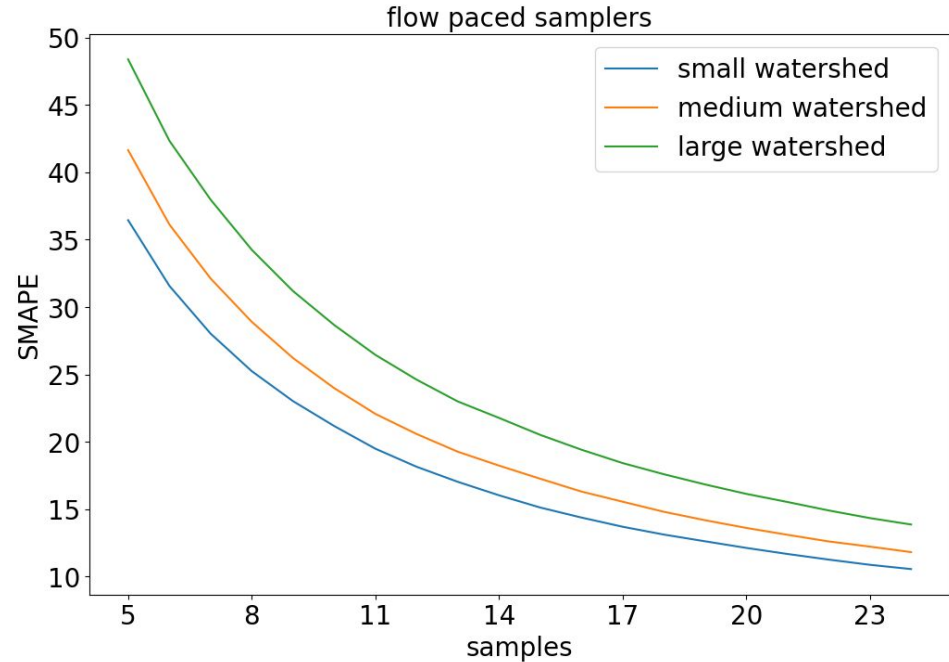
# Method



Monte Carlo simulations of different runoff/sampling scenarios

# Status

- Completed 1st objective (literature review)
- Framework built for objectives 2 and 3 (simulations)
- Beginning to run simulations
- Project ends in December, we're currently about halfway



## Feedback / Questions

- If our results show promise, would you be interested in trying these methods at your site in the future?
- Have you used flow-weighted “microsampled” composites?  
Have you encountered problems?