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*NC Department of Environmental Quality
Spikes in pollutants during wet periods: challenges and strategies for
monitoring, assessment, and plans*



Wet Weather Monitoring SOP and WQS

- NC gets a lot of rain on a regular basis and some droughts
- NC gets hurricane landfalls enough to be an issue
- Avoiding localized rain events is difficult
- Avoiding up basin rain events almost impossible
- SOP is agnostic on wet weather monitoring
- WQS sometimes allow for excursions during wet weather
- WQS sometimes evaluated on worst hydrologic conditions
- What are ambient conditions?

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Pathogen Indicators Recreation

- Standard wording- 5 samples in 30 days- avoid rain
- Monthly vs 5 in 30- one dry June and its okay
- Primary vs secondary –okay to swim but not to wade
- Assessment- use monthly as effectiveness monitoring delist when monthly data are OK
- Assess 5 in 30 separately from Monthly data
- For TMDLs- monthly data or 5 in 30 data
- Start with SCMs and BMPs

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Pathogen Indicators Shellfish Harvesting

- Standard wording -worst hydrologic conditions
- No monitoring in areas known to stay closed-no data
- CAO management shows no WQS issues
- Assessment based on Growing Area Classification not on data
- TMDL- need to get more data for worst hydrologic conditions which result in much higher reductions
- Public health is daily and now -CWA Assessment is the last 5 years

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Turbidity and other Noisy Data

- Interpretation of standard- not a problem if you have a program
- Enviros- you **never** monitor when it's a problem (raining)
- Industry- you **only** monitor when it's a problem (also raining)
- Legacy turbidity and stream bank collapse during dry periods
- Clear runoff dirty stream-not just construction but past land disturbances
- Requires stream and riparian restoration not just SCM and BMPs

Third Party Data Submittals

- Hurricane sampling
- Severe weather monitoring (social media)
- Lagoon monitoring when all the water is leveled out
- SOP and metadata

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Natural Conditions

- Rain is natural
- Intensity, frequency amount of rain is changing in a non-natural way
- Conveyances are not natural
- Increasing connection between overland-ephemeral flows and intermittent perennial flows.
- No buffers during intensive rain events
- SCMs are increasingly undersized