Summary: While the article "Sources and concentrations of nutrients in surface runoff from waterfront homes with different landscape practices" by Krimsky et al. (2020) provides valuable insights into nutrient sources from residential runoff, its ability to assess the efficacy of rainy season fertilizer blackout ordinances is significantly limited by several methodological flaws—many of which are acknowledged by the authors themselves.

This study was not able to confirm the efficacy of fertilizer blackout periods, but it has been estimated that a minimum of 7 years of monitoring would be necessary to see any statistically significant effects on water quality (Tampa Bay Estuary Program, 2015). This study affirms that fertilizer ordinances are a long-term nutrient management strategy, particularly in areas with considerable organic nutrient pools such as in this study site (page 9).

Short monitoring period:

- The study covered just one wet season (May–August) and fails to provide sufficient longitudinal data to gather any inference of information.
- The Tampa Bay Estuary Program (2015) meanwhile suggests it may take up to 7 years to see statistically significant changes in water quality.

Small sample size:

• Only 10 homes were studied, reducing statistical power and increasing susceptibility to individual lawn variability. This is far from a representative sample of the population in question.

Uncontrolled variables:

- Heterogeneity in soil types, pet ownership, landscaping practices, and lawn services could have confounded results.
- Pet waste was a potential nitrate source, particularly in some high-N lawns.

Assumed compliance:

• The study did not verify if residents adhered to the fertilizer blackout ordinance.

Focus on Surface Runoff Only:

• The study didn't examine leaching to groundwater or total nutrient loads, only concentrations in surface runoff.

Conclusion: If anything, their findings can at best be interpreted as a call for more nuanced, multi-pronged nutrient management strategies—rather than a dismissal of the rainy season blackout. The authors acknowledge that there are a number of variables that result in nutrient loading such as soil nutrient legacy loads, atmospheric inputs, human behavior (e.g., not complying with local regulations, pet waste, overwatering), and the need for long-term and community-level outreach to create lasting behavior change that comply with local regulations.