Comment on *Interim Framework for Advancing Consideration of Cumulative Impacts* (Docket ID No. EPA-HQ-OLEM-2024-0360)

Introduction and Overview

The *Interim Framework for Advancing Consideration of Cumulative Impacts,* developed by the U.S. Environmental Protection Agency (EPA), addresses a critical challenge within environmental protection, which is the necessary need to recognize and analyze the cumulative impacts of multiple environmental stressors, both chemical and nonchemical, on individuals' health and well-being (EPA, 2024). This framework represents an essential first step in the context of environmental justice, as marginalized communities, particularly communities of color, frequently experience disproportionate exposure to environmental hazards (Racial Disparities and Climate Change, 2020). For example, data indicates that communities of color make up more than half of populations living near hazardous landfills and sites, leading to a high risk of adverse effects and outcomes on health (Racial Disparities and Climate Change, 2020). These adverse health outcomes contribute to the health disparities faced by these communities, which are further impacted by societal inequalities, such as income, housing, education, and healthcare access. Consequently, these interconnected issues create a persistent cycle of cumulative impacts that negatively affect the health of communities of color.

The framework's recognition of the various components contributing to cumulative impacts is critical for understanding the complex landscape of environmental health risks. By addressing cumulative impacts, the EPA can initiate a transformative approach to environmental regulation that prioritizes the well-being of the most vulnerable populations.

Comments and Critiques on the Framework

Strengths and Recommendations

The framework provides excellent guidance on assessing and addressing the cumulative impacts of multiple environmental stressors, setting a clear pathway for consideration and implementation across various EPA programs. The framework allows the agency to effectively implement cumulative impact analysis into its work, promoting a more equitable approach to environmental protection, health, and justice. **Specific strengths of the framework include its comprehensive methodology and commitment to community engagement.**

1. **Comprehensive Methodology**: The framework offers a well-structured and comprehensive methodology for conducting cumulative impact assessments. This methodology is clear and adaptable, which is crucial considering that environmental stressors can occur in diverse circumstances. By outlining specific phases, such as initiation, scoping and problem formulation, assessment, and informing decisions, the framework provides an approach that guides EPA staff on how to properly evaluate environmental stressors and identify/analyze relevant information at each stage of the assessment process. Therefore, this structure is beneficial due to its clarity and coverage, as it provides clear guidelines to ensure an understanding of the steps required to conduct a cumulative impact assessment and comprehensive examination of all relevant factors that impact the community are being assessed.
2. **Commitment to Community Engagement**: Engaging with communities is an important strategy for identifying and analyzing relevant cumulative impacts. The framework prioritizes the involvement of affected communities in the decision-making process, which allows the EPA to foster collaboration and a sense of empowerment among those most affected by environmental hazards. This engagement is a core component of

environmental justice, as it actively incorporates the opinions and voices of those most affected by cumulative impacts. By doing so, the EPA builds trust within communities and increases the effectiveness of its assessment. Moreover, the framework addresses the need to expand communication with community members with limited English proficiency and/or disabilities. This is critical as these populations face compounded vulnerabilities due to language barriers and discrimination (Twersky et al., 2024; *NIH designates people with disabilities as a population with health disparities*, 2023). The framework's focus on community engagement is important for research on cumulative impacts as members can provide "unique knowledge [and history] about the [environmental and societal] exposures experienced," allowing for more effective and equitable development of solutions and policies (Payne-Sturges et al., 2015). Nonetheless, I would recommend that the EPA further expand its community engagement by regularly consulting with community members on their needs, opinions on the agency's actions, and feedback on implemented solutions to ensure EPA staff has successfully addressed the community's cumulative impacts.

3. **Training**: Within the document, it is mentioned that the EPA plans to implement comprehensive training on cumulative impacts for its staff. This initiative represents an important strength in the framework, highlighting the agency's commitment to fostering a well-informed workforce capable of conducting effective cumulative impact assessments. Comprehensive training will ensure that staff recognize the significance of cumulative impacts and acquire the necessary knowledge to address this complex issue effectively. Although details of what these trainings will consist of are not specified, it is recommended to include a historical overview of cumulative impacts. This should include how cumulative impacts have disproportionately affected certain populations, explore its connection with environmental racism, and its relationship with environmental justice. Understanding the historical context will help staff recognize the systemic factors that contribute to these disparities, emphasizing a deeper awareness of the social and environmental dynamics that contribute to cumulative impacts.

Limitations and Recommendations

While the framework represents a significant advancement in the EPA's approach to understanding and addressing cumulative impacts, limitations persist. This may hinder the framework's effectiveness in fully addressing the complexities of cumulative impacts experienced by marginalized communities, as technicalities may be overlooked. **Key limitations of the framework include a lack of baseline standards on cumulative assessments and limited consideration of data gaps and data quality concerns in communities.**

1. **Lack of Standards**: Currently, the interim framework advocates for a "fit-for-purpose" approach that aims to tailor cumulative impact assessments to the diverse needs and contexts of communities and decision-making (EPA, 2024). While this flexibility is essential for addressing unique circumstances, it raises concerns about the potential inconsistencies in how assessments are conducted, as there are no established core guidelines and minimum standards for conducting such assessments. For instance, one region of the EPA may conduct a thorough and detailed assessment of the cumulative impacts, while another region may conduct a more broad and surface-level assessment, leading to discrepancies in the results and effectiveness of cumulative impact assessments. Therefore, to guarantee an effective and efficient implementation of cumulative impact assessments, an establishment of core guidelines and standards within

data collection methods, stakeholder engagement processes, and reporting standards must be developed to promote consistency.

2. **Data Gap and Quality Concerns**: Another significant limitation of the framework is that it does not discuss existing data gaps and variability in data quality related to environmental stressors and health outcomes. The phases in the cumulative impacts assessment guides EPA staff to identify and analyze data regarding environmental and societal barriers. However, many communities, especially rural or economically disadvantaged areas, may lack comprehensive data on the existing pollutants, health impacts, and social determinants of health present in their community. For example, in Salinas, California, communities lack proper air monitoring systems that would reveal crucial information on air pollutants (Gross, 2025). This level of scarcity of reliable data can limit the effectiveness of cumulative impact assessments, considering that missing or insufficient data can lead to incomplete or misleading conclusions. Hence, to minimize this issue, it is recommended that the EPA enhances and invests in data collection efforts in communities where cumulative impact assessments will be conducted to improve data transparency and availability. Methods to accomplish this can include partnering with local organizations or promoting community-based monitoring to collect sufficient data.

Framework's Potential Impacts

In summary, implementing the *Interim Framework for Advancing Consideration of Cumulative Impacts* has the potential to enhance public health outcomes and promote environmental justice. By providing a framework for evaluating the cumulative impacts of multiple environmental stressors, these guidelines can help identify and mitigate risks among communities, particularly those disproportionately affected by environmental hazards. This proactive approach and consideration can lead to informed decision-making that prioritizes communities, targeted interventions, and proper allocation of resources to areas with the greatest needs. Furthermore, the framework's guidelines promote improved community involvement in the assessment process, fostering trust and collaboration among regulatory agencies and the community. Overall, the introduction of this framework promises progress toward creating a more equitable environment. However, it is crucial to continuously evolve and improve this framework to guarantee that it effectively addresses the multifaceted nature of cumulative impacts. Therefore, by committing to these improvements, we can create a framework that promotes environmental justice and healthier communities.

Thank you for the opportunity to comment on this framework and for your consideration.

Sincerely,

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