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February 19, 2025
Lee Zeldin, Office of the EPA Administrator
Charles Lee, Office of Environmental Justice and External Civil Rights
Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20640

Submitted Online via Regulations.gov
Docket ID No. EPA-HQ-OLEM-2024-0360

Dear Administrator Zeldin and Advisor Lee:

The Union of Concerned Scientists (UCS) would like to thank the U.S. Environmental Protection Agency (EPA) for the opportunity to comment on the "*Interim Framework for Advancing Considerations of Cumulative Impacts*" (Interim Framework) released in November 2024. The UCS is a national nonprofit science advocacy organization with more than five decades of independent analyses on the world's pressing scientific problems that represents over 500,000 members. The Center for Science and Democracy at UCS works to promote independent science, a responsive and transparent democracy, and evidence-based decision-making on issues that affect public health and safety.

UCS has years of experience working on cumulative impacts research[1], blog posts[2], and education materials[3]. We collaborated with the Coming Clean nonprofit environmental health collaborative over multiple years to co-develop a Community Guide to Cumulative Impacts[4] along with six environmental justice and grassroots

[1] Ellickson, Kristie M., Pauli Benjamin J., Whitehead, Sandra 2024. 'Mixed Methods Approaches: Structures and Methodologies for Cumulative Impact Assessment Development" Environmental Justice. 8 July. https://www.liebertpub.com/doi/10.1089/env.2023.0045
[2] Union of Concerned Scientists. The Equation. #cumulative impacts. Accessed: February 14, 2025. https://blog.ucsusa.org/tag/cumulative-impacts/
[3] Union of Concerned Scientists. 2024. "Cumulative Impacts Policies". https://www.ucsusa.org/resources/cumulative-impacts-policies
[4] Union of Concerned Scientists and Coming Clean. 2024. "The Community Guide to Cumulative Impacts: Using Science and Organizing to Advance Public Health Policy" https://www.ucsusa.org/resources/community-guide-cumulative-impacts

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organizations. The Guide offers stand-alone training materials on cumulative impacts basics, science, organization, laws and regulations, definitions, and mapping tools.

In our organization's history, we have called on EPA to use its existing authority to address cumulative impacts and risks. UCS has also written and supported comments to enhance and improve cumulative impacts science and policy including the EPA Cumulative Risk Assessment Planning and Problem Formulation Guidance[5], the EPA Draft Proposed Approach for Cumulative Risk Assessment of High-Priority Phthalates and a Manufacturer-Requested Phthalate Under the Toxic Substances Control Act[6], and EPA's Draft Proposed Principles of Cumulative Risk Assessment under the Toxic Substances Control Act[7]. Additionally, a UCS scientist co-chaired the EPA National Environmental Justice Advisory Council (NEJAC) Cumulative Impacts workgroup and co-authored an extensive and well-supported recommendation document[8].

In its 2022-2026 Strategic Plan[9], EPA acknowledged that in order to fulfill its mission to protect human health and the environment, the Agency needs to address the cumulative impacts of exposure to multiple chemicals and non-chemical stressors using the best available science. UCS agrees and supports work on cumulative impacts since all communities are exposed to multiple chemicals from multiple sources, yet there are decades of evidence that communities of color and low-income communities experience these stressors and burdens at higher levels[10]. Similarly, we support community-centered work, such as that proposed in the Interim Framework. This type of work involves multiple government agencies coming together with their combined agency missions and regulatory authority to provide more efficient and

[5] Comments submitted by Coming Clean, Union of Concerned Scientists, et al. 2023. https://www.regulations.gov/comment/EPA-HQ-ORD-2013-0292-0197.
[6] Comments submitted by Earthjustice, Union of Concerned Scientists, et al. 2023. https://www.regulations.gov/comment/EPA-HQ-OPPT-2022-0918-0032
[7] Comments submitted by Earthjustice, Union of Concerned Scientists, et al. 2023. https://www.regulations.gov/comment/EPA-HQ-OPPT-2022-0918-0035
[8] National Environmental Justice Advisory Council. 2024. "Recommendations for Reducing Cumulative and Disproportionate Impacts and Burdens in Environmental Justice Communities." https://www.epa.gov/system/files/documents/2024-11/nejac-recommendations-for-reducing-cumulative-and-disproportionate-impacts-and-burdens-in-environmental-justice-communities.pdf
[9] EPA. (2022b). FY 2022-2026 EPA Strategic Plan. Previously on: epa.gov/system/files/documents/2022-03/fy-2022-2026-epa-strategic-plan.pdf. Retrieved from: https://www.ucsusa.org/resources/science-and-environmental-justice.
[10] Center for Sustainable Systems, University of Michigan. 2024. "Environmental Justice Factsheet." Pub. No. CSS17-16.

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protective services. Moreover, when environmental protections are developed and implemented to protect the most overburdened communities, everyone is simultaneously protected. For all of these reasons, we support cumulative impacts assessment and reduction work and are appreciative of this Interim Framework.

EPA has been advancing research and developing guidance documents around cumulative risks and impacts for nearly thirty years, but the agency's policies and actions have not evolved to reflect these findings. The NEJAC has advised on cumulative risk and impacts in 2004[11] and again in 2024[12]. The EPA developed and released the Framework for Cumulative Risk Assessment in 2003[13], and the Cumulative Risk Assessment Planning and Problem Formulation Guidance in 2025[14]. UCS finds that this Interim Framework is a useful and necessary advancement in the move to better protect environmental health because it frames how existing environmental media programs and cumulative risk research, and guidance can be brought together in a coordinated manner. A dressing the cumulative impacts experienced by overburdened communities is an urgent need, and the current incrementalist approach is not effective in providing adequate environmental protection. In many aspects of environmental law, as described in the EPA Environmental Justice Legal Tools Cumulative Impacts Addendum[15], EPA has a great deal of existing regulatory authority to address and assess cumulative impacts. There are many instances where those authorities could be used more broadly and where EPA could make cumulative impact assessment a requirement.

[11] National Environmental Justice Advisory Council. 2004 "Ensuring Risk Reduction in Communities with Multiple Stressors: Environmental Justice Cumulative Risk/Impacts." https://www.epa.gov/sites/default/files/2015-02/documents/nejac-cum-risk-rpt-122104.pdf.
[12] National Environmental Justice Advisory Council. 2024 "Reducing Disproportionate and Cumulative Impacts and Burdens in Environmental Justice Areas." https://www.epa.gov/system/files/documents/2024-11/nejac-recommendations-for-reducing-cumulative-and-disproportionate-impacts-and-burdens-in-environmental-justice-communities.pdf
[13] U.S. EPA 2003. "Framework for Cumulative Risk Assessment." https://www.epa.gov/risk/framework-cumulative-risk-assessment
[14] U.S. EPA 2025. "Guideline for Cumulative Risk Assessment Planning and Problem Formulation." https://www.epa.gov/system/files/documents/2025-01/guidelines-for-cumulative-risk-assessment-planning-and-problem-formulation_0.pdf
[15] U.S. EPA 2023. EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum. Washington, DC: EPA Office of General Counsel. https://www.epa.gov/system/files/documents/2022-12/bh508-Cumulative%20Impacts%20Addendum%20Final%202022-11-28.pdf.

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In recent years, federal institutions have produced research and guidance that supports regulatory decision-making processes rooted in benefits that reach all communities. Our organization has found many federal mapping and screening tools, EPA Community Action Roadmaps[16], the NEJAC Cumulative Impacts Workgroup recommendations[17], the White House Report on Environmental Justice Science, Data and Research[18], and the two EPA Equity Action plans[19, 20] to be useful and evidence-based resources that can help move this work forward. While the current administration has erased many of these resources signaling that the federal government will not be continuing this work, they remain useful for states, local governments, and communities. As a result, organizations in a powerful coordinated effort have salvaged these resources and tools so that they remain accessible to the American public. We urge the EPA to continue following its 2022 - 2026 Strategic Plan and resulting equity action plan development. The EPA equity action plan from 2022 gave this Interim Framework the needed push to completion, and we strongly support furthering strategic planning that is inclusive of the evidence-based work of environmental justice.

Over the years, UCS has supported and co-developed work on environmental justice and cumulative impacts because scientific studies that analyze the geography of pollution sources and people, using data from the United States Census, have shown over and over again that pollution is not equally distributed geographically or in the US population. More often than not, a higher pollution burden has been measured and modeled in low-income and communities of color. In the United States, more than half of the people who live within 3 kilometers of a hazardous waste facility are people

[16] U.S. EPA. Community Action Roadmaps. https://www.epa.gov/ports-initiative/community-action-roadmap-overview
[17] (formerly U.S. EPA) Union of Concerned Scientists. 'Science and Environmental Justice'. https://www.ucsusa.org/resources/science-and-environmental-justice.
[18] Office and Science, Technology, and Policy. National Science and Technology Council. 2024. "Environmental Justice Science, Research, and Data." https://public-archiving.s3.us-east-1.amazonaws.com/NSTC-EJ-Research-Plan-July-2024-2.pdf
[19] U.S. EPA. 2022. "EO 13985 Equity Action Plan" https://public-archiving.s3.us-east-1.amazonaws.com/epa_equityactionplan_april2022_508.pdf.
[20] U.S. EPA. 2023. "EPA's 2023 Equity Action Plan" https://public-archiving.s3.us-east-1.amazonaws.com/epa-2023-equity-action-plan.pdf.

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of color[21]. Moreover, scientists have found that when there is more racial residential segregation, the pollution exposure disparities are more extreme[22]. Furthermore, there are many decades of evidence supporting that Social Determinants of Health can interact with environmental pollution and lead to higher levels and exacerbation of health problems such as asthma[23] and neurodevelopmental outcomes[24] for low-income and communities of color. The bottom line is this: Sources of environmental pollution are not evenly spaced and they do not operate in isolation; similarly, people are not exposed to one pollutant at a time. Our environmental regulatory system should reflect these realities with ongoing federal science, policies and regulations informed by cumulative impacts.

Not considering cumulative impacts is ignoring reality. Continuing to implement environmental protection in a way that is siloed into disconnected air, water, remediation regulations, and permitting is not efficient and does not properly protect people and the environment. If cumulative impacts are not considered, regulatory permits are more likely to be issued without adequate limits or conditions to protect against the full scope of pollution from surrounding sources[25]. In some cases, failure to consider cumulative impacts will allow permits to be granted when they should be denied because the ecosystem or community's stressors and burdens are already too

[21] Bullard, Robert D., Paul Mohai, Robin Saha, and Beverly Wright. "TOXIC WASTES AND RACE AT TWENTY: WHY RACE STILL MATTERS AFTER ALL OF THESE YEARS." *Environmental Law* 38, no. 2 (2008): 371–411. http://www.jstor.org/stable/43267204.

[22] Rachel Morello-Frosch and Bill M. Jesdale
2006
Separate and Unequal: Residential Segregation and Estimated Cancer Risks Associated with Ambient Air Toxics in U.S. Metropolitan Areas
Environmental Health Perspectives 114:3 CID: https://doi.org/10.1289/ehp.8500

[23] U.S. EPA. 2024 "Indicators of Environmental Health Disparies: Childhood Asthma Prevalence" Washington D.C. EPA 231R24003 https://www.epa.gov/system/files/documents/2024-12/ej-indicators-asthma.pdf.

[24] Payne-Sturges DC, Taiwo TK, Ellickson K, Mullen H, Tchangalova N, Anderko L, Chen A, Swanson M. Disparities in Toxic Chemical Exposures and Associated Neurodevelopmental Outcomes: A Scoping Review and Systematic Evidence Map of the Epidemiological Literature. Environ Health Perspect. 2023 Sep;131(9):96001. doi: 10.1289/EHP11750. Epub 2023 Sep 27. PMID: 37754677; PMCID: PMC10525348.

[25] Ellickson KM, Sevcik SM, Burman S, Pak S, Kohlasch F, Pratt GC. Cumulative risk assessment and environmental equity in air permitting: interpretation, methods, community participation and implementation of a unique statute. Int J Environ Res Public Health. 2011 Nov;8(11):4140-59. doi: 10.3390/ijerph8114140. Epub 2011 Nov 4. PMID: 22163199; PMCID: PMC3228563.

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great[26,27,28,29]. EPA must also use existing methods and science to incorporate cumulative impacts principles into regulations. For example, EPA must ensure that risk evaluations under the Toxic Substance Control Act properly consider '*potentially exposed or susceptible sub-populations.*'[30] EPA must also incorporate a multi-pathway approach in regulations such as fully incorporating atmospheric deposition and subsequent ingestion pathways in the National Ambient Air Quality Standard for lead. Cumulative impacts programs, assessments, and consideration in regulations is an evolution of environmental protection that brings it into alignment with the existing science and reflects the lived experiences of overburdened communities that would otherwise be lost. Finalizing the Interim Framework and implementing the suggested approaches can fill these gaps.

EPA must be thoughtful about how cumulative impacts is interpreted and implemented throughout the agency. As such, UCS has several comments on areas where the Interim Framework must be clarified and corrected, as well as opportunities for it to be strengthened further.

Clarify

While EPA has clearly described stressors versus burdens, the agency does not include all possible exposures -- from in utero exposures to hazardous chemicals that are stored in the body, to daily exposures -- in its description of each. UCS recommends that EPA be clear and consistent with this throughout the framework. Consider if a stressor can be a pollutant load in a person, which some may assume is a burden (pollutant burden). If so, please be clear and consistent about this throughout the

[26] Hirsch, A. Regulatory context for cumulative impact research. Environmental Management 12, 715–723 (1988). https://doi.org/10.1007/BF01867548.
[27] Stein, E.D., Ambrose, R.F. Cumulative impacts of Section 404 Clean Water Act permitting on the riparian habitat of the Santa Margarita, California Watershed. Wetlands 18, 393–408 (1998). https://doi.org/10.1007/BF03161533
[28] Rachel Morello-Frosch, Miriam Zuk, Michael Jerrett, Bhavna Shamasunder, and Amy D. Kyle 2011. Understanding The Cumulative Impacts Of Inequalities In Environmental Health: Implications For Policy Health Affairs 30:5, 879-887.
[29] Carolina L. Balazs and Rachel Morello-Frosch. 2013 "The Three Rs: How Community-Based Participatory Research Strengthens the Rigor, Relevance, and Reach of Science." Environmental Justice 6:1, 9-16.
[30] Pullen Fedinick K, Yiliqi I, Lam Y, Lennett D, Singla V, Rotkin-Ellman M, Sass J. A Cumulative Framework for Identifying Overburdened Populations under the Toxic Substances Control Act: Formaldehyde Case Study. Int J Environ Res Public Health. 2021 Jun 3;18(11):6002. doi: 10.3390/ijerph18116002. PMID: 34205009; PMCID: PMC8199872.

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Interim Framework. For example, on pdf-pg 18 EPA must ensure that historic stressors and burdens leading to the current condition of being overburdened is included in this sentence, "The scope of the analysis or assessment can include characterizing existing community burdens and changes in these burdens associated with a proposed action."

UCS recommends that EPA clarify timing of exposures and polluting activities, including consideration of what is past, existing, and future. For example, on page 7, "These decisions may have intended and unintended consequences that can either improve or detract from community health, quality of life, and capacity for resilience." EPA should be clear that this refers to past decisions, the decisions currently being made, and future decisions. 'These" conveys that only past decisions are reflected in the statement, but really this applies to all EPA decisions in a location up to a specific time. In addition, on page 16, we recommend adding 'potential and existing' to the phrase "health outcomes". Additionally, we recommend that page 18 is edited to apply to a condition/limiting/denial/reissuance of an existing permit, to a TSCA risk evaluation, to a remediation decision, etc., rather than only for a new proposal.

The EPA references legal authorities in the Interim Framework starting in the Disclaimers section with, "This document does not address when it is relevant or consistent with law to use a cumulative impacts approach…" The phrase 'consistent with law' is broad and could be understood as including executive orders and/or could be understood as only including major environmental laws (e.g. Clean Air Act, Clean Water Act, etc). Again on page 8, the EPA states that cumulative impacts will be considered 'within applicable laws' and again on page 9, "appropriate exercise of the EPA's legal authorities." We recommend that EPA clarify the scope of what is meant by these phrases. It may be useful to cite the EPA EJ Legal Tools documents[31, 32].

EPA should also clarify the type of decision-making being referred to in various sections. For example, on page18, EPA writes, "Most decisions are made in the

[31] U.S. EPA. Office of General Council. 2022 "EPA Legal Tools to Advance Environmental Justice" https://www.epa.gov/system/files/documents/2022-05/EJ%20Legal%20Tools%20May%202022%20FINAL.pdf.
[32] U.S. EPA. Office of General Council. 2023. "EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum." https://www.epa.gov/system/files/documents/2022-12/bh508-Cumulative%20Impacts%20Addendum%20Final%202022-11-28.pdf

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context of programs that routinely carry out specific types of actions as part of the democratic process at that level of government, guided by policies and procedures." Some parts of EPA decision-making are currently democratic such as rule-making with a public comment period, but others such as final permit decisions are more technocratic in nature, where if a permit aligns with the laws and rules, an agency must issue the permit. We recommend that EPA review the framework to ensure that it is clear what types of agency decision-making are being referred to.

Furthermore, some parts of the framework frame cumulative impact assessments as a supporting or 'additional considerations' exercise, when they should be directly linked to a decision. In other instances, the document is overly focused on scoping out stressors and burdens rather than finding efficient ways to include them. The EPA uses the words "predominant" (pg 20) and "relevant" (pg 21). "Predominant" could result in scoping out local hotspot data and favoring the inclusion of data that informs regional air quality impacts, and 'relevant' should nearly always be linked to a publicly informed scoping process. The definition of 'extrinsic factors' includes the word 'acquired.' This sentence implies that the individual is somehow responsible - as they are accepting the adversity - when context, systems, and structures should be emphasized. The phrase 'prioritize stressors' is also stated several times. Processes for prioritizing stressors can, in some instances, take as long and use as many resources as simply including those stressors in the analysis. For this reason, prioritizing stressors may not always be useful and can delay pollution reduction actions, and in these instances the stressors should simply be included.

One reason that cumulative impacts must be incorporated within environmental protection stems from the decision-making framework of 'significant addition.' The addition of new pollution sources appears less significant in areas with many existing pollution sources[33]. Think of a few cents added to a $100 invoice; this does not seem like a big addition and can more easily be framed as 'insignificant.' Partially because of this mindset, 'small' pollution additions keep being added to already overburdened communities. Stopping the narrative of 'a bit more' is essential. The term 'baseline' is in many parts of this framework, and this requires care in how it is characterized and

[33] Warren, Michael Sol. New Jersey Spotlight. Energy and Environment. 2024. "DEP urged to block proposed Newark power plant" https://www.njspotlightnews.org/2024/10/dep-urged-to-block-proposed-newark-power-plant/

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described. Characterizing cumulative impacts as the baseline and then using an existing single chemical risk-based approach to assess a proposed addition, as characterized in Figure 3. can perpetuate this framework of pollution additions. Take great care not to facilitate that narrative of 'only a small addition' and rather provide a systematic means to draw the line for no more additions and provide a means to reduce existing cumulative stressors and burdens.

Finally, EPA states that, "…ongoing efforts to address cumulative impacts will be focused on the local scale with the goal of further development to the national scale over time." The EPA needs to be clear here. This sentence implies that cumulative impacts work will be focused on local permitting and resource prioritization but will not be focused on national rulemaking that provides the foundational architecture of permitting and chemical regulations. UCS recommends that the agency be specific on the decision-making structures that EPA specifies here and provide a timeline for work on national rulemaking efforts. EPA should be utilizing cumulative impacts in national-level rulemaking now where appropriate and implementable.

Corrections
Below are a number of suggested corrections to the Interim Framework;

- Table 1 needs to be corrected. The state of Massachusetts uses an air toxics cumulative risk approach[34] for part of its cumulative impacts method. So, it should be noted that it is a single scoring method. Also, it is not correct to characterize any of the example applications in Table 1 as used in the permitting lever itself. They may be used to determine where to implement enhanced public engagement, but not yet in identifying permit limits, conditions, or issuance decisions.
- Cumulative impact assessments are not aimed at determining causality, and therefore the example of, "Interpret the causal nexus of exposure and impacts of a regulated stressor" should be deleted from pdf-pg 15.
- The sentence "Individual-level health data are often difficult to obtain because of privacy laws but are sometimes available at coarser spatial scales" on pg 22 is

[34] Massachusetts Department of Environmental Protection. 2024 "Massachusetts Air Toxics Risk Screening Tool" https://www.mass.gov/info-details/cumulative-impact-analysis-in-air-quality-permitting.

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not helpful since EPA's purview is not individual health. If EPA means smaller sample size community health data, then please rephrase.

- Under the Scoping and Problem Formulation section, community engagement initiation is stated. Community should be engaged in 'Scoping', and 'Initiation'. To this end, include a description of a public petition process for initiating a cumulative impact assessment if the assessment falls outside of laws, rules, and guidelines. Please also include a means for public comments to additionally lead to the initiation of a cumulative impact assessment.
- In the bulleted list on pg 23, the phrase 'together with existing stressors and burdens' is missing in each bullet.
- In the definition of 'Disproportionate' on pdf-pg 33, the phrase 'that may merit EPA action' is not relevant to that definition. Please delete that phrase.

Missing information

While the document is a strong advancement of EPA's work on cumulative impacts, there are a few areas that merit further information. Overall, the framework would benefit from a description of what is considered cumulative and what is not as cumulative about the examples at the end, perhaps in a table. In each of these examples, include nwhat components of a cumulative impact assessment were included and which were not. That sets up an ability to refer to these examples as you set up the Interim Framework.

Specifically, on pg 29, please include the EPA website where the performance measures for cumulative impacts are described and listed. Additionally, please include the websites of each of the on-the-ground cumulative impact assessments reported on pg 30 so that people can learn more about this work.

We also find it crucial that cumulative impact assessments include community stories/examples/voices (lived experience), or at least reference guidance for or examples of including community stories to the extent possible. This is the only way to reflect with authenticity the realities people face, for example those who live in poverty and near heavy industry. Please include these additions in the Assessment section of the Interim Framework on pdf-pg 20.

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Finally, the EPA website states that Spanish translations of the Interim Framework document and Fact Sheet will be available soon. There is a need for Spanish language cumulative impacts materials[35], and as a result we strongly suggest that EPA follow through with a translation.

Strengthen

Overall, the framework would be strengthened by additional reference and connections to EPA Legal Tools documents [36, 37], especially on pg 24. Much of the Interim Framework could be strengthened to provide greater support to states, local governments, and communities. For example, on pg 16, EPA writes "Assessors need to exercise judgment in determining when to use cumulative risk assessment, cumulative impacts assessment, or another approach for evaluating exposures to multiple stressors for a specific purpose." This sentence should be strengthened to reflect that when risk assessment is statutorily required, a cumulative risk assessment must be used[38, 39, 40, 41]. Otherwise, use cumulative impact assessment. The determination of which methodology to use should not be based case-by-case on an assessor's judgment.

Furthermore, EPA should change the phrase on pg 18, 'perception of such an increase' to 'local knowledge of such an increase.' The word perception casts immediate doubt on the validity of local knowledge, and therefore EPA should develop a process to investigate validity rather than immediately casting doubt. In several instances, EPA must strengthen their commitment to this work, for example on pg 51 the phrase 'EPA is supportive of these efforts' should be rephrased to 'EPA will support these efforts.'

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[35] Yoshira Ornelas Van Horne, Laura M. Diaz, Jessica Trowbridge, Cecilia S. Alcala, and David J.X. González. 2023. "Toward Language Justice in Environmental Health Sciences in the United States: A Case for Spanish as a Language of Science" Environmental Health Perspectives 131:8 CID: 085001 https://doi.org/10.1289/EHP12306

[36] U.S. EPA. Office of General Council. 2022 "EPA Legal Tools to Advance Environmental Justice" https://www.epa.gov/system/files/documents/2022-05/EJ%20Legal%20Tools%20May%202022%20FINAL.pdf.

[37] U.S. EPA. Office of General Council. 2023. "EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum." https://www.epa.gov/system/files/documents/2022-12/bh508-Cumulative%20Impacts%20Addendum%20Final%202022-11-28.pdf

[38] NAS, Science and Decisions: Advancing Risk Assessment at 9-10, 219-23 (2009), https://nap.nationalacademies.org/catalog/12209/science-and-decisions-advancing-risk-assessment.

[39] H.R. Rep. No. 94-1341, at 6-7 (1976).

[40] 21 U.S.C. § 346a(b)(2)(D).

[41] 42 U.S.C. § 7412(f)(2), (d)(5).

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Declaring a continued commitment to this work is important and necessary for EPA to live up to its mission. The statement "...center cumulative impacts work on improving human health, quality of life, and the environment in all communities." is made at the top of pg 12. Please also acknowledge that environmental protections informed by cumulative impacts are more efficient. Currently the air program, when not considering cumulative impacts, may be creating future work for remediation and water programs since many air pollutants deposit onto surfaces and accumulate over time.

On pg 15, EPA writes, "In addition, even when a separate cumulative impact assessment is not conducted, its components can be combined with or integrated into other approaches." Please describe what you consider to be the components of a cumulative impact assessment, refer to them here, and provide a hypothetical example for clarity.

In summary, we have learned from and will share this framework document and respectfully submit these comments on the Interim Framework. Thank you again for this opportunity to comment, and please send any questions or comments to Kristie Ellickson at KEllickson@ucsusa.org.