



Environmental Working Group comments for the National Environmental Justice Advisory Council (NEJAC) public meeting

August 2021

The Environmental Working Group, or EWG, a nonprofit research and policy organization with offices in Washington, D.C., Minneapolis, San Francisco and Sacramento, Calif., submits comments for the August 18-19, 2021, meeting of the National Environmental Justice Advisory Council (NEJAC).

We thank the Council for its work and the advice and guidance it provides the Environmental Protection Agency to help with implementing environmental justice policies and protecting environmental health quality for all communities.

Our written comments, and the public remarks presented at the August 18-19 meeting, focus on the need to add drinking water as a metric in the EPA's Environmental Justice Screening and Mapping Tool, or EJSCREEN. This tool is based on "nationally consistent data and an approach that combines environmental and demographic indicators in maps and reports," according to the EPA's website.¹

As the NEJAC members know, the 11 environmental indicators included in EJSCREEN are (1) National-Scale Air Toxics Assessment, or NATA, air toxics cancer risk; (2) NATA respiratory hazard index; (3) NATA diesel particulate matter; (4) fine particulate matter, or PM2.5; (5) ozone; (6) lead paint; (7) traffic proximity and volume; (8) proximity to Risk Management Plan sites; (9) proximity to treatment, storage and disposal facilities; (10) proximity to Superfund National Priorities List sites; (11) and wastewater discharges. These 11 metrics are important and essential indicators of environmental quality and environmental pollution risk.

However, a key metric is missing from EJSCREEN: drinking water quality.

Drinking water is an environmental justice priority

EJSCREEN and peer-reviewed research have shown disparities in community exposure to air pollution exist at both national and local levels.^{2,3} There is now growing evidence of similar disparities in communities' drinking water quality.

¹ <https://www.epa.gov/ejscreen>

² Alvarez CH, Evans CR. (2021). Intersectional environmental justice and population health inequalities: A novel approach. *Soc Sci Med.* 269:113559. <https://doi.org/10.1016/j.socscimed.2020.113559>

³ Ekenga CC, Yeung CY, Oka M. (2019). Cancer risk from air toxics in relation to neighborhood isolation and sociodemographic characteristics: A spatial analysis of the St. Louis metropolitan area, USA. *Environ Res.* 179(Pt B):108844. <https://doi.org/10.1016/j.envres.2019.108844>



Peer-reviewed studies report that community water systems serving areas with a greater percentage of people of color are more likely to experience worse drinking water quality compared to nationwide averages.^{4,5,6} It is essential that EJSCREEN add a drinking water metric when assessing community environmental health disparities.

Adding a water quality metric to EJSCREEN would also aid in the development of more equitable policies for infrastructure investment to alleviate adverse impacts.⁷

As researchers in the field, our team is aware that studies on the geospatial distribution of drinking water contamination have been limited by the lack of comprehensive, centralized datasets on water use, water quality, and water service areas.⁸ Although California has published geospatial analysis of drinking water data under the CalEnviroScreen program,^{9,10} detailed analysis of drinking water quality for other U.S. states has not been conducted despite a vital need for such data.

We urge the NEJAC to emphasize to the EPA the importance of including drinking water as a metric in EJSCREEN.

Adding drinking water to EJSCREEN is practical, essential

This approach is both practical and essential to document and recognize the full scope of environmental pollution impacts on communities. Increasingly, state agencies and academic researchers are developing and publishing geographic information system, or GIS, datasets for community water system service area boundaries, and these data can be integrated with the Census block and Census tract data.

⁴ McDonald YJ, Jones NE. (2018). Drinking Water Violations and Environmental Justice in the United States, 2011-2015. *Am J Public Health*. 108(10):1401-1407. <https://doi.org/10.2105/AJPH.2018.304621>

⁵ Federnik KP, Taylor S, Roberts M. (2019). “Watered Down Justice.” Natural Resources Defense Council, Coming Clean, and Environmental Justice Health Alliance. <https://www.nrdc.org/resources/watered-down-justice>

⁶ Switzer D. and Teodoro MP. (2017). The Color of Drinking Water: Class, Race, Ethnicity, and Safe Drinking Water Act Compliance. *Journal - American Water Works Association*, 109: 40-45. <https://doi.org/10.5942/jawwa.2017.109.0128>

⁷ Hansen K, Hughes S, Paine A, Polidori J. (2021). “Drinking Water Equity: Analysis and Recommendations for the Allocation of the State Revolving Funds.” Environmental Policy Innovation Center. http://policyinnovation.org/wp-content/uploads/SRFs_Drinking-Water-Analysis.pdf

⁸ Josset L, Allaire M, Hayek C, Rising J, Thomas C, Lall U. (2019). The U.S. water data gap—A survey of state-level water data platforms to inform the development of a national water portal. *Earth's Future*. 7, 433–449. <https://doi.org/10.1029/2018EF001063>

⁹ Bangia K, August L, Slocombe A, Faust J. (2020). Assessment of contaminants in California drinking water by region and system size. *AWWA Wat Sci*. e1194. <https://doi.org/10.1002/aws2.1194>

¹⁰ Draft CalEnviroScreen 4.0. (2021). California Office of Environmental Health Hazard Assessment. <https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40>



Such analysis must include comprehensive data on contaminant occurrence, available from state drinking water agencies that hold regulatory authority over public water systems in their states. Environmental justice screening and mapping tools should include demographic analysis and data on drinking water contaminant occurrences of both regulated and unregulated contaminants. The tools should also include information on compliance with health standards and monitoring requirements.

EWG has been conducting and compiling drinking water test data for all states since 2005. These are the results of drinking water testing that community water systems conduct to demonstrate compliance with drinking water quality regulations. The datasets are maintained by the agencies that regulate public water systems in each state. Our compiled dataset is available at <https://www.ewg.org/tapwater/>.

Drawing on this national dataset of drinking water contaminant occurrence, we conducted case studies that analyzed the patterns in the distribution of cumulative cancer risk due to carcinogenic contaminants in tap water compared to the demographic data from the U.S. Census. This study is under peer review, and we will provide the results to both the EPA and the NEJAC once the final article is published.

Much-needed first step: considering drinking water in EJSCREEN

Using GIS data for community water system boundaries and contaminant occurrence data could help significantly advance analyses of community-level drinking water data, much like improvements in air pollution research have resulted in tangible benefits for local and national assessments of emissions and air quality.

The assessment of cumulative exposures that has already been applied to air quality should become a cornerstone for more comprehensive analyses of environmental quality, and future policies to improve environmental health in all communities, especially those that have historically experienced a disproportionate burden of pollution and may still have a disproportionate burden of pollution.

EWG recommends for state and federal government agencies to include geospatial, community-level data on drinking water contaminant occurrence in their research and policy initiatives to help address those burdens. Adding drinking water data as the 12th metric in the EPA's EJSCREEN is a much-needed step in that direction.

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