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for SOCIAL JUSTICE

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Submitted Via Electronic Mail

Governor's Environmental Justice Advisory Council
Environmental Justice Mapping Tool Prototype
ncej@publicinput.com

Jeff Hart
Governor's Office
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Re: **Comments in Response to Environmental Justice Advisory Council Environmental Justice Mapping Tool Prototype**

Dear Council:

Thank you so much for the opportunity to provide feedback on the Environmental Justice Mapping Tool Prototype. We are greatly encouraged by the quality and depth of the tool as is, and we thank you for encouraging public involvement through your website and through virtual meetings. Due to the length of our comments, we would like to build upon our oral public comments at the August 20, 2024, Virtual Workshop with additional written feedback.

On October 24, 2023, Governor Roy Cooper signed Executive Order 292 ("EO 292").[1] Section 11 of EO 292 orders the Department of Information Technology to develop an Environmental Justice Mapping Tool ("mapping tool") in coordination with cabinet agencies, the Environmental Justice Advisory Council ("EJAC"), and the public, and EO 292 directs that the tool shall be published by October 24, 2024.[2] EO 292 requires that the mapping tool include a suite of environmental justice indices, while remaining "easily accessible and usable by the public."[3] Accordingly, Southern Coalition for Social Justice submits the following feedback regarding the Mapping

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[1] Executive Order 292, *Addressing Environmental Justice in North Carolina*, https://governor.nc.gov/executive-order-no-292/open (last visited Aug. 30, 2024).
[2] *Id.*
[3] *Id.*

Tool Prototype, available at: https://arcg.is/1fbOnP0, to offer improvements to the prototype's current accessibility and functionality.

Overall, we are incredibly encouraged to see the breadth and depth of this tool, as it incorporates numerous critical environmental justice indices within one site. We hope that this mapping tool will remain open for the inclusion of additional environmental justice data in the future while remaining easily accessible to the public, in alignment with EO 292[4] and President Biden's Executive Order 14096.[5]

When the tool is first accessed, a pop-up window appears, noting that the tool is a prototype. However, initial pop-up windows are key opportunities to provide critical information upfront. The finalized mapping tool should use this pop-up window to explain how to use the tool and should include an explanation of the purpose behind and content within the tool and where to find the source data for each individual dataset.[6] The collapsed menu icon at the top-right of the page currently contains a faulty link to the EJ Hub website, so, once fixed, this icon could also provide these access tips. Lastly, this information should include a video walkthrough, showcasing all features of the tool, including where to access and how to use the "Set filter" and "Statistics" toggles in the tool, as we believe they are the most difficult parts of the tool to understand.

With regard to the appearance of the base map layer, removing some details could improve the user experience. This tool provides a helpful outline of North Carolina, where users can see a topographical map of the State. We believe it may be less overwhelming for the viewer if the "County" option is not selected by default, and a permanent outline of North Carolina is instead the only line present in the tool at the outset. Removing labels for North Carolina counties, unless someone hovers over or clicks on them, may remove visual clutter that tends to overwhelm users. Additionally, for the same reason, though we appreciate the default topographical view of the map, we hope the finalized version will include an option to remove topography and instead view the area with a simplified lens.

While the headings at the top of the tool divide the available datasets into helpful categories, such as "Demographics" and "Health," these datasets could instead be divided into categories that more accurately capture their distinguishing factors. For instance, the tool includes a "Climate Stressors" tab and an "Environmental" tab, but without a definition of "Climate Stressors," the average user may not understand whether a particular dataset belongs in the "Climate Stressors" tab or the "Environmental" tab. Additionally, it is not clear what "Supporting Data" includes or what "TDI Polys New – TDI Results" means. Descriptors that better explain the division of these datasets and their contents are key for public use.

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[4] *Id.* ("Each cabinet agency shall take reasonable steps to maintain websites that are digitally inclusive, so that all individuals and communities, particularly those with disabilities and/or English language barriers, have access to and use of information, whenever practicable.").

[5] Executive Order 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, https://www.federalregister.gov/documents/2023/04/26/2023-08955/revitalizing-our-nations-commitment-to-environmental-justice-for-all (last visited Aug. 30, 2024).

[6] For an example, *see* Sampson County Landfill Origins Explorer, https://sampson-landfill-origins-explorer.glitch.me/ (last visited Aug. 30, 2024).

Another possible improvement on the tool is the addition of the ability to layer multiple datasets with different visualization options. In the Environmental section, for instance, most datasets are represented by dots, shapes, or symbols of different colors and sizes. This variety of pinpoints is a useful way to layer multiple datasets. However, the current shapes and colors used to visualize certain data could be easily confused due to the visual similarity of multiple datasets, including:

(1) Hazardous Waste Sites (Large Quantity Generators) & Permitted Solid Waste Landfills (See Exhibit 1)

(2) Under Ground Storage Tank Incidents & Above Ground Storage Tank Incidents

(3) Animal Feeding Operation Permits (Swine State COC) & Coal Ash Structural Fills (CCB) (CLOSED)

(4) Animal Feeding Operation Permits (Cattle NPDES COC) & NPDES Stormwater Permits

(5) Animal Feeding Operation Permits (Cattle State COC) & Permitted Septage Sites

(6) Animal Feeding Operation Permits (Wet Poultry NPDES COC) & Petroleum Contaminated Soil Remediation Permits – SOILPERM

Easily accessible options for changing the colors and sizes of these data points would allow members of the public to layer these datasets and visualize the necessary data appropriately without coding knowledge.

Layering is even more difficult when selecting multiple datasets of regional data. For example, layering "Households with no car" on top of "Rate of COPD Deaths" nearly eliminates the visualization of "Rate of COPD Deaths," due to the darker colors used in the "Households with no car" data. See Exhibit 2. Exploring ways that users could visualize multiple layers of regional data would be a fantastic improvement to this tool, if possible.

On this same point, the finalized tool needs to allow users to deselect options that they previously selected. As is, a user who clicks on "Air Quality Permit Sites" within the Environmental tab and clicks on "Age Adjusted Rate of All Cancers" within the "Health" tab can easily see the legend in the bottom right of the screen—we believe this is an appropriate visualization method. We hope, however, that this legend will include an option to deselect a dataset so that users will not need to remember where they initially selected a dataset and navigate back to that tab.

Finally, the Mapping Tool is a helpful amalgamation of different datasets, but we believe there are a few opportunities for visual improvements. First, we recommend usage of colors with higher contrast of colors (3:1) for colorblind accessibility. Second, screen reader accessibility is necessary for individuals with visual impairments, so we hope the tool will work with screen reader software, as able. Third, we believe the search tool could be improved by implementing hover effects, so

that users can obtain additional information about datapoints and regions by hovering over the affected areas.
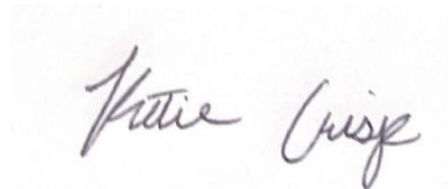
Again, we are very encouraged to see this tool in its draft form, as it compiles many environmental justice indices in an unprecedented way. We applaud the Department of Information Technology, the Environmental Justice Advisory Council, the EJ Hub & Mapping Tool Subcommittee, and all involved in the tool's creation and development, as this will help advocates and impacted community members visualize cumulative impacts in an unprecedented manner.

Thank you for the opportunity to provide feedback, and we look forward to seeing the finalized tool.

Sincerely,

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James Huey
Counsel for Environmental Justice

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Katie Crisp
Paralegal for Environmental Justice

Exhibit 1: "Hazardous Wastes Sites" uses the same symbol as "Permitted Solid Waste Landfills".

Exhibit 2: "Rate of COPD Deaths" is almost entirely covered by the "Households with No Car" layer.