

# OREGON ENVIRONMENTAL JUSTICE COUNCIL ENVIRONMENTAL JUSTICE MAPPING TOOL VISIONING

July 26, 2023

10:00 a.m. (note: this is a working meeting so no public testimony will be accepted)

## Virtual Public Meeting Agenda

This public meeting will be conducted as a virtual meeting. Please register in advance.

[https://us02web.zoom.us/webinar/register/WN\\_aiLrax4WTmuCqcvTN-feZw](https://us02web.zoom.us/webinar/register/WN_aiLrax4WTmuCqcvTN-feZw)

The Council makes every attempt to hold strictly to the sequence of the distributed agenda. Times and topics may change up to the last minute. This agenda is available on the Environmental Justice Council website: [Governor of Oregon : Environmental Justice Council : Policies : State of Oregon](#).

10:00 a.m.	Item 1:	<b>Call to Order</b> – Chair Joel Iboa
10:05 a.m.	Item 2:	<b>Scheduling and Subcommittees</b> – Environmental Justice Coordinator Board Action: The Council will be asked to take action on this item
10:25 a.m.	Item 3:	<b>HB 4077 Legislative Analysis</b> – Environmental Justice Coordinator Briefing: The Council will not be asked to take action on this item
10:45 a.m.	Item 4:	<b>Environmental Justice Mapping Tool Technical Orientation</b> – Staff Briefing: The Council will not be asked to take action on this item
11:20 a.m.	Item 5:	<b>Environmental Justice Mapping Tool Purpose/Intent</b> – EJC and Staff Briefing: The Council will not be asked to take action on this item
12:00 p.m.	Item 6:	<b>Council Adjourn</b>

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## **PLEASE NOTE**

### **AGENDA**

The public portion of the Board meeting will begin at 10:00 a.m. and proceed chronologically through the agenda. Times listed on the agenda are approximate. At the discretion of the chair, the time and order of agenda items—including addition of intermittent breaks—may change to maintain meeting flow.

### **PUBLIC TESTIMONY**

None will be accepted for this meeting as it is a working meeting to discuss priorities of the Environmental Justice Council. Future meetings will allow opportunities for public testimony.

### **REASONABLE ACCOMMODATION OF DISABILITIES**

Please contact us at least three business days prior to the meeting to let us know if you need reasonable accommodation. Contact the Environmental Justice Coordinator at (503) 926-3458 or [van.nguyen@deq.oregon.gov](mailto:van.nguyen@deq.oregon.gov) for assistance.

# Staff Report and Memorandum

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To: Chair and Members of the Environmental Justice Council  
From: Hoang-Van Nguyen, Environmental Justice Council Coordinator  
Date: July 12, 2023

**Regarding: Agenda Item 2 – Scheduling and Subcommittees**

The Council will be taking action on this item.

Council Schedule 2023:

September 5, 2023: 9:00-1:00 p.m.;  
October 17, 2023: 9:00-1:00 p.m.;  
December 5, 2023: 9:00-1:00 p.m.

Or

September 5, 2023: 9:00-1:00 PM;  
October 17, 2023: 9:00-1:00 PM;  
November 7, 2023: 9:00-1:00 PM;  
December 5, 2023: 9:00-1:00 PM

Subcommittee Establishment and Nominations

Governance: The Governance subcommittee shall focus on setting expectations for Environmental Justice Council members, create expectations and an election process for officers of the Environmental Justice Council, and provide clarity around appointments to the Environmental Justice Council. This subcommittee will meet approximately two to three times in a workshop format.

Environmental Justice Mapping Tool: The Environmental Justice Mapping Tool subcommittee shall be established, and this subset of the Environmental Justice Council shall collaborate with the Environmental Justice Council Coordinator and Environmental Justice Mapping Tool team to develop the workplan including the listening session strategy. This group will meet at least monthly to develop the workplan and listening session strategy in workshop format and status update/collaboration format.

Nomination Process:

Nominations for both subcommittees are due on August 2, 2023 at 5:00 p.m by email to the Chair and Environmental Justice Coordinator. Self-nominations will also be accepted.

***Proposed Council Action: Decide upcoming Environmental Justice Council meeting dates, establish subcommittees, and nominate subcommittee members.***

# Staff Report and Memorandum

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To: Chair and Members of the Environmental Justice Council  
From: Hoang-Van Nguyen, Environmental Justice Council Coordinator  
Date: July 12, 2023

**Regarding: Agenda Item 3 – HB 4077 Legislative Analysis Environmental Justice Mapping Tool**

The Council will not take action on this item.

Key House Bill 4077 Environmental Justice Mapping Tool Environmental Justice Council Requirements/Considerations

## **Tool development and timeline**

By September 2025, the Environmental Justice Council is responsible for developing an Oregon-specific Environmental Justice tool, with staff support from the Department of Environmental Quality and in collaboration with:

- Department of Administrative Services, Office of Enterprise Information Services;
- Oregon State University Institute for Natural Resources;
- Portland State University Population Research Center;
- Natural resource agencies with staff support; and
- Oregon Health Authority

The Council also is directed to provide a report on the Environmental Justice Mapping Tool workplan in September 2024.

The Council is directed to review and update the tool at least once every four years, using the community engagement approach detailed below.

## **Mapping tool utility and intent**

Statute requires the tool to:

- Be based on input received through the community engagement process described below;
- Be detailed enough to allow the assessment of environmental justice benefits and burdens;
- Include geospatial data to understand the nature of environmental justice communities;

- Include data from natural resource agencies or be compatible with other mapping tools developed by other state agency; and
- Be accessible to the public

### **Community engagement**

The Council is directed to hold at least six listening sessions throughout the state to:

1. Present a work plan and proposals for the mapping tool; and
2. Receive input and feedback from communities about the following:
  - a. Environmental, health, socioeconomic and other factors that should be considered in the development of the mapping tool;
  - b. The mapping tool's ability and utility to inform distribution of resources to communities that have experienced underinvestment;
  - c. The mapping tool's ability and utility to map and consider socioeconomic benefits and burdens, environmental, health and other data;
  - d. Other uses for the mapping tool that can provide community benefits and diminish community burdens;
  - e. Geospatial layers to further define environmental justice communities based on the prevalence of specific factors; and
  - f. Community-generated data that may be included in the mapping tool

***Proposed Council Action: None***

# Staff Report and Memorandum

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To: Chair and members of the Environmental Justice Council

From: Dr. Kiara Winans, Environmental Justice Technical Working Group Lead,  
Department of Environmental Quality and Eric Main, Senior Research  
Analyst, Environmental Public Health Section, Oregon Health Authority

Date: July 19, 2023

**Regarding: Agenda Item 4 – Environmental Justice Mapping Tool Technical  
Orientation**

## Introduction

The summary provides an overview of the policy and organizational context for an Oregon Environmental Justice Mapping Tool (EJ Mapping Tool). It highlights establishing and renaming the Environmental Justice Task Force to the Environmental Justice Council through HB 4077 legislation in 2022. The legislation also mandates the Department of Environmental Quality (DEQ) and the Oregon Health Authority (OHA) to support the Environmental Justice Council, other partners, and interested parties.

DEQ is responsible for providing the environmental burden data layers, while OHA will provide human health data layers. Portland State University's (PSU) Population Research Center<sup>1</sup> will contribute to the demographic and socioeconomic data. The Department of Administrative Services Enterprise Information Services<sup>2</sup> will inventory data layers and information needed for the EJ Mapping Tool, identify data stewards and help to prioritize and validate data for submission. The technical and infrastructure support required to develop the mapping tool will be provided by Oregon State University's (OSU) Institute for Natural Resource and OSU Libraries and Press through the jointly developed Oregon Explorer program.<sup>3</sup> Various other agencies, including the Department of Land Conservation and Development,<sup>4</sup> are essential for this effort. Additionally, interested parties such as the Cross-Agency Health, Housing, and Transportation (CAHHT) workgroup<sup>5</sup> have shown active interest in the progress of the EJ mapping tool.

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<sup>1</sup> Portland State University Population Research Center. URL. <https://www.pdx.edu/population-research/>

<sup>2</sup> Department of Administrative Services Enterprise Information Services (DAS EIS). URL. [https://www.oregon.gov/eis/pages/default.aspx?utm\\_source=das&utm\\_medium=egov\\_redirect&utm\\_campaign=https%3a%2f%2fwww.oregon.gov%2fdas%2foscio%2fpages%2fdefault.aspx](https://www.oregon.gov/eis/pages/default.aspx?utm_source=das&utm_medium=egov_redirect&utm_campaign=https%3a%2f%2fwww.oregon.gov%2fdas%2foscio%2fpages%2fdefault.aspx)

<sup>3</sup> Oregon State University. Institute for Natural Resources. See Oregon Explorer. URL. <https://inr.oregonstate.edu/oregon-explorer-overview>

<sup>4</sup> Department of Land Conservation and Development. URL. <https://www.oregon.gov/lcd/pages/index.aspx>

<sup>5</sup> Contacts: Tosha Bock (Tosha.Bock@dhsaha.state.or.us), Social Influences on Health Strategist, and Sanabria Dulce ([Dulce.S.Sanabria@oha.oregon.gov](mailto:Dulce.S.Sanabria@oha.oregon.gov)), Strategic Initiatives Coordinator, OHA Public Health Division.

The Oregon EJ mapping tool can contribute to all Oregon communities and decision-makers by addressing community questions and concerns, showing disparities among communities, tracking changes over time, utilizing reliable data for accurate analysis, supporting evidence-based decision-making, and enhancing understanding of environmental justice issues in Oregon.

## **The Mapping Process**

DEQ and OHA have participated in various research activities, which include conducting literature reviews and collaborating with neighboring jurisdictions. Through these endeavors, the team has gained insights from similar mapping tools such as, but not limited to, EJ Screen,<sup>6</sup> CalEnviroScreen,<sup>7</sup> the Washington Environmental Health Disparities Map,<sup>8</sup> and the Healthy Places Index.<sup>9</sup> While each mapping tool project follows common processes, how these processes are executed can differ, impacting the final mapping tool product.

As an illustration, the Washington Healthy Disparities mapping tool was developed with guidance from the community group Front and Centered. This group laid out its main objectives as prioritizing and emphasizing disparities among various communities and monitoring these disparities over time, provided a baseline is established. Another instance involves the Public Health Alliance that developed the Health Disadvantaged Index<sup>10</sup> (later renamed the Healthy Places Index) to detect the combined health disadvantages existing in California. The main purpose of this index was to prioritize public and private investments, resources, and programs. Each tool has its own set of strengths and weaknesses.

## **Mapping Projects Evolve as the Tools Evolve**

The infrastructure groups for mapping projects adapt as tools evolve, and it is crucial to consider the short and long-term goals of communities and projects. This consideration helps understand data, identify gaps, develop indicators, and future scope of work.

For instance, the Washington Environmental Health Disparities Map effort started in late 2016. It was released in 2019. The Health Environment for All (HEAL) Act<sup>11</sup> now funds it. It has a two-person management team. They collaborate with WSU and UW and have a larger technical working group comprising various agencies, universities, and EJ communities. They were recently awarded \$26 million as grants to tribes and other communities for building data capacity for the Environmental Health Disparities (EHD)

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<sup>6</sup> EJ Screen. URL. <https://www.epa.gov/ejscreen>

<sup>7</sup> CalEnviroScreen 4.0. URL. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

<sup>8</sup> Washington Environmental Health Disparities Map. URL. <https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/washington-environmental-health-disparities-map>

<sup>9</sup> HEALTHY PLACES INDEX. URL. <https://www.healthylplacesindex.org/>

<sup>10</sup> California Health Disadvantage Index (HDI). URL. [https://phasocal.org/ca-hdi/#:~:text=California%20Health%20Disadvantage%20Index%20\(HDI\)&text=The%20Public%20Health%20Alliance%20has,private%20investments%2C%20resources%20and%20programs.](https://phasocal.org/ca-hdi/#:~:text=California%20Health%20Disadvantage%20Index%20(HDI)&text=The%20Public%20Health%20Alliance%20has,private%20investments%2C%20resources%20and%20programs.)

<sup>11</sup> HEAL. URL. <https://ecology.wa.gov/About-us/Who-we-are/Environmental-Justice/HEAL>

part of the map. They are hiring a tribal liaison and a community relations individual to build relationships with tribes so as “to incorporate data they choose to share and ensure they get feedback early enough for it to be meaningful. They are trying to ensure they include tribal concerns and values better in their map, working in partnership with tribal organizations to build indicators.<sup>12</sup>”

Another example is the CalEnviroScreen, which was initiated in 2013. It is housed within the Office of Environment Health Hazard Assessment (OEHHA) under CalEPA and run by a small team of four research scientists who handle its daily operations. The Secretary of CalEPA gives final approval for significant updates while close collaboration occurs with the Deputy Secretary for Environmental Justice. Briefings with the California Governor's Office are conducted before official releases. Legislative bills shape the work and impose deadlines for deliverables. Organizational structure and oversight levels differ across administrations. “Over the past decade, the tool has focused on environmental protection and enforcement actions by combining various data sources to highlight communities living at the intersection of pollution and poverty. It has become a powerful way for EJ communities to bring data-driven attention to issues they face and has helped direct over \$6 billion in California climate investments.<sup>13</sup>”

## Essential Environmental Justice Mapping Tool Terminology

An environmental justice mapping tool is a specialized tool that visually represents and analyzes environmental disparities and burdens in a specific and/or comparative general area (e.g., county, state). It utilizes environmental quality, demographic data, and other indicators to pinpoint areas with unequal environmental impacts or restricted resource access. Developing such a tool requires a shared understanding of the relevant terminology.

**Indicator:** An indicator is a measurable or observable trait that provides evidence about a phenomenon. The indicators incorporated into different environmental justice mapping tools differ. These variations result from the choices made by government agencies and other developers, including considerations for geographical priorities, the availability and reliability of information, preferences regarding sharing *demographic* and/or *environmental* data, and the specific objectives of the tool. These tools can include indicators of health and help assess *health outcomes*.

*Demographic indicators* measure an area's population and socioeconomic characteristics, including race, income, human health, education levels, and community characteristics. They are typically derived from statistical data compiled by the US Census Bureau, primarily sourced from surveys like the American Community Survey (ACS).

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<sup>12</sup> Contact: Jeff Bryant, PhD ([jeffrey.bryant@doh.wa.gov](mailto:jeffrey.bryant@doh.wa.gov)), Supervising Spatial Epidemiologist in the Environmental Public Health Division at the Office of Environmental Public Health Sciences, Washington State Department of Health.

<sup>13</sup> CalEnviroScreen 10th Anniversary. URL.

<https://storymaps.arcgis.com/stories/413d2b6be94c42ce85ada08499623a2a/>

**Health outcomes** encompass the overall health status of individuals or communities, including measures like mortality rates, disease prevalence, and disability rates.

**Environmental indicators** assess the impact of the physical environment on health. They include air quality, water quality, land quality, and community health and data layers such as ozone concentration, water contamination, and flooding. Most environmental justice mapping tools cover all categories, but some may exclude certain types of indicators.

**Index:** a single value that combines multiple indicators to provide an overall assessment or summary of a concept or condition. It aggregates or simplifies information for comparisons or rankings. When using indexes, there are important decisions about which indicators to combine and if and how to “weight” their relative importance. It’s important to consider that creating a single index from underlying data measured in different ways and at different geographic scales presents additional analytical challenges.

**Social Vulnerability Index (SVI)** - A comprehensive indicator that evaluates the susceptibility of communities to social and environmental pressures. It integrates indicators such as socioeconomic status, education, access to healthcare, housing quality, and minority representation. Oregon State University created a comprehensive SVI comparison in March 2022, now accessible for reference.<sup>14</sup>

**Climate Vulnerability Index (CVI)** - A metric that gauges the vulnerability of regions or communities to the adverse effects of climate change. It considers the level of exposure, sensitivity, and adaptive capacity. The CVI aids in determining the order of priority for implementing adaptation strategies and allocating resources to areas at risk. A recent analysis was conducted by Lewis et al., 2023.<sup>15</sup>

The Oregon Department of Energy is developing a comprehensive state-specific climate vulnerability assessment for the energy sector or CVI.<sup>16</sup>

**Cumulative Impact** - The combined consequences of multiple exposures, environmental impacts, and non-chemical stressors that impact a specific area or population's health, well-being, and overall quality of life over time. It considers the additive and interactive effects of various factors. Assessing cumulative impacts assists decision-making processes for fostering sustainable development and enhancing resilience. Most EJ tools rely on this concept as their foundation.<sup>17</sup>

**Note:** This list is not exhaustive, as other terms exist in EJ mapping tools. For example, module domains summarize indicators into functional groups representing aspects of

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<sup>14</sup> See the EJC Resources document labeled “SVI comparison matrix\_3.9.22.”

<sup>15</sup> See the EJC Resources document labeled “Lewis et al., 2023.”

<sup>16</sup> ODOE CVI. URL. <https://www.oregon.gov/energy/energy-oregon/Pages/Climate-Vulnerability-Assessment.aspx>

<sup>17</sup> For example, see the EJC Resources documents labeled “Linder and Sexton 2011” and “Sadd et al. 2011.”



environmental burden and social vulnerability. These domains make interpreting patterns in communities of interest easier without exploring each indicator.

## A Comparison of Environmental Justice Mapping Tools

Each description offers a general idea of the tool's intent, user base or audience, data/indicators used, and a reference for further details.

- **EJScreen** is primarily a screening tool. It can be used to compare a specific geography relative to the national or state average. It is also informational/educational as it displays block group economic profiles and federal data (e.g., school locations). It is an interactive tool that uses national-level data, combining six demographic and eleven environmental indicators. It uses color-coded mapping and generates reports for selected areas.  
Reference for the EJ Screen: <https://www.epa.gov/ejscreen>
- **Climate and Economic Justice Screening Tool (CEJST)**'s primary purpose is to assist federal agencies in identifying disadvantaged communities that will benefit from various programs under the Justice40 Initiative. This interactive tool's datasets are publicly accessible and maintain consistent nationwide coverage. These datasets are sourced from reliable and reputable sources, ensuring their high quality and accuracy. The Council on Environmental Quality (CEQ) selected these datasets based on their relevance, availability, and quality.  
Reference for the Climate and Economic Justice Screening Tool: <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>
- **Health Places Index (HPI)** is a policy platform to promote health equity by ensuring the availability of open and easily accessible data. Each HPI indicator is linked to the Policy Action Guide. The tool's primary focus is enabling community leaders, policymakers, academics, and other stakeholders with the necessary resources to identify disparities, prioritize equitable investment, and empower communities through validated data. The interactive tool uses 23 social indicators of health that have proven to have a positive correlation with life expectancy at birth and some environmental indicators. There are a total of 25 community characteristics. The higher the HPI score, the healthier the community.  
Reference for the Healthy Places Index: <https://www.healthypacesindex.org>
- **CalEnviroScreen** is a tool developed to assess cumulative impacts for environmental equity assessments and prioritize climate investment funding. It considers pollution burden, socioeconomic factors, and health conditions at the census tract level. Current versions of the map and available data incorporate various improvements and recommendations from residents, stakeholders, and government partners.  
Reference for CalEnviroScreen: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

Several state Environmental Justice (EJ) mapping tools, including Colorado EnviroScreen,<sup>18</sup> Michigan EnviroScreen (MiEJScreen)<sup>19</sup>, and the Washington Environmental Health Disparities map, have been developed based on the CalEnviroScreen model.

- **Washington Environmental Health Disparities Map** is a tool created collaboratively with community groups. This tool aims to prioritize and highlight disparities in different communities and track these disparities over time (after developing a baseline). This tool considers pollution burden, socioeconomic factors, and health conditions at the census tract level, incorporating input from affected communities through statewide listening sessions. The lived experiences and insights shared by individuals and communities played a crucial role in prioritizing and including specific factors in this Washington-specific tool.  
Reference for the Washington Environmental Health Disparities Map:  
<https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/washington-environmental-health-disparities-map>
- **Environmental Justice Index (EJI)** is the first nationwide index addressing cumulative health equity impacts. The EJI helps identify communities with the highest cumulative impacts and provides additional resources, policy decisions, or set goals in response to environmental and health risks. In addition, the EJI Social-Environmental Ranking (SER) was developed for research purposes, where “disease is an outcome interest.”  
Reference for the Environmental Justice Index  
<https://www.atsdr.cdc.gov/placeandhealth/eji/index.html>

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The Council will not take action on this agenda item.

***Proposed Council Action: None***

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<sup>18</sup> Colorado EnviroScreen. URL. <https://cdphe.colorado.gov/enviroscreen>

<sup>19</sup> Michigan EnviroScreen. URL. <https://www.michigan.gov/egle/maps-data/miejscreen>

# Staff Report and Memorandum

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To: Chair and Members of the Environmental Justice Council  
From: Hoang-Van Nguyen, Environmental Justice Council Coordinator  
Date: July 12, 2023

**Regarding: Agenda Item 5 – Environmental Justice Mapping Tool Purpose and Intent Discussion**

The Council will not take action on this item.

The Council will discuss the purpose and intent of the Environmental Justice Mapping Tool based on legislative analysis and technical orientation.

Proposed Language Samples:

The purpose and intent of the environmental justice mapping tool are to identify disparities, promote equity, inform decisions, engage communities, guide interventions, and monitor progress in achieving environmental justice and addressing environmental inequalities.

The environmental justice mapping tool will educate Oregon government and communities on environmental and health inequities and promote interagency collaboration between State of Oregon agencies, academic partners, and community-based organizations to address these concerns. This tool will also center on community outreach and engagement to promote partnerships between the State of Oregon with the communities it serves.

Other Consideration: [Environmental Justice Task Force Handbook \(2016\) “Inter-agency Environmental Justice Database”](#)

***Proposed Council Action: None***