

A Brief Environmental Justice Mapping Tool Technical Orientation

presented by

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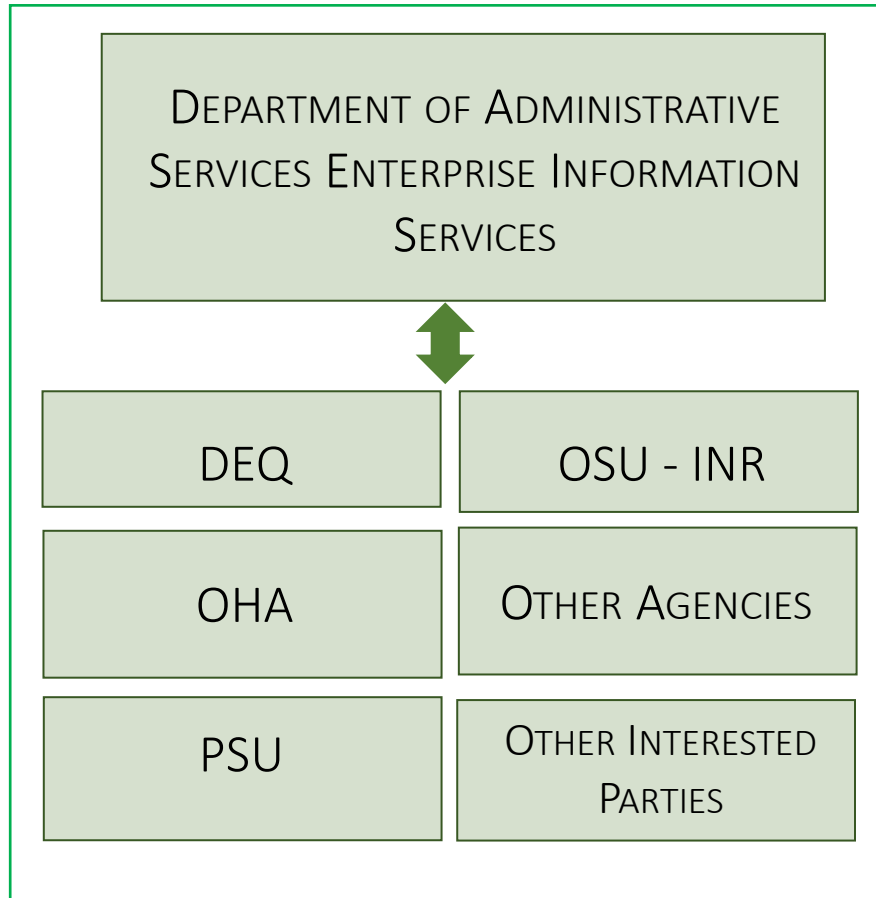
State of Oregon
Department of Environmental Quality



Overview

- Organizational Context for the Oregon Environmental Justice Mapping Tool
- What is the importance of an Oregon-specific mapping tool?
- Mapping Process
- Essential Terminology
- Environmental Justice Mapping Tools

Infrastructure groups



- DEQ – Environmental Burden Data Layers
- OHA – Human Health Data Layers
- Portland State University (PSU) Population Research Center – Demographic and Socioeconomic Data
- DAS EIS – Inventorying data layers, identifying data stewards, and prioritizing and validating data
- Oregon State University (OSU) Natural Resource Institute – Develop Tool
- Other agencies
- Interested parties

What is the importance of an *Oregon-specific* mapping tool?

- Utilize reliable and *Oregon-specific data* for accurate analyses
- Support evidence-based decision-making
- Address community questions and concerns
- Enhance understanding of environmental justice issues in Oregon
- Show relative ranking or disparities and endowments of different communities
- Track changes over time (after setting the initial baseline)

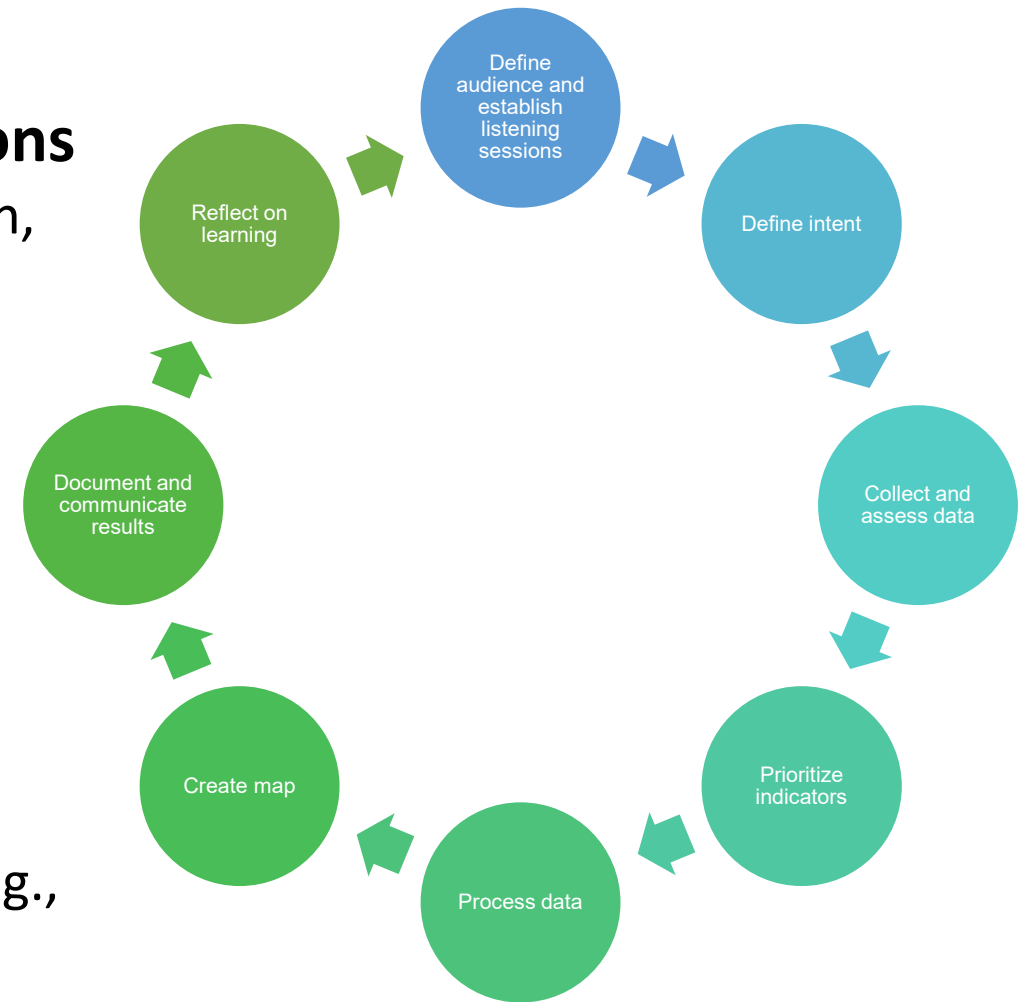
Mapping Process

- **Define audience and establish listening sessions**

- Multi-cultural/lingual conversations about pollution, climate change, sensitivity, and resilience
- Communities of color, households with lower incomes, immigrants and refugees, linguistically isolated groups, unhoused populations, rural populations, and remote populations.

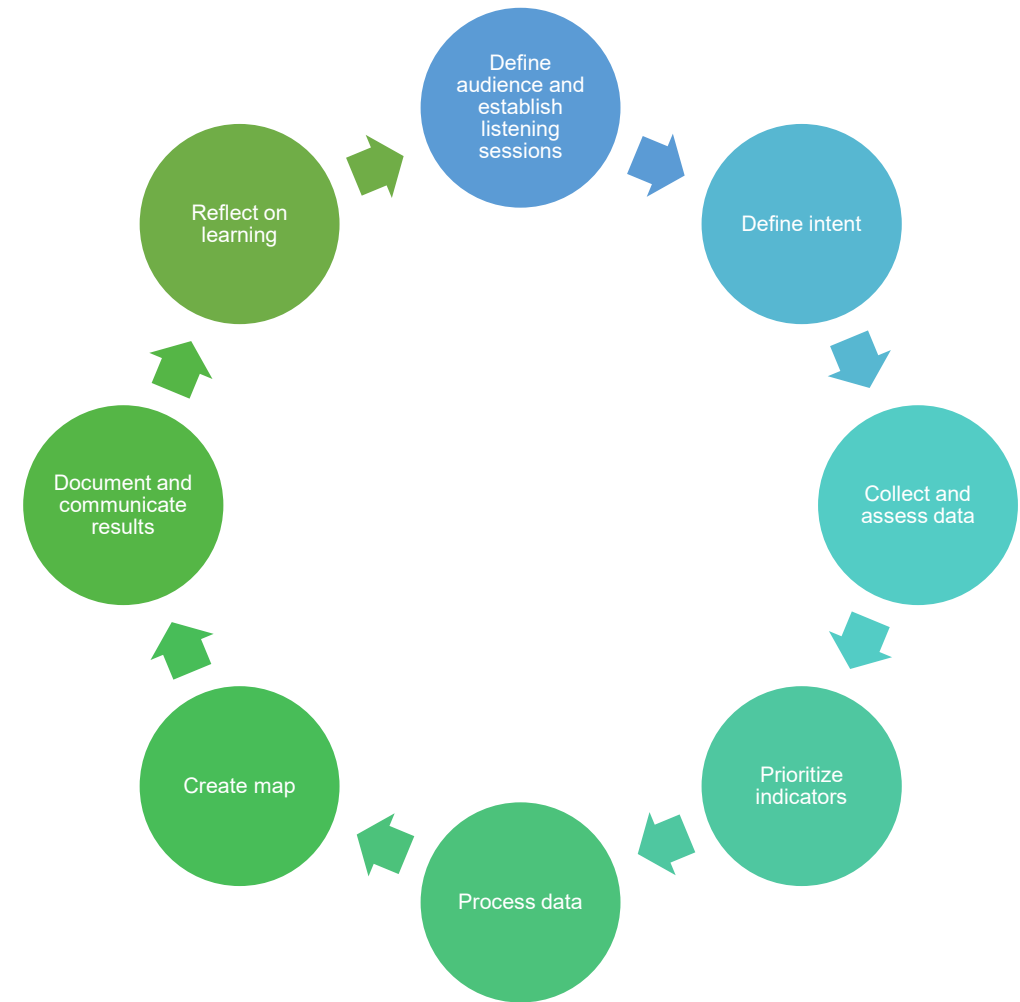
- **Define intent**

- Informational/Educational
- Community engagement
- Develop community resilience
- Promote agency coordination and collaboration (e.g., use of same EJ measures)
- Statute, regulatory
- Direct funding



Mapping Process

- **Collect and assess data**
 - * *criteria* need to be developed to select the data
- **Prioritize and select indicators**
 - * *criteria* needs to be developed to select indicators
- **Translate raw data into meaningful summary indicators**
 - Data availability and accuracy
 - Privacy concerns
 - Spatial scale and generalization
 - Data suppression and interpretation
- **Create map**
- **Document and communicate results**
- **Reflect on learning**



Essential Terminology

Indicator – a measurable or observable quantity or trait that provides insight or evidence about a particular phenomenon, condition, or concept.

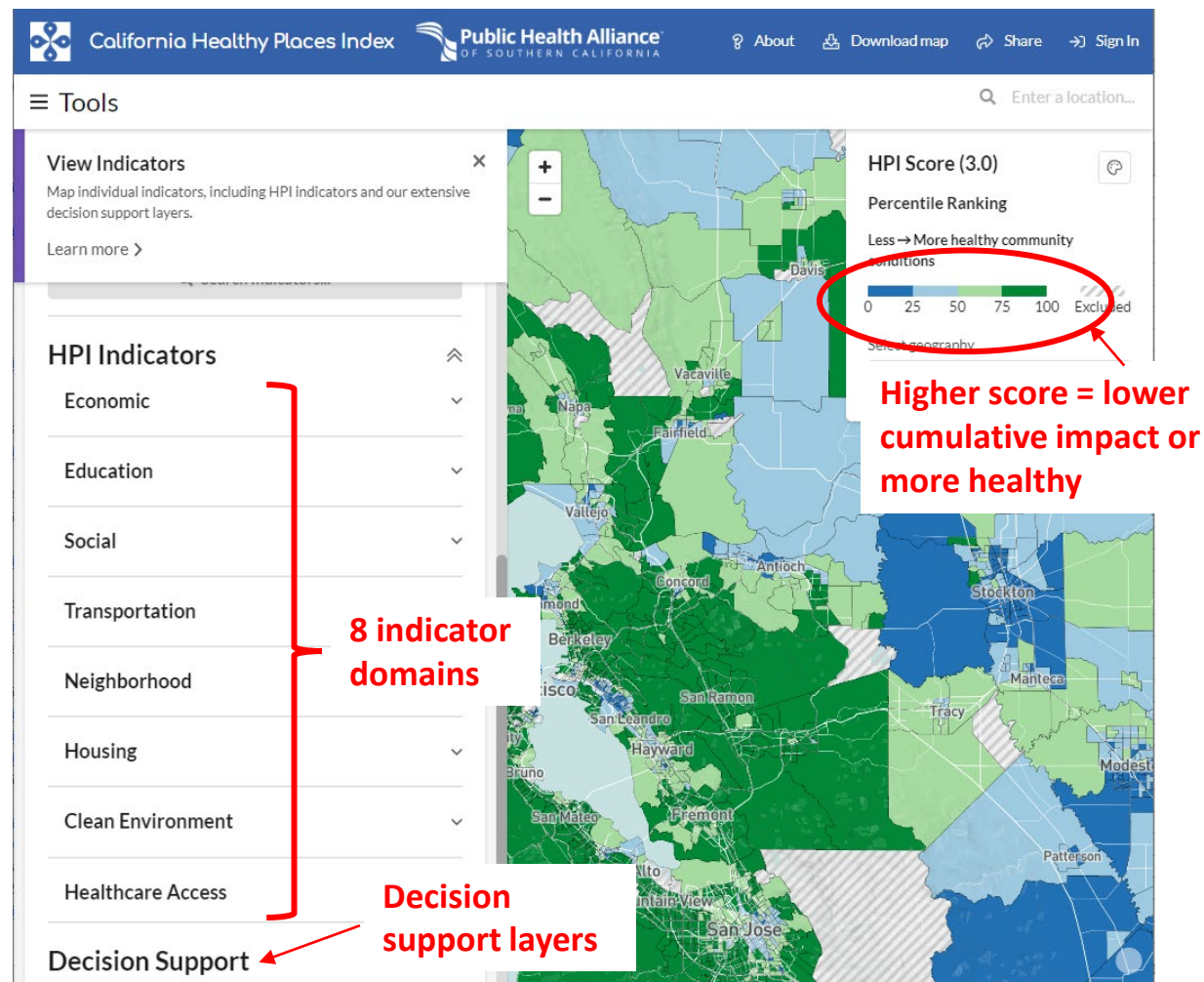
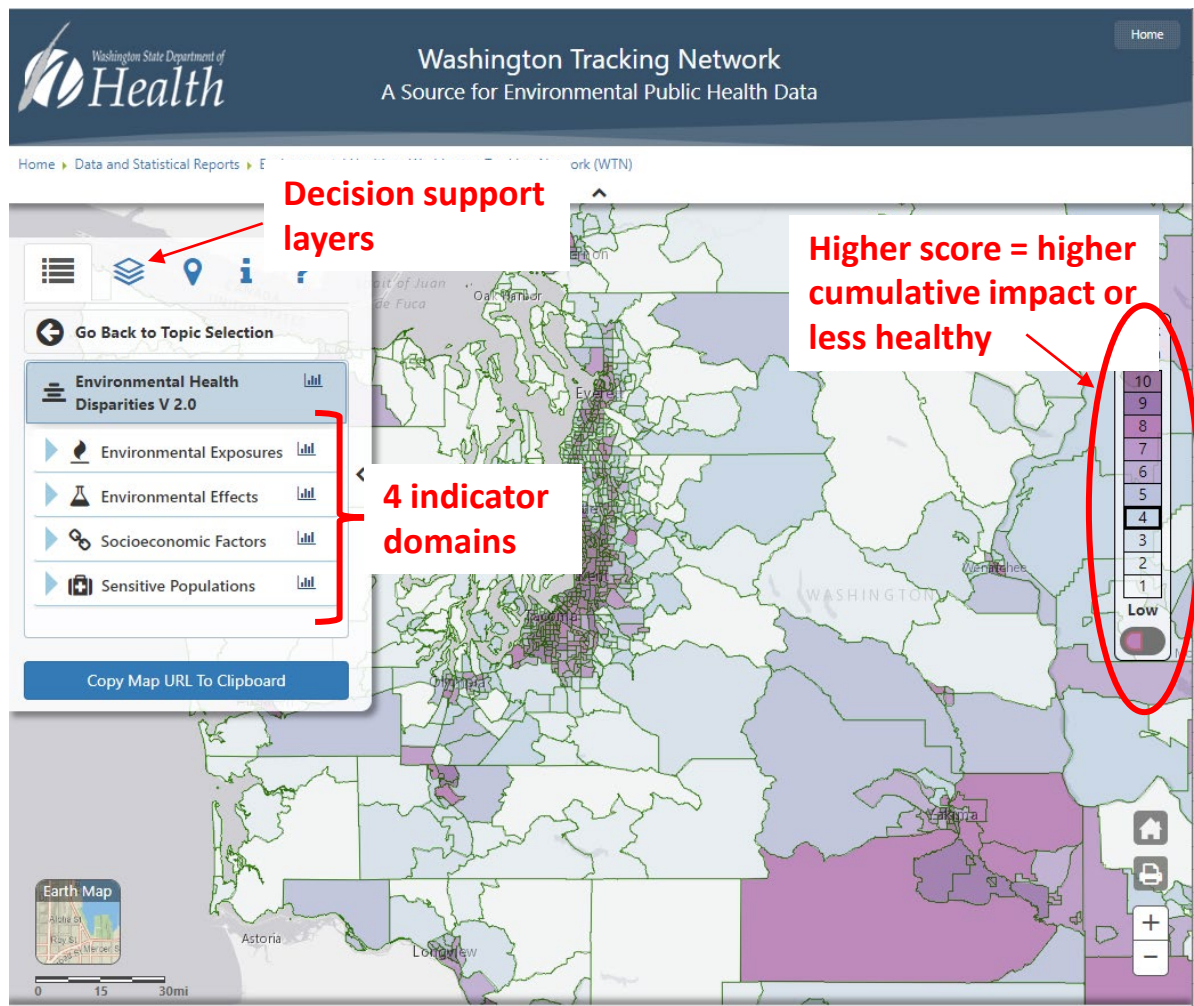
Demographic Indicators <i>Population and socioeconomic characteristics</i>	EXAMPLES	
	Race	
	Income	
	Education level	
	Human health	
Environmental Indicators <i>Physical environment's impact on health</i>	EXAMPLES	
	Air Quality	Ozone Concentration
		Wildfire Smoke
	Land Quality	Hazardous Waste
	Water Quality	Water Contamination
	Climate Change Data	Flooding
Heat Exposure		

Essential Terminology

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.

- **Social Vulnerability Index or SVI** – a composite measure that assesses the vulnerability of communities to social and environmental stressors.
- **Climate Vulnerability Index or CVI** – a measure of the vulnerability of regions or communities to the impacts of climate change.
- **Cumulative impact** - combined effects of multiple exposures, environmental effects, and non-chemical stressors that affect an area or population's health, well-being, and quality of life over time.

Environmental Justice Mapping Tools



Environmental Justice Mapping Tools

TOOL	INTENT	INTENDED AUDIENCE	INDICATORS
EJScreen (EPA)	Screening (compare a specific geography relative to the national or state average); informational (displays federal data, e.g., school locations); research	Government (federal, state, regional, local), other organizations, academia, community, individuals	6 demographic and 11 environmental indicators
Climate and Economic Justice Screening Tool (CEJST used for Justice40)	Direct Justice 40 funding; informational	Federal agencies	Demographic and environmental indicators and other related data (e.g., historic underinvestment)
Healthy Places Index (Southern California, Utah)	Policy ; advance health equity through open data; direct funding	Government (state, regional, local), other organizations, academia, community, individuals	23 social indicators of health — all positively associated with life expectancy at birth and environmental indicators

Environmental Justice Mapping Tools

TOOL	INTENT	INTENDED AUDIENCE	INDICATORS
CalEnviroScreen (California)	Direct climate investment funding; Assess cumulative impacts for environmental equity assessments; informational; research	Government (state, regional, local), other organizations, academia, community, individuals	Demographic and environmental indicators and other related data (e.g., historic underinvestment)
Environmental Health Disparities Map (Washington)	Informational; prioritizing and emphasizing disparities among various communities and monitoring these disparities over time; direct funding; research; set goals	Government (state, regional, local), other organizations, academia, community, individuals	Demographic and environmental indicators and other related data <i>directly</i> shaped by input from affected communities through a series of 11 statewide listening sessions
Environmental Justice Index (CDC/ATSDR)	Informational; policy; Identify and respond to the environmental and social factors affecting a community's health and well-being; set goals; research	Public health officials, policy makers, communities	36 environmental, social, and health factors