Exploring Climate Solutions Webinar Series

Brought to you by the Governor's Council on Climate Change (GC3)

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Special series:

Equity and Environmental Justice in Climate Solutions



Mapping Vulnerable Populations

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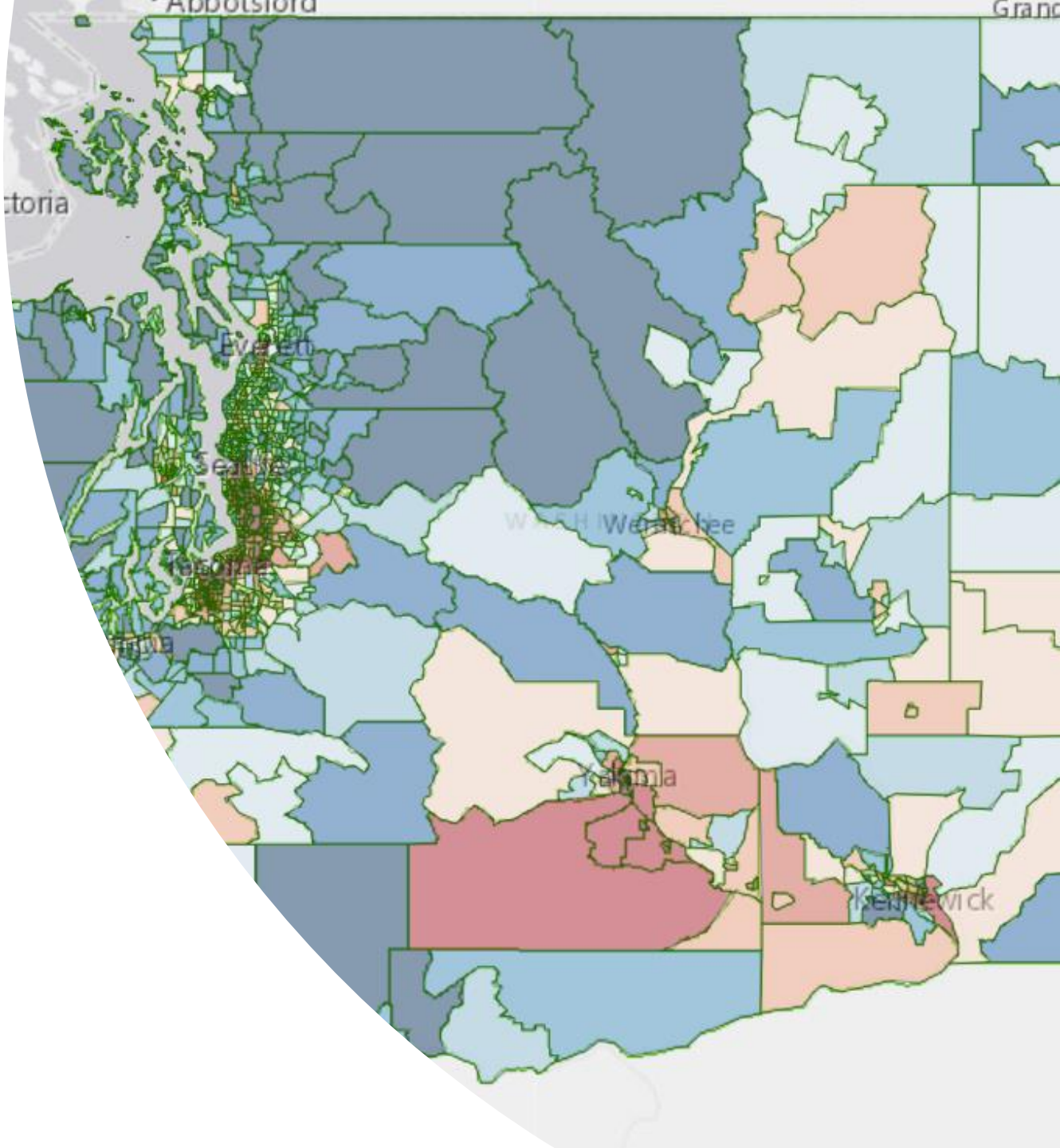
October 29, 2020

Outline

- Partners
- Process of creating the map
- Map and mapping platform
- Use of map



Partners


ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES
UNIVERSITY of WASHINGTON | SCHOOL OF PUBLIC HEALTH
FRONT AND CENTERED
pscleanair.org
Puget Sound Clean Air Agency
Washington State Department of Health
ENVIRONMENTAL PUBLIC HEALTH TRACKING
DEPARTMENT OF ECOLOGY
State of Washington

Goal of Partnership & Project

- Create a community-academic-government partnership
- Create a map that ranks relative environmental health disparities of communities in Washington State using a community-driven framework

Timeline

2016

Work group formed

2017

Align goals, expectations, & timeline

2017

Listening sessions

2017-2018

Indicator selection

2018

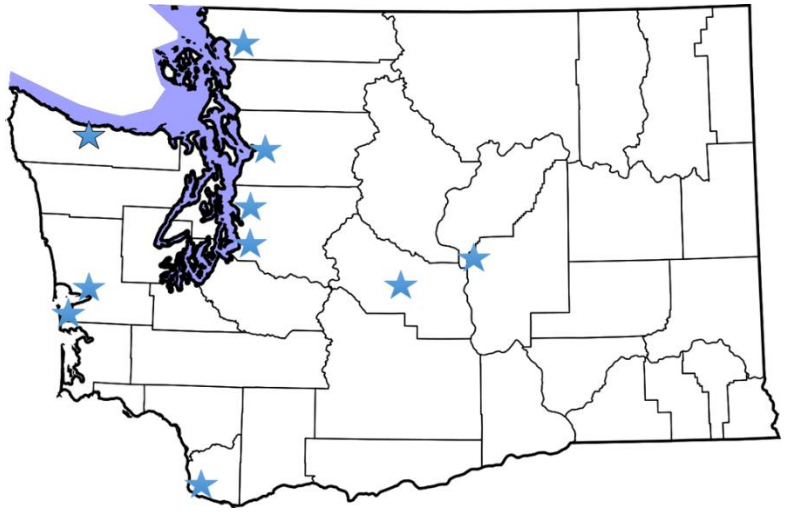
Beta testing, stakeholder engagement, & communication planning

2019

Map release

Community Voices

- Communities of color
- Households with lower incomes
- Immigrants and refugees
- Linguistically isolated groups



Listening Sessions

- Led by Front & Centered
- Multi-cultural/lingual conversations about pollution, climate change, sensitivity, and resilience.
    - What kinds of pollution, if any, are impacting your life or work and that of your family and community?
    - What factors best show if your community is healthy or doing well compared to other communities?

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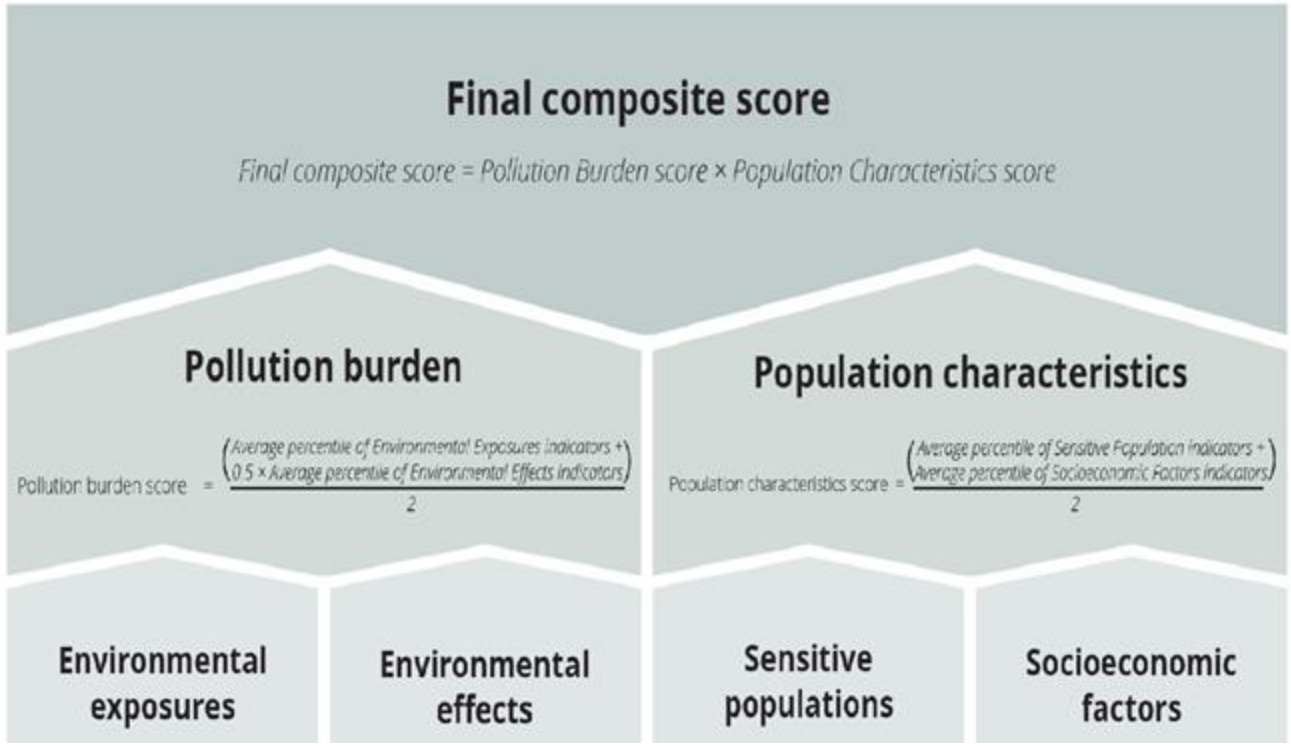
Indicator Selection Process

- Community listening sessions
- Literature review
- Data availability and reliability

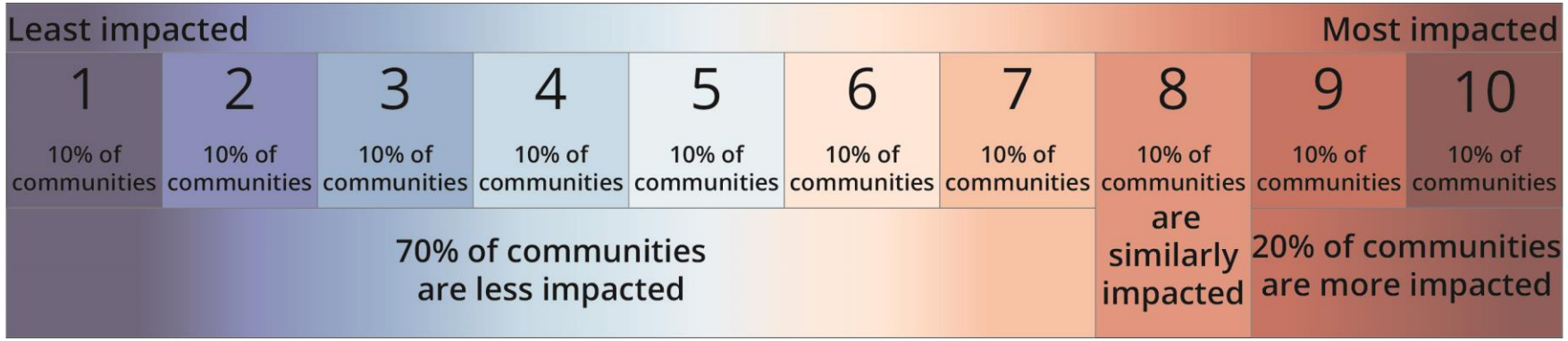
Indicator Selection

Environmental exposures	Environmental effects	Sensitive populations	Socioeconomic factors
Diesel emissions	Lead risk and exposure	Cardiovascular disease	Low educational attainment
Ozone	Proximity to hazardous waste generators and facilities	Low birth weight	Housing cost burden
Particulate matter 2.5 (PM2.5)	Proximity to Superfund sites		Linguistic isolation
Toxic releases from facilities	Proximity to facilities with highly toxic substances		Poverty
Traffic density	Wastewater discharge		Race (people of color)
			Transportation expense
			Unemployment

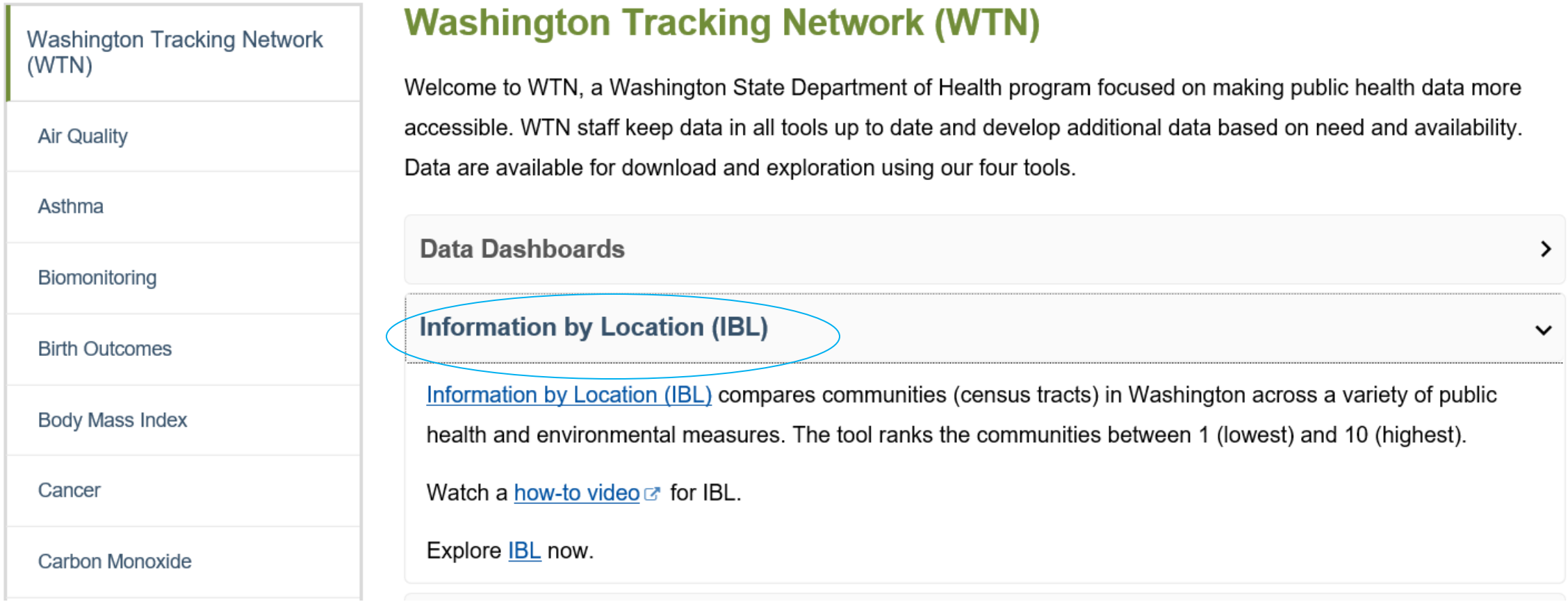
Formula


Final composite score
Final composite score = Pollution Burden score × Population Characteristics score
Pollution burden
Pollution burden score = (Average percentile of Environmental Exposures indicators + 0.5 × Average percentile of Environmental Effects indicators) / 2
Population characteristics
Population characteristics score = (Average percentile of Sensitive Population indicators + Average percentile of Socioeconomic Factors indicators) / 2
Environmental exposures
Environmental effects
Sensitive populations
Socioeconomic factors

Ranking

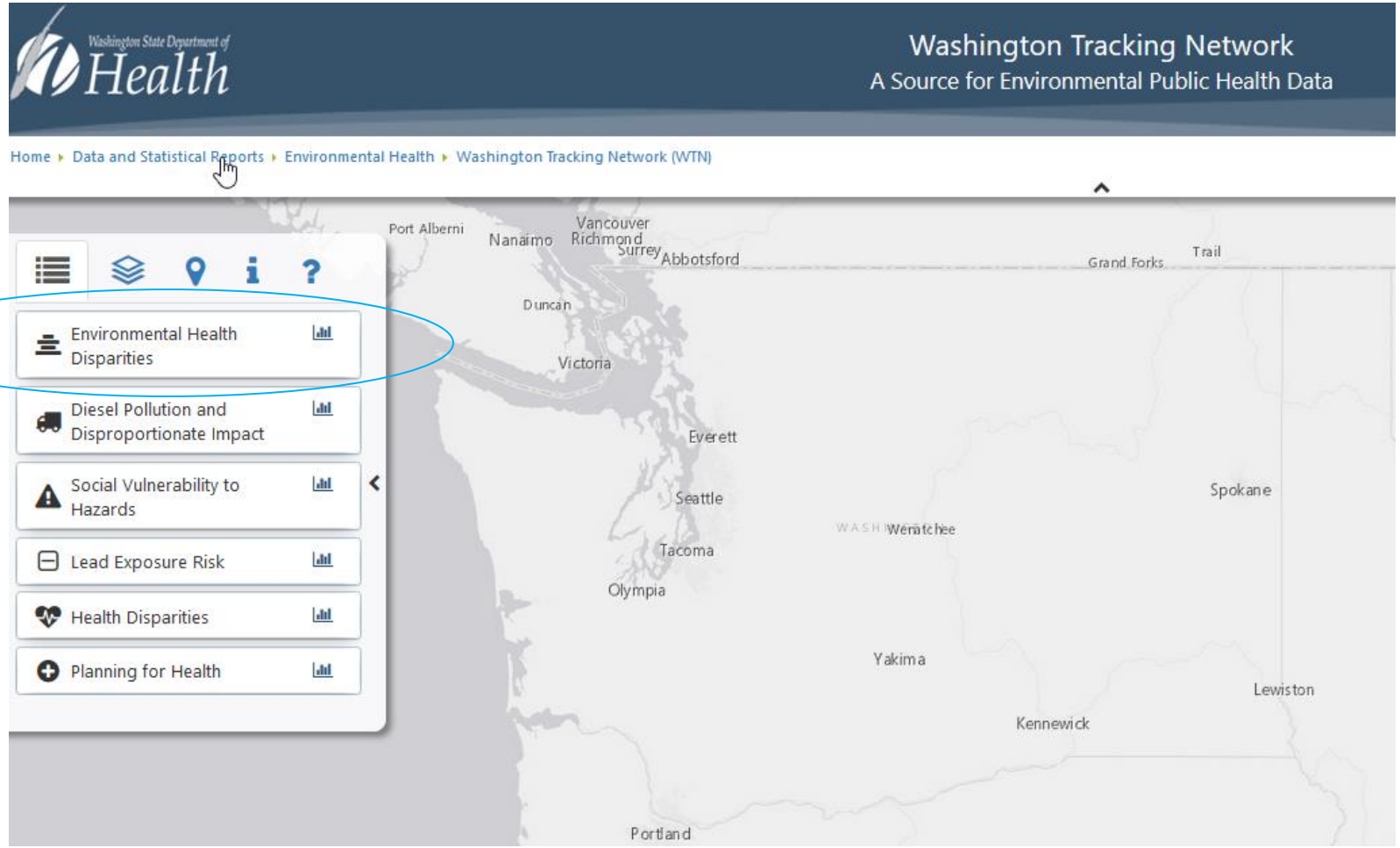

Least impacted
Most impacted
1
2
3
4
5
6
7
8
9
10
10% of communities
70% of communities are less impacted
are similarly impacted
20% of communities are more impacted

Washington Tracking Network

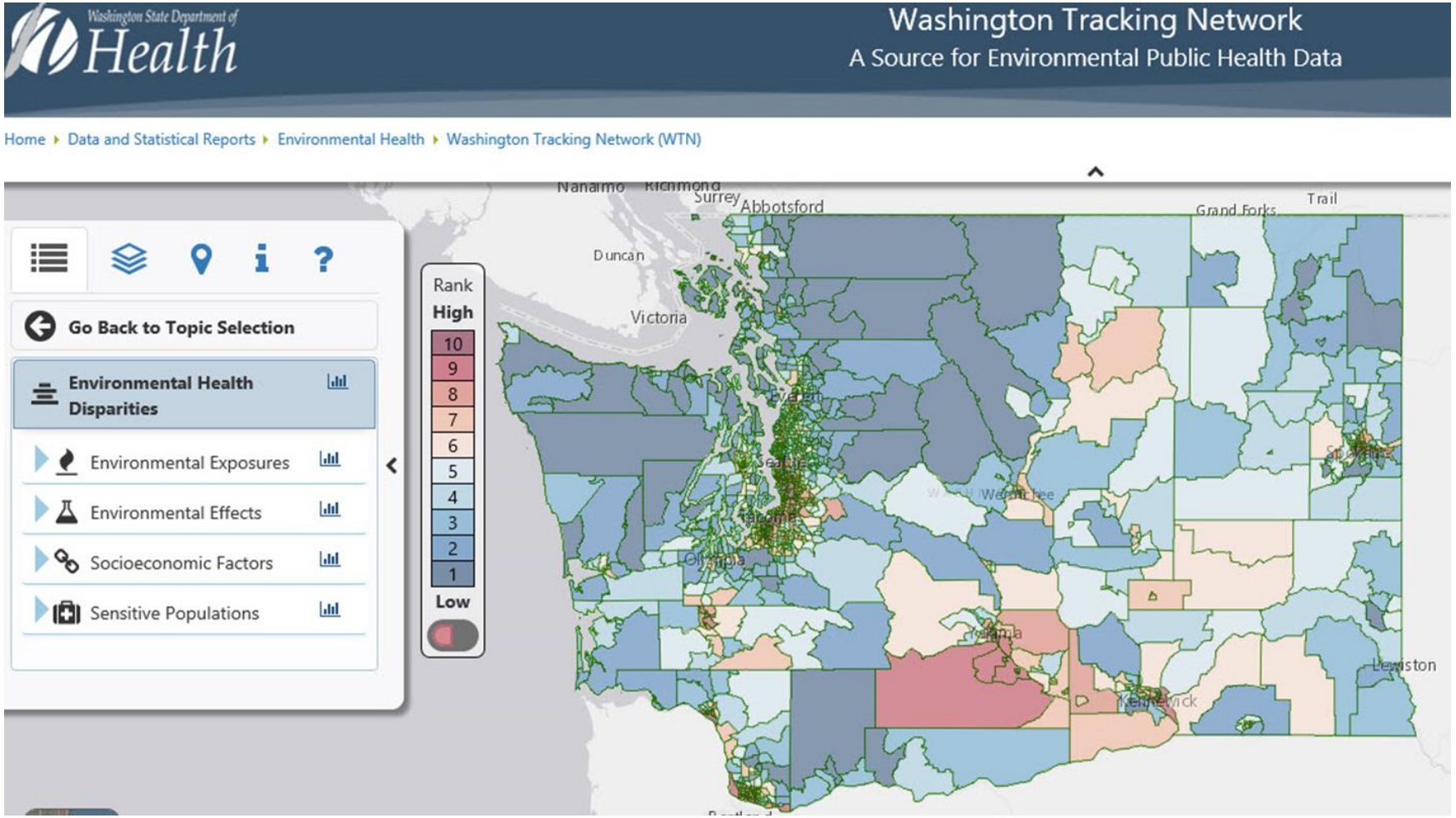


www.doh.wa.gov/ibl

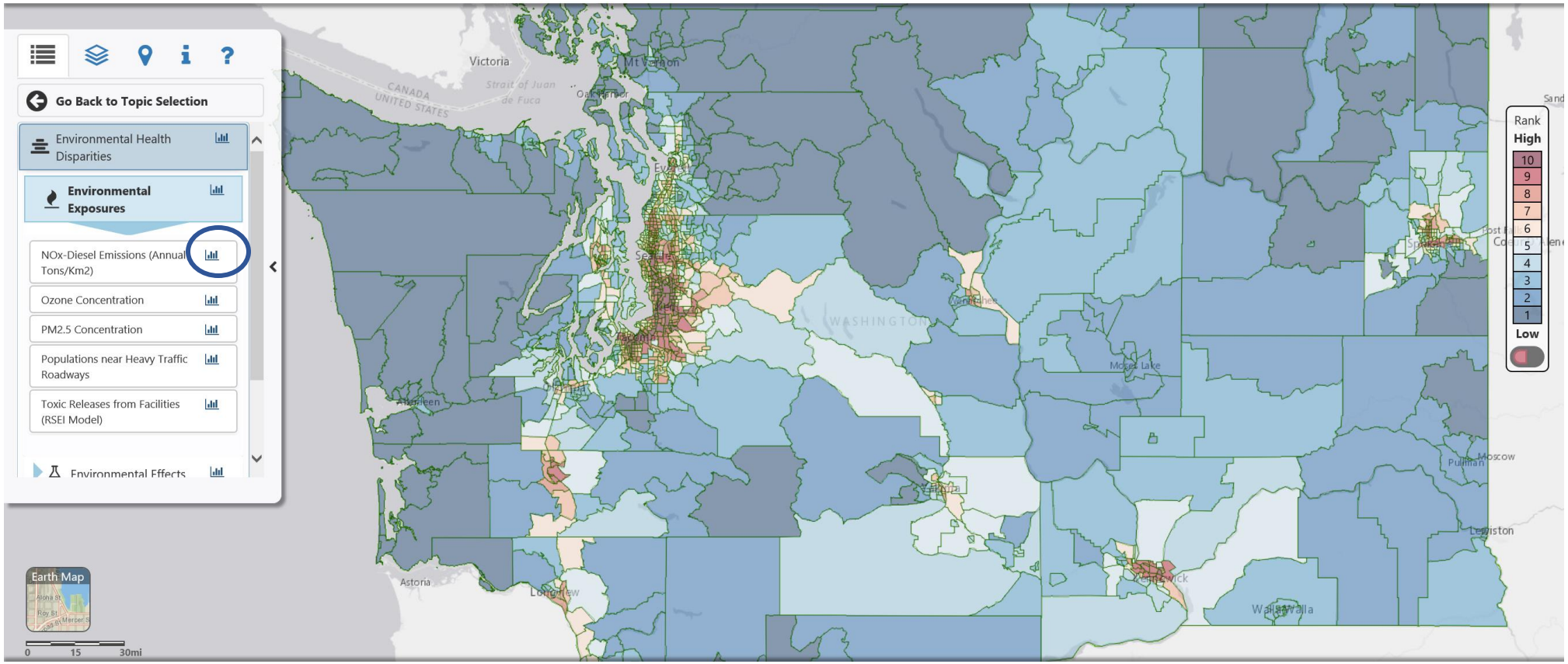
Information by Location



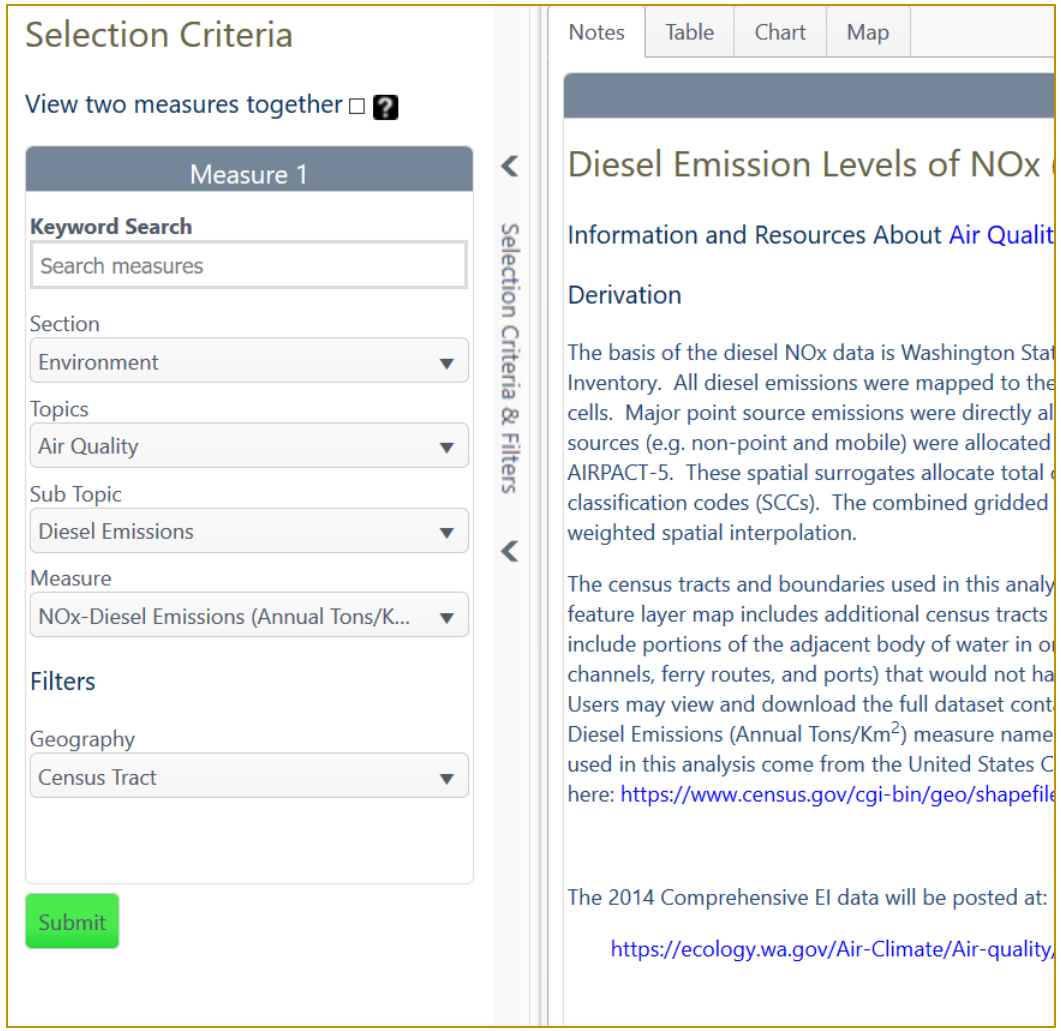
Environmental health disparities map

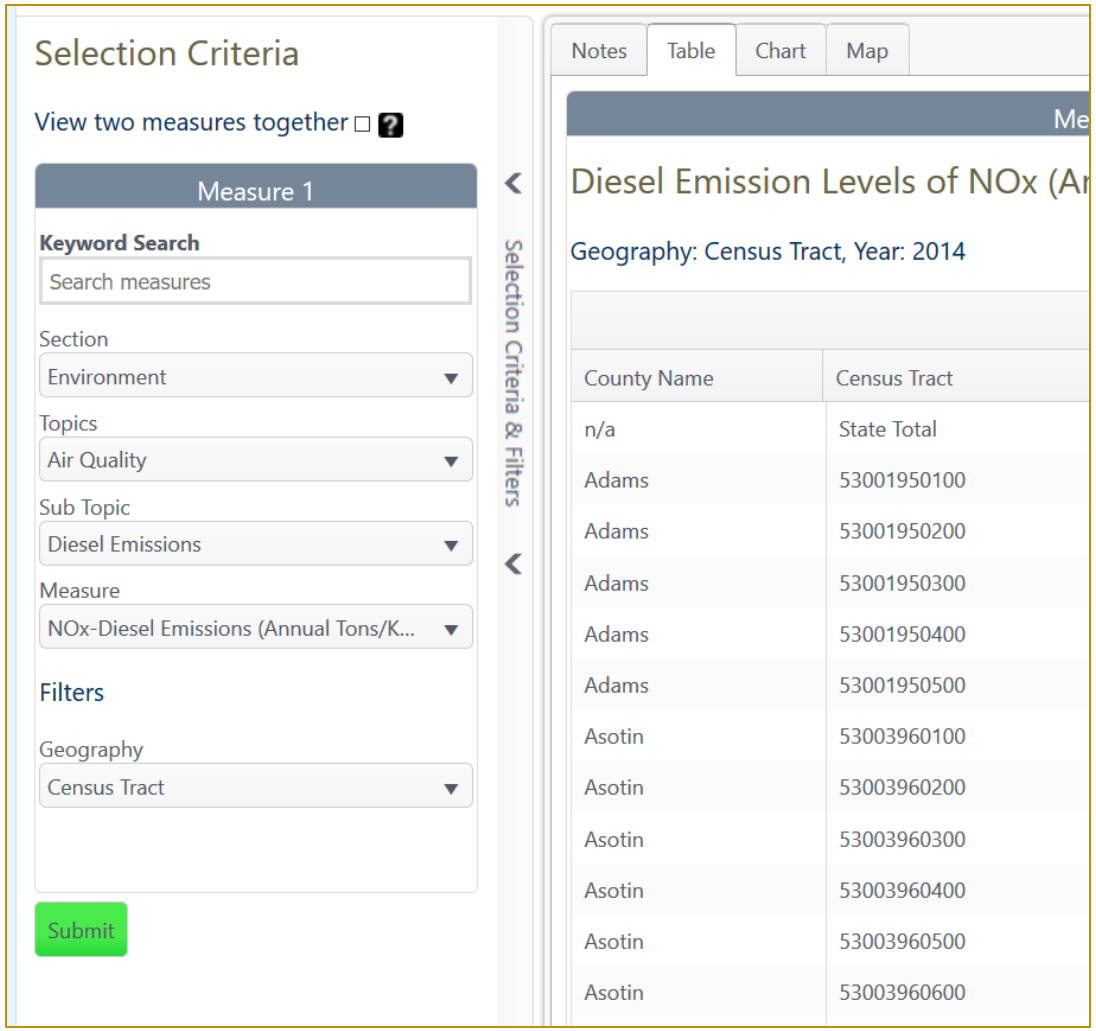


Individual indicators

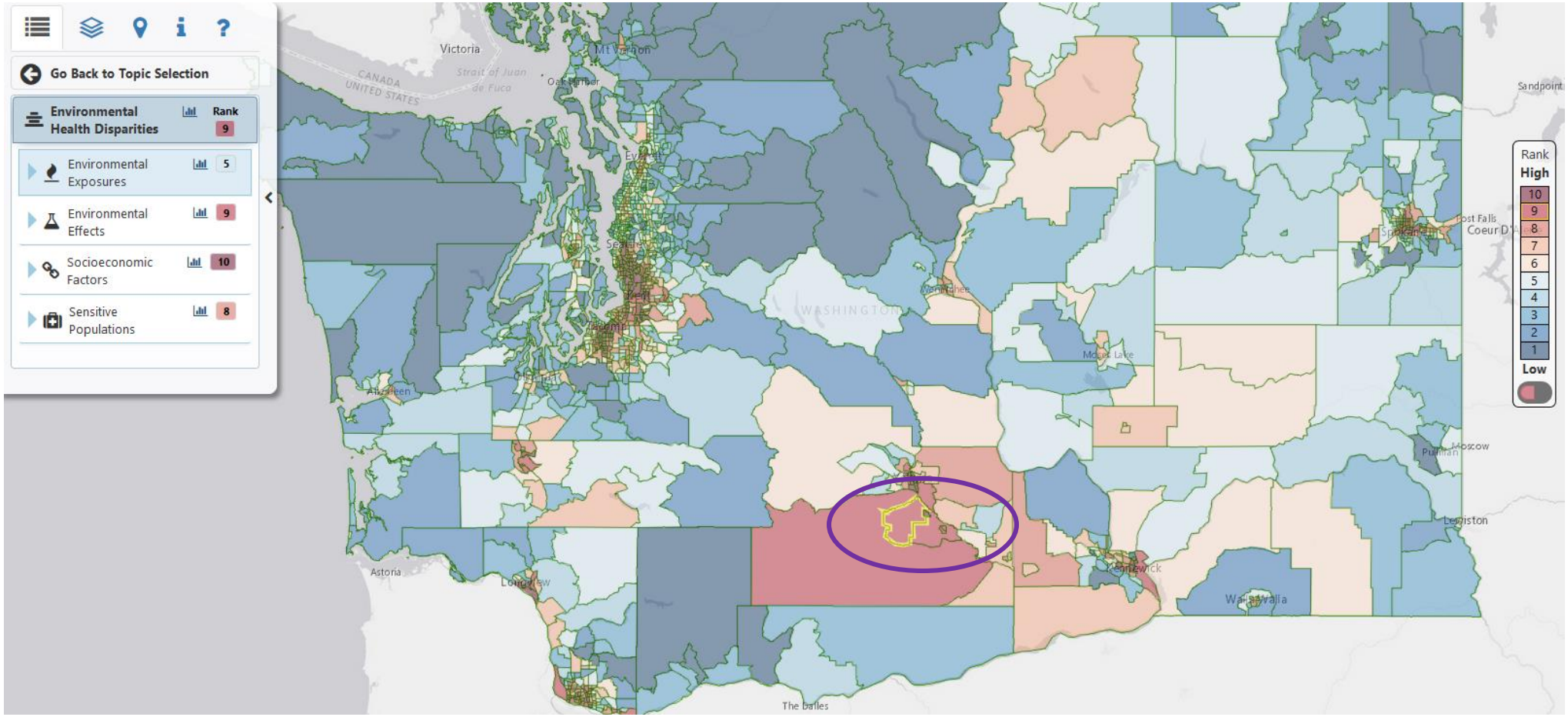


Indicator data

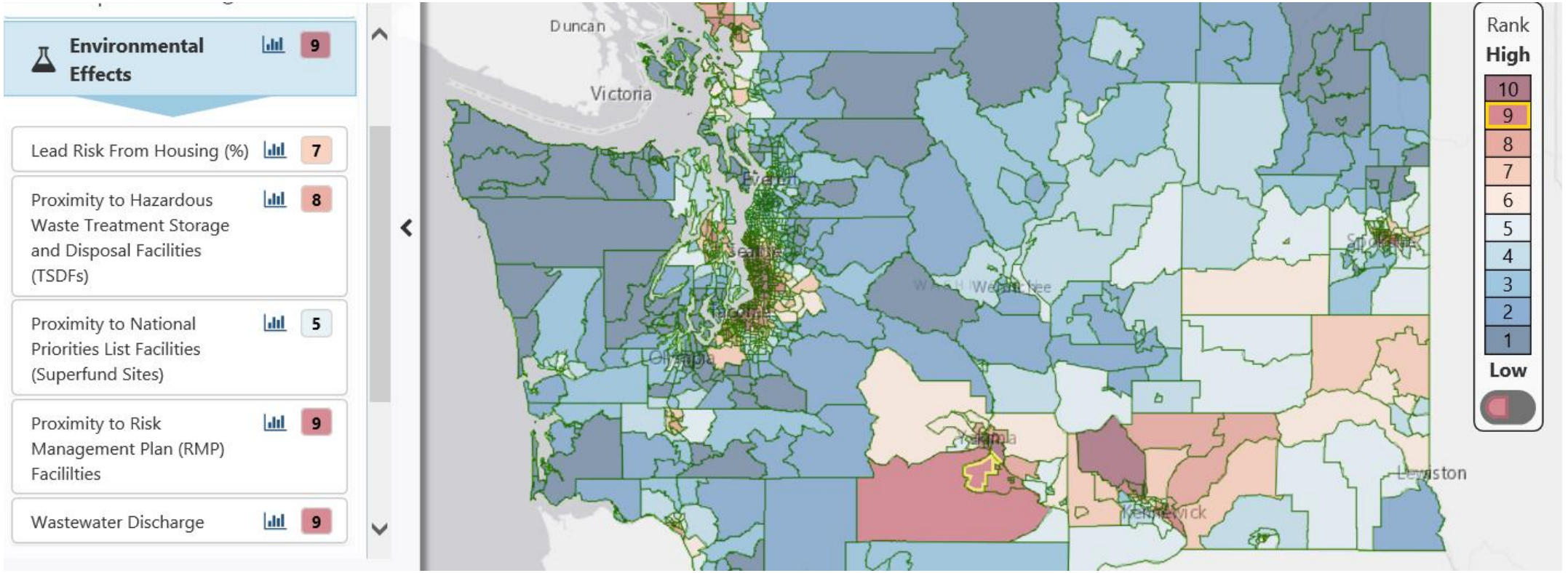




Community with cumulative impact



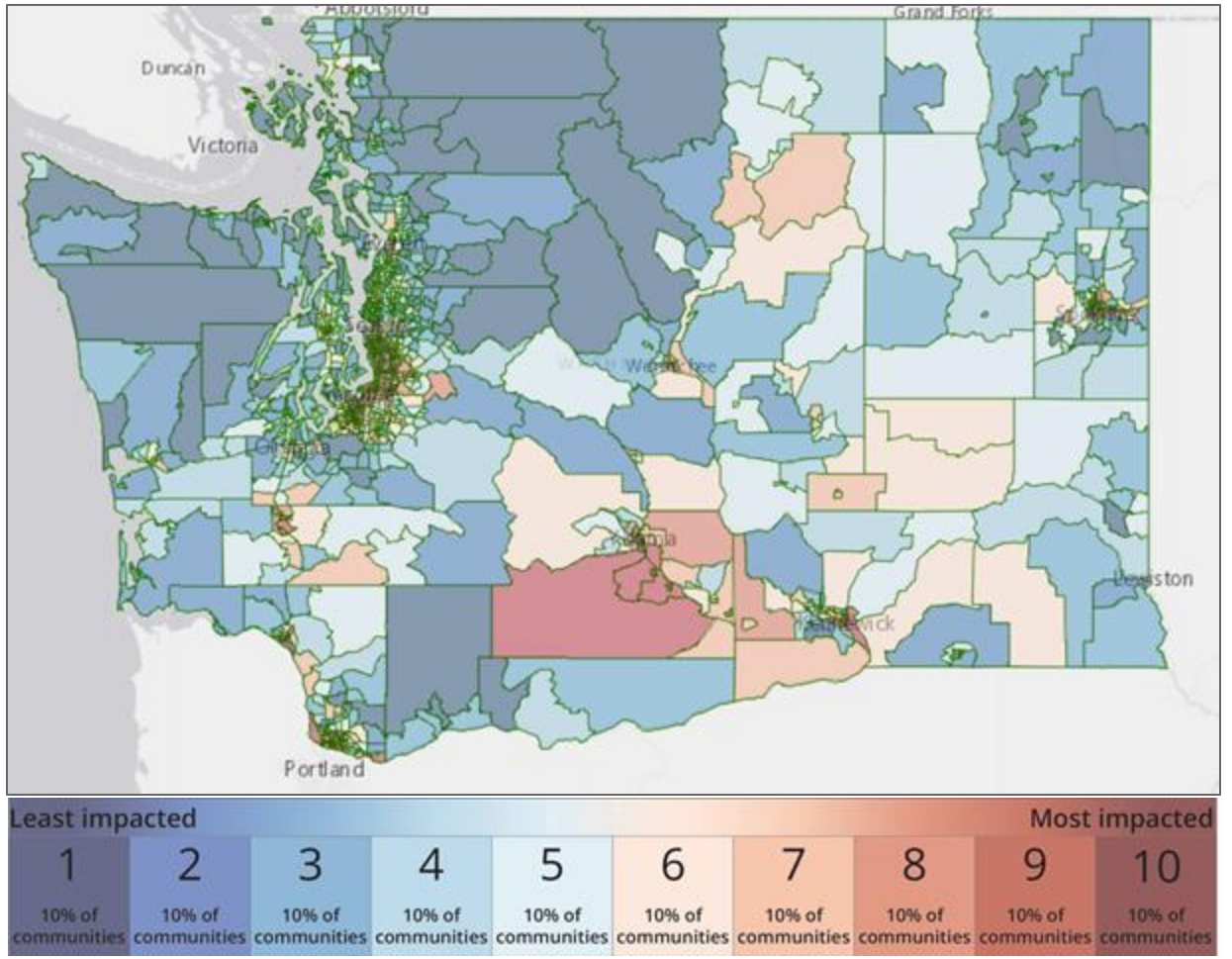
Community with cumulative impact



Other indicators being considered

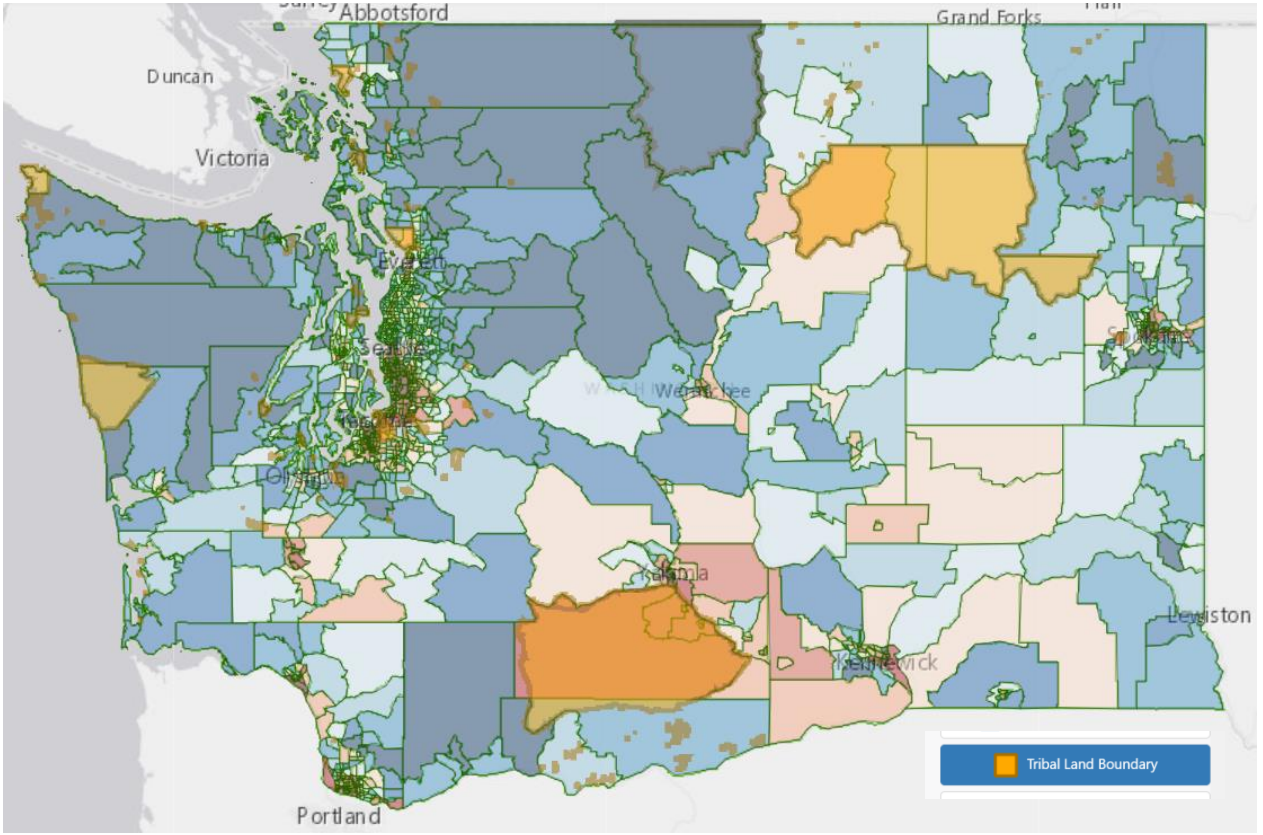
- Asthma
- Built environment indicators and tree canopy
- Climate change, health risk and vulnerability
- Drinking water contaminants
- Food access
- Marine water quality
- Noise pollution
- Occupational risk
- Pesticide exposure
- Proximity to state-specific cleanup sites
- Surface water quality
  - Biological vs chemical
- Wealth inequality

Washington Environmental Health Disparities Map



Clean Energy Transformation Act

- Develop cumulative impact analysis
- Designate communities highly impacted by fossil fuel pollution and climate change
- Inform power utilities' planning in the transition toward cleaner energy through Department of Commerce rule

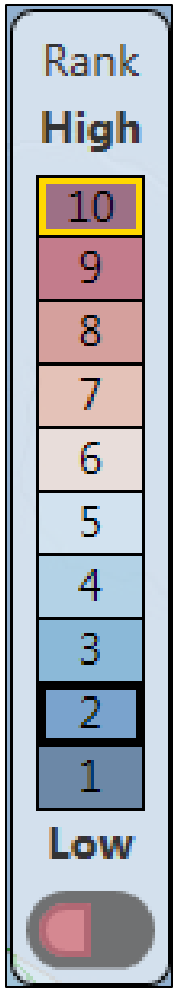


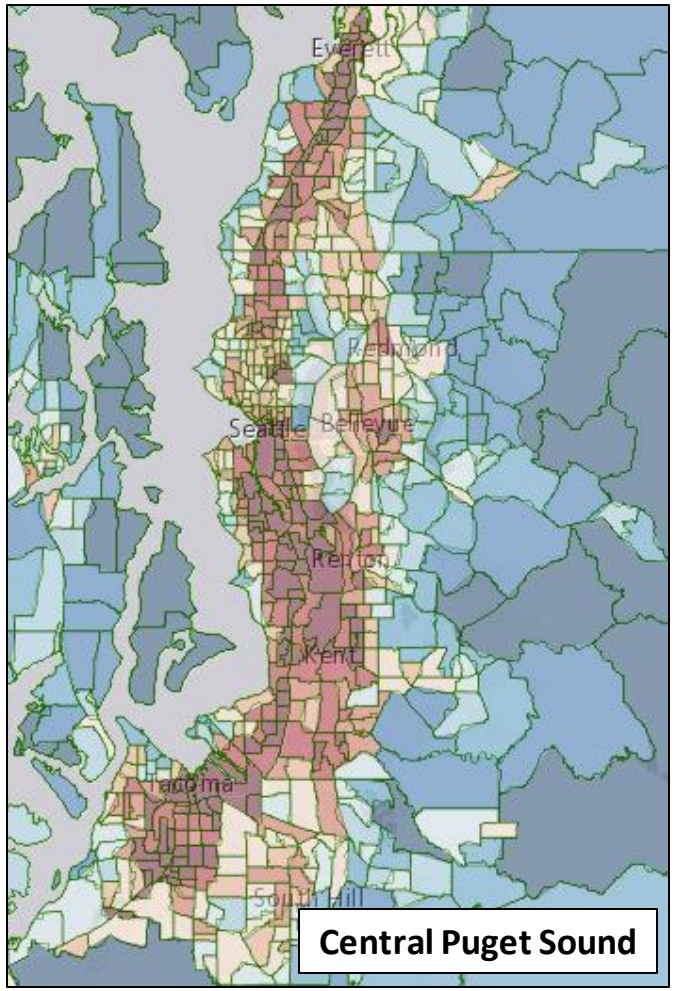
Volkswagen Enforcement Action Grants

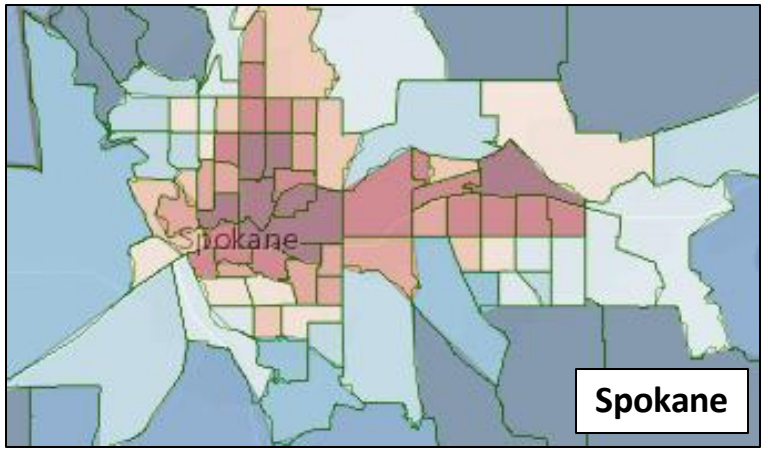
- Washington will receive $141 million from VW to settle violations of the state and federal Clean Air Acts
- Maximize air pollution reductions in communities affected by harmful diesel exhaust
- Focus on communities historically overburdened

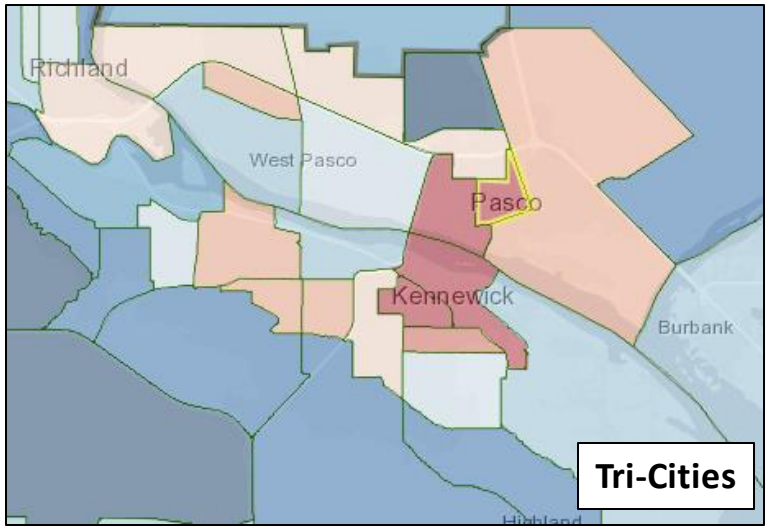
Diesel Emissions & Disproportionately Impacted Communities

(Priority Areas: Rank 9 or 10)









Disproportionately Impacted Communities

Substantial Benefits:

- Funds Invested = 95%
- Number of Projects = 71%
- Units Replaced = 89%
- Lifetime NOx Reduced = 85%

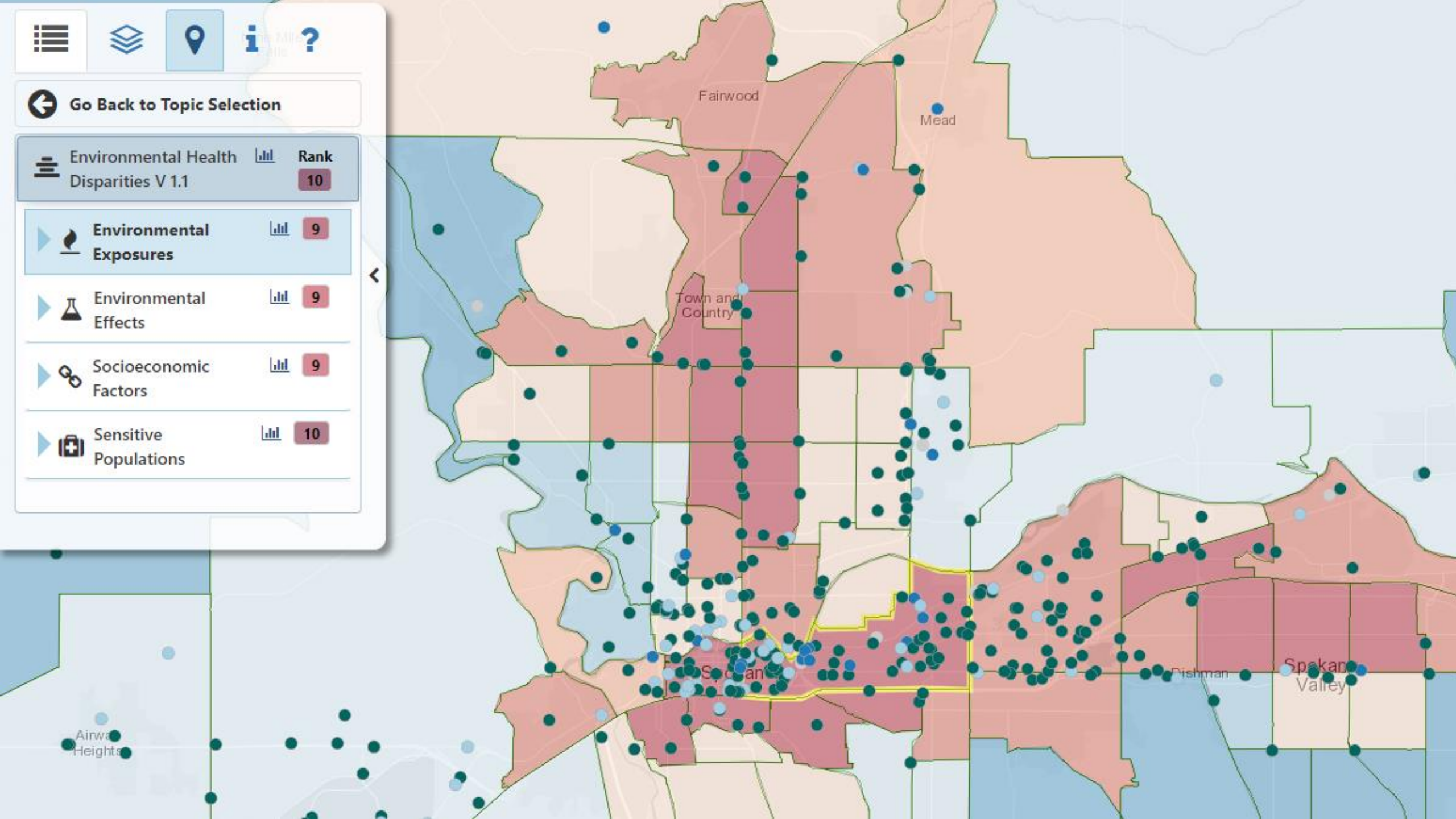
Benefits for Disproportionately Impacted Communities					
Category	Number of Projects	Funds Invested	Units	Lifetime Tons NOx Reduced	Lifetime Tons CO2 Reduced
Disproportionately Impacted Communities	29	$61,170,993	78	4,305	338,659
All Communities	41	$64,323,792	88	5,084	449,552

Public Participation Grants

Public Participation Grants (PPG) provide funding to individuals and not-for-profit public interest organizations to increase public understanding and involvement in cleaning up contaminated sites and improving recycling and waste management. PPG can fund up to $120,000 for a two-year project. Matching funds are not required.

I want to...

- Apply for or manage a grant or loan
- Get guidance for managing a grant or loan
- View additional languages: Español | Tiếng Việt | 한국어 | 中文


Go Back to Topic Selection
Environmental Health Disparities V 1.1
Rank
10
Environmental Exposures
9
Environmental Effects
9
Socioeconomic Factors
9
Sensitive Populations
10
Fairwood
Mead
Town and Country
Spokane
Spokane Valley
Airway Heights

RECOMMENDATION

That state agencies use the EHD data and map in agency activities…

- ➔ **Build** demographic & environmental context…
- ➔ **Conduct** EJ review & analysis routinely…
- ➔ **Center** EJ as the priority intended outcome in resource allocation…

Contact Information

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