Toxics Release Inventory, Technical Assistance, and Service Equity

Teague Powell
Washington (WA) State Department of Ecology
Hazardous Waste and Toxics Reduction (HWTR) Program
September 20, 2022
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2 Mapping Tools
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5 Workforce Considerations
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# Relevant Historical Landmarks

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td><strong>Title VI of the Civil Rights Act</strong> - prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives Federal funds or other Federal financial assistance.</td>
</tr>
<tr>
<td>1994</td>
<td><strong>Executive Order 12898</strong> - directs federal agencies to: identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.</td>
</tr>
<tr>
<td>2021</td>
<td><strong>WA State’s Healthy Environment for All (HEAL) Act</strong> - defines ‘environmental justice’ in state law, outlines how state agencies should consider community needs and environmental justice (EJ) in their work, establishes a permanent EJ Council to work with these agencies and help create EJ legislation, and expands equitable community participation.</td>
</tr>
</tbody>
</table>
Environmental Justice – A Definition

“ The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. ”

- Healthy Environment for All (HEAL) Act
Roadmap to Implementation

Washington State Environmental Justice Task Force Final Report recommendations:

• **Integrate** Department of Health’s [WA Tracking Network (WTN)]

• **Identify** areas of high concern

• Guide and **inform** with respect to EJ concerns

• Conduct EJ **review and analysis**

• **Center** EJ as a priority outcome in resource allocation

• Set environmental health disparity **goals** and track **progress**.
The Washington Tracking Network

Environmental Health Disparities Score

Composite Score

Pollution Burden Score

Environmental Exposures
- Diesel emissions
- Ozone
- Particulate Matter 2.5
- Toxic releases
- Traffic density

Environmental Effects
- Lead risk and exposure
- Proximity to hazardous waste sites
- Proximity to Superfund sites
- Proximity to facilities with highly toxic substances
- Wastewater discharge

Population Characteristics Score

Sensitive Populations
- Cardiovascular disease
- Low birth weight infants

Socioeconomic Factors
- Race (People of color)
- Poverty
- Unemployment
- Poor educational attainment
- Housing burden
- Linguistic isolation
- Transportation Expense
### Mapping Tools for Environmental Justice

<table>
<thead>
<tr>
<th>Washington State:</th>
<th>Nationally:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA State Department of Health’s WA Tracking Network (WTN)</td>
<td>Environmental Protection Agency’s (EPA) EJ Screening and Mapping Tool (EJScreen)</td>
</tr>
</tbody>
</table>

**Environmental Health Disparities** (cumulative)
- Environmental Exposure
- Environmental Effects
- Socioeconomic Risk Factors
- Sensitive Populations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
|  | Demographics
|  | Pollution Sources
|  | EJ Indexes
|  | Health Disparities
|  | Climate Change
|  | Critical Service Gaps |
Mapping Tools for Environmental Justice
Mapping Tools for Environmental Justice

Demographic Index
- People of Color
- Low Income
- Unemployment Rate
- Linguistically Isolated
- Less Than High School Education
- Under Age 5
- Over Age 64

Health Disparities

Climate Change Data

Critical Service Gaps

More Demographics
The Washington Tracking Network

- Each 1-10 score corresponds to ~10% of WA communities (census tracts)
- Roughly equivalent to EPA’s EJScreen’s state percentile rankings
Disparate Outcomes
Hazardous Waste Facilities
Visits to Hazardous Waste Facilities
Comparing Distributions
Evaluating Service Equity

We visited 15 of the 320 facilities in areas that rank below the 80th percentile of concern.

We visited 13 of the 236 facilities in areas that rank above the 80th percentile of concern.

We visited areas of higher concern at a rate 0.8% greater than the rate at which we visited areas of lower concern.
Comparing Distributions

The image shows a bar chart with three sections:

1. **TA Visits to TRI Facilities**
   - X-axis: EHD Rank
   - Y-axis: Visits
   - Bars indicate visits to TRI facilities for different EHD ranks.

2. **Visits / TRI Facilities**
   - X-axis: EHD Rank
   - Y-axis: Percent Total
   - Bars show the percentage of visits for each EHD rank.

3. **All TRI Facilities**
   - X-axis: EHD Rank
   - Y-axis: Visits
   - Bars display visits to all TRI facilities grouped by EHD rank.

The charts provide insights into the distribution of visits across different EHD ranks.
Setting Goals

• Map our workflow, identify key decision points, and encourage EJ to be considered

• Percentage of visits (an output) directed to facilities in EJ communities

• A significant portion of project success measures (an outcome) be achieved at facilities in EJ communities

• Continuous improvement and innovation
Informing the Process
Exploring EJ in the Workforce

Quarterly Workforce Indicator (QWI)

A set of 32 economic indicators covering:

- Employment
- Job growth / decline
- Wages
- Worker Demographics
  - Geography (State – County)
  - Age / sex
  - Race
  - Ethnicity
  - Education
Exploring EJ in the Workforce

EPA: Toxics Release Inventory

United States Census Bureau
Quarterly Workforce Indicator (QWI)

Industry, Location
Exploring EJ in the Workforce

<table>
<thead>
<tr>
<th>Facility</th>
<th>Emissions (lbs)</th>
<th>Industry NAICS</th>
<th>Location</th>
<th>Employed in Industry</th>
<th>Race</th>
<th>Ethnicity</th>
<th>Wages</th>
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</thead>
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<tr>
<td>ABW TECHNOLOGIES</td>
<td>4,057</td>
<td>332999 Fabricated Metal</td>
<td>Snohomish, WA</td>
<td>640</td>
<td>...</td>
<td>...</td>
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<tr>
<td>ACE GALVANIZING INC INC</td>
<td>126,143</td>
<td>332812 Coating, Engraving, Heat Treating</td>
<td>King, WA</td>
<td>1202</td>
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<td>...</td>
<td>...</td>
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<tr>
<td>ACHILLES USA INC</td>
<td>2,617</td>
<td>326113 Plastics Mfg</td>
<td>Snohomish, WA</td>
<td>501</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>WESTROCK TACOMA MILL</td>
<td>579,399</td>
<td>322130 Pulp, Paper Mfg</td>
<td>Pierce, WA</td>
<td>389</td>
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<tr>
<td>YOUNG CORPORATION MELTEC DIV</td>
<td>2,892</td>
<td>331513 Foundries</td>
<td>King, WA</td>
<td>203</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

... 245 records ...
## TRI Facilities
### Sorted by Estimated Hispanic or Latino Workforce

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Industry</th>
<th>County</th>
<th>State</th>
<th>All Races</th>
<th>% American Indian or Alaska Native Alone</th>
<th>% Asian Alone</th>
<th>% Hispanic or Latino</th>
<th>% Black or African American Alone</th>
<th>% Native Hawaiian or Other Pacific Islander Alone</th>
<th>% Two or More Race Groups</th>
<th>% White Alone</th>
<th>% Non White</th>
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</thead>
<tbody>
<tr>
<td>YOUNG CORPORATION MELTEC DIV</td>
<td>3315 -Foundries</td>
<td>KING</td>
<td>WA</td>
<td>203</td>
<td>0.0%</td>
<td>18.2%</td>
<td>32.5%</td>
<td>2.9%</td>
<td>1.0%</td>
<td>2.4%</td>
<td>73.8%</td>
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<tr>
<td>FOSTER POULTRY FARMS KELSO PLANT</td>
<td>3116 -Animal Slaughtering and Processing</td>
<td>COWLITZ</td>
<td>WA</td>
<td>901</td>
<td>2.1%</td>
<td>13.1%</td>
<td>26.5%</td>
<td>3.8%</td>
<td>3.0%</td>
<td>3.8%</td>
<td>74.1%</td>
<td>25.9%</td>
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<tr>
<td>MOREL INDUSTRIES INC</td>
<td>3315 -Foundries</td>
<td>SNOHOMISH</td>
<td>WA</td>
<td>217</td>
<td>2.3%</td>
<td>17.9%</td>
<td>20.3%</td>
<td>3.6%</td>
<td>0.0%</td>
<td>2.8%</td>
<td>73.2%</td>
<td>26.7%</td>
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<tr>
<td>CERTAINEED GYPSUM SEATTLE</td>
<td>3274 -Lime and Gypsum Product Manufacturing</td>
<td>KING</td>
<td>WA</td>
<td>267</td>
<td>0.7%</td>
<td>15.3%</td>
<td>16.5%</td>
<td>12.7%</td>
<td>0.0%</td>
<td>3.0%</td>
<td>67.4%</td>
<td>31.8%</td>
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<tr>
<td>SR SMITH LLC</td>
<td>3261 -Plastics Product Manufacturing</td>
<td>SNOHOMISH</td>
<td>WA</td>
<td>501</td>
<td>1.8%</td>
<td>12.3%</td>
<td>15.2%</td>
<td>11.2%</td>
<td>1.4%</td>
<td>4.6%</td>
<td>68.9%</td>
<td>31.3%</td>
</tr>
<tr>
<td>ACHILLES USA INC</td>
<td>3261 -Plastics Product Manufacturing</td>
<td>SNOHOMISH</td>
<td>WA</td>
<td>501</td>
<td>1.8%</td>
<td>12.3%</td>
<td>15.2%</td>
<td>11.2%</td>
<td>1.4%</td>
<td>4.6%</td>
<td>68.9%</td>
<td>31.3%</td>
</tr>
<tr>
<td>EMERALD SERVICES INC</td>
<td>5621 -Waste Collection</td>
<td>KING</td>
<td>WA</td>
<td>1334</td>
<td>1.7%</td>
<td>6.6%</td>
<td>14.4%</td>
<td>14.2%</td>
<td>2.1%</td>
<td>6.0%</td>
<td>69.2%</td>
<td>30.8%</td>
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</tbody>
</table>
## TRI Facilities
### Sorted by Estimated Black or African American Workforce

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Industry</th>
<th>County</th>
<th>State</th>
<th>All Races</th>
<th>% American Indian or Alaska Native Alone</th>
<th>% Asian Alone</th>
<th>% Hispanic or Latino</th>
<th>% Black or African American Alone</th>
<th>% Native Hawaiian or Other Pacific Islander Alone</th>
<th>% Two or More Race Groups</th>
<th>% White Alone</th>
<th>% Non White</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMERALD SERVICES INC</td>
<td>5621 - Waste Collection</td>
<td>KING</td>
<td>WA</td>
<td>1334</td>
<td>1.7%</td>
<td>6.6%</td>
<td>14.3%</td>
<td>14.2%</td>
<td>2.1%</td>
<td>6.0%</td>
<td>69.1%</td>
<td>30.8%</td>
</tr>
<tr>
<td>CERTAINTEED GYPSUM SEATTLE</td>
<td>3274 - Lime and Gypsum Product Manufacturing</td>
<td>KING</td>
<td>WA</td>
<td>267</td>
<td>0.7%</td>
<td>15.3%</td>
<td>16.4%</td>
<td>12.7%</td>
<td>0.0%</td>
<td>3.0%</td>
<td>67.4%</td>
<td>31.8%</td>
</tr>
<tr>
<td>BRADKEN ENERGY</td>
<td>3315 - Foundries</td>
<td>PIERCE</td>
<td>WA</td>
<td>262</td>
<td>0.0%</td>
<td>15.6%</td>
<td>12.9%</td>
<td>12.6%</td>
<td>0.0%</td>
<td>2.2%</td>
<td>67.2%</td>
<td>30.5%</td>
</tr>
<tr>
<td>PRAXAIR SPECIALTY CERAMICS</td>
<td>3251 - Basic Chemical Manufacturing</td>
<td>KING</td>
<td>WA</td>
<td>56</td>
<td>0.0%</td>
<td>5.3%</td>
<td>0.0%</td>
<td>12.5%</td>
<td>0.0%</td>
<td>5.3%</td>
<td>75.0%</td>
<td>23.2%</td>
</tr>
<tr>
<td>SR SMITH LLC</td>
<td>3261 - Plastics Product Manufacturing</td>
<td>SNOHOMISH</td>
<td>WA</td>
<td>501</td>
<td>1.8%</td>
<td>12.3%</td>
<td>15.1%</td>
<td>11.2%</td>
<td>1.4%</td>
<td>4.5%</td>
<td>68.9%</td>
<td>31.3%</td>
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<tr>
<td>ACHILLES USA INC</td>
<td>3261 - Plastics Product Manufacturing</td>
<td>SNOHOMISH</td>
<td>WA</td>
<td>501</td>
<td>1.8%</td>
<td>12.3%</td>
<td>15.1%</td>
<td>11.2%</td>
<td>1.4%</td>
<td>4.5%</td>
<td>68.9%</td>
<td>31.3%</td>
</tr>
<tr>
<td>GEORGIA-PACIFIC GYPSUM LLC</td>
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<td>PIERCE</td>
<td>WA</td>
<td>107</td>
<td>0.0%</td>
<td>3.7%</td>
<td>11.2%</td>
<td>10.3%</td>
<td>5.6%</td>
<td>5.6%</td>
<td>72.9%</td>
<td>25.23</td>
</tr>
</tbody>
</table>

...
## TRI Facilities Sorted by Estimated Minority Workforce

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Industry</th>
<th>% Minority</th>
<th>Minority Rank</th>
<th>TRI Emissions (lbs)</th>
<th>RSEI Hazard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHIPPERS &amp; CREW INC</td>
<td>3344 - Semiconductor and Other Electronic Component Manufacturing</td>
<td>57.6%</td>
<td>10</td>
<td>0.2315</td>
<td>5,325</td>
</tr>
<tr>
<td>CONAGRA FOODS FROZEN BAKERY PRODUCTS</td>
<td>3114 - Fruit and Vegetable Preserving and Specialty Food Manufacturing</td>
<td>53.6%</td>
<td>10</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>PROTECTIVE COATINGS INC</td>
<td>3328 - Coating, Engraving, Heat Treating, and Allied Activities</td>
<td>39.6%</td>
<td>10</td>
<td>14,018.2</td>
<td>40,220,018</td>
</tr>
<tr>
<td>ARDAGH GLASS INC</td>
<td>3272 - Glass and Glass Product Manufacturing</td>
<td>37.3%</td>
<td>10</td>
<td>1,074.57</td>
<td>3,050,200,870</td>
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<tr>
<td>FUTURE FOAM INC</td>
<td>3261 - Plastics Product Manufacturing</td>
<td>34.4%</td>
<td>10</td>
<td>150</td>
<td>7,500,000</td>
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<tr>
<td>CERTAINTEED GYPSUM SEATTLE</td>
<td>3274 – Lime and Gypsum Product Manufacturing</td>
<td>31.8%</td>
<td>10</td>
<td>5.4</td>
<td>89,000</td>
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<tr>
<td>TEREX WASHINGTON SOUTH CAMPUS</td>
<td>3339 - Other General Purpose Machinery Manufacturing</td>
<td>31.6%</td>
<td>10</td>
<td>405.48</td>
<td>4,288,314</td>
</tr>
</tbody>
</table>
TRI Impacts Vs Workforce Diversity

![Bar Chart: All TRI Facilities vs Workforce Diversity Rank]
TRI Impacts Vs Workforce Diversity
TRI Impacts Vs Workforce Diversity

Hazard Distribution

Cumulative Hazard Score vs Workforce Diversity Rank
Next Steps?

• Better inform the decision making process
• Improve measures and thresholds
• Identify and engage with actual communities, not just census tracts or workforce profiles
• Ground truth and improve tools
Thank you

Questions, Feedback?

Teague Powell
Research Analyst
WA State Department of Ecology
Hazardous Waste Toxics Reduction Program
teague.powell@ecy.wa.gov