From:	Constituent Services	
Sent:	Thursday, April 28, 2022 4:20 PM	
То:	City Clerk's Office	
Subject:	FW: Input regarding LU21-0125 project	

Follow up

Flagged

Follow Up Flag: Flag Status:

Joseph (Joe) Franco He, Him, His Management Fellow City Manager's Office City of Tacoma, 747 Market Street, Room 1200 Tacoma, WA 98402 | (253) 242-0512 JFranco@cityoftacoma.org | www.cityoftacoma.org

-----Original Message-----From: Megan Selvage <<u>megan_selvage@yahoo.com</u>> Sent: Saturday, April 23, 2022 7:48 PM To: Woodards, Victoria <<u>vwoodards@cityoftacoma.org</u>> Subject: Input regarding LU21-0125 project

Dear City Council and Planning and Development Department,

I am writing to advocate that a full SEPA review, a complete Environmental Impact Statement, and a Health Impact Statement all be conducted regarding the LU21-0125 warehouse proposal for South Tacoma.

I think it is likely that the results of objective reviews and impact statements will lead to a consensus that building this project in such a densely populated area, and in the vicinity of an important aquifer to the larger community, would add less than it would take from our city, especially regarding the LIVEABILITY of Tacoma. Right now, with the large influx of new Tacoma residents, and increased property tax income due to the housing value boom, there is an opportunity to increase the city's profile as a welcoming and healthy city to live in. Investments in neighborhoods, schools and other infrastructure would benefit this reputation. The LU21-0125 project is not such a project, and may significantly detract from the city's liveability. The City Council, as the steward of the Tacoma 2025 Plan, needs to play a strong role in this conversation, and really look into how this would impact the people who live in South Tacoma and drink Tacoma water.

Again, I am requesting:

- A full SEPA review
- A complete Environmental Impact Statement
 A Health Impact Assessment

I also ask that you use your Tacoma 2025 Plan as the basis for a genuine conversation that takes into consideration Liveability, Equity and Inclusion (which I mean to address issues of environmental justice and providing equally clean air, freedom from noise and other pollution, and green spaces for BIPOC residents of our area), and healthy economic growth in which all development is not good development- and there are many healthy options that can serve to create new jobs in our community.

Please also provide real opportunities for community members to participate in the process of deciding how to create job growth and new income for our community, as well as what direction we want to grow the South Tacoma area that is part of the heart of our city and located on Coast Salish ancestral land.

The children of South Tacoma need to breathe clean air and have green spaces to play. The people of our entire city need clean water to drink. And one thing that South Tacoma does not need is increased noise and emissions of large vehicle traffic. The priorities for the South Tacoma area have already been outlined, as it has been determined to be a "Low Opportunity" or "Very Low Opportunity" area according to the Equity Index. The Equity Index was intended to change the dynamic between favored neighborhoods and non-favored neighborhoods, so that Opportunity might be more accessible, citywide. Here is an

opportunity to show thoughtfulness and alignment with the values already expressed by the City Council- by taking a real look at how the LU21-0125 project would affect the community based on the Equity Index indicators.

I know that you are hearing from many of us about this project. Please celebrate your alignment with the priorities outlined in the Tacoma 2025 Plan by hearing and acting on what your community is saying to you. We will celebrate with you, and trust and a healthy relationship of civic engagement will continue to be built as a result.

Thank you,

Megan Selvage, resident of East Tacoma/McKinley neighborhood

From:	Heidi S. <heidigs@hotmail.com></heidigs@hotmail.com>
Sent:	Monday, May 2, 2022 12:23 PM
Subject:	Tacoma Mega-Warehouse Traffic Impacts
Attachments:	Earthjustice Tacoma Warehouse Comments and Exhibits.pdf
Follow Up Flag:	Follow up
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RE: Mega-warehouse in the middle of an urban neighborhood

We've learned that the mega-warehouse vehicle trips (as concerning as the estimates already were) had actually been estimated much lower than they will likely be. Based on additional input of the probable facility uses, it is now being estimated to add up to:

12,000 more vehicle trips per day

... on I-5, Hwy 16, etc. (affecting surrounding sideroads, too, since that many vehicles will certainly be looking for secondary/alternate routes due to the obvious congestion to come).

Besides traffic jams and road wear, this also brings the alarming reality of increased air pollution (such exhaust is devastating to children's developing lungs and a contributor to climate change), toxic tire residue run off (a chemical which kills aquatic life) and more fatality accidents.

The city has not informed the public appropriately of these impending impacts.

See:

Public Comments re: Permit LU21-0125 from Earth Justice (attachment)

Warehouse Traffic Underestimated / By: Michelle Mood https://www.350tacoma.org/2022/04/26/warehouse-traffic-underestimated/

EarthJustice took a look at the application materials Bridge Industrial submitted for permitting and has a persuasive argument for this being an e-commerce facility.

EarthJustice calculates that, "applying the daily trip rates for fulfillment centers and parcel hub warehouses, the traffic study would have estimated that the project would produce 11,453 additional vehicle trips each weekday if the site is used as a distribution center (or "parcel hub"), or 12,088 additional vehicle trips each weekday if the site is used as a fulfillment center" instead of the 5,000 or so in the permit documents.

"As more e-commerce, technology and logistics users flock to the Pacific Northwest, and the Greater Seattle region in particular, Bridge is excited to bring such a strategically located development of this scale to market. The proximity of this site to so many key transit options, such as the Port of Tacoma and I-5, make it ideal for a variety of users meeting the ever-increasing demand for last-mile and next-day delivery," said Justin Carlucci, partner for Bridge's Northwest region.



April 21, 2022

Shirley Schultz, AICP Principal Planner 747 Market Street, Room 345 Tacoma, WA 98402

BY EMAIL TO: shirley.schultz@cityoftacoma.org

RE: Public Comment on Proposed Permit and MDNS for LU21-0125

Dear Ms. Schultz:

Earthjustice opposes the City of Tacoma's proposed issuance of a Mitigated Determination of Non-Significance and Critical Land Use Development permit for Bridge Industrial's project to build one of the largest warehouse complexes in the world in a residential neighborhood that is already overburdened by air pollution and other environmental harms. The project cries out for a full environmental impact statement (EIS), and, as explained below, Washington's State Environmental Policy Act requires a full EIS.

I. <u>BACKGROUND AND SUMMARY</u>

Bridge Industrial is proposing to turn 147.5 acres of presently undeveloped land—a significant portion of which is wetland—in a residential neighborhood in South Tacoma into a massive 2.5 million square foot concrete warehouse facility with 20 acres of truck courts and parking spaces for 1,436 vehicles. As proposed, 75% of the currently uncovered space would be converted into impervious surfaces.

The proposed warehouse facility would be one of the largest warehouses facilities in the world.¹ For the purpose of comparison, Amazon's JFK8 Fulfillment Center—the Amazon warehouse in Staten Island that has been in the news in recent years after worked sued over the working conditions and later unionized—is approximately one-third the size of the proposed Bridge Industrial Tacoma site, at 855,000 square feet.²

¹ See, e.g., Damotech, *Top 11 Largest Warehouses in North America* (Apr. 6, 2022), <u>https://www.damotech.com/blog/top-10-largest-warehouses-in-north-america</u>; Avanta, *Top 20 Largest Warehouses in the World*, <u>https://www.avantauk.com/top-14-largest-warehouses-in-the-world/</u> (last visited Apr. 20, 2022).

² See, e.g., Andria Cheng, Amazon's Robot-Filled New York Fulfillment Center Gives Rivals Another Reason to Worry (Forbes, Dec. 10, 2018),

https://www.forbes.com/sites/andriacheng/2018/12/10/amazons-first-new-york-fulfillmentcenter-should-give-rival-retailers-another-cause-for-worry/ (noting that, at 855,000 square feet,

Bridge Industrial estimates that the complex would generate almost 5,000 new daily vehicle trips every weekday—an inaccurate estimate that, as we explain below (*see* Section III), likely reflects **less than half** of the actual daily trips that this project would generate. An estimated 28% of the increased traffic due to the project would be truck traffic, with peak traffic volumes at rush hour through already overcrowded streets.

The emissions from the diesel truck traffic generated by this project would cause significant air pollution and climate impacts that the project developers have not attempted to quantify or study, let alone mitigate.

It would also have foreseeable impacts on water. Introducing thousands of new vehicles into an area containing protected wetlands, a stream, and a critical aquifer is likely to introduce toxic chemicals from tires into these areas through stormwater runoff. In addition, replacing the site's existing permeable, water-absorbing surfaces with impervious concrete will substantially alter stormwater management, impeding recharge of the City's aquifer and increasing the load on the area's stormwater system.

And the project will burden the site's neighbors with increased noise, heat, and light pollution.

Importantly, these burdens would fall on a largely low-income and BIPOC South Tacoma community that is already overburdened by environmental harms. The historically massive warehouse facility would be mere blocks from large apartment buildings, health centers, restaurants, stores, schools, and daycares.

Allowing the project to move forward would undermine environmental justice by amplifying well into the future the cumulative environmental harms that South Tacoma is already exposed to.

Issuing a Mitigated Determination of Non-Significance and skipping a full environmental impact statement would also undermine environmental justice by preventing the community from having access to accurate, comprehensive information about all of the project's significant environmental impacts.

This proposal is crying out for a full environmental impact study. The City's proposal to issue a Critical Land Use Development Permit and Mitigated Determination of Non-Significance, allowing Bridge Industrial to forego conducting an EIS, is inconsistent with law and would exacerbate the inequality and injustice that the City should be aiming to fix.

Below, we address the legal standard under SEPA (Section II), Bridge Industrial's flawed traffic study (Section III), the project's air impacts (Section IV), the project's climate impacts (Section V), the project's water impacts (Section VI), and the project's impacts on neighbors' quality of life, including noise, heat, light, and aesthetics (Section VII), and the project's significant impacts on environmental justice (Section VIII), and conclude that SEPA prohibits the City from issuing a mitigated determination of nonsignificance; a full environmental impact statement is required (Section IX).

JFK8 on Staten Island is 20% smaller than Amazon's traditional fulfillment centers and employs more than 2,700 full-time employees).

II. <u>LEGAL STANDARD UNDER SEPA</u>

Washington's State Environmental Policy Act (SEPA) is intended to disclose significant adverse impacts that could arise from government action. SEPA requires an environmental impact study for any action that has "probable significant, adverse environmental impact." RCW 43.21C.031(1). A proposed development is "significant" when there is a reasonable likelihood of more than a moderate adverse impact on environmental quality. WAC 197-11-794. Adverse impacts must be reasonably likely to occur, but certainty is not required. *City of Des Moines v. Puget Sound Reg'l Council*, 98 Wn. App. 23, 854 (1999).

For the purpose of making a significance determination, "environmental quality" encompasses impacts on air (including air quality and odor); climate and energy; traffic and public safety; water (including stormwater runoff, absorption, water quality, and sewer impacts); and noise and recreation, in addition to several other categories of considerations. *See* WAC 197-11-444.

In evaluating whether a project is reasonably likely to have more than moderate adverse environmental impacts, decisionmakers must look at all parts of the project proposal, and consider both short-term project impacts and the long-term effects for the lifetime of the project or longer. WAC 197-11-060(3)(b), (4)(c). They must consider both direct and indirect impacts, including the precedent that the project will set, and future actions that may become more likely as a result of the project. WAC 197-11-060(4)(d). They must consider not just local impacts, but global impacts. *See* RCW 43.21C.030(f) (agencies must "recognize the worldwide and long-range character of environmental problems").

A mitigated determination of non-significance (MDNS) is a permissible threshold determination under SEPA only if the proposed mitigation measures for the project reduce the project's impacts are sufficient to reduce the project's environmental impacts to insignificance. *See generally* WAC 197-11-350.

If the project "continues to have a probable significant adverse environmental impact"—as broadly defined under SEPA—"even with mitigation measures," then a full EIS is required. WAC 197-11-350(2).

III. BRIDGE INDUSTRIAL'S TRAFFIC IMPACT ANALYSIS IS FATALLY FLAWED AND DRAMATICALLY UNDERSTATES THE NUMBER OF VEHICLES THE PROJECT IS LIKELY TO GENERATE.

Bridge Industrial's estimate that its project will produce 4,980 new daily vehicle trips each weekday is far too low. Bridge Industrial's traffic impact analysis is built entirely—and explicitly—on a false premise about the nature of the future tenants: that this massive warehouse facility will not be used as an e-commerce fulfillment or distribution center. This premise is demonstrably false in light of the well-documented nationwide demand for e-commerce facilities that far outstrips the existing supply, the project's proximity to I-5 and the Port of Tacoma and design to accommodate use as a fulfillment or distribution center, and the fact that Bridge Industrial has been marketing the facility to e-commerce suppliers and has received expressions of interest from e-commerce tenants.

Ignoring these possible—and, indeed, likely—uses of the project site is fatal to Bridge Industrial's traffic analysis because large fulfillment and distribution centers generate much higher rates of traffic than the potential uses that Bridge Industrial considered in its traffic study.

As explained below, if Bridge Industrial's traffic analysis had properly considered the obvious potential use of the project site as an e-commerce fulfillment or distribution center, the estimated average daily trips at the site would <u>more than double</u>, potentially creating <u>more than 12,000</u> <u>additional daily trips</u>, rather than the 4,980 that Bridge Industrial projected.

All of the other components of Bridge Industrial's traffic analysis—including the analysis of the project's impact on level of service—are built on its improperly low assumption about how many vehicles will be coming and going from the facility. In other words, the study simply does not reflect the most likely reality of building this facility.

Moreover, even with the inaccurate and overly low traffic estimate, Bridge Industrial's proposed mitigation measures do not adequately alleviate even the inappropriately low levels of increase traffic that Bridge Industrial assumed the project would generate.

Plainly, the City cannot issue an MDNS for a project based on an inaccurate traffic study that dramatically understates the likely project impacts and does not fully mitigate even the incorrectly low assumed traffic.

A. <u>How Traffic Generation Estimates Are Created</u>

The typical method for estimating the number of additional daily vehicle trips that will be generated by a new facility is to consult the average trip generation rates in the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). *See* Exhibit A (ITE, Trip Generation Manual, 10th Ed., Sept. 2017).

ITE's Trip Generation Manual groups facilities by use type and provides data-supported estimates of the average number of additional vehicle trips that each type of land use is likely to create. For warehouse-type facilities, ITE provides a trip generation rate that reflects the average new daily trips likely to be generated per 1,000 square feet of gross floor area.

ITE's "high-cube warehouse" category describes the type of massive warehouse facility Bridge Industrial is proposing to build. The "high-cube warehouse" category came into existence to address the fact that ITE's traditional "warehousing" category (ITE code 150) for facilities that are "primarily devoted to the storage of materials" did not accurately reflect the significantly higher trip generation rates for the kinds of warehouse facilities used in e-commerce, where materials are often stored only briefly before distribution and are being accessed constantly throughout the day. *See* Exhibit B (ITE, *High-Cube Warehouse Vehicle Trip Generation Analysis*, Oct. 2016).

According to ITE, a "high-cube warehouse" is a building that that is used primarily for the storage or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. Exhibit A at 119, 129, 137, 143. HCWs typically have at least 200,000 gross square feet of floor area, have ceiling heights of 24 feet or more, and have a high level of on-site automation and logistics management to enable highly efficient processing of goods. *Id*.

ITE tracks four sub-categories of high-cube warehouses: high-cube transload and short-term storage warehouses, high-cube cold storage warehouse, high-cube fulfillment center warehouse, and high-cube parcel hub warehouse.

The largest of these high-cube warehouses studied by ITE were fulfillment centers, which ranged from 818,000 square feet to 1,466,000 square feet. *Id.* at 46–53. In contrast, the traditional warehousing facilities ITE studied were dramatically smaller in scale, ranging from 129,000 to 451,000 square feet, with between 43 and 51 employees reporting to the site each day on average. *Compare id.* at 129–36 (High-Cube Warehouse Fulfillment Center, ITE Code 155), *with id.* at 67–81 (Warehousing, ITE Code 150).

B. <u>Bridge Industrial's Project Traffic Analysis Assumes the Site Will Not Be</u> <u>Used As a Fulfillment Center or Distribution Center.</u>

Bridge Industrial's trip generation analysis uses ITE's average trip generation rates, but assumes an ill-fitting kind of land use with a lower trip generation rate, applying ITE's rates for an "industrial park" rather than for a "high-cube parcel hub warehouse" or "high-cube fulfilment center warehouse."

ITE's "industrial park" land use category (ITE code 130) describes a site that "contains a number of industrial or related facilities," and is "characterized by a mix of manufacturing, service, and warehouse facilities[.]" Exhibit A at 20. The industrial park facilities that ITE studied ranged from 321,000 to 776,000 square feet, with between 745 and 1,020 employees reporting each day on average. *Id.* at 20–38.

Bridge Industrial falsely claims that its application of trip generation rates for the "industrial park" category "has the potential to overestimate traffic impacts, and should be considered conservative" because ITE's trip generation rate for an industrial park is higher than for a traditional warehouse. Bridge Industrial, Updated Transportation Impact Analysis, Dec. 10, 2021, at 1.

But using the traditional warehousing category would have made no sense; Bridge Industrial's facility is more than 5 times as large as the largest traditional warehousing facility ITE studied traditional warehousing category and almost 20 times as large as the smallest facility. *See* Exhibit A at 21–35 (Warehousing, ITE Code 150, with facilities ranging from 129,000 to 451,000 square feet). And Bridge Industrial's facility will have 1,436 parking spaces—parking nearly 30 times as many employees as the largest traditional warehouse facility, which had only 51 employees. *Compare* SEPA Checklist § 14(c) (1,436 parking spaces), *with* Exhibit A at 77–81 (Warehousing, ITE Code 150, with facilities serving between 43 and 51 employees on average).

In reality, the traffic study *underestimates* traffic impacts in light of the fact that it does not consider any of the high-cube warehouse types of land use, and does not reflect the traffic impacts that would result if the site were used as a high-cube warehouse fulfillment center or parcel hub. Bridge Industrial's traffic analysis expressly disclaims its applicability to such uses: "In the event that future tenants of the Bridge Point Tacoma site could generate more peak hour

trips than industrial park (i.e. High-Cube Fulfillment Center Parcel Hub or other land use types), additional traffic analysis may be necessary." *Id.*

Critically, the average daily trips per 1,000 square feet for a high-cube fulfillment center warehouse (ITE code 155) and a high-cube parcel hub warehouse (ITE code 156) are more than twice the average for industrial parks. In other words, if Bridge Industrial had studied how a 2.5 million square foot parcel hub or fulfillment center would impact traffic, the projected additional vehicle trips would be substantially higher.

Applying the ITE daily trip rates for fulfillment centers and parcel hub warehouses, the traffic study would have estimated that the project would produce <u>11,453</u> additional vehicle trips each weekday if the site is used as a distribution center (or "parcel hub"), or <u>12,088</u> additional vehicle trips each weekday if the site is used as a fulfillment center.

	Average daily trips per 1,000 square feet gross floor area	New weekday daily trips for Bridge Industrial facility
Warehousing (ITE code 150)	1.74	2,571
Industrial Park (ITE code 130)	3.37	4,980
High-Cube Fulfillment Center Warehouse (ITE code 155)	8.18	12,088
High-Cube Parcel Hub Warehouse (ITE code 156)	7.75	11,453

See Exhibit A.

This failure to analyze the most likely uses of the property leave a gaping hole in Bridge Industrial's application. Tacoma cannot issue a Mitigated Determination of Nonsignificance or issue a permit for the project without a reliable traffic analysis.

C. <u>The Site Is Highly Likely to Be Used As a Fulfillment or Distribution</u> <u>Center.</u>

Bridge Industrial's traffic report unquestionably should have analyzed the impact of the center being used as a parcel hub or fulfillment center.

First, use for e-commerce fulfillment and distribution is by far the most likely use case for a massive industrial facility opening in 2024 along a highway. While many parts of the economy suffered during COVID-19, e-commerce soared, creating sky-high, record-breaking demand for warehouses to be used for fulfillment and distribution centers (DC) that far outstrips the available supply.³ Indeed, Bridge Industrial's own promotional materials highlight the likelihood that this

³ E.g., Karen E. Thuermer, *Record-Breaking Demand for Warehouse and DC Development*, Logistics Management, Feb. 8, 2021,

trend will continue. Exhibit C (Bridge Industrial, *Will the Industrial Boom Continue? At Least Throughout 2022, Expectedly*, Apr. 5, 2022, <u>https://bridgeindustrial.com/media/article/will-the-industrial-boom-continue-at-least-throughout-2022-expectedly/</u>).

Second, the physical characteristics of the proposed Bridge Industrial project are far more consistent with ITE's definition of a "high-cube parcel hub warehouse" or "high-cube fulfilment center warehouse" than its definition of an "industrial park," which Bridge Industrial relied on. The proposed facility would create 2.5 million square feet of gross floor area, in buildings 49 feet tall, with parking spaces for 1,436 vehicles. This is dramatically larger than the "industrial park" facilities ITE studied, which ranged from 321,000 to 776,000 square feet, with 745 to 1,020 employees reporting each day on average. *Id.* at 20–38. It not only passes the threshold for a "high-cube" warehouse (which are typically at least 200,000 square feet and with ceiling heights of at least 24 feet), it would even be bigger than every high-cube warehouse ITE studied, the largest of which was 1,466,000 square feet. *Id.* at 130. In fact, it would be one of the largest warehouses on Earth.⁴

Third, Bridge Industrial and its representatives have been marketing the site to e-commerce enterprises engaged in distribution and fulfillment. Bridge Industrial touts the site's suitability for these uses in promotional materials:

As more e-commerce, technology, and logistics users flock to the Pacific Northwest—and the Greater Seattle region in particular—Bridge is excited to bring such a strategically located development of this scale to market. The proximity of this site to so many key transit options, such as the Port of Tacoma and I-5, make it ideal for a variety of users meeting the ever-increasing demand for last-mile and next-day delivery.

Exhibit D (Bridge Industrial Press Release, *Bridge Industrial Acquires 2.5 Million SF Seattle Site for Future 'Bridge Point Tacoma 2MM*,' Sept. 29, 2021, https://bridgeindustrial.com/media/press-release/bridge-industrial-acquires-development-sites-for-bridge-point-tacoma-125-bridge-point-tacoma-210/). Similarly, the promotional flyer for the project emphasizes the site's location "just minutes from Interstate 5 and the Port of Tacoma." Exhibit E (Kidder Mathews, *Bridge Point Tacoma 2MM*,

https://www.bridgepointtacoma2mm.com/downloads/Bridge-Point-Tacoma-2MM-Flyer.pdf).

https://www.logisticsmgmt.com/article/record_breaking_demand_for_warehouse_and_dc_devel opment; see also, e.g., Ana Monteiro, Covid E-Commerce Boom Sees U.S. Retailers Hunt for Warehouses, Bloomberg, Jan. 11, 2022, https://www.bloomberg.com/news/newsletters/2022-01-11/supply-chain-latest-covid-e-commerce-boom-sees-warehouse-demand-soar ("Such is demand for logistics centers that prices for industrial space outgained offices and apartments for most of 2021").

⁴ See, e.g., Damotech, *Top 11 Largest Warehouses in North America* (Apr. 6, 2022), <u>https://www.damotech.com/blog/top-10-largest-warehouses-in-north-america</u>; Avanta, *Top 20 Largest Warehouses in the World*, <u>https://www.avantauk.com/top-14-largest-warehouses-in-the-world/</u> (last visited Apr. 20, 2022).

Fourth, the proposed facility has reportedly already piqued interest among e-commerce firms engaged in distribution operations. In September 2021, a broker with Kidder Mathews representing Bridge Industrial told a reporter that "[t]here has already been interest from some large distribution tenants looking to pre-lease the space[.]" Exhibit F (Shawna De La Rosa, *Bridge Industrial snags 150-acre Tacoma vacant site for \$158M*, Puget Sound Business Journal, Sept. 29, 2021, <u>https://www.bizjournals.com/seattle/news/2021/09/28/bridge-development-partners-snags-tacoma-industria.html</u>).

As ITE has pointed out, "Although the tenant or its planned operations are often unknown at the time of site development review, for the purpose of estimating vehicle trip generation, it may be as important to know the tenant as much as other facility factors." Exhibit B at 1.

Bridge Industrial's failure to study the traffic impacts of the site's highly likely use as a distribution or fulfillment center is fatal to the analysis. The incorrect trip generation estimates render the rest of the traffic analysis unreliable. This reason alone is sufficient grounds for the City to require a full EIS.

D. <u>Bridge Industrial's Proposed Mitigation Would Not Reduce the Project's</u> Traffic Impacts to Non-Significance.

Because Bridge Industrial's traffic study relies on inappropriately low trip generation rates—less than half what they should be—Bridge Industrial's proposed mitigation is necessarily flawed because it does not address the full scale of the impacts.

But even if Bridge Industrial's trip generation rates were reliable (which they are not), the mitigation proposed would still be inadequate to justify the City issuing an MDNS.

The proposed mitigation would require the City to invest substantial resources to facilitate the redesign of the surrounding infrastructure in ways that would not serve other City residents well. And even after a substantial infrastructure overhaul, these measures would fail to ameliorate all of the harmful traffic impacts from the projects.

The traffic study proposes that the City create a future road—the North Access road—to connect the project site to S. 35th St., and add a traffic signal, roadway channelization, sidewalks, and bicycle facilities at that intersection, as well as redesigning the intersections along S. 35th St. at S. Union Ave. and at S. Tacoma Way to better accommodate truck traffic from the project site through measures like rechannelization, curb radius widening, a shared use path, utility pole relocation, and signal modifications.

It also proposes a future extension of S. Madison St. to connect the project site to S. 56th St. and installing features to make it "as undesirable as possible" for trucks to use S. 56th St. to access I-5, including speed bumps, weight limits, and signage.

Importantly, the traffic study acknowledges that these proposals are unlikely to be enough to mitigate the impacts on traffic at 56th St., noting that securing tenants of the project site with "a less intensive land use with a lower trip generation" than the already inappropriately

conservative "industrial park" category Bridge Industrial's traffic study relied on would prevent some of the projected loss of service forecast at this intersection, and recommends a "future analysis" of this intersection "after the project opening and buildout to better assess traffic volumes based on the future tenant(s)." Bridge Industrial, Updated Transportation Impact Analysis, Dec. 10, 2021, at 2.

The City cannot make a Mitigated Determination of Non-Significance based on Bridge Industrial's promise to analyze the full traffic impacts of its project some time in the future. The goal of SEPA is to analyze and understand a project's impacts before it is approved. An applicant's promise to later study a project's impacts is not appropriate mitigation under SEPA, and cannot justify the issuance of Mitigated Determination of Non-Significance. Without an accurate traffic study and mitigation measures that reflect the project's true traffic impacts and reduce those impacts to non-significance, the City must deny the requested permit and MDNS.

IV. INTRODUCING THOUSANDS OF DIESEL TRUCKS INTO A RESIDENTIAL NEIGHBORHOOD WOULD CAUSE SIGNIFICANT ADVERSE IMPACTS TO AIR QUALITY AND PUBLIC HEALTH.

A. <u>Bridge Industrial's Proposed Warehouse Would Generate Thousands of</u> <u>Diesel Truck Trips.</u>

Bridge Industrial's proposed project would cause significant air pollution impacts by introducing thousands of diesel trucks trips into the residential neighborhoods that abut the facility—neighborhoods that already experiences some of the worst diesel pollution in the state.

Even if Bridge Industrial's traffic analysis were accurate (which, as explained in Section III, is not the case), the project would introduce at least 4,980 new weekday daily vehicle trips—which represents approximately 17% of the *total* truck traffic servicing the Port of Seattle—onto residential streets of South Tacoma. Bridge Industrial's traffic study estimates that truck trips will "account for about 28 percent of the total new weekday daily trips, and 12 percent of the total new weekday AM and PM peak hour trips."⁵ Thus, even according to Bridge Industrial's inappropriately low estimates, the project would generate approximately 1,394 new truck trips per day (28% of 4,980).

Putting this number of truck trips in perspective, the entire Port of Seattle including cargo and cruise terminals generates 8,000 truck trips per day.⁶ Thus, according to Bridge Industrial's own estimates, the project would generate 17% of the total number of trucks servicing *all terminals* at the Port of Seattle.

Further, as explained above in Section III, in reality, the project would likely generate <u>more than</u> <u>double</u> the number of additional vehicle trips estimated in Bridge Industrial's Traffic Report.

⁵ Bridge Industrial, Updated Transportation Impact Analysis, Dec. 10, 2021, at 1. ⁶ Port of Seattle, Freight by the Numbers, Mar. 2018,

<u>https://www.portseattle.org/sites/default/files/2018-03/Viaduct_Folio_20090921.pdf</u> (average 8,000 truck trips per day at Port of Seattle).

This could mean that the equivalent of more than 30% of the total freight volume servicing the Port of Seattle would travel through residential streets in the City of Tacoma.

The vast majority of trucks use diesel powered engines—75% of all trucks in America, and up to 97% of the heaviest classes.⁷ These heavy-duty diesel vehicles are the largest source of diesel exhaust in the state.⁸

The project proposal does not provide any information regarding the types of trucks that Bridge Industrial or its tenants would attract or whether Bridge Industrial would require its tenants to electrify their fleets as a condition of tenancy. But Bridge Industrial advertises the availability of almost 1,000 parking spots for heavy duty trucks carrying trailers.⁹ Since 97% of heavy-duty vehicles operate on diesel, it is safe to assume that the vast majority of trucks operating at the project site will emit diesel emissions.

Worse, a significant portion of the trucks traveling to and from the warehouse facility would likely consist of drayage trucks—which are amongst the dirtiest diesel trucks on the road. As discussed above (Section III), Bridge Industrial is marketing its site to businesses moving freight shipped through the Port of Tacoma.¹⁰ Short-haul drayage trucks play a central role in the rapidly-growing e-commerce and goods movement industry, often shuttling containers between the port and local warehouses. ¹¹ But drivers of these trucks have been frequently exploited and underpaid, with the result that drayage trucks are often amongst the oldest and highest emitting diesel trucks that remain on the road.¹²

B. <u>Diesel Emissions from Trucks Servicing the Tacoma Warehouse Would</u> Deteriorate Air Quality in Adjacent Neighborhoods and the City of Tacoma.

Diesel emissions from heavy-duty vehicles and trucks are a major source of air pollution. When diesel fuel is burned, it emits several criteria pollutants known to have serious consequences for the health of both humans and the environment. In particular, pollution from diesel exhaust includes carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), hydrocarbons

 ⁷ See Trucking, Diesel Tech. Forum, <u>https://www.dieselforum.org/about-clean-diesel/trucking</u>.
 ⁸ Wash. Dep't. Ecology, Reducing Diesel Emissions (2021) <u>https://ecology.wa.gov/Air-</u>

Climate/Air-quality/Vehicle-emissions/Diesel-emissions.

⁹ Exhibit E (promotional flyer advertising "891 TRAILER PARKING").

¹⁰ See Exhibit D; Exhibit E.

¹¹ E.g., Tushar Khurana, A Duwamish Valley Truck Electrification Program Looks to Reduce Air Pollution, South Seattle Emerald, Feb. 21, 2022, <u>https://southseattleemerald.com/2022/02/21/a-duwamish-valley-truck-electrification-program-looks-to-reduce-air-pollution/</u>.

¹² See id.; see also Trucking Info, Port of Seattle Takes 200 Dirty Trucks Off the Roads, July 2, 2010, <u>https://www.truckinginfo.com/104673/port-of-seattle-takes-200-dirty-trucks-off-the-roads</u>.

(HC), as well as other hazardous air pollutants (HAPs) and air toxics.¹³ Heavy duty vehicles are one of the single largest sources of NO_x emissions, particulate matter, and ozone.¹⁴

Emissions from the movement of goods, including trucking and shipping, deteriorates air quality in the City of Tacoma because of its close proximity to goods movement pollution from the Port of Tacoma, the I-5 highway corridor, and industrial activity in and near the Port.

1. Diesel Emissions can be Deadly.

Emissions from diesel exhaust can have disastrous effects on the human respiratory, cardiovascular, and immune systems.¹⁵ Diesel particulate matter and NOx emissions can harm respiratory function—causing asthma and asthmatic attacks,¹⁶ inflammation in the lungs, and decreased lung functionality.¹⁷ These air toxins also harm the heart—causing alterations in blood pressure and heart rate,¹⁸ heart disease,¹⁹ and can lead to plaque instability.²⁰ Diesel particulate matter and NOx can also increase the prevalence and severity of allergic reactions to environmental conditions.²¹ Further, diesel pollution can aggravate health harms for people with pre-existing asthmatic conditions and otherwise compromised pulmonary systems.²²

Diesel exhaust can cause cancer. According to the CDC and NIOSH, up to 65% of diesel PM is made up of a group of organic compounds that includes several known carcinogens.²³

Diesel engines also emit large quantities NOx, a criteria pollutant regulated under the Clean Air Act because of its harmful health effects.²⁴ In California, medium- and heavy-duty trucks create 35% of the state's NOx emissions.²⁵

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/isor.pdf.

¹³ U.S. Envt'l Prot. Agency, *About Diesel Fuels*, Mar. 1, 2021, <u>https://www.epa.gov/diesel-fuel-standards/about-diesel-fuels</u>.

¹⁴ Union of Concerned Scientists, *How to Eliminate Pollution from Heavy-Duty Vehicles*, Feb. 11, 2022, <u>https://www.ucsusa.org/resources/heavy-duty-vehicles-and-nox</u>.

¹⁵ A. Sydbom et al., *Health Effects of Diesel Exhaust Emissions*, 17 Eur. Respiratory J. 733 (2001), <u>https://erj.ersjournals.com/content/erj/17/4/733.full.pdf</u>.

¹⁶ *Id.* at 741.

¹⁷ Id.

¹⁸ Simon Wilson et al., *Effects of Diesel Exhaust on Cardiovascular Function and Oxidative Stress*, 28 Antioxidants & Redox Signaling 819, 826 (2018),

https://pubmed.ncbi.nlm.nih.gov/28540736/.

¹⁹ *Id*.

²⁰ *Id.* at 827.

 $^{^{21}}$ *Id*.

²² Sydbom, *Health Effects* at 741.

²³ CDC, Carcinogenic Effects of Exposure to Diesel Exhaust (Aug. 1988), <u>https://www.cdc.</u> gov/niosh/docs/88-116/default.html.

²⁴ U.S. Envt'l Prot. Agency, Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>.

²⁵ Cal. Air Res. Bd., Staff Report: Initial Statement of Reasons, Proposed Advanced Clean Truck Rule, at ES-1 (Oct. 22, 2019),

NOx irritates airways in the human respiratory system, and chronic exposure can contribute to the development of asthma.²⁶ NOx also reacts with chemicals in the air to form ground level ozone and particulate matter.²⁷ One study found that in a single year, high levels of NO_x emissions from diesel engines contributed to 10,000 premature deaths across Europe.²⁸ The study concluded that compliance with stricter vehicle emissions standards could have avoided at least half of those deaths.²⁹

Chronic exposure to diesel is more deadly that short-term or acute exposure. Every 10 micrograms per cubic meter increase in the concentration of diesel exhaust over an extended period of time is associated with an 11% increase in cardiovascular mortality.³⁰

Creating a new massive warehousing complex will significantly aggravate air pollution impacts to adjacent residences. A home's indoor air quality is directly related to the home's proximity to roads and traffic, and in particular, proximity to roads with diesel emissions.³¹ Individuals living near busy roads and highways have a higher risk of exposure to air pollution than individuals living near less trafficked roads.³²

Also of great concern, diesel pollution is the primary contributor to cancer risk. In a 2010 study, the Puget Sound Clean Air Agency found that "diesel is still the largest contributor to potential cancer risk throughout Puget Sound."33

Importantly, PSCAA found that the City of Tacoma had one of the highest risks of cancer in the State of Washington—270 potential cancers per million—and diesel pollution was the primary risk factor.³⁴ Since the time of that study, truck traffic and diesel pollution has only increased.

²⁶ U.S. Envt'l Prot. Agency, Basic Information About NO₂, <u>https://www.epa.gov/no2-</u> pollution/basic-information-about-no2#Effects.²⁷ Id.

²⁸ J. E. Jonson et al., Impact of Excess NO_x Emissions from Diesel Cars on Air Quality, Public Health and Eutrophication in Europe, 12 Envtl. Res. Letters 1, 9 (2017), https://doi.org/10.1088/1748-9326/aa8850.

 $^{^{29}}$ *Id*.

³⁰ Wilson, *Cardiovascular Function* at 821.

³¹ Shaodan Huang et al., Road Proximity Influences Indoor Exposures to Ambient Fine Particle Mass and Components, 243 Envtl. Pollution 978, 978, 981 (2018), https://pubmed.ncbi.nlm.nih.gov/30248605/.

 $[\]overline{^{32}}$ *Id.* at 985.

³³ Puget Sound Clean Air Agency, *Tacoma and Seattle Area Air Toxics Evaluation*, at 8 (2010), https://pscleanair.gov/DocumentCenter/View/2361/Tacoma-and-Seattle-Area-Air-Toxics-Evaluation-Full-ReportPDF?bidId=.

³⁴ Cal. Air Res. Bd., Staff Report: Initial Statement of Reasons, Proposed Advanced Clean Truck Rule, at ES-1 (Oct. 22, 2019),

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/isor.pdf.

2. Exposure to Diesel Emissions can Cause Increased Vulnerability to COVID-19.

Chronic exposure to diesel emissions increases a community's vulnerability to serious illness and death from diseases like COVID-19. The CDC found that individuals with certain pre-existing health conditions are more vulnerable to severe illness and death from COVID-19. These health conditions include cancer, serious heart conditions such as coronary artery disease, asthma, pulmonary hypertension and other pulmonary diseases, high blood pressure, and weakened immune systems.³⁵ As discussed above, chronic exposure to diesel exhaust can cause many of these health conditions, making a person more vulnerable to harm from COVID-19.

Further, there is scientific evidence to support the notion that "efforts to lower traffic emissions and ambient air pollution may be an important component of reducing population-level risk of COVID-19 case fatality and mortality."³⁶ A recent study's authors reached this conclusion after observing that exposure to excess levels of NO₂ increased the risk of death due to COVID-19.³⁷ Another study revealed that increasing particulate matter by 1 ug/m³ is associated with an 11% increase in mortality from COVID-19.³⁸

C. <u>Bridge Industrial Failed to Analyze or Mitigate the Air Impacts of Its</u> <u>Project.</u>

The sections of Bridge Industrial's SEPA checklist addressing air impacts focus on dust the project will generate during construction. Bridge Industrial acknowledged the impact on air of dust during construction and the risk that the project will exposing workers and neighbors to a risk of inhaling particulate matter, arsenic, copper, lead, zinc, cPAHs, and PCBs during grading operations.³⁹

But Bridge Industrial prepared *no* analysis of the air pollution caused by introducing thousands of diesel truck trips into already over-burdened residential neighborhoods. It did not identify the pollutants contained in diesel emissions, let alone analyze the type and estimated age of the trucks that would travel to and from the facility or attempt to quantify the total emissions that all the additional truck trips would generate in residential neighborhoods. With respect to air impacts from traffic, the SEPA Checklist simply states that "[e]missions from vehicular traffic to and from the site would be present upon project completion."⁴⁰

³⁵ CDC, People with Certain Medical Conditions, May 13, 2021, <u>https://www.cdc.</u> gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html,

³⁶ Donghai Liang et al., Urban Air Pollution May Enhance COVID-19 Case Fatality and Mortality Rates in the United States, 1 Innovation 1, 5 (Nov. 25, 2020), https://doi.org/10.1016/j.xinn.2020.100047.

 $^{^{37}}$ *Id*.

³⁸ X. Wu et al., *Air Pollution and COVID-19 Mortality in the United States: Strengths and Limitations of an Ecological Regression Analysis*, 6 Sci. Advances 1 (Nov. 4, 2020), https://doi.org/10.1126/sciadv.abd4049.

³⁹ SEPA Checklist at §§ 2(a), 7(a).

⁴⁰ SEPA Checklist at § 2(a), (b).

Rather, Bridge Industrial inverted the SEPA standard and evaluated the impact of air pollution *on the project*, stating that "[e]missions from vehicular traffic on area roadways would be present but *would not be anticipated to affect the project*."⁴¹

Suffice to say that the City's two-sentence analysis of air pollution from vehicle emissions falls very far short of the rigorous review of environmental impacts required by SEPA—as well as SEPA's fundamental purpose to disclose the potentially significant impacts of government action.

As explained above (*see* Section II), SEPA requires consideration of all of the *indirect* impacts of a project and the long-term impacts, not just the short-term direct impacts. Bridge Industrial's own traffic study documented the presence of thousands of diesel vehicles that will transit to and from the facility, but then failed to analyze the obvious and significant impact of those vehicles on air quality. Given the size of the facility and the number of additional vehicle trips it is likely to generate, the project could well cause or contribute to an exceedance of one or more National Ambient Air Quality Standards.

Because Bridge Industrial never even attempted to analyze the impact of the project's indirect impacts on air quality, let alone mitigate those significant impacts, the City cannot issue an MDNS for the project.

The City should—and must—require a full environmental impact study in order to analyze the project's impact on air quality in South Tacoma.

A full study of the air impacts of the proposal is also warranted in light of the fact that the community where the project would be sited is already overburdened by air pollution. And with the COVID-19 still far from over, Tacoma should take advantage of this opportunity to examine and reduce environmentally driven COVID-19 vulnerabilities.

V. <u>THE CITY CANNOT ISSUE A MITIGATED DETERMINATION OF</u> <u>NONSIGNIFICANCE WITHOUT ANY ANALYIS OF THE PROJECT'S</u> <u>CLIMATE IMPACTS.</u>

A. <u>Climate Change Is An Existential Threat.</u>

There is an overwhelming, global scientific consensus that greenhouse gas ("GHG") emissions must be radically reduced over the next few decades to avoid a climate catastrophe.⁴² Washington state—much like the rest of the world—faces serious disruption from a changing climate including an increase in air pollution-related illness and death; declining water supply; an increase in tree die-off and forest mortality because of increasing wildfires, insect outbreaks, and

⁴¹ SEPA Checklist § 2(b).

⁴² See Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Mitigation of Climate Change—Summary for Policymakers*,

https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicyma kers.pdf.

tree diseases; the loss of coastal lands due to sea level rise; an increase in ocean temperature and acidity; increased death and disease in fish like salmon, steelhead, and trout because of warmer water temperatures and altered flow regimes; and damaged and failed field crops and fruit harvests because of higher temperatures and less water available for irrigation.⁴³

To meet the demands of this crisis, the nations of the world in 2015 committed to limiting the increase in global temperatures to 1.5 degrees above preindustrial levels.⁴⁴ The Intergovernmental Panel on Climate Change ("IPCC") determined that global carbon dioxide emissions must reach zero by about the year 2050 in order to meet this goal.⁴⁵ Between 2020 and 2040, global emissions from fossil fuel combustion would need to decline by more than 75%, requiring deep cuts every year.⁴⁶ Recently, the IPCC again sounded the alarm about the "gap" between the Paris goals and still-growing GHGs emissions, declaring that emissions need to drop 7.6% every year, starting in 2020, to have a reasonable chance of meeting the Paris goals.⁴⁷

To ensure Washington State does its part to address the climate crisis, the legislature committed the state to significantly reducing its GHG emissions, setting a target of reducing Washington's overall emissions of greenhouses gases in the state to 1990 levels by 2020, to 45% below 1990 levels by 2030, to 70% below 1990 levels by 2040, and to 95% below 1990 levels by 2050. RCW 70A.45.020(1)(a).

B. Bridge Industrial's Proposed Project Would Undermine Washington's Ability to Meet Our Climate Goals.

Curbing on-road gasoline and diesel emissions is necessary to achieve Washington's climate goals. The transportation sector is the largest contributor of greenhouse gas emissions in Washington, and accounts for *close to half* of the state's greenhouse gas ("GHG") emissions.⁴⁸ Transportation-sector emissions are the principal factor causing an increase in total statewide GHG emissions.⁴⁹ On-road emissions from gasoline and diesel account for 30.8% of Washington's total GHG emissions, with diesel vehicles contributing 8.7% of the total state-wide GHG emissions.⁵⁰

⁴³ Wash. Dep't of Ecology, *Concise Explanatory Statement, Clean Air Rule* (Sept. 2016) at 3, <u>https://fortress.wa.gov/ecy/publications/documents/1602014.pdf</u> (listing "Reasons for Adopting the Rule").

⁴⁴ UN Climate Change, The Paris Agreement (2015), <u>https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement</u>.

⁴⁵ Intergovernmental Panel on Climate Change (IPCC), *Global Warming of 1.5°C*, <u>https://www.ipcc.ch/sr15/</u>.

⁴⁶ Id.

⁴⁷ E.g., Somini Sengupta, 'Bleak' U.N. Report on a Planet in Peril Looms Over New Climate Talks, New York Times, Nov. 26, 2019,

https://www.nytimes.com/2019/11/26/climate/greenhouse-gas-emissions-carbon.html.

⁴⁸ Wash. Dep't Ecology, *Washington State Greenhouse Gas Emissions Inventory: 1990–2018* (2021), <u>https://apps.ecology.wa.gov/publications/documents/2002020.pdf</u>.

⁴⁹ *Id.*

⁵⁰ *Id*.

The Bridge Industrial project would have a significant and adverse impact on global climate because it would place thousands of trucks on the road that burn diesel fuel, contributing to substantially increased emissions of greenhouse gases. While Bridge Industrial estimates that the project would create nearly 5,000 additional vehicle trips each day, the project is actually likely to create more than 12,000 additional daily vehicle trips. (See Section III).

Increasing GHG emissions from mobile sources—a direct impact of this project that Bridge Industrial admits will occur—at a time when Washington seeks to dramatically and quickly reduce statewide emissions undermines Washington's ability to meet its GHG reduction targets. That constitutes a significant impact on climate.

The proposed project would also create new gas infrastructure at a time when Washington needs to be transitioning away from fossil fuels towards clean energy sources. Bridge Industrial's plans note that its buildings will have natural gas hookups, which increase the GHG impacts associated with on-site energy use.

Remarkably, Bridge Industrial has not proposed any climate mitigation measures. Its mitigation plans do not include building infrastructure for electric vehicles, installing solar panels on rooftops, or any other measures to reduce GHG emissions from the anticipated thousands of vehicles that will operate onsite or energy consumed at the facility.

C. <u>The City Must Require a Full Environmental Impact Statement to Assess</u> and Mitigate the Project's Climate Impacts.

An important way that local governments can act to reduce Washington's GHG emissions is through their disclosures under SEPA regarding the climate impacts of a proposed project.

Climate is explicitly listed in SEPA regulations as an environmental consideration, and action agencies must disclose any impact that the proposed action would have on climate change.⁵¹ Consideration of the climate impacts of a project must include looking not only at the project's direct greenhouse gas emissions, but also at GHGs caused indirectly by the project, in both the short- and long-term. WAC 197-11-060(3)(b), (4)(c). And it must also include examination of growth that a project might cause, and future actions that become more likely as a result of the project. WAC 197-11-060(4)(d). "Implicit in the statue is the requirement that the decision makers consider more than what might be the narrow, limited environmental impact of the immediate pending action. The agency cannot close its eyes to the ultimate probable environmental consequences of its current action."⁵²

⁵¹ WAC 197-11-444(1)(b)(iii) (listing "climate" among elements of environment to be considered in SEPA).

⁵² Cheney v. City of Mountlake Terrace, 87 Wn.2d 338, 344 (1976).

For projects involving the transportation or use of fossil fuels like coal, oil, or gas, SEPA's requirement to consider the project's full climate impacts includes considering the lifecycle impacts of producing, transporting, and using such fuels.⁵³

Washington administrative courts have vacated decisions by agencies, where they failed to properly justify their determination that the project would not significantly contribute to global climate change. In 2017, the Shorelines Hearings Board rejected an EIS for failing to justify its finding that a fossil fuel project would not have "significant" GHG emissions. *Columbia Riverkeeper v. Cowlitz Cty.*, 2017 WL 10573749 (SHB 2017). Just last year, the Washington Court of Appeals vacated a decision by the Department of Ecology to issues permits without first disclosing the impacts the permit could have on global climate, as SEPA requires. The Court held the following:

[A SEPA lead agency] maintains a responsibility to consider the impacts of climate change under SEPA to the extent that it must interpret its rules and statutes consistently with SEPA's mandates. *See Puget Soundkeeper Alliance*, 189 Wash. App at 148, 356 P.3d 753. We have explained that [the SEPA lead agency] has a particular obligation under SEPA to act in accord with SEPA's policies by ensuring that it does not "condon[e] violations of its own standards" in issuing waste discharge permits. *Id.* Here, insofar as the above discussion shows that [the SEPA lead agency] did not act consistently with its implementing regulations under the CWA and WPCA, it also failed to act in accord with SEPA's underlying policies. *See id.* Accordingly, the PCHB's decision was contrary to law when it dismissed this issue on summary judgment because climate change must be considered to some extent. *Id.*

Washington State Dairy Fed'n v. State, 18 Wash. App. 2d 259, 309 (Ct. App. 2021).

Bridge Industrial's application materials contain no analysis of the project's impact on GHG emissions. Bridge Industrial has not evaluated the extent to which the project will increases GHGs emissions from mobile sources or from energy used on site, or the lifecycle impacts of increasing demand for fossil fuels.

Issuing a Mitigated Determination of Nonsigificance without first analyzing the climate impacts of the project would violate SEPA. A full EIS is especially warranted here, when the climate impacts of the project are likely significant.

VI. <u>THE PROJECT WILL HAVE SIGNIFICANT IMPACTS ON WATER.</u>

The potentially devastating impacts of building the proposed facility include significant consequences for the waters running through the site—including critical protected wetlands, a stream where ESA-protected species may be present, and a vital aquifer—and for local stormwater management. Because Bridge Industrial's application materials do not adequately examine or address these impacts, a full EIS is necessary.

⁵³ *Columbia Riverkeeper v. Cowlitz Cty.*, 2017 WL 10573749, at *7-10 (SHB Sept. 15, 2017) (EIS for methanol project invalid for failing to consider lifecycle GHG emissions).

A. <u>The Warehouse Will Introduce Toxic Tire Chemicals Into the Waters Running</u> <u>Through the Project Site.</u>

Introducing many thousands of new vehicles per day into the area (*see* Section III on traffic impacts) will not only significantly worsen air quality and increase greenhouse gas emissions at a time when Tacoma should be working to reduce both, but it will also introduce toxic fish-killing chemicals from tires into Tacoma's waters.

Tire manufacturers use a chemical called 6PPD to protect rubber elastomers in tires from ground-level ozone (to which vehicle emissions contribute). 6PPD-quinone is a transformation product of 6PPD that is 100 times more toxic than its parent, 6PPD.⁵⁴ When it rains, stormwater flows over roads and carries road chemicals into nearby waterways. For decades, scientists have known that something in urban streams was killing coho salmon in the Pacific Northwest, and long suspected that the source was something washing off nearby roads. But only recently did scientists identify 6PPD-quinone as the cause of this well documented fish death in watersheds in urban areas.⁵⁵ While scientists have identified 6PPD-quinone as a direct cause of mortality in coho salmon, the extent of the tire chemical's adverse impact on other fish and aquatic wildlife is still being studied.⁵⁶

The threat of introducing toxic tire chemicals into waterways is especially high for the Bridge Industrial project because it is sited on critical wetlands, a stream crosses the project site, and an important aquifer sits below the area. According to the SEPA Checklist, steelhead trout and chinook salmon—both species listed for protection under the Endangered Species Act⁵⁷—have the potential to be present in the project vicinity. SEPA Checklist § 5(b).

Bridge Industrial's application does not discuss the potential impacts from 6PPD or even mention the threat from tire chemicals generally. In light of Bridge Industrial's failure to even addressing this threat, the City cannot conclude that Bridge Industrial's proposed mitigation would reduce the project's impacts to insignificance. The City should require a full EIS to examine this potential impact and study possible mitigation.

⁵⁴ See generally Zhenyu Tian, et al., *A Ubiquitous Tire Rubber-Derived Chemical Induces Acute Mortality in Coho Salmon, 371 Science 185 (Jan. 2021)*, https://www.science.org/doi/10.1126/science.abd6951.

⁵⁵ Erik Stokstad, *Common tire chemical implicated in mysterious deaths of at-risk salmon*, Science, Dec. 3, 2020, <u>https://www.science.org/content/article/common-tire-chemical-implicated-mysterious-deaths-risk-salmon</u>.

⁵⁶ E.g., National Park Service, *Scientists Discover Silent Threats to Pacific Coast Salmon Populations*, Jan. 2021, <u>https://www.nps.gov/articles/000/scientists-discover-silent-threats-to-pacific-coast-salmon-populations.htm</u>.

⁵⁷ E.g., NOAA Fisheries, Coho Salmon (Protected),

https://www.fisheries.noaa.gov/species/coho-salmon-protected; NOAA Fisheries, Steelhead Trout, https://www.fisheries.noaa.gov/species/steelhead-trout.

B. The Project Will Undermine Stormwater Management.

The project will also dramatically change what happens to stormwater on the project site's 147.5 acres, with a myriad of environmental impacts. Replacing the existing uncovered site with 75% impervious concrete surfaces means that stormwater at the site that previously was mostly absorbed by soil, native plants, wetlands, and a stream would be diverted to run off somewhere else.

One significant consequence of this change is that there will be an inevitable increase in stormwater flowing into the municipal stormwater system.

There is scientific consensus that climate change has caused, and will continue to cause, intensification of heavy precipitation, including rainfall.⁵⁸ With more rainwater accumulating more quickly, existing stormwater systems may not be able to handle the level of water introduced during increasingly extreme weather events.

Although the proposed stormwater mitigation plan involves creating a "modular wetland system, or approved equivalent"⁵⁹—which appears to refer to small clumps of native plants—to absorb some of the water and above-ground detention basins⁶⁰ to collect other water, there is no indication that Bridge Industrial's proposed stormwater mitigation is adequate to address the increased storm intensity expected in the future due to climate change. Indeed, because the Stormwater Site Plan contains only a cursory narrative, it is hard to tell what forecast the plan was based on.

The City should be moving towards low-impact development for stormwater management. The City's own website identifies protecting native vegetation and minimizing impervious surfaces as key principles of low-impact development.⁶¹ But Bridge Industrial's proposed project undermines both of these goals, doubly exacerbating the area's ability to manage stormwater.

The project site is located in a 100-year floodplain. Replacing open land that helps absorb stormwater with impervious surfaces will lead predictably to stormwater system backups and

⁵⁸ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Impacts, Adaptation and Vulnerability—Summary for Policymakers,*

https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicyma kers.pdf.

⁶⁰ Stormwater Site Plan BNSF Tacoma (Dec. 10, 2021) § 4.3; Soundview Consultants, Conceptual Mitigation Plan, BNSF Tacoma, Revised Dec. 2021, at § 1.1.2(2) ("stormwater infiltration will be utilized to the extent feasible to minimize the size of the above-ground stormwater pond."); SEPA Checklist § 3(c)(1) (The majority of the runoff will be routed to infiltration facilities with a portion of the runoff routed to a detention pond prior to release to the natural discharge point.").

⁶¹ City of Tacoma, Green Stormwater Infrastructure (GSI),

https://www.cityoftacoma.org/government/city_departments/environmentalservices/surface_wat er/green_stormwater_infrastructure_gsi_

⁵⁹ Stormwater Site Plan § 4.3; *see also* SEPA Checklist § 3(b)(1).

floods, with the project site's neighbors bearing the potentially devastating burden of these events.

Another significant consequence of this change is that it will likely impede the recharge of the South Tacoma Aquifer on which the project site sits. As the City is no doubt aware, groundwater from the South Tacoma Aquifer typically supplies about 5% of Tacoma's water in the summer, but could supply up to 40% of Tacoma's drinking water.⁶²

Bridge Industrial is proposing to build over an aquifer recharge area, where groundwater is currently able to seep into the South Tacoma Aquifer because of the lack of a confining layer. *See* Exhibit G (City of Tacoma, Aquifer Recharge Map,

<u>http://cms.cityoftacoma.org/Planning/Shoreline/Maps/10_Aquifer.pdf</u>); City of Tacoma, Aquifer Recharge Areas (Pierce County), <u>https://geohub.cityoftacoma.org/datasets/tacoma::aquifer-recharge-areas-pierce-county/about</u>.

Although, according to Bridge Industrial, "a portion" of stormwater from the site will be discharged to the ground via a modular wetland system,⁶³ impairment of aquifer recharge is a significant environmental impact that should be fully studied through a full EIS.

Protecting the aquifer is essential. While it is important now, its importance will grow as climate change causes increasingly long periods of extreme heat and drought.⁶⁴

VII. <u>THE PROPOSED PROJECT WILL IMPAIR QUALITY OF LIFE FOR</u> <u>THE SITE'S NEIGHBORS.</u>

In addition to the proposed project's harmful impacts on traffic, air quality, climate, and water and wetlands, the project will impair quality of life for current residents and future neighbors of the massive proposed warehouse.

Under SEPA, a determination of "significance" must include consideration of a project's impacts on the built environment, including noise and environmental health, WAC 197-11-444(2)(a), and on light and glare, aesthetics, and recreation, WAC 197-11-444(2)(b).

A. <u>Noise</u>

The vehicle and truck traffic generated by the huge warehouse complex will not only emit harmful air pollution that threaten residents' health and and greenhouse gases that jeopardize the

⁶² Tacoma-Pierce County Health Department, *South Tacoma Groundwater Protection District*, <u>https://www.tpchd.org/healthy-places/waste-management/business-pollution-prevention/south-tacoma-groundwater-protection-district</u>.

 $^{^{63}}$ SEPA Checklist § 3(b)(1).

⁶⁴ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Impacts, Adaptation and Vulnerability—Summary for Policymakers,* <u>https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicyma</u> kers.pdf.

future of everyone on Earth, it will also significantly increase noise in the area. At the public meeting on the proposal, several residents expressed concerns about the increased noise at an already loud part of town. One blind resident noted that traffic noise was already so bad that he could not hear his guide trying to talk to him.

Under SEPA, the City must consider the project's potential to exposure neighbors to loud sounds of loading and unloading on site and from the vehicle traffic to and from the site, not just in the short-term, but for the entire life of the site.

Noise is an important environmental consideration not only because it makes life less pleasant, but because it also carries significant health impacts. Prolonged exposure to noise pollution can cause hearing impairment, stress, high blood pressure, anxiety, depression, and many other health problems.⁶⁵

Bridge Industrial has not meaningfully examined the project's noise impacts. As with its air quality analysis, Bridge Industrial again misapplies the SEPA standard, acknowledging that "[o]n a long-term basis, noise from vehicular traffic to and from the site would be present daily," but then analyzing the effect of noise from traffic *on the project*, rather than the project's impact on noise levels.⁶⁶

Bridge Industrial also failed to propose measures to mitigate all of the increased noise that will be created by the project. The only proposal to reduce noise on a long-term basis that the SEPA checklist mentions is that "[u]pon project completion, the use of perimeter landscaping will help to contain noise to within the site." SEPA Checklist at § 7(b)(3). Bridge Industrial's conceptual mitigation report addresses the developers' proposals as to how to reduce the site's noise impacts on species in the wetlands,⁶⁷ but does not address the site's noise impacts on humans.

Tacoma should order a full EIS that attempts to quantify the noise impacts of the project.

B. Impacts from Replacement of Plants with Concrete

Currently, the 146-acre project site is permeable, covered largely in wetlands and plants. The project proposal involves paving over 75% of this area with impervious surfaces.

Adding hundreds of acres of cement to a previously uncovered area will have several predictable impacts on the built environment and quality of life for the project site's neighbors. It could create or exacerbate a "heat desert" in the area, it could create light pollution and impair the amount of darkness in the area, and it is less appealing aesthetically.

⁶⁵ See U.S. Envt'l Prot. Agency, Clean Air Act Title IV – Noise Pollution,

https://www.epa.gov/clean-air-act-overview/clean-air-act-title-iv-noise-pollution; CDC, Too Loud! For Too Long!, https://www.cdc.gov/vitalsigns/hearingloss/index.html.

⁶⁶ See SEPA Checklist § 7(b) ("Noise from traffic on area roads and from the adjacent rail lines would be present **but would not be anticipated to affect the proposal.**")

⁶⁷ Soundview Consultants, Conceptual Mitigation Plan, BNSF Tacoma, Revised Dec. 2021, at 2 ("Place activity that generates noise away from the wetland").

Instead of approving this project without a full EIS, the City should require Bridge Industrial to actually study all of these environmental impacts that are covered under SEPA.

1. Heat

Although Bridge Industrial' application did not analyze the project's impacts on temperature at all, any project that replaces so many acres of uncovered land with concrete could increase temperatures in the area. In an urban area, cutting down plants and paving over a huge expanse of wetland area with concrete could create a heat desert. As the EPA has explained:

Heat islands are urbanized areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and reemit the sun's heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas. Daytime temperatures in urban areas are about 1–7°F higher than temperatures in outlying areas and nighttime temperatures are about 2-5°F higher.

U.S. Envt'l Prot. Agency, Heat Island Effect, https://www.epa.gov/heatislands.

Climate change is already creating record-high temperatures that threaten lives. The City should not greenlight a project that could exacerbate the heating of an environmental justice community without even a full environmental impact study.

2. Light and Aesthetics

If the City approves Bridge Industrial's project, the area that is now covered in wetlands, plants, and open space will be replaced by a concrete island with 49-foot buildings, and surrounded by parking lot lighting.

Bridge Industrial acknowledges that views from adjacent properties "would be altered[.]" SEPA Checklist § 10(b). Regarding the impact of lighting from the project site, Bridge Industrial writes: "Building glass will be non-glare and parking lot lighting will be shielded and directed inward. The use of perimeter landscaping will contain much of the light to within the site." SEPA Checklist § 11(d).

While the light pollution from the project site and aesthetically unpleasing views may affect a smaller number of people than the proposal's impacts on traffic, air quality, and climate, for the people who are affected, these impacts are of tremendous significance. Some of the site's neighbors have already submitted testimony explaining why Bridge Industrial's proposed mitigation will not adequately address these impacts.

VIII. <u>THE PROPOSED PROJECT WILL EXACERBATE ENVIRONMENTAL</u> INJUSTICE IN SOUTH TACOMA.

Bridge Industrial's proposed massive warehouse facility would not only have significant environmental impacts, but would inflict those negative impacts on a community that is already disproportionately burdened by environmental harms. Bridge Industrial's proposal is not only harmful to the environment, it is also inequitable.

The City of Tacoma can and should keep environmental justice principles in mind as it reviews Bridge Industrial's proposal. The application materials obscure the project's full impacts and are silent as to who will bear the brunt of these impacts. Requiring a full EIS for Bridge Industrial's proposal would advance environmental justice by providing greater transparency about all of the environmental impacts of the project, allowing for more community engagement in land use decisions, and would reveal that the project will significantly impair environmental quality and health outcomes.

In contrast, issuing a mitigated determination of non-significance to allow the warehouse project to move forward without a full environmental impact statement would undermine environmental justice by preventing the community from getting access to information about the true scope of the project's environmental impacts to inform their engagement in the permitting process and by deepening inequality.

A. <u>Environmental Injustice Principles</u>

While there are many definitions of environmental justice, the Washington Environmental Justice Task Force developed a definition of environmental justice that it recommended be used by government agencies in Washington to ensure their decisions and actions promote environmental justice. Exhibit H (Wash. Environmental Justice Task Force, Recommendations for Prioritizing EJ in Washington State Government (Fall 2020)). The proposed definition of environmental justice is:

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, regulations and policies. This includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits, and eliminating harm.

Id. at 36. Three key environmental justice principles articulated by the Task Force are that government actions and decisions should be transparent, should be based on meaningful community engagement, and should achieve the highest attainable environmental quality and health outcomes for all people. *Id.* at 37.

But environmental injustice is rampant in Tacoma and throughout Washington State. The newly passed HEAL Act acknowledges that in Washington, "people of color and low-income people continue to be disproportionately exposed to environmental harms in their communities." RCW 70A.02.005(2).

Decisions by land use agencies have been a major contributor to this inequality. A central theme identified in community conversations about environmental justice in Washington is that unjust land use policies have caused people in Black, Indigenous, and People of Color communities live in close proximity to pollution and disadvantaged them in accessing the resources necessary to eliminate health disparities. Front and Centered Coalition, Community Report on Environmental Justice (2021), <u>https://frontandcentered.org/wp-content/uploads/2021/01/Front-and-Centered-Community-Conversations-Report-2021.pdf.⁶⁸</u>

B. <u>The Proposed Project Will Disproportionately Impact an Environmental</u> <u>Justice Community, Increasing the Cumulative Harms to Which South</u> <u>Tacoma Is Already Exposed.</u>

Throughout Washington, port cities, including Everett, Seattle, Kent, and Tacoma, experience the worst diesel particulate matter ("PM") pollution in the state.⁶⁹

The Washington Environmental Health Disparities Map, which uses GIS to overlay population data with environmental pollution indicators, shows that, diesel emissions are concentrated in communities with a higher percentage of people of color.⁷⁰



Figure A: NOx-Diesel Concentrations

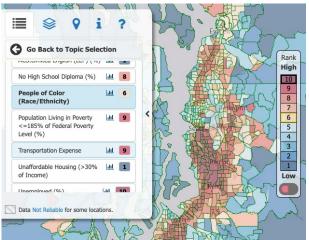


Figure B: Demographic data

In Tacoma, there is also a strong correlation between areas with high concentrations of people of color and warehouse location.

⁶⁸ Front and Centered is a diverse and powerful coalition of communities of color-led groups across Washington State, whose missions and work come together at the intersection of equity, environmental and climate justice. Front and Centered, About Us, https://frontandcentered.org/about-us/.

 ⁶⁹ Wash. State Dep't Health, Washington Environmental Health Disparities Map, <u>https://www.doh.wa.gov/DataandStatisticalReports/WashingtonTrackingNetworkWTN/InformationByLocation/WashingtonEnvironmentalHealthDisparitiesMap.</u>
 ⁷⁰ Id.

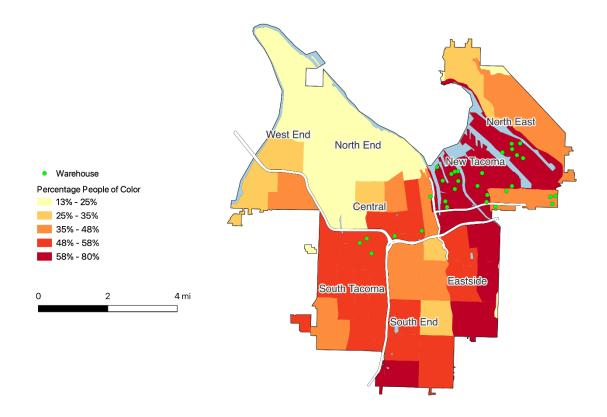


Figure C: Environmental Defense Fund (EDF), Proximity Mapping⁷¹

In many ways, Bridge Industrial's proposal to site a 2.5 million square foot warehouse facility in a residential neighborhood in a port community that is already disproportionately burdened with environmental harms—without undergoing a full environmental impact statement—is a perfect example of what environmental injustice looks like.

The project's impacts touch on several of the EPA's national environmental justice priorities, including air quality, goods movement, climate change, and hazardous waste sites. *See* U.S. Envt'l Prot. Agency, EJ 2020: National EJ Challenges, https://www.epa.gov/environmentaljustice/ej-2020-national-ej-challenges.

The particular residential neighborhood in Tacoma where proposed Bridge Industrial has proposed to build its massive warehouse is comprised largely of low-income families and Black, Indigenous, and People of Color communities, and is disproportionately exposed to environmental harms and health disparities.

The census block group containing the project site has more people of color than 80-95% of the rest of Washington State.

⁷¹ See Aileen Nowlan, Environmental Defense Fund (EDF), New mapping tool could help communities, policymakers, prioritize clean transportation solutions. Oct. 14, 2021, https://blogs.edf.org/energyexchange/2021/10/14/new-mapping-tool-could-help-communities-policymakers-prioritize-clean-transportation-solutions/.

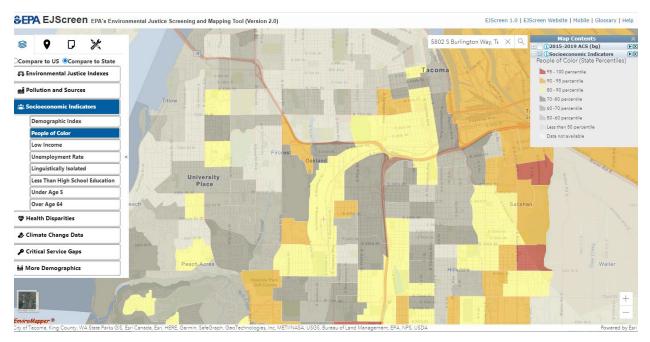


Figure D: U.S. Envt'l Prot. Agency, EJScreen 2.0, <u>https://ejscreen.epa.gov/mapper/</u> ("People of Color" Socioeconomic Indicator).

The people living near the project site already have a greater risk of cancer due to exposure to air toxics than 90-95% of people in Washington State.

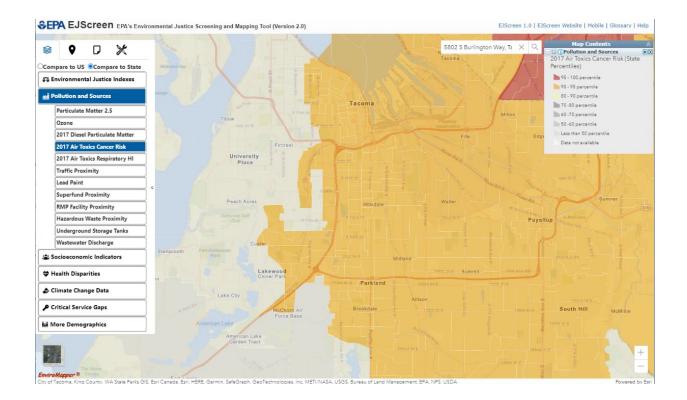


Figure E: U.S. Envt'l Prot. Agency, EJScreen 2.0, <u>https://ejscreen.epa.gov/mapper/</u> ("2017 Air Toxics Cancer Risk" category of Pollution and Sources).

The census tract containing the project site has a lower life expectancy than 95-100% of the rest of Washington State.

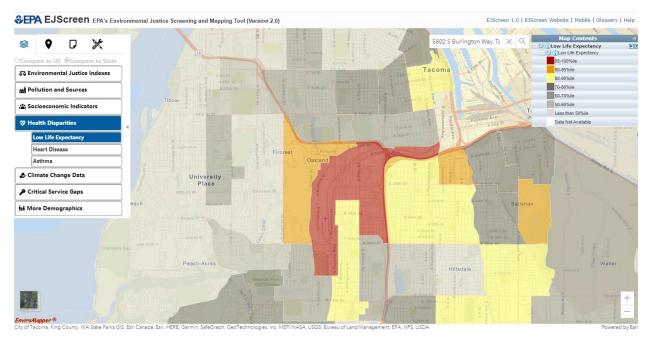


Figure F: U.S. Envt'l Prot. Agency, EJScreen 2.0, <u>https://ejscreen.epa.gov/mapper/</u> ("Low Life Expectancy" under Health Disparities).

The City of Tacoma's Equity Map⁷² paints an even clearer picture of how environmental justice has affected the community. Entering the address of the proposed Bridge Industrial site into the Tacoma Equity Map returns an Equity Index rating of "LOW" and an Environmental Health Index rating of "LOW.

⁷² City of Tacoma, Tacoma Equity Map, <u>https://tacomaequitymap.caimaps.info</u> (information for address S. Burlington Way, Tacoma, WA 98409).

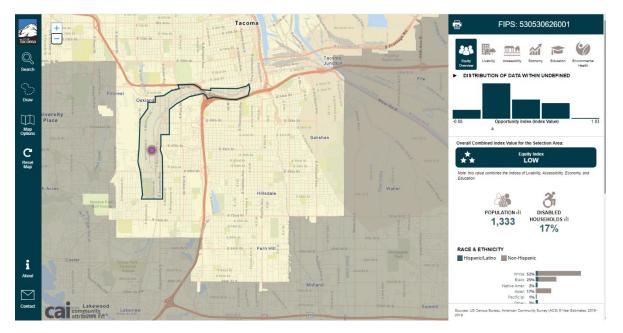


Figure G: City of Tacoma, Tacoma Equity Map, <u>https://tacomaequitymap.caimaps.info</u> (Equity Index for address S. Burlington Way, Tacoma, WA 98409)

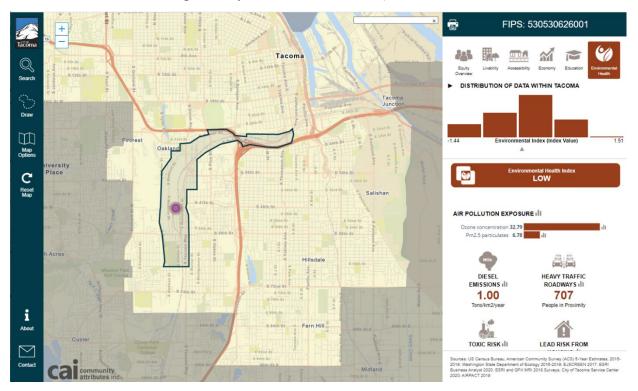


Figure H: City of Tacoma, Tacoma Equity Map, <u>https://tacomaequitymap.caimaps.info</u> (Environmental Health Index for address S. Burlington Way, Tacoma, WA 98409)

The Tacoma Equity Map ranks the livability of the area surrounding the project site as "VERY LOW."

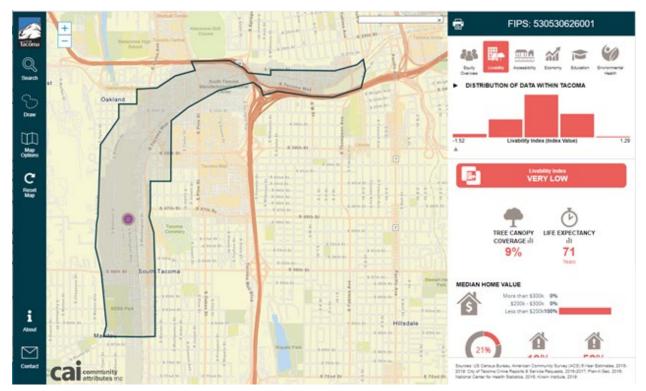


Figure I: City of Tacoma, Tacoma Equity Map, <u>https://tacomaequitymap.caimaps.info</u> (Livability Index for address S. Burlington Way, Tacoma, WA 98409)

The very site where Bridge Industrial plans to build the massive warehouse has been historically so thoroughly contaminated with industrial pollution that it was declared a "Superfund" site.

C. <u>Forgoing a Full Environmental Impact Statement Would Undermine</u> <u>Transparency and Prevent Meaningful Community Engagement.</u>

Issuing an MDNS for this project rather than requiring a full EIS would not only violate SEPA, it would also deprive the residents of South Tacoma of the information necessary for the public to understand the full environmental impacts of the project.

Public comment periods alone are not enough to create meaningful community engagement. An opportunity to comment on a proposed project without access to information about the project's full impacts is not a "meaningful" form of engagement.

Requiring a full EIS would create greater transparency about the potential impact of a decision by the City to approve the proposed project by arming members of the public with a more comprehensive study of the environmental impacts of the proposed facility.

Requiring an EIS would also create opportunities for greater public input into the City's decision about whether to permit the proposed facility. Requiring Bridge Industrial to prepare an EIS would open up additional public comment periods, hopefully allowing for input from more impacted community members. And suspending all permitting decisions until a full EIS is completed would allow stakeholders more time to review the project proposal, study the likely impacts, and prepare comments.

Creating the conditions necessary for meaningful public engagement is especially important in environmental justice communities. Overburdened communities and vulnerable populations have higher barriers to engagement in public planning processes.⁷³

To make meaningful community engagement possible, the City of Tacoma should require a full EIS. It should also work with community-based organizations in South Tacoma to conduct additional community outreach and to develop easy-to-understand materials explaining the proposed project.

And, most importantly, the City should take community concerns seriously. In order for community engagement into the City's permit decision to be meaningful, the City has to be receptive to the community's feedback and willing to shift course in response to feedback.

IX. <u>CONCLUSION</u>

The consequences of greenlighting one of the world's biggest warehouse facilities will be profound and long-lasting. When all of the project's environmental harms are considered together, there can be no doubt that Bridge Industrial's proposed warehouse project has a "probable significant, adverse environmental impact."

Issuing an MDNS and permit for this project instead of requiring a full EIS would violate Washington's State Environmental Policy Act. It would also undermine environmental justice by cutting off an opportunity for impacted community members to meaningfully engage in the City's land use decisions, and would result in cumulative harms being imposed on a community that has already disproportionately suffered many other environmental harms.

In light of Bridge Industrial's failure to adequately analyze the project's significant environmental impacts or mitigate them, the City of Tacoma must make the determination that a full EIS is required, and suspend all permitting until this project is given closer scrutiny by the public, state and local decisionmakers, and other stakeholders through a complete EIS.

Sincerely,

Earthjustice

Molly Tack-Hooper, Supervising Senior Attorney, Northwest Regional Office Jaimini Parekh, Clean Energy Attorney, Northwest Regional Office

⁷³ See, e.g., Exhibit H (Wash. Environmental Justice Task Force, Recommendations for Prioritizing EJ in Washington State Government (Fall 2020)) at 64–68 (Key Recommendations for Addressing Structural Barriers to Community Engagement).

EXHIBIT A:

Excerpts from

Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition, Sept. 2017



Trip Generation Manual

10th Edition • Volume 2: Data Port and Terminal (Land Uses 000–099)

SEPTEMBER 2017

INSTITUTE OF TRANSPORTATION ENGINEERS

Land Use: 130 Industrial Park

Description

An industrial park contains a number of industrial or related facilities. It is characterized by a mix of manufacturing, service, and warehouse facilities with a wide variation in the proportion of each type of use from one location to another. Many industrial parks contain highly diversified facilities—some with a large number of small businesses and others with one or two dominant industries. General light industrial (Land Use 110) and manufacturing (Land Use 140) are related uses.

Additional Data

The sites were surveyed in the 1980s, the 2000s, and the 2010s in California, Georgia, New Jersey, New York, Ontario (CAN), and Pennsylvania.

Source Numbers

106, 162, 184, 251, 277, 422, 706, 747, 753, 937



(130)

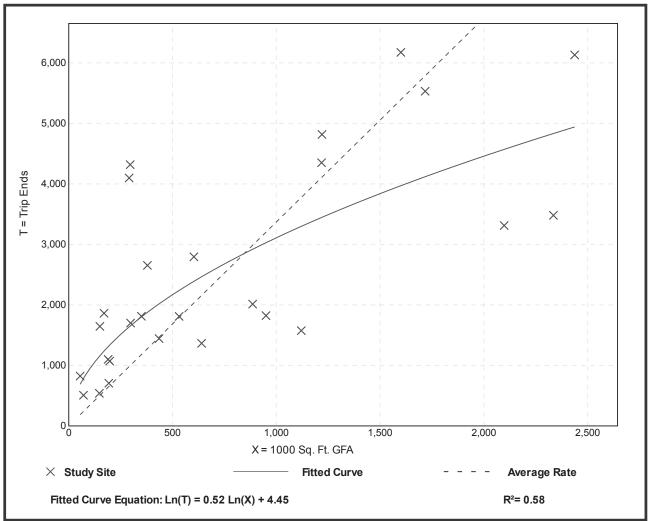
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location: G	eneral Urban/Suburban
---------------------	-----------------------

Number of Studies:	27
1000 Sq. Ft. GFA:	762
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

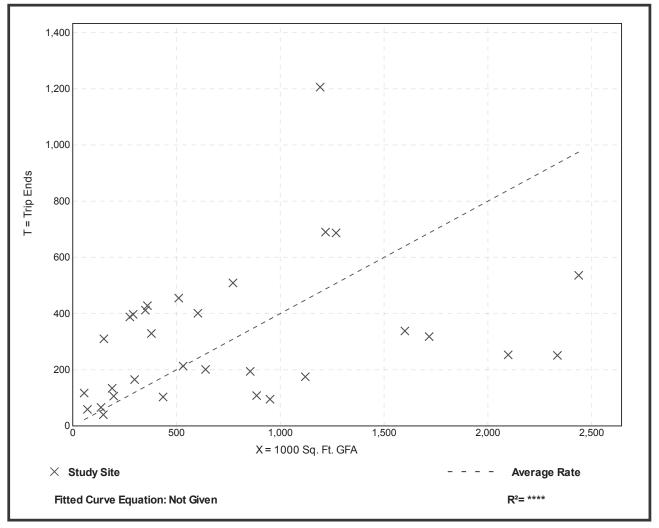
Average Rate	Range of Rates	Standard Deviation
3.37	1.41 - 14.98	2.60





Industrial Park (130)	
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	
Setting/Location:	General Urban/Suburban
Number of Studies:	31
1000 Sq. Ft. GFA:	776
Directional Distribution:	81% entering, 19% exiting

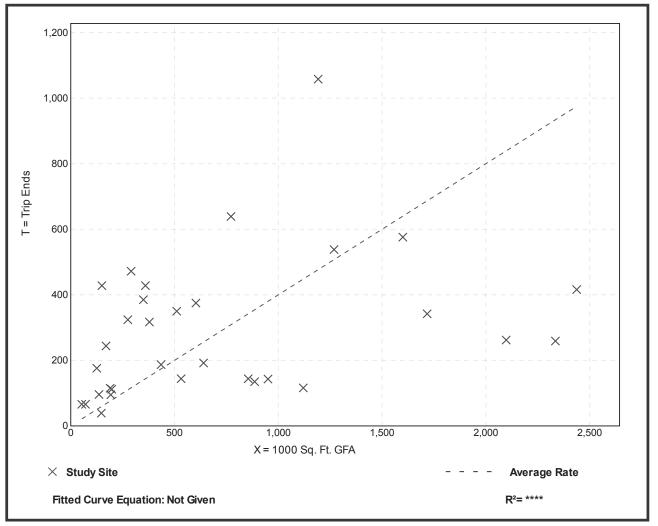
Average Rate	Range of Rates	Standard Deviation
0.40	0.10 - 2.13	0.37





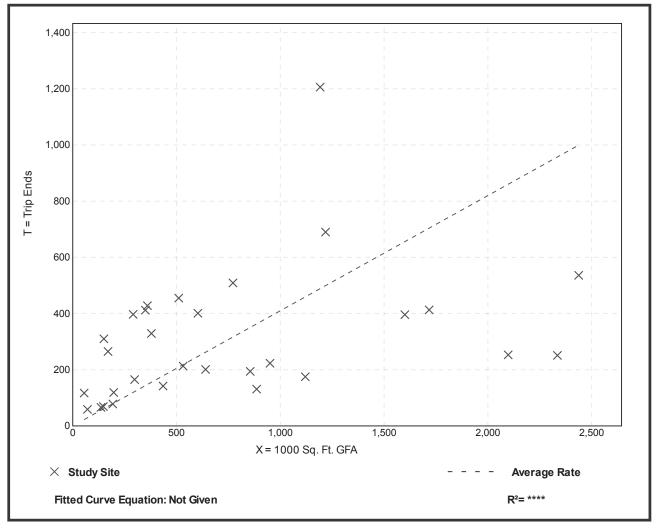
Industrial Park (130)	
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	
Setting/Location:	General Urban/Suburban
Number of Studies:	32
1000 Sq. Ft. GFA:	720
Directional Distribution:	21% entering, 79% exiting

Average Rate	Range of Rates	Standard Deviation
0.40	0.10 - 2.85	0.41



Industrial Park (130)	
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, AM Peak Hour of Generator	
Setting/Location:	General Urban/Suburban
Number of Studies:	30
1000 Sq. Ft. GFA:	757
Directional Distribution:	87% entering, 13% exiting

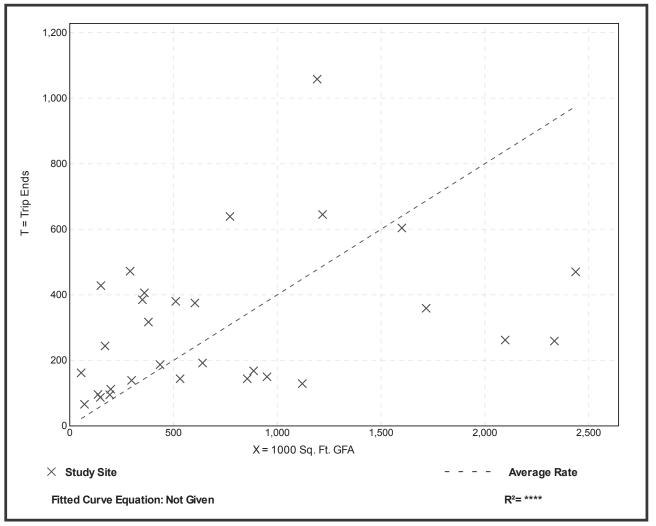
Average Rate	Range of Rates	Standard Deviation
0.41	0.11 - 2.13	0.37





Industrial Park (130)	
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, PM Peak Hour of Generator	
Setting/Location:	General Urban/Suburban
Number of Studies:	30
1000 Sq. Ft. GFA:	757
Directional Distribution:	21% entering, 79% exiting

Average Rate	Range of Rates	Standard Deviation
0.40	0.11 - 2.95	0.41



(130)

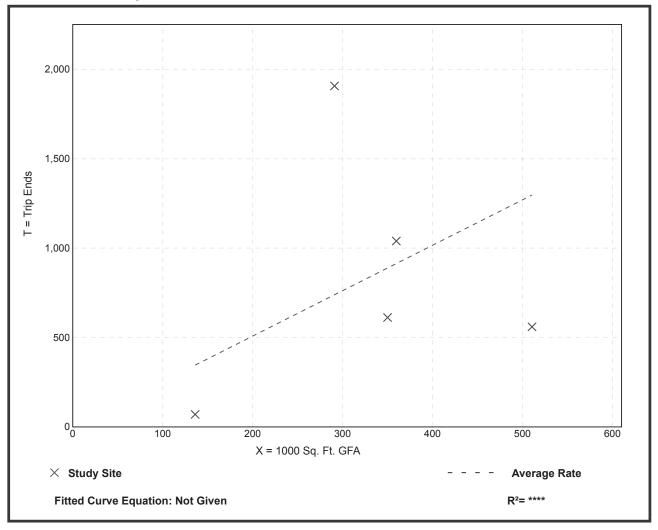
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

Setting/Location:	General Urban/Suburban
Number of Studies:	5
1000 Sq. Ft. GFA:	329
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.54	0.51 - 6.55	2.23

Data Plot and Equation





(130)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

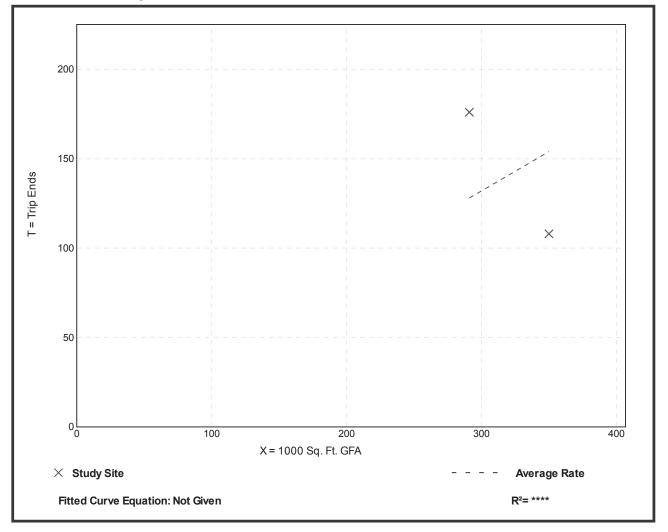
Setting/Location:	General Urban/Suburban
Number of Studies	2

Number of Studies.	Z
1000 Sq. Ft. GFA:	321
Directional Distribution:	32% entering, 68% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.44	0.31 - 0.60	*

Data Plot and Equation



(130)

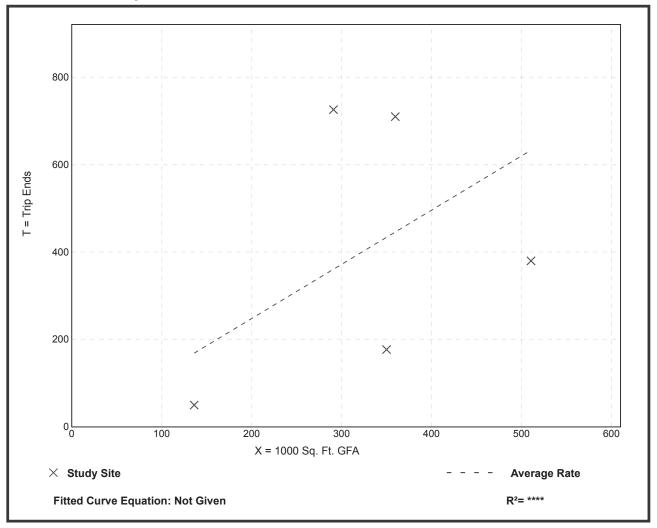
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday

General Urban/Suburban
5
329
50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.24	0.37 - 2.49	0.90

Data Plot and Equation





(130)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday, Peak Hour of Generator

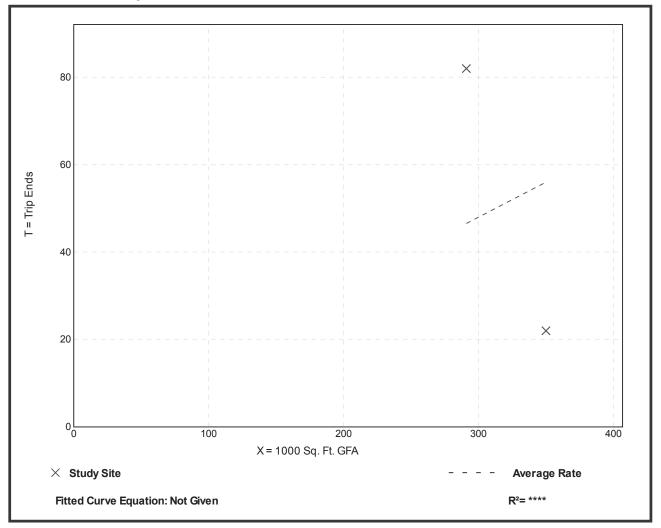
Setting/Location: General Urban/Suburban

Number of Studies: 2 1000 Sq. Ft. GFA: 321 Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.16	0.06 - 0.28	*

Data Plot and Equation



(130)

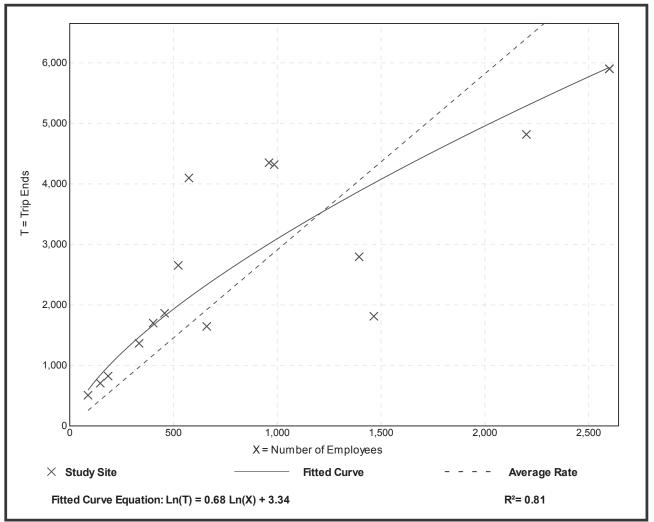
Vehicle Trip Ends vs: Employees On a: Weekday

Setting/Location:	General Urban/Suburban
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Number of Studies:	16
Avg. Num. of Employees:	973
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per Employee

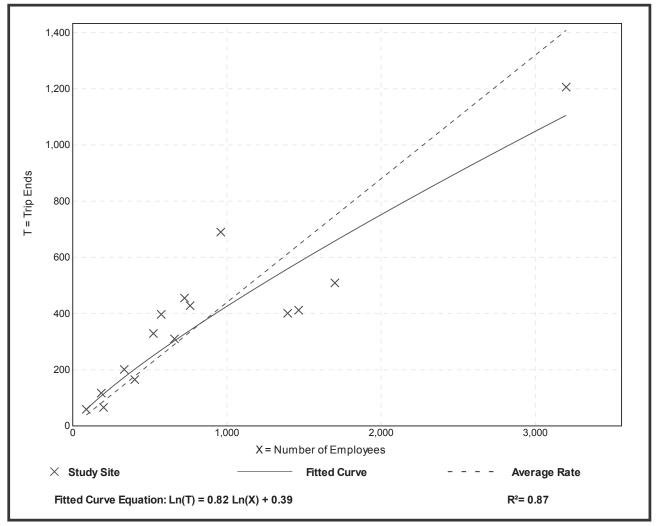
Average Rate	Range of Rates	Standard Deviation
2.91	1.24 - 7.14	1.42





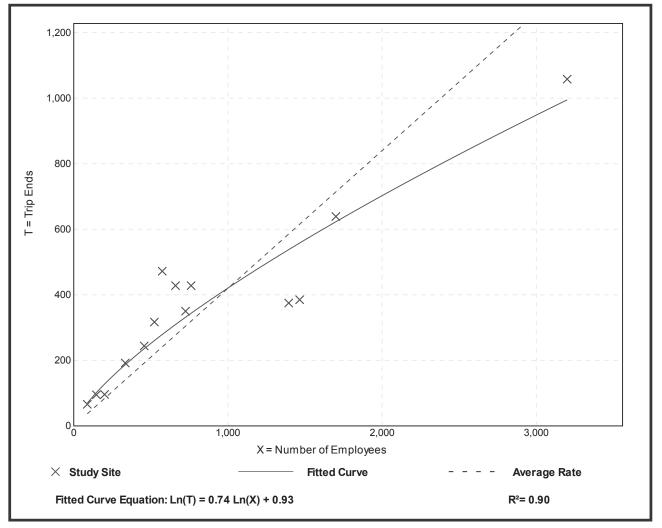
	rial Park 30)
Vehicle Trip Ends vs: On a:	Employees Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	15
Avg. Num. of Employees:	878
Directional Distribution:	86% entering, 14% exiting

Average Rate	Range of Rates	Standard Deviation
0.44	0.28 - 0.72	0.16



Industrial Park (130)	
Vehicle Trip Ends vs: On a:	Employees Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	14
Avg. Num. of Employees:	873
Directional Distribution:	20% entering, 80% exiting

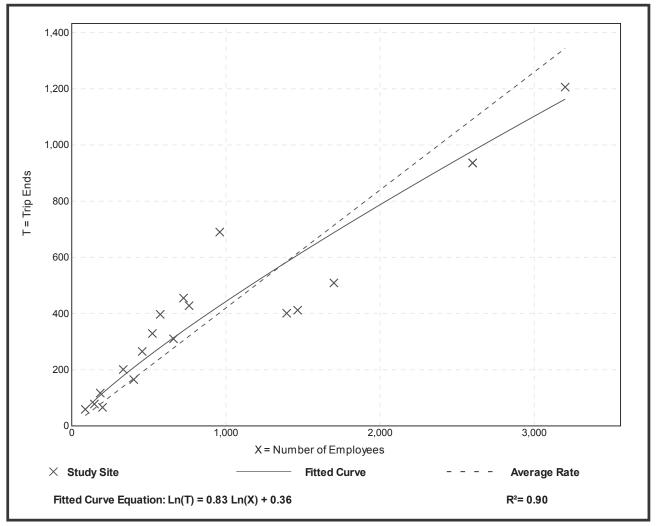
Average Rate	Range of Rates	Standard Deviation
0.42	0.26 - 0.82	0.16





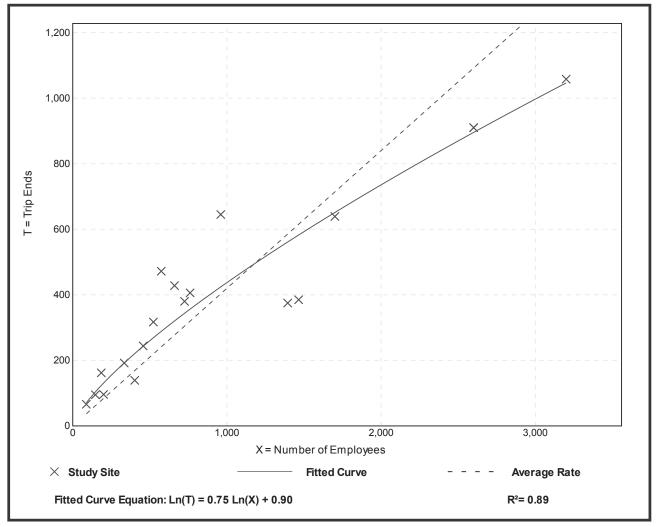
Industrial Park (130)	
Vehicle Trip Ends vs: On a:	Employees Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	19
Avg. Num. of Employees:	999
Directional Distribution:	87% entering, 13% exiting

Average Rate	Range of Rates	Standard Deviation
0.42	0.28 - 0.72	0.14



Industrial Park (130)	
Vehicle Trip Ends vs: On a:	Employees Weekday, PM Peak Hour of Generator
Setting/Location: Number of Studies:	General Urban/Suburban
Avg. Num. of Employees:	

Average Rate	Range of Rates	Standard Deviation
0.42	0.26 - 0.88	0.15





(130)

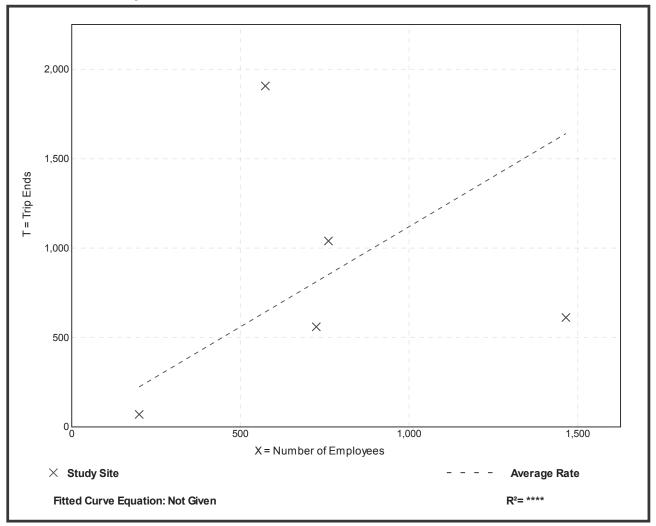
Vehicle Trip Ends vs: Employees On a: Saturday

Setting/Location:	General Urban/Suburban
Number of Studies:	5
Avg. Num. of Employees:	745
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.12	0.35 - 3.32	1.12

Data Plot and Equation



(130)

Vehicle Trip Ends vs: Employees On a: Saturday, Peak Hour of Generator

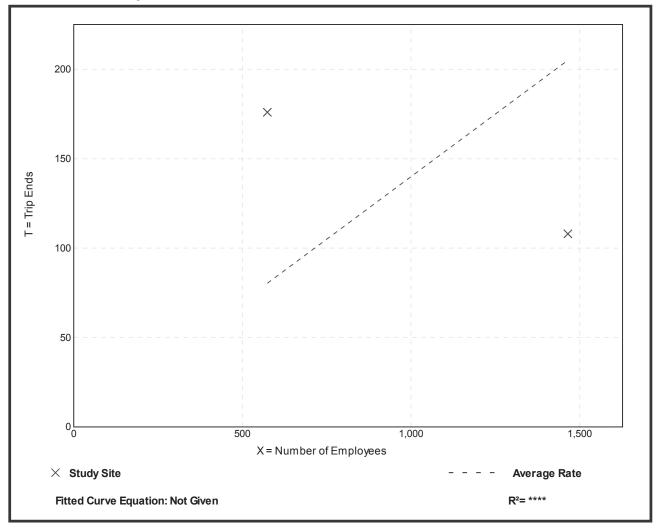
Setting/Location:	General Urban/Suburban
Number of Studies	2

Number of Studies:	Z
Avg. Num. of Employees:	1020
Directional Distribution:	32% entering, 68% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.14	0.07 - 0.31	*

Data Plot and Equation





(130)

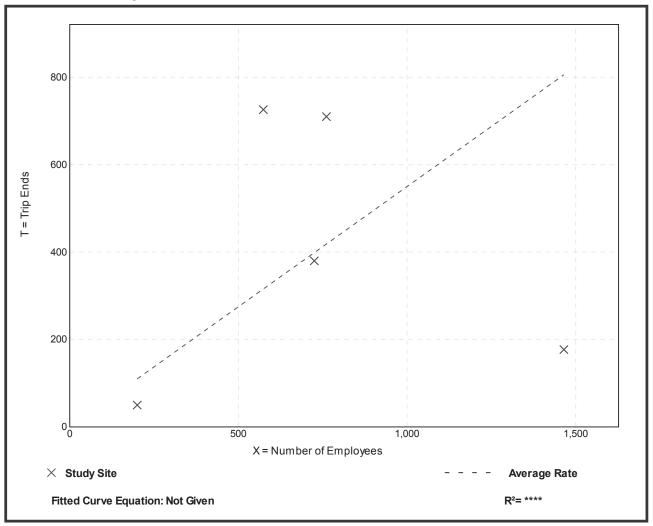
Vehicle Trip Ends vs: Employees On a: Sunday

Setting/Location:	General Urban/Suburban
Number of Studies:	5
Avg. Num. of Employees:	745
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.55	0.12 - 1.26	0.48

Data Plot and Equation



(130)

Vehicle Trip Ends vs: Employees

On a: Sunday, Peak Hour of Generator

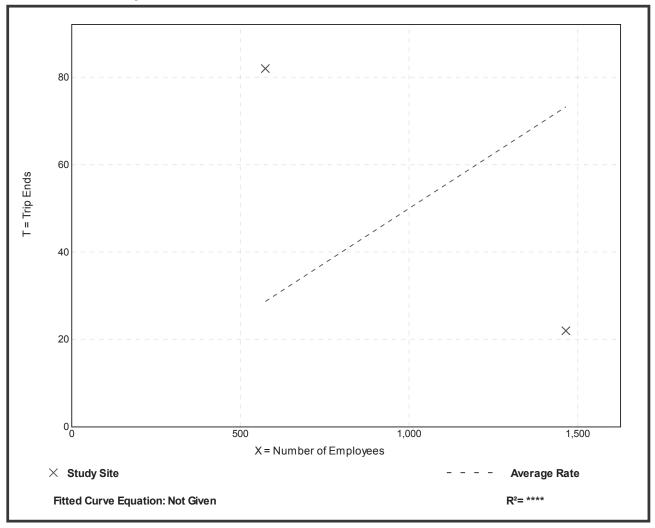
Setting/Location: 0	General Urban/Suburban
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Number of Studies:	2
Avg. Num. of Employees:	1020
Directional Distribution:	46% entering, 54% exiting

Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.05	0.02 - 0.14	*

Data Plot and Equation





Land Use: 150 Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the 13 general urban/ suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:30 a.m. and 12:30 p.m. and 3:00 and 4:00 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940

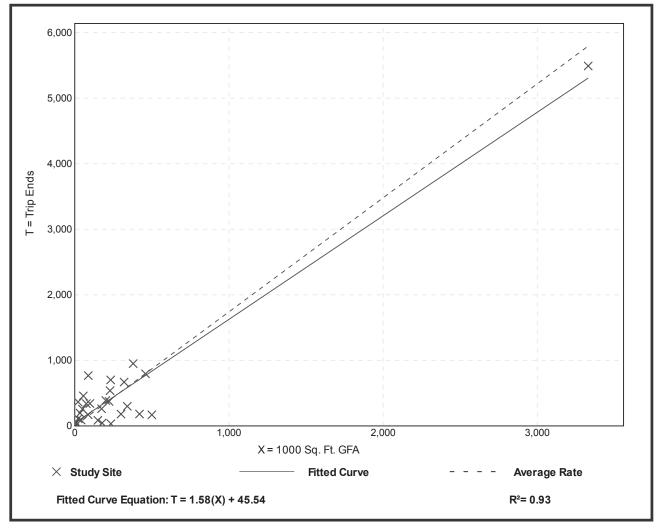


Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	29
1000 Sq. Ft. GFA:	285
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

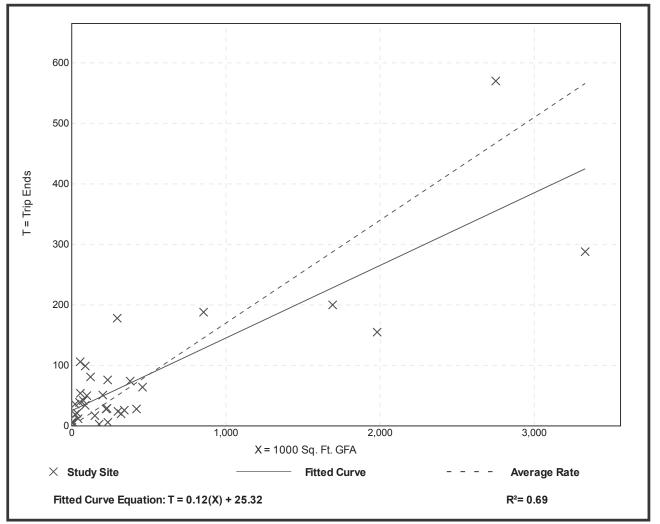
Average Rate	Range of Rates	Standard Deviation
1.74	0.15 - 16.93	1.55





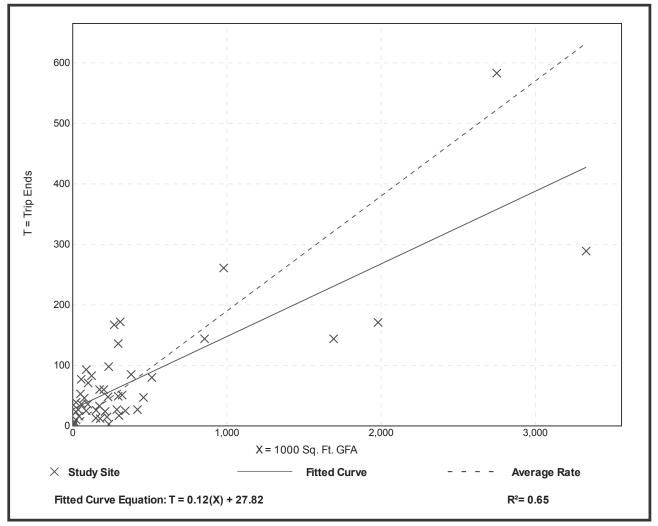
Warehousing (150)		
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Setting/Location:	General Urban/Suburban	
Number of Studies:	34	
1000 Sq. Ft. GFA:	451	
Directional Distribution:	77% entering, 23% exiting	

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.20



Warehousing (150)		
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		
Setting/Location:	General Urban/Suburban	
Number of Studies:	47	
1000 Sq. Ft. GFA:	400	
Directional Distribution:	27% entering, 73% exiting	

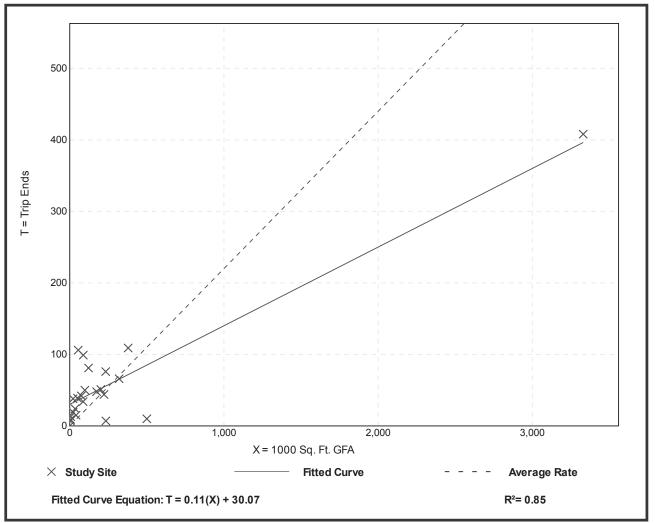
Average Rate	Range of Rates	Standard Deviation
0.19	0.01 - 1.80	0.18





Warehousing (150)		
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday, AM Peak Hour of Generator		
Setting/Location:	General Urban/Suburban	
Number of Studies:	23	
1000 Sq. Ft. GFA:	274	
	65% entering, 35% exiting	

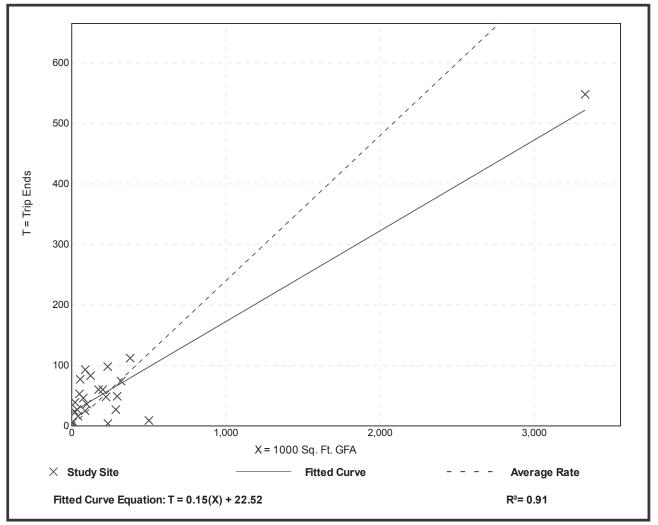
Average Rate	Range of Rates	Standard Deviation
0.22	0.02 - 2.08	0.28





Warehousing (150)	
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, PM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	25
1000 Sq. Ft. GFA:	275
Directional Distribution:	24% entering, 76% exiting

Average Rate	Range of Rates	Standard Deviation
0.24	0.02 - 1.80	0.24





Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

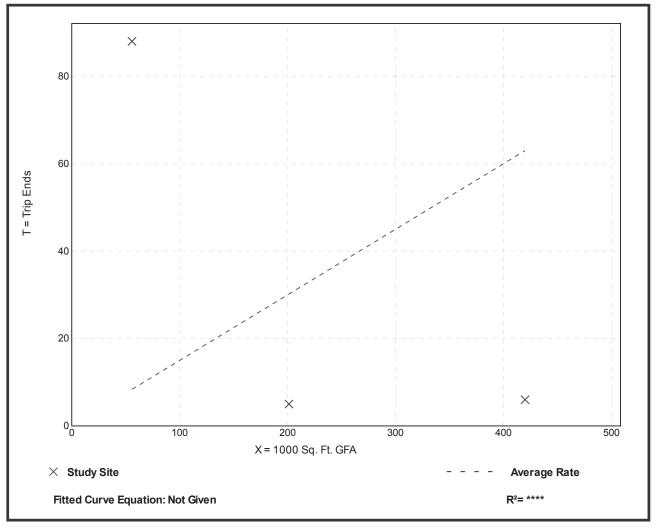
Setting/Location:	General Urban/Suburban
Number of Studies:	3

Number of Oludica.	0
1000 Sq. Ft. GFA:	226
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.58	1.12

Data Plot and Equation



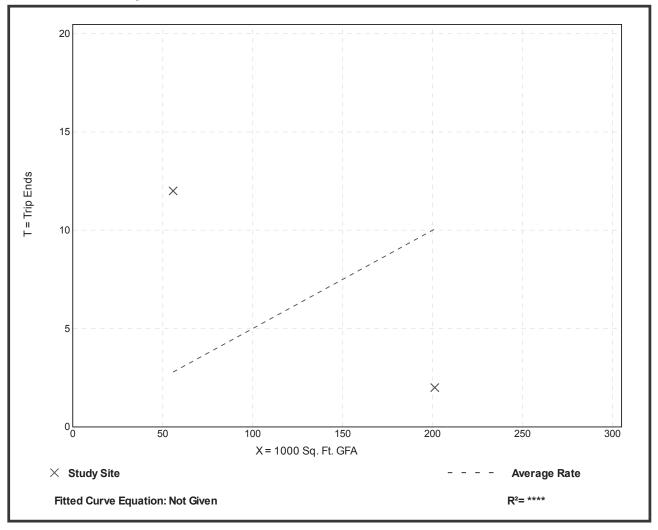
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Subu	
Number of Studies:	2
1000 Sq. Ft. GFA:	129
Directional Distribution:	64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	*

Data Plot and Equation





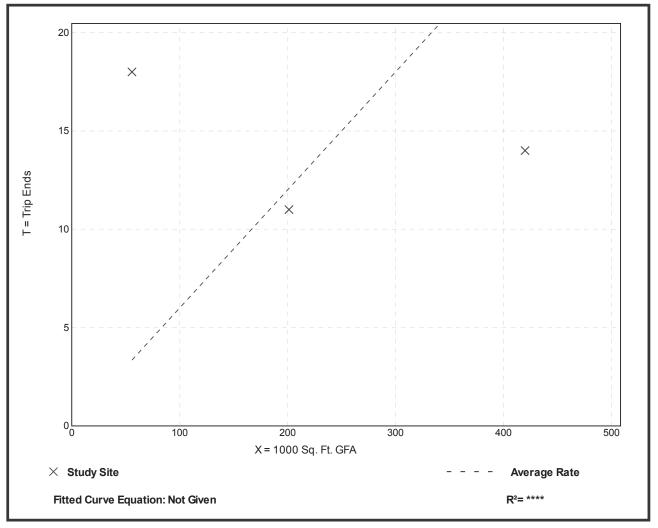
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday

Setting/Location:	General Urban/Suburban
Number of Studies:	3
1000 Sq. Ft. GFA:	226
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.06	0.03 - 0.32	0.23

Data Plot and Equation



Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday, Peak Hour of Generator

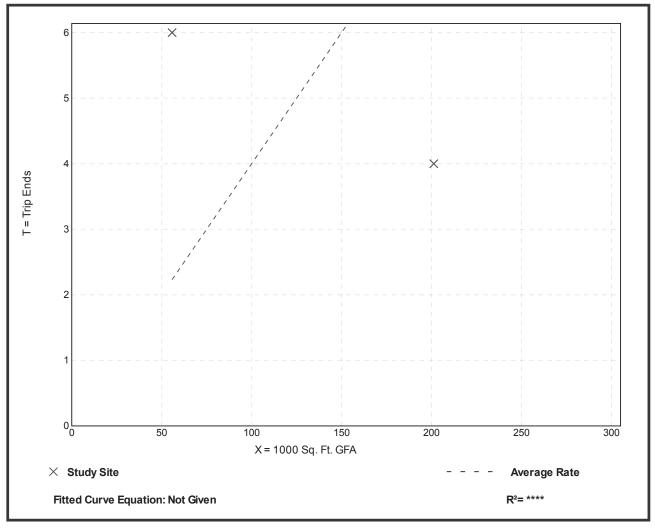
Setting/Location:	General Urban/Suburban
Number of Studies:	2

1000 Sq. Ft. GFA:	129
Directional Distribution:	52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.11	*

Data Plot and Equation





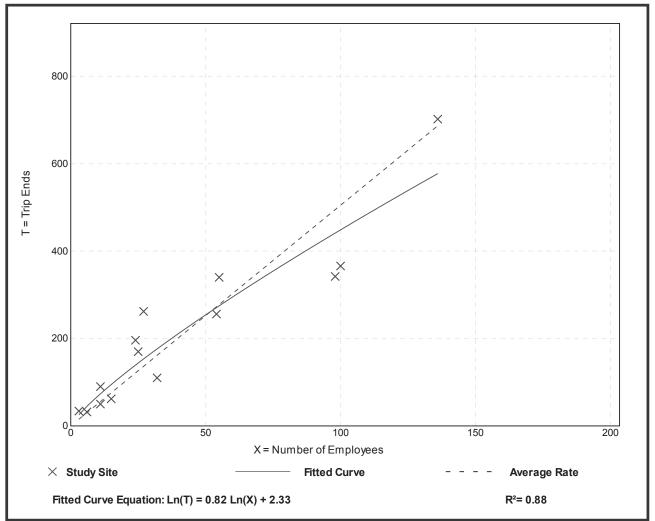
Vehicle Trip Ends vs: Employees On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	14
Avg. Num. of Employees:	43

Directional Distribution: 50% entering, 50% exiting

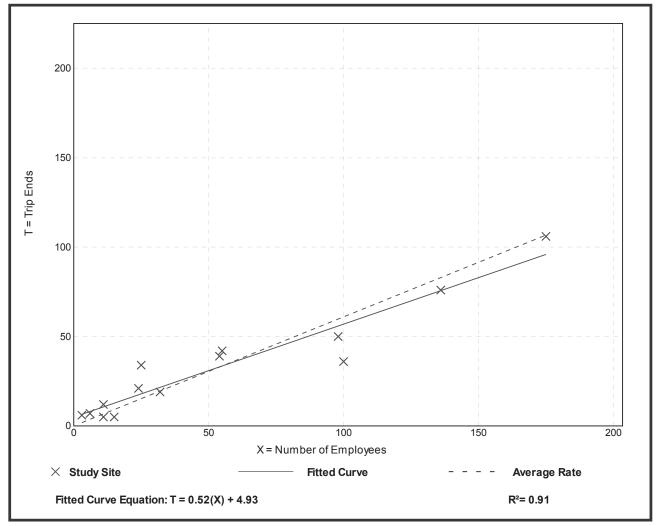
Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
5.05	3.44 - 11.33	1.77



Warehousing (150)		
Vehicle Trip Ends vs: On a:	Employees Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	
Setting/Location:	General Urban/Suburban	
Number of Studies:	14	
Avg. Num. of Employees:	53	
	72% entering, 28% exiting	

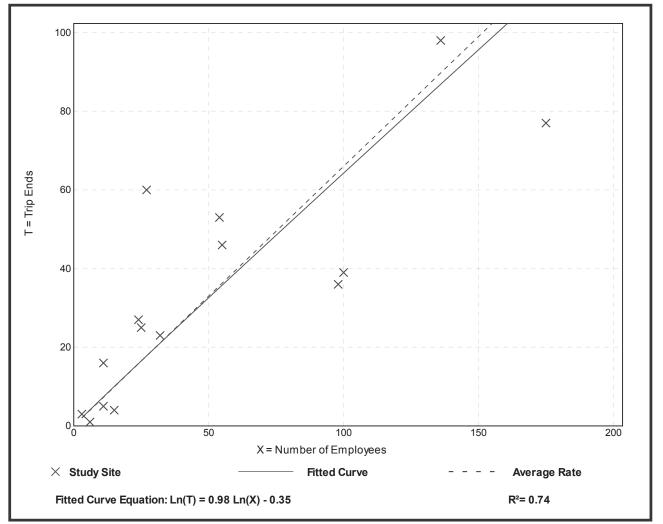
Average Rate	Range of Rates	Standard Deviation
0.61	0.33 - 2.00	0.23





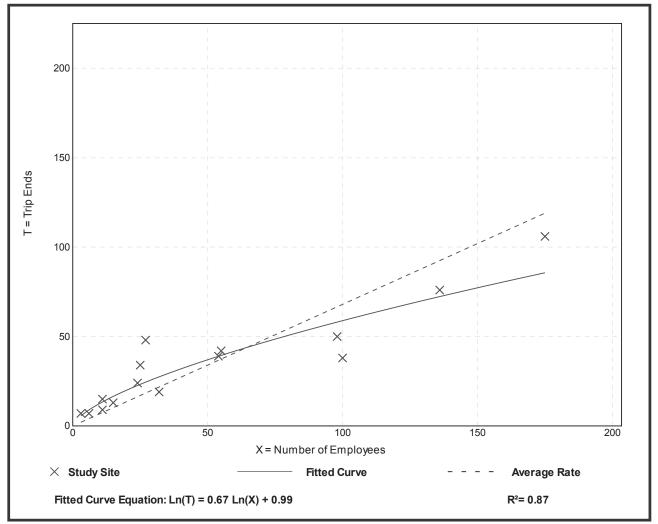
Warehousing (150)		
Vehicle Trip Ends vs:		
On a:	Weekday,	
	Peak Hour of Adjacent Street Traffic,	
	One Hour Between 4 and 6 p.m.	
Setting/Location:	General Urban/Suburban	
Number of Studies:	15	
Avg. Num. of Employees:	51	
Directional Distribution:	36% entering, 65% exiting	

Average Rate	Range of Rates	Standard Deviation
0.66	0.17 - 2.22	0.40



Warehousing (150)		
Vehicle Trip Ends vs: Employees On a: Weekday, AM Peak Hour of Generator		
Setting/Location:	General Urban/Suburban	
Number of Studies:	15	
Avg. Num. of Employees:	51	
Directional Distribution:	53% entering, 47% exiting	

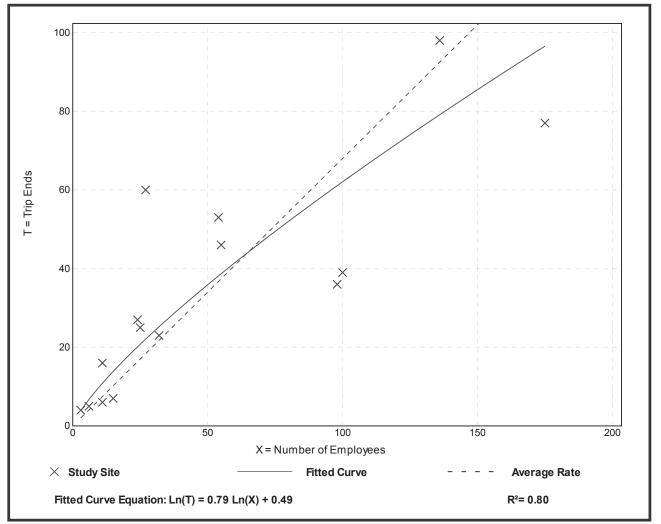
Average Rate	Range of Rates	Standard Deviation
0.68	0.38 - 2.33	0.33





Warehousing (150)		
Vehicle Trip Ends vs: Employees On a: Weekday, PM Peak Hour of Generator		
Setting/Location:	General Urban/Suburban	
Number of Studies:	15	
Avg. Num. of Employees:	51	
	28% entering, 72% exiting	

Average Rate	Range of Rates	Standard Deviation
0.68	0.37 - 2.22	0.40



Land Use: 154 High-Cube Transload and Short-Term Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. The HCWs included in this land use include transload and short-term facilities. Transload facilities have a primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. They typically have little storage duration, high throughput, and are high-efficiency facilities. Short-term HCWs are high-efficiency distribution facilities often with custom/special features built into structure for movement of large volumes of freight with only short-term storage of products. Warehousing (Land Use 150), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled *High-Cube Warehouse Vehicle Trip Generation Analysis*, published in October 2016. The results of this study have been incorporated into the 10th Edition *Trip Generation Manual* and are published on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498 where the study is posted.

Time-of-day distribution data for this land use are presented in Appendix A. For the three general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 9:00 and 10:00 a.m. and 3:00 and 4:00 p.m., respectively.

The sites were surveyed in the 1980s, the 2000s, and the 2010s in Alberta (CAN), California, Florida, Michigan, New Jersey, Texas, and Washington.

Source Numbers

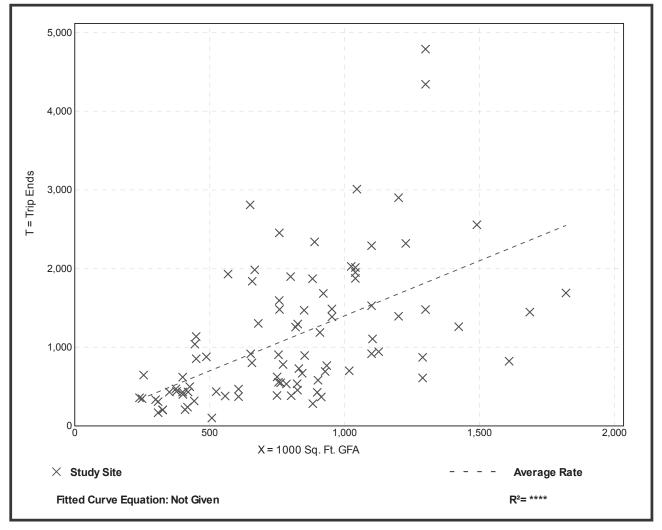
331, 605, 619, 642, 645, 649, 739, 750, 752, 903, 904, 941, 942, 943, 969



High-Cube Transload and Short-Term Storage Warehouse (154)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday	
Setting/Location:	General Urban/Suburban	
Number of Studies:	91	
1000 Sq. Ft. GFA:	798	
Directional Distribution:	50% entering, 50% exiting	

Average Rate	Range of Rates	Standard Deviation
1.40	0.20 - 4.32	0.86

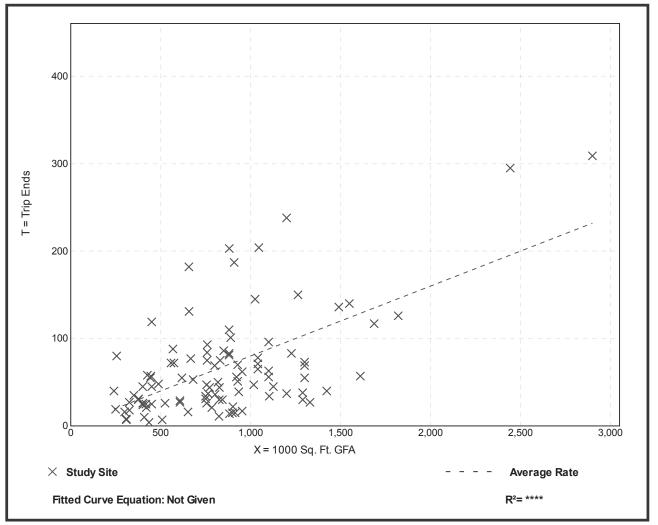




1000 Sq. Ft. GFA
Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
General Urban/Suburban
102
846
77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.08	0.01 - 0.31	0.05





 Vehicle Trip Ends vs:
 1000 Sq. Ft. GFA

 On a:
 Weekday,

 Peak Hour of Adjacent Street Traffic,

 One Hour Between 4 and 6 p.m.

 Setting/Location:

 General Urban/Suburban

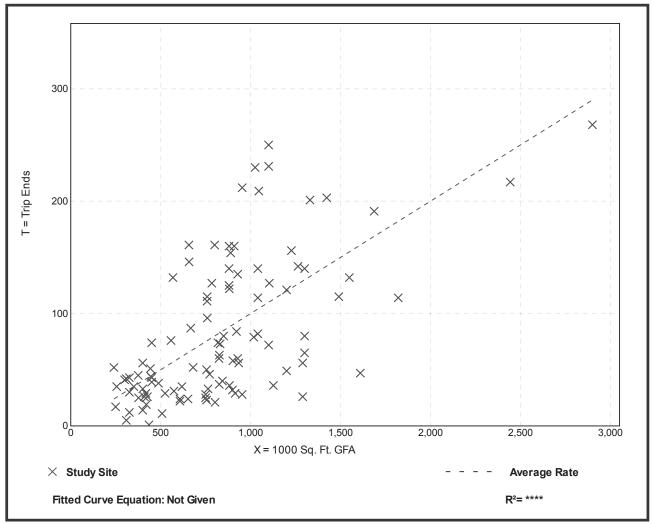
 Number of Studies:
 103

 1000 Sq. Ft. GFA:
 840

 Directional Distribution:
 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.10	0.00 - 0.25	0.06

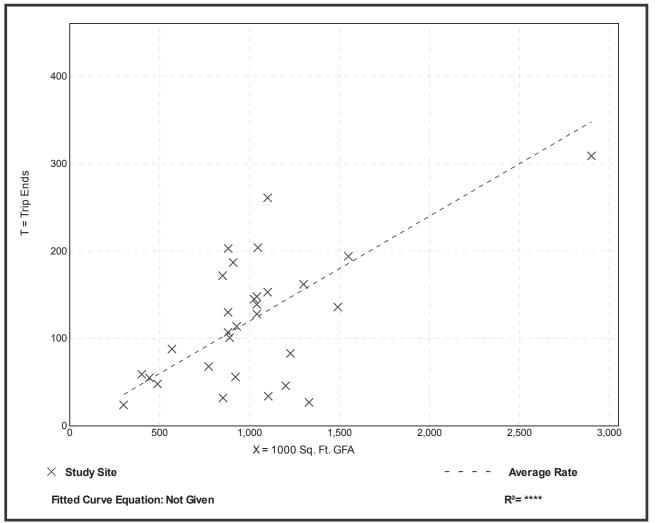




Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	30
1000 Sq. Ft. GFA:	1015
Directional Distribution:	83% entering, 17% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.02 - 0.24	0.06





 Vehicle Trip Ends vs:
 1000 Sq. Ft. GFA

 On a:
 Weekday,

 PM Peak Hour of Generator

 Setting/Location:
 General Urban/Suburban

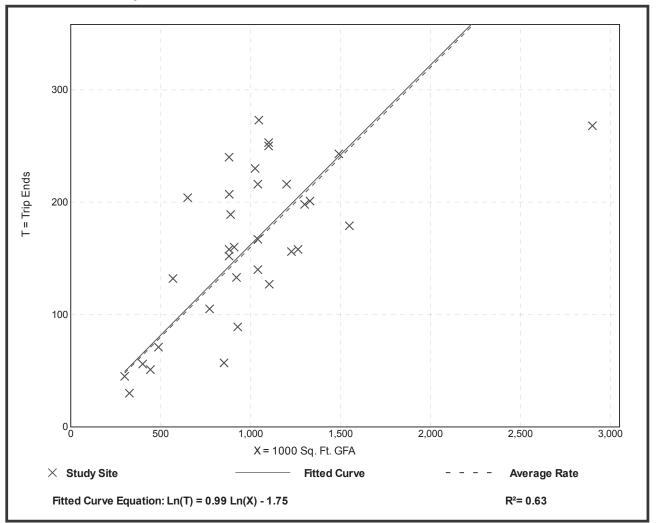
 Number of Studies:
 33

 1000 Sq. Ft. GFA:
 991

 Directional Distribution:
 33% entering, 67% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.16	0.07 - 0.31	0.06





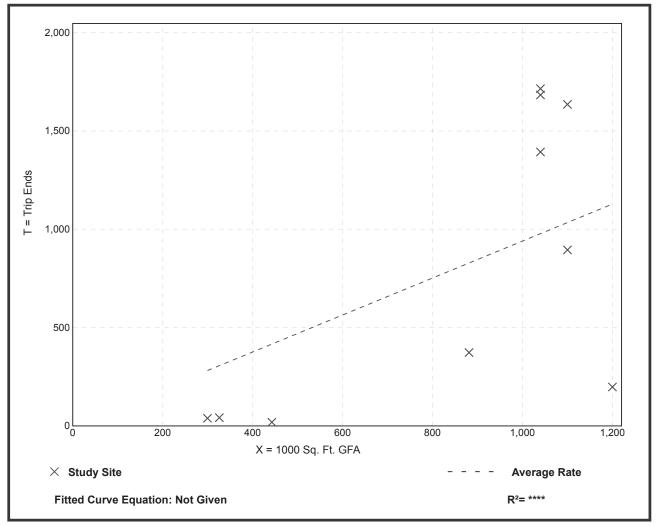
(154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

Setting/Location:	General Urban/Suburban
Number of Studies:	10
1000 Sq. Ft. GFA:	847
Directional Distribution:	50% entering, 50% exiting

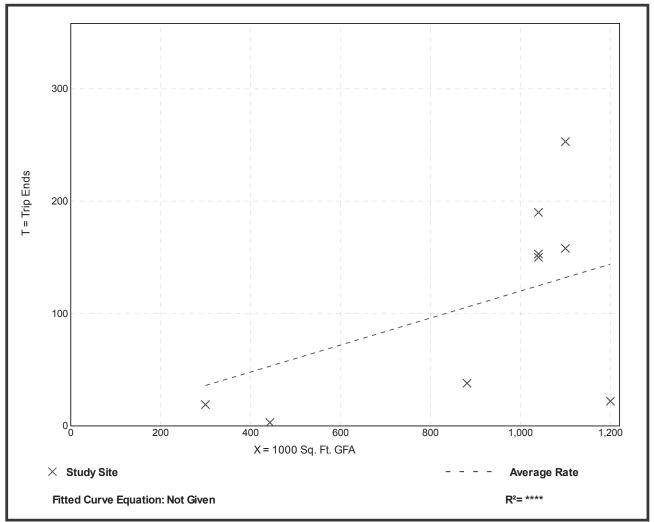
Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.94	0.04 - 1.65	0.65



Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator Setting/Location: General Urban/Suburban Number of Studies: 9 1000 Sq. Ft. GFA: 905 Directional Distribution: Not Available Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.23	0.08





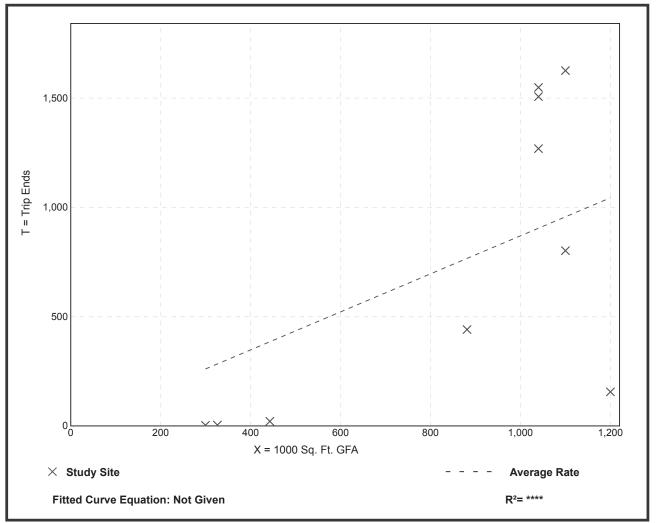
(154)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday

Setting/Location:	General Urban/Suburban
Number of Studies:	10
1000 Sq. Ft. GFA:	847
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.87	0.01 - 1.49	0.61





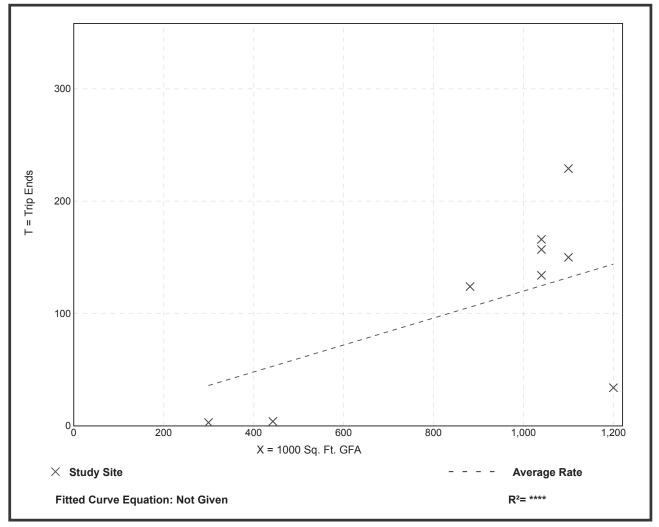
(1	54	1)
۰.		$\mathbf{\nabla}$		

Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Sunday, Peak Hour of Generator

Setting/Location:	General Urban/Suburban
Number of Studies:	9
1000 Sq. Ft. GFA:	905
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.01 - 0.21	0.07





Land Use: 155 High-Cube Fulfillment Center Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. High-cube fulfillment center warehouses include warehouses characterized by a significant storage function and direct distribution of ecommerce product to end users. These facilities typically handle smaller packages and quantities than other types of HCWs and often contain multiple mezzanine levels. Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related land uses.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled *High-Cube Warehouse Vehicle Trip Generation Analysis*, published in October 2016. The results of this study have been incorporated into the 10th Edition *Trip Generation Manual* and are published on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498 where the study is posted.

The sites were surveyed in the 2000s and the 2010s in California and Texas.

Source Numbers

752, 941

(155)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

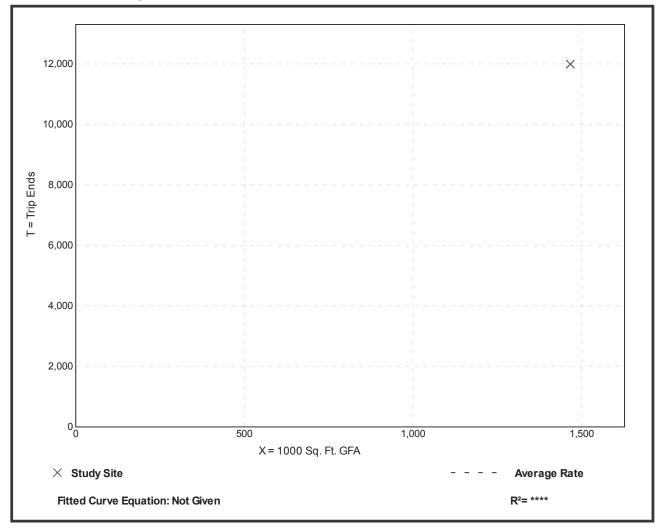
Setting/Location:	General Urban/Suburban
Number of Studies:	1

1000 Sq. Ft. GFA:	1466
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.18	8.18 - 8.18	*

Data Plot and Equation



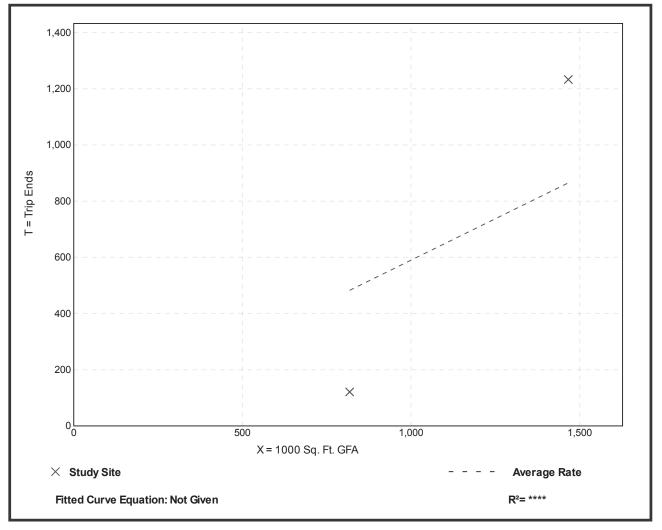


Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	
Setting/Location: General Urban/Suburban	
Number of Studies: 2	
1000 Sq. Ft. GFA: 1142	
Directional Distribution: Not Available	

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.59	0.15 - 0.84	*

Data Plot and Equation

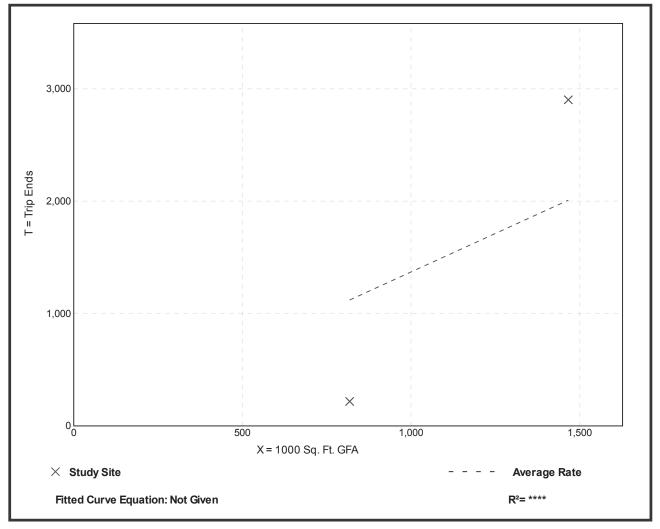


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	2
1000 Sq. Ft. GFA:	1142
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.37	0.27 - 1.98	*

Data Plot and Equation



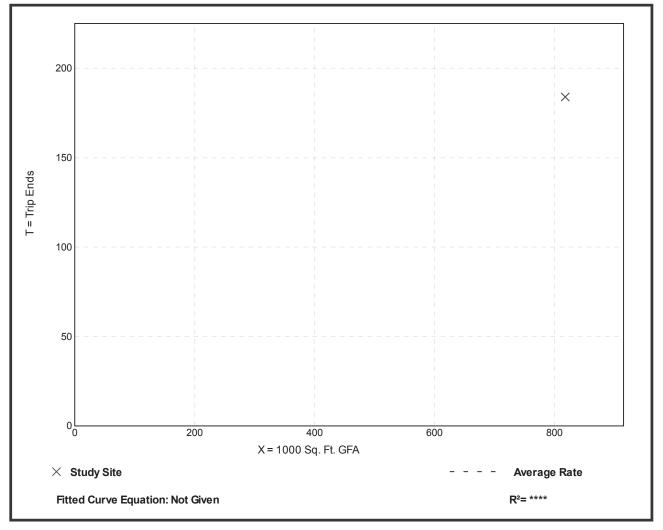


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	1
1000 Sq. Ft. GFA:	818
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.22	0.22 - 0.22	*

Data Plot and Equation

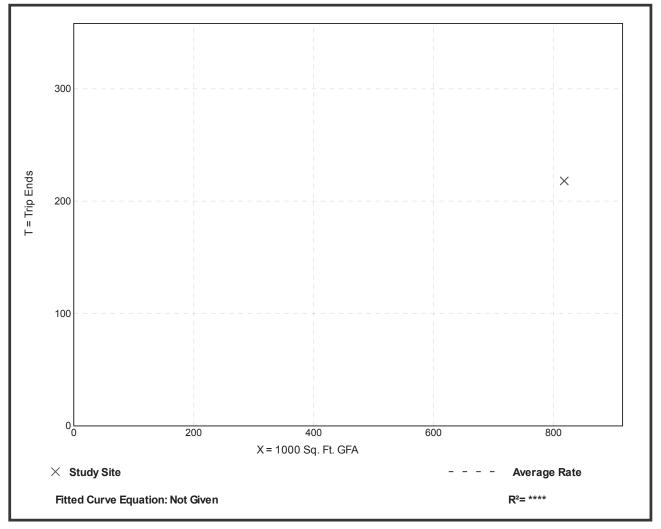


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, PM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	1
1000 Sq. Ft. GFA:	818
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.27	0.27 - 0.27	*

Data Plot and Equation





Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

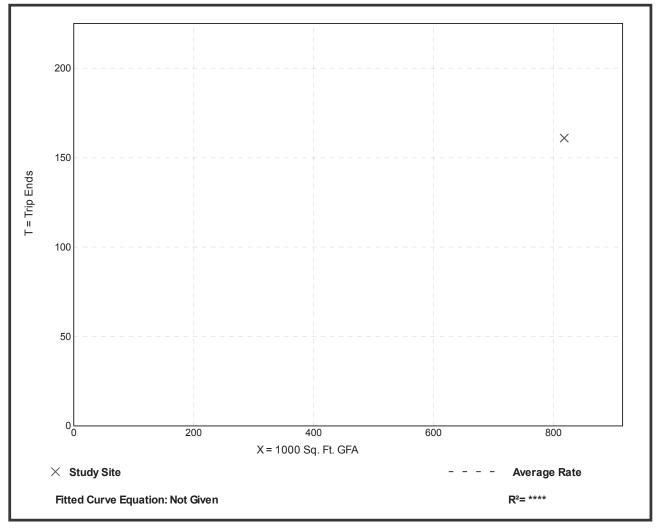
Setting/Location:	General Urban/Suburban
Number of Studies:	1

1000 Sq. Ft. GFA:	818
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.20	0.20 - 0.20	*

Data Plot and Equation



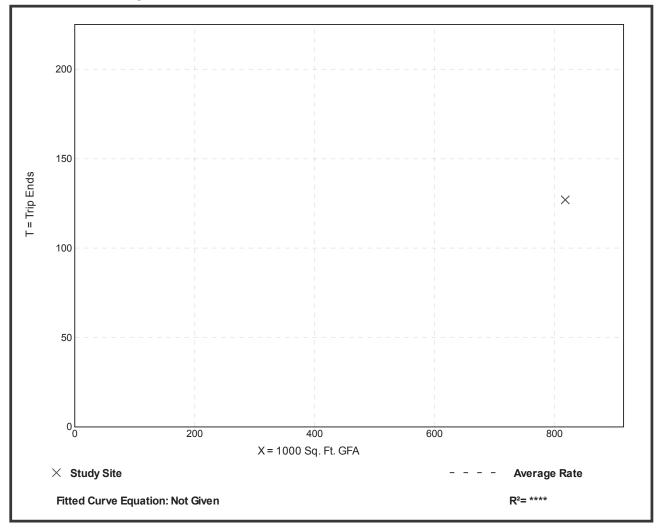
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Sunday, Peak Hour of Generator

Number of Studies:	1
1000 Sq. Ft. GFA:	818
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.16	0.16 - 0.16	*

Data Plot and Equation





Land Use: 156 High-Cube Parcel Hub Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. High-cube parcel hub warehouses typically serve as regional and local freightforwarder facilities for time sensitive shipments via airfreight and ground carriers. These sites also often include truck maintenance, wash, or fueling facilities. Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), and high-cube cold storage warehouse (Land Use 157) are related land uses.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled *High-Cube Warehouse Vehicle Trip Generation Analysis*, published in October 2016. The results of this study have been incorporated into the 10th Edition *Trip Generation Manual* and are published on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498 where the study is posted.

Time-of-day distribution data for this land use are presented in Appendix A. For the two general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 8:15 and 9:15 a.m. and 5:15 and 6:15 p.m., respectively.

The sites were surveyed in the 2010s in California, Connecticut, and Minnesota.

Source Numbers

869, 892, 941

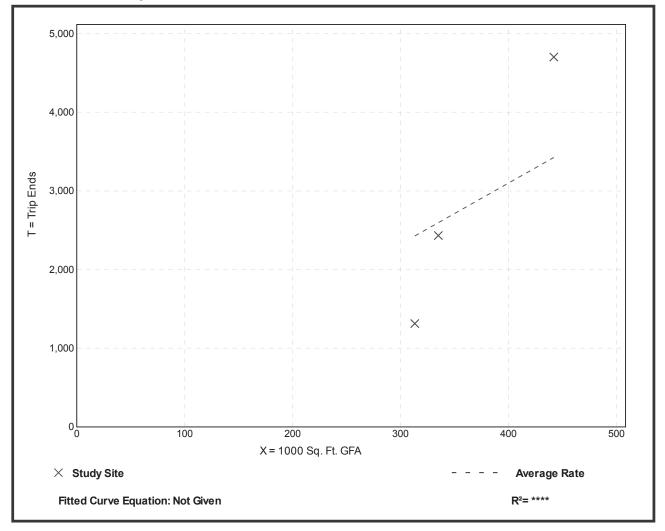
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	3
1000 Sq. Ft. GFA:	363
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.75	4.20 - 10.64	9.58

Data Plot and Equation



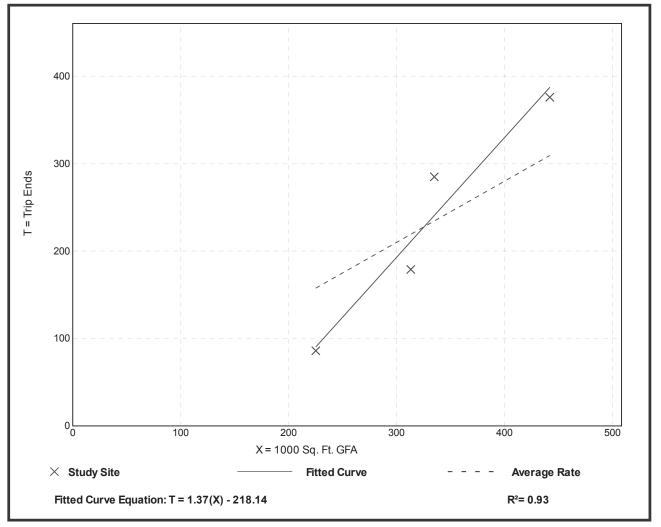


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	4
1000 Sq. Ft. GFA:	
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.70	0.38 - 0.85	0.21

Data Plot and Equation

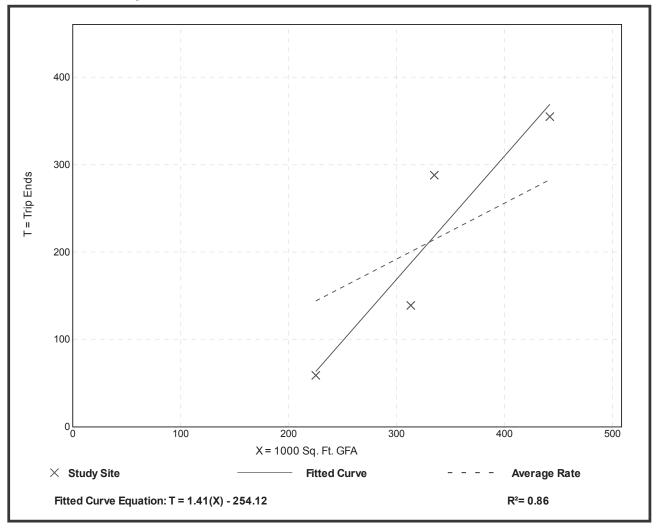


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	4
1000 Sq. Ft. GFA:	
Directional Distribution:	68% entering, 32% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.64	0.26 - 0.86	0.27

Data Plot and Equation



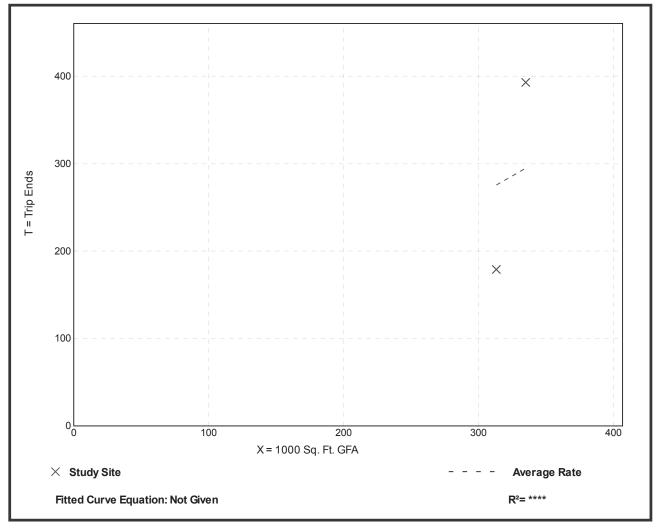


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	2
1000 Sq. Ft. GFA:	324
Directional Distribution:	34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.88	0.57 - 1.17	*

Data Plot and Equation

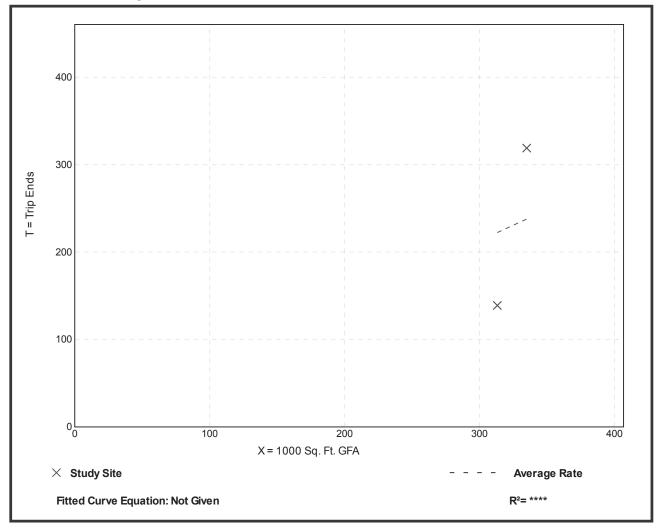


Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, PM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	2
1000 Sq. Ft. GFA:	324
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.71	0.44 - 0.95	*

Data Plot and Equation





Land Use: 157 High-Cube Cold Storage Warehouse

Description

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. Warehousing (Land Use 150), high-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), and high-cube parcel hub warehouse (Land Use 156) are related land uses.

Additional Data

The High-Cube Warehouse/Distribution Center-related land uses underwent specialized consideration through a commissioned study titled *High-Cube Warehouse Vehicle Trip Generation Analysis*, published in October 2016. The results of this study have been incorporated into the 10th Edition *Trip Generation Manual* and are published on the ITE website at http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498 where the study is posted.

The sites were surveyed in the 2000s and the 2010s in California.

Source Numbers

619, 941, 942, 943

High-Cube Cold Storage Warehouse (157)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

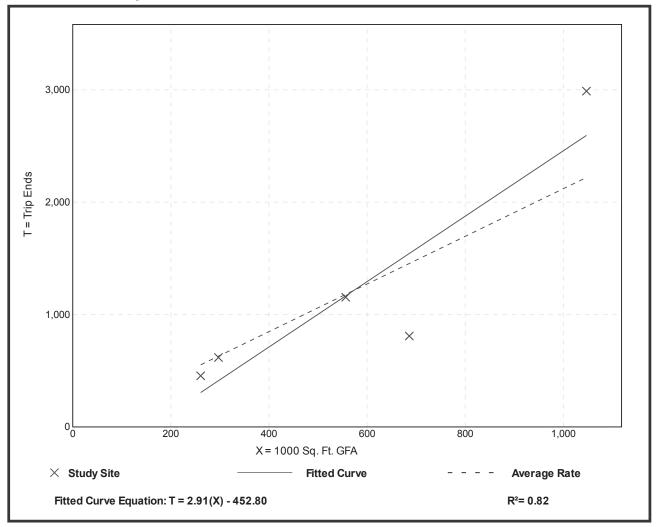
Setting/Location:	General Urban/Suburban
-------------------	------------------------

Number of Studies:	5
1000 Sq. Ft. GFA:	569
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.12	1.18 - 2.85	0.73

Data Plot and Equation





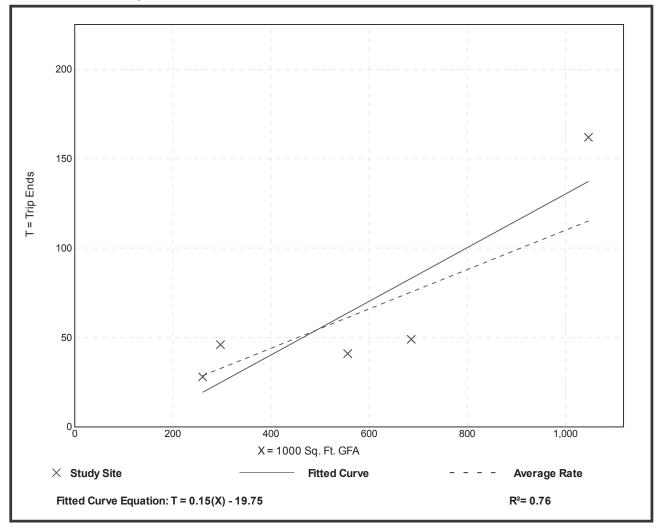
High-Cube Cold Storage Warehouse (157)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	5
1000 Sq. Ft. GFA:	
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.11	0.07 - 0.15	0.04

Data Plot and Equation



High-Cube Cold Storage Warehouse (157)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	5
1000 Sq. Ft. GFA:	
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.07 - 0.16	0.04

Data Plot and Equation

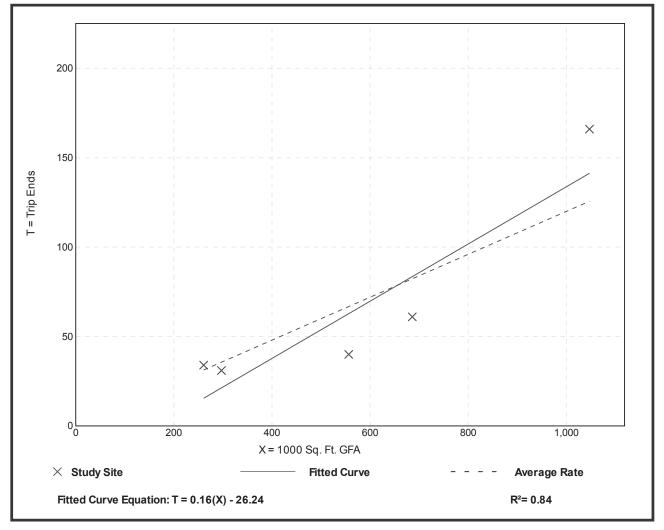




EXHIBIT B:

Institute of Transportation Engineers (ITE), High-Cube Warehouse Vehicle Trip Generation Analysis, Oct. 2016

HIGH-CUBE WAREHOUSE VEHICLE TRIP GENERATION ANALYSIS

PREPARED FOR

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

AND

NATIONAL ASSOCIATION OF INDUSTRIAL AND OFFICE PROPERTIES

PREPARED BY INSTITUTE OF TRANSPORTATION ENGINEERS WASHINGTON, DC

OCTOBER 2016

ACKNOWLEDGEMENT AND DISCLAIMER

This report was prepared as a result of work sponsored, paid for, in whole or in part, by the South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties (NAIOP). The report is the product of a collaborative process by which ITE, SCAQMD, and NAIOP embarked upon an effort to better understand vehicle trip generation rates at high-cube warehouse facilities.

The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of SCAQMD or NAIOP. SCAQMD, NAIOP, their officers, employees, contractors, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. SCAQMD and NAIOP have not approved or disapproved this report, nor has SCAQMD or NAIOP passed upon the accuracy or adequacy of the information contained herein.

The NAIOP Inland Empire and Southern California Chapters provided direct input for various items of the report, including a suggested high-cube warehouse classification system.

EXECUTIVE SUMMARY

<u>**Purpose</u>** – South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties) provided funding to the Institute of Transportation Engineers (ITE) to help in the establishment of national guidance for the estimation of vehicle trip generation at what are commonly called high-cube warehouse distribution centers (HCW).</u>

Definition of High-Cube Warehouse – A high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. For the purpose of this trip generation analysis, HCWs are grouped into five types: fulfillment center, parcel hub, cold storage facility, transload facility, and short-term storage facility.

Data Sources – The analysis contained herein is based on data from 15 separate data sources, including recent data collected under the sponsorship of SCAQMD and NAIOP. The database includes trip generation information from 107 individual sites.

Findings – The HCW market continues to evolve as individual tenants/owners implement different ecommerce business plans. For example, some deliver goods to the customer within two days and others deliver orders to the nearest store for customer pick-up. As business plans and technology continue to evolve, these should continue to be monitored. Although the tenant or its planned operations are often unknown at the time of site development review, for the purpose of estimating vehicle trip generation, it may be as important to know the tenant as much as other facility factors.

For transload, short-term storage, and cold storage HCWs, the proportionate mix of types of vehicles (i.e., cars versus trucks) accessing the site is very consistent, both daily and during the AM and PM peak hours.

For a cold storage HCW, the currently available data demonstrates a useable, direct correlation between building size and vehicle trip generation.

The single data points for fulfillment centers and parcel hubs indicate that they have significantly different vehicle trip generation characteristics compared to other HCWs. However, there are insufficient data from which to derive useable trip generation rates.

For transload and short-term storage HCW sites, additional data sites and additional information on past sites are needed in order to derive useable trip generation rates.

<u>Recommendations (Action Plan)</u> – A strategically-developed data collection program is needed that targets each type of HCW individually. The strategy should include a prioritized plan for collecting additional data at five classifications of HCWs that are representative of the types of facilities expected to be commonly developed in coming years. The data should be collected at mature facilities, each of which clearly fits within one HCW classification, during periods of typical levels of activity based on the types of facilities and businesses served.

All future data collection should seek to acquire an enhanced set of site descriptive information that will enable development of better predictive models than are currently available.

STUDY PURPOSE AND PROCESS

South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties) provided funding to the Institute of Transportation Engineers (ITE) to help in the establishment of consensus-based national guidance for the estimation of trip generation at what are commonly called high-cube warehouses (HCW). This report documents the results of that effort to develop a credible and defensible procedure for collecting and analyzing site trip generation data for use in transportation impact analyses (TIA) and air quality/vehicular emissions analyses (AQA¹) for HCW-type facilities.

ITE convened a meeting of practitioner-based experts at ITE Headquarters on April 1, 2015. The meeting participants are listed in Table 1. At the meeting's conclusion, several individuals were tasked with development of specific products, including the following:

- An overall work plan for this report and for subsequent data collection and analysis
- A clear and consistent definition of HCW for this report and for future studies and analysis
- A vehicle classification scheme that satisfies ultimate data requirements for TIA and AQA and complies with reasonable data collection capabilities and budgets

ITE staff assumed responsibility for compilation and analysis of existing HCW trip generation data.

The full expert panel provided comments and suggestions on each interim product that eventually became part of this complete report. Nevertheless, responsibility for content completeness and data analysis accuracy rests with ITE staff.

Mr. Brian Bochner	Texas A&M Transportation Institute, College Station, Texas
Mr. Paul Basha	City of Scottsdale, Arizona
Mr. Milton Carrasco	Transoft Solutions, Inc., Richmond, British Columbia
Dr. Kelly Clifton	Portland State University, Portland, Oregon
Mr. Henry Hogo (for	South Coast Air Quality Management District, Diamond Bar, California
Mr. Barry Wallerstein)	
Mr. Kim Snyder	Prologis, Cerritos, California
Ms. Cecilia Ho	Federal Highway Administration, Washington, DC
Mr. Ian Macmillan	South Coast Air Quality Management District, Diamond Bar, California
Mr. Thomas Phelan	VHB, Newark, New Jersey
Mr. Jeremy Raw	Federal Highway Administration, Washington, DC
Mr. Erik Ruehr	VRPA Technologies, San Diego, California
Mr. Frank Sherkow	Southstar Engineering and Consulting, Inc., Yachats, Oregon
Mr. Joe Zietsman	Texas A&M Transportation Institute, College Station, Texas
Mr. Tom Brahms	Institute of Transportation Engineers, Washington, DC
Mr. Kevin Hooper	Institute of Transportation Engineers, Washington, DC
Ms. Lisa Tierney	Institute of Transportation Engineers, Washington, DC

Table 1. Expert Panel for High-Cube Warehouse Trip Generation Study

¹ In California, when a new warehouse project is proposed, it undergoes environmental review pursuant to the California Environmental Quality Act (CEQA). Air quality analyses conducted pursuant to CEQA typically compare project emissions against local air district thresholds to determine the potential significance of the project's air quality impacts. These emission estimates rely on trip generation rates to determine the volume of cars and trucks that could visit the proposed project site.

HIGH-CUBE WAREHOUSE DEFINITION

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW.²

A classification scheme for different types of HCWs is presented in Table 2 along with their distinctive characteristics. The characteristics of a typical standard warehouse are provided for comparative purposes. The five types of HCW are the following:

- Transload usually pallet loads or larger handling products of manufacturers, wholesalers/distributors, or retailers with little or no storage durations
- Short-Term Storage products held on-site for a short time
- Cold Storage HCW with permanent cold storage in at least part of the building
- Fulfillment Center storage and direct distribution of e-commerce product to end users
- Parcel Hub transload function for a parcel delivery company

² High-cube warehouses are classified as Land Use Code 152 in ITE *Trip Generation Manual*, 9th Edition. The definition provided in *Trip Generation Manual* for HCW is as follows:

[&]quot;High-cube warehouses/distribution centers are used for the storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization. High-cube warehouses/distribution centers generally consist of large steel or masonry shell buildings and may be occupied by or multiple tenants. A small ancillary office use component may be included and some limited assembly and repackaging may occur within these facilities.

[&]quot;High-cube warehouses/distribution centers may be located in industrial parks or be free-standing. Intermodal truck terminal (Land Use 030), industrial park (Land Use 130), manufacturing (Land Use 140) and warehousing (Land Use 150) are related uses."

When the 10th edition of *Trip Generation Manual* is developed, the findings and recommendations of this report will be reflected in an updated definition for high-cube warehouses.

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub		
Description a	Description and Key Warehouse Functions							
Typical Functions	Products stored on-site typically for more than one month	Focus on consolidation and distribution of pallet loads (or larger) of manufacturers, wholesalers, or retailers; little storage duration; high throughput and high-efficiency	Focus on warehousing/ distribution with distribution space operated at high efficiency; often with custom/special features built into structure for movement of large volumes of freight	Temperature- controlled for frozen food or other perishable products stored in any type of HCW; building built with substantial insulation, including foundation, walls,	Storage and direct distribution of e- commerce product to end users; smaller packages and quantities than for other types of HCW; often multiple mezzanine levels for product storage and picking	Regional and local freight-forwarder facility for time- sensitive shipments via air freight and ground (e.g., UPS, FedEx, USPS); site often includes truck maintenance, wash, or fueling facilities		
Break-Bulk or Assembly	Can include break-bulk and assembly activities	Very limited pick- and-pack area within facility	May or may not include break-bulk, repack or assembly activities	and roof ³ Limited or no break-bulk, repack or assembly activities	Pick-and-pack area comprises majority of space	Limited or no break- bulk, repack or assembly activities		
Place in Supply Chain		Usually for final distribution to retail stores but can be for manufacturer to wholesale distribution		Typically, late in the supply chain for final distribution to retail stores or local, smaller distribution centers	Typically, freight for final consumption (business-to-business and consumers)	Can be situated at multiple points in the supply chain (intermediate or final delivery)		

Table 2. High-Cube Warehouse Classifications

³ Cold storage products (e.g., flowers and other perishables) that are not frozen must be shipped within hours or a few days. Cold storage products that are frozen may take a long time to ship. Products in these facilities may be treated more like typical HCW products.

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub
Location	Typically in an industrial area within urban area or urban periphery	Typically in an area with convenient freeway access; often in rural or urban periphery area	Typically in an area with convenient freeway access	Depends on supply and demand markets	Often near a parcel hub or USPS facility, due to time sensitivity of freight	Typically in close proximity to airport; often stand-alone
Overall Site I	<mark>.ayout</mark>					
Employee Parking		Smaller employee parking ratio (per facility square foot) than fulfillment center or parcel hub	Smaller employee parking ratio (per facility square foot) than fulfillment center or parcel hub		Larger parking supply ratio than for all other HCW types	Larger employee parking ratios; truck drivers often based at facility (i.e., parking may be for both site employees and drivers)
Truck & Trailer Parking	Limited truck parking area; increases with distance to major	Large, open trailer parking area surrounding facility; produces high land to	Ratio of truck parking spaces to docks can vary between 0.5:1 and 1.5:1, with 1:1	Can vary with whether products are frozen or perishable ⁴	Significantly higher truck parking ratios than for other HCWs	Very high truck parking ratios to dock positions, often 2:1 or more
Loading Dock Location	distribution hub Either on one side or on two adjacent sides	building ratio Minimum of two sides (adjacent or opposite); can be on	being very common On either one or two sides			Usually on both long sides of building; can be on four sides
		four sides				
Building Dim	<mark>ensions</mark>		·		1	
Length vs. Depth		Typical length vs. depth ranges between 3:1 and 2:1; shallower than Standard	Typical length vs. depth is 2:1; shallower than Standard			Typical configuration is cross-dock; building typically more shallow (150-300 feet across) than other HCWs

⁴ Cold storage product handling must be done quickly. Any product stored in a trailer on the site requires either an idling truck or an external power supply to maintain the temperature within the required ranges.

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub
Ceiling Height	Typically between 28 and 40 feet	Typically, lower than for other HCW	Typically between 28 and 34 feet, with some facilities in excess of 40 feet	Typically higher (70-100 feet) to maximize efficiency of refrigeration; frozen food tends to have a higher ceiling than produce handling	Often as high as 40 feet in order to accommodate up to three levels of interior mezzanines	Typically not as tall as other HCW; commonly between 18 and 20 feet range; racking not usually provided (i.e. floor-stack only)
Number of Docks	Low number of dock positions to overall facility, 1:20,000 square feet or lower	Typical dock-high loading door ratio is 1:10,000 square feet; common range between 1:5,000 & 1:15,000 square feet	Typically, 1:10,000 square feet or lower			
Automation			L	L		
Material Handling Systems	Little or no automation; mechanization limited to pallet jacks and forklifts	Very highly- mechanized material handling systems	Very highly- mechanized material handling systems; high ratio of material handling equipment to overall floor area	Very high clear height requires sophisticated material handling equipment	High levels of automation in material handling equipment	High levels of automation in material handling equipment
Conveying Systems	Little or no automation	Usually automated mechanized conveying	Usually limited automated conveying	Very high clear height requires a sophisticated conveyance system	High levels of automation in conveying systems	High levels of automation in conveying systems
Warehouse Mgmt Systems (WMS)		Some facilities use ASRS (Automated Storage and Retrieval Systems)			High levels of automation; some use of ASRS	High levels of automation

Table 2. Additional Descriptive Features

<u>Typical Floor Area Ratios</u> range between 35 and 60 percent. Standard, Fulfillment Center, and Parcel Hub sites tend to have higher values than Transload and Short-Term Storage HCW.

<u>Office/Employee Welfare⁵ Space</u> is highly variable and is insignificant within overall building square footage. Common values are between 3,000 and 5,000 square feet for Cold Storage and between 5,000 and 10,000 square feet for Transload Facility, Fulfillment Center, and Parcel Hub.

<u>Movement of Goods in Trucks</u> – For a Transload site, typical truck movements are comprised of full load, large trailers, both inbound and outbound. For some "last mile" or local distribution centers, long-haul trucks or international containers can arrive loaded and depart empty, while local delivery trucks arrive empty and depart loaded. For national and regional distribution centers, trucks can come in loaded and re-load with different product mix and depart loaded.

<u>Hours of Operation and Peak Periods</u> – Peak truck movement activity is often outside the peak commuting period on the adjacent street system. HCW operations are often 24 hours per day, every day of the year. For a Standard site, there is a greater likelihood that the site peak period of traffic operations may coincide with or be near the street peak period.

<u>Truck Sizes</u> – Truck size can vary significantly between similar sites. Sizes and types are a function of the origins and destinations of the goods processed at the facility (i.e., location in the supply chain). Local deliveries to business/residential customers are commonly made with smaller trucks (except warehouses that, for example, deliver bulky items to a home improvement store). Longer distance travel or deliveries at early stages in the supply chain are typically with larger trailers. For Cold Storage and Fulfillment Center, the outbound trucks are often smaller because of cargo weight and last-mile distribution needs. Intermediate hubs accommodate large trucks on both the inbound and outbound side (e.g., FedEx Ground). "Final delivery" hubs have small trucks on the outbound side (e.g., FedEx Overnight).

⁵ Employee welfare area includes restrooms, locker rooms, and break rooms.

VEHICLE CLASSIFICATION FOR WAREHOUSE TRIP GENERATION DATA

The preferred vehicle classification scheme should satisfy both the ultimate needs for TIA and AQA analysis and comply with reasonable data collection capabilities and budgets. FHWA maintains a 13-category classification system for motorized vehicles (presented in Figure 1 and maintained at the following website: <u>http://www.fhwa.dot.gov/policyinformation/tmguide/tmg_2013/vehicle-types.cfm</u>).

Class I Motorcycles	2	Class 7 Four or more axle, single unit	
Class 2 Passenger cars			
	, 11		
	, 6	Class 8 Four or less axle,	
		single trailer	
Class 3 Four tire,			
single unit		Class 9 5-Axle tractor	
		semitrailer	• • • • • •
Class 4 Buses		Class 10 Six or more axle,	
		single trailer	
		Class II Five or less axle, multi trailer	
Class 5 Two axle, six	- E	Class 12 Six axle, multi-	
tire, single unit		trailer	
		Class 13 Seven or more axle, multi-trailer	
Class 6 Three axle, single unit			88 888 88 ¹ (

Figure 1. FHWA Vehicle Classification Types

The vehicle types that enter and exit a HCW site can be separated to correspond to individual "markets:"

- Vehicles used for employee and facility service access (i.e., for goods and services consumed on site)
- Vehicles used for local delivery access (e.g., wholesale and retail delivery for consumption in the local metropolitan area)
- Vehicles used for high-volume transfer (e.g., long-distance freight, relay distribution to other distribution or warehouse facilities)

A simple and straightforward correlation between "markets" and the 13 FHWA classifications is as follows:

- 1. Facility Access: includes Classes 2 and 3 (passenger cars and light trucks), and Classes 1 and 4 (motorcycles and buses) if observed
- 2. Local Goods Movement: includes Classes 5 through 7 (two-, three-, and four-axle single-unit trucks)
- 3. Long Distance Goods Movement: includes Classes 8 through 13 (multi-unit trucks)

A significant limitation to this classification scheme is the growing disconnect between truck size and trip length over time. They do not correlate as well for many carriers as they did in the past. There is a wide range of practices in deliveries and many prominent retail chains currently use trucks in Classes 8 and 9, for example, for local deliveries. In other words, a Class 8-13 vehicle is not necessarily a long-distance truck trip.

The primary advantage of mapping these vehicle types to the FHWA classification scheme is that commercially available automated monitoring equipment is generally capable of reporting the FHWA vehicle classes without specialized data interpretation.

Encouraging agencies to develop local counts of these facilities will also be more successful if the agencies can use standard automated counters without specialized software, even at the expense of occasional misclassification relative to "ideal" categories for a warehouse trip generation study. Video detection could make more information available, but at greater expense for data processing.

It is also important to recognize that counting equipment manufacturers (and often representatives of a public agency) are able to reprogram automated counters to use an alternate classification scheme. For example, if there is a specific axle configuration commonly used for domestic container freight versus international container freight at a particular data collection site, it may be feasible to detect. Such schemes are relatively easy to share among agencies using the same types of equipment.

As noted above, the observed physical vehicle type based on a FHWA class may not provide sufficient information on its own to identify the "purpose" of the truck trip. The classification scheme may need to be adjusted to reflect the specific trip-making to and from a subject warehouse site. The following are examples of refinements that could be necessary given the particular characteristics of a warehouse site:

- 1. Even in a standard traffic monitoring application, the distinction between a passenger car (Class 2) and a light truck (Class 3: pickups, large SUVs, vans) has limited benefit and is difficult to establish decisively. For the warehouse trip generation application, the merging of these classes should improve overall accuracy.
- 2. Local goods movement may also include Class 3 vehicles (specifically two-axle vans). If separate driveways are used for goods movement and general facility access, the Class 3 vehicles in the goods movement driveway can be considered local goods movement vehicles.
- 3. It is sometimes difficult for automated equipment to distinguish between a Class 4 vehicle (bus) and a Class 5/6 truck. In the rare circumstance where a bus enters or exits a warehouse site driveway, a manual count or simple reference to a published transit service schedule may be necessary.
- 4. Class 5 vehicles include "dualie" pickups which may operate as personal vehicles for facility access or as larger panel trucks often used for local goods delivery. The presence of and use of separate driveways for goods movement and general facility access may be the only means to distinguish between the two types of uses.

DATA NEEDS FOR TIA AND AQA

Typical data requirements for TIA and AQA are listed in Table 3. Some measures are used to classify a building type. Some measures can be used as independent variables with a direct relationship to the quantity of vehicle trips generated by a site (by vehicle type).

Table 3. Data Needs for HCW Trip Generation Analysis

Vehicle Trip Data	TIA	AQA
Vehicle Trips by Vehicle Classification		
• 2 classifications – car, truck		
• 4 classifications – personal passenger vehicle, parcel delivery, single unit	*6	
truck, tractor-trailer combination		
Vehicle Trips by Time-of-Day (by vehicle classification)		
• Directional 15-minute volumes on a weekday (typically Tuesday, Wednesday,		
or Thursday)		
• AM peak hour for generator		
 AM peak hour for adjacent street 		
• PM peak hour for generator		
 PM peak hour for adjacent street 		
Non-directional 24-hour volume on a weekday		
Vehicle Trips by Driveway (if employees and freight delivery use separate driveways)		
Vehicle Trips within Context of Seasonal Variations		
Daily Variations		
Monthly Variations		
Highest Day of Year		
Independent Variable Data		
Building Size		
Building GSF ⁷ (total, office, retail, manufacturing/enhancements, storage/distribution)		
Building Volume (cubic feet)		
Building Shape (length-to-depth ratio)		
Number of High-Loading docks		
Building Function		
Cold Storage Provided		
NAICS Industrial Code		
Employees		
Commodity type (retail, manufacturing, other)		
Where in Supply Chain (parts, manufacturer/assembly, wholesale/distributor, retailer)		
Site Size		
Site acres		
Floor area ratio (FAR)		
Parking spaces (employee/visitor, truck/trailer)		
Site Context	ļ	
Area type (urban, suburban, rural)		
Distance to port (seaport, intermodal center, regional air cargo)		\checkmark

⁶ Some TIA may require truck classification information.

⁷ GSF is gross square footage of the building.

ASSEMBLY AND CLASSIFICATION OF CURRENTLY AVAILABLE DATA

Data from the following studies were compiled and analyzed for possible use in the trip generation analysis for the High-Cube Warehouse study:

- Warehouse Truck Trip Study, Data Results and Usage, South Coast Air Quality Management District, Diamond Bar, CA 2014
- Trip Generation Analysis for High-Cube Warehouse Distribution Center, prepared for NAIOP by Kunzman Associates, Laguna Hills, CA 2011
- Trip Generation Characteristics of Discount/Home Improvement Superstores, Major Distribution Centers, and Small Box Stores, prepared for Florida Department of Transportation by Wilbur Smith Associates 2011
- Western Riverside County Warehouse/Distribution Center Trip Generation Study, prepared for NAIOP by Crain & Associates, Los Angeles, CA 2008
- Westside Industrial Park Warehouse Trip Generation, prepared for Premier Airport Park by King Engineering Associates, Jacksonville, FL 2008
- Trip Generation Study, Existing High-Cube Warehouse Facilities, Visalia CA, prepared for The Allen group by Peters Engineering Group, Clovis CA 2008
- Large-Scale Retail Distribution Centers, prepared for Walmart Sores, Inc. by Kimley-Horn and Associates, Tampa, FL 2007
- Trip Generation Study, High-Cube Warehouse Buildings, Fresno, California, prepared for Diversified Development Group by Peters Engineering Group, Clovis CA 2007
- Trip Generation Study, High Cube Warehouse, prepared by Schoor Depalma, Manalapan, NJ 2006
- San Bernardino/Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study, prepared for NAIOP by Crain & Associates, Los Angeles, CA 2005
- Truck Trip Generation Study, prepared for City of Fontana (CA) by Transportation Engineering and Planning, Inc. 2003
- Trip Generation Analysis for High-Cube Warehouses, prepared for City of Livermore, CA by Fehr & Peers Associates, Lafayette, CA 1989

The data also includes site trip generation data provided by Texas A&M Transportation Institute (2008-2009), Randall Parker (2007), and Washington State Department of Transportation (2002).

The data were reviewed for their applicability and only acceptable sites with appropriate data are used in the analysis presented in the following section of this report. Some of the purported high-cube warehouses are instead standard storage warehouses or multi-building industrial parks. Some of the high-cube warehouse data for individual sites could not be used due to unexplained data characteristics (e.g., a significant imbalance in inbound and outbound daily vehicle trips).

The final current database of HCW sites contains 107 data records with varying degrees of vehicle classification data and of daily and peak hour traffic counts.

HIGH-CUBE WAREHOUSE TRIP GENERATION DATA ANALYSIS⁸

Classification of Individual Data Records

Each record in the database of HCW sites was classified as one of five building types, defined earlier in this report. The criteria used to classify the sites represent information that is likely to be available at the time of site development review.

The database includes one fulfillment center, one parcel hub, and nine HCWs with a significant cold storage component⁹. The remaining 95 HCWs were separated into transload and short-term storage HCW based on two building configuration criteria:

- A transload building is assumed to have a length-to-depth ratio of at least 2:1 and has loading docks on at least two sides (either opposite or adjacent); there are 56 transload data points
- The remaining HCW sites (i.e., those that are not considered transload, cold storage, fulfillment center, or parcel hub) are classified as short-term storage HCWs; they total 39 sites

Building configuration is known at the time of site development review but has the limitation of not necessarily being indicative of the function of the HCW activities. If additional characteristics can be identified that (1) are predictive of the HCW function and (2) are available at the time of site development review, the database can be reexamined and potentially reclassified and reanalyzed.

Key Findings – Cars vs. Total Vehicles

There is a significant correlation between the <u>number of cars</u> that enter and exit a HCW site and the total <u>number of vehicles</u> that enter and exit a HCW site.

Table 4 lists the weighted averages for cars as a percentage of the total site-generated traffic at the five types of HCW. At short-term storage, transload, and cold storage HCWs, nearly 68 percent of the total daily site-generated vehicle trips are cars. During the AM peak hour, the measured percentage of cars is markedly similar (69 percent) to the daily (68 percent). During the PM peak hour, the measured percentage of cars is significantly higher (78 percent) than the daily value. The higher car percentage (and therefore, the lower truck percentage) is likely due to truck operations avoiding the afternoon peak period.

The fulfillment center has a significantly higher percentage of cars during the AM and PM peak hours and daily (due largely to the significantly higher number of employees at a fulfillment center compared to the other types of HCWs). The parcel hub has a significantly lower percentage of cars (and therefore a higher percentage of trucks) during the AM and PM peak hours and daily.

Table 4. Weighted Averages for Percentage of Total Daily Vehicles that are Cars, by Type of HCW

	Cars as Percentage of Total Vehicle		otal Vehicles
Type of High-Cube Warehouse	Daily	AM Peak Hour	PM Peak Hour
Short-Term Storage, Transload & Cold Storage (100)	67.8%	69.2%	78.3%
Fulfillment Center (1)	91.2	97.2	98.2
Parcel Hub (1)	62.3	50.3	70.7

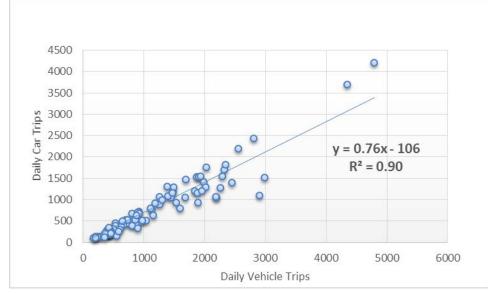
Note: The values in parentheses represent the number of data collection sites for HCW type.

⁸ This section presents key analysis findings. Appendix A presents additional analyses of the HCW data.

⁹ Sites were classified as cold storage either through self-categorization by data submitter (e.g., Walmart), by type of tenant (e.g., Ralphs, Publix), or by online site description (e.g., Americold, Millard Refrigeration Services).

Figure 2 is a plot of daily car trips versus daily vehicle trips generated at transload, short-term storage, and cold storage HCWs. The plot demonstrates strong correlation between the two trip-making characteristics of HCW sites. The data yields a linear fitted curve equation with an R^2 value of 0.90. The correlation between the daily truck trips and daily vehicle trips is not as strong and yields a linear fitted curve equation R^2 value that is less than the ITE acceptability threshold of 0.50.





Key Findings – Daily Trip Generation

Table 5 compares daily trip rates for the five different types of HCWs. The table includes weighted average rates for all vehicles, cars, trucks, and 5-or-more-axle trucks. The table also includes the weighted average rate for daily vehicle trips contained in ITE *Trip Generation Manual* 9th Edition, for high-cube warehouses (land use code 152). The single fulfillment center count was taken during a holiday shopping season when activity would be expected to be higher than an annual average.

Table 5. Weighted Average Rates for Dai	ly Trins at High-Cube Warehouses
Table 5. Weighten Average Rates for Dan	ly mps at mgn-Cube watchouses

	Weighted Average for Daily Trips per 1,000 GSF ¹⁰			1,000 GSF ¹⁰
Type of High-Cube Warehouse	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (91)	1.432	1.000	0.454	0.233
Cold Storage (9)	2.115	1.282	0.836	0.749
Fulfillment Center (1)	8.178	7.461	0.717	0.242
Parcel Hub (1)	10.638	6.631	4.007	0.982
ITE <i>Trip Generation Manual</i> – 9 th Edition	1.68			

Note: The values in parentheses represent the number of data collection sites for HCW type.

¹⁰ The weighted average rates for cars and trucks may not sum to match the "all vehicle" rates because some data sources collected total vehicle trips and did not separate cars and trucks.

Fulfillment Center and Parcel Hub

Based on data from single data points, it is likely that vehicle trip generation rates for fulfillment centers and parcel hubs are significantly different from those at other HCW sites.

The single fulfillment center has a substantially higher vehicle trip generation rate than transload, shortterm storage, and cold storage HCW sites. The higher rate is due both to a higher number of passenger cars (i.e., employees) entering and exiting the site and to the count being conducted in December during the holiday shopping season.

The single parcel hub HCW has a rate that is higher than even the fulfillment center for all vehicles. The rate for trucks (both total and 5+ axle) is substantially higher than for the other HCW types.

Cold Storage

For the relatively small number of data points in the HCW database that are classified as cold storage facilities, there is a strong correlation between vehicle trips and building gross square footage.

Figure 3 is a plot of daily total vehicle trips versus building gross square footage at all cold storage facilities in the database. The data yields a linear fitted curve equation with an R² value of 0.69. As recommended in ITE *Trip Generation Handbook* 3rd Edition, the fitted curve should be considered acceptable only within the building site size range in the dataset¹¹. The weighted average rate (shown above in Table 5) is 2.115 total vehicles per 1,000 GSF for a cold storage HCW site.

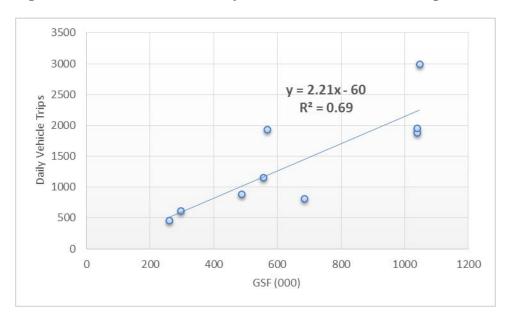


Figure 3. Correlation between Daily Total Vehicles and Cold Storage GSF (All Sites)

Figure 4 presents the data plot for daily trucks. The plot includes a fitted curve equation with an acceptable R^2 value. The weighted average rate for daily trucks at a cold storage HCW is 0.836 trucks per 1,000 GSF.

¹¹ The best correlation is found for sites with gross square footage of 500,000 or less, with greater data scatter for larger buildings. Nevertheless, there are several sites with gross square footage of more than 500,000 that have daily vehicle trip generation rates that mirror the small sites.

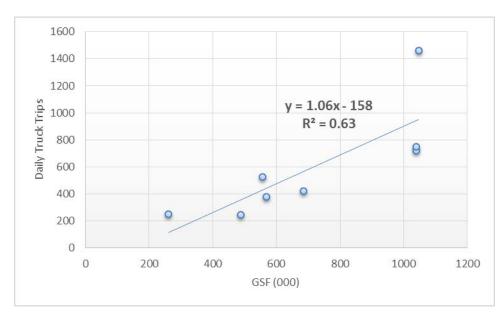


Figure 4. Correlation between Daily Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)

Transload and Short-Term Storage

It would be expected that a transload site could generate a different number of vehicle trips than a shortterm storage HCW. But, as currently classified in this report, the sites that fall into the two categories show very little difference between the two. Therefore, the two types are analyzed together in this report. If an appropriate building characteristic can be identified at the time of site development review, the sites in the database can be re-examined and potentially reclassified and the trip-generating characteristics reanalyzed.

For this combination of HCW types, the relationship between building gross square footage and vehicle trips does not produce an acceptable level of correlation to develop a fitted curve equation. Figure 5 presents a plot of daily vehicle trips against building square footage.

The weighted average rate for transload and short-term storage HCW sites is 1.432 daily vehicle trips per 1,000 GSF (listed earlier in Table 5). As a point of comparison, this rate is lower than the weighted average rate of 1.68 provided in ITE *Trip Generation Manual* 9th Edition, for the High-Cube Warehouse land use.

The transload and short-term storage HCW dataset is much larger than the other HCW datasets. This larger dataset exhibits much greater scatter than the smaller datasets. This circumstance suggests that more data for the other HCW facility types are necessary to determine if the small dataset high correlations are accurate and justified.

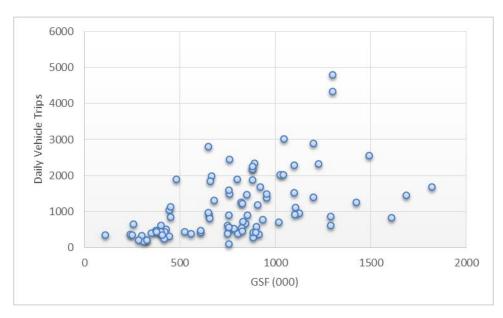
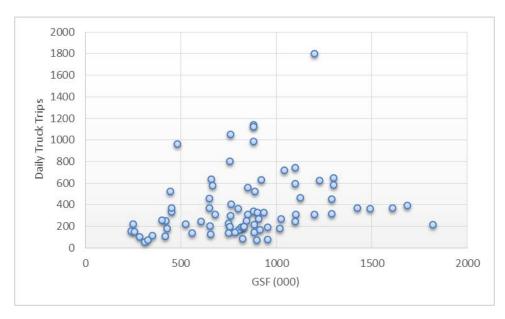


Figure 5. Daily Vehicle Trips at Transload and Short-Term Storage HCW

Figure 6 presents a plot of daily truck trips against building square footage at transload and short-term storage HCW. For trucks, the weighted average rate is 0.454 trucks per 1,000 GSF.

Figure 6. Daily Truck Trips at Transload and Short-Term Storage HCW



Key Findings – Peak Hour Trip Generation

Tables 6 and 7 list the weighted average rates for the AM and PM peak hours, respectively, for the five types of HCWs. The tables also include the weighted average rate for peak hour vehicle trips contained in ITE *Trip Generation Manual* 9th Edition, for high-cube warehouse (land use code 152).

I able 6. Weighted	Average Kates for	A M Peak Hour I ri	ps at High-Cube Warehouses
- alone of the Burea			

	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
Type of High-Cube Warehouse	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (94)	0.082	0.057	0.024	0.015
Cold Storage (9)	0.103	0.061	0.038	0.027
Fulfillment Center (1)	0.841	0.818	0.023	0.009
Parcel Hub (1)	0.851	0.428	0.423	0.041
ITE <i>Trip Generation Manual</i> – 9 th Edition	0.11			

Note: The values in parentheses represent the number of data collection sites for HCW type.

Table 7. Weighted Average Rates for PM Peak Hour Trips at High-Cube Warehouses

	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
Type of High-Cube Warehouse	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (95)	0.108	0.086	0.023	0.010
Cold Storage (9)	0.129	0.087	0.042	0.031
Fulfillment Center (1)	1.979	1.944	0.035	0.013
Parcel Hub (1)	0.803	0.568	0.235	0.009
ITE Trip Generation Manual – 9th Edition	0.12			

Note: The values in parentheses represent the number of data collection sites for HCW type.

Fulfillment Center

The single surveyed fulfillment center HCW has a significantly higher rate for passenger cars during both the AM and PM peak hours (as is the case for daily trips at the fulfillment center). The single fulfillment center count was taken during the December holiday shopping season.

The single surveyed parcel hub HCW has significantly higher rates for both cars and trucks during both the AM and PM peak hours (as is the case for daily trips at the fulfillment center).

Cold Storage

For cold storage HCW, fitted curve equations can be developed for estimating total vehicles during the AM and PM peak hours. The equations are:

- AM peak hour: $y = 0.17x 40 (R^2 = 0.82)$
- PM peak hour: y = 0.17x 35 ($R^2 = 0.83$)

The cold storage HCW weighted average rates during the AM and PM peak hours are, respectively, 0.103 and 0.129 total vehicle trips per 1,000 GSF. Both rates are close to the ITE *Trip Generation Manual* 9th Edition rate for all high-cube warehouses (land use code 152).

Transload and Short-Term Storage

Data plots for the AM and PM peak hours (not presented in this report) are comparable to the daily plot in terms of data scatter and little correlation. The weighted average rates for the AM and PM peak hours are:

- 0.082 total vehicles per 1,000 GSF during the AM peak hour
- 0.108 total vehicles per 1,000 GSF during the PM peak hour

As points of comparison, these rates are lower than the AM and PM weighted average rates of 0.11 and 0.12, respectively, provided in ITE *Trip Generation Manual* 9th Edition for the High-Cube Warehouse land use.

The weighted average rates for truck trips at transload and short-term storage HCWs during the AM and PM peak hours are:

- 0.024 trucks per 1,000 GSF during the AM peak hour
- 0.023 trucks per 1,000 GSF during the PM peak hour

RECOMMENDATIONS

The preceding analysis of available HCW trip generation data identified significant weaknesses in the ability to forecast vehicle trips with confidence. The following recommendations present a plan of action for quantifying necessary vehicle trip estimates to an acceptable level of precision for all types of HCWs.

Fulfillment Center HCW

The single available data point indicates that the trip generation characteristics (total vehicle trips and trips by vehicle type) for a fulfillment center HCW are significantly different from those for all other types of HCWs. A targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. Included should be circulation of a Call for Data by ITE that specifically requests data for fulfillment centers. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Parcel Hub HCW

The single available data point indicates that the trip generation characteristics (total vehicle trips and trips by vehicle type) for a parcel hub HCW are significantly different from those for all other types of HCWs. It is recommended that ITE circulate a Call for Data that specifically requests data for parcel hubs. A targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Cold Storage HCW

The limited data available for cold storage facilities produce acceptable levels of statistical precision for the estimation of vehicle trips. However, vehicle trip generation rates based on recently collected data are higher than those derived from data collected at least 10 years ago. It is recommended that (1) further investigation be made into the existing data and (2) additional data be collected.

The cold storage sites in the database are classified as such based on the interpretation of the data submitter. Confirmation of the applicability of the cold storage classification can be completed through determination of the proportion of the HCW building space devoted to cold storage. This information will also help in the development of a clear definition of cold storage facilities and their characteristics.

If some of the cold storage sites are reclassified, a targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. Included should be circulation of a Call for Data by ITE that specifically requests data for cold storage facilities. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Transload and Short-Term Storage HCW

The current database of sites for this subset of HCW types has been separated in accordance with building and dock configurations specified earlier in this report. To use a metaphor, it is possible that instead of separating the sites into apples and oranges, the sites have been separated into two sets that each contain both apples and oranges. The result is a pair of databases that (1) are not significantly different from each other in terms of trip generation and (2) do not yield satisfactory levels of correlation between building gross square footage and vehicle trips. It is possible that a more accurate allocation of the available data points between the two types of HCWs could produce better predictive relationships.

It is recommended that an analysis and evaluation of potential stratifications be undertaken and an appropriate set of data (along with a weighted average rate) be selected for use as interim rates until further study is complete (as described below).

<u>Overall</u>

It is recommended that a targeted data collection plan be undertaken in an attempt to further define and identify relationships between potential independent variables and vehicle trips generated at each type of HCW. A six-step process is presented below.

Step 1: Select 15 Sites¹² with Similar Characteristics for Data Collection and Further Analysis

- For each site, compile the data specified earlier in Table 3
- If the Table 3 data are available for the sites at which SCAQMD or NAIOP collected data, these sites and their data can be considered part of the initial 15
- Limit sites to one or two metropolitan regions. Preference should be given to a region with an existing freight model that disaggregates truck trips and commodity flow to the county or traffic analysis zone level, for cross-referencing purposes.

Step 2: Collect Data at the Initial 15 Sites

• Collect the vehicle volume data specified in Table 8

Step 3: Analyze Complete Data for Consistency and Correlation with One or More Independent Variables

• If consistency and correlations are found, skip to Step 5

Step 4: Identify 15 Additional Sites and Undertake Data Collection

- Summarize and analyze results, assessing consistency
- The results will set an approximate expectation for future data. They may be described statistically and/or in other clear terms.
- If variability is still considered significantly high by ITE standards, assess probable causes, further partition data into more subgroups, and reanalyze data. Use results to determine how to classify warehouse types for future data collection.

Step 5: Identify 15 Sites and Collect Data for Next Priority HCW Classification

- 15-30 sites (including usable existing data) in at least two metropolitan regions (may be selected to reflect funding sources)
- 3 year-long counts
- Compare year-long counts from second HCW type with those from first HCW type to determine if additional year-long counts are needed to show variability in different types of HCWs

¹² For a database with substantial uniformity in the characteristics that influence trip generation, a relatively small number of sites can produce predictive relationships with excellent statistical reliability (for example, perhaps the cold storage facilities). However, for sites with substantial variability, a database total of approximately 30 sites is typically recommended based on the central limit theorem. The theorem states that the sampling distribution of the means will approach that of a normal distribution with that quantity of data points even if the population being sampled is not normally distributed.

Step 6: Summarize and analyze data for each type of HCW, developing rates and equations where correlation is suitable. Identify patterns, trends, and other findings relevant to estimating HCW trip generation for use in TIAs and AQAs. Assess how many HCW types are needed/justified.

Table 8. Minimum Data Collection for Each HCW Type

• 1	5 sites including those for which there are usable existing data
n	One or two metropolitan regions – preference should be for a region with an existing freight nodel that disaggregates truck trips and commodity flow to the county or TAZ level, for cross-eferencing purposes
	Similar site characteristics (to minimize variability of results (desirably most common in metro egion where data to be collected)
a	-2 NAICS industrial codes – we may need to loosen this requirement in order to find 15 cceptable sites in a single metropolitan area; we may need to use data from sites in multiple netropolitan areas; should be used in site selection process, not as a prescriptive requirement
• }	lear-long count at 3 sites
v	All counts by video; all files to be retained for possible future use; examine via simultaneous video and tube counts what the discrepancy rates might be for purpose classification based by by sical vehicle types and standard FHWA classes versus actually seeing the trucks on video
d	All counts to follow ITE site trip generation count procedures with counts being made lirectionally by vehicle classification and recorded by driveway, by direction, and by 15 ninute period so they can be checked (and reconstructed if necessary)

APPENDIX A. SUPPLEMENTAL DETAILED DATA ANALYSIS

Data Analysis Process

The database of 106 HCWs with vehicle trip generation data consists of one fulfillment center, one parcel hub, nine cold storage, 56 transload, and 39 short-term storage.

For each data record, a range of traffic count data is available.

- For many records, a daily count is provided. For many records, AM and PM peak hour traffic counts are provided.
- For some data records, the count data is reported simply as total vehicles. In some records, the vehicle counts are classified as cars or trucks. In some records, the vehicle counts are classified as cars and trucks, disaggregated by number of axles.

The data were disaggregated and aggregated in a variety of ways to help determine the effects of certain potential variables on vehicle trip generation.

- The entire database for each facility type
- Only the recent SCAQMD-sponsored data collection sites
- Only the recent NAIOP-sponsored data collection sites
- The combination of the recent SCAQMD- and NAIOP-sponsored data collection sites
- All data except for the recent SCAQMD- and NAIOP-sponsored data collection sites
- Sites with at least 500,000 gross square footage
- Sites with at least 800,000 gross square footage
- Sites with at least 1 million gross square footage
- Sites with data collected prior to 2007
- Sites with data collected after 2006
- Sites with data collected prior to 2010
- Sites with data collected after 2009
- Only California sites
- Only sites with close proximity to major port facilities

The vehicle count data were analyzed separately for the fulfillment center, parcel hub, cold storage, transload, and short-term storage HCWs.

- The results for fulfillment center, parcel hub, and cold storage are distinctly different from each other and are addressed separately below
- The results for transload and short-term storage HCWs are not substantially different from each other and are treated in combination below

The database enabled the compilation of over 1,500 subsets of HCW trip generation data that reflect:

- 7 different combinations of building types,
- 6 different sets for individual vehicle classifications or combinations,
- 13 different subsets of the database, and
- 3 different time periods (daily, AM, PM)

Weighted averages of vehicles per 1,000 gross square feet in the building were computed for each subset. Data plots with best fit linear curves were prepared for each subset. Examination of the data yields very few definitive relationships between site characteristics and vehicle trip generation. Key findings from these analyses are presented below.

Cars vs. Total Vehicles

Table A1 presents the weighted averages for cars, trucks, and 5+ axle trucks as a percentage of total daily vehicles measured at HCW sites. Separate calculations are presented for the entire database and for13 different subsets. When the complete set is included, the overall average is approximately 68 percent cars and 32 percent trucks of the total daily vehicles. There is minimal variation between the most recent data sources (SCAQMD and NAIOP) or between different building sizes. However, the more recent average data (post-2006 and post-2009) has a higher proportion of cars than does the older data collection sites.

	Percentage of Total Daily Vehicles		
Data Site Subset	Cars	Trucks	5+ Axle Trucks
All	67.8%	32.2%	19.4%
SCAQMD	69.0	31.0	17.7
NAIOP	68.6	31.4	21.8
SCAQMD & NAIOP	68.8	31.2	19.0
Non-SCAQMD or NAIOP	66.6	33.4	
More than 500,000 GSF	68.7	31.3	19.2
More than 800,000 GSF	69.4	30.6	18.5
More than 1,000,000 GSF	70.3	29.7	21.2
Pre-2007	62.1	37.9	
Post-2006	70.1	29.9	19.5
Pre-2010	60.9	39.1	28.2
Post-2009	70.7	29.3	19.0
California Only	67.6	32.4	18.9

Table A1. Weighted Averages for Percentage of Total Daily Vehicles for Cars and Trucks

Cold Storage HCW

If the cold storage HCW data are restricted to only include data collected under sponsorship of SCAQMD and NAIOP within the past eight years, the correlation between daily total vehicles and site gross square footage can be improved beyond the full dataset correlation. Figure A1 presents the data plot and associated fitted curve¹³. As recommended in ITE *Trip Generation Handbook* 3rd Edition, the fitted curve should be considered acceptable only within the building site size range in the dataset.

¹³ Granted, the improved correlation in Figure A3 is due in part to requiring correlation to only four data points.

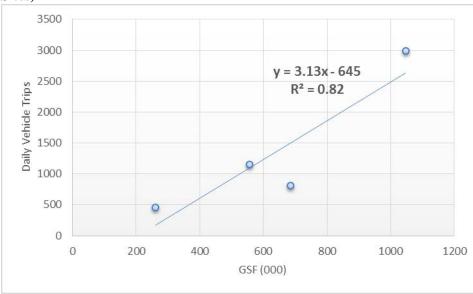


Figure A1. Correlation between Daily Total Vehicles and Cold Storage GSF (SCAQMD & NAIOP Sites)

Correlation is also exhibited for cars, trucks, and 5+ axle trucks for daily traffic generated at cold storage facilities. Figures A2, A3, and A4 present the data plots for cars, trucks, and 5+ axle trucks, respectively. As recommended in ITE *Trip Generation Handbook* 3rd Edition, the fitted curves should be considered acceptable only within the building site size range in the dataset.

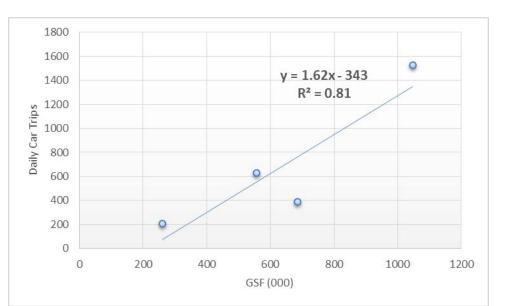


Figure A2. Correlation between Daily Cars and Cold Storage GSF (SCAQMD & NAIOP Sites)

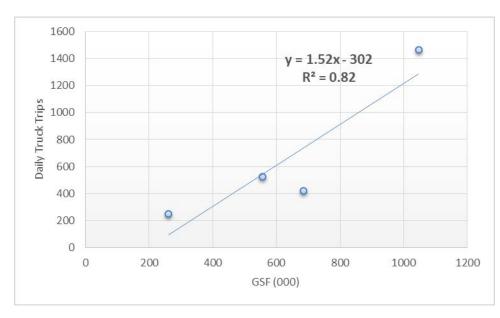


Figure A3. Correlation between Daily Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)

Figure A4. Correlation between Daily 5+ Axle Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)

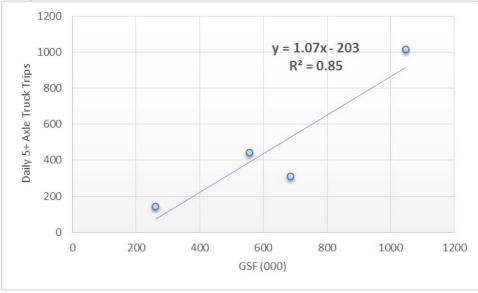


Table A2 presents the weighted average rates for all vehicles, cars, trucks, and 5+ axle trucks per 1,000 GSF at cold storage sites. Separate calculations are presented for the complete database plus 13 different subsets. When the complete set is included, the overall weighted average rate for all vehicles is 2.12. The rate is nearly identical whether calculated with only the SCAQMD and NAIOP data or with the other data points in the complete dataset.

Another observation from the table is that newer data (post-2006 and post-2009) have higher rates than do the older data, sometimes substantially higher. The newer and older datasets are comprised of relatively small numbers of data points, 6 and 3, respectively. Additional data points would be helpful to derive a more reliable estimate of cold storage HCW trip generation.

Data Site Subset	Weigh	nted Average for D	aily Trips per 1,00	00 GSF
(Cold Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	2.115	1.282	0.836	0.749 (4)
SCAQMD (3)	2.466	1.265	1.201	0.858
NAIOP (1)	1.179	0.564	0.615	0.455
SCAQMD & NAIOP (4)	2.120	1.077	1.043	0.749
Non-SCAQMD or NAIOP (5)	2.111	1.449	0.667	
More than 500,000 GSF (5)	2.009	1.121	0.888	0.772
More than 800,000 GSF (3)	2.179	1.242	0.938	0.968
More than 1,000,000 GSF (3)	2.179	1.242	0.938	0.968
Pre-2007 (3)	1.868	1.134	0.706	
Post-2006 (6)	2.278	1.368	0.910	0.749
Pre-2010 (3)	1.868	1.134	0.706	
Post-2009 (6)	2.278	1.368	0.910	0.749
California Only (5)	2.114	1.077	1.043	0.749
Port Only (5)	2.114	1.077	1.043	0.749

Table A2. Weighted Average Rates for Daily Trips at Cold Storage Facilities

Note: The values in parentheses represent the number of data collection sites for that particular subset of cold storage sites.

Tables A3 and A4 repeat the information presented in Table A2, but for the AM and PM peak hours, respectively.

Table A3. Weighted Average Rates for AM Peak Hour	Trips at Cold Storage Facilities
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Data Site Subset	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
(Cold Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	0.103	0.061	0.038	0.027
SCAQMD (3)	0.124	0.070	0.054	0.026
NAIOP (1)	0.071	0.039	0.032	0.029
SCAQMD & NAIOP (4)	0.110	0.062	0.048	0.027
Non-SCAQMD or NAIOP (5)	0.098	0.061	0.030	
More than 500,000 GSF (5)	0.092	0.054	0.038	0.028
More than 800,000 GSF (3)	0.099	0.058	0.041	0.030
More than 1,000,000 GSF (3)	0.099	0.058	0.041	0.030
Pre-2007 (3)	0.084	0.046	0.025	
Post-2006 (6)	0.115	0.070	0.045	0.027
Pre-2010 (3)	0.084	0.046	0.025	
Post-2009 (6)	0.115	0.070	0.045	0.027
California Only (5)	0.116	0.062	0.048	0.027
Port Only (5)	0.116	0.062	0.048	0.027

Note: The values in parentheses represent the number of data collection sites for that particular subset of cold storage sites.

Data Site Subset	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
(Cold Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	0.117	0.080	0.037	0.029
SCAQMD (3)	0.129	0.087	0.042	0.031
NAIOP (1)	0.089	0.050	0.039	0.026
SCAQMD & NAIOP (4)	0.118	0.077	0.041	0.029
Non-SCAQMD or NAIOP (5)	0.117	0.083	0,034	
More than 500,000 GSF (5)	0.106	0.069	0.037	0.029
More than 800,000 GSF (3)	0.116	0.079	0.037	0.029
More than 1,000,000 GSF (3)	0.116	0.079	0.037	0.029
Pre-2007 (3)	0.097	0.058	0.037	
Post-2006 (6)	0.131	0.093	0.038	0.029
Pre-2010 (3)	0.097	0.058	0.037	
Post-2009 (6)	0.131	0.093	0.038	0.029
California Only (5)	0.117	0.077	0.041	0.029
Port Only (5)	0.117	0.077	0.041	0.029

Table A4. Weighted Average Rates for PM Peak Hour Trips at Cold Storage Facilities

Note: Values in parentheses represent the number of data collection sites for that particular subset.

Transload and Short-Term Storage HCW

Weighted average rates for daily trips at transload and short-term storage HCWs are listed in Table A5 for four vehicle classifications (all vehicles, car, truck, and 5+ axle truck) and for the complete database plus 13 subsets. One observation about the data is that the more recent data sites have, on average, lower daily trip generation rates (for all vehicle types) than the older sites¹⁴. This relationship is also found for the AM and PM peak hours presented in Tables A6 and A7.

Data Site Subset	Weighted Average for Daily Trips per 1,000 GSF			
(Transload & Short-Term Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	1.432	1.000	0.454	0.233
SCAQMD	1.412	1.006	0.406	0.217
NAIOP	1.069	0.749	0.339	0.276
SCAQMD & NAIOP	1.275	0.901	0.374	0.221
Non-SCAQMD or NAIOP	1.701	1.183	0.603	
More than 500,000 GSF	1.433	1.008	0.431	0.223
More than 800,000 GSF	1.417	0.978	0.405	0.200
More than 1,000,000 GSF	1.493	1.044	0.392	0.257
Pre-2007	1.653	1.203	0.732	
Post-2006	1.397	0.994	0.402	0.233
Pre-2010	1.621	1.097	0.708	0.614
Post-2009	1.347	0.970	0.377	0.221
California Only	1.226	0.871	0.388	0.221
Port Only	1.258	0.871	0.388	0.221
ITE <i>Trip Generation Manual</i> – 9 th Edition	1.68			

¹⁴ A decline in HCW auto traffic is likely because of a reduction in employee density as HCWs have become more automated. The reduction in truck trips does not have a clear explanation. Continued data collection is recommended to enable the development of current trip generation rates that do not need to rely on older data.

Tables A6 and A7 list the weighted average rates for the AM and PM peak hours, respectively.

Table A6. Weighted Average Rates for AM Peak Hour Trips at Transload and Short-Term Storage	
HCW	

Data Site Subset	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
(Transload & Short-Term Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	0.082	0.057	0.024	0.015
SCAQMD	0.073	0.049	0.024	0.013
NAIOP	0.060	0.040	0.019	0.016
SCAQMD & NAIOP	0.068	0.046	0.022	0.014
Non-SCAQMD or NAIOP	0.100	0.075	0.028	0.022
More than 500,000 GSF	0.078	0.055	0.023	0.014
More than 800,000 GSF	0.074	0.050	0.022	0.014
More than 1,000,000 GSF	0.078	0.049	0.025	0.022
Pre-2007	0.110	0.087	0.032	0.016
Post-2006	0.079	0.057	0.022	0.015
Pre-2010	0.101	0.073	0.032	0.022
Post-2009	0.072	0.051	0.021	0.014
California Only	0.067	0.045	0.023	0.014
Port Only	0.071	0.046	0.023	0.014
ITE Trip Generation Manual – 9th Edition	0.11			

Table A7. Weighted Average Rates for PM Peak Hour Trips at Transload and Short-Term Storage HCW

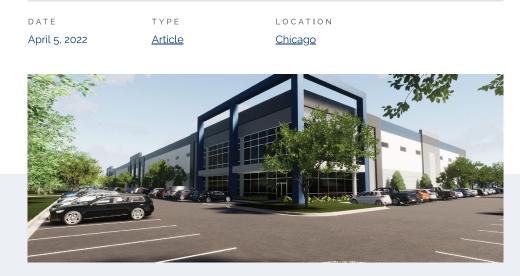
Data Site Subset	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
(Transload & Short-Term Storage)	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	0.108	0.086	0.023	0.010
SCAQMD	0.081	0.060	0.021	0.010
NAIOP	0.091	0.075	0.016	0.010
SCAQMD & NAIOP	0.085	0.066	0.019	0.010
Non-SCAQMD or NAIOP	0.135	0.117	0.028	0.015
More than 500,000 GSF	0.108	0.087	0.022	0.010
More than 800,000 GSF	0.110	0.087	0.022	0.009
More than 1,000,000 GSF	0.120	0.097	0.019	0.010
Pre-2007	0.145	0.133	0.031	0.012
Post-2006	0.107	0.086	0.020	0.010
Pre-2010	0.141	0.122	0.031	0.015
Post-2009	0.091	0.072	0.019	0.010
California Only	0.082	0.063	0.019	0.010
Port Only	0.086	0.065	0.019	0.010
ITE Trip Generation Manual – 9th Edition	0.12			

Tables A5, A6, and A7 also include the ITE *Trip Generation Manual* 9th Edition, weighted average rate for high-cube warehouses (land use code 152). The data analyzed in this report generally produce lower rates than contained in *Trip Generation Manual*.

EXHIBIT C:

Bridge Industrial, *Will the Industrial Boom Continue? At Least Throughout 2022, Expectedly*, Apr. 5, 2022, <u>https://bridgeindustrial.com/media/article/will-</u> <u>the-industrial-boom-continue-at-least-</u> <u>throughout-2022-expectedly/</u>

Will the Industrial Boom Continue? At Least Throughout 2022, Expectedly



But not all current users are related to e-commerce. Amazon has remained a big name in warehousing for the past few years, but Cook County maintains a diverse mix of tenants, according to Nick Siegel, Partner, Acquisitions at Bridge Industrial. In fact, Bridge in Chicago completed more than 10 leases in 2021—Amazon was just one of the 10.

"Amazon is still providing a boom to the industry," Siegel explains, "and there are many indirect benefits of the growth of e-commerce, but not every one of our tenants is e-commerce related. We've worked with Visual Pak that specializes in food and chemical packaging; Duravant is a manufacturing company we did a lease with near O'Hare. There is a lot of e-commerce happening, but it's a diverse market in terms of tenant use."

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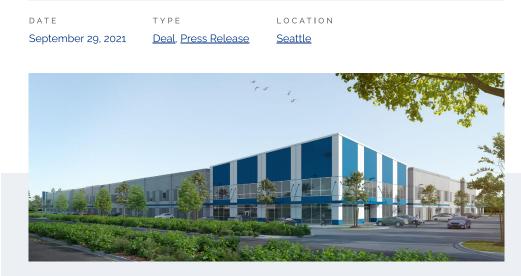
EXHIBIT D:

Bridge Industrial Press Release, Bridge Industrial Acquires 2.5 Million SF Seattle Site for Future 'Bridge Point Tacoma 2MM,'

Sept. 29, 2021,

<u>https://bridgeindustrial.com/media/press-</u> <u>release/bridge-industrial-acquires-development-</u> <u>sites-for-bridge-point-tacoma-125-bridge-point-</u> <u>tacoma-210/</u>

Bridge Industrial Acquires 2.5 Million SF Seattle Site for Future 'Bridge Point Tacoma 2MM'



Leading industrial operator and developer makes second 100+ acre acquisition in the Port of Tacoma region this year with former BNSF Railway property

SEATTLE (September 29, 2021) –– Bridge Industrial ("Bridge"), a privately-owned, vertically integrated real estate operating company and investment manager, today announced the acquisition of 160 acres of development to be the future site of Bridge Point Tacoma 2MM – a 2.5 million-square-foot industrial development.

Previously owned by the BNSF Railway, the site, located at 5802 South Burlington Way, Tacoma, Washington, has been vacant and in disrepair for several years. Upon Bridge's acquisition, the company has committed to maintaining remediations performed prior to its purchase and any future required remediation for its proposed development.

Bridge Point Tacoma 2MM will span four buildings and feature approximately 20 acres of trailer storage space, in addition to 40-foot clear heights and expansive truck courts. The project can cater to tenant requirements from 100,000 square feet to 1.5 million square feet. Bridge will break ground on the state-of-the-art industrial campus in August of 2022 and expects to deliver the project in the summer of 2023.

Todd Clarke, Matt Murray, Matt McLennan, and Ty Clarke of Kidder Matthews represented Bridge Industrial in the transaction.

"As more e-commerce, technology, and logistics users flock to the Pacific Northwest — and the Greater Seattle region in particular — Bridge is excited to bring such a strategically located development of this scale to market. The proximity of this site to so many key transit options, such as the Port of Tacoma and I-5, make it ideal for a variety of users meeting the ever-increasing demand for last-mile and next-day delivery," said Justin Carlucci, Partner for Bridge's Northwest Region. "Our operations across the Northwest region have grown exponentially during our three and a half years in this market, and we look forward to creating more valuable infrastructure that can support the economy and the influx of new consumer and business populations."

Bridge Point Tacoma 2MM benefits from a prime location with close proximity to I-5, Port of Tacoma, and major population centers. Users will have direct access to three 4-way interchanges onto I-5 and Highway 16, and will also benefit from the site's position — within a 45-minute drive of four of the state's six largest cities, ample labor population, and hubs for consumer activities.

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The site is Bridge's second 100+ acre acquisition in the past ten months, and its fifth acquisition in the Seattle market within the past year. In December of last year, Bridge acquired 117 acres in Milton, Washington for the future Bridge Point I-5 Seattle, a 2 million-square-foot, state-of-theart industrial campus. Since first opening its Seattle office in 2018, Bridge has acquired and/or developed over 7.02 million square feet of Class A industrial product throughout the Northwest Region. Bridge continues to seek opportunities to develop modern industrial facilities in the most supply-constrained core infill industrial markets.

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EXHIBIT E:

Kidder Mathews, *Bridge Point Tacoma 2MM*, <u>https://www.bridgepointtacoma2mm.com/downl</u> <u>oads/Bridge-Point-Tacoma-2MM-Flyer.pdf</u>

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MATT MCLENNAN, CCIM matt.mclennan@kidder.com 253.722.1458

SPECULATIVE DESIGN | 4-BUILDING OPTION

BRIDGE

BUILDING A

- 520,613 building SF
- •115DH / 4GL
- ±227 Trailer spaces
- ±323 Car spaces

BUILDING B

- 960,682 building SF
- •186DH / 4GL
- ±397 Trailer spaces
- ±502 Car spaces

BUILDING C

- 664,657 building SF
- •122DH / 4GL
- ±235 Trailer spaces
- ±331 Car spaces

BUILDING D

- 323,526 building SF
- 63DH / 2GL
- ±32 Trailer spaces
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BUILDING A

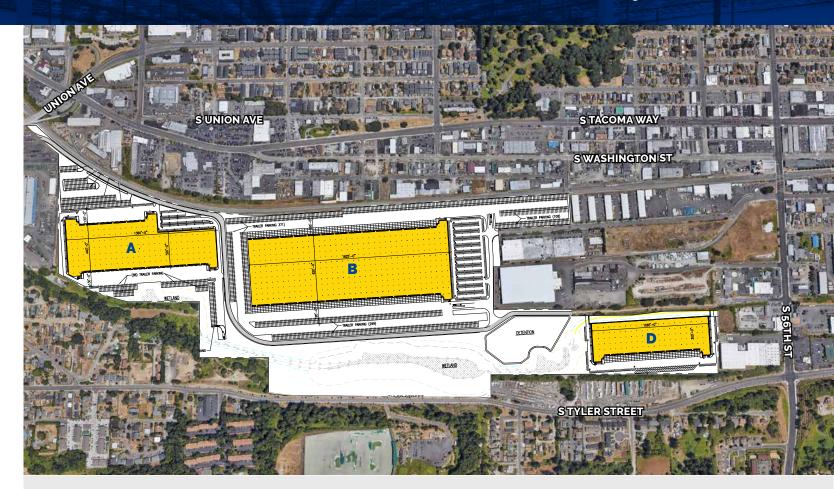
- 520,613 building SF
- •124DH / 4GL
- ±227 Trailer spaces
- ±347 Car spaces

BUILDING B

- 1,156,762 building SF
- 248DH / 2GL
- ±778 Trailer spaces
- ±713 Car spaces

BUILDING C

- 334,176 building SF
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- ±202 Car spaces





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EXHIBIT F:

Shawna De La Rosa, *Bridge Industrial snags* 150-acre Tacoma vacant site for \$158M, Puget Sound Business Journal, Sept. 29, 2021, <u>https://www.bizjournals.com/seattle/news/2021/</u> 09/28/bridge-development-partners-snagstacoma-industria.html Please Sign In and use this article's on page print button to print this article.

COMMERCIAL REAL ESTATE

Bridge Industrial snags 150-acre Tacoma vacant site for \$158M



Bridge Industrial plans to develop four industrial buildings on the 150acre lot it purchased for \$158 million on Monday. BRIDGE INDUSTRIAL

IN THIS ARTICLE

Matt Murray Person

Todd Clarke Person



By Shawna De La Rosa Reporter, Puget Sound Business Journal Sep 28, 2021 **Updated** Sep 29, 2021, 10:53am PDT The industrial site buying frenzy continues this week as Bridge Industrial purchased a 150-acre property just south of the Tacoma Mall for \$158 million. The developer plans to construct four industrial buildings on the site.

The industrial market in Pierce County is exploding. Already, most vacant lots in the warehouse-rich Frederickson area are already spoken for, so developers are now looking for space closer to Tacoma's port. Nearby, in Tacoma's Nalley Valley, Post Investment Group purchased a 16-acre industrial development on Aug. 31. Just up the hill, Davis Property & Investment recently bought the former Tacoma News Tribune building to turn into industrial space, as well.

Early site plans call for buildings that would range in size from about 350,000 to 1 millionsquare feet. The site is expected to have approximately 2.5 million square feet of industrial building space, with 1,107 trailer spaces and 466 14-foot dock-high loading doors.

There has already been interest from some large distribution tenants looking to pre-lease the space, said <u>Matt Murray</u>, a broker with Kidder Mathews. Murray and <u>Todd Clarke</u>, also with Kidder Mathews, represented Bridge in the sale. The buildings will deliver near the end of 2023.

The seller was Texas-based BNSF Railway Co.

Though the potential tenant interest gave Bridge Development confidence to make the purchase, the development company would have likely made the purchase regardless, Murray said. Bridge Development is an international company with offices in Bellevue.

"This is a trophy site that is highly coveted and has been looked at for 20 years," Murray said. "The demand for industrial warehouse space has significantly increased year over year."

He attributes the growing demand for space to the population boom and the areas's proximity to ports.

"Seattle is so constrained from a land issue standpoint," he said. "There's just not enough supply."

"This property is one-of-a-kind," Murray said. "You can't find something of this scale that close to a port."

Editor's note: The story has been updated with new information from Bridge Industrial, formerly called Bridge Development Partners.

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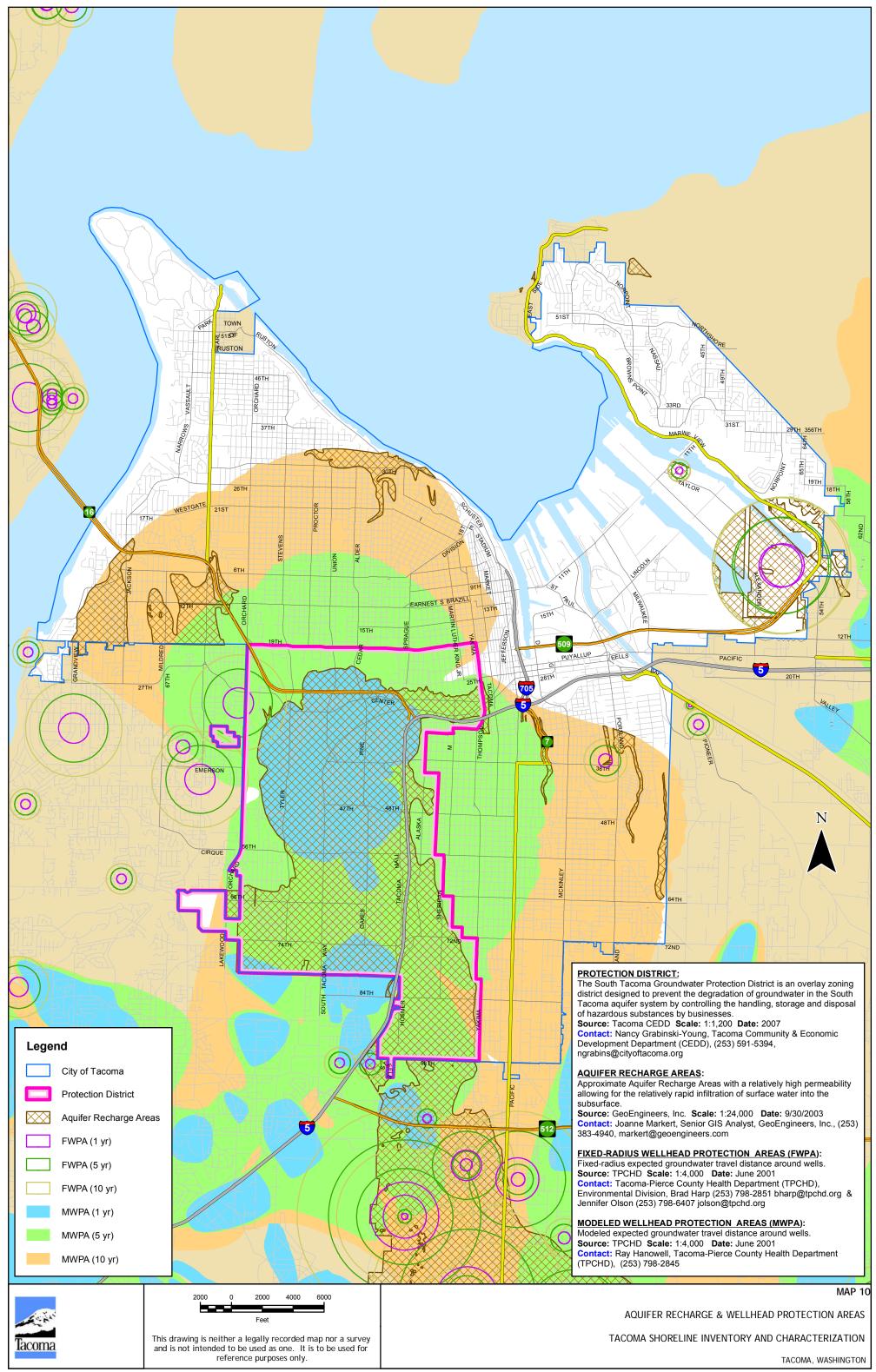
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EXHIBIT G:

City of Tacoma, Aquifer Recharge Map, <u>http://cms.cityoftacoma.org/Planning/Shoreline/</u> <u>Maps/10_Aquifer.pdf</u>



Plot Date: 1/3/2008 File Name: \\geobase-win\ced\GADS\R2007\R504\Aquifer.mxd Created By: City of Tacoma | Community & Economic Development | GIS Analysis & Data Services

EXHIBIT H:

Wash. Environmental Justice Task Force, Recommendations for Prioritizing EJ in Washington State Government (Fall 2020) Report to the Washington State Governor and Legislature

Environmental Justice Task Force

Recommendations for Prioritizing EJ in Washington State Government

Fall 2020



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Task Force Staff

- Elise Rasmussen, Project Manager
- Esmael Lopez, Community Engagement Coordinator
- Hannah Fernald, Administrative Coordinator

For more information / Para más información:

Environmental Justice Task Force Information Page: https://healthequity.wa.gov/TheCouncilsWork/EnvironmentalJusticeTaskForceInf ormation

Environmental Justice Task Force Meeting Agendas, Minutes, and Materials Page:

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"We've got to decide that we want to live in a world that is sane and happy and healthy, and that everyone deserves that."

-Majora Carter, Environmental Justice Advocate

Acronyms

	List of Common Terms/Titles and their Acronyms		
Acronym	Full Term/Title		
ADA	Americans with Disabilities Act (e.g. ADA accessible)		
BIPOC	Black, Indigenous, and People of Color		
CIA	Cumulative Impact Analysis (e.g. Environmental Health Disparities Map)		
COVID-19	Coronavirus Disease 2019, also known as 2019 novel coronavirus		
EHD Map	Environmental Health Disparities Map		
EJ	Environmental Justice		
EJTF	EJ Task Force		
ESHB 1109	Engrossed Substitute House Bill 1109 (2019-21 State Operating Budget)		
GARE	Government Alliance on Race and Equity		
LEP	Limited English Proficiency		
SEP	Supplemental Environmental Project		
USEPA	United States Environmental Protection Agency		
WA	Washington (as in Washington State)		
WTN	Washington Tracking Network		

Acknowledgement

The Environmental Justice Task Force (EJTF) recognizes that the fight for environmental justice is ongoing—it did not begin with the EJTF, and it will not end with the EJTF. We express our sincerest gratitude to the communities across Washington state who have been on the frontlines fighting for environmental justice. The EJTF has greatly benefitted from community knowledge, wisdom, and expertise, and our hope is that communities see themselves in this report. We acknowledge that every step closer to environmental justice for Washingtonians is because of the power that community holds.

Executive Summary

The EJTF's Authorizing Budget Proviso & Responsibilities

The Environmental Justice Task Force (EJTF) was created through a proviso in the state's 2019-2021 operating budget (Engrossed Substitute <u>House Bill 1109</u>, section 221, subsection 48). In accordance with the budget proviso quoted below, this report includes:

- I. **Measurable Goal Recommendations:** "Measurable goals for reducing environmental health disparities for each community in Washington state and ways in which state agencies may focus their work towards meeting those goals."
- II. **Model Policy Recommendations:** "Model policies that prioritize highly impacted communities and vulnerable populations for the purpose of reducing environmental health disparities and advancing a healthy environment for all residents."
- III. Environmental Health Disparities Map Recommendations: "Guidance for using the Washington Environmental Health Disparity Map to identify communities that are highly impacted by EJ issues with current demographic data."
- IV. **Community Engagement Recommendations:** "Best practices for increasing meaningful and inclusive community engagement that takes into account barriers to participation that may arise due to race, color, ethnicity, religion, income, or education level."¹

Report Overview

The first chapter of the EJTF report provides context for what environmental justice (EJ) is, how to build on existing EJ work in Washington, and why state government must prioritize addressing EJ issues and environmental health disparities. The second chapter focuses on the EJTF's process for developing recommendations, a statewide EJ definition, and EJ principles. The final chapter of the report includes all EJTF recommendations. The report appendices include additional resources, including guidance developed by the EJTF's Community

Engagement Subcommittee for how state agencies can develop their own community engagement plans (Appendix C).

Environmental Justice Definition

The EJTF developed a recommended statewide definition for EJ that builds upon the U.S. Environmental Protection Agency's (USEPA) definition by adding the outcomes we want to see in Washington state. The EJTF recommends that the definition be adopted by all Washington state agencies to

Recommended Statewide EJ 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, regulations and policies. This includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits, and eliminating harm.

¹ Engrossed Substitute <u>House Bill 1109</u>, section 221, subsection 48.

identify and address current environmental injustices and to ensure future decisions and actions promote EJ.

Environmental Justice Principles

The EJTF also developed five EJ principles to serve as an initial blueprint for a shared vision for EJ in Washington state. The following EJ principles were informed by communities across the state and with recognition and reflection of the <u>Principles of</u> <u>Environmental Justice</u> adopted at the 1991

EJ Principles

- 1. Achieve the highest attainable environmental quality and health outcomes for all people.
- 2. Adopt a racial justice lens.
- 3. Engage community meaningfully.
- 4. Be transparent.
- 5. Be accountable.

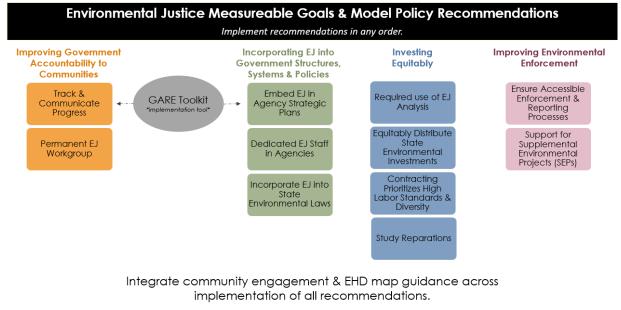
First National People of Color Environmental Leadership Summit. The EJ principles section in this report defines each of these principles in more depth, including actions state agencies can take to work toward each principle.

Measurable Goals and Model Policy Recommendations

The first set of recommendations in this report focus on measurable goals and model policies. These recommendations are further organized into four categories that name the intended outcomes the EJTF would like to see enhanced in state government:

- Improving Government Accountability to Communities
- Incorporating EJ into Government Structures, Systems, and Policies
- Investing Equitably
- Improving Environmental Enforcement

Additionally, the report includes guidance for using the Government Alliance on Race and Equity's (GARE) Racial Equity Toolkit as an implementation tool to assist agencies with tracking and communicating progress toward EJ and embedding EJ in agency strategic plans.



Measurable Goals & Model Policy Recommendations to Reduce Environmental Health Disparities			
	1. Measurable Goals: Track & Communicate Progress		
Improving Government Accountability	In partnership with communities, agencies should create a standard method to develop, track, evaluate, and publish EJ and health goals focused on pollution reduction, eliminating environmental health disparities, and improving community engagement.		
to Communities	2. Model Policy: Permanent EJ Workgroup Convene a permanent EJ interagency workgroup of relevant agency staff that includes members representing overburdened communities.		
	3. Model Policy: Embed EJ in Strategic Plans		
Incorporating	Agencies shall make achieving EJ part of their strategic plans in order to integrate EJ into agencies' protocols and processes.		
EJ into Government Structures,	4. Model Policy: Dedicated EJ Staff in State Agencies Agencies will have at least one staff position dedicated to integrating EJ principles specifically, and equity more broadly, into agency actions.		
Systems, and Policies	5. Model Policy: Incorporate EJ in State Environmental Laws		
	EJ considerations should be incorporated into a range of state environmental laws. Further, environmental and natural resource state agencies should consider EJ in developing agency request legislation, analyzing bills during legislative session, and conducting rule reviews.		
	6. Model Policy: Required use of EJ Analysis		
	Agencies should adopt, and the Legislature should consider, requiring EJ analyses, including but not limited to the use of the Environmental Health Disparity Map, that combine the cumulative impact of environmental health indicators such as environmental exposures, environmental effects, impact on sensitive populations, and other socioeconomic factors.		
	7. Model Policy: Equitably Distribute State Environmental Investments For new and existing revenue and expenditures with an environmental nexus, the state Legislature and agencies should equitably distribute investments ensuring that resources are allocated to the most overburdened communities.		
Investing Equitably	8. Model Policy: Contracting Prioritizes High Labor Standards & Diversity Work funded by state environmental investments should increase inclusion in contracting with minority, women, and veteran-owned enterprises in alignment with the Governor's Subcabinet on Business Diversity led by the Office of Minority and Women's Business Enterprises, and have high labor standard requirements that value workers' health and safety, regardless of whether a public or private entity is the beneficiary of the new spending, except where legally prohibited from doing so.		
	9. Model Policy: Study Opportunities for Reparations in WA As one strategy for achieving EJ, WA state government should study reparations as a mechanism to address health disparities and historical harms affecting overburdened communities. The state should focus on the unpaid debts from slavery and colonization, the legacy of redlining, treaty violations, forced exclusion, and neighborhood segregation in Washington, as well as the impact that systemic racism has had on Black, Native, Indigenous, Latinx, Asian communities and others.		

Improving Environmental Enforcement	10. Model Policy: Ensure Accessible Enforcement & Reporting Processes
	The EJTF recommends ensuring that enforcement and reporting processes are accessible to overburdened communities by elevating awareness and addressing barriers to access (such as technology, literacy, and language).
	11. Model Policy: Support for Supplemental Environmental Projects
	Agencies with enforcement responsibilities should, to the extent practicable and appropriate, support the inclusion of "Supplemental Environmental Projects" (SEPs) in settlement agreements.

Environmental Health Disparities Map Recommendations

The second set of recommendations in this report focus on the Environmental Health Disparities (EHD) map. The Washington Tracking Network (WTN) and the EHD Map are publicly available tools that bring much needed attention to environmental and human health conditions statewide, and integrate data and analyses that can support pro-equity planning in a number of agency activities. While individual agencies will determine how best to integrate these tools, one approach is to prioritize the integration of the EHD map into community engagement, grants programs, rulemaking, capital investment, and other activities that have direct impacts on communities.

Recommendations for How to use the EHD Map to Identify Overburdened Communities	 12. EHD Map: The EJTF recommends that state agencies consider four initial ways of using the WTN mapping tools and EHD data in agency activities. These suggestions are based on using the map as it currently exists, either in its online form or as exported map EHD data tables for integration with agency data. Build demographic and environmental context to guide and inform place-based activities. Conduct EJ review and analysis as routine practice for programs and projects. Center EJ as the priority intended outcome in resource allocation decision processes. Evaluate and measure reductions in disparities through service equity improvements. EHD Map: Use the overall EHD map rank 9 and 10 as a starting point to identify overburdened communities. EHD Map: Adopt equity tools and analyses in agency practices. EHD Map: Set environmental health disparity reduction goals and track progress towards those goals.

Key Recommendations for Addressing Structural Barriers to Community Engagement

The third and final set of recommendations in this report address common barriers to meaningful community engagement (CE), based on barriers identified with input from EJTF members and the public. Refer to the *Community Engagement Plan Guidance* (Appendix C) developed by the EJTF's Community Engagement Subcommittee to assist with the implementation of these CE recommendations.

	17. CE: Each agency develops a community engagement plan, which must include the elements outlined in the EJTF's <i>Community Engagement Plan Guidance</i> (Appendix C).
	18. CE: Agencies evaluate new and existing services and programs for community engagement using a systematic process to determine outreach goals. These evaluations weigh the goals of the service or program, potential for its impact on the public, its importance to the community/ies being impacted, and the makeup of the impacted community. These evaluations determine the agency's level of engagement for the project and the potential for outcomes the public can see from their engagement in the process.
Recommendations for Addressing Structural Barriers	19. CE: When planning outreach activities, agencies use screening tools that integrate spatial, demographic, and health disparities data to understand the nature and needs of the people who may be impacted by agency decisions. The Task Force's recommended use of the Environmental Health Disparities map to build the demographic and environmental context to guide and inform place-based activities is a key example. This initial screening is followed by further research with local people and organizations as needed.
to Community Engagement	20. CE: When agency decisions have potential to significantly impact a specific community (as determined by the evaluation described above in recommendation 18), agencies should work with representatives of that community to identify appropriate outreach and communication methods. Significant impact includes potential changes to critical determinants of health such as legal rights, finances, housing, and safety. It is particularly valuable to include community members in oversight, advisory, program planning, and other processes. Washington's Department of Health <u>community health worker</u> program serves as one model.
	21. CE: When agencies ask for representation from a specific geographic or cultural community, the agencies actively support such representation in recognition of the costs of engagement borne by community members where allowable by state law and agency policy. Doing so would reduce barriers to engagement presented by trading time and/or money to learn about and engage in the agency's process, such as taking time from work, finding childcare, and arranging for transportation.

	22. CE: In alignment with the Office of Financial Management's <u>Model</u> <u>Diversity, Equity, and Inclusion Policy</u> , agencies should use equity-focused hiring practices and inclusion-focused professional development to build and support an internal staff that represents the cultural and racial makeup of the population they serve.
	23. CE: When an agency's program or service has potential to impact Tribal and/or Indigenous people or their resources, the agency includes those groups in their community engagement work, using tailored approaches based on the needs of the Tribe. Note that community engagement is distinct from and not a substitute for formal government-to-government or cultural resource consultation.
CONTINUED:	24. CE: Agencies conduct compliance reviews of existing laws and policies that guide community engagement, and where gaps exist, ensure compliance for the following laws in agency service and program budgets:
Recommendations for Addressing Structural Barriers to Community	 Title VI of the Civil Rights Act, prohibiting discrimination based on race, color, or national origin and requiring meaningful access to people with limited English proficiency.
Engagement	 Executive Order 05-03 requiring Plain Talk when communicating with the public.
	 Executive Order 13166, requiring meaningful access to agency programs and services for people with limited English proficiency.
	25. CE: Change state laws that restrict agencies from purchasing goods and services, such as childcare and food, which support broad community participation.
	26. CE: In cooperation with the Governor's Subcabinet on Business Diversity, led by the Office of Minority and Women's Business Enterprises, agencies should increase contracting diversity by proactively engaging and contracting with local organizations that are community-based, community-rooted, and community-led to improve community health outcomes and eliminate environmental injustices across Washington state.

Addressing EJ Means Addressing Current Crises

Now is the time to take action. The EJTF acknowledges that Washington state is in the midst of four concurrent crises: COVID-19, police use of force and racial injustices, climate change, and an economic recession. Each of these crises adds disproportionate burden to the already overburdened communities at the center of the environmental justice movement. An EJ framework is useful in addressing these crises, and if state government chooses to prioritize its collective resources and expertise, we can make great strides toward a more equitable and resilient Washington.

Words Hold Power

The Environmental Justice Task Force (EJTF) is committed to an asset-based framing throughout this report, particularly when it comes to communities experiencing environmental injustices. Words have the power to be divisive, as well as create and perpetuate harm. Words also have the power to uplift, affirm, and value one another and our lived experiences.² In the environmental justice (EJ) discipline, there are many terms that are used to describe communities who experience disproportionate exposure to environmental burdens such as "EJ communities", "fenceline communities", and "highly impacted communities".

After careful consideration and community input, the EJTF is using the term "overburdened" when referring to communities or populations with EJ concerns.

The term "overburdened" recognizes that society has decided, implicitly and

"Overburdened communities" are communities who experience disproportionate environmental harms and risks due to exposures, greater vulnerability to environmental hazards, or cumulative impacts from multiple stressors.

explicitly, to value some communities and populations more than others. Overburdened communities are exposed to more environmental hazards. They live with the risks and consequences of decisions outside their control and experience far fewer benefits. Conversely, other communities and populations experience far more benefits with far fewer burdens.

"Overburdened" forces us to ask: *What* are the burdens faced by these communities, *who* is benefiting from the burdens, and *why* are these particular communities burdened in the first place? The term "overburdened" recognizes that a community may be facing the cumulative impacts of social, environmental, and economic burdens.

The EJTF understands that this term may evolve as engagement with overburdened communities continues in Washington state.

Prioritizing Environmental Justice in Washington

What is Environmental Justice?

Environmental justice is rooted in the belief that everyone—regardless of race, ethnicity, language, income, or other demographic factors—has the right to live, learn, work, and play in a clean, safe, and healthy environment. We will know that we have successfully achieved EJ when we eradicate health inequities caused by environmental hazards.

² Refer to Appendix A for a glossary of key terms used in this report.

Black, Indigenous, and People of Color (BIPOC) communities have been, and continue to be, the primary leaders of the EJ movement in the United States. Civil Rights giants such as Cesar Chavez, Dolores Huerta, and Larry Itliong created the United Farm Workers labor union in 1962 in part to fight for greater protection from toxic chemicals for farmworkers.³ In the final moments of his life, Dr. Martin Luther King Jr. marched with Black sanitation workers in Memphis to protest low wages and unsafe working conditions.⁴

The fight for EJ caught traction in 1982 in a low-income, Black community in Warren County, North Carolina where residents and their allies protested against bringing 6,000 truckloads of soil laced with toxic polychlorinated biphenyls (PCBs) into their community. Six weeks of protests, including the first ever arrests over the siting of a landfill, put more than 500 people in jail in the name of EJ. The people of Warren County ultimately lost the battle in their backyards, but this injustice ignited the fight for EJ across the country. EJ activists organized and educated the nation about environmental racism throughout the 1980s and 1990s (Figure 1) leading up to President Clinton's EJ Executive Order (EO).⁵ This activism led to further study of environmental hazards, which unveiled that pollution producing facilities were disproportionately and intentionally placed in poor communities of color.

Figure 1. Brief History of Early EJ Milestones

1987: Foundational Study

United Church of Christ's Comission for Racial Justice's "Toxic Wastes and Race in the United States" found that race was the single most important factor in determining where toxic waste facilitates were sited in the US. Furthermore, the report clearly linked this outcome to local, state, and federal land use policies.

1991: First National People of Color Environmental Leadership Summit

Hundreds of EJ leaders from across the globe came together to network and organize. They produced two foundational EJ documents: the *"Principles of Environmental Justice"* and the *"Call to Action."*

1994: Clinton's Executive Order 12898

This EO directs federal agencies to identify and address adverse health or environmental effects of their policies and programs in lowincome and BIPOC communities. Additionally, it directs agencies to prevent racial discrimination in any federally funded health or environmental programs.

³ "UFW History". 2020. UFW. <u>https://ufw.org/research/history/ufw-history/</u>.

⁴ "Memphis Sanitation Workers' Strike". 2020. *The Martin Luther King, Jr., Research and Education Institute*. <u>https://kinginstitute.stanford.edu/encyclopedia/memphis-sanitation-workers-strike</u>.

⁵ Renee Skelton and Vernice Miller. 2020. "The Environmental Justice Movement". *NRDC*. <u>https://www.nrdc.org/stories/environmental-justice-movement</u>.

Disproportionate Environmental Exposures

Achieving health equity requires that Washington prioritize and strategically address environmental injustice. Racially and economically segregated neighborhoods across the United States are the resulting legacy of redlining and other racist and discriminatory policies. These policies have led to the continued divestment of BIPOC neighborhoods which has contributed to the racial wealth gap⁶ and has made it exceptionally difficult for BIPOC and low-income communities to access safe and healthy homes, schools, jobs, and community spaces.

Washington state studies reflect the findings of national EJ research,^{7,8} that people of color and low-income people continue to be disproportionately exposed to environmental hazards in their communities.

The 1995 Washington State Department of Ecology's Environmental Equity Study and the 2001 Washington State Board of Health's EJ report concluded that contaminated sites, entities that produce regulated hazardous waste, incinerators, and solid waste landfills are more

concentrated in lowincome and **BIPOC** communities. Furthermore, these reports also stated that the disproportionate number of facilities in these communities likely result in higher levels of exposures to environmental hazards and potentially assume a higher risk of adverse health outcomes.9,10 These exposures are compounded with factors

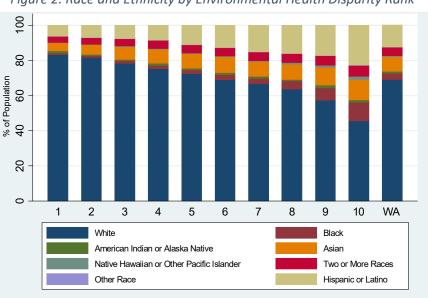


Figure 2. Race and Ethnicity by Environmental Health Disparity Rank

⁶ Kriston McIntosh, et al., "Examining the Black-White Wealth Gap," Brookings, February 27, 2020, https://www.brookings.edu/blog/up-front/2020/02/27/examining-the-black-white-wealth-gap/.

⁷ Commission for Racial Justice, United Church of Christ, "Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites," (1987): https://www.nrc.gov/docs/ML1310/ML13109A339.pdf.

⁸ Robert D. Bullard, et al., "Toxic Waste and Race at Twenty: Why Race Still Maters After All of These Years," (Spring 2008), <u>https://www.jstor.org/stable/43267204?seq=1</u>.

⁹ <u>https://p2infohouse.org/ref/14/13244.pdf</u> Environmental Equity Study in Washington State. Department of Ecology. Publication Number 95-413. October 1995.

¹⁰ Committee Final Report State Board of Health Priority: Environmental Justice (June 2001), <u>https://www.digitalarchives.wa.gov/do/F093B7854B3FFB31174507C2F873DC56.pdf</u>.

such as racism, stress, and poverty that, on their own, are associated with poorer health outcomes and shorter life expectancies.

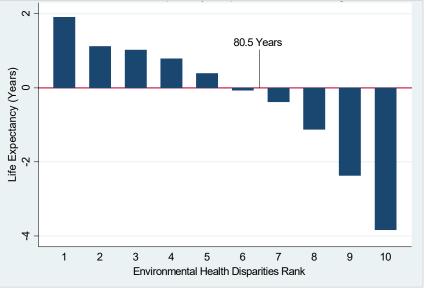
Race/Ethnicity and Environmental Health Disparities

Examining publicly available data from the Washington Tracking Network (WTN) illustrates the disproportionate burdens faced by BIPOC communities and people living in poverty. These data show that census tracts with greater environmental health disparities (EHDs) also have greater percentages of BIPOC communities than census tracts with fewer EHDs when analyzing the environmental health disparities rank for communities. Figure 2¹¹ shows that census tracts with the lowest EHD rank are 83.2% white, 0.9% Black, and 6.2% Hispanic or Latino, while census tracts with the highest EHD rank are 45.6% white, 10.5% Black, and 22.7% Hispanic or Latino. Black Washingtonians were ten times respectively more likely to live in the highest ranked census tract. If race was not associated with EHDs, one would expect the census tracts to have similar racial proportions.

Life Expectancy and Environmental Health Disparities

Living in areas with more environmental hazards and pollution is associated with a shorter lifespan. Figure 3 illustrates the difference in life expectancy compared to the state average. These data show a linear association between a census tract's EHD rank and life expectancy. Namely, the data indicate a 5.7 year difference in life expectancy among census tracts.¹² In other words, the population in census tracts with the lowest





environmental health disparities (rank 1) on average lived 5.7 years longer than those in census tracts with the highest environmental health disparities (rank 10).

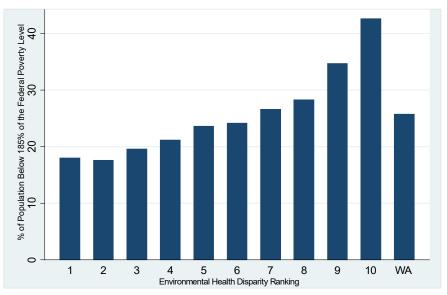
¹² The U.S. Census Bureau defines census tracts as, "...small, relatively permanent statistical subdivisions of a county or equivalent entity....Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people." For more information visit: <u>https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13</u>.

¹¹ See Appendix F for more information on the methods and analysis used to create the bar graphs (Figures 2-4) from WTN data.

Figure 4. Poverty by Environmental Health Disparity Ranking

Poverty and Environmental Health Disparities

There is also a linear association between EHD rank and poverty. Figure 4 shows that the poverty rate in the highest EHD ranked census tract (rank 10) is more than double that of the lowest EHD ranked census tract (rank 1).



While the EHD map plays an important role in raising awareness and contributing to our understanding of environmental and health disparities, these data cannot and do not reflect the lived experiences of communities. Nor are the findings above surprising for frontline communities and social justice advocates across the state. Environmentally overburdened communities have given voice to the challenges they face, and demand accountability for the impacts to their health and environment.

Foundational to the EJ movement, and essential to our collective work towards equity, is grounding our efforts in a community led vision and centering the voices of those most impacted. The following EJ concerns and observations are from community members who shared their stories during EJTF public meetings or with the EJTF's community engagement coordinator. These accounts highlight only a couple of the issues communities across Washington have raised. The following are intended to provide brief, illustrative examples of concerns voiced by community members who participated in EJTF meetings and discussion.

Lower Yakima Valley: Water and Soil Contamination

Concerns were raised by the public during EJTF meetings that communities in the Yakima Valley are overburdened by pollution and have EJ issues affecting their health and daily lives. During the EJTF's public meeting in Yakima, a community member shared her family's experience with contaminated well water due to high nitrate levels that she attributed to neighboring farms. She reported that several of her family members became seriously ill as a result.

Her family replaced their well, yet continue to be concerned about unsafe drinking water after over 1,800 cows died nearby during a severe blizzard in 2019. She described that while some carcasses were sent to Oregon and local landfills, 950 dead cows remained on two Lower Yakima Valley dairies after exhausting all other composting options, which created the potential for environmental health hazards. Community advocates are now worried about pathogens and endotoxins potentially infiltrating the water supply, as well as other hazards that might cause adverse health outcomes in the region. They have been vocal about their concerns of insufficient monitoring of air, water, and soil after they witnessed composting cow carcasses in their communities. Lower Yakima Valley community members are asking for increased monitoring of domestic wells for nitrate and bacterial contamination.

Farmworkers: Working and Living Conditions during a Pandemic

Farmworkers, who feed our state and are a critical contributor to our economy, were designated as essential workers and have continued to work during the COVID-19 pandemic. Agricultural workers and advocates have spotlighted the injustice of working in conditions where laborers and their families risk exposure to pesticides, wildfire smoke, and the coronavirus each day – often without adequate compensation or access to affordable health care. The COVID-19 crisis has also elevated attention to the inadequacies of housing for farmworkers. Densely populated farmworker housing may not allow for physical distancing, or safely quarantining when individuals within a housing unit are exposed to COVID-19 or test positive for the virus.

In Washington, farmworkers are disproportionately people of color, the majority of whom are Latinx. There are many reasons workers may be less willing to raise concerns or organize for their health and safety, including language barriers, overt intimidation, fear of retaliation, and concerns about jeopardizing immigration or their H-2A visa status. However, farmworkers in Yakima went on strike in the spring of 2020 to bring attention to their working and living conditions and demands for COVID-19 safety measures such as improving physical distancing while at work, a hazard pay increase, employer-provided masks, and protection from retaliation for protesting.

Environmental Justice in Washington State

Washington state has a rich environmental justice history built by leaders from community, advocacy organizations, and government who challenged injustice and fought for change. This critical work continues to grow and transform Washington into a place where all people thrive in safe and healthy homes, neighborhoods, schools, and jobs. The EJTF builds upon this foundation. The following highlights some of the key EJ efforts that has shaped this work in WA.

Community Activism in Washington State

Organizing in Washington around EJ gained momentum in the early 1990s, elevating public awareness about the devastating legacy of US Government uranium mining on the Spokane Indian Reservation and 40 years of federal military plutonium production at the Hanford site, dairy farm waste and farmworkers protections in the Yakima Valley, air pollution in south Seattle and the International District, and industrial chemical contaminants in the Duwamish Waterway, to name a few. In 1993, the Community Coalition for Environmental Justice was established by people of color organizing for social, economic, environmental, and health justice in Washington. This advocacy continues to grow across the state, championed by organizations such as <u>Got Green</u> and <u>Puget Sound Sage</u>. In 2014, the coalition <u>Front & Centered</u> was formed to harness the collective power of advocates united by the common goals of racial and economic justice, climate justice, and environmental justice and stewardship. Front & Centered currently has 63 member organizations across the state, and has a representative who is serving as Co-Chair of the EJTF.

Legislative Study

In 1993, the Honorable Senator Rosa Franklin¹³ proposed that Washington conduct an environmental equity study. The Legislature funded the Department of Ecology to assess whether the distribution of facilities and toxic chemical releases were distributed equally. Results of this study showed that low-income communities and communities of color were disproportionally impacted by pollution in Washington state.¹⁴

Washington State Board of Health

The Washington State Board of Health identified EJ as a top priority in 2000-2001, promoting the concept of "One Washington" – the goal that all residents experience the benefits of a healthy environment. The Board focused on raising awareness of EJ issues by publishing articles, giving presentations, and attending numerous community forums related to EJ. The Board also encouraged state and local agencies to incorporate EJ principles into agency practices and convened a short-term Interagency Workgroup on EJ that focused on creating a set of guidelines to promote EJ in government decision making for agency staff.¹⁵

Governor's Interagency Council on Health Disparities

The Council was established in 2006, and is responsible for identifying priorities and creating recommendations for the Governor and Legislature on ways to promote health equity and eliminate health disparities in Washington. The Council has and continues to serve as one of the only state agency forums to engage and communicate with the public on issues of health equity. In 2012, the Council convened an Environmental Exposures and Hazards Advisory Committee to identify actions to reduce the disproportionate health impacts from environmental exposures and hazards. Based on the work of this Advisory Committee, the Council's 2012 Action Plan's leading recommendation was that "Washington state should make a clear commitment to environmental justice."¹⁶

¹⁵ Committee Final Report State Board of Health Priority: Environmental Justice (2001): <u>https://www.digitalarchives.wa.gov/do/F093B7854B3FFB31174507C2F873DC56.pdf</u>.

 ¹³ Washington State Senator (D-Tacoma) from 1993 to 2010. She led state efforts addressing EJ and health equity.
 ¹⁴ Environmental Equity Study in Washington State. Department of Ecology. Publication Number 95-413. (1995): https://p2infohouse.org/ref/14/13244.pdf.

¹⁶ Governor's Interagency Council on Health Disparities. "State Policy Action Plan to Eliminate Health Disparities". (2012): <u>http://healthequity.wa.gov/Portals/9/Doc/Publications/Reports/HDC-Reports-2012-Action-Plan.pdf</u>.

Washington State Department of Ecology

After Ecology's publication of Washington's first statewide EJ study in 1995, the agency has continued to expand its EJ commitments and capacity. An Environmental Justice & Title VI Senior Advisor, EJ Committee, and Civil Rights Compliance Team currently support these efforts at the agency. EJ and equity are core elements of Ecology's strategic plan, integrated into its rulemaking and public engagement processes, and is also prioritized in several grant programs. The agency strives to support EJ through collaboration with various external partners, and was a core partner in the development the EHD map.

Washington State Department of Health

In 2006, the Department of Health convened the Environmental Public Health Community Equity Workgroup to address EJ. In 2010, they committed to the "Agenda for Change",¹⁷ which focused on providing equal opportunities for all residents to live in healthy environments no matter what background they come from.

Creation of the Washington Environmental Health Disparity Map

In 2017, Front & Centered worked with community organizations across Washington state to identify opportunities to listen to and understand EJ concerns in overburdened communities. The goal of these listening sessions was 1) to identify and prioritize community driven solutions and 2) to develop and advocate for equitable strategies. Communities of color, low-income households, immigrants, refugees, and linguistically isolated groups participated in these listening sessions. Community listening sessions took place across the state in 11 different communities with 178 participants from July to November 2017. Communities expressed concerns about the presence of air pollution, water and soil contamination, housing, and healthy food access.¹⁸

Following the conclusion of the 2017 listening sessions, Front & Centered and the University of Washington Department of Environmental & Occupational Health Sciences brought together partners from the Washington State Department of Health, the Department of Ecology and the Puget Sound Clean Air Agency. This group undertook a two-year process to develop a statewide map reflecting Washington's environmental health disparities. The EJ Mapping Work Group's primary goal was to develop a way to identify communities most affected by cumulative environmental health impacts, and resulted in the <u>Environmental Health Disparities map</u> (EHD map). Details and guidance for how to use the EHD map are provided later in this report.

¹⁷ Washington State Department of Health. "Agenda for Change". 2010. <u>https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/PublicHealthSystemResourcesandServices/PublicHealthImprovementPartnership/ProductsandResources/AgendaforChange</u>.

¹⁸ Washington State Department of Health. "Environmental Health Disparities Map." <u>https://deohs.washington.edu/sites/default/files/images/Washington_Environmental_Health_Disparities_Map.pdf.</u>

The Healthy Environment for All (HEAL) Act – SB 5289 & HB 2009

Soon after the EHD Map was finalized, Senator Rebecca Saldaña and Representative Kristine Reeves sponsored The Healthy Environment for All (HEAL) Act. The bill would have created a definition of EJ in Washington state law; required the use of EHD map in a range of agency activities including policy development, enforcement, and investments; and would have created a community-agency task force to develop guidance for agencies on implementing this requirement. Furthermore, the HEAL Act would have made recommendations to the Governor, Commissioner of Public Lands, and the Legislature on how to incorporate EJ principles and policies into state law and government processes. While each bill passed their respective houses, the Legislature did not ultimately pass the bill.

However, a budget proviso was included in the 2019-2021 biennial operating budget (<u>ESHB</u> <u>1109, section 221, subsection 48</u>) that directed the Governor's Interagency Council on Health Disparities to convene and staff the EJTF. Details on the membership, responsibilities, and processes are included later in this report.

Clean Energy Transformation Act (SB 5116)

In 2019 the Washington State Legislature passed the Clean Energy Transformation Act (CETA),¹⁹ accelerating a move to 100% clean electricity use in WA. The law addresses EJ in a number of ways, including requiring equitable distribution of clean energy benefits and reduction of burdens to highly impacted populations. CETA requires utilities to do an analysis based on the cumulative impacts of communities overburdened by fossil fuel pollution and climate change in WA for integrated resource planning.²⁰ The Washington State Department of Commerce and the Utilities and Transportation Commission are currently developing rules to implement this requirement. The legislation also requires the Washington State Department of Health to develop another map on the Washington Tracking Network (WTN) to designate communities that are highly impacted by climate change and fossil fuels. The Department of Commerce is also updating the State Energy Strategy, which includes a focus on improving the quality of life for people of color and low-income communities and ensuring frontline communities and communities of color equitably benefit from the transition to clean energy.²¹

Local Government Initiatives

City of Tacoma's EJ Leaders Workgroup

²⁰ "RCW 19.280.030: Development Of A Resource Plan—Requirements Of A Resource Plan—Clean Energy Action Plan". 2019. Washington State Legislature. <u>https://app.leg.wa.gov/RCW/default.aspx?cite=19.280.030</u>.
 ²¹ "2021 State Energy Strategy". 2020. Washington State Department of Commerce.

¹⁹ "Chapter 19.405 RCW: Washington Clean Energy Transformation Act". 2019. *Washington State Legislature*. <u>https://app.leg.wa.gov/RCW/default.aspx?cite=19.405</u>.

https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/.

In 2016, the Tacoma City Council published the Environmental Action Plan and pledged to provide guidance and investments to meet the plan's goals, which include transportation, reducing emissions, air and local food, waste reduction, and buildings and energy.²²

City of Seattle's Office of Sustainability and Environment's *EJ* Committe*e (EJC)* The EJC is local committee that engaged over 1000 residents to develop its "Equity and Environment Agenda".²³ This committee is made up of individuals who are directly connected to the communities who disproportionately face EJ issues.²⁴

King County Equity and Social Justice Initiative and Strategic Climate Action Plan In 2016, King County published their "Equity and Social Justice Strategic Plan",²⁵ which developed tools to assist in equity impact assessments, community engagement, and translation policies to guide social equity and EJ work. Additionally, King County updates its "Strategic Climate Action Plan"²⁶ (SCAP) every 5 years, with the most recent update in 2020. The 2020 SCAP outlines the County's priorities, strategies, and commitments for climate action, with the goal to make King County more resilient, sustainable, and equitable.

Paving the Path towards EJ in Washington

Washington state government has steadily addressed EJ since the early 1990s. Each major EJfocused effort prior to the EJTF has drawn similar conclusions to the EJTF with respect to the state of EJ in WA, and has developed comparable recommendations for how to achieve EJ. State government has examined how to embed EJ into laws, policies, programs, and processes for nearly three decades. **Now is the time to take action.**

Building room in government decision-making for the voices of underserved and overburdened communities is one necessary component of correcting current and historical harms that communities of color, low-income communities, and other affected populations in Washington have endured. The Government Alliance on Race and Equity (GARE) names the responsibility that government has in reversing these injustices and building community trust in government systems and institutions.

²² City Of Tacoma. "Environmental Action Plan".

https://www.cityoftacoma.org/government/city_departments/environmentalservices/office_of_environmental_p_olicy_and_sustainability/climate/environmental_action_plan.

²³ City Of Seattle. "Equity And Environment Agenda."

https://www.seattle.gov/Documents/Departments/OSE/SeattleEquityAgenda.pdf.

²⁴ City of Seattle. "Environmental Justice Committee". 2020. <u>https://www.seattle.gov/environment/equity-and-environment/environmental-justice-committee</u>.

²⁵ King County. "Equity and Social Justice Strategic Plan". (2016): <u>https://kingcounty.gov/elected/executive/equity-social-justice/strategic-plan.aspx</u>.

²⁶ King County. "King County Climate Action." (2020):

https://www.kingcounty.gov/services/environment/climate/actions-strategies/strategic-climate-action-plan.aspx.

"From the inception of our country, government at the local, regional, state, and federal level has played a role in creating and maintaining racial inequity. A wide range of laws and policies were passed, including everything from who could vote, who could be a citizen, who could own property, who was property, where one could live, whose land was whose and more. With the Civil Rights movement, laws and policies were passed that helped to create positive changes, including making acts of discrimination illegal. However, despite progress in addressing explicit discrimination, racial inequities continue to be deep, pervasive, and persistent across the country...Institutions and structures have continued to create and perpetuate inequities, despite the lack of explicit intention. Without intentional intervention, institutions and structures will continue to perpetuate racial inequities."²⁷

Washington state cannot achieve equity without achieving EJ. The EJTF understands that the pathway to reaching an equitable Washington is only possible through ongoing anti-racism, environmental conservation, public health, and community engagement work.

The goals of the EJ movement are clear:

- Ensure equitable protection and access.
- Undo institutional discrimination.
- Dismantle environmental racism.
- Eliminate environmental health disparities.

Addressing EJ Means Addressing Current Crises

The EJTF acknowledges that we are in the midst of four concurrent global crises: COVID-19, police use of force²⁸ and racial injustices, climate change, and an economic recession. An EJ framework is useful in addressing these crises, and if state government chooses to prioritize its collective resources and expertise, we can make great strides toward a more

"I'm am extremely impressed with the depth of the work the EJTF has carried out in collecting data, opinions, and then collating that into a report that draws attention to the work that must be done by the state government to move us forward. The crises facing us of climate change – visible today in our fires, COVID crisis, economic crisis as a result of the COVID crisis that highlight the economic inequities that have been with us all along, and finally the racial crisis with police brutality that have come to a boil. More and more people are having their awareness raised of the inequities in our society based on race, that has led to economic disparity, health disparity, and opportunities disparity on several fronts that just cycle back and make things worse." -Community Member

²⁷ Government Alliance on Race and Equity. "GARE Racial Equity Toolkit". <u>https://www.racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial Equity Toolkit.pdf</u>.

²⁸ The Office of the Governor. "Governor's Task Force on Independent Investigations of Policy use of Force." <u>https://www.governor.wa.gov/boards-commissions/workgroups-task-forces/governor%E2%80%99s-task-force-independent-investigations-police</u>.

equitable and resilient Washington.

- 1. **COVID-19**: Recent scientific publications suggest that air pollutant exposure worsens COVID-19 symptoms and outcomes,²⁹ and a Harvard University study concluded that, "...a small increase in long-term exposure to PM2.5 leads to a large increase in the COVID-19 death rate."³⁰ Furthermore federal data show that there have been racial disparities in coronavirus infections and deaths nationwide.³¹ Washington's Latinx population is experiencing COVID case rates that are about seven times higher, hospitalization rates that are eight times higher, and death rates that are four times higher than white Washingtonians.³² We know our essential workers who are keeping our economy afloat often come from BIPOC communities, and are also risking their own health as they may experience unsafe work environments and overcrowded housing that contribute to the spread of the virus. If we do not incorporate an EJ and equity lens to the State's COVID-19 response and relief efforts, we can expect to see people of color and people with low-incomes experience the most adverse health and economic outcomes as a result of this pandemic.³³
- Police Use of Force:³⁴ Combating racism is at the heart of all EJ work, and addressing police use of force, specifically in Black communities, continues to be a key anti-racist priority. The historic origins of American policing are traced to

"Until we can all breathe in every sense of the word, we cannot achieve environmental equity."

-Kurtis Robinson, President of the Spokane Chapter of the NAACP

slavery,^{35,36} and racial prejudice, bias, and profiling continue to be well-documented in

²⁹ Centers for Disease Control and Prevention. "Wildfire Smoke and COVID-19: Frequently Asked Questions and Resources for Air Resource Advisors and Other Environmental Health Professionals". 2020. https://www.cdc.gov/coronavirus/2019-ncov/php/smoke-faq.html.

³⁰ Wu, X., et al. "COVID-19 PM2.5: A National Study on Long-Term Exposure to Air Pollution and COVID-19 Mortality in the United States". Harvard University. 2020. <u>https://projects.ig.harvard.edu/covid-pm</u>.

³¹ Oppel, Richard, et al. The Fullest Look Yet at the Racial Inequity of Coronavirus. The New York Times. 2020. <u>https://www.nytimes.com/interactive/2020/07/05/us/coronavirus-latinos-african-americans-cdc-data.html?action=click</u>.

³² Washington State Department of Health. "COVID-19 Morbidity and Mortality by Race, Ethnicity and Language in Washington State". 2020. <u>https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/data-tables/COVID-19MorbidityMortalityRaceEthnicityLanguageWAState.pdf</u>.

³³ For more information on the intersection between EJ and COVID-19, see the EJTF Co-Chairs' letter to the Governor in Appendix H.

³⁴ The Office of the Governor. "Governor's Task Force on Independent Investigations of Policy use of Force." <u>https://www.governor.wa.gov/boards-commissions/workgroups-task-forces/governor%E2%80%99s-task-force-independent-investigations-police</u>.

 ³⁵ Kappeler, Victor. "A Brief History of Slavery and the Origins of American Policing". <u>https://plsonline.eku.edu/insidelook/brief-history-slavery-and-origins-american-policing</u>.
 ³⁶ American Police. NPR, June 4, 2020. <u>https://www.npr.org/2020/06/03/869046127/american-police</u>.

research on disparities in the criminal justice system, sentencing, incarceration, and policing outcomes for Black, Indigenous, and other people of color.^{37,38,39} The persistent role of race in modern day policing is evident, especially in the most extreme cases, where the use of deadly force has cut too many lives short.⁴⁰ A 2020 study by researchers at Harvard found that Black Americans were over three times more likely than white Americans to be killed by police.⁴¹ The psychological⁴² and physical harms to individuals, families, and communities is multi-generational and devastating. The failure to address these inequities has, again, led to an uprising against racism following the killings of George Floyd and Breonna Taylor by police officers.⁴³

3. Climate Change: Climate change is affecting Washingtonians now. The Quinault people, whose ancestors lived and fished on their traditional land since time immemorial, are facing environmental threats due to tsunami risk, storm surge, and riverine flooding along the WA coastline. These reoccurring natural disasters have forced the Quinault Nation to relocate to higher ground.⁴⁴ Tragically, these circumstances are not unique to the Quinault as many of Washington's Tribal Nations are experiencing the life-changing effects of environmental degradation.⁴⁵ Furthermore, climate change has contributed to an even more dangerous wildfire season which is especially challenging during the COVID-19 pandemic.⁴⁶ The Washington State Department of Health (DOH) recognizes the, "...concern about the health impacts of wildfire smoke overlapping with COVID-19 because both impact respiratory and immune systems. COVID-19 restrictions limit how

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305460.

⁴⁴ Quinault Indian Reservation. "Taholah Village Relocation Master Plan".

http://www.quinaultindiannation.com/planning/projectinfo.html.

³⁷ Katherine B. Spencer, Amanda K. Charbonneau and Jack Glaser. "Implicit Bias and Policing". Social and Personality Psychology Compass. (2016): 50–63, 10.1111/spc3.12210. https://oag.ca.gov/sites/all/files/agweb/pdfs/ripa/study-glaser.pdf.

³⁸ Jelani Jefferson Exum. "Sentencing Disparities and the Dangerous Perpetuation of Racial Bias". 26 Wash. & Lee J. Civ. Rts. & Soc. Just. 491 (2020). <u>https://scholarlycommons.law.wlu.edu/crsj/vol26/iss2/5</u>.

³⁹ Omori, M., & Johnson, O. "Racial Inequality in Punishment." Oxford Research Encyclopedia of Criminology. (2019): <u>https://oxfordre.com/criminology/view/10.1093/acrefore/9780190264079.001.0001/acrefore-9780190264079-e-241</u>.

⁴⁰ "Say Their Names List 2020". <u>https://sayevery.name/</u>.

 ⁴¹ Schwartz GL, Jahn JL (2020) Mapping fatal police violence across U.S. metropolitan areas: Overall rates and racial/ethnic inequities, 2013-2017. PLoS ONE 15(6): e0229686. https://doi.org/10.1371/journal.pone.0229686
 ⁴² Bowleg, L. et al. "Negative Police Encounters and Police Avoidance as Pathways to Depressive Symptoms Among US Black Men, 2015–2016". American Journal of Public Health. 2020.

⁴³ Williamson, V., Trump, K., & Einstein, K. (2018). Black Lives Matter: Evidence that Police-Caused Deaths Predict Protest Activity. Perspectives on Politics, 16(2), 400-415. doi:10.1017/S1537592717004273.

⁴⁵ Northwest Treaty Tribes. "Climate Change Impacts to Tribal Rights and Resources". 2016. <u>https://nwtreatytribes.org/climatechange/</u>.

⁴⁶ Centers for Disease Control and Prevention. "Wildfire Smoke and COVID-19: Frequently Asked Questions and Resources for Air Resource Advisors and Other Environmental Health Professionals". 2020. https://www.cdc.gov/coronavirus/2019-ncov/php/smoke-fag.html.

we can reduce our exposure to wildfire smoke."⁴⁷ There are several shared goals between the climate and environmental justice movements. The cumulative effects of climate change and environmental injustices are most adversely affecting BIPOC and low-income communities.⁴⁸ As Washington continues to take climate change seriously, we need to prioritize the communities that are most overburdened by pollution.

4. Economic Recession: Washington state's decision makers will need to make tough budget decisions due to the steep, and likely long-lasting, economic downturn due to COVID-19. The EJTF has had several conversations about prioritizing overburdened communities through the equitable distribution of resources and investments, which is reflected in our recommendations. The year 2020 has highlighted and exacerbated numerous challenges and has presented several urgent, competing priorities. However, one thing remains consistently apparent: our economy is reliant on the health of our people and the health of our environment. We are reckoning with the fact that our economy would collapse without our essential workers, many of whom do not earn livable wages and are often a part of BIPOC communities who often also experience environmental injustices. Washington state government has the power to lift up those who have kept us afloat throughout this pandemic and economic recession by ensuring their right to safe, clean, and healthy environments. The state budget explicitly articulates the State's priorities, which means the State's decision makers have the opportunity to reaffirm their commitment to social and racial justice in the actions they take next.

"We seem to forget that everything that is good for the environment is a job. Solar panels don't put themselves up. Wind turbines don't manufacture themselves. Houses don't retrofit themselves and put in their own new boilers and furnaces and betterfitting windows and doors. Advanced biofuel crops don't plant themselves. Community gardens don't tend themselves. Farmers' markets don't run themselves. Every single thing that is good for the environment is actually a job, a contract, or an entrepreneurial opportunity." - Van Jones, Social Justice Advocate

The Work that Lies Ahead

Often it is the responsibility of state agencies whose work directly touches the environment and public health to achieve EJ. However, EJ is clearly connected to many different facets of our government, from our education system to our police force. In order to make lasting change

⁴⁷ Washington State Department of Health. "COVID-19 and Wildfire Smoke". 2020. https://www.doh.wa.gov/CommunityandEnvironment/AirQuality/SmokeFromFires.

⁴⁸ University of Washington. An Unfair Share Exploring the Disproportionate Risks from Climate Change Facing Washington State Communities. (2018): <u>https://cig.uw.edu/wp-</u>

content/uploads/sites/2/2018/08/AnUnfairShare WashingtonState August2018.pdf.

happen for Washington's overburdened communities who experience the most extreme environmental health disparities, **it will take the work of** *all* **state agencies** to meaningfully partner with communities and identify how they can take an active role in addressing EJ by promoting safe, clean, and healthy environments for all.

Meaningful engagement and government transparency are central tenets of EJ. The following questions can help guide state government as it continues to advance EJ in Washington.

- 1. How is state government increasing transparency?
- 2. How is state government institutionalizing and demonstrating intentionality to eliminate disparities?
- 3. How is state government creating standards for accountability to communities, and adhering to those standards?

It is clear throughout the EJTF work that future study is needed to fully answer these questions, however, the EJTF's recommendations are focused on creating the infrastructure across the state to begin doing the necessary anti-racism, environmental conservation, public health, and community engagement work.

The Environmental Justice Task Force

Authorizing Budget Proviso

The EJTF was created through a proviso in the State's 2019-2021 operating budget (Engrossed Substitute <u>House Bill 1109</u>). Section 221, subsection 48 directed the Governor's Interagency Council on Health disparities to convene and staff the EJTF and outlined the EJTF's membership and reporting requirements to the Governor and Legislature. In accordance with the budget proviso quoted below, this final report includes:

- **Measurable Goal Recommendations:** "Measurable goals for reducing environmental health disparities for each community in Washington state and ways in which state agencies may focus their work towards meeting those goals."
- **Model Policy Recommendations:** "Model policies that prioritize highly impacted communities and vulnerable populations for the purpose of reducing environmental health disparities and advancing a healthy environment for all residents."
- Environmental Health Disparities Map Recommendations: "Guidance for using the <u>Washington Environmental Health Disparity Map</u> to identify communities that are highly impacted by EJ issues with current demographic data."
- Community Engagement Recommendations: "Best practices for increasing meaningful and inclusive community engagement that takes into account barriers to participation that may arise due to race, color, ethnicity, religion, income, or education level."

Membership

The EJTF's authorizing budget proviso outlines membership. The EJTF has two designated Co-Chairs. One Co-Chair is a community representative serving on the Governor's Interagency Council on Health Disparities. The other Co-Chair position was designated for an organization

Community Representatives

- •**Co-Chair:** The Governor's Interagency Council on Health Disparities, Statewide
- •Co-Chair: Front & Centered, Statewide
- •Community to Community Development, Bellingham
- •Tacoma League of Young Professionals
- •Asian Pacific Islander Coalition, Spokane Chapter

Washington State Agency Representatives

- •Department of Agriculture
- •Department of Commerce
- •Department of Ecology
- •Department of Health
- •Department of Natural Resources
- •Department of Transportation
- •Energy Facility Site Evaluation Council
- Puget Sound Partnership

Business, Labor, and Agricultural Representatives

- •UAW, Local 4121 The Union of Academic Student Employees and Postdocs at the University of Washington
- Association of Washington Businesses
- •Washington State Farm Bureau

representing statewide EJ issues, which was assigned to Front & Centered.

Additionally, the EJTF includes representatives from select state agencies, a business association, an organization representing statewide agricultural interests, a labor organization, and communities across the state. The full EJTF membership list is included in Appendix B.

Bylaws and Operating Principles

<u>Bylaws</u> describe the operation and management of EJTF business whereas <u>operating principles</u> are the values that guided the EJTF throughout our work. The operating principles were adapted from those of the <u>Governor's Interagency Council on Health Disparities</u>, and EJTF members thoughtfully engaged with each principle to ensure the final product is reflective of our aspirations and commitment. The EJTF's operating principles are included below to highlight the EJTF's commitments and priorities.

Environmental Justice Task Force Operating Principles, Adopted November 2019 EMBRACE EQUITY

We use equity to strive for fairness and justice to ensure that everyone has the opportunity to meet their full potential. This includes the right to live and work in a healthy environment and shape decisions that improve the health of their environments. Equity takes into account disadvantage experienced by groups.⁴⁹ Equity is not equality. Equity is achievable, but requires prioritizing resources and support towards communities facing inequities. Our work prioritizes communities of color, workers, and low-income communities in both urban and rural regions of Washington. Embracing equity requires us to identify, name, and dismantle institutional racism, economic injustice, and oppression.

FOCUS ON RACISM

We are committed to promoting equity for all historically marginalized communities. We recognize that different forms of discrimination and oppression are related to each other, and we will take the intersections of various identities such as, but not limited to: the LGBTQIA+ community, women, people who are limited English proficient, people with low incomes and limited wealth, and people with disabilities into account. We also recognize that racism is ingrained in our history and deeply embedded in our institutions today, leading to the inequities we see across all sectors. We will seek to challenge and undo all forms of oppression, and are committed to making anti-racism work a primary focus.

CENTER COMMUNITY

We recognize that we can only achieve equity if the communities suffering from inequities where they live and work are at the center of our work. We acknowledge that each community knows their assets, and needs, and as such, can speak best to the viability and impact of proposed solutions. This is especially true when we build relationships with Tribal governments

⁴⁹ Governor's Interagency Council on Health Disparities. "Equity Language Guide". 2018. <u>https://healthequity.wa.gov/Portals/9/Doc/Publications/Reports/EquityLanguageGuide_Final_.pdf</u>

and respect treaty rights. We strive to transparently recognize and share the power we have as representatives of our organizations, and to structure our meetings to foster meaningful, community-oriented engagement. Stakeholder and community engagement will be intentional. We will create opportunities as a Task Force, individual members, and staff to listen, learn, and seek input to guide our work. We will strive to incorporate stories of lived experience into our reports and recommendations.

COMMIT TO BOLD ACTION

Inequities exist because of racism, economic injustice, and systemic oppression that hinder opportunities for individuals and communities to thrive. Eliminating racism, economic injustice, and oppression requires bold change. We commit to using our power, privilege, and collective influence to propose changes that interrupt and dismantle historical systems of oppression. We will use our time in Task Force meetings to engage in discussions that lead to actionable recommendations. We will commit as individual Task Force members to be bold and serve as champions for equity in our respective roles.

BE VIGILANT FOR UNINTENDED CONSEQUENCES

Policy, program, and budget decisions can have adverse, unintended consequences if principles of equity are not intentionally and systematically considered. We commit to using an equity lens in the development of recommendations as a Task Force and in our decisions as individual members. We, as a government entity, seek to understand that our decisions have long-term impacts. An example of that is the Seven Generation Principle⁵⁰ as standing in the present while looking back three generations to the wisdom and experience of our ancestors, thinking about

issues in the current context, and planning forward for three generations for the protection of our children and the generations to come.

Task Force Meetings

The EJTF held regular public meetings throughout 2019 and 2020. The EJTF had originally planned to meet in communities across the state, but had to begin meeting virtually due to the COVID-19 statewide physical distancing mandates. In addition to the open public meetings listed in Table 1, the EJTF hosted two community listening sessions; one in

Dates & Locations		
Date	Location	
September 30, 2019	Lakewood, WA	
November 21, 2019	Yakima, WA	
January 14, 2020	Vancouver, WA	
April 2, 2020	Virtual	
May 18, 2020	Virtual	
June 22, 2020	Virtual	
August 7, 2020	Virtual	
September 11, 2020	Virtual	
September 25, 2020	Virtual	

Table 1, 2010, 2020 FITE Dublic Mass

⁵⁰ The EJTF acknowledges the Tribal and Urban Indian Pulling Together for Wellness Leadership Advisory Council and the American Indian Health Commission for Washington State for sharing this articulation of the Seven Generation Principle.

Everett at the beginning of the EJTF's work in September 2019, and another in July 2020 which was held virtually.

Mapping and Community Engagement Subcommittees

The EJTF work was supported by two Subcommittees. One Subcommittee focused on the development of guidance for the EHD map (Mapping Subcommittee), and the other focused on the development of best practices related to community engagement (Community Engagement Subcommittee). Both Subcommittees were Co-Chaired by at least one EJTF member, and included a mix of EJTF members, state and local government staff, academics, EJ advocates, and community members across Washington.⁵¹

The Community Engagement and Mapping Subcommittees both held monthly open public meetings from December 2019 through July 2020. Subcommittee work informed the EJTF's final EHD map and community engagement recommendations. The EJTF and the public provided feedback and guidance to both Subcommittees during EJTF meetings, and after thoughtful and thorough consideration across several Task Force and Subcommittee meetings, the full EJTF formally approved Subcommittee draft recommendations.

Member Engagement

EJTF Co-Chairs and staff sought TF member feedback throughout the year. This included:

- Several one-on-one meetings with each member to better understand their agency or organization's perspectives, priorities, feedback, and ideas for consideration.
- Multiple opportunities for members to provide written comment on developing recommendations, report drafts, and general feedback.
- Invitations for members to join monthly Subcommittee meetings and to contribute to Subcommittee work.

Member Voting and Feedback Processes

Due to the diversity of perspectives, priorities, and opinions represented on the EJTF, all decisions were made with a simple majority vote. Members had the option to include a verbal or written non-majority statement in instances where their vote did not align with the majority opinion. See the *Non-Majority Opinion* and *Member Statements* sections of this report for member-provided context for where they may not have aligned with the majority opinion, or where they provided their perspectives about their experiences serving on the EJTF.

⁵¹ See Appendix B for the Subcommittees' respective membership lists.

The EJTF "tentatively approved" each draft recommendation, which meant that members could continue to provide feedback on the recommendations until the formal adoption of the final report, when the recommendations were then considered final.

Community Engagement Strategy

The EJTF was supported by a Community Engagement Coordinator to bring in community perspectives from across the state throughout the EJTF's work. This section outlines the process the coordinator used to engage communities. With this said, the coordinator altered this general approach based on specific community needs and asks.

1. Broad community engagement: 6-8 weeks prior to EJTF public meeting

<u>Objectives:</u> Get the word out as far and wide as possible and garner interest for participating in the EJTF's process, either in listening sessions⁵² or during EJTF public meetings via: social media and website posts, emails to the EJTF listserv, and meeting invitations.





2. Attend community, cultural, and Tribal meetings: 3-6 weeks before EJTF public meeting

<u>Objectives:</u> Listen to stories, lessons, and feedback from grassroots organizations and overburdened communities. Share EJTF public meeting invitations with community representatives so they can share their stories, lessons, and feedback with the EJTF directly.

3. EJTF Public Meeting

<u>Objectives:</u> Include community voice throughout EJTF public meetings by encouraging community members to speak and participate throughout meetings. Strive for transparency by informing communities about the EJTF process and the work to date. The EJTF did not require prepared statements in order to give public comment, and when the EJTF met in-person, there was dedicated time for a community dinner, community presentations, and small group discussions between communities and EJTF members. When the EJTF held virtual meetings due

⁵² EJTF staff were invited to listening sessions funded by Front & Centered, a statewide convener of community advocates working toward environmental, racial, economic, and climate justice. Front & Centered worked with local organizations and advocates to organize and lead these listening sessions in a manner that best suited their own communities. EJTF staff attended these listening sessions to learn about EJ issues across the state from community leaders and community members. EJTF staff hosted two additional listening sessions.

to COVID-19, community members were encouraged to contribute verbally and in the chat function of the virtual meeting platform.

4. After meeting follow-up

<u>Objectives:</u> Synthesize community stories, lessons, feedback, and desired action items for the report back to the EJTF during the next public meeting and for other community members who were not able to attend the EJTF meetings via multiple mediums. Provide information to communities about future opportunities to participate in and contribute to the EJTF's work.

Letter from the Community Engagement Coordinator

The Environmental Task Force has been working to improve how state agencies improve community engagement. This work was divided into two distinct paths, direct engagement with communities and the Community Engagement Subcommittee. I led the direct community engagement piece, which meant going out into communities and working directly with members and organizations across Washington.

An important thing to note is that I led community engagement for two statewide Task Forces, which meant I was often only able to devote 50% of my time to the EJTF. I appreciated the beautiful, synergetic way both Task Force managers and the Co-Chairs of each Task Force allowed me to work collaboratively and spend as much time as possible in communities. We worked to hold as many consecutive public meetings across the two Task Forces in the same geographic area as possible, which meant I was often able to spend multiple weeks in a community. First building connections and getting the word out to communities about an upcoming Task Force meeting, and then I often stayed the following week in the same community to do engagement work for the other Task Force.

Why is this important? It takes time to build strong relationships with communities. The most consistent feedback we heard from communities was that agencies should spend more time and resources to build relationships and develop trust with community members and organizations.

We held regional public and community meetings in Everett, Lakewood, Yakima and Vancouver before the COVID-19 pandemic. We had to transition to online and phone engagement due to COVID-19. This was difficult, but we were still able to hear from communities all across the state. I also participated in almost every community listening session that Front & Centered sponsored, which allowed me to meet and learn about even more community members and organizations across the state. In each of the Task Force's public meetings, we heard public comment from a wide variety of people with different concerns. There was also space for community voice throughout each EJTF meeting that enriched the Task Force process. Almost every EJTF meeting had a standing agenda item for a community engagement update that allowed me to report what I heard from people leading up to the meeting during one-on-one conversations and from people who might not have been able to attend the public meeting.

Our meetings with communities often served as workshops for community members and organizations to develop and conceptualize what EJ is, identify community concerns, discuss the value of the EHD map, and improve how state agencies do community engagement. The process of distilling all the information gathered at meetings across the state gave us insight into community-identified community engagement goals.

I made a deliberate decision against reporting quantitative data such as, "This many people said x, and this many people said z". Quantitative methodology often may not provide transformational information about *why* communities are experiencing hardships or what solutions they have to address these hardships. I do not want to discount the importance of quantitative information, but I know that I am uniquely qualified to bring a different perspective.

My grandparents and parents were farmworkers; they all got sick and never made it out of their 60s. I grew up in an agricultural community steeped in institutional racism and lived in a tough neighborhood influenced by gang culture, but at the same time, I lived in a neighborhood filled with cooperation, talent, love, and hope. I know when certain people hear my story, they understand what I mean by the contradiction that is "the struggle". I share my story to articulate why I chose to use a qualitative methodology approach to this work.

In my experience, it is very difficult for non-BIPOC individuals to understand the nuances, attitudes and pressures facing BIPOC communities. My work as the EJTF's community engagement coordinator has been to listen, learn, and find ways to support existing work in communities across Washington state. Through conversations, community meetings and existing work groups, I worked with communities to understand the most important EJ issues they are currently facing.

This report addresses several issues that were of high importance to communities.

Communities identified barriers to their participation such as a lack of childcare, food, transportation, and language assistance at public meetings. The EJTF has made the recommendation to amend state laws in order to address these common barriers. The community shared their concerns about government oversight and its accountability to communities. The EJTF's recommendation to incorporate environmental justice into state environmental laws, as well as equitable investment in overburdened communities are good starting places to address these concerns. This report also includes thorough guidance for developing an agency-specific community engagement plan to ensure that community voice is centered in government practices and processes.

Aside from these issues, communities have two major concerns: racism and environmental conservation. I repeatedly heard that people want to make sure that this world is a better

place for future generations, and they want the help of state agencies to make that happen—this all begins with trust.

We learned that it's about building relationships. This may seem like an oversimplification, and I imagine the initial reaction to this statement may be, "You did all this work to come up with this obvious realization?" To this, I would respond that I could go back to these communities and connect with people today, tomorrow, or next year. I am sure that many people in these communities will be more responsive to state agencies after having a positive experience with how we engaged with communities throughout the EJTF's work. We cannot erase hundreds of years of colonialism, racism, inequities, and violence committed by the government in a year, but we can do things differently. We can make an honest effort to honor people's pain and be vulnerable in a way that inspires connection and healing. People and agencies working together will lead to change, one step at a time.

--Esmael Lopez, Community Engagement Coordinator

Limitations to the EJTF Process

Tribes, Indigenous communities, and other groups who are vital to the EJ conversation were not at the decision-making table:

Tribes and Indigenous people were among the founding activists and advocates for environmental justice, but these perspectives are notably absent from this report. The EJTF acknowledges these gaps in the EJTF's recommendations and the limitations of an environmental justice report that does not include the invaluable expertise, historical perspective, and ecological knowledge of Tribes and Indigenous people. EJTF staff reached out to Puyallup, Upper Skagit, Swinomish, Yakama, and Tulalip Tribal members and government officials through visits, emails, and personal contacts. Unfortunately, staff and EJTF members were unsuccessful in filling the designated Tribal representative seat on the EJTF. The EJTF recognizes that it did not have the appropriate political standing to engage with sovereign Tribal nations, nor did it have established trusting relationships with Tribal and Indigenous organizations or representatives. This is a substantive shortcoming of the EJTF report. State government is accountable to repairing the environmental harms done to Tribes and Indigenous communities, and the path towards healing that harm includes meaningful and authentic relationships.

Due to limited staff time and the inability to conduct in-person meetings that are essential to relationship building in the wake of the COVID-19 pandemic, a more comprehensive approach to engagement ultimately was not possible. While we made every effort toward inclusion and representation of overburdened communities, our work is inherently limited to the perspectives of those who were able to participate most. Namely, the perspectives most represented in this document are from people whose time was supported financially by their jobs and whose workload allowed time to participate. In this document, there are many

instances when the EJTF speaks for people whose needs and experiences we do not fully understand, and we recognize that as a limitation to this work.

Timeframe:

The bulk of the EJTF work occurred in one year. A single year is not enough time to build relationships and trust with overburdened communities across the state, or fully understand the myriad of pressing EJ issues in Washington. Further discussion is needed to critically think about how to thoughtfully work toward environmental justice with coordination among communities, Tribes, state government, and other stakeholders.

COVID-19 Pandemic:

The EJTF had originally planned to hold at least six public meetings in different regions across Washington, but was only able to hold three in-person public meetings due to the COVID-19 pandemic. This made it difficult for EJTF members to build relationships with one another and with overburdened communities. In addition to the physical distancing mandates that made it challenging to conduct meaningful community engagement, communities overburdened by environmental hazards are often also highly impacted by COVID-19 and may not have had the capacity to participate in the EJTF process as a result. With this said, the virtual meetings did make it easier for broader community participation in public meetings, which likely would not have been possible with in-person meetings in different corners of the state. The EJTF had very large turnouts at all our virtual public meetings, including consistent participation across meetings for several community members.

Many EJTF and Subcommittee members' responsibilities shifted to directly responding to the COVID crisis. On a number of occasions, including mandatory state government furloughs for several EJTF members and staff, the EJTF's work was delayed due to the urgent nature of the COVID-19 response.

Environmental Justice Definition

Many EJ definitions exist and no single definition can perfectly capture expectations and goals that communities have been fighting for decades. The EJTF developed a recommended statewide definition for EJ that builds upon the U.S. Environmental Protection Agency's (USEPA) definition by adding the outcomes we want to see in Washington state. The EJTF recommends that the definition be adopted by all Washington state agencies to identify and address current environmental injustices and to ensure future decisions and actions promote EJ.

EJ 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, regulations and policies. This includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits, and eliminating harm."

Environmental Justice Principles

The EJTF also developed EJ principles to serve as an initial blueprint for a shared vision of environmental justice in Washington State. The following EJ principles were informed by communities across the state and with recognition and reflection of the <u>Principles of Environmental Justice</u> adopted at the First National People of Color Environmental Leadership Summit in 1991.

Recommended use for EJ Principles

Washington state agencies and decision makers should consider these EJ principles when creating and implementing agency-specific or enterprise-wide EJ goals. The principles can also assist agencies in implementing many of the EJTF's recommendations.

Environmental Justice Principles

I. Achieve the highest attainable environmental quality and health outcomes for all people.

- Prioritize health of the land, humans, animals, air, water, and marine ecosystems.
- Create sustainable systems for production, consumption, processing, and distribution.
- Recognize the ecological unity and the interdependence of all species.
- Ensure the ethical, balanced, and responsible uses of land and resources in the interest of a sustainable Washington.
- Commit to actions that ensure all children have opportunities to reach their full health and life potential.

II. Adopt a racial justice lens.

- Commit to identifying and disrupting racism embedded in your organization, policies, protocols, practices, and decision-making.
- Dismantle all forms of racism, including environmental racism, by meaningfully partnering with communities to
 eliminate environmental and health disparities for Black people, Native and Indigenous people, and people of color.
- Develop public policy based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
- Recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.

III. Engage community meaningfully.

- Prioritize continuous engagement with communities who face environmental injustices and continue to be underinvested and underserved.
- Recognize that people and communities hold intersecting identities that have been subject to systemic oppression including but not limited to gender, ethnicity, and disability status.
- Focus engagement on building long-term, trust-based relationships with cultural humility.
- Adequately fund opportunities for meaningful community engagement by supporting and providing opportunities for civic voice and community capacity building that builds on existing community priorities, research, and expertise. Value different "ways of knowing"⁵³ and share power between governments, Tribal nations,⁵⁴ and Indigenous communities in decision-making, needs assessment, planning, implementation, enforcement, and evaluation to find community-driven solutions that are sustainable and amplify community assets.

IV. Be transparent.

- Ensure participation and decision-making processes are equitable and accessible.
- Make information easily accessible and relevant to the public and ensure communications are culturally and linguistically grounded.
- Engage community in processes early and often (e.g. planning, funding, policy, evaluation).
- Provide clarity on how the community engagement process informs government processes.

V. Be accountable.

- Embed equity and the elimination of environmental and health disparities into mission, planning, goals, and measures of progress.⁵⁵
- Center the community in identifying the problems, solutions, and successes.
- "Close the loop" with communities by sharing how their involvement shaped and informed decisions, and by gathering feedback on how the government can continue to improve service delivery and engagement.

⁵³ The EJTF values epistemological differences.

⁵⁴ The EJTF recognizes the importance of engaging meaningfully with non-federally recognized Tribes, urban Natives, and the global Indigenous diaspora.

⁵⁵ Refer to the EJTF's recommendations for creating measurable goals and embedding EJ into strategic plans for guidance.

Environmental Justice Task Force Recommendations

This chapter of the report includes all EJTF recommendations for how to embed EJ into state government actions and processes. This chapter has three sections:

- Section I: Measurable Goals and Model Policy Recommendations
- Section II: Environmental Health Disparities Map Recommendations and Guidance
- Section III: Community Engagement Recommendations and Guidance

Each section in this chapter includes a brief description of the EJTF's responsibilities with respect to that specific set of recommendations.

I. Measurable Goals and Model Policy Recommendations

Section Overview

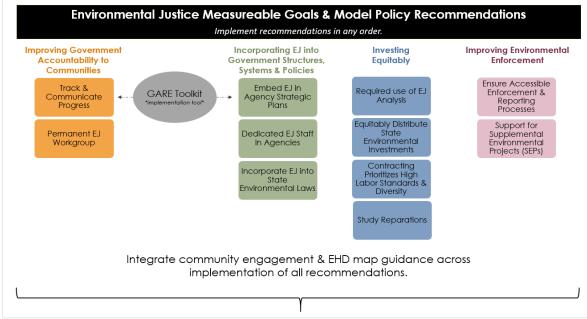
The Task Force is responsible for providing:

- **Measurable goals recommendations:** "Measurable goals for reducing environmental health disparities for each community in Washington state and ways in which state agencies may focus their work towards meeting those goals."
- **Model policy recommendations:** *"Model policies that prioritize highly impacted communities and vulnerable populations for the purpose of reducing environmental health disparities and advancing a healthy environment for all residents."*⁵⁶

This chapter of the EJTF report includes one measurable goal recommendation and ten model policy recommendations. Figure 6 illustrates how these recommendations are further organized into four categories that name the intended outcomes the EJTF would like to see enhanced in state government:

- Improving Government Accountability to Communities
- Incorporating EJ into Government Structures, Systems, and Policies
- Investing Equitably
- Improving Environmental Enforcement

Figure 6. Overview of EJTF Measurable Goal and Model Policy Recommendations



⁵⁶ Engrossed Substitute <u>House Bill 1109</u>, section 221, subsection 48.

Each of the following recommendations includes "Strategies and Considerations for Implementation" that reflect the EJTF's conversations about the complexities and nuances that accompany each recommendation. These strategies and considerations were also informed by communities, stakeholders, and agencies not represented on the EJTF. Further study is needed to implement any of these recommendations, as the strategies and considerations are not meant to be comprehensive. Rather, they call attention to many of the most urgent and crucial elements of a recommendation, provide context about the purpose and rationale of a recommendation, and in some cases, provide resources and existing examples of related work.

Overarching Strategies and Considerations for Implementation:

The following considerations apply to all measurable goals and model policy recommendations, and are listed here to avoid repetition:

- In many instances, agencies will need additional funding, staff support, and leadership buy-in to adequately and effectively implement a recommendation.
- Select recommendations may require legislative action to support implementation. Further study is needed to determine if these same recommendations can be implemented through administrative action, legislation, or a combination of both.
- The EJTF recognizes that agency compliance with legal requirements and federal and state guidelines take precedent during recommendation implementation.
- Recommendations can be implemented in any order, although certain recommendations (e.g. "Permanent EJ Workgroup" and "Embedding EJ in Agency Strategic Plans") are meant to build a strong foundation for continued EJ work and may bolster the implementation efforts of other recommendations.
- The EJTF recognizes the need to improve coordination among state agencies to build a strong, well-maintained, and adequately funded infrastructure that will achieve EJ in Washington by addressing the needs of overburdened communities across the state. These measurable goal and model policy recommendations are focused on building this infrastructure and removing barriers so agencies can efficiently and effectively address EJ issues across Washington. Additionally, the EJTF recommendations across implementation of all measurable goals and model policy recommendations. The EHD map serves as an initial EJ analysis to assist with agency decision making, and community voices are essential to all EJ work.

Operationalizing Measurable Goals and Model Policy Recommendations: A Primer on the GARE Toolkit

Overview and Purpose

The EJTF

recommendations guide state agencies on how to incorporate EJ into the core of how they do business by embedding EJ into agency strategic plans, developing systems to track, evaluate, and communicate progress in advancing equity, and EJ through agency operations and programs.

Washington state agencies can learn directly from the work of the

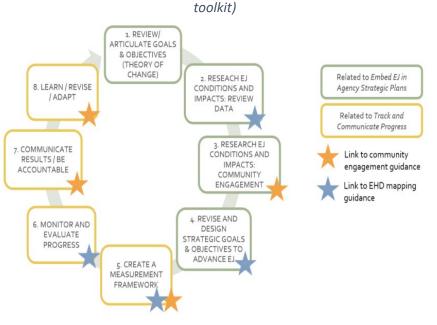
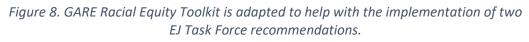


Figure 7. Embedding EJ: 8-Step Process (adapted from GARE racial equity

Government Alliance on Racial Equity (GARE). GARE is an organization that works with governments across the U.S. to incorporate racial equity analyses and goals into government operations. GARE has published multiple tools and resources to support governments, including their *Racial Equity Toolkit*, which can be applied at the programmatic level and can be scaled up to meet agency-wide priorities. Appendix D provides a user overview of GARE's *Racial Equity Toolkit*, with specific guidance for state agency staff seeking to apply this toolkit as a first step towards implementing EJTF recommendations #1 "Track and Communicate Progress" and #3 "Embed EJ in Strategic Plans". Figure 7 also illustrates connections between the GARE toolkit and EJTF recommendations pertaining to community engagement best practices and use of the Environmental Health Disparities (EHD) map.





Recommendations for Improving Government Accountability to Communities

Overview

EJTF recommendations #1 and #2 focus on improving government accountability to communities. Increasing accountability was a consistent message we heard from communities throughout the EJTF's community engagement process.

Track and Communicate Progress – Measurable Goals Recommendation

<u>Recommendation 1:</u> In partnership with communities, agencies should create a standard method to develop, track, evaluate, and publish environmental justice and health goals focused on pollution reduction, eliminating environmental health disparities, and improving community engagement.

- Engage with communities throughout the goal development, tracking, and development processes: Agencies should work with communities experiencing EJ issues, including Tribes and Indigenous communities, to identify appropriate measures and baseline indicators for tracking disparate impacts and progress towards reducing disparities. Refer to the *Community Engagement Key Recommendations* (recommendations #17-26) and *Community Engagement Plan Guidance* (Appendix C) included in this report. Consider contracting with community-led organizations and partnering with academic institutions to support goal development, tracking, and evaluation.
- Use existing equity toolkits for goal development: Use GARE Framework Guidance included in Appendix D to help with creating agency-specific and program-specific, theories of change, metrics, and indicators.
- **Create enterprise-wide and agency-specific goals:** While goals should be enterprise-wide to encourage the interagency coordination necessary to address EJ and environmental health disparities, agencies should also use statewide EJ and environmental health goals to inform agency-specific EJ and environmental health goals.
- **Create outcome and process measures:** Eliminating environmental health disparities and reducing pollution are outcome measures, whereas community engagement goals will need a set of process metrics that hold state agencies accountable for increasing meaningful engagement with communities.
- Strive for absolute numbers: The EHD map's relative rankings across census tracts allows the user to visualize which areas of the state are most overburdened by specific EJ issues. Relative rankings also add a layer of complexity for the user to track changes over time. In order to clearly assess progress over time, state government should strive to develop EJ and health goals that use absolute numbers.

- Leverage Permanent EJ Workgroup to track and evaluate goals: If stood up, the permanent EJ workgroup can assist with creating, tracking, and evaluating these goals with support from Results Washington, the Office of Financial Management, the Office of Equity, and other entities that specialize in and maintain public data dashboards. Alternatively, a third-party reviewer or agencies could review reports and track and evaluate progress toward EJ goals. Examples of existing related work in state government:
 - Results Washington can serve as a useful partner in tracking EJ outcome measures.
 - Refer to <u>Puget Sound Partnership's Vital Signs</u> for possible EJ measures.
 - <u>Office of Financial Management's data dashboard</u> could be used to track agenciesspecific EJ activity (e.g. <u>Workforce Performance Measures Dashboard</u>).
 - WSDOT has accountability measures in its Gray Notebook.
- **Publishing progress toward goals:** Agencies should regularly report their progress and contribution toward enterprise wide EJ and environmental health goals. If stood up, the permanent EJ workgroup can be responsible for ensuring that the public is regularly updated on progress toward achieving EJ and environmental health goals.
- Addressing data gaps: Quantitative metrics that are standardized across regions will be limited to what is available, what can be measured, and where it is being measured. To address data gaps, collect additional local data and engage with communities for local knowledge to learn more about current and past conditions and better understand community-based solutions to EJ and environmental issues.
- Increase access to environmental data: Increase government transparency and accountability through improving access to environmental data by providing technical assistance and tools, such as the work supported by <u>Environmental Data and Governance</u> <u>Initiative</u>, an organization that promotes <u>environmental data justice</u>.
- **Community partnerships:** Developing measurable goals in partnership with communities will ensure that government is tracking the metrics communities care about.

Permanent Environmental Justice Workgroup – Model Policy Recommendation <u>Recommendation 2:</u> Convene a permanent environmental justice interagency workgroup of relevant agency staff that includes members representing overburdened communities.

Strategies and Considerations for Implementation:

 Granting authority: The Washington state Legislature should consider convening a workgroup that can serve as a forum for collaboration and creation of accountability structures. Possible workgroup responsibility examples include: review agency-specific community engagement and strategic plans, track and publish progress toward achieving EJ goals, and advise state staff on integrating the EJTF's EJ principles into state agency actions.

- Shared leadership and resources: Communities and agencies share workgroup leadership responsibilities and resources. Agencies defer to community leadership as appropriate.
- **Build on previous and ongoing work:** Build on existing EJ, equity, and community engagement work in Washington state such as partnering with state boards and commissions, the Office of Equity, and the Governor's Interagency Council on Health Disparities to achieve EJ in Washington.
- **State EJ staff to serve:** Dedicated state agency EJ staff should be designated to serve on this workgroup, or staff deemed appropriate by agency leadership. Refer to recommendation #4, "Dedicated EJ Staff in State Agencies", for more information.
- Coordinate to address existing EJ concerns: Currently, there is no interagency mechanism in state government to address EJ-specific community concerns. EJ issues are often left unheard and inadequately addressed such as, but not limited to: environmental clean-ups across Washington, farmworkers' rights (especially in light of COVID-19), wildfire hazards, workplace hazards and exposures, addressing concerns related to existing or possible new sources of pollution in communities, and supporting community capacity building related to EJ issues.
- **Proactively advance EJ and implement existing recommendations:** Currently, there is no other interagency body working to proactively advance EJ. A permanent EJ workgroup would lead to increased interagency coordination and alignment with respect to EJ-focused investments. While there has been interagency EJ work in the past, all such groups have been temporary and have not had the authority or opportunity to implement existing EJ recommendations.
- **Create an EJ community of practice:** A permanent workgroup would lend itself to a community of practice for all agency EJ staff, and has the potential to bring in innovative ideas and solutions from commissions, boards, communities, and academic institutions.
- **Demonstrate commitment to overburdened communities:** This workgroup would prioritize communities with cumulative environmental & health burdens, and sensitive populations in its community engagement and service delivery approach.
- Select appropriate agencies and entities to serve: State leadership to determine which agencies or entities should serve in the permanent workgroup, for example the Governor's Executive Cabinet, the Department of Natural Resources, the Energy Facility Site Evaluation Council, the Interagency Council on Health Disparities, Ethnic Commissions, and any other agency or entity deemed appropriate by the Governor.

Recommendations for Incorporating EJ into Government Structures, Systems, and Policies

Overview

This set of recommendations focuses on enhancing state government's infrastructure to address EJ concerns in a meaningful, authentic, and strategic manner.

Embed EJ in Strategic Plans – Model Policy Recommendation

<u>Recommendation 3:</u> Agencies shall make achieving EJ part of their strategic plans in order to integrate EJ into agencies' protocols and processes.

Strategies and Considerations for Implementation:

- **EJ Staff to implement:** Dedicated EJ staff to assist with implementing EJ and equity components of the agency's strategic plan. Refer to recommendation #4, "Dedicated EJ Staff in State Agencies", for more information.
- Adapted GARE Toolkit: Agencies should use the *GARE Toolkit* adapted specifically for this recommendation to aid with strategic plan development and programmatic theories of change. See Appendix D for more detailed guidance on the *GARE Toolkit*.
- Align with Federal EJ Executive Order (EO): Federal EO 12898 should be considered the baseline standard for how agencies can approach their EJ work.

Dedicated EJ Staff in State Agencies – Model Policy Recommendation

<u>Recommendation 4:</u> Agencies will have at least one staff position dedicated to integrating environmental justice principles specifically, and equity more broadly, into agency actions.

- Suggested EJ Staff qualifications and principle responsibilities: Qualified EJ staff will have demonstrated experience working with communities facing EJ concerns and a deep understanding of the EJ discipline, including how to connect EJ to equity.
 - Tribal Liaison position can serve as a model: This position could be structured similarly to the <u>Tribal Liaison positions within a state agency</u>, for example: (1) Assisting the state agency in developing and implementing EJ into agency actions, processes, and protocols; (2) Serving as a contact person with overburdened communities and maintaining communication between the state agency and overburdened communities; and (3) Coordinating training of state agency employees in EJ.
 - A potential approach to develop qualifications: The Office of Financial Management could develop competency language for certain job classifications, with a focus on senior management. Guidelines about how to apply these

competencies for both new and existing staff, and timelines for implementation by agencies, should also be developed.

- Leadership support and training: Agencies ensure EJ staff are closely connected to agency executive leadership. Agency leadership will be best suited support EJ staff by participating in ongoing EJ and diversity, equity, and inclusion (DEI) trainings and professional development opportunities. Furthermore, agency staff that regularly interface with the public (e.g. community engagement coordinators) should closely collaborate with dedicated EJ staff, and also participate in EJ and DEI trainings.
- **Expand staffing over time:** Over time, the agency should support and resource lead EJ staff with other staffing support. Support staff would ideally come from different areas of the agency with the goal of infusing EJ and equity across the agency.
- **Create an EJ-Focused Community of Practice:** EJ staff could co-construct an informal⁵⁷ community of practice within their agency and among other agency staff to support agency accountability to communities, facilitate equity and EJ learning opportunities at agencies, and apply equity and EJ lens to agency work.
- Examples of other possible EJ staff responsibilities:
 - Designated staff to serve on the permanent EJ workgroup, if stood up.
 - Participate in informal interagency EJ community of practice.
 - Track and communicate agency progress toward EJ, perhaps in partnership with an external entity.
 - Oversee EJ-specific community engagement, including reviewing, updating, and implementing the agency's community engagement plan (see: recommendation #17).
 - Ensure EJ and equity is included in the agency's strategic plan (see: recommendation #3), and that the agency is actively working toward EJ and equity.
- State leadership should determine which agencies this recommendation should apply to, for example the Governor's Executive Cabinet, the Department of Natural Resources, the Energy Facility Site Evaluation Council, the Interagency Council on Health Disparities, and any other agency or entity deemed appropriate by the Governor.

Incorporate EJ into State Environmental Laws – Model Policy Recommendation

<u>Recommendation 5</u>: Environmental justice considerations should be incorporated into a range of state environmental laws. Further, environmental and natural resource state agencies should consider environmental justice in developing agency request legislation, analyzing bills during legislative session, and conducting rule reviews.

⁵⁷ Non-mandatory, and not necessarily a public meeting.

- **Prioritizing efforts to reduce inequities:** Agencies should prioritize agency request legislation and rule updates that will reduce inequity or have a positive impact on overburdened communities.
- **EJ impact review:** In analyzing bills during legislative session, the legislators, legislative staff and agencies should consider what communities will be affected and whether the bill will reduce, increase, or have no impact on EJ. <u>Health Impact Reviews developed by</u> the State Board of Health could serve as a model for this work.
- Engage with stakeholders and communities to identify the best path forward: Significant additional work is needed to identify how to best incorporate EJ into state laws.
- Illustrative examples on how to implement this recommendation include:
 - Modernizing the Evergreen Communities Act (SB 6529/HB 2413):
 - This update of the Evergreen Communities Act to help communities develop urban forestry plans aligning with other high priority goals, such as salmon and orca recovery, reducing environmental health disparities, and local air and water quality improvements. The bill includes a focus on EJ and ensures at least 50% of all program activities benefit overburdened communities.
 - o Growth Management Act (GMA):
 - <u>CA Senate Bill 1000</u> provides an example of incorporating EJ into Washington's GMA. For example, EJ could be incorporated as a new mandatory goal. This goal could require identification of overburdened communities, prioritization of improvements and programs that address the needs of overburdened communities—including addressing reduction of greenhouse gasses (GHG) that put communities at risk due to climate change, and affordable housing to combat gentrification and displacement.
 - State Environmental Protection Act (SEPA):
 - Pennsylvania Enhanced Public Participation Policy: This policy was created to ensure that EJ communities have the opportunity to participate and be involved in a meaningful manner throughout the permitting process when companies propose permitted facilities in their neighborhood, or when existing facilities expand their operations. Only those activities that may lead to significant public concern due to potential impacts on human health and the environment trigger this process. Such activities include new major sources of hazardous air pollutants, commercial incinerators, coal preparation facilities or expansion of large concentrated animal feeding operations.
 - New Jersey <u>Senate Bill S232</u>: This bill requires consideration of the potential for disproportionate cumulative health impacts on the local community when certain types of new facilities, or expanded facilities, are proposed in an overburdened neighborhood. The bill also includes explicit guidelines for meaningful public participation during public hearings in overburdened communities.

Recommendations for Investing Equitably

Overview

Applying an equity lens to the distribution of state investments is at the core of EJ work. The following recommendations focus on strategies that promote equitable investments in overburdened communities across Washington state.

Required use of EJ Analysis – Model Policy Recommendation

<u>Recommendation 6:</u> Agencies should adopt, and the Legislature should consider, requiring environmental justice analyses, including but not limited to the use of the Environmental Health Disparity Map, that combine the cumulative impact of environmental health indicators such as environmental exposures, environmental effects, impact on sensitive populations, and other socioeconomic factors.

- Reference EHD map Recommendations: Refer to the EHD map recommendations (see: recommendations #12-16) when requiring, developing, or using EJ analyses in implementing applicable environmental, natural resource, and public health programs in order to ensure appropriate use of these types of analyses. Some areas in which environmental analyses are appropriate include:
 - Community Engagement
 - Capital Investment
 - Fees and Costs of Service
 - Policy Development
 - Program Planning, Monitoring, and Evaluation
- Grants and Loans
- Contracting
- Enforcement
- Rulemaking
- Strive for a consistent methodology through agency collaboration: To ensure consistency of an EJ analysis application, there should be ongoing collaboration of agencies using these types of analyses. The proposed permanent EJ workgroup would be a valuable resource in this effort.
- Illustrative examples of how aspects of this recommendation have been implemented:
 - The Clean Energy Transformation Act (SB 5116) requires utilities to do an analysis based on a cumulative impacts analysis of the communities highly impacted by fossil fuel pollution and climate change in Washington for integrated resource planning.⁵⁸ Rulemaking by Commerce and the Utilities and Transportation Commission (UTC) is in process on how to implement this requirement.
 - **The CalEnviroScreen** mapping tool is used in California state government by CalEPA to aid in administering EJ grants, promote compliance with

⁵⁸ RCW 19.280.030(1)(k) <u>https://app.leg.wa.gov/RCW/default.aspx?cite=19.280.030</u>.

environmental laws, prioritize site-cleanup activities and identify opportunities for sustainable development.

- EHD Map: A number of state agencies have utilized the EHD map in different aspects of their work, including but not limited to the Departments of Ecology, Commerce, and Transportation.
- Train staff to conduct EJ analyses: Training in both the development and use of the map for state staff may be needed. In addition, funding would be needed to maintain and update current analyses, like the EHD map and should also be provided to allow state agencies to work with local jurisdictions for important granular data that either could be incorporated into state tools or be considered in addition to what the state can access. Refer to EHD map recommendation #14 for more information about developing technical guidance for practitioners.
- **Engage and consult with Tribes:** Formal Tribal consultation should be offered in both the development of and proposed uses of environmental justice analyses.
- **Operationalize EJ analyses:** The California Department of Public Health and the Public Health Institute developed the Five Key Elements of Health in All Policies as a guide and filter for identifying opportunities for operationalizing this work: Promote health, equity, and sustainability; support intersectoral collaboration; benefit multiple partners; engage stakeholders; create structural or procedural change.
- **Resource:** The <u>Social Vulnerability Index</u> may be a resource to help measure impacts resulting from greater investments in communities.

Equitably Distribute State Environmental Investments – Model Policy Recommendation

<u>Recommendation 7:</u> For new and existing revenue and expenditures with an environmental nexus, the state Legislature and agencies should equitably distribute investments ensuring that resources are allocated to the most overburdened communities.

- Identifying overburdened communities: Overburdened communities should be identified through project- or program-specific EJ analyses. Refer to EHD map recommendation #13 for more information on how to use the EHD map as a starting point to identify overburdened communities.
- **Conduct an EJ analysis:** The EHD map is an example of an EJ analysis that can assist with equitable distribution of environmental investments. Environmental investments and programs directed toward overburdened communities should be made proportional to the health disparities that a specific community experiences.
- **Consideration of multiple factors:** An EJ analysis should serve either as the primary, or one of multiple factors, for the prioritization process.

- **Possible investment opportunities:** The intended result of this recommendation is that agencies will be directed to invest resources and programs under their control in the areas that are most disadvantaged. Additionally, funds can go toward grants, hiring, and contracting opportunities.
- **Promote transparency:** Goals and assessment metrics should be in place to in order to clearly communicate where, why, and how funds are distributed. Furthermore, efforts should be made to balance investments across the state, not just in urban areas in the Puget Sound region.
- Illustrative examples of how aspects of this recommendation have been implemented:
 - Model Toxics Control Act (MTCA): The Department of Ecology oversees MTCA implementation and has used both the EHD map and other criteria in order to identify areas for environmental cleanup, public participation grants, remediation, and pollution prevention programs statewide.
 - <u>New York Climate Leadership and Community Protection Act</u>: This law sets a target for "disadvantaged communities" to receive 40% of the overall benefits from the state's climate programs, and at a minimum, "disadvantaged communities" must receive no less than 35% of those benefits.
 - <u>California's SB 535</u>: California state law created a program that has been periodically updated to ensure that 25% of the proceeds from the Greenhouse Gas Reduction Fund benefit projects that provide a benefit to "disadvantaged communities" as identified by the CalEnviroScreen map, which the EHD map was modeled after.
- **Possible investment priorities:** Investments should focus on eliminating health burdens and raising the standard of living.
- Illustrative examples of ways to equitably distribute funds:
 - Community grants to monitor pollution that would be focused on building capacity and training for community scientists. Note that adequate staff capacity would be needed to support and provide technical assistance to communities that may be new to receiving agency grant funding.
 - Education and work-readiness youth programs focused on infrastructure or utility related internships, careers, and eventually leadership.

Contracting Prioritizes High Labor Standards and Diversity – Model Policy Recommendation

<u>Recommendation 8:</u> Work funded by state environmental investments should increase inclusion in contracting with minority, women, and veteran-owned enterprises in alignment with the <u>Governor's Subcabinet on Business Diversity led by OMWBE</u>, and have high labor standard requirements that value workers' health and safety, regardless of whether a public or private entity is the beneficiary of the new spending, except where legally prohibited from doing so.

Strategies and Considerations for Implementation:

- Examples of high labor standards include, but are not limited to: pay equity, local hire and project labor agreements, livable wages, safe work environments, paid family and sick leave, protecting the rights of workers to organize, flexible work schedules and telework options, retirement benefits, and comprehensive health insurance.
- **Refer to WA State Disparity Study Findings:** Agencies should include the strategies and recommendations put forward by OMWBE from the 2019 WA State Disparity Study in their <u>inclusion plans</u>.
- **Exceptions:** Possible exceptions to this recommendation include any statutory and constitutional limitations, such as the Department of <u>Natural Resources' Trust Mandate</u>.

Study Opportunities for Reparations in Washington – Model Policy Recommendation

<u>Recommendation 9:</u> As one strategy for achieving environmental justice, Washington state government should study reparations as a mechanism to address health disparities and historical harms affecting overburdened communities. The state should focus on the unpaid debts from slavery and colonization, the legacy of redlining, treaty violations, forced exclusion, and neighborhood segregation in Washington, as well as the impact that systemic racism has had on Black, Native, Indigenous, Latinx, Asian communities and others.

- Identify where to house this work: As an option, the Office of Equity could develop a plan for studying reparations with the continued input and guidance from the public and the state's Ethnic Commissions. One additional strategy could be the creation of a community task force to guide this work.
- Further explanation on reparations: Reparations can take many forms, such as: direct payments to communities and individuals, environmental cleanups, increased investments in overburdened communities in the form of grants, programs, and projects (see: recommendation #7 "Equitably Distribute State Environmental Investments"). The process, budget, and outcomes must be community-led and co-created with government agencies.
- **Other possible areas for study:** Slavery, colonization, internment, employment discrimination, labor and land theft, and financial services discrimination.
- **California Reparations Task Force:** California state government passed legislation (<u>AB-3121</u>) in September 2020 to study and develop proposals for potential reparations to those affected by slavery and the direct descendants of enslaved people.

Recommendations for Improving Environmental Enforcement

Overview

The following set of recommendations focus on how to improve existing mechanisms for environmental enforcement to promote access to and benefits for overburdened communities.

Ensure Accessible Enforcement and Reporting Processes – Model Policy Recommendation

<u>Recommendation 10:</u> The EJTF recommends ensuring that enforcement and reporting processes are accessible to overburdened communities by elevating awareness and addressing barriers to access (such as technology, literacy, and language).

Strategies and Considerations for Implementation:

- Increase awareness of reporting systems: Increase public education and awareness of environmental reporting tools such as the Environmental Reporting and Tracking System (ERTS), the Environmental Crime Report Form, Clean Air Agencies' complaint forms, and other environmental reporting mechanisms.
- **Ensure accessibility:** Ensure reporting options are accessible to a diverse audience, including: multilingual formats, phone reporting, and systems navigators who can provide online, in-person, and phone support.
- Ensure compliance with existing laws and policies: Assessment of existing environmental reporting systems to evaluate access to services and compliance with Title VI, ADA, and non-discrimination obligations.

Support for Supplemental Environmental Projects (SEPs) – Model Policy Recommendation

<u>Recommendation 11:</u> Agencies with enforcement responsibilities should, to the extent practicable and appropriate, support the inclusion of "Supplemental Environmental Projects" (SEPs) in settlement agreements.

- Further explanation of SEPs: As part of a voluntary settlement, the responsible party may propose to undertake a project to provide tangible environmental or public health benefits to the affected community or environment. The responsible party can voluntarily choose to fund a SEP to offset part of the penalty they would otherwise be required to pay for the violation.
- **Engage affected communities:** When possible, SEPs should be developed through a partnership between the responsible party and the affected community and provide tangible environmental or public health benefits.

II. Environmental Health Disparities Map Recommendations and Guidance

Section Overview

The Task Force is responsible for providing:

"Guidance for using the <u>Washington Environmental Health Disparities Map</u> to identify communities that are highly impacted by environmental justice issues with current demographic data."⁵⁹

The Environmental Health Disparities map (EHD map) is a cumulative impact map that compares census tracts across Washington for environmental health disparities. It is part of the Washington Tracking Network (WTN). WTN and the EHD map are useful for exploring geographic areas in Washington to better understand communities' health as well as the social, economic, and environmental impacts influencing them. Developed jointly through community, academic, and government agency collaboration, the EHD map and data can be used by state agencies to improve accountability, engagement, and transparency towards EJ goals. The EHD map may also be used by the public, community leaders, and community organizations to improve awareness of and work towards EJ solutions. The following mapping recommendations and guidance from the EJ Task Force focus on:

- How to use the EHD map to better understand who is potentially affected by agency activities
- How to guide agency resources and decisions towards eliminating environmental and health disparities, and
- How to set goals and measure progress for the distributional equity of benefits and burdens across communities.

Refer to Appendix E for more information about the Washington Tracking Network that houses the EHD map. Appendix E also discusses how the EHD map was developed and important considerations for using the EHD map.

Considerations for EHD Map Use

The WTN and the EHD map are valuable for state agency planning and programming activities. The EHD map is a model and no model fully captures reality. The EHD map is built using the best available data to Washington state using a specific scientific model where risk is comprised of threat and vulnerability to arrive at environmental health disparity rankings.

The EHD map was developed in a robust partnership of government agencies, academia, and community-based organizations. Front & Centered, a statewide coalition that organizes and advocates for EJ, held listening sessions and community conversations to seek input into the map's development, but those sessions did not cover all communities in Washington. The EHD

⁵⁹ Engrossed Substitute <u>House Bill 1109</u>, section 221, subsection 48.

map is a dynamic, informative tool, but does not replace the need for thoughtful state agency engagement with impacted communities and the incorporation of additional historic disparities information into decision-making.

As a cumulative impact analysis map, there are a number of considerations that will influence how the EHD map can and should be used. The Task Force has identified the following information for agencies to be aware of when using the EHD map to inform their decisions.

Interactive

The EHD map is a robust, interactive mapping display that quickly provides a synopsis of cumulative impacts, considering environmental exposures and effects, sensitive populations, and socioeconomic factors. The resulting disparity rank is easy to understand and creates a powerful visual of where environmental health disparities exist in Washington and which measures contribute to each area's rank.

Ranking-based

The use of rankings allows disparate data sets to be displayed together, which would otherwise be difficult to display in a meaningful way. Rankings also protect sensitive health information in situations where a very limited number of individuals in an area are impacted.

The rank for each census tract indicates the order from smallest to largest value, but does not indicate how great the difference in values are for any two ranked items. This means that a user cannot draw conclusions about how large or small the disparity is between any two ranks (such as between 1 and 10, or 9 and 10). In other words, even if there is an overall reduction in environmental health disparities, relative rankings mean there will always be census tracts ranked 1 through 10. It is possible to view the data distribution (Figure 9) among the deciles in the EHD map. In this way a user can gain additional insights into the magnitude of the differences between census tracts.

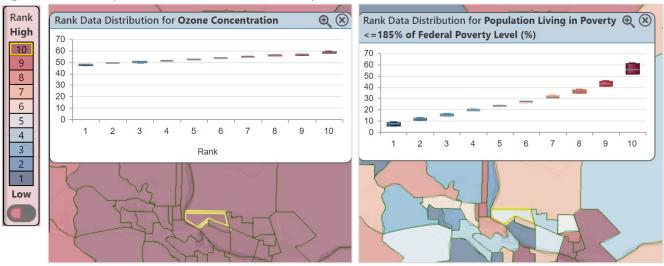


Figure 9. EHD Map Rank Data Distribution Examples

Current, accessible, statewide

The EHD map includes the most current statewide data, is publicly accessible, and the data are available for download from the WTN Query Portal if additional analysis or access to absolute values are needed.

The map relies on a number of national data sources. These data may not reflect localized environmental health disparities and conditions. It also does not map the sum total of impacts. It is cumulative, but not all encompassing. State agencies should ground-truth findings from the EHD map with qualitative data and lived experiences from engaging with communities to create a fuller picture of current conditions and needs.

Relying on available data means that there are gaps in the data and in what information the EHD map reflects. It is not representative of all threats and vulnerabilities. For example, data limitations related to Tribes and Indigenous populations, statewide water quality information, rural or urban indicators, and other important considerations are not fully captured by the EHD map. In addition, Tribes were not formally consulted and business interests were not represented during the development of the EHD map.

Flexible

Overlays allow more site specific or project relevant information to be displayed, such as Tribal lands boundaries, city limits, school locations, and 100-year flood zones. Since the EHD map is built on the IBL platform, Department of Health can add new data and overlay maps.

Geographic scale

Census tracts are used because they tend to provide a stable geographic unit for presenting data. A user cannot view and analyze environmental health disparities at geographic scales that are smaller than a census tract (such as a neighborhood block) or larger areas (such as multiple tracks or zip codes). The EHD map provides rankings relative to the entire state, and does not allow for comparative rankings within other geographic boundaries (such as a county). Certain agency activities or organizations whose jurisdictions are not statewide may benefit from other maps that operate at finer or more flexible geographic scales.

Example of a Local Map: Port of Seattle's Equity Index Map

The Port of Seattle developed an <u>Equity Index map</u> consisting of 25 indicators using the same categories and ranking scale as the EHD map. The <u>South King County Fund</u> is the first project to use this Index to award \$10 million between 2019 and 2023 to address noise mitigation, environmental health and sustainability in near-airport communities.

Tracking changes over time

Since the EHD map is based on relative rankings, a census tract that increases or decreases in its ranking reflects how that census tract currently compares to others. It does not mean that disparities increased or decreased in terms of the absolute value. This distinction also means

ENVIRONMENTAL JUSTICE TASK FORCE FINAL REPORT that the EHD map is useful for point-in-time comparisons, but not for tracking changes over time.

To examine changes over time, one method could be to export and analyze the underlying data. Selecting the graph icon next to the measure within the IBL will search WTN data to see the range of data used to create the rankings.

Future Direction and Funding Needs

Additional measures identified during the development of the EHD map include asthma, noise pollution, proximity to state-specific cleanup sites, and surface water quality. At the time the map was developed, these measures were not available statewide, but they are currently under development. The EHD map will be updated as statewide data for these measures become available.

Communities have expressed interest in resilience and asset-based approaches to describing their communities. Currently, the EHD map focuses on disparities. However, future map enhancements could include resilience or asset-based indicators of environmental health such as measures of civic participation or local non-profit funding. Community voice was critical throughout the development of the EHD map and should continue to play a role. Both enhancements to the usability of the EHD map and the incorporation of new data should be informed by public engagement and collaboration with overburdened communities. Resources and capacity will be needed to fully engage community in this process.

Finally, WTN was established, and continues to be mostly funded, by a Centers of Disease Control and Prevention (CDC) grant. Funding from the CDC has declined over time, and there is no dedicated funding to expand the IBL functionality or add new data to the EHD map. Department of Health staff time is critical to updating and enhancing the EHD map, such as recent WTN data updates to the American Community Survey (ACS) data (October 2019), low birth weight data (December 2019), and cardiovascular disease data (January 2020). It is anticipated that maintenance and enhancement of the EHD map will need dedicated support and funding.

Recommendations for Agency EHD Map Use

The EHD map is publicly available bringing much needed attention to environmental and human health conditions statewide and reveals disparities across Washington's communities. Identifying areas where people may face the most risk and exposure to environmental pollution is a critical step towards EJ and provides a way for state agencies to transparently and consistently integrate cumulative impact considerations into activities and decisions.

The Washington Tracking Network and the Environmental Health Disparities map have data and analyses that can support pro-equity planning in a number of agency activities. While individual agencies will determine how best to integrate WTN and the EHD map, one approach is to

prioritize the integration of the EHD map into activities that have direct impacts on communities.

In line with this, the following activities could serve as important starting points for agencies:

- Community Engagement
- Grants Programs
- Capital Investment
- Policy Development
- Rulemaking

Recommendation 12 (EHD Map): The EJTF recommends that state agencies consider four initial ways of using the WTN mapping tools and EHD data in agency activities. These suggestions are based on using the map as it currently exists, either in its online form or as exported map EHD data tables for integration with agency data.

I. Build demographic and environmental context to guide and inform place-based activities.

<u>Purpose</u>: Use the WTN, including the EHD map, to learn about the intended audience and community potentially affected by an agency activity or service.

<u>When to implement</u>: As policies, program changes, practice improvements, and facility management decisions are being considered.

<u>Example</u>: In the initial planning stages of community engagement, review the EHD map and its individual measures to learn about a population's education background, availability of affordable housing, and proximity to sources of pollution. These data can

help ensure outreach is accessible and reflects community concerns.

<u>Example</u>: A review of WTN data will also support more comprehensive and inclusive community engagement planning. Specifically, WTN data on preferred languages for non-English speaking populations will help ensure critical information reaches diverse audiences, and that federal compliance obligations for language access are met.

II. Conduct environmental justice review and analysis as routine practice for programs and projects.

<u>Purpose</u>: Use the EHD rankings to identify highly impacted communities to assess how these areas may be positively and negatively affected by a proposed policy, program, project, or activity. If highly impacted communities will be negatively affected by a decision or activity, the agency should strive to mitigate or minimize impacts, enhance public engagement, or seek alternatives to avoid potential impacts.

<u>When to implement</u>: As activities, policies, program changes, practice improvements, and facility management decisions are being considered.

<u>Example</u>: When evaluating the potential impacts of a project on communities, the agency finds that highly impacted communities will be negatively affected by a decision

or activity. Agency staff elevate efforts to consider alternatives to avoid potential impacts.

III. Center environmental justice as the priority intended outcome in resource allocation decision processes.

<u>Purpose</u>: Direct beneficial environmental activities and investments towards areas with environmental health disparities and where the environmental health improvements will be greatest.

<u>When to implement</u>: When allocating resources and funding across an agency's service area.

<u>Example</u>: An agency includes "benefits to overburdened communities" as one element in evaluating grant proposals. Grant proposals that benefit areas with EJ or cumulative impacts considerations (such as tracts ranked 9 and 10 in the EHD map) are allocated additional points in application scoring.

<u>Example</u>: An agency implements a "targeted universalism" approach to allocating resources. Using a determination method that factors heavily for environmental health disparities, operational and capital dollars are prioritized to facilities or service area geographies that will most benefit (as identified by areas with high EHD rankings).

IV. Evaluate and measure reductions in disparities through service equity improvements.

<u>Purpose</u>: Evaluate the distributional equity characteristics of historic, current, and projected agency activities across the agencies service area.

When to implement: Program and activity strategic planning.

Example: An agency evaluates where past and current grants have been allocated across the state relative to EHD map ranking and geographic representation (e.g., urban/rural). The service equity analysis identifies a pattern of higher investments in urban areas with low EHD rankings. The agency addresses potential barriers to grant access, by expanding notification about the grant, adjusting the application and scoring process to support first time applicants and those with limited resources, and adjusting funding-match requirements.

<u>Recommendation 13 (EHD Map)</u>: Use the overall EHD Map rank 9 and 10 as a starting point to identify highly impacted communities.

The EHD map is designed to identify communities who are potentially hardest hit by environmental injustices and cumulative impacts. Drawing from both federal and state experience with similar maps, the EJ Task Force recommends initially identifying highly impacted populations as census tracts ranked 9 and 10 in the overall EHD map ranking. By using rank 9 and 10 as a starting point, agencies will have a transparent and consistent approach to identifying areas with environmental health disparities. As we advance this work and refine our use of the EHD map, agencies and departments will likely tailor how they identify and prioritize highly impacted communities depending on program and project needs. This recommendation should not be construed as a definitive characterization of a place or community, or as a way to label an area as an "EJ community."

<u>Recommendation 14 (EHD Map)</u>: Develop technical guidance for practitioners.

The EJTF acknowledges that in order to increase the use of a cumulative impact analysis to inform agency decision-making and potentially influence environmental health disparities, agency staff will need training and guidance on how to best use the EHD map and the supporting data. The Task Force recognizes that funding to maintain the EHD map and support training may be needed meet this recommendation.

DOH has developed a <u>tutorial</u> for beginner EHD map users interested in exploring the EHD map. The EJTF recommends additional training for practitioners that could include:

- In-depth training materials for practitioners
- Opportunities for consultation with WTN staff
- Detailed descriptions of how to utilize EHD map features and access the source data
- Guidance on EHD map limitations

Recommendation 15 (EHD Map): Adopt equity tools and analyses in agency practices.

The EJTF recommends using the EHD map in conjunction with other equity-focused tools and analyses. The development and application of equity tools and analyses are rapidly expanding both in Washington and nationally. These tools, when supported with open spatial data, help inform, guide and account for progress toward environmental health disparity reduction and elimination. These equity tools and practices take many forms, such as checklists, toolkits, impact assessments, and participatory project planning. Like the EHD map, these tools have a range benefits and limitations, and their application will depend on factors such as the type of activity, potential to affect communities, and data availability. Examples of equity tools and analyses that have been adopted by other government agencies include, the GARE Racial Equity Toolkit, City of Seattle Racial Equity Toolkit, California Governor's Office Resiliency Guidebook Equity Checklist, and City of San Antonio Budget Equity Tool.

<u>Recommendation 16 (EHD Map)</u>: Set environmental health disparity reduction goals and track progress towards those goals.

Achieving EJ and eliminating disparities must be part of an overall state effort to systematically promote and track progress towards these goals. The EJ Task Force recommends that state government entities work collaboratively to set goals, integrate accountability into current tracking systems, and regularly report on progress. Possible approaches to this work include:

- Include EHD map environmental and health disparities indicators in state performance management goals and tracking.
- Partner with the Governor's Office, Commissioner of Public Lands, Office of Equity, Office of Financial Management, and others to strengthen and expand EHD map use and capacity.

King County Uses Mapping to Track Progress toward Equity

King County tracks and measures progress toward equity as agencies implement the King County Equity and Social Justice Strategic Plan. Mapping has been a key component in this work, including an interactive operations dashboard (Figure 10) that layers program information onto community conditions over space and time. Using maps to visualize historic and current service delivery has improved program and resource planning by revealing the degree of potential effect of the county's efforts toward health disparity reduction. As a result of this work, King County is better suited to make pro-equity decisions by bringing equity actions and desired equity outcomes together in a shared measurement construct to inform learning and the ability to adaptively manage.

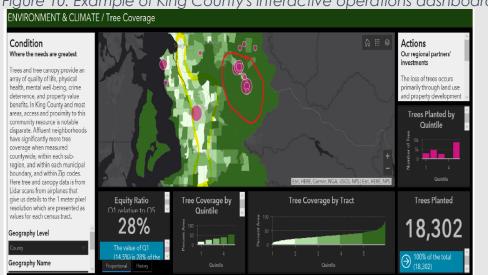


Figure 10. Example of King County's interactive operations dashboard

Lessons Learned for the State to Consider

King County's experience offers a several insights for other governments. Key ingredients include: action measurement standards, functioning data governance processes, and defined alignment between the agency actions and outcomes. Gaining leadership support is challenging because these tools expand transparency and accountability which may can be threatening. Champions are those willing to co-convene, co-design, and co-develop the work so that there is a high degree of trust and understanding. Setting data standards and establishing governance are key to sustainability and help guide the process of matching activities to intended outcomes over time and place. Building from pilot approaches and taking an iterative or scalable approach can help ensure efforts are effective. In addition, requiring equity analysis in budget requests and creating accountability forums can improve sustainability.

Opportunities for Community Use of the EHD Map

The Washington Tracking Network and the Environmental Health Disparities map are free publicly available resources. While state agencies are the focus for this report's recommendations, the WTN and the EHD map are valuable resources for communities and organizations across Washington state. Below are examples of how the public might use the EHD map, many of which were identified during community meetings as part of the EJTF process.

Community Information and Assessment

The public can use the EHD map to learn more about the current environmental and social conditions in their communities and workplaces. Washington is making progress toward EJ when communities and workers have access to information about the possible environmental risks they face, especially considering many dire EJ issues are not easily detectable.

Community Projects and Activism

Community organizations and the public can use the EHD map, and its underlying data to inform and leverage their advocacy work. For example: The EHD map could help build community visioning projects to inform local planning processes; EHD disparity ranks and data can enhance communication with decision makers about community EJ concerns and support requests for increased enforcement, monitoring, and environmental cleanup; and community based organizations can use the EHD map to identify areas of need. "As a non-profit, the Communities of Color Coalition (C3) used the EJ mapping tool to assist in the distribution of monetary funds provided by a COVID-19 Rapid Development Grant. The EJ mapping tool assisted in identifying critical community needs in Yakima, Bellingham, and Seattle. Most non-profits do not have an inhouse research department dedicated to collecting and interpreting environmental, health, social, and economic disparities data. Your map provided us with a vital tool and opportunity to improve our engagement efforts and review data visually to help support communities in need."

-David Ortiz, C3 Chair (May 2020)

Education

Educators can use the EHD map to inform their EJ, environmental, anti-racism, health, or any community-based curricula. The EHD map is appropriate for students of all ages to foster their own curiosity about the environment around them, and to inform their education and research in a school setting.

III. Community Engagement Recommendations and Guidance

Section Overview

The EJTF is responsible for providing:

"Best practices for increasing meaningful and inclusive community engagement that takes into account barriers to participation that may arise due to race, color, ethnicity, religion, income, or education level."⁶⁰

This section of the report has ten recommendations for increasing meaningful and inclusive community engagement, and includes supporting guidance for how to implement these recommendations. "One of the key components in environmental justice is getting people to the table to speak for themselves...they need to be in the room where policy is being made."

-Dr. Robert Bullard, Father of Environmental Justice

Community Engagement and Environmental Justice

All agencies can embed EJ into their policies, practices, and processes by prioritizing and investing in meaningful community engagement, especially in <u>areas of critical concern across</u> <u>Washington</u>.⁶¹ One of the seminal documents of the EJ movement is the *17 Principles of Environmental Justice*, which were drafted and adopted by the delegates to the First National People of Color Environmental Leadership Summit in 1991. Principle #7 explicitly states the need for community engagement to achieve environmental justice.

EJ Principle #7: "Environmental justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation."⁶²

The foundation of meaningful community engagement must be an evaluation of who is negatively impacted and who is benefitted by any agency decisions meant to benefit the public as a whole. This foundation would help surpass the common practice of starting with requirements outlined in law or policy. This guidance outlines and helps agencies identify common agency activities that do not typically involve, but can significantly impact, the public.

⁶⁰ Engrossed Substitute <u>House Bill 1109</u>, section 221, subsection 48.

⁶¹ As an initial step, agencies can consider prioritizing investing in community engagement in census tracts ranked nine and ten on the Environmental Health Disparities Map.

⁶² "The Principles of Environmental Justice". 1991. <u>https://www.nrdc.org/sites/default/files/ej-principles.pdf</u>.

Why Community Engagement is Crucial

The governing structures of the United States were designed to elevate the rights and access to its resources of some people at the expense of the rights and access of others. These weighted structures led to the systemic inequity that the EJ movement responds to. They have been reaffirmed across history, often in response to efforts to move toward more equitable laws and practices, and are widely maintained today.

The *Community Engagement Plan Guidance* developed by the Task Force's Community Engagement Subcommittee in Appendix C is grounded in the position that these systems cannot change without the direct involvement of the communities who have borne the weight of systemic disparities, and that such involvement is rarely supported by Washington state's government. The EJTF and the Community Engagement Subcommittee recognize the critical value of repairing relationships and building trust with communities.

Repairing relationships and building trust between government and those members of the public harmed by environmental injustice is central to this guidance. A focus on trust-building in this context sends skills like cultural humility and emotionally intelligent communication to the forefront, and we see more ties to community organizing than to conventional communications-oriented information sharing.

Truly meaningful community engagement builds more sustainable agency programs and decisions, and it increases community understanding of agency decisions and transparency and trust in government actions. State agencies have a responsibility to create community engagement opportunities that allow all of Washington's diverse communities, "equal access to the decision-making process to have a healthy environment in which people live, learn, and work."⁶³ Without it, as history demonstrates,⁶⁴ entire populations are systematically left out, curbing their ability to effectively advocate for their own health and safety. Furthermore, many agencies are directed by policy and federal, state, and local laws to implement meaningful community engagement and participation.

 ⁶³ U.S. Environmental Protection Agency. "Environmental Justice". <u>https://www.epa.gov/environmentaljustice</u>.
 ⁶⁴ Maantay, Juliana, Jayajit Chakraborty, and Jean Brender. "Proximity to Environmental Hazards: Environmental Justice and Adverse Health Outcomes". (2010): <u>https://archive.epa.gov/ncer/ej/web/pdf/brender.pdf</u>.

Key Recommendations for Addressing Structural Barriers to Community Engagement

The third and final set of recommendations in this report address common barriers to meaningful community engagement (CE), based on barriers identified with input from EJTF members and the public (Figure 11).⁶⁵ Refer to the *Community Engagement Plan Guidance* (Appendix C) developed by the EJTF's Community Engagement

Figure 11. Barriers to Community Engagement		
Access	Process	
Apathy/Burden	Resources	
Communication	Sovereignty	
Potential for Influence	Trust	
Representation	Types of knowledge	

Subcommittee to assist with the implementation of these CE recommendations.

Recommendation 17 (CE): Each agency develops a community engagement plan, which must include the elements outlined in our *Community Engagement Plan Guidance* (Appendix C).

Recommendation 18 (CE): Agencies evaluate new and existing services and programs for community engagement using a systematic process to determine outreach goals. These evaluations weigh the goals of the service or program, potential for its impact on the public, its importance to the community/ies being impacted, and the makeup of the impacted community. These evaluations determine:

- The agency's level of engagement for the project.
- The potential for outcomes the public can see from their engagement in the process. Agencies then communicate both determinations in their outreach process. Example evaluation tools are attached in Attachments A and B of the *Community Engagement Plan Guidance* (Appendix C).

↓ Further quidance: Section 2.01 in *Community Engagement Plan Guidance* (Appendix C).

Recommendation 19 (CE): When planning outreach activities, agencies use screening tools that integrate spatial, demographic, and health disparities data to understand the nature and needs of the people who may be impacted by agency decisions. The Task Force's recommended use of the Environmental Health Disparities map to build the demographic and environmental context to guide and inform place-based activities is a key example. This initial screening is followed by further research with local people and organizations as needed.

Further quidance: Sections 2.01, 2.08, and 2.09 in *Community Engagement Plan Guidance* (Appendix C).

⁶⁵ See Attachment C in the *Community Engagement Plan Guidance* (Appendix C) for further explanations and examples on each of the Barriers to Community Engagement.

Recommendation 20 (CE): When agency decisions have potential to significantly impact a specific community (as determined by the evaluation described above in recommendation #18), agencies should work with representatives of that community to identify appropriate outreach and communication methods. Significant impact includes potential changes to critical determinants of health such as legal rights, finances, housing, and safety. It is particularly valuable to include community members in oversight, advisory, program planning, and other processes. Washington's Department of Health <u>community health worker</u> program serves as one model.

Further quidance: Sections 2.02, 2.03, 2.04, and 2.07 in *Community Engagement Plan Guidance* (Appendix C).

Recommendation 21 (CE): When agencies ask for representation from a specific geographic or cultural community, the agencies actively support such representation in recognition of the costs of engagement borne by community members where allowable by state law and agency policy. Doing so would reduce barriers to engagement presented by trading time and/or money to learn about and engage in the agency's process, such as taking time from work, finding childcare, and arranging for transportation.

Further quidance: Sections 2.02 and 2.04 in Community Engagement Plan Guidance (Appendix C).

Recommendation 22 (CE): In alignment with the Office of Financial Management's <u>Model</u> <u>Diversity, Equity, and Inclusion Policy</u>, agencies should use equity-focused hiring practices and inclusion-focused professional development to build and support an internal staff that represents the cultural and racial makeup of the population they serve.

Further quidance: Sections 1.06, 2.04, and 2.06 in *Community Engagement Plan Guidance* (Appendix C).

Recommendation 23 (CE): When an agency's program or service has potential to impact Tribal and/or Indigenous people or their resources, the agency includes those groups in their community engagement work, using tailored approaches based on the needs of the Tribe. Note that community engagement is distinct from and not a substitute for formal government-to-government or cultural resource consultation.

Further quidance: Sections 2.01 and 2.03 in *Community Engagement Plan Guidance* (Appendix C).

Recommendation 24 (CE): Agencies conduct compliance reviews of existing laws and policies that guide community engagement, and where gaps exist, ensure compliance for the following laws in agency service and program budgets:

- Title VI of the Civil Rights Act, prohibiting discrimination based on race, color, or national origin and requiring meaningful access to people with limited English proficiency.
- Executive Order 05-03 requiring Plain Talk when communicating with the public.

- Executive Order 13166, requiring meaningful access to agency programs and services for people with limited English proficiency.
- *Further quidance*: Sections 1.05 and 2.13 in *Community Engagement Plan Guidance* (Appendix C).

Recommendation 25 (CE): Change state laws that restrict agencies from purchasing goods and services, such as childcare and food, which support broad community participation.

Further guidance:

- Attachment C and Sections 1.07, 2.02, and 2.06 in *Community Engagement Plan Guidance* (Appendix C).
- Common barriers to meaningful community engagement include lack of: compensation
 for community time and expertise, food during community meetings, transportation to
 meeting spaces, childcare, language access services, and internet access for virtual
 meetings. Additionally, the Legislature should consider providing assistance to increase
 access to virtual meetings, especially for rural communities that have limited broadband
 services. There should be as much cross-agency coordination as possible to create
 common "best practices" for how and when to offer these services. Forums for this
 coordination could be the proposed permanent EJ workgroup (see: recommendation
 #2) or the Office of Equity. Changes considered and developed should be done in
 compliance with state guidelines on ethical community engagement by the <u>Department
 of Enterprise Services</u> and the state <u>Executive Ethics Board</u>.
- Significant additional work is needed to comprehensively identify the legal restrictions and develop best practices to remove these barriers. Some initial RCWs to consider amending for more effective community engagement include:
 - <u>RCW 43.03.050</u>: Subsistence, compensation, lodging and refreshment, and per diem allowance for officials, employees, and members of boards, commissions, councils or committees.
 - Suggested amendments: Compensation or reimbursement for participation on boards, commissions, councils, and committees should be allowed for those with low incomes. Providing food and services, such as daycare, to attendees of public meetings should also be allowed when adequate funds are available and deemed appropriate based on the type of engagement required.
 - <u>RCW 39.26.040</u>: Prohibition on payments to board, commission, council, or committee members.
 - Suggested amendment: Using agency discretion, allow payment for service on boards, commissions, councils, and committees for those with low incomes. Reducing barriers for community participation will allow a broader cross-section of people to share their expertise and lived experiences in shaping policies and other government processes to better reflect the needs and desires of communities that may not otherwise get a seat at the decision-making table.

Recommendation 26 (CE): In cooperation with the <u>Governor's Subcabinet on Business Diversity</u> led by the Office of Minority and Women's Business Enterprises (OMWBE), agencies should increase contracting diversity by proactively engaging and contracting with local organizations that are community-based, community-rooted, and community-led to improve community health outcomes and eliminate environmental injustices across Washington state.

Further quidance:

- Sections 1.07, 1.08, 2.02, 2.04, and 2.06 in *Community Engagement Plan Guidance* (Appendix C).
- Agencies have tended to contract with highly paid consultants who, in turn, reach out to community organizations who are asked to provide their time and expertise without compensation. This proposal is intended to offer a more direct path for agencies to hear directly from the relevant stakeholders.
- The EJTF recognizes that, "Those closest to the problem are closest to the solutions but furthest from resources and power."⁶⁶ Implement this recommendation in specific instances in which community expertise and understanding of community experiences is needed, such as: development of strategic plans, policy development, community engagement, or any other process that would benefit from the expertise held by local organizations and the communities they work with.
- Agencies should consider contracting with non-profit organizations, small for-profit businesses, OMWBE-certified businesses, Tribal governments or entities in WA.
- Agencies and the Legislature should work with the OMWBE and the Department of Enterprise Services to remove barriers to the contracting and procurement processes for community organizations, especially smaller or understaffed organizations, with the goal of including more trusted community organizations listed on the State's Qualified Master Contract List. Furthermore, contracting processes should be re-evaluated to ensure that small entities and organizations are seriously considered.
- Agencies should work to eliminate their contracting disparities outlined in this 2019 <u>Washington State Disparity Study</u> and in their <u>annual diversity fiscal reports</u> by implementing the recommended policies, procedures, training, and implementation plans for individual agencies outlined by the <u>Governor's Subcabinet on Business</u> <u>Diversity</u>. Furthermore, agencies can prioritize the action steps outlined in their individual <u>Inclusion Plans</u> for increased supplier diversity.
- Recommendations from the 2019 WA State Disparity Study are forthcoming,⁶⁷ and include policy recommendations such as: increasing access to state contracting information, lengthening solicitation times, raising the direct buy limits, and reviewing contract sizes and scopes.
- In determining the appropriate organization to contract with, considerations must be made in understanding both how the organization being considered for a contract is

⁶⁶ Martin, Glenn E. "Those Closest to the Problem Are Closest to the Solution". The Appeal, 2017. <u>https://theappeal.org/those-closest-to-the-problem-are-closest-to-the-solution-555e04317b79/</u>.

⁶⁷ Expected publication date of November 2020.

representative or able to engage in outreach to a specific aspect of a diverse community, and also their ability to engage a full range of community stakeholders.

- Consider the need for a variety of knowledge and expertise types. Input is needed not just from those with government, business, or academic expertise but all community expertise and expertise from lived and intersectional experiences.
- The restrictions imposed by Initiative-200 (I-200), now in place as RCW 49.60.400, may serve as a barrier to meeting the goals of this recommendation. As such, repeal of these restrictions should be considered by the Legislature in order to update our state's policies and ensuring diversity, equity, and inclusion in government contracts, employment, and schools. In narrow circumstances, an agency may be able to tailor preferences based on race or sex.⁶⁸

⁶⁸ "Washington State Office of the Attorney General. "Use of Race- Or Sex-Conscious Measures or Preferences To Remedy Discrimination in State Contracting". 2017. <u>https://www.atg.wa.gov/ago-opinions/use-race-or-sex-conscious-measures-or-preferences-remedy-discrimination-state</u>.

Areas for Further Study

Section Overview:

The EJTF discussed several ideas for how to work towards environmental justice in Washington, many of which came directly from conversations with communities across the state. The ideas that had the most promise for implementation were refined and included as formal recommendations in this report. The following two ideas need more time for thorough research and consideration. As the fight for EJ in Washington continues, further study is needed to determine if and how these two ideas will support overburdened communities.

I. <u>Study:</u> Concept of "Concurrent Jurisdiction" for state agencies, which would allow state agencies to seek compliance or enforcement actions that are currently the sole responsibility of City, County & Regional agencies.

Considerations

- Constitutional and current state law restrictions create exclusive authority for local jurisdictions.
- May create confusion on how best to report violations.
- II. <u>Study:</u> The expansion of "Private Rights of Action" (PRA) to allow for resident lawsuits to be filed against alleged violators of environmental laws.

Considerations

• PRAs should not encourage lawsuits based on private interests. Rather, PRAs should focus on ameliorating environmental law regulations that negatively affect the public's health.

Conclusion

The EJTF's recommendations are focused on creating the infrastructure across the state to meaningfully and systematically work toward environmental justice. The EJTF recognizes that the fight for environmental justice is ongoing, and that the partnerships and trust between community and government are essential to achieve EJ in Washington.

Washington state government has steadily addressed EJ since the early 1990s. State government has worked with communities to examine how to embed EJ into laws, policies, programs, and processes for nearly three decades. Each major EJ-focused effort prior to the EJTF has drawn similar conclusions to the EJTF with respect to the state of EJ in Washington, and has developed comparable recommendations for how to achieve EJ. Environmental justice will not be achieved as a result of our intentions, but it can be achieved through the actions we choose to take next. *Now is the time for Washington state government to take action and honor its commitment to environmental justice.*

Task Force Member Statements

Section Overview

All members were given the opportunity to write a member statement, about anything they felt was relevant or important to highlight, for the final report. The following statements provide insight into how the following members approached their work as EJTF members, their critiques of the EJTF process, what their hopes are for the future of EJ work in Washington, and context for why they may have made specific decisions as EJTF members.

Member: Community to Community Development, Bellingham

"We're the ones on the front line and bearing the brunt of climate change and all the injustices that happen to farmworkers. We've been trying to ring the alarm for many years."-Edgar Franks, FUJ

"It's not about the apples. It's about our people. It's about the farmworkers, it's not about the berries. It really isn't about the pears or berries. We're talking about human beings...that are interested and are fighting for a better food system...It's about the survival of farmworkers in the agricultural industry...We're not against anybody. We are for farmworkers living through this pandemic." -Rosalinda Guillen

The absence of key stakeholders in the proceedings of the Environmental Justice Taskforce is reflected in the limits of the general body recommendations put forward by the Taskforce. Being that it was an agency heavy body, most of the recommendations have to do with the minutiae of specific agencies in Washington state when it comes to considering Environmental Justice.

Though I cannot fill the silence left by all communities that were not at the decision making table, the one resounding policy recommendation that has been voiced by Black, Indigenous and Farmworker front line communities alike has been the unfulfilled need to access land in Washington State. Whether that means the abolition of treaties and the corresponding agencies to facilitate the transfer of all public lands to the areas original stewards now compartmentalized on reservations a fraction of their original territory; to allowing for reparations to black front line communities in the form of access to land, such as the current proceedings in Seattle's Central District; to providing access to farmland to farmworkers such as the current Tierra y Libertad sixty-five acre farm in Whatcom County are all the necessary first step toward moving Washington agriculture from a mere commodity export industry, towards a more sustainable and thriving localized food system.

Providing access to land to front line communities would be the first step toward moving the dial on many of these Environmental Justice policy goals.

Though I cannot speak for a large and diverse population of farmworkers in Washington State, I can provide examples of the policy recommendations for the Governor's review that have been

presented over the last seven years at the Annual Farmworker Tribunals held in Olympia that would be a step toward Environmental Justice.

Recommendations from Washington's Farm Worker Tribunals:

This body recommends that the state of Washington agencies be required to collect data on surveillance of pesticide illness and exposure, premature deaths, and workplace injuries by RCW or Rule to systematically make annual reports available to the public. (2020)

This body recommends for Community to Community Development and Familias Unidas por la Justicia to draft a Farmworker Bill of Rights for Washington, which should incorporate a comprehensive vision which includes agricultural worker protection, opportunities, and community aspirations advancing equity across generations of farmworkers and farmworker families. This bill of rights should include the systemic issues of access to fair, equitable, and environmentally sustainable, labor conditions, health, justice, education, economic development, and community infrastructure. (2020)

This body recommends that we must affirm the farmworker unions, cooperatives and collective actions for bringing real solutions into existence. We must contrast the collective good of these efforts to the industry equivalents to demonstrate that another agriculture is possible. (2019)

Member: Puget Sound Partnership

We are deeply grateful to have been a part of this important Task Force effort to advance environmental justice as an integral component of good governance and critical aim for Washington State. As the state agency leading the collective effort to restore and protect Puget Sound, we at the Puget Sound Partnership firmly believe that environmental progress cannot be achieved without first confronting environmental injustices. We are energized by the excellent start made with these Task Force recommendations and look forward to advancement of environmental justice aims across our shared work.

-- Larry Epstein, Leah Kintner, Alexandra Doty, and Beihua Page

Member: Washington State Department of Natural Resources

The Washington State Department of Natural Resources (DNR) is thankful to have participated on the statewide Environmental Justice Task Force over the last year. Our agency has learned a lot from participating and we are very encouraged by the content of the final report. As our time on the task force comes to an end, we wanted to take this opportunity to share a bit about our agency, our mission, and how we are prioritizing environmental justice.

In 1957, the Legislature created the DNR to manage state trust lands for the beneficiaries of those trusts. Under the elected leadership of the Commissioner of Public Lands and the Board of Natural Resources, DNR manages these trusts to generate revenue while stewarding the lands, waters, and habitats entrusted to its care. DNR manages over 3.2 million acres of forest,

range, agricultural, and commercial lands for more than \$160 million in annual financial benefit for public schools, state institutions, and county services.

The State's Enabling Act, Constitution, and Statutes created these trusts and because of this DNR has specific management obligations. A trust is a relationship in which the trustee holds title to property that must be kept or used for the benefit of another. The relationship between the trustee and the beneficiary for these lands is a fiduciary relationship. A trust includes a grantor (the entity establishing the trust), a trustee (the entity holding the title), one or more beneficiaries (entities receiving the benefits from the assets), and trust assets (the property kept or used for the benefit of the beneficiaries). For these state trust lands, the trustee is the legislature and the beneficiaries are named public institutions of state and local governments.

The common law obligations of a trustee include to operate as a prudent person, have undivided loyalty, generate revenue, not foreclose future options and protect the corpus of the trust on behalf of the beneficiaries is commonly known as the "trust mandate". The legal construction of Washington's trust lands also creates considerable differences in how these lands are managed when compared to other public lands. For example, because the beneficiaries are public institutions, the trust obligation continues in perpetuity—that is, forever.

Despite our trust mandate, DNR is still leading the way in utilizing tools such as the Environmental Health Disparities (EHD) mapping tool to guide our decision-making. For example, we have partnered with the Department of Health and the Department of Commerce to overlay EHD mapping data over DNR-managed state lands and broadband access need data. This GIS-based map shows specific areas around the state that have the greatest need and can help drive the conversation forward about where to target investments, for example, in communication site towers. We've also been utilizing the EHD mapping tool to look at where investments in our salmon strategy work in the Snohomish Watershed will yield multiple benefits. We are working on finalizing this GIS-based tool in the coming months so that investors, legislators, and other public entities who are interested in salmon recovery efforts can also ensure that their dollars promote job creation, environmental health, and community resilience.

Additionally, the DNR Urban Forestry Program reformed its community forestry assistance grant program to include a focus on equity, including a requirement that applicants use EHD mapping tool to develop their projects in highly impacted communities. As a result, the Urban Forestry Program has awarded funding to three equity-focused urban forestry projects: one in Tacoma in 2018 and two in Spokane in 2019. In this same timeframe the program has procured roughly \$800,000 in additional grant funding from the Forest Service for three urban forestry projects in the Seattle metro region where key project components include emphasis on diversity, equity, and accessibility.

And, as part of the agency's Wildfire Strategy, we used the EHD map to identify many of Washington's most vulnerable populations who live in areas with high wildland fire risk. Older

adults, young children, and those with limited English proficiency can be vulnerable during wildland fires due to potential health impacts (to the old and the young) and language barriers (those with limited English proficiency). Recent research indicates that vulnerability to wildland fire is unequal; census tracts that are majority Black, Hispanic, or Native American have a 50 percent greater vulnerability to wildland fire than other census tracts. Our use of the EHD mapping tool helped us to develop a plan to better protect non-English speaking communities during wildfire response.

Lastly, we utilized environmental justice analysis as part of the NEPA/SEPA final Environmental Impact Statement for the marbled murrelet conservation strategy. This environmental justice analysis was used to more fully understand the impacts the decision would have on various communities around the state.

We will continue to lean in on equity and environmental justice, and look forward to finding new ways to do so based on recommendations and ideas within this document and our ongoing partnerships with community organizations.

Non-Majority Opinion Statement

Section Overview

One of the strengths of the EJTF process was that EJTF members brought a diversity of perspectives, opinions, and priorities. The range of viewpoints represented on the EJTF also meant that consensus was not always possible. As such, all EJTF members were given the opportunity to include a non-majority opinion statement in instances where the member's agency, community, or organization did not align with an official EJTF decision.

Member: Association of Washington Business

The Association of Washington Business was pleased to represent our state's businesses on the Environmental Justice Task. Overall, AWB supports many of the recommendations outlined in this report. However, there are a few recommendations which we have some reservations around and believe they needed more discussion and refinement.

As a task force member, we were frustrated that new recommendations continued to be added to the report at the last three meetings. These last-minute recommendations took time away from discussing and refining the existing recommendations and made it difficult to fully explore the new additions. In addition, there are a few recommendations which we believe require a larger stakeholder discussion than was available in the task force and we are uncomfortable advancing those without having that larger discussion.

In that spirit, we have identified the following areas where we depart from the majority opinion regarding the final recommendations of this task force. These departures are not a rejection of the goal of reducing environmental justice in the state or a signal that the conversation around

this topic is completed. We believe this report represents the beginning of larger conversations about the need for reform.

However, the format of the task force was such that we were unable to fully vet the entire report before being asked to approve language or express our concerns. We would like to use this space to clarify our position.

Our first departure from the task force report is in relation to Recommendation Five (incorporate environmental justice concerns into state environmental laws). This report highlights two major state environmental laws where environmental justice should be integrated, the Growth Management Act and the State Environmental Protection Act. These are major state laws which impact multiple state agencies, counties, cities, individual Tribes, and number businesses and community organizations. Each of these stakeholders has a particular view of what changes they might like to see made in each law and we are uncomfortable recommending those changes without having a broader discussion within the stakeholder community.

In regards to Recommendation 6 (agencies should adopt and the Legislature should consider requiring EJ analysis, including the health disparity map...), we continue to have ongoing concerns related to the construction of the Cumulative Impact Mapping tool. As this tool is at the heart of several ongoing rulemakings and many of the recommendations of this report, we believe that there needs to be a higher level of confidence that the mapping tool is properly expressing health disparities on the ground.

We appreciate the emphasis on the use of this tool as one of several to identify environmental heath disparities and that it is not meant to be used for decision making but there are some methodological questions related to the generation of the scores that we think need to be better examined. While aspects of the tool have been published and received some peer review, we think a full analysis of the mapping equation by an independent group is an important step before it is used more widely at the state level and inform state policy decisions.

Finally, for Recommendation 7 (new and existing revenue expenditures with an environmental nexus....), we are concerned at the requirement for resources to be allocated according to one singular criteria. We think adding an equity consideration is a valid suggestion but it should not be the only decision that influences where and how state environmental revenues are spent.

The effort and work going into this report shows the importance of addressing the issue of environmental justice and disparate health outcomes in Washington State. The Association of Washington Business and our members share the goals of creating a more equitable environment that are expressed in this report. However, we want to ensure any of the substantive changes suggested in this report are carefully thought out and vetted within the broader stakeholder community.

"In the end, all the struggles have the same objective: the defense of life. That is the most important, no matter where we are or what the specific goal of each fight is."

-Ana Sandoval, Guatemalan Environmental Justice Activist

Appendices

- Appendix A. Glossary of EJ Related Terms
- Appendix B. Task Force, Mapping Subcommittee, and Community Engagement Subcommittee Membership
- Appendix C. Community Engagement Subcommittee Guidance document
 - o Attachment A. Public Participation Tool
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- Appendix D. Operationalizing EJ Task Force Measurable Goals and Model Policy Recommendations: A Primer on the GARE Toolkit
- Appendix E. Further Guidance on the Environmental Health Disparities Map
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- Appendix G. Memo: EJ and Reparations from Systemic Racism
- Appendix H. EJ and COVID-19 Memo from EJTF Co-Chairs

Appendix A. Glossary of EJ Related Terms

The following definitions are pulled from multiple sources that are specific to Washington state and/or environmental justice. ^{69,70,71,72,73,74}

Access	Creating and advancing barrier-free design, standards, systems, processes, and environments to provide all individuals, regardless of ability, background, identity or situation, an effective opportunity to take part in, use and enjoy the benefits of: employment, programs, services, activities, communication, facilities, electronic/information technology, and business opportunities.	
Burden	The magnitude of poor health that exists within a community that is attributable to the risk factors that are present.	
Community of Practice	 A group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. The ability of communities to withstand, recover, and learn from past disasters and to learn from past disasters to strengthen future response and recovery efforts. 	
Community Resilience		
Cultural Competence	 An ability to interact effectively with people of all cultures and understand many cultural frameworks, values, and norms. Cultural competence comprises four components: Awareness of one's own cultural worldview, Attitude towards cultural differences, Knowledge of different cultural practices and worldviews, and Cross-cultural skills. A key component of cultural competence is respectfully engaging others with cultural dimensions and perceptions different from our own and recognizing that none is superior to another. Cultural 	

⁶⁹ University of Washington Department of Environmental & Occupational Health Sciences. Washington Environmental Health Disparities Map: technical report. Seattle; 2019.

⁷⁰ Washington State Office of Financial Management Diversity, Equity and Inclusion Council. Diversity, Equity and Inclusion: Glossary of Equity Related Terms. 2019.

⁷¹ Asian Pacific Environmental Network. Mapping Resilience: A Blueprint for Thriving in the Face of Climate Disasters. Oakland; 2019.

⁷² Ajmera, C., Dubytz, K., Lih, E., Rahman, S., & Six, J. University of Washington Daniel J. Evans School of Public Policy and Governance. Embedding Environmental Justice into the Washington State Department of Ecology: Promising Practices for Advancing Equity and Environmental Justice: Report. Seattle; 2020.

⁷³ "RFA-ES-14-010: Centers of Excellence on Environmental Health Disparities Research (P50)." National Institutes of Health. U.S. Department of Health and Human Services. <u>https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-14-010.html</u>

⁷⁴ Powell, John, Stephen Menendian and Wendy Ake, "Targeted universalism: Policy & Practice." Haas Institute for a Fair and Inclusive Society, University of California, Berkeley, 2019. https://belonging.berkeley.edu/targeteduniversalism.

	competence is a developmental process that evolves over an extended period.
Cultural Humility	Approach to respectfully engaging others with cultural identities different from your own and recognizing that no cultural perspective is superior to another. The practice of cultural humility for white people is to: acknowledge systems of oppression and involves critical self-reflection, lifelong learning and growth, a commitment to recognizing and sharing power, and a desire to work toward institutional accountability. The practice of cultural humility for people of color is to accept that the dominant culture does exist, that institutional racism is in place, to recognize one's own response to the oppression within it, to work toward dismantling it through the balanced process of calling it out and taking care of one's self. The combined impact of multiple environmental health indicators on
Impact	a population.
Disproportionate Impacts	In the context of EJ, this refers to when one group or population bears an environmental or health impact that is substantially higher than the average distribution. This impact is usually compounded by existing inequities due to historic discrimination against certain groups.
Distributive Justice	The equitable distribution of resources. In the context of EJ, this means reducing environmental harm in communities with disproportionately high environmental pollution, as well as increasing access to environmental benefits.
Diversity	Describes the presence of differences within a given setting, collective, or group. An individual is not diverse – a person is unique. Diversity is about a collective or a group and exists in relationship to others. A team, an organization, a family, a neighborhood, and a community can be diverse. A person can bring diversity of thought, experience, and trait, (seen and unseen) to a team — and the person is still an individual.
Environmental Effect	Adverse environmental quality generally, even when population contact with an environmental hazard is unknown or uncertain.
Environmental Equity	Environmental equity will be achieved when no single group or community faces disadvantages in dealing with the effects of the climate crisis, pollution, environmental hazards, or environmental disasters.
Environmental Exposure	Refers to how a person comes into contact with an environmental hazard. Examples of exposure include breathing air, eating food, drinking water or living near to where environmental hazards are released or are concentrated.

Environmental Hazard or Risk Factor	Refers to a specific source or concentration of pollution in the environment. Polluted air, water and soil are examples of environmental hazards.
Environmental Health Disparities	Inequities in illnesses that are mediated by disproportionate exposures associated with the physical, chemical, biological, social, natural and built environments.
Environmental Health Indicator	Refers to either a specific environmental risk factor or a specific measure of population susceptibility or vulnerability.
Environmental Justice	The fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to development, implementation, and enforcement of environmental laws, regulations and policies. This includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits, and eliminating harm.
Environmental Justice Analysis	A study that considers how current conditions or proposed actions may affect surrounding communities and populations, to include consideration of possible impacts on BIPOC communities and low- income communities who may be disproportionately exposed to environmental burdens. The USEPA provides several resources to support this type of analysis, such as this <u>Technical Guidance for</u> <u>Assessing EJ in Regulatory Analysis</u> .
Environmental Racism	Any policy, practice, or directive that differentially affects or disadvantages individuals, groups, or communities based on race or ethnicity (whether intended or unintended).
Equality	Treating everyone the same, regardless of their circumstances.
Equity	The act of developing, strengthening, and supporting procedural and outcome fairness in systems, procedures, and resource distribution mechanisms to create equitable (not equal) opportunity for all people. Equity is distinct from equality which refers to everyone having the same treatment without accounting for differing needs or circumstances. Equity has a focus on eliminating barriers that have prevented the full participation of historically and currently oppressed groups.
Ethnicity	A social construct that divides people into smaller social groups based on characteristics such as values, behavioral patterns, language, political and economic interests, history, and ancestral geographical base.
Framework	An overarching strategy or organizational structure.

Health Disparities	Refers to a higher burden of illness, injury, disability, or death experienced by one group or population relative to another.
Health Equity	Refers to everyone having the opportunity to attain their highest level of health.
Indicator	A proxy variable that aims to capture a specific trend.
Indigenous Populations	Refers to federally recognized Tribes, state recognized Tribes, and Tribes and Bands who have not been formally recognized by the federal or state governments. This includes Indigenous persons living in Tribal and U.S. territories.
Intersectionality	Intersectionality is a framework for understanding the interaction of cultures and identities held by an individual. Intersectionality explains how an individual with multiple identities that may have been marginalized can experience compounded oppression (such as racism, sexism, ageism, ableism, and classism) or how an individual can experience privilege in some areas and disadvantage in other areas. It takes into account people's overlapping identities to understand the complexity of their life outcomes and experiences.
Low-Income	Individuals and families who make less than 80 percent of the median family income for the area.
Overburdened Communities	Communities who experience disproportionate environmental harms and risks due to exposures, greater vulnerability to environmental hazards, or cumulative impacts from multiple stressors.
Race	A social construct that divides people into smaller social groups based on characteristics most typically skin color. Racial categories were socially constructed, and artificially created whiteness as one of the elements of the dominant culture. Race was created to concentrate power and advantage people who are defined as white and justify dominance over non-white people. The idea of race has become embedded in our identities, institutions, and culture, and influences life opportunities, outcomes, and experiences. Racial categories change based on the political convenience of the dominant society at a given period of time.
Racism	A way of representing or describing race that creates or reproduces structures of domination based on racial categories. In other words, racism is racial prejudice plus power. In the United States, it is grounded in the creation of a white dominant culture that reinforces the use of power to create privilege for white people while marginalizing people of color, whether intentional or not.
Risk	How likely exposure to environmental hazards will result in poor health for a population.
Sensitive Populations	Those who are at greater risk due to biological/intrinsic vulnerability.

Social Justice	A practice within a society based on principles of equality and solidarity that understands and values human rights and recognizes the dignity of every human being. Such a practice would strive to provide basic human needs and comforts to all members of the society regardless of class, race, religion or any other characteristic.
Targeted Universalism	The practice of setting universal goals and using targeted processes to achieve those goals. Within a targeted universalism framework, an organization or system sets universal goals for all groups concerned. The strategies the organization/system develops to achieve those goals are targeted to different groups—based on how different groups are situated within structures, culture, and across geographies—to obtain the universal goal.
Toolkit	A specific, prescriptive, action-oriented set of steps to integrate equity or EJ into the policy process.
Vulnerability	A person's (or population's) non-biological situation that affects their ability to cope with risk factors. Examples of vulnerability include low income, language barriers or poor access to health care.
Workforce Diversity	A collection of individual attributes that together help agencies pursue organizational objectives efficiently and effectively. These include, but are not limited to, characteristics such as national origin, language, race, color, disability, ethnicity, gender, age, religion, sexual orientation, gender identity, socioeconomic status, veteran status, political beliefs, communication styles], and family structures. The concept also encompasses differences among people about where they are from, where they have lived and their differences of thought and life experiences.

Appendix B. Task Force, Mapping Subcommittee, and Community Engagement Subcommittee Membership

Representing	Member	Alternate Member
Interagency Council on Health Disparities (HDC)	Victor Rodriguez (Co-Chair)	
Statewide EJ Issues; Front & Centered	David Mendoza (Co-chair)	
Public Lands (Dept. of Natural Resources)	Cassie Bordelon	Stephanie Celt
Department of Commerce	Michael Furze	Sarah Vorpahl
Department of Ecology	Millie Piazza	
Puget Sound Partnership	Larry Epstein	Leah Kintner
Department of Transportation	Allison Camden	Megan White
Department of Health	Laura Johnson	
Energy Facility Site Evaluation Council (Utilities & Transportation Commission)	Sonia Bumpus	
Department of Agriculture	Ignacio Marquez	
Community-Based Organization: Community to Community Development	Tomás Madrigal	
Community-Based Organization: Tacoma Urban League of Young Professionals	Emily Pinckney	
Community-Based Organization: Asian Pacific Islander Coalition	Rowena Pineda	
Union/Organized Labor Association: UAW Local 4121	Judy Twedt	
Business Interests	Gary Chandler	Peter Godlewski
Statewide Agricultural Interests: Farm Bureau	John Stuhlmiller	
Tribal Leader	Unconfirmed	

Environmental Justice Task Force Member Roster

Mapping Subcommittee Roster		
Subcommittee Co-Chair: Laura Johnson (EJTF		
Member)	Washington State Department of Health	
Subcommittee Co-Chair: Millie Piazza (EJTF		
Member)	Washington State Department of Ecology	
Alison Beason	Port of Seattle	
Beihua Page	Puget Sound Partnership	
Caroline Smith	Labor & Industries	
David Mendoza (EJTF Co-Chair)	Front & Centered	
Deric Gruen	Front & Centered	
Edmund Seto	University of Washington	
Elizabeth Lanzer	Washington State Department of Transportation	
Erik Saganić	Puget Sound Clean Air Agency	
Esther Min	University of Washington	
Lauren Freelander	Washington State Department of Health	
Paul Tabayoyon	Asian Pacific Islander Coalition of WA	
Peter Godlewski (EJTF Member)	Association of Washington Business	
Richard Gelb	Public Health Seattle & King County	
Sarah Vorpahl (EJTF Member)	Washington State of Department of Commerce	
Tomás Madrigal (EJTF Member)	Community to Community Development	

Community Engagement Subcommittee Roster		
Subcommittee Co-Chair: Megan MacClellan	Washington State Department of Ecology	
Subcommittee Co-Chair: Emily Pinckney (EJTF Member)	Tacoma Urban League of Young Professionals	
Alexandra Doty	Puget Sound Partnership	
Bill Bennion	Washington State Department of Transportation	
Brett Houghton	PRR Seattle	
Bridgette Valdez-Kogle	Washington State Department of Ecology	
David Mendoza (EJTF Co-Chair)	Front & Centered	
David Ortiz	Communities of Color Coalition	
Farah Mohamed	Public Health Seattle King County	
Ignacio Marquez (EJTF Member)	Washington State Department of Agriculture	
Julia Havens	Washington State Department of Commerce	
Micaela Araguz Razo	Latino Community Fund	
Mike Chang	Makah Tribe, Cascadia Consulting Group	
Myra Hernandez	Washington State Commission on Hispanic Affairs	
Rowena Pineda (EJTF Member)	Asian Pacific Islander Coalition, Spokane Chapter	
Shirlee Tan	Public Health - Seattle & King County	
Sinang Lee	Public Health - Seattle & King County	
Stephanie Celt (EJTF Member)	Department of Natural Resources	
Tomás Madrigal (EJTF Member)	Community to Community Development	

Appendix C. Community Engagement Plan Guidance with Corresponding Attachments



COMMUNITY ENGAGEMENT PLAN GUIDANCE

ABSTRACT

The Community Engagement Subcommittee recommends that each agency develop a Community Engagement Plan to fit agencyspecific work. We have outlined elements of a plan in this document to support meaningful engagement. Our approach guides an agency to develop its own best practices, informed by successful examples, and comprising elements designed to overcome barriers to engagement that are typical of agency work.

Community Engagement Subcommittee

Washington Environmental Justice Task Force

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1. Introduction

1.01 Why Community Engagement is Crucial

The governing structures of the United States were designed to elevate the rights and access to its resources of some people at the expense of the rights and access of others. These weighted structures led to the systemic inequity that the EJ movement responds to. They have been reaffirmed across history, often in response to efforts to move toward more equitable laws and practices, and are widely maintained today.

The guidance that follows is grounded in the position that these systems cannot change without the direct involvement of the communities who have borne the weight of systemic disparities, and that such involvement is rarely supported by Washington state's government. We recognize the critical value of repairing relationships and building trust with communities who have.

Repairing relationships and building trust between government and those members of the public harmed by environmental injustice is central to this guidance. A focus on trust-building in this context sends skills like cultural humility and emotionally intelligent communication to the forefront, and we see more ties to community organizing than to conventional communications-oriented information sharing.

Truly meaningful community engagement builds more sustainable agency programs and decisions, and it increases community understanding of agency decisions and transparency and trust in government actions. State agencies have a responsibility to create community engagement opportunities that allow all of Washington's diverse communities "equal access to the decision-making process to have a healthy environment in which people live, learn, and work."⁷⁵ Without it, as history demonstrates,⁷⁶ entire populations are systematically left out, curbing their ability to effectively advocate for their own health and safety. Furthermore, many agencies are directed by policy and federal, state, and local laws to implement meaningful community engagement and participation.

The Community Engagement Subcommittee recommends that **each agency develop a Community Engagement Plan to fit agency-specific work.** We have outlined elements of a plan in this document to support meaningful engagement. Our approach guides an agency to develop its own best practices, informed by successful examples, and comprising elements designed to overcome <u>barriers to engagement</u> that are typical of agency work.

Here, we describe pathways to a type of community engagement that empowers members of the public to collaborate with state agencies in making decisions that will have direct impacts

 ⁷⁵ U.S. Environmental Protection Agency. "Environmental Justice." <u>https://www.epa.gov/environmentaljustice</u>.
 ⁷⁶ Maantay, Juliana, Jayajit Chakraborty, and Jean Brender. "Proximity to Environmental Hazards: Environmental Justice and Adverse Health Outcomes". (2010): <u>https://archive.epa.gov/ncer/ej/web/pdf/brender.pdf</u>.

on them. However, while agencies remain responsible for communicating what decisions are made on behalf of the public, we recognize that engaging the public as partners in 100% of agency decision-making is not ideal for even the most motivated community. As a foundation of this guidance, we recommend an <u>evaluation process</u> to determine when that level of engagement, on one end of a spectrum, is valuable and when engagement that requires fewer resources is appropriate.

1.02 Community Engagement and Environmental Justice

All agencies can embed EJ into their missions by prioritizing and investing in meaningful community engagement, especially in <u>areas of critical concern across Washington</u>.⁷⁷ One of the defining documents of the EJ movement is the *17 Principles of Environmental Justice*, which were drafted and adopted by the delegates to the First National People of Color Environmental Leadership Summit in 1991. Principle #7 explicitly states the need for community engagement to achieve environmental justice.

EJ Principle #7: "Environmental justice demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation."⁷⁸

The foundation of meaningful community engagement must be an evaluation of who is negatively impacted and who is benefitted by any agency decisions meant to benefit the public as a whole. This foundation stands in contrast to the common practice of starting with requirements outlined in law or policy. This guidance outlines and helps agencies identify common agency activities that do not typically involve, but can significantly impact, the public.

1.03 Acknowledging Current and Historical Harms

Building room in government decision-making for the voices of underserved and overburdened communities is one necessary component of correcting current and historical harms that communities of color, low-income communities, and other affected populations in Washington have endured. The Government Alliance on Race and Equity (GARE) names the responsibility that government has in reversing these injustices to eliminate environmental health disparities initiated and perpetuated by governmental actions, and to build community trust in government systems and institutions.

"From the inception of our country, government at the local, regional, state, and federal level has played a role in creating and maintaining racial inequity. A wide range of laws and policies were passed, including everything from who could vote, who could be a citizen, who could own property, who was property, where one could live, whose land was whose and more. With the Civil Rights movement, laws and policies were passed

⁷⁷ As an initial step, agencies can consider prioritizing investing in community engagement in Census tracts ranked nine and ten on the Environmental Health Disparities Map.

⁷⁸ "The Principles of Environmental Justice". 1991. <u>https://www.nrdc.org/sites/default/files/ej-principles.pdf</u>.

that helped to create positive changes, including making acts of discrimination illegal. However, despite progress in addressing explicit discrimination, racial inequities continue to be deep, pervasive, and persistent across the country...Institutions and structures have continued to create and perpetuate inequities, despite the lack of explicit intention. Without intentional intervention, institutions and structures will continue to perpetuate racial inequities."⁷⁹

1.04 Scoping Considerations

The Community Engagement Subcommittee built this guidance without the benefit of the tools and resources recommended in it. While we made every effort toward inclusion and representation, our work is inherently limited to the perspectives of those who were able to participate most. Namely, the perspectives most represented in this document are from people whose time was supported financially by their jobs and whose workload allowed time to participate. In this document, there are many instances when the Community Engagement Subcommittee speaks for people whose needs and experiences we do not fully understand, and we recognize that as a limitation to this work.

1.05 Authority

Washington state agencies are bound by several federal and state regulations that influence or rely on community engagement. Central here are:

- Title VI of the Civil Rights Act, which prohibits discrimination based on race, color, and national origin.
- Executive Order 13175, which recognizes Tribal sovereignty and requires consultation and coordination with Indian Tribal Governments.
- Title II of the Americans with Disabilities Act, which requires agencies to conduct business in a way that provides access to people with disabilities.
- Section 508 of the Rehabilitation Act, which prohibits discrimination on the basis of disability by agencies receiving federal funding.
- Executive Order 13166, requiring recipients of federal funding to accommodate people with limited English proficiency in their services and programs.

These regulations have broadly influenced state- and agency-specific policies as well. Phrases such as "meaningful engagement" proliferate. We imagine that state-level compliance with these laws and policies would amount to an equitable governmental landscape, free of the objectively disproportionate impacts of state decision-making that have led to the EJ Task Force. Agencies that may have grown accustomed to nominal compliance with laws such as

⁷⁹ Government Alliance on Race and Equity. "Racial Equity Toolkit: An Opportunity to Operationalize Equity". <u>https://www.racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial Equity Toolkit.pdf</u>

these are encouraged to re-evaluate their practices through the lens presented in this document.

Relevant Tools & Resources

- <u>Title VI of the Civil Rights Act</u>
- Executive Order 13166
- Results Washington's outcome measures:
 - o Efficient, Effective, and Accountable Government
 - Healthy and Safe Communities

1.06 Who Washington State Agencies Serve

The central function of a public agency is to serve the public. We know that demographic data is inherently limited as it does not represent major swaths of the population, such as people who are undocumented, Indigenous peoples, and the LGBTQ community. We also know that agency leadership and staff are often not representative of the population they serve, which means decision-makers often do not have the same life experiences as the people affected by their decisions. Community engagement is, therefore, a crucial process that allows agencies to better serve the public through a greater understanding of the diversity of lived experiences and perspectives across Washington's communities.

We recommend that agency staff prepare to create a community engagement plan by asking: *Who might be affected by the agency work?* We recommend agencies name who and which communities might benefit from or be negatively impacted by agency processes, projects, or programs.

We recommend agencies create a "Who We Serve" section within the introduction of the agency community engagement plan to clearly name the communities that may be impacted in some way by internal or external agency work. In developing that section, demographic data will be a useful starting place, but direct communication with people in the impacted populations themselves will remain key to a meaningful understanding of the audience.

Agencies can ask themselves the following questions as part of developing the "Who We Serve" section of their plan:

- Who or which communities benefit or are impacted by the outcomes of an agency process, project, or program?
- Who or which communities might be impacted in some way at stages throughout an agency process?
- Are there communities or groups of people that are especially vulnerable to impacts, disproportionately affected, and underserved in some way by the process, project, or program?
- Which communities might engage and which might not in an agency process, project, or program? And why?

• Which environmental justice-related existing assets, resources, and knowledge exist within communities?

Relevant Tools & Resources

- Community Engagement Self-Assessments:
 - o Office of Financial Management Diversity, Equity, Inclusion Council Resources
 - o <u>City of Seattle Inclusive Outreach and Public Engagement Guide</u>
- The DOH Community Engagement Guide
- To Identify Stakeholders: <u>Community Engagement: Guidelines for Excellence (pp. 126-128)</u>

1.07 Equitable Approaches to Community Engagement

Community engagement covers a range of approaches, from outreach and consultations, to long-term collaborations, shared leadership, and supporting resident-led efforts. However, meaningful community engagement goes beyond a set of activities – it is a way of fostering trust, strengthening relationships, and honoring community knowledge. This leads to more effective and equitable solutions.

While the specific methods of engagement will differ depending on the context and the community, state agencies can find ways to center the voices of the highly impacted communities in planning and decision making.

As you work to advance EJ and equity across the state, embrace community engagement as an agency-wide plan that goes beyond the short-term needs of projects or programs. This plan should recognize communities' expertise and power to help shape solutions, as well as create planning and decision-making structures that are inclusive, accessible, flexible, and culturally appropriate.

To foster trust building, center community voices, and create equitable outcomes, use an equity lens to identify your community engagement approaches:

- Examine the power dynamics and structures within your agency that maintain inequities. These dynamics determine who you choose to engage and how, who is included and not included in decision-making, and how community members' power is valued and accounted for in your agency's work. Taking this first important step to understand and address these dynamics is critical to meaningful community engagement.
- Ensure communications and engagement efforts are carried out in a way that honors community assets and strengthens efforts to rebuild trust. Partner with community liaisons, hire staff that represent the communities you serve, and train staff on cultural competency skills.
- Align engagement efforts with clear opportunities for community to influence agency decisions in a process that prioritize the knowledge, concerns, and ideas of the most

impacted communities. Ensure these opportunities are supported by the community's capacity to engage meaningfully. If needed, invest in building their capacity.

Relevant Tools & Resources

- Racial Equity Tools Power Analysis
- Policy Link's Community Engagement Guide for Sustainable Communities

1.08 Community Engagement Planning Process and Considerations

Equitable community engagement begins before the project starts. Staff need time to plan for determining how community engagement fits into efforts as a whole using the considerations below. These considerations allow time for staff to identify and engage the appropriate stakeholders and community members in meaningful ways. Engagement planning steps, timing, and considerations are often concurrent, and multiple engagement activities may be required within a project. To ensure communities are engaged in a way that produces optimal outcomes for all parties involved, we recommend that state agencies require that all project plans include community engagement and outreach scope, goals, and estimated funding needs.

Key timeline and planning considerations for developing a community engagement plan:

- Build relationships: Key contacts or community champions provide critical access to hard-to-reach populations. Plan to take the time to solicit local and regional viewpoints, regardless of knowledge or existing connection in the community. Recognize that positive encounters with community contacts are valuable, especially outside of projectfocused transactions.
- Project scope: Within the project scope, a community engagement plan should identify what regulatory, systemic, and environmental impacts and outcomes the program, project or policy will have—intended and unintended—on underserved, undersupported, historically marginalized, and overlooked communities or populations.
- 3. Community impacts: Identify how communities and populations may be disproportionately impacted and what guidance is needed and what input could be gathered?
- 4. **Types of community engagement:** Use a comprehensive approach to implement the types of engagement that are meaningful to the specific audience(s).
- 5. Equitable engagement: Outline an approach to determine who should be engaged and how. Use the Environmental Health Disparities Map and/or EPA's EJSCREEN tool to identify additional areas of need. Include considerations for community groups and jurisdictions that are already active on this topic.
- 6. **Budget for engagement activity:** Consider partnering with other agencies or entities to maximize time and funding. This may take time, so provide for this in the timeline.
- 7. **Media and promotion:** Plan time to research what media platforms are most used and most available to best reach your audiences. Consider a variety.

- Include timeline for application or request for funding (RFA/RFQ): There are established timelines within procurement guidelines as outlined in <u>RCW 39.26</u>. You can make access to funds more equitable with flexibility for expanded timelines or by providing technical assistance to support communities with less capacity to be competitive.
- 9. Evaluate existing programs and projects: Evaluate existing engagement to assess where community engagement is inadequate or is missing altogether and begin to plan and incorporate it into ongoing efforts. For example, programs like the <u>Department of Ecology's Model Toxics Control Act</u> are currently going through rule revision and evaluating places where public engagement should be incorporated since it is an opportune time to incorporate community engagement into regular requirements of program action.

Relevant Tools & Resources

<u>Strategic Prevention Framework</u>

2. Elements of Your Agency-Specific Community Engagement Plan

2.01 Determining Obligation

In the early stages of developing or revising any agency service or program, we recommend that each agency determines the level of community engagement needed, based on the program's impact on the public. This accommodates both the reality that it is not appropriate for all agency work to be moderated by a public voice, and the fact that the voice of those significantly impacted by agency decisions is a critical component of equitable, effective, and sustainable programs.

Because the intent of this guidance is to integrate systemically underrepresented voices more wholly into government decision-making, this process applies to all agency activities. The steps outlined below are as relevant to an agency's grant-making program as to a proposal to make changes to a neighborhood's infrastructure. They guide agencies to a more rigorous level of community engagement when the impact of their decision is greater and a more streamlined approach for low-impact decisions.

Using demographic data is a key element of the screening process when determining who lives in an area that could be affected by agency decisions. We support the EJ Task Force's recommendation of conducting area assessments using <u>Washington's Environmental Health</u> <u>Disparities Map</u> as an initial screening process to find information about population, race, language, and income. This screening can inform follow up outreach with local organizations, schools, public health agents, and community leaders to learn information that demographic data cannot provide, such as preferred communication pathways, presence of languages of lesser diffusion, or the presence of underrepresented communities not defined in census data.

These evaluations can be conducted with a structured tool (see the Racial Equity Toolkit, linked below, and examples provided in Attachment A and B), and can be simple screenings or complex processes, depending on the nature of the program being evaluated.

Core Elements of Determining Obligation

These include a series of steps to understand the relevance of the program to the public:

- Understanding the intentional and unintentional burdens and benefits of the program
- Identifying who and how many people are burdened/benefit (see Demographics below)
- Identifying social relevance of the program
- Outlining the potential for the program to impact someone's legal, financial, physical, or social health
- Confirming legal notification and outreach requirements.

These steps are followed using a systematic tool such as the International Association for Public Participation P2 Spectrum to align the level of public relevance with the suitable level of community engagement.

Relevant Tools & Resources

- Community Engagement Evaluation Tool (Attachment A)
- International Association for Public Participation P2 Spectrum (Attachment B)
- Racial Equity Toolkit, Government Alliance on Race and Equity
- If agencies receive EPA funding, consider the following resources that describe EJ and community engagement expectations associated with that funding (note that other federal funding agencies may have similar guidance):
 - o EJ Interagency Working Group Framework for Collaboration
 - o EPA's procedural safeguards checklist for funding recipients

2.02 Funding

Providing adequate funds and resources for community engagement is the backbone to implementing best practices for meaningfully reaching diverse communities across Washington. We argue that poorly funded community engagement delivers poor results, which feeds into the perception that community engagement is not a valuable process. <u>Case studies across the country</u> illustrate cost-savings over time when investments are made in the decision-making process. Well-resourced community engagement lowers the risk of an agency being out of compliance with federal and state requirements and leads to greater agency efficiency. Investing in community engagement is necessary to provide effective customer service for Washington's residents. Therefore, think critically about how to prioritize funds and resources for community engagement, which includes incorporating a funding element to an agency-specific community engagement plan.

Key elements of your agency's community engagement plan identify available funds and resources to systematically and intentionally:

- Hire or contract expert⁸⁰ community engagement coordinators, possibly through community organizations, to provide agency leadership on engagement planning and staff training.
- Communicate with communities in a culturally and linguistically relevant way, including following your agency's federally-mandated language access plan, translating documents, and providing interpretation for all interactions and verbal presentations.
- Compensate community members and organizations for their time and expertise and streamline the reimbursement process for community engagement-related expenses.
- Provide funding for multiple community engagement formats (e.g. public meetings, focus groups, surveys, community festivals, community beautification projects or artwork, etc.).
- Make transportation, culturally appropriate food, and childcare available for all events that include members of the public.
- Support staff travel to different parts of the state to engage with diverse communities.

⁸⁰ See section 2.09 for a discussion of expertise.

While we stand by the recommendation that community members be compensated when they invest significant time and labor into an agency's decision-making process, we recognize significant barriers exist in Washington state law that make such financial compensation challenging or impossible. Grant-making programs such as the Department of Ecology's <u>Public Participation Grants</u> are one option for investing in community feedback.

Relevant Tools & Resources

- The <u>Valuing Engagement Toolkit</u> can help agencies identify and articulate the costs and benefits of engagement, and assist with making the business case for community engagement.
- The <u>Independent Sector</u> values volunteer time at \$25.43 per hour, on average, across the U.S.
- Government example: The National Park Service & U.S. Forest Service valued its volunteers' time at <u>\$179 million</u> in 2018.
- The International Association for Public Participation's <u>Core Values Awards</u>, showcasing exceptional community engagement work.

2.03 Engagement and Consultation with Tribal and Indigenous Peoples

Tribal and Indigenous peoples have existed and prospered in what is now Washington state since time immemorial. Tribal and Indigenous peoples in Washington state are not homogenous – there are 29 federally-recognized Tribes, many non-recognized Tribes, Tribal and Indigenous peoples that come from other parts of what is now the U.S., Alaskan Natives, Native Hawaiians, and Indigenous peoples from all across the world. Therefore, using a tailored approach to engage with Tribal and Indigenous communities is not only necessary, but also acknowledges the diversity of Tribal and Indigenous peoples in Washington. Tribal and Indigenous engagement is a part of any project or policy that might affect these communities (which is almost all the time) and applies to governmental and non-governmental entities. Tribal and Indigenous engagement is *not* a substitute for Tribal consultation, which is a specific process of early, often, and meaningful communication and coordination between Tribal governments and state or federal governments. Many agencies have developed plans for formal Tribal consultation to facilitate compliance with Chapter 43.376 RCW and the Washington State Centennial Accord of 1989, such as <u>Washington's Department of Health</u>.

Key considerations when engaging with Tribal and Indigenous peoples:

- European colonization has disrupted virtually all aspects of Tribal and Indigenous cultures. This has led to a variety of disparate and disproportionate environmental, social, and economic outcomes for Indigenous peoples in Washington state.
- Acknowledge and cede space to local Tribal and Indigenous leaders and sovereignty. Tribal sovereignty should always be centered, and space should be ceded to the Tribal leaders and elders. Each Tribe and Indigenous community have their own leaders, cultural norms, and values. Tribal leadership, both in communities and in government,

can take forms that are less common in white culture. These leadership structures, like the role elders can play, are important to recognize. Consistency between an agency's engagement intentions and agency policies are an integral part of honoring and respecting sovereignty.

- Building trust and relationships is integral to have positive outcomes. Many Tribal and Indigenous communities and peoples are protective of who is allowed to hold influence and community platforms even with external engagement events. It is necessary to build trust and relationships with these communities, which means showing up and listening without pre-intended outcomes of what you want from them. This might mean giving something without expectation of reciprocity. One-off engagement events often do not build the trust and relationships needed for successful outcomes and is likely to lead to more long-lasting harm.
- **Pay for time and space.** If you want to do real engagement, you need to support the local community. That could mean renting local venues, hiring Native caterers and families, and compensating people for their time. In many communities, it is customary to bring gifts for key individuals to express gratitude for their presence and contributions.
- **Respect local norms and protocols.** There are often many formal and informal cultural and local norms and protocols. Oftentimes, relationships must be built before these norms and protocols become evident. Some general norms include, but are not limited to, respecting when elders and leaders speak, scheduling meetings around fishing and hunting seasons, and scheduling meetings around key community events (e.g., high school football games, Tribal holidays, etc.).
- Engagement outcomes are dependent on the investments into engagement with Tribal and Indigenous communities. People within and between Tribal communities are part of a wide and communal network. Conducting poor engagement within a community is likely to result in poor communication and dissemination of information within the social networks of a community. Additionally, conducting poor or no engagement is likely to create a bad reputation across the Tribal and Indigenous networks in the state, which may lead to additional barriers in the future when trying to engage those communities.
- **Tribal and Indigenous engagement does NOT substitute for Tribal consultation.** Each Tribe is likely to have their own consultation procedures, which supersede agency policies. Consultation needs to happen early, often, and meaningfully. <u>Chapter 43.376</u> <u>RCW</u> and the <u>Washington State Centennial Accord of 1989</u> provide background on formal government to government consultation.

Relevant Tools & Resources

 In an effort to more fully recognize Tribal sovereignty, the <u>2019 Tribal Consent and</u> <u>Consultation policy</u> requires the Washington State Attorney General's Office to obtain free, prior and informed consent before initiating a program or project that directly and tangibly affects Tribes, Tribal rights, Tribal lands and sacred sites. This policy makes significant steps toward meeting the intent of the <u>United Nations Declaration on the</u> <u>Rights of Indigenous Peoples</u> and it is the first of its kind in Washington State. It will be proposed for legislation during the 2020 session.

2.04 Choosing Services and Service Providers

Trust is critical to effective community engagement and a currency that many agencies lack in public perception. In our analysis of barriers to community engagement, some of the key factors impacting trust included:

- Geographic, racial, and cultural representation in agency staff.
- Linguistic or cultural relevance of communication materials.
- History and established relationships with community.
- Two-way information sharing when community information is incorporated into agency priorities.

When engaging the community, the ability to listen and understand issues through their perspective is important. A community engagement practitioner is responsible for providing a safe space and conducive environment, where community members can freely express their experiences, stories, and frustrations with government entities without fear of negative consequences. While professional training can be very beneficial, traits like emotional intelligence, humility, curiosity, adaptability, planning skills, and leadership outrank formal academic formal academic credentials or certifications when assessing the aptitude of community engagement practitioners.

While there is obvious overlap in skill sets, the skills and knowledge of successful communications staff and successful community engagement staff can differ in important ways. The primary goal of community outreach is to build trust with varying groups and elicit honest, engaged feedback to inform agency decisions and promote a two-way flow of information during decision-making. This differs from communications, which typically prioritizes providing a one-way flow of information through traditional media channels.

Key issues on this topic to include in an agency-specific community engagement plan:

- Develop community engagement services that are not static but rather determined in response to several factors, which are further developed in Determining Obligation, above:
 - Relevance of the issue to the impacted population(s).
 - Specific linguistic and cultural needs of the impacted population(s).
- Design services to impact the primary outcomes of the program or efforts.
- Establish standards of skills, experience, and knowledge for community engagement practitioners that value anti-racism and equity training, community outreach or organizing experience, cultural humility, and understanding of the specific cultures and communities at hand. Note that none of these skills are strictly tied to formal academic accomplishments or certifications.

- Develop engagement approaches that integrate community leaders and community members as partners in engagement.
- Consider whether your agency supports community engagement staff who represent the ethnic and cultural makeup of the population you serve. If not, work with your agency's recruitment and retention specialists on a plan to include such staff.

2.05 Identifying a Responsible Coordinator and Alliance with Agency Leadership

Identify an agency-wide contact person or coordinator in your agency-specific community engagement plan. To be effective, this coordinator will have the authority, or a clear path to it, to make agency-wide decisions about community engagement standards and strategies. They will be able to strategize the agency's diverse engagement needs, introduce and disseminate best practices across the agency, and ensure that the standards identified by the agency are being met.

More specifically, responsible coordinators are especially important during EJ emergencies. To be most effective, coordinators will be on the frontlines with highly impacted communities and sensitive populations to plan for and respond to emergencies such as hazardous substance releases and oil spills in order to assess the impact, monitor the situation, provide technical assistance, and evaluate the effectiveness of the response efforts.

Relevant Tools & Resources

• EPA's On-Scene Coordinators

2.06 Representation and Access

One of the most critical components of conducting meaningful community engagement is valuing the representation from community members who are most impacted by agency decisions. This takes hard work, and often means "swimming upstream" to question agency norms or the status quo of how an agency conducts community engagement.

At the core of representation and access is:

- A deep understanding of an agency's audience, which cannot be achieved without valuing cultural humility, and building relationships and community trust.
- Culturally and linguistically appropriate communication, such as plain talk, translation and interpretation, informational animations and graphics, and various formats and opportunities for communities to engage with an agency.
- Acknowledging and addressing internal biases and hiring and other staffing practices that may unintentionally "screen out" individuals from highly impacted communities.

2.07 Effective Communication

Much of the information agencies need to engage community members about is highly technical and contextual. Agency-specific community engagement plans address the <u>common</u> <u>barriers</u> each agency encounters when they deliver highly technical, discipline-specific information to the public and how to share information and ask questions in ways that facilitate understanding among the public, especially individuals with little or no technical background.

Key issues on this topic to include in an agency-specific community engagement plan:

- Plain talk, including defining what it means for the agency and when and how to use it. This will include writing for people with varying levels of literacy, writing for translation, and speaking for interpretation.
- The use of visuals to support written copy.
- The value of education when an agency is going to engage communities with little technical or policy understanding, including educational tools. This will include ideas for partnering with community-based organizations who already educate community members on similar topics.
- Culturally appropriate communication, including how and when to assess for <u>cultural</u> <u>appropriateness</u> and what to do when you misstep.
- Opportunities to partner with agency communications departments.

2.08 Ethical Data Collection

Given our increasingly diverse population, it is crucial that agencies think critically about the way data are gathered and why certain populations routinely are not counted or accurately represented. To get a more holistic understanding of the communities an agency serves, the agency must collect both quantitative and qualitative data. An agency's community engagement plan guides how the agency intends to address data gaps and prioritize ethical data collection policies and practices. We recommend that agencies especially prioritize data collection to evaluate the effectiveness of community engagement work to determine whether the community is actually being served by the agency's efforts.

Quantitative Data

A common way to gather quantitative data is through surveys, like the Census. Disaggregating demographic data allows state agencies to begin to identify how various segments of the population may be impacted by different policies, programs, or projects. We must also acknowledge that the way we currently collect demographic information has limitations and cannot capture the full identify of an individual.

When collecting *quantitative* data, ask:

- What will these data be used for?
- Who is left out? How are they left out?
- How can we frame our approaches and questions in a culturally relevant manner?

- When surveying people who speak languages other than English, does the survey reflect the logic and nuance of each language?
- How will we protect the privacy and security of community members? And how will we convey this protection to community members? How will we honestly communicate risks?
- How will we share data with the broader community in a culturally humble manner that leverages community assets to address existing community concerns (e.g. the process to provide feedback on data interpretations, how data are represented in a recommendation or final report, etc.)?

Qualitative Data

Community engagement is one important way to gather qualitative data. Agencies need to understand the nuances of a community's lived experiences to contextualize quantitative data and make holistically informed decisions. Building relationships and conversing with community members and trusted community leaders provides insight beyond demographic data. When engaging communities, it is important to recognize and value the community as a partner in the process, including sharing findings with communities for their feedback before finalizing a decision that may affect their lives.

Questions to consider when collecting <u>qualitative</u> data include:

- How do we get informed consent? What does this mean for online spaces?
- How do we maintain anonymity if that is requested/desired? How does this happen when state agencies given the required protocols for certain public meetings?
- How do we collect and share data from marginalized or sensitive populations without further creating trauma or jeopardizing their safety?

2.09 Language Access

All state agencies that receive federal funding are bound by a 2004 executive order and pursuant guidance from federal agencies to ensure their services and programs are equally accessible to people with limited English proficiency. Extensive guidance has been developed to support those legal requirements, see *Relevant Tools and Resources* below for details.

In addition to agency-wide systems that help staff decide when and how provide multi-lingual communication, cultural appropriateness of the communication and delivery method are critical considerations.

Translation and interpretation needs are often determined using a threshold described in federal language access plan <u>guidance</u>: if 5% or 1,000 individuals in a population prefer a specific non-English language, translation or interpretation is likely appropriate. However, when agency decisions can have meaningful, direct impacts on the public, it is important to pay attention to smaller linguistic groups even if a language does not meet that threshold. Special attention must be paid to providing accurate services in languages that are often overlooked.

For example, Indigenous Mexican languages, languages that have no or short histories of being written, and dramatically distinct "dialects."

Lastly, American Sign Language, while a key element of each agency's ADA accommodations, is a language and belongs in language access planning.

Relevant Tools and Resources

- National standards for <u>culturally and linguistically appropriate services</u>
- <u>Federal guidance</u> for developing language access plans and providing language services
- <u>Guidance from the U.S. Environmental Protection Agency</u> on developing and fulfilling language access plans

COVID Case Study

In early 2020, as Washington state was in the early stages of responding to the COVID-19 pandemic, the State established a Community Engagement Task Force's (CETF) through its Department of Health. This task force focused on making vital public health information related to COVID-19 accessible to communities with limited English proficiency, in accordance with Governor Inslee's Language Access Plan During COVID-19 Memo. This type of language access, a task that has challenged agencies across the state, was organized and delivered in a surprisingly short time, modeling how state resources and power can be leveraged quickly to implement meaningful, pro-equity work alongside communities.

The task force includes health educators, policy experts, and language access specialists who have dedicated their careers to health equity. The group's key guidance is a <u>Language Access Plan</u>. The CETF also <u>contracted directly</u> with over 20 "community-rooted, community-led, and community-based" organizations across Washington to provide critical health and safety information to communities disproportionately impacted by COVID-19, especially among culturally and linguistically diverse groups.

2.10 Online Engagement and Internet Access

When Washington state joined the rest of the country in responding to the novel coronavirus, formerly in-person group activities like schooling and public meetings suddenly moved online. That transition made the impact of long-standing gaps in internet access across the state bracingly clear. Census data from 2018 show that over 1,235,000 people in Washington lack internet connections aside from cellphone data, with about 735,000 of those people lacking a data connection completely. Most of this gap is due to lacking financial resources, but many Washingtonians live in areas where broadband simply is not part of the infrastructure.

We can look to community organizers and outreach practitioners who have historically worked with populations who have limited internet access for tools to bridge these gaps. Three potential approaches are:

- Prioritizing community-directed outreach. Building relationships with representatives of the relevant community and following their guidance on best outreach methods.
- Text message campaigns that introduce the issue and connect people with next steps.

- Replacing or supplementing public meetings with websites and <u>online tools</u> designed for interactive learning and engagement.
- Recording and sharing videos of online public meetings that are accessible in off-peak hours.
- Providing opportunity to comment or take part in discussion about a decision outside of online public meetings.

2.11 Training

Developing an agency-wide community engagement plan sets policy for your agency and communicates to staff and customers about engagement expectations and opportunities. A training program can assist with implementation by promoting awareness of the plan and teaching staff strategies and best practices for engagement. In addition to training agency staff about how to communicate the key functions of an agency with community, Diversity, Equity, and Inclusion (DEI), environmental justice, and cultural humility trainings are important core competencies for community engagement.

When deciding who will provide the training, it is appropriate to look for opportunities to hire individuals or smaller firms local to the communities the agency works with. These groups know the needs and nuances of their communities, and working with such groups can be a tool for relationship building.

The training topics listed above require skill, experience, and sensitivity to present effectively. Particularly for topics with structural oppression at their roots, poorly run trainings can cause deep and lasting organizational and personal harm. To avoid this, look for training providers with demonstrated track records.

Relevant Tools & Resources

Reach out to peer agencies. They are often happy to share their plans, practices, experiences, and training practices. They may even have a program you can use as-is. Do online research into community engagement plans and training programs.

2.12 Policy and Legislative Development

This section focuses on building internal policy and working with the legislature in a manner that considers the experience of and integrates input from members of the public who may be impacted by these decisions.

All agency policies impact communities and populations differently, and can have unintended consequences unless impacted communities have an opportunity to contribute to policy development. It is important to apply the elements of your agency's community engagement plan when developing new or amending existing agency policies. This can lead to better policies as well as more positive public receptivity to proposals. In particular, developing agency request

legislation and navigating input and amendments during legislative session can require specific planning to support community engagement.

Key issues on this topic that should be in an agency-specific community engagement plan:

- Clarification of objectives regarding environmental justice. To support work that prioritizes equitable outcomes and recognizes the need for community engagement, the agency should review primary objectives for proposed policies, and referring to and applying the agency's EJ strategy if one is in place. These objectives should be clearly articulated.
- A clear consultation and communication process in advance of legislative session:
 - *Roles and responsibilities*. Clarify who are the primary contacts and how to communicate with them.
 - *Content.* Agency staff should have clear guidelines about what aspects of a draft policy should be shared and with whom.
 - *Timeline.* Ensure a clear timeline is provided that allows sufficient time for policies to be communicated about, understood, and for feedback to be provided (especially for smaller organizations with more limited resources and capacity).
 - Review and responsiveness. Agencies should have systems in place to record input, clarifying that main points have been understood. Suggestions should be thoroughly reviewed and considered. Agencies should plan to implement suggested changes where possible (this may at times require new ways of thinking or flexibility on the part of the agency) or propose alternatives when needed. Either way, follow up with stakeholders and articulate how the agency will respond to their input.
- **Consider offering compensation** for the time community partners put into policy review.
- A clear plan for engagement during legislative session
 - *Key policy details*. It should be clear what parts of a proposed policy would need further engagement and review if amendments are proposed.
 - Agreed points of contact during session. Agencies should agree with community partners who is willing and able to review proposed amendments and respond in a timeline manner during legislative session.
 - **Refer to objectives for quick turnaround decisions.** If agencies need to make immediate decisions during legislative session, they can refer back to the articulated objectives to ensure final policy details further these goals.

2.13 Agency Accountability and Responsibility

It is the responsibility of agencies to meet the needs of the public they serve, not to selectively choose whose needs are recognized. Secondarily, agencies are responsible for complying with, evaluating, and holding themselves accountable to these community engagement recommendations. Presently, there are three statewide external resources that may help hold agencies accountable to community engagement, Results Washington, the Office of Financial Management's interactive data dashboard, and the Office of Equity. The agency may also be

accountable to ensure community engagement in achieving federal expectations, through funding or other relationships between state and federal entities. To build trust and ensure accountability with communities, agencies will maintain transparency and communication. For this part of the community engagement plan, we recommend the agency identifies mechanisms for evaluating community engagement work and reporting back to communities. Measurable Goal 1, described in the Environmental Justice Task Force's final report, goes into further detail on tools for building internal accountability, such as existing equity toolkits, internal audits, community partnerships, and communication and evaluation strategies.

To center accountability as agencies write a community engagement plan, we recommend agencies evaluate its community engagement work and consider the following:

- How are highly subjective words like "meaningful" and "effective" used in the context of community engagement? Will it provide clarity for the agency to define these words within the community engagement plan?
- How will the agency know when the agency achieved "meaningful" or "effective" community engagement?
- Where are there pre-existing opportunities within an agency's purview to expand community engagement to support the agency's current work and obligations?
- Where is agency funding is coming from, and are there specific requirements for community engagement associated with that funding?
- How are agencies demonstrating the process by which they are incorporating and engaging communities in their decision-making processes?

Relevant Tools & Resources

- <u>Racial Equity Toolkit (pp. 9-10)</u>
- Existing toolkits and example evaluations of government community engagement work (p. 4)
- WA Office of the Attorney General: Government Accountability
- <u>Results Washington</u>
- <u>The Community Engagement Continuum: Outreach, Mobilization, Organizing and</u> <u>Accountability to Address Violence against Women in Asian and Pacific Islander</u> <u>Communities</u>

Community Engagement Plan Guidance Attachment A, Public Participation Evaluation Tool

Site Information

Date: Cleanup Process Stage: Site Name: Site Manager: Public Involvement Lead: Stakeholders:

Note:

This is a slightly modified example of a community engagement evaluation tool that is in use. This example is specific to one discipline (environmental cleanup) but could be developed into something more broad or tailored to fit agency-specific projects.

Best Practices and Assumptions

- We assess at a higher level of public participation in the absence of technical information and experience in the community.
- If it goes "bad," what will we wish we had done at first?
- We will reassess at key decision points.
- This evaluation tool includes the defined cleanup site and the affected community (perceived or actual).
- We are assuming that all of our sites are difficult to communicate and may be complicated to cleanup.

Scoring System - Adapted from IAP2 Evaluating Public Participation

1-2 Very Low to Low – recommendation: at least inform.

2-3 Low to Moderate – recommendation: at least consult (public comment periods are consult).

3-4 Moderate to High – recommendation: probably involve.

4-5 High to Very High – recommendation: minimum Involve, consider opportunities for Collaborate or Empower if feasible

	Assessment Question	Very Low	Low	Med	High	Very High
1.	How much do major stakeholders (i.e. Tribes, local government, local organizations, general public) care about the cleanup and the decision to be made?					
2.	Proximity to other big or controversial projects.					
3.	What degree of participation does the public appear to want?					
4.	Impact of cleanup or investigation to people's daily life?					
5.	What is the value of the site or the associated resources for the community? (aesthetics, economic, etc.)					
6.	What degree is the risk or perceived risk of exposure off site?					
7.	What is the level of EJ concerns? (linguistically isolated communities, EJ Index, demographics, workers?)					
8.	What is the potential for public outrage?					
9.	What is the legally optimal (MTCA, RCRA, Dangerous Waste Regulations) level of public participation?					
10.	Level of complexity that requires agency-wide policy or regulatory analysis (i.e. vapor intrusion, water quality standards, other regulations).					
11.	To what extent do internal staff believe that the public could help improve the outcome?					
12.	What is the potential for the public to influence the decision- making process?					
13.	What level of media interest do you anticipate?					
14.	What is the anticipated potential for political controversy?					
15.	What is the capacity and level of resources that the community or organizations currently have to address this site?					
	Count number of checks in each column.					
	Multiply number of checks by the weight.	X1	X2	Х3	X4	X5
	Enter column score.					
	Add total of all five column scores.			1		L
	Divide total score by the number of questions.					
	Average score					

Community Engagement Plan Guidance Attachment B, Public Participation Spectrum

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands o the public.
We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

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Community Engagement Plan Guidance Attachment C, Barriers to Meaningful Engagement

Community Engagement Subcommittee, EJ Task Force (2019/2020)

This list was developed with input from members of the Community Engagement Subcommittee, members of the EJ Task Force during its 1/14/2020 meeting, and members of the public attending the same Task Force meeting. These points are largely unedited transcriptions from contributors. This list is not intended to be static or definitive. Categories help organize a large list, and we recognize that many/most items in the list are connected and related to each other in complex ways.

Systems of oppression

Agency culture and structures inherently reference, rely on, and reflect systems of oppression such as:

- White supremacy
- Settler colonialism
- Capitalist hegemony
- Patriarchy
- Christian hegemony

Access to information

When printed materials are the central mode of communication, many people are excluded.

- Print materials that are unreadable
- Print materials unreadable for people who are older or sight-impaired
- The lack of large print, braille, interpreters
- Text-heavy documents/materials (not in plain English)
- Use visuals as much as possible to convey the message (instead of relying on heavy text, even if the text gets translated into other languages).
- Translated print materials (while important) does not guarantee information access because some folks may not be literate in their native tongue or the translation vendor does literal translation (that does not accurately express the true meaning) or uses formal or complicated terms (versus colloquial word choices).
- Best practice in terms of translating text materials into other languages is to use "transcreation" instead of direct translation services. Transcreation is the process of adapting a message from one language to another, while maintaining its intent, style, tone, and context.
- Printed information sometimes becomes obsolete or outdated hard to get up to date information.

Focus on English excludes people who speak other languages.

- Limited proficiencies (with English for example)
- Low quality translation/interpretation and English-only speaking staff who can't assist
- When preparing translations or hiring interpreters, agencies can overlook Indigenous languages like Purépecha or Mixtec languages, assuming Latinx people all speak Spanish. This extends into language variants, Indigenous languages, and other linguistic nuances worldwide.
- Some populations (e.g., Farm Workers injured on the job) need both translation/interpretation and ADA access to information.

Access to meetings

Arrangements to get to the meeting can cost more than the meeting is worth.

- Traveling to meetings that are geographically distant from the people impacted by the topic of the meeting
- Cost of travel
- Meetings not accessible for those living in rural areas
- Meetings not accessible for those without reliable cell service or internet connection
- Temporally and spatially accessible meeting spaces
- [Lack of] Childcare
- Inaccessible meetings: no food, no childcare, lacking transportation, lacking language interpretation
- Business/industry members and expertise in the room can be intimidating
- Legal status and fear of retaliation from a person in power (e.g., an employer). Meeting attendees/public comment respondents may not be safe speaking up.

The environment at the meeting can be unwelcoming or exclusive.

- People aren't sure if they are invited or welcome to the meeting
- Shame for not knowing what is going on
- For ethnically diverse communities, a conventional mainstream public meeting format may not be culturally sensitive or appropriate.
- English-speaking presenters at meetings with LEP communities may not have the training or knowledge on how to present while accounting for interpretation (they speak too fast, with jargon, etc.).
- There may not be upfront work to help build knowledge capacity of the community around a specific technical topic before bringing them into a meeting (particularly an advisory committee type meeting where they will provide recommendations/inputs). Thus, community members may not feel comfortable sharing ideas if they do not have the foundational background info first.
- The physical room arrangement can have some participants in more powerful seats than others. For example, "galleries" in meetings might discourage participation.

Apathy/burden

Note that apathy can be claimed as a reason not to provide meaningful public engagement, when often the appearance of apathy is a result of systemic issues like distrust, choosing to use limited resources in systems that are more effective based on previous experience with community engagement processes, etc.

- People don't feel responsible for what's happening in their neighborhoods.
- Participation burnout community members have already commented on an issue multiple times and do not see any improvements/response/actions
- [People] Feel like their voices don't matter or that the government doesn't care about them
- Difficulties prioritizing what to care about and invest time in
- People have more pressing issues in their lives
- Multiple agencies are trying to work in the same communities but are not coordinating among themselves to provide a more integrated engagement approach (Where it makes sense) that reduces redundancy.
- Energy needed to engage is overwhelming compared to other needs in individual's lives – need to make it easier to understand the issues and participate

Communication

Effectively communicating the issue and supporting information in a way that's understandable to a broad variety of people isn't prioritized.

- Difficulties prioritizing what to care about and invest time in: How can people find out what is meaningful for them?
- Effectively communicating why this work matters and how it affects Washington residents' daily lives, while keeping in mind that everyone is busy and has competing priorities
- The bureaucratization of communicating the message
- Technical language and jargon isn't understandable to the layperson
- Defined limitations of what is possible for the government to do are not clear so it is difficult to know how to make recommendations that are possible (e.g., what is the role of the government, what can they do within their legal limits?)

The engagement process and opportunities aren't effectively communicated.

- Can't figure out how or where to give comment(s)
- Be transparent early and throughout the program planning process the boundaries for the program that is set
- Meeting content requires better introduction for community member(s) to feel informed enough to participate (better educational materials in multiple languages and

relevant to community perspective are needed as is an allotment of time needed for community engagement)

Potential for influence

While agency process may include community engagement, it does not support external influence on the decision-making process.

- Inflexibility, unwillingness to change
- Government fear of losing power or control can shut down the public process
- State government norms keeping up with the status quo
- Lack of follow up from the government
- Communities questioning whether or not they actually have power and if engaging with the government is a good use of their time as a result
- Waiting to work with communities until decisions have been made informing communities about decisions, rather than involving communities early and often.
- Legislature provides predetermined decisions but expects community engagement to inform outcomes
- Norm that the technical experts know best, and community comments aren't "informed by science"
- Devaluing Indigenous knowledge and traditional ecological knowledge (TEK) that may come in the form of public comment compared to western science to inform processes and decisions; not creating space and time for incorporating TEK and Indigenous knowledge early in the process
- For Tribes the misconstrued notion that participating in a government's public engagement process can serve as a replacement for government-to-government consultation and Tribal engagement.
- Pressure/power of conflicting interests from business/industry can be intimidating and seem aligned with government.
- Funds and time not set aside by government for community engagement on an issue puts the burden on communities to know the issue and when/how to engage and puts out message that it is community's problem and input is not desired.

Representation

- Government agencies working with a small group of communities, so their work is not actually representative of the community
- Agency staff don't represent community members, limiting trust and cultural/communication skills
- Nonprofit staff may not truly represent the communities they serve (are they actually from the community?) or community leaders may not represent all diverse voices within a community.

- Same folks who have easy access to participating in government's community engagement activities may show up multiple times in different events so the same voice is continually being heard. Such folks have a voice to hear, but the government is not doing extensive outreach to engage a more diverse set of community members.
- Who can represent certain groups?
 - For example, some Tribal Nations may have specific procedures on who is able to represent them publicly (e.g. elected Tribal leader, departmental staff, etc.).
 Having a Tribal member present may not sufficiently meet the definition of engagement or representation for some or many Tribes.
- We [agencies] hear from a small group of very vocal people who may not be representative.

Process

- The fundamental goal is often to comply with the law or regulation, not to effectively engage communities.
- Evaluation of effectiveness isn't often prioritized. Agencies can perceive success as long as they aren't being sued or issued a formal complaint.
- The goal of the engagement isn't defined clearly to establish appropriate expectations for the community.
- The goal of the engagement isn't defined clearly to establish appropriate goals and tasks for agency staff.
- The decision-making process how do we decolonize the decision-making process? How do we support power-sharing and community self-empowerment?
- Government staff with less authority not having the power to listen and make significant changes even if they would like to.
- Lack of working early and often with folks impacted the most
- [Lack of] Investing in black and brown communities
- Government not recognizing intersectionality [intersectionality of agency programs, how different agencies influence each other]
- Jurisdictional and sector/department silos
- Process of mutual learning and dialogue that builds relationship versus one-time listening session Create or participate in opportunities for mutual learning between community and agency staff
- Determining funding and staff time needed for community engagement is not part of decision-making process
- The solution to the problem isn't the solution for everyone and may put some people at risk. For example, high nitrates in the drinking water well in a home for people who may risk getting evicted if they report it back.

Novel processes/results of engagement aren't accommodated in agency plans

- Lack of creativity or thinking outside of the box in terms of community engagement
- Identify creative avenues to help address key community recommendations that may fall out of your agency's program scope or authority.
- "Do meetings the black way" [Agencies expect all cultures to adapt to their culture, rather than meeting people where they are]
- How do we do more of something we're not used to?

Agency timelines do not accommodate change or the amount of time meaningful engagement and relationship building takes.

- Artificial deadlines lack of understanding within government processes that deadlines are often more adjustable than they seem.
- Lack of empowerment of government employees to ask "what is actually driving this deadline? Where and how can we create more space to be responsive to/engaging of communities?"
- The government rushing the decision-making process, perception that the timeline is immovable.
- Sometimes the timeline is immovable for legislative deadlines, budgeting, etc.
- Conducting an engagement as an afterthought or later in the process vs building it into the process from the very beginning and have it evolve throughout the process.
- Ensure that there is a continuous loopback mechanism in sharing back with the communities how their input informed decisions, plans and tools.
- Agencies don't value the expertise of skilled community engagement staff (e.g., include them in scoping, budgeting, defining process needs).

Resources

Accurate amounts of time and money for meaningful engagement are not allocated when budgeting projects.

- Lack of budget or resources for community engagement efforts. For example, if people are being asked to travel or contribute significantly, there is often no compensation for their time, cost burden, or expertise.
- Government resources not allocated properly.
- Hire staff that reflect diverse lived experiences from communities that the agency/organization wants to serve
- Provide technical assistance to community grantees (especially small CBOs) to build their capacity in managing your agency's grant funding and reporting (but also identify areas of improvement in the contracting process within your agency to ensure that it is not overburdening the CBOs).

- Staff time not allocated for community engagement.
- The legislature doesn't respond well to asks for increased engagement funding.
- Resources means not just hiring a community engagement coordinator but investing in community leadership and civic engagement (e.g., community leadership boards)
- Barriers in state law can prevent funded/compensated participation in decision-making processes that cost money.
- The process and budget for projects that require/use community engagement is rarely developed with someone who has expertise in community engagement.

Sovereignty

 Sovereign Tribes may see government processes at a different level than what their sovereign status warrants. For example, most state-Tribal relations happen at a formal government-to-government process or through formal consultation processes. If these processes are not elevated to the status of a Tribe's sovereignty, many Tribes will choose not to engage for fear of engaging being used against them.

Trust

- Community context the historical relationship of the public with government agencies and how that leads to the current level of trust
- Lack of listening skills among agency representatives
- Be present in the community and support their community-led work, not just come into the community when you need something
- As a government staff not from the community, learn about and be sensitive the historical and current trauma that communities of color have faced
- Agencies are only responsible for bringing offenders to compliance rather than preventing injury.
- The public participation process often doesn't result in a different outcome.
- Agency staff from outside of a particular community can become pedantic in that community, describing "what it's really like" when they don't have direct experience and don't appear to listen to those who do, especially when agency staff come from a bigger city to regulate a smaller town.
- Agency decision-makers often don't have direct experience with the system they're working in (e.g., bus systems and public transportation). "Rules without relation lead to rebellion."

Types of knowledge

- Many agencies don't believe the public can provide meaningful input, and have the colonial mindset that only academically-oriented individuals can be the experts.
- A balance needs to be established to provide the relevant technical information so that relevant input can be received defining the goals, limitations, etc. is important
- Don't value community engagement to invest resources to do it the right way or do it at all
- Real or perceived sense of what you need to be "competent" enough to participate
- Prioritizing quantitative or science-based data over qualitative data
- Evaluate the weight of public comments
- Which comments hold more weight?
- Are public comments actually valued?
- Perception that "we have the right people at the table" already and the lack of ability to see the gaps in participation/involvement
- Recognize and honor the expertise that each person brings to the table either from the government or community and that we are here to learn from each other.
- Indigenous knowledge systems are often multi-generational and are constructed and validated by different norms than Western Science.
 - Also, considerations over the ethics of sharing culturally sensitive Indigenous knowledge, how it is being recorded publicly, and how it is being used.

Appendix D: Operationalizing EJ Task Force Measurable Goals and Model Policy Recommendations; A Primer on the GARE Toolkit

Overview and Purpose

The EJTF recommendations guide state agencies on how to incorporate EJ into the core of how they do business by embedding EJ into agency strategic plans, developing systems to track, evaluate, and communicate progress in advancing equity, and EJ through agency operations and programs.

Washington state agencies can learn directly from the work of the Government Alliance on Racial Equity (GARE). GARE is an organization that works with governments across the U.S. to incorporate racial equity analyses and goals into government operations. GARE has published multiple tools and resources to support governments, including their *Racial Equity Toolkit*, which can be applied at the programmatic level and can be scaled up to meet agency-wide priorities. This primer provides a user overview of GARE's Racial Equity Toolkit, with specific guidance for state agency staff seeking to apply this toolkit as a first step towards implementing Task Force recommendations #1 "Track and Communicate Progress" and #3 "Embed EJ in Strategic Plans" (Figure 1). Figure 2 also illustrates connections between the GARE toolkit and EJTF recommendations pertaining to community engagement best practices and use of the Environmental Health Disparities (EHD) map.

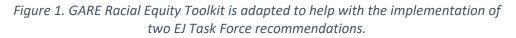
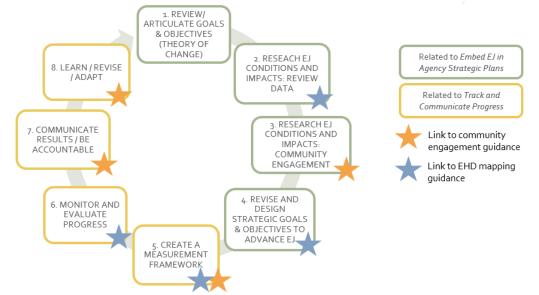




Figure 2. Embedding EJ and Equity: 8-Step Process (adapted from GARE racial equity toolkit)



STEPS 1-4: Embed EJ into your agency's strategic plan

1. REVIEW/ARTICULATE GOALS AND OBJECTIVES (THEORY OF CHANGE)

2. RESEARCH EJ CONDITIONS AND IMPACTS: REVIEW DATA 3. RESEARCH EJ CONDITIONS AND IMPACTS: COMMUNITY ENGAGEMENT 4. REVISE AND DESIGN STRATEGIC GOALS & OBJECTIVES TO ADVANCE EJ

The following steps, adapted from the GARE Racial Equity Toolkit, can be used by agency leadership and staff to begin the process of reviewing an agency-wide or program-level strategic plan, defining the EJ and equity context within which the agency or program operates (problem identification), and ultimately identifying opportunities to adjust or reform agency priorities and programmatic design to align agency goals with EJ and equity outcomes. These steps can be applied to an existing agency-wide strategic plan, an existing program-level plan, or in cases where no strategic plan currently exists, be used to develop an EJ and equity plan.

Terms and Definitions

Results – end conditions we are aiming to impact (at the community level)

Outcomes – desired effects at the jurisdiction, agency, department, or program level

Outputs – numerical counts of a program's actions or products that were created or delivered, the number of

people served, and the activities or services provided.

Output and outcome measures – the means by which to monitor successful implementation and effects of actions that have a reasonable chance of influenced desired results. They measure:

- Quantity how much did we do?
- Quality how well did we do it?
- Effects Is anyone better off?

1. REVIEW/ARTICULATE GOALS AND OBJECTIVES (THEORY OF CHANGE)

In order to identify strategic opportunities for advancing EJ through planned agency work, a logical place to start is to articulate why your agency or program does what it does, in what social, economic, or environmental realms does it makes a difference, and how (i.e. your theory of change). Clarifying

your realm of influence and your assumptions and beliefs about how your agency or program is effecting change within that realm, is an essential step in discovering the ways in which your agency's approach, investments, and activities may be missing an opportunity to, or in some cases unintentionally exacerbating, environmental inequities.

A complete theory of change is comprised of the ultimate results (end conditions) you are seeking to effect in the world, the key activities your agency or program performs to deliver those results, and the near and long-term outcomes of those activities that are assumed to influence those ultimate results. A very simple theory-of-change template is as follows:



Guiding questions for crafting your theory of change:

- 1. **Results:** What change does your agency or program strive to bring about? What results (changes in community conditions) are you seeking to deliver?
- 2. **Agency activities:** What are the key areas of work, groups of activities, or investments what your agency or program delivers?
- 3. **Near and intermediate-term outcomes:** What are the immediate outcomes generated by your agency or program activities? How do these outcomes lead to changes in the community?
- 4. **Realms of influence:** In addition to the primary intended results of your agency/program, what additional social, economic, or environmental realms does your agency/program have the potential to influence?

2. RESEARCH EJ CONDITIONS AND IMPACTS: REVIEW DATA Step 2 involves reviewing available data (both community-level data on socioeconomic or environmental conditions, and/or program-level performance data) and considering how your agency operations or program, as designed, might contribute to eliminating or exacerbating inequities.

★ Consider using the EHD Map to support this step.

Guiding questions for assessing environmental injustice conditions and impacts:

Build demographic and environment context to guide and inform place-based activities:

- Identify potential impacts in geographic areas & communities.
- Learn about the racial, ethnic, economic demographics.
- What are the existing racial, ethnic, and economic inequities in your program or agency's service area?

Conduct EJ review and analysis as routine practice from programs and projects:

Use performance level data to learn about:

- Where program activities have primarily occurred.
- Who program activities have primarily served to date & how that compares with area characteristics.

3. RESEARCH EJ CONDITIONS AND IMPACTS: COMMUNITY ENGAGEMENT The next step is to consider information collected through community engagement efforts. If your agency has not yet directly engaged communities disproportionately impacted by environmental health inequities or has not yet done so adequately, consider immediate opportunities to begin or

expand engagement. Look at information collected through community engagement efforts to consider how your program, as designed, might contribute to eliminating or exacerbating inequity.

★ Refer to community engagement guidance during this step.

Guiding questions to answer through community engagement:

- 1. Who are the most affected community members who are concerned with or have experience related to this program? How have you involved these community members in the development of this program?
- 2. What has your engagement process told you about the burdens or benefits for different groups?
- 3. What has your engagement process told you about the factors that produce or perpetuate racial inequity related to this program?

4. REVISE AND DESIGN STRATEGIC GOALS & OBJECTIVES TO ADVANCE EJ Based on information collected in Steps 2 and 3, revise your theory of change to include equity-explicit results, and determine adjustments to your agency activities (e.g. adjust existing activities, create new activities, eliminate harmful activities) to achieve those results.

★ Consider using the EHD Map to support this step.

Guiding questions to support the revision process:

- 1. Based on your review of data and community engagement results, how does your program alleviate or exacerbate inequity?
- 2. Who benefits from or is burdened by your program or agency operations, as currently designed and executed?
- 3. What are the potential unintended consequences of not adjusting your agency or program approach?
- 4. How do you presume your proposed adjustments to result in pro-equity outcomes and results?

STEPS 5-8: Track and Communicate Progress

5. CREATE A MEASUREMENT FRAMEWORK 6. MONITOR AND EVALUATE PROGRESS 7. COMMUNICATE RESULTS / BE ACCOUNTABLE

8. LEARN / REVISE / ADAPT

The following steps expand on the GARE Toolkit and provide guidance to agencies seeking to implement the EJTF's recommendation to: track and communicate progress of measurable goals. Establishing a system to monitor and evaluate progress, through use of performance measures and community indicators, can only be completed once a revised, pro-equity theory of change (near-term and intermediate-term outcomes and end results) is articulated. A measurement framework is also the basis for accountability and transparency in communicating progress in advancing equity and EJ goals. Finally, the results of a measurement framework should be fed directly into the process of revisiting your theory-of-change and program or agency effectiveness, on a periodic basis.

5. CREATE A MEASUREMENT FRAMEWORK Create a draft measurement framework, including performance measures (that directly measure implementation of actions) and community indicators (that measure changes in community conditions that your actions aim to influence). It is an important to

include both, as performance measures are directly responsive to your agency's work and provide timely feedback about whether you are on track to generate meaningful change in community conditions. Community indicators are slower to respond but provide essential feedback about whether your agency or program is making a positive impact in advancing equity and environmental justice.

 \star Consider using the EHD Map as a potential source of ideas for outcome measures.

***** Refer to community engagement guidance during this step. A measurement framework should be developed with direct input from the communities you are seeking to benefit.

Guidance on establishing output and outcome measures to track implementation of pro-equity activities:

- Consider existing output measures (e.g. number of workshops per quarter, number of people served, number of contracts, miles of utility lines installed) and outcome measures (e.g. graduation rate, increase in jobs, change in air and water quality, change in recidivism rate) at your agency. Can existing agency-wide or program-level measures be disaggregated by race, income, geography, etc., to tell a story about the distribution of your agency activities and associated benefits/effects?
- Consider new performance measures that generate feedback about whether your new/revised activities are achieving near-term outcomes in your theory-of-change. What new program or activity level data can be collected to determine that those new/revised activities are being implemented as intended? What existing communitylevel datasets can be leveraged to track changes in community conditions (and distribution of positive changes across communities) over time?
- Determine the directionality or desired target for your output and outcomes measures, to use as a guidepost during your monitoring and evaluation efforts.

6. MONITOR AND EVALUATE PROGRESS

Monitor output and outcomes measures and establish a regular frequency for conducting periodic evaluations of progress. Monitoring allows for ongoing tracking and course correction and provides agency leaders and staff a 'signal' when something is not making the progress you expect. Evaluation

allows for more in-depth analysis of measure data to understand how and why progress is or isn't being made. Communities should be continuously engaged throughout the monitoring and evaluation process, to ground truth the measures data and provide insight into why and how changes are or are not occurring, and what should be done about it.

Guiding evaluation questions:

- How much did we do?
- How well did we do it?
- Is anyone better off?

7. COMMUNICATE RESULTS / BE ACCOUNTABLE Use a communications tool, such as the Center for Social Inclusion's Talking About Race Right Toolkit to develop messages and a communications strategy and share out the results of your efforts to monitor and evaluate your progress in advancing equity and environmental justice.

★ Refer to community engagement guidance during this step. Determine approach outreach and communication strategies to reach communities in a meaningful way and stay accountable.

Guiding questions:

- 1. How will impacts be documented and evaluated? Are you achieving the anticipated outcomes? Are you having impact in the community?
- 2. What are your messages and communication strategies that are will help advance racial equity?
- 3. How will you continue to partner and deepen relationships with communities to make sure your work to advance equity is working and sustainable for the long haul?

8. LEARN / REVISE / ADAPT Finally, agencies should adaptively manage agency or programlevel strategic plans, by learning from results of monitoring and evaluation processes and establishing a culture of evidence-based decision-making. Evidence should include not only findings generated from monitoring and evaluation efforts, but from

ongoing community engagement.

★ Refer to community engagement guidance during this step. Communities should be directly engaged to ground truth insights and lessons you have derived from monitoring and evaluation efforts.

Appendix E. Further Guidance on the Environmental Health Disparities Map

Washington Tracking Network

The <u>Washington Tracking Network</u> (WTN) is a suite of tools maintained by the Washington State Department of Health focused on making up-to-date public health data more accessible. There are over 300 measures on WTN, and data are available for download and exploration. The following tools are relevant for the proposed mapping uses and recommendations in this report:

- Query Portal allows users to select data according to their interest by time period and geography (county, census tract, state). Data are available as tables, charts, or maps, and available for download. The query portal allows you to select and view multiple measures at the same time.
- Information by Location (IBL) is an interactive map that compares census tracts in Washington across a variety of public health and environmental measures. IBL ranks census tracts between 1 (least impacted) and 10 (most impacted). The EHD map is included in IBL.

Environmental Health Disparities Map Measures and Rankings

The Environmental Health Disparities (EHD) map compares census tracts across our state for environmental health disparities. Like all IBL maps, the EHD map uses rankings to create a common scale to compare different issues at the census tract level. Rankings allow the map to display health information while protecting confidentiality in census tracts with small populations. The rankings help to compare health and social factors that may contribute to disparities in a community. The rankings should not be interpreted as absolute values or be used to diagnose a community health issue or to label a community.

The rankings show that there is a difference between tracts, but not how great the difference is between tracts. The rankings were created using deciles (1 decile = 10%). Each decile represents about 10% of the values in the data set. Because the final composite scores are ranked by deciles, the resulting rankings shown on the map range from 1 (least impacted) to 10 (most impacted). For example, if a census tract has an EHD rank of 8, it means there are about



Figure 1. Visual of IBL ranking system.

10% of other census tracts with a similar level of disparities, 20% have a higher level, and 70% have a lower level (Figure 1).

It is possible to explore the data that inform the overall ranking as well. Each IBL map is made up of themes and measures. The EHD map includes 19 measures organized into four themes (Table 1):

Table 1. Themes and Measures included in	n the Environmental Health Disparities Map
Themes	Measures
Environmental Exposures	NOx-diesel Emissions
Levels of pollutants that populations come	Ozone Concentration
into contact with.	PM _{2.5} Concentration
	Populations near Heavy Traffic Roadways
	Toxic Release from Facilities
Environmental Effects	Lead Risk from Housing
Measures that account for adverse environmental quality generally, even when	Proximity to Hazardous Waste Treatment, Storage, and Disposal Facilities
population contact with an environmental hazard is unknown or uncertain.	Proximity to National Priorities List Sites (Superfund Sites)
	Proximity to Risk Management Plan Facilities
	Wastewater Discharge
Socioeconomic Factors	Limited English
Measure population characteristics that	No High School Diploma
modify the pollution burden itself.	Poverty
	Race - People of Color
	Transportation Expense
	Unaffordable Housing
	Unemployed
Sensitive Populations	Death from Cardiovascular Disease
Those who are at greater risk due to intrinsic biological vulnerability to environmental stressors.	Low Birth Weight

Each census tract has an overall EHD rank, but also a rank for each of the four themes and individual measures. For example, a census tract may have an overall EHD rank of 7, an Environmental Exposures (theme) rank of 9, and a NOx-Diesel Emissions (measure) rank of 6. In

this scenario, a user would then understand that while this area has some of the highest impacts for environmental exposures, NOx is probably only part of the exposures in this tract.

By exploring the individual measures in the EHD ranking for a census tract, a user can gain insights into how the measures influence the overall ranking. A tract can be highly impacted in some themes or measures and less impacted in others. In the highlighted tract below, the Environmental Exposures theme has a rank of 9, while the Sensitive Populations theme has a rank of 2 (Figure 2). A user would then understand that for this census tract the environmental exposures theme is an area of greater concern for this census tract compared to the sensitive populations theme.

Each tract is uniquely impacted by the measures. Exploring the themes and measures will give a more robust picture of how a given census tract is impacted by specific environmental health disparity measures.





EHD Model Development

The EHD map model was adapted from CalEnviroScreen—a cumulative environmental impacts assessment map developed by CalEPA and used in California to inform implementation of various state policies. It estimates a cumulative environmental health impact score for each census tract reflecting pollutant exposures and factors that affect people's vulnerability to environmental pollution. The model is based on a conceptual formula of *Risk = Threat X Vulnerability*, where threat and vulnerability are based on several indicators (Figure 3).

Figure 3. Visualization of how the disparities rank is calculated.



The Environmental Effects and Environmental Exposures themes comprise the threat portion of the conceptual formula and account for the pollution burden. Since there are uncertainties in the extent to which proximity to hazardous sites and pollutant sources reflects exposures to individuals in the community Environmental Exposures have a lower contribution (.5) to the overall EHD rank following a similar methodology used by CalEnviroScreen.

The Sensitive Populations and Socioeconomic Factors themes comprise the vulnerability portion of the conceptual formula. These measures are proxy metrics for population characteristics. In the model, threat is multiplied by vulnerability in order to reflect the scientific literature that indicates population characteristics often modify and amplify the impact of pollution exposures on certain vulnerable populations.

The EHD map and CalEnviroScreen modelling differs from the US Environmental Protection Agency's EJSCREEN. Both CalEnviroScreen and the EHD map are cumulative environmental risk assessment maps. EJSCREEN is not a cumulative impacts model, but rather shows each environmental and demographic indicator, one at a time, and 11 EJ Indexes that combine a single environmental factor with demographic factors (low-income and minority residents).

Sensitivity Analysis

Two different sensitivity analyses, Spearman's correlation coefficients and principal component analysis, were conducted to assess and reduce bias due to data availability. The only highly correlated measure was linguistic isolation with race/ethnicity. Although highly correlated, these indicators are not duplicative because they describe different vulnerabilities. Both linguistic isolation and race/ethnicity add important new information. The Principal Component Analysis (PCA) was used to understand how the indicators within a theme influenced the topic, or overall, ranking. The PCA revealed that five principal components account for 66.26% of the variance. The components corresponded approximately to (1) pollution related to urbanized areas, (2) socioeconomic factors, (3) traffic–related pollution, (4) hazardous waste, and (5) peri–urban related pollution. PCA results indicate that there may be more focused priorities for different regions. For example, diesel emissions may be the most relevant for urbanized areas, while low socioeconomic status may be most relevant for rural areas.⁸¹

⁸¹ Min, E., et al., (2019) "The Washington State Environmental Health Disparities Map: Development of a Community-Responsive Cumulative Impacts Assessment Tool". Int. J. Environ. Res. Public Health, 16(22), 4470. doi:10.3390/ijerph16224470.

Appendix F. Methodology and Analysis: Washington Tracking Network Bar Graphs on Environmental Health Disparities

Created By: Rad Cunningham, Senior Epidemiologist for the Washington State Department of Health, <u>rad.cunningham@doh.wa.gov</u>

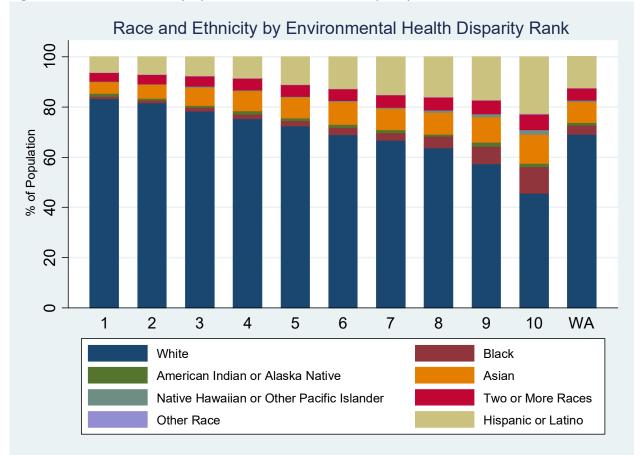


Figure 1. Race and Ethnicity by Environmental Health Disparity Rank

EHD Rank	White	Black	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Other Race	Hispanic or Latino
1	83.2	0.9	1.3	4.6	0.2	3.5	0.1	6.2
2	81.5	1.1	0.7	5.7	0.2	3.7	0.1	7.0
3	78.2	1.6	0.7	7.3	0.4	4.1	0.1	7.5
4	75.3	1.8	1.3	8.0	0.3	4.7	0.2	8.5
5	72.5	2.0	1.0	8.3	0.4	4.7	0.1	11.0
6	69.0	2.8	1.2	9.1	0.4	4.6	0.2	12.7
7	66.8	3.0	1.1	8.4	0.6	4.9	0.2	15.0
8	63.7	4.6	0.8	8.7	1.0	5.0	0.2	16.0
9	57.4	7.0	1.6	10.1	1.2	5.4	0.2	17.1
10	45.6	10.5	1.4	11.7	1.8	6.2	0.3	22.7
WA Avg.	69.1	3.6	1.1	8.3	0.6	4.7	0.2	12.5

Table 1. Race and Ethnicity by Environmental Health Disparities (EHD) Rank

Methods

This graph and table of race and ethnicity by Environmental Health Disparities (EHD) rank was created using environmental health disparities ranking, whose methods are described in Min et al. 2019⁸², and race and ethnicity data from table DP05 from the U.S. Census's 2018 American Community Survey⁸³. The data were matched by census tract to create a dataset that could be used to assess race and ethnicity differences by EHD rank. The data combines race and ethnicity using methods developed for the Environmental Protection Agencies (EPA) EJSCREEN tool.⁸⁴ The analysis follows methods developed by Min 2020⁸⁵.

Results

We find a linear association between increasing EHD rank and the percentage of the population that was non-white or persons of color. In other words, minority, non-white Washington residents were more likely to live in census tracts identified as high risk by the EHD map. White people made up 81.5% of the population of the lowest risk census tract and 45.6% of the highest risk census tracts. Black Washingtonians were ten times more likely to live in a census tract ranked a ten (highest risk) than a census tract ranked a one (lowest risk). Native Hawaiian

⁸² Min, Esther, et al. "The Washington state environmental health disparities map: development of a communityresponsive cumulative impacts assessment tool." *International journal of environmental research and public health* 16.22 (2019): 4470.

⁸³ Data are available on the Census website: <u>https://www.census.gov/acs/www/data/data-tables-and-tools/american-factfinder/</u>

⁸⁴ 2019 Environmental Protection Agency, Office of Policy. EJSCREEN Environmental Justice Mapping and Screening Tool: EJSCREEN Technical Documentation. Accessed at: <u>https://www.epa.gov/sites/production/files/2017-09/documents/2017 ejscreen technical document.pdf</u>

⁸⁵ Min 2020, A tale of Two Community Engaged Research Studies; Addressing Environmental Health Disparities in Washington State. [Doctoral Dissertation, University of Washington] ResearchWorks Archive.

or other Pacific Islanders were nine times more likely to live in a tract ranked ten vs one. More Hispanic and Latino residents live in census tracts ranked a nine or a ten than live in census tracts ranked one through five combined. There is a similar trend for Asian residents. The trend is visible but less pronounced for Washington residents identifying as either Other Race or Two or More Races.

Limitations

The environmental health disparities map is comprised of four themes made up of nineteen measures. One of the measures is People of Color (POC), a measure of the percent of a census tracts population that is non-white. Each of the four themes has a 25% weight in the final ranking. People of Color is under the socioeconomic factors theme along with six other measures. Therefore, its rank in the final map is (1/7)*0.25= 0.036 or 3.6% of the weight of the ranking. A preferred method would have been to remove the POC measure and recalculate the EHD rankings before running the analysis above. Due to staff activations to the COVID-19 response we were not able to use this method for this report but plan to for future reports and to update the results of this report at that time using the preferred method. However, given the clear trends seen in the data and the relatively small weight of the POC measure in the overall ranking we do not expect meaningful changes in the outcome of the analysis. This limitation applies equally to the poverty chart and table below.

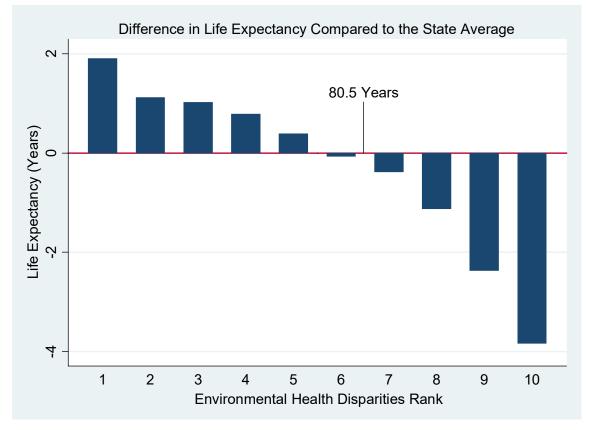


Figure 2. Difference in Live Expectancy Compared to the State Average

EHD Rank	Life Expectancy at Birth	WA Average Life Expectancy	Difference from State Average
1	82.4		1.9
2	81.7		1.1
3	81.6		1.0
4	81.3		0.8
5	80.9	80.5	0.4
6	80.5	80.5	-0.1
7	80.2		-0.4
8	79.4		-1.1
9	78.2		-2.4
10	76.7		-3.8

Methods

The Center for Health Stastics at the Washington State Department of Health estimates life expectancy using data from death certificates following methodologies developed by the World Health Organization⁸⁶. The life expectancy data was combined with the environmental health disparities ranks to produce the chart and table above.

Results

We find that in addition to the linear trend between people of color and EHD rank there is also a linear association between EHD rank and life expectancy. There is a 5.7 year difference in life expectancy between the lowest and highest EHD rank.

Limitations

Our methodology was to average life expectancy across census tracts by EHD rank. One limitation of this method is that census tracts have different popultaions. A census tract with a smaller population would have the same weight as a census tract with a larger population. Census tracts are standardized by the U.S. Census to have an average population of 4,000 people with a minimum of 1,200 and a maximum of 8,000⁸⁷. This standardization limits the extent of this limitation. In an unadjusted regression, life expectancy increased by 0.28 years per additional 1,000 population. The r-squared statistic in the regression suggested that population explains 2.8% of the variation in life expectancy.

 ⁸⁶ Chiang CL. Life table and mortality analysis. Geneva: World Health Organization, 1977.
 ⁸⁷ U.S. Census, Geographic Products Branch: <u>https://www2.census.gov/geo/pdfs/education/CensusTracts.pdf</u>

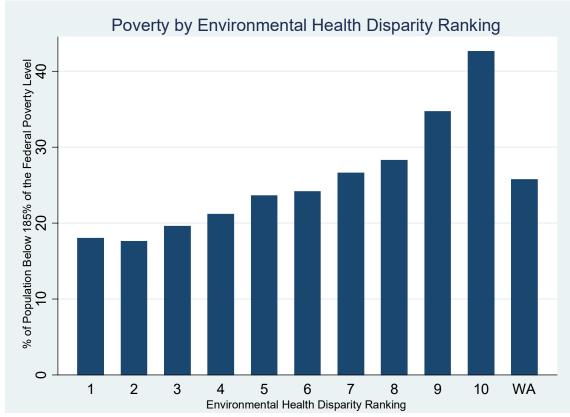


Figure 3. Poverty by Environmental Health Disparity Ranking

Table 3: Poverty by Environmental Health Disparity Ranl

EHD Rank	Total Population	Population Under 185% of FPL	Percent under 185% of FPL
1	583304	104927	18.0
2	701525	123562	17.6
3	714922	139970	19.6
4	720213	152462	21.2
5	703700	166292	23.6
6	725651	175160	24.1
7	735128	195393	26.6
8	746588	210981	28.3
9	704190	244429	34.7
10	702192	299041	42.6
WA	7037413	1812217	25.8

Methods

We created the dataset used to populate the table and graph depicting the relationship between EHD rank and poverty, defined as 185% of the federal poverty level,⁸⁸ by combining poverty data from the U.S. Census Bureau's 5-Year American Community Survey table S1701 with EHD ranks on a census tract level.

Results

We find that, as with race and ethnicity and life expectancy, that there is a linear association between EHD rank and poverty. The poverty rate in the highest EHD rank is more than double that of the lowest EHD rank.

Limitations

The limitations for this section are described above on page 130.

⁸⁸ Data are available on the Census website: <u>https://www.census.gov/acs/www/data/data-tables-and-tools/american-factfinder/</u>

Appendix G. Memo: EJ and Reparations from Systemic Racism

Environmental Justice and Reparations from Systemic Racism

A memo for the Washington State Environmental Justice Task Force

Written by task force members representing community organizations: Emily Pinckney, Tacoma League of Young Professionals Rowena Pineda, Asian Pacific Islander Coalition Judy Twedt, UAW Local 4121 September 2020

It is a historic fact that racial disparities in health are rooted in legacies of slavery and colonialism. Washington State's Environmental Health Disparities map outlines the current land-based relationships between human health, income, race, and pollution. This tool, developed through community-based participatory research, documents present inequities and shows the links between social vulnerabilities and exposure to pollution.

But today's geographic and racial health disparities did not arise by complacency or individual acts. Racial discrimination in New Deal housing and transportation policy, indigenous land theft, broken treaties, and other forms of institutional (and often unconstitutional) harms shaped these current multigenerational inequalities.

In support of the Washington State Environmental Justice Task Force, this memo does two things:

- 1. Draws links between historical discrimination and contemporary health and environmental disparities specific to Washington State.
- 2. Provides an (incomplete) list of resources, writings and reports to support the development of reparations proposals to redress historic and current harms.

I. Multigenerational Environmental Health Disparities

To heal was to be familiar with what was destroyed -Ray Young Bear, Meskwaki poet⁸⁹

Racial segregation across the country was shaped in the Jim Crow era by the exclusionary zoning of The Federal Housing Administration's redlining maps which banks used to determine who received federal mortgage loans for homeownership. Redlining maps of <u>Seattle</u>, <u>Tacoma</u>, and <u>Spokane</u> are available through the University of Richmond's *Mapping Inequality* project.

The 1936 of commercial map of the greater Seattle area outlined 6 security areas, graded 'A' through 'E'. This was supervised by deputy state appraiser, E.G. Wendland and the chief valuator of the Federal Housing Administration. Here are few of the <u>descriptions of</u> <u>neighborhoods</u> and their resulting grades:

- "A" rating: a waterfront area in the Seward Park neighborhood, described as "a new area sparsely settled but protected by building and <u>racial restrictions</u>."
- "B" rating: the Ballard neighborhood, "the locality is populated by working men, skilled mechanics, and white-collar workers. This is the 'Scandinavian" section of Seattle."
- "B" rating: The Capitol Hill Neighborhood surrounding Volunteer Park, because "Notwithstanding the age of the district, <u>the locality has no racial problems</u>, nor has it a problem of the influx of people of a lower earning standard."
- "C" rating: a neighborhood described by its proximity to "a gas plant which is causing a smoke and odor nuisance."
- "D" rating: A neighborhood in the Central District, described in one short sentence: "This is the Negro area of Seattle."

In addition to redlining, racist property deeds and covenants barred the sale to or occupancy by African Americans across the country and in Seattle. Richard Rothstein⁹⁰ describes how, between 1935 and 1944 W.E. Boeing, founder of Boeing Company, developed suburbs north of Seattle. During this period and after WWII, more suburbs were constructed with other developers which all wrote racially restrictive language and covenants into their property deeds. The result was a city whose African American population was encircled by all-white suburbs and restricted to purchasing houses in urban areas closest to polluting industries. Boeing property deeds stated, for example, "No property in said addition shall at any time be sold, conveyed, rented, or leased in whole or in part to any person or persons not of the white or Caucasian race."

⁸⁹ As quoted in *An American Sunrise* by Muskogee Creek poet Joy Harjo

⁹⁰ "The Color of Law: A Forgotten History of How our Government segregated America" 2017, Liveright Publishers

Similar racial covenants and housing policy also segregated cities in eastern Washington, including <u>Spokane</u>.

The federal interstate highway system also segregated neighborhoods in many cities. In Spokane, <u>residents describe how I-90 cut through the east central neighborhoods and affected communities</u>, just as in other major US cities including <u>Los Angeles</u> and <u>Atlanta</u>. This led to intergenerational inequality in health and wealth.

Together, the policies of redlining, racial covenants, and infrastructure placement created intergenerational wealth gaps that persist and contribute to environmental health disparities to this day: <u>Research on extreme heat</u> suggests that these policies created heat burdens as low-income neighborhoods have less tree canopy. <u>This causes a greater heat exposure on residents, and is rising with global warming.</u>

<u>Research published in the Proceedings of the National Academy of Sciences</u> shows that racialized wealth gaps and segregation have a two-pronged effect on health outcomes: on average white Americans create more pollution through their consumption than Black and Hispanic Americans, but don't breathe the full costs of this consumption:

"In the United States, PM2.5 exposure is disproportionately caused by consumption of goods and services mainly by the non-Hispanic white majority, but disproportionately inhaled by Black and Hispanic minorities. On average, non-Hispanic whites experience a "pollution advantage": They experience ~17% less air pollution exposure than is caused by their consumption. Blacks and Hispanics on average bear a "pollution burden" of 56% and 63% excess exposure, respectively, relative to the exposure caused by their consumption."

These findings are not new. Fifteen years previously, the Congressional Black Caucus Foundation released their report <u>African Americans and Climate Change: Unequal Burden</u>, noting that "policies intended to mitigate climate change can generate large health and economic benefits or costs for African Americans, depending on how they are structured."

I. Further Resources

Reparations

- 1. Movement 4 Black Lives: <u>Reparations Platform</u>, accessed September 3, 2020
- 2. Resource Generation: <u>Land Reparations and Indigenous Solidarity Toolkit</u> Accessed September 4, 2020
- 3. Catherine Millas Kaiman: <u>Environmental Justice and Community Based Reparations</u> Seattle University Law Review
- 4. William "Sandy" Darity and Kristen Mullen: <u>Black Reparations and the Racial Wealth</u> <u>Gap</u> June 15, 2020 Brookings Institution Report
- 5. Ta-Nehisi Coates: The Case for Reparations June 2014, The Atlantic

- 6. Yearby, Lewis, Gilbert, and Banks: <u>Racism is a Public Health Crisis</u> Data for Progress, September 2020
- 7. Maanvi Singh: <u>Native American 'Land Taxes': A step on the roadmap for reparations</u> The Guardian, December 31, 2019
- Daniel R. Wildcat: <u>Why Native Americans Don't Want Reparations</u> Washington Post, June 10, 2014
- 9. Ereshnee Naidu-Silverman: <u>What South Africa can Teach the US About Reparations</u> Washington Post, June 25, 2019
- 10. Irvine Molotsky: <u>Senate Votes to Compensate Japanese American Internees</u> New York Times, April 21, 1988
- 11. John Tateishi: <u>Redress: The Inside Story of the successful Campaign for Japanese</u> <u>American Reparations</u> Heyday Books, 2020
- 12. Maki, Kitano, and Berthold: <u>Achieving the Impossible Dream: How Japanese Americans</u> <u>Obtained Redress</u>, University of Illinois Press 1999 <u>Racism and environmental health inequities</u>
- Beverly Wright and Robert Bullard: <u>The Wrong Complexion for Protection: how the</u> <u>Government Response to Disaster Endangers African American Communities</u>, NYU Press 2012
- 14. Meg Anderson: <u>Racist Housing Practices from the 1930's Linked to Hotter</u> <u>Neighborhoods Today</u> Spokane Public Radio, January 14, 2020
- 15. <u>US Cities Spending millions on trees to fight heat -- but are their plans equitable?</u> The Guardian, August 26, 2020
- 16. Matthew Fleischer: <u>Want to tear down insidious monuments to racism? Bulldoze LA</u> <u>Freeways</u> LA Times, June 24, 2020
- 17. Hannah Weinberger: <u>UW Research shows racism and redlining hurt local wildlife too</u> August 20,2020 Crosscut
 - a. Supporting research: Schell et al.: <u>The ecological and evolutionary consequences</u> of systemic racism in urban environments Science August 13, 2020
- 18. Brad Plummer and Nadja Popovich: <u>Decades of Racism Housing Policy Left</u> <u>Neighborhoods Sweltering</u> New York Times, August 24, 2020
- 19. Supporting research: Hoffman, Shandas, and Pendleton: <u>The effects of historic housing</u> <u>policies on residents exposure to intra-urban heat</u> Climate, January 13, 2020
- 20. Tessum et al.: <u>Inequities in consumption of goods and services adds to racial-ethnic</u> <u>disparities in air pollution exposure</u> Proceedings in the National Academy of Sciences, March 11, 2019
- 21. Maldonado, Shearer, Bronen, Peterson, Lazarus: <u>Impact of Climate Change on Tribal</u> <u>Communities in the U.S.: Displacement, Relocation, and Human Rights</u> Climate Change, April 9, 2013

- 22. Bailey, Kreiger, Agénor, Graves, Linos, and Basset: <u>Structural racism and health</u> <u>inequities in the USA: evidence and interventions</u> The Lancet, April 8, 2017 <u>Red Lining and Segregation</u>
- 23. Shawn Vestal: <u>Whites-Only covenants still exist in many mid-century Spokane</u> <u>neighborhoods. Spokesman Review,</u> December 24, 2016
- 24. Seattle Civil Rights and Labor History Project: Segregated Seattle
- 25. Richard Rothstein: <u>The Color of Law: A Forgotten History of How Our Government</u> <u>Segregated America</u> Liveright Publishing, 2017
- 26. Seattle's history of redlining November 20, 2018 KCTS9
- 27. Mapping Inequality: Tacoma Redlining Map
- 28. Mapping Inequality: Seattle Redlining Map and descriptions in Seattle's classification key

Appendix H. EJ and COVID-19 Memo from EJTF Co-Chairs

	MEMORANDUM
то:	Governor Inslee, Commissioner Franz, Speaker Jinkins, Majority Leader Billig, Secretary wiesman, and Members of Safe Start Advisory Groups
FROM:	Victor Rodriguez and David Mendoza - Co-Chairs, WA State Environmental Justice Taskforce
SUBJECT	Use the Environmental Health Disparity Map to Inform COVID-19 Relief and Recovery
DATE:	August 21, 2020

Summary & Recommendation

The COVID-19 pandemic has both illuminated and exacerbated the long-standing inequities in our country, and in our state. As such, COVID-19 relief and recovery funds and strategies must be equitably distributed to ensure that the state reaches communities that are experiencing the most dire health and economic repercussions. If equity is not front and centered by considering the underlying vulnerabilities and disparities among communities, ongoing response and recovery efforts could exacerbate the current inequities and increase disparities for Black, Indigenous, and People of Color. During an extreme statewide budget shortfall, our investments must be strategic and focused on yielding the greatest returns on our investments, which ultimately means investing in communities facing the most severe inequities to improve health and resiliency for future emergencies in Washington.

The Environmental Justice Task Force Co-Chairs recommend that the Governor, the Commissioner of Public Lands, the Legislature, and the Safe Start advisory groups use the Environmental Health Disparity Map to inform the state's COVID-19 relief and recovery work. A <u>national study</u> showed a disproportionate impact of COVID-19 on communities with high levels of pollution while <u>federal data</u> show that there have been racial disparities in coronavirus infections and deaths nationwide. Referencing an environmental health analysis will help to ensure that the state prioritizes investments in communities in areas with high levels of disparities and prevent a disproportionate impact related to potential forthcoming budget cuts.

This is especially important during the current wildfire season, which could increase the number of people who contract COVID-19 and make the symptoms more severe in those who do get sick, according to public health officials.

Using Environmental Health Disparity Mapping in COVID-19 Relief and Recovery

The <u>Environmental Health Disparities Map</u> is an interactive mapping tool that compares communities across our state. The map incorporates environmental exposures and effects, socioeconomic factors, and information on sensitive populations to rank environmental health disparities by census tract. The map can be used to aid decision-makers on where to invest resources, which communities to prioritize for funding, where to focus employment opportunities, and where to focus recovery efforts. In addition, since the response to COVID-19 is likely to be long with periods of illness resurgence, the Environmental Health Disparities map may help identify areas with likely resurgence or areas needing greater resources—testing, cultural and linguistically appropriate materials, guidance on safe workplaces, etc.

We recommend the following ways in which to integrate the use of mapping:

- *Area Assessment* Learn about the intended audience or potentially impacted community.
- **Equity Impact Analysis** Analyze whether Highly Impacted Communities will be affected by a proposed policy, program, or activity
- **Project Prioritization** Direct activities and investments towards the most burdened communities.
- **Service Equity Evaluation** Evaluate the equitable distribution of agency activities across the state (or service area).

Disparate Impacts of Pollution and COVID-19 on Communities of Color

Our health is interconnected with the environment. Polluted water, food, air, and land makes us sick and more susceptible to diseases like COVID-19. <u>Recent scientific publications</u> suggest that air pollutant exposure worsens COVID-19 symptoms and outcomes. A <u>Harvard study</u> concluded that "a small increase in long-term exposure to PM2.5 leads to a large increase in COVID-19 death rate." Considering environmental health factors in COVID-19 relief and recovery efforts may help save lives.

It has been well documented that Black, Indigenous, and People of Color are more likely to live in areas with more pollution. The Environmental Health Disparity Map details the cumulative impacts of environmental hazards and exposures overlaid with numerous social factors that provides a comprehensive understanding of the range of impacts facing communities across Washington State. Adding this information into planning and distribution of COVID-19 relief and recovery efforts could greatly improve our ability to identify the areas in our state who need the most help and attention.

Black, Indigenous, and People of Color are being <u>disproportionately impacted by COVID-19</u>. According the WA State Department of Health:

- Case rates over the pandemic for Hispanic people and Native Hawaiian or Other Pacific Islander people are nine times higher than those of White people.
- Confirmed cases statewide show 44% of all cases attributed to Latinos who only represent 13% of the total population. The percentage of COVID-19 patients who are

Black is also above that population's overall percentage. At this point in data collection, White COVID-19 cases make up 35% of those sickened by the virus, while the White population makes up 68% of the state population.

- Hospitalization rates are seven times higher for Hispanics and ten times higher for Native Hawaiians or Other Pacific Islanders than those of White people. Case and hospitalization rates for Black people and American Indian or Alaska Native people are three times higher than those of White people.
- Compared to White people, death rates are over three times higher among Hispanic people and Native Hawaiian or Other Pacific Islander people, twice as high among American Indian or Alaska Native people, and over 50 percent higher among Black and Asian people.

If recovery planning does not consider the distributive injustices or geographic inequities detailed in the <u>Environmental Health Disparity Map</u>, these injustices are bound to exacerbate the disparities related to COVID-19. For too long, Black, Indigenous, and People of Color and poor communities have borne disproportionate harm from pollution, a result of discriminatory systems that perpetuate inequities within WA State. The impact of COVID-19 is just the latest and most dramatic evidence of this inequity. Embracing our recommended approach in planning for recover/relief programs can be a first step in beginning to address these longstanding inequities.

Thank you for your consideration of this recommendation. The Co-Chairs and staff of the EJ Taskforce are ready and willing to assist any of you or your staff with addressing any questions or concerns you may have about implementing this recommendation.

Follow Up Flag:	Follow up
Subject:	Comments on Escalating Violence
То:	City Manager; Woodards, Victoria; Hines, John; Rumbaugh, Sarah; Blocker, Keith; Ushka, Catherine; Bushnell, Joe; Daniels, Kiara; McCarthy, Conor; Walker, Kristina; City Clerk's Office
Sent:	Tuesday, May 10, 2022 2:25 PM
From:	Jennifer Chernut <jennchernut@aol.com></jennchernut@aol.com>

Flag Status: Flagged

Mayor Woodwards, Deputy Mayor Ushka, City Manager Pauli, and Councilmembers,

My name is Jennifer Chernut, and I am a homeowner residing at the corner of 35th and Chandler in District 4.

Friday May 6th at 5:46 pm, I was sitting on my couch when my house was struck by five bullets during a rolling shootout. One of the bullets came through my ceiling near my daughter's bedroom, and another bullet was about eighteen inches away from blowing my brains out.

This all occurred in broad daylight when people are coming home from work and preparing to sit down with their families for dinner.

Luckily, my next-door neighbor to the left of me was not at home, as two bullets pierced through the drywall of his living room. My neighbors across the street had both of their cars struck as did my neighbor to the right of me. I thank God it was raining at the time because the neighbor's grandchildren would normally be outside playing before dinner and would have been directly in the line of fire. I believe forensics recovered twenty-five shell casings from this shootout.

The following evening on Saturday, May 7th, there were two homicides in Tacoma.

Tacoma is now at 20 homicides in 2022, more than Seattle, which has over three times our population. The city is on track to have the deadliest year in history. I graduated from high school in 1994 and can recall the violence that was present in our city. Sadly, I have a high school sophomore that now refuses to leave our home in fear of being shot due to the same level of violence.

Our city is failing our citizens. The incident that took place in my neighborhood was carried out by scumbags who have been emboldened by our government. The council, the city manager's office, our legislators, and court systems have allowed violence to perpetuate through do-nothing policies.

The cowards that shot up my house did so with ZERO regard for human life, and with NO fear of consequence.

Your lack of leadership has created an environment here in Tacoma that will breed vigilantism. By abdicating police power and empowering criminals, you are encouraging citizens to take matters into their own hands. We have recently seen examples of local vigilantism with grim results. Nonetheless, I will not live in fear and will defend myself, my family, and my home.

Your inaction on public safety has and will continue to cost lives. Our city needs proper policing and a City Manager and Council that empowers our Chief of Police and Law Enforcement to protect us. I implore you to give Chief Moore, his staff, and his pending Crime Reduction plan the support needed to have a fully staffed and empowered police force, proper response time, and a climate where criminals consider consequences instead of laughing at our institutions, our leaders, and our policies.

Who knows, next time it might be your home these bullets fly in front of while your children play in the front yard.

Respectfully,

Jennifer Chernut