



# Aqueous Film-Forming Foam Collection and Disposal Program: Final Programmatic Environmental Impact Statement

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## Appendix A.8: Environmental Justice Report

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# TABLE OF CONTENTS

1	INTRODUCTION.....	1-1
	1.1 Environmental Justice Description .....	1-1
	1.2 Regulatory Context .....	1-2
2	METHODOLOGY .....	2-1
	2.1 Study Area.....	2-1
	2.2 Technical Approach.....	2-1
	2.3 Impact Assessment Approach .....	2-2
3	TECHNICAL ANALYSIS AND RESULTS.....	3-1
	3.1 Overview .....	3-1
	3.2 Affected Populations .....	3-2
	3.2.1 Alternative 1: Approved Hold in Place.....	3-4
	3.2.2 Alternative 2: Incineration.....	3-5
	3.2.3 Alternative 3: Solidification and Landfilling.....	3-6
	3.2.4 Alternative 4: Class I Deep Well Injection.....	3-6
	3.2.5 Alternatives 2, 3, and 4: 10-Day Hold Facilities and Transportation Routes .....	3-7
	3.2.6 No Action Alternative .....	3-9
	3.2.7 Tribes .....	3-9
	3.2.8 Demographic Profiles for Participating Fire Stations and 10-Day Hold Facilities .....	3-11
	3.3 Project Impact Analysis .....	3-20
	3.3.1 Alternative 1: Approved Hold in Place.....	3-21
	3.3.2 Alternative 2: Incineration.....	3-22
	3.3.3 Alternative 3: Solidification and Landfilling.....	3-23
	3.3.4 Alternative 4: Class I Deep Well Injection.....	3-25
	3.3.5 Alternatives 2, 3, and 4: 10-Day Hold Facilities and Transportation Routes .....	3-26
	3.3.6 Alternative 5: No Action Alternative.....	3-27
	3.3.7 Proposed Mitigation Measures.....	3-28
	3.3.8 Significant and Unavoidable Adverse Impacts .....	3-28
4	OUTREACH .....	4-1
	4.1 Outreach Area .....	4-1
5	REFERENCES.....	5-1

# TABLES

Table S-1: Environmental Justice Alternatives Impact Summary.....	S-1
Table 3-1: Significant Impacts of Alternatives Identified by Resource Area .....	3-1
Table 3-2: Summary of Block Groups Meeting Thresholds for People of Color and Low-Income Households .....	3-4
Table 3-3: Summary of Block Groups within 0.25 Mile of Participating Fire Stations.....	3-4
Table 3-4: Demographic Profile of Block Groups within 10 Miles of Incineration Facilities .....	3-5
Table 3-5: Demographic Profile of Block Groups within 0.25 Mile of Landfills .....	3-6
Table 3-6: Demographic Profile of Block Groups within 0.25 Mile of Injection Sites.....	3-7
Table 3-7: Summary of Block Groups within 0.25 Mile of 10-Day Hold Facilities.....	3-8
Table 3-8: Vehicle Miles Traveled, 10-Day Hold Facilities and Treatment and Disposal Facilities (Single One-Way Trip).....	3-9
Table 3-9: Demographic Profile of Block Groups within 0.25 Mile of Participating Fire Stations .....	3-13
Table 3-10: Demographic Profile of Block Groups within 0.25 mile of 10-Day Hold Facilities.....	3-19
Table 3-11: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Participating Fire Stations .....	3-21
Table 3-12: Impacts to Communities of Color and Low-Income Communities within 10 Miles of Incineration Facilities.....	3-22
Table 3-13: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Landfill Facilities.....	3-24
Table 3-14: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Injection Sites.....	3-25
Table 3-15: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of 10-Day Hold Facilities and Transportation Routes .....	3-26
Table 4-1: Demographic Profile of Block Groups within 0.25 Mile of Participating Fire Stations in Washington State .....	4-1
Table 4-2: Demographic Profile of Block Groups within 10 Miles of Incineration Facilities .....	4-6
Table 4-3: Demographic Profile of Block Groups within 0.25 Mile of Landfills .....	4-6
Table 4-4: Demographic Profile of Block Groups within 0.25 Mile of Injection Sites.....	4-7
Table 4-5: Demographic Profile of Block Groups within 0.25 Mile of 10-Day Hold Facilities.....	4-7

# FIGURES

FIGURE A.8-1: Overview of Alternatives .....	2-3
FIGURE A.8-2: Potential AFFF Collection and Disposal Sites.....	3-3
FIGURE A.8-3: Tribal Lands Transecting Study Area .....	3-12

## ACRONYMS/GLOSSARY OF TERMS

Acronym or Abbreviation	Definition
AFFF	aqueous film-forming foam, aqueous firefighting foam
DAHP	Washington State Department of Archaeology and Historic Preservation
Ecology, we	Washington State Department of Ecology
EIS	environmental impact statement
NEPA	National Environmental Policy Act
PFAS	per- and polyfluoroalkyl substances
WSDOT	Washington State Department of Transportation

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# Summary

This environmental justice report provides a demographic analysis of the population in the Aqueous Film-Forming Foam (AFFF) Collection and Disposal Program Final Environmental Impact Statement (EIS) study area. It also describes potential disproportionate project impacts to people of color and low-income populations. Environmental justice is defined in Washington State as:

The fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing overburdened populations, the equitable distribution of resources and benefits, and eliminating harm.<sup>3</sup>

This report assesses demographics, including people of color, low-income populations, age, educational attainment, and limited English proficiency, around the alternatives proposed in the EIS. Impacts to potentially affected Tribes are described in Section 3.9: Tribal Resources of the EIS.

Based on the analysis in this report, we conclude that the proposed alternatives would not result in significant and unavoidable adverse impacts. However, this analysis shows that for Alternatives 2, 3, and 4, the locations of 10-day hold facilities are disproportionately located in communities of color or low-income communities.

Environmental justice impacts are summarized in Table S-1.

**Table S-1: Environmental Justice Alternatives Impact Summary**

Type Of Impact	Significant Adverse Impact Finding	Mitigation Proposed	Significant And Unavoidable Adverse Impact
Alternative 1: Approved Hold in Place	No	None	No
Alternative 2: Incineration	No	None	No
Alternative 3: Solidification and Landfilling	No	None	No
Alternative 4: Class I Deep Well Injection	No	None	No
No Action Alternative	No	None	No

**Table Note:**

Potential disproportionate impacts from the proposed project on communities of color and low-income populations were evaluated using findings from the EIS resource analyses. This evaluation found a disproportionately high percentage of 10-day hold facilities located in communities of color and low-income communities (see Section 3.2.5 in this report).

<sup>3</sup> Revised Code of Washington 70A.02.010. <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.02.010>

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# 1 INTRODUCTION

The Washington State Department of Ecology (Ecology, we) proposed the Aqueous Film-Forming Foam (AFFF) Collection and Disposal Program to help fire departments safely dispose of stockpiles of AFFF at little to no cost for participants. The Washington Legislature appropriated funds for this program because it recognized the threat AFFF and per- and polyfluoroalkyl substances (PFAS) pose to the state's environment and public health. The program is not specific to a particular site or location. Any Washington State municipal fire department storing AFFF may elect to participate.

This report provides an environmental justice analysis of potential environmental impacts from the proposed alternatives for collecting and disposing of AFFF. This report also includes an assessment of potential significant adverse and disproportionate impacts associated with the proposed alternatives and a no action alternative. Chapter 2 of the AFFF Collection and Disposal Program Final Environmental Impact Statement (EIS) includes a detailed description of the proposed alternatives and no action alternative.<sup>4</sup>

## 1.1 Environmental Justice Description

Environmental justice is defined in Washington as:

The fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing overburdened populations, the equitable distribution of resources and benefits, and eliminating harm.<sup>5</sup>

The purpose of this report is to determine whether communities of color and low-income populations are potentially affected by the proposed alternatives. In addition, this assessment further evaluates if these communities bear disproportionately high or adverse health or environmental impacts from proposed alternatives.

This report includes a demographic analysis of the population in the study areas and describes potential project impacts to communities of color and low-income populations. Since several of the alternatives potentially involve sites in other states, this report evaluated the potential impacts to communities in Washington State and those near out-of-state disposal locations.

This report also summarizes potential adverse impacts identified in the environmental resource and human health and safety sections of the EIS that may affect communities of color and low-income populations.

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<sup>4</sup> <https://apps.ecology.wa.gov/publications/SummaryPages/2404040.html>

<sup>5</sup> Revised Code of Washington 70A.02.010. <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.02.010>

The analysis of potential impacts to Tribes and cultural resources is summarized in Sections 3.8 and 3.9 of the final EIS.

## 1.2 Regulatory Context

The relevant state and federal statutes related to environmental justice and nondiscrimination include:

- ▶ **Executive Order 12898, Environmental Justice:** Directs federal agencies to make achieving environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.
- ▶ **Title VI of the Civil Rights Act of 1964 (U.S. Code 42.2000d), as amended by the Civil Rights Restoration Act of 1987:** Prohibits discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance.
- ▶ **Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency:** Requires federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency, and develop and implement a system to provide those services so persons with limited English proficiency can have meaningful access to them.
- ▶ **Washington State Office of the Chief Information Officer Policy 188:** Intended to assist the State of Washington in meeting its obligations under state and federal law to provide reasonable accommodation to employees and provide persons with disabilities an equal opportunity to participate in, and enjoy the benefits of, services, programs, or activities conducted by the state.
- ▶ **Washington State Executive Order 05-03:** Directs all state agencies to adopt the principles and practices of plain language (in other words, reader-friendly language).
- ▶ **Washington State Environmental Justice (Revised Code of Washington 70A.02):** Covered agencies must incorporate environmental justice into agency strategic plans and budget development processes, conduct environmental justice assessments, and report on environmental justice implementation progress of the statute.

## 2 METHODOLOGY

### 2.1 Study Area

The study area for this analysis captures populations that would be most likely to be impacted by the proposed actions. The sites evaluated include areas around fire stations, 10-day hold facilities, incineration facilities, landfills, and transportation routes.

The study areas, by alternative, include:

**Alternatives 1, 3, and 4:** Census block groups (for demographic data) within 0.25 mile of fire stations, 10-day hold facilities, landfills, and Class I wells, consistent with study areas established for other resources, as described in the final EIS.

**Alternative 2:** Census block groups within 10 miles around incineration sites to include locations downwind of the site. A 10-mile radius was used as a conservative radius to include downwind locations where PFAS would potentially be deposited (Martin et al. n.d.; NY DEC 2021).

**Transportation routes:** Addressed qualitatively, recognizing the small number of trips and low volume of PFAS to be transported.

#### Census Geographic Areas

**Census tracts** are subdivisions of a county that average about 4,000 people. Tracts are designed to be relatively homogeneous in population characteristics, economic status, and living conditions at the time they are established.

**Block groups** are subdivisions of a census tract that generally include 600 to 3,000 people.

(U.S. Census Bureau 2021a)

Figure A.8-1 identifies sites and transportation routes associated with the alternatives considered with the proposed program.

### 2.2 Technical Approach

Guidance on environmental justice technical analyses methods and demographic data were gathered from the following sources:

- ▶ U.S. Census Bureau 2018-2022 American Community Survey 5-year estimate data for race, individuals in households below twice the federal poverty level (low-income households), age, educational attainment, and limited English proficiency populations and percentages (U.S. Census 2024).
- ▶ *Environmental Justice: Guidance Under the National Environmental Policy Act (NEPA)* (Council on Environmental Quality 1997).
- ▶ *Promising Practices for Environmental Justice Methodologies in NEPA Reviews* (IWG 2016).
- ▶ *Final Guidance for Incorporating Environmental Justice Concerns in the U.S. Environmental Protection Agency's NEPA Compliance Analyses* (EPA 1998).

This report used the following method to identify communities of color or low-income populations within the study area and to inform the analysis. Data on people of color and populations in low-income households in the study area were compared to the population characteristics of the waste-receiving state. If the percentage of people of color or populations in low-income households within the block group in the study area exceeded the state average, the block group was identified as a community of color and/or a low-income population.

**Populations in Low-Income Households** are defined in this report as individuals who have household incomes at or below twice the poverty level in the past 12 months.

Populations in low-income households are identified using 2022 data from the U.S. Census Bureau. For this report, low-income is defined as an income at or below twice the federal poverty level. The 2022 federal poverty level for a four-person household (two adults and two children) was \$29,678 (U.S. Census Bureau 2023), with twice that level being \$59,356.

Community characteristics, including limited English proficiency, educational attainment, and age, were also gathered and used to inform the outreach approach for this EIS. This report does not analyze Tribal populations. Potential impacts to Tribal populations are described in-depth in the final EIS’s Section 3.9: Tribal Resources.

### 2.3 Impact Assessment Approach

Potential disproportionate impacts from the proposed alternatives on people of color and populations in low-income households were evaluated using findings from the various resource analyses sections in the final EIS. These analyses examined potentially significant impacts on the environment from the proposed alternatives, including the no action alternative.

For each of the alternatives, the EIS found no significant impacts to air quality; earth and water resources; aquatic resources; human health and safety; cultural, historical, and archaeological resources; and Tribal resources.



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### 3 TECHNICAL ANALYSIS AND RESULTS

#### 3.1 Overview

This section describes the population demographics within the study area (Section 3.2). It also discusses probable impacts to populations within the study area from Alternatives 1, 2, 3, 4, and the no action alternative. Facilities associated with alternatives, including 10-day hold facilities, incinerators, landfills, and deep well injection sites, are depicted in Figure A.8-2. When significant adverse impacts were identified for environmental elements, impacts were assessed for the potential to disproportionately affect communities of color and low-income populations.

This analysis also considered whether mitigation measures were needed to avoid, minimize, or reduce any identified impacts. Project impacts that could be mitigated are not anticipated to result in disproportionate impacts on communities of color or populations in low-income households. Potential adverse impacts and mitigation are also noted here where relevant.

Table 3-1 summarizes the significant impacts found for each of the alternatives. Specifically, the EIS found no significant impacts to air quality; earth and water resources; aquatic resources; human health and safety; cultural, historical, and archaeological resources; and Tribal resources.

**Table 3-1: Significant Impacts of Alternatives Identified by Resource Area**

	Significant impact(s) to resource area identified?					
	Air Quality (EIS Section 3.1)	Earth & Water (EIS Section 3.3)	Aquatic (EIS Section 3.4)	Human Health & Safety (EIS Section 3.7)	Cultural, Historical & Archaeological (EIS Section 3.8)	Tribal (EIS Section 3.9)
<b>Alternative 1: Approved Hold in Place</b>	No	No	No	No	No	No
<b>Alternative 2: Incineration</b>	No	No	No	No	No	No
<b>Alternative 3: Solidification and Landfilling</b>	No	No	No	No	No	No
<b>Alternative 4: Class I Deep Well Injection</b>	No	No	No	No	No	No
<b>Alternative 5: No Action</b>	No	No	No	No	No	No

## 3.2 Affected Populations

This analysis includes all potentially affected populations residing in areas that could be directly or indirectly affected by any of the proposed alternatives or the no action alternative. Study areas have been defined as the area within 0.25 mile of participating fire stations, 10-day hold facilities, landfills, and Class I deep well sites, and within 10 miles of incineration facilities.

Each of the five alternatives include fire stations holding AFFF across the State of Washington. Population density and land development vary widely across the communities with participating fire stations. Alternatives 1, 2, 3, and 4 include 10-day hold facilities across Washington and a singular site in Clackamas, Oregon. These facilities are adjacent to residential and/or industrial facilities throughout the region.

This report identifies communities of color in the study area based on the Census block group data. Race and ethnicity characteristics were compiled from the American Community Survey 2018 to 2022 5-year estimates for the block groups that intersect 0.25-mile buffers of facilities. The same information was compiled for Washington State for comparison and context.

**People of Color** are defined in this report as all people who identify in Census data as a race other than white alone and/or list their ethnicity as Hispanic or Latino.

For this analysis, a block group is identified as a “community of color” if the percentage of people of color within the block group is higher than the Washington State percentage. Washington State’s population is 34.5 percent people of color; thus, any study area block group with a population of more than 34.5 percent people of color is identified in this report as a community of color.

A block group is identified as a “low-income” if the percentage of low-income people is above the Washington State percentage. Washington State is 23.0 percent low income; thus, any block group within the study area that is greater than 23.0 percent low-income is identified as a low-income population.

Table 3-2 summarizes the relationship between block groups and relevant thresholds.





**Table 3-2: Summary of Block Groups Meeting Thresholds for People of Color and Low-Income Households**

Criteria	Unique Block Groups Meeting Thresholds		
	Total (Statewide)	Participating Fire Stations	10-Day Hold Facilities
Number of block groups	5,311	201	34
People of color <sup>a</sup>	34.5%	—	—
Percentage of block groups with 50% or more people of color	21.1%	20.4%	47.1%
Percentage of block groups exceeding state average for people of color	40.1%	36.3%	64.7%
Populations in low-income households <sup>b</sup>	23.0 %	—	—
Percentage of block groups exceeding state average for low-income households	42.5%	45.8%	70.6%

**Table Notes:**

<sup>a</sup> Statewide, the percentage of people of color by county range from 10.5 percent in Lincoln County to 68.1 percent in Adams County.

<sup>b</sup> Statewide, the percentage of populations in low-income households ranges from 6.8 percent in Island County to 23.9 percent in Whitman County.

Source: US Census Bureau, American Community Survey, 2018 – 2022

### 3.2.1 Alternative 1: Approved Hold in Place

Under this alternative, AFFF would be held in place at participating fire stations indefinitely until acceptable advanced treatment technology becomes available. In total, 112 fire stations were reviewed in 201 unique block groups. These Census block groups were evaluated to determine communities of color and low-income populations. Data from this evaluation are included in Table 3-3 below, with data by block groups and fire stations presented in Table 3-9 (at end of Section 3.2).

**Table 3-3: Summary of Block Groups within 0.25 Mile of Participating Fire Stations**

Location	People of Color	Community of Color Block Groups	Low-Income Block Groups
State of Washington	34.5%	2,130 (40.1%)	2,259 (42.5%)
Study Area (block groups around participating fire stations)	33.6%	73 (36.3%)	92 (45.8%)

As shown in Table 3-3, the demographic profile of the study area for the participating fire stations is similar to that of the state of Washington. The study area block groups identified as communities of color are similar to the state average, and block groups identified as low-income are just over 3 percent above the state average.

The participating fire stations, in total, do not appear to be disproportionately located in or near communities of color or low-income block groups, but may be overrepresented in or near low-income areas. Therefore, no disproportionate impacts are anticipated from Alternative 1 on communities of color, and there are potential disproportionate impacts on low-income populations.

### 3.2.2 Alternative 2: Incineration

Under Alternative 2, containers of liquid and solid AFFF materials would be transported to one of two incineration facilities owned and operated by Clean Harbors. Clean Harbors Aragonite Incineration Facility is a hazardous waste disposal facility located outside the abandoned desert town of Aragonite, approximately 25 miles west of the Great Salt Lake in western Utah. The facility is bordered on the north, east, and south by national lands managed by the Bureau of Land Management for multiple uses, including extractive uses such as mining or logging. Clean Harbors Kimball Incineration Facility is an industrial waste storage and treatment facility located 5 miles south of Interstate 80 on Highway 71 in Kimball County, Nebraska.

Table 3-4 includes demographics in the vicinity of the two facilities. Block groups within 10 miles were analyzed. Block groups that contain the boundaries of the facility are identified in Table 3-4 with an asterisk (\*). Cells highlighted in blue and marked with a double dagger symbol (‡) meet the criteria for communities of color or low-income communities.

**Table 3-4: Demographic Profile of Block Groups within 10 Miles of Incineration Facilities**

Facility/Location	Location	Total Population	People of Color	Population in Low-Income Households
Clean Harbors Kimball, Nebraska	<b>Block Group 1, Tract 9545*</b>	1,026	124 (12.1%)	380 (37.0%)‡
	Block Group 2, Tract 9545	878	159 (18.1%)	327 (37.2%)‡
	Block Group 3, Tract 9545	565	82 (14.5%)	191 (35.4%)‡
	Block Group 4, Tract 9545	926	185 (20.0%)	330 (37.7%)‡
State of Nebraska	all	1,958,939	448,597 (22.9%)	509,567 (26.7%)‡
Clean Harbors Aragonite, Utah	<b>Block Group 2, Tract 1306*</b>	1,499	857 (57.2%)‡	704 (47.0%)‡
State of Utah	all	3,283,809	761,844 (23.2%)	773,081 (23.9%)

**Table Notes:**

\* Block groups that fully contain the boundaries of the facility.

‡ Meets or exceeds criteria for communities of color or low-income communities.

Source: U.S. Census Bureau 2024

As shown in Table 3-4, the Clean Harbors Kimball incineration facility is located in or near a block group identified as a low-income community. The Clean Harbors Aragonite facility is located in a block group identified as a community of color and a low-income community.

### 3.2.3 Alternative 3: Solidification and Landfilling

AFFF would be collected and transported to Resource Conservation and Recovery Act–permitted hazardous waste landfills or facilities for solidification and disposal. There are two solidification and landfilling sites proposed for Alternative 3: Beatty, Nevada, and Grand View, Idaho. Containers would also be buried.

Both solidification and landfilling sites were reviewed to determine if they were located in block groups considered communities of color and low-income populations. Data from this evaluation are included in Table 3-5 below.

Table 3-5 includes demographics within 0.25 miles of the proposed landfill locations. Block groups within 0.25 miles were analyzed. Cells highlighted in blue and marked with a double dagger (‡) meet the criteria for communities of color or low-income communities.

**Table 3-5: Demographic Profile of Block Groups within 0.25 Mile of Landfills**

Facility/ Location	Block Group	Total Population	People of Color	Population in Low- Income Households
US Ecology Idaho	Block Group 2, Tract 9502	1,066	208 (19.5%)	299 (28.2%)
State of Idaho	all	1,854,109	368,968 (19.9%)	550,077 (30.5%)
US Ecology Nevada	Block Group 1, Tract 9603	1,825	586 (32.1%)	952 (52.2%)‡
State of Nevada	all	3,104,817	1,664,182 (53.6%)	943,087 (30.8%)

**Table note:**

‡ Meets or exceeds criteria for communities of color or low-income communities.

As shown in Table 3-5, the demographics of the population in the vicinity of US Ecology Idaho are below the state average. However, US Ecology Nevada is located in or near a block group identified as a low-income community. This analysis also shows that 10-day hold facilities are disproportionately located near communities of color or low-income communities.

### 3.2.4 Alternative 4: Class I Deep Well Injection

AFFF would be collected and transported to a selected Class I deep well injection facility or facilities for disposal. Under this alternative, liquid AFFF would be collected and transported to injection sites operated by US Ecology in Winnie, Texas, or Advantek Cavern Solutions in Hutchinson, Kansas.

Both deep well injection site locations were reviewed to determine if they were adjacent to communities of color and low-income populations. Data from this evaluation are included in Table 3-6 below.

Table 3-6 includes demographics within 0.25 miles of the proposed deep-well injection sites. Block groups within 0.25 miles were analyzed. Cells highlighted in blue or marked with a double dagger (‡) meet the criteria for communities of color or low-income communities.

**Table 3-6: Demographic Profile of Block Groups within 0.25 Mile of Injection Sites**

Facility/ Location	Block Group	Total Population	People of Color	Population in Low-Income Households
Advantek Cavern Solutions, Kansas	Block Group 3, Tract 14	1,731	49 (2.8%)	237 (13.7%)
State of Kansas	—	2,935,922	757,468 (25.8%)	805,722 (28.3%)
US Ecology Winnie, Texas	Block Group 1, Tract 116	1,279	299 (23.4%)	283 (22.4%)
State of Texas	—	29,243,342	17,516,762 (59.9%)	9,219,804 (32.2%)

As shown in Table 3-6, neither of the injection site facilities were located in or near a community of color or a low-income community. The demographics for people of color and low-income populations in the vicinity of deep well injection sites are below that of their respective states.

### 3.2.5 Alternatives 2, 3, and 4: 10-Day Hold Facilities and Transportation Routes

Alternatives 2, 3, and 4 involve the collection, transportation, incineration and/or disposal at injection or landfill sites in Washington State and several other states. Under these alternatives, AFFF may be collected into centralized storage sites and stored for up to 10 days.

#### 3.2.5.1 10-Day Hold Facilities

There are 34 block groups within 0.25 mile of participating 10-day hold facilities. These Census block groups were evaluated to determine if they were communities of color and low-income populations. Data from this evaluation are summarized in Table 3-7 below, with detailed data in Table 3-10.

**Table 3-7: Summary of Block Groups within 0.25 Mile of 10-Day Hold Facilities**

Location	People of Color	Community of Color Block Groups	Population in Low-Income Households	Low-Income Block Groups
Study area (block groups around 10-day hold facilities)	56.1%	22 (64.7%)	37.2%	24 (70.6%)
State of Washington	34.5%	2,130 (40.1%)	23.0%	2,259 (42.5%)

**Table Note:**

Source: U.S. Census Bureau 2024

As shown in Table 3-7, 10-day hold facilities are identified as being disproportionately located in or near communities of color or low-income communities.

**3.2.5.2 Transportation Routes**

States<sup>6</sup> that are part of the proposed transportation routes include:

- ▶ Colorado
- ▶ Idaho
- ▶ Illinois
- ▶ Kansas
- ▶ Montana
- ▶ Nebraska
- ▶ Nevada
- ▶ Oklahoma
- ▶ Oregon
- ▶ Texas
- ▶ Utah
- ▶ Washington
- ▶ Wyoming

Transportation routes for each alternative are detailed in Section 3.10: Transportation and Truck Safety. The number of vehicle miles traveled required for a single one-way trip are detailed in Table 3-8 below for rural and urban roads with unrestricted and restricted access. Specific block groups were not analyzed along the transportation routes because it’s assumed the transported materials would be in these areas for a minimal amount of time.

<sup>6</sup> Except for Colorado, Idaho, Nebraska, Illinois, Oregon, Utah, and Wyoming, all the states have exclusively adopted the federal regulations governing transportation of hazardous materials and waste.

**Table 3-8: Vehicle Miles Traveled, 10-Day Hold Facilities and Treatment and Disposal Facilities (Single One-Way Trip)**

Road Type	10-Day Hold Facilities	Incineration Facility		Landfill		Deep Well Injection	
		Kimball	Aragonite	US Ecology Nevada	US Ecology Idaho	Advantek Cavern Solutions	US Ecology Winnie
Rural Restricted Access	0	1,052.4	131.5	495.9	233.7	1,465.0	1,515.6
Rural Unrestricted Access	0	4.6	512.3	312.4	55.9	144.2	756.6
Urban Restricted Access	0	0	0	0	0	0	0
Urban Unrestricted Access	1,050	0.7	8.1	7.2	7.8	0.7	0.7
<b>Total</b>	<b>1,050</b>	<b>1,057.7</b>	<b>651.9</b>	<b>815.5</b>	<b>297.4</b>	<b>1,609.9</b>	<b>2,272.9</b>

**Table note:**

Data are vehicle miles traveled for a single one-way trip.

### 3.2.6 No Action Alternative

Under the no action alternative, AFFF would be left at participating fire stations. Fire departments would continue to use, store, and dispose of their supply of commercial-use AFFF in their individually selected manner without state support. The environmental justice analysis found no anticipated or identified disproportionate impacts on communities of color or low-income populations.

### 3.2.7 Tribes

A number of Tribal reservations overlap the study area. Fire stations and/or 10-day hold facility are located in Tribal reservations, including the following:

- ▶ Lower Elwha S’Klallam Tribe
- ▶ Lummi Nation
- ▶ Muckleshoot Indian Tribe
- ▶ Nisqually Indian Tribe
- ▶ Nooksack Indian Tribe
- ▶ Port Gamble S’Klallam Tribe
- ▶ Suquamish Tribe
- ▶ Puyallup Tribe
- ▶ Quinault Indian Nation
- ▶ Samish Indian Nation
- ▶ Skokomish Indian Tribe
- ▶ Squaxin Island Tribe
- ▶ Tulalip Tribes
- ▶ Upper Skagit Indian Tribe
- ▶ Confederated Tribes and Bands of the Yakama Nation

The following transportation routes cross Tribal reservations:

- ▶ **Fire stations to the 10-day hold facilities:** Lummi Nation, Puyallup Tribe, Samish Indian Nation, Tulalip Tribes, and Yakama Nation.
- ▶ **Route to US Ecology Nevada (Beatty) Landfill:** Fort McDermitt Paiute-Shoshone Tribe, and Confederated Tribes of the Umatilla Indian Reservation.
- ▶ **Route to Clean Harbors Aragonite Utah Incineration Facility:** Confederated Tribes of the Umatilla Indian Reservation.
- ▶ **Route to Clean Harbors Kimball Nebraska Incineration Facility:** Crow Nation.
- ▶ **Route to US Ecology Idaho (Grand View) Landfill:** Confederated Tribes of the Umatilla Indian Reservation.
- ▶ **Route to Advantek Hutchinson, Kansas Deep Well Injection:** Crow Nation.
- ▶ **Route to US Ecology Winnie, Texas Deep Well Injection:** Chickasaw Nation, Crow Nation, Kaw Nation, and Tonkawa Tribe of Indians of Oklahoma.

Culturally important uses include hunting, traditional gathering, camping, traditional Tribal rituals and ceremonies, and other traditional practices. Tribal lands are mapped in Figure A.8-3.

Federally recognized Tribes have been and will continue to be invited to provide guidance and comments on the proposed project. The following tribes have been contacted regarding the AFFF EIS:

- |   |                               |
|---|-------------------------------|
| ▶ Coeur d'Alene Tribe                             | ▶ Lummi Nation                |
| ▶ Confederated Tribes of the Chehalis Reservation | ▶ Makah Tribe                 |
| ▶ Confederated Tribes of the Colville Reservation | ▶ Muckleshoot Indian Tribe    |
| ▶ Confederated Tribes of Warm Springs             | ▶ Nez Perce Tribe             |
| ▶ Cowlitz Indian Tribe                            | ▶ Nisqually Indian Tribe      |
| ▶ Hoh Indian Tribe                                | ▶ Nooksack Indian Tribe       |
| ▶ Jamestown S'Klallam Tribe                       | ▶ Port Gamble S'Klallam Tribe |
| ▶ Kalispel Tribe of Indians                       | ▶ Puyallup Tribe              |
| ▶ Lower Elwha S'Klallam Tribe                     | ▶ Quileute Tribe              |
|   | ▶ Quinault Indian Nation      |

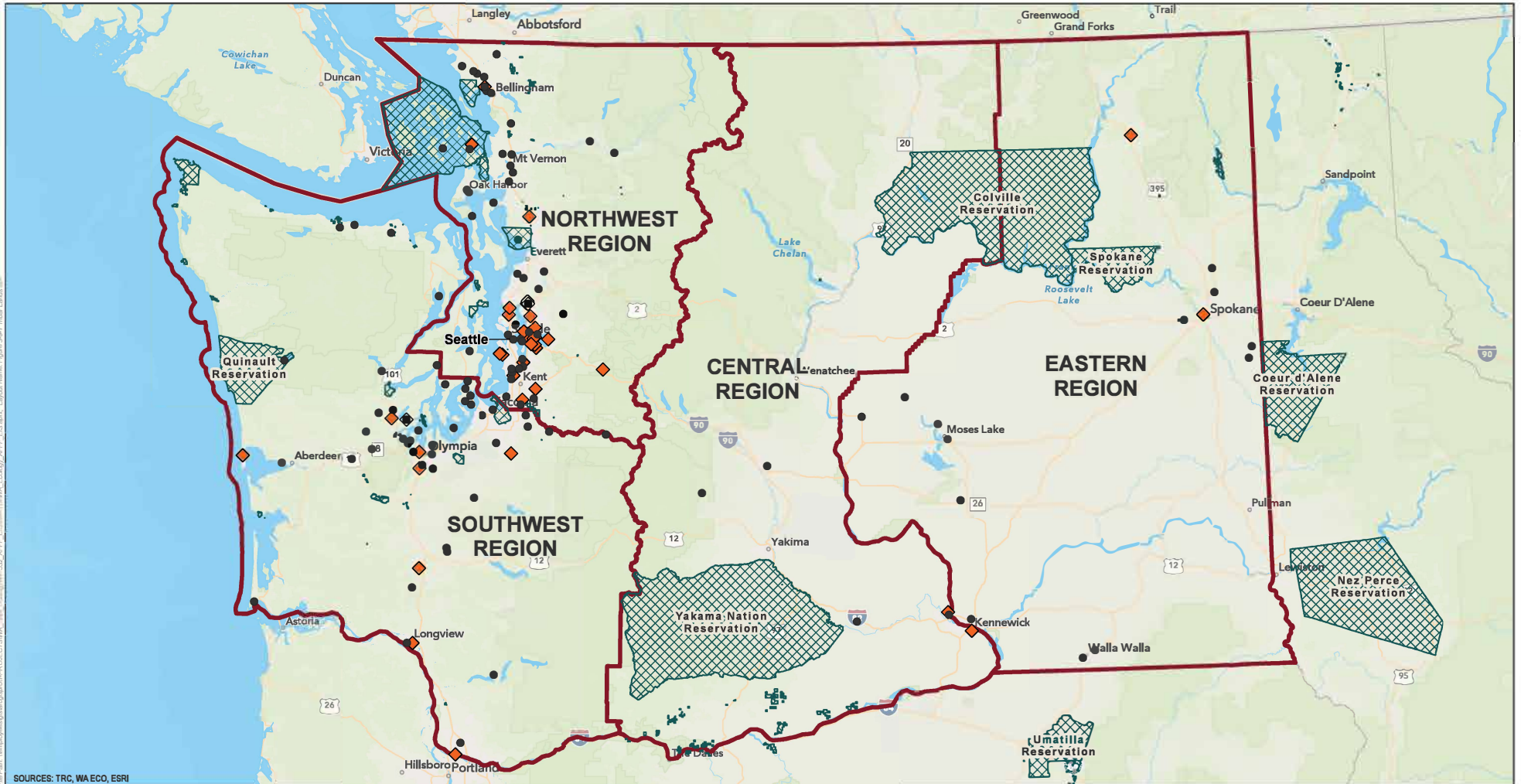


- ▶ Samish Indian Nation
- ▶ Sauk-Suiattle Indian Tribe
- ▶ Shoalwater Bay Indian Tribe
- ▶ Skokomish Indian Tribe
- ▶ Snoqualmie Indian Tribe
- ▶ Spokane Tribe of Indians
- ▶ Squaxin Island Tribe
- ▶ Stillaguamish Tribe of Indians
- ▶ Suquamish Tribe
- ▶ Swinomish Indian Tribal Community
- ▶ Tulalip Tribes
- ▶ Upper Skagit Indian Tribe
- ▶ Yakama Tribal Council

The proposed project would not likely result in any significant adverse impacts on Tribal resources. Impacts to Tribes and Tribal resources are described in Section 3.8: Cultural, Historical, and Archeology Resources and Section 3.9: Tribal Resources of the final EIS.

### **3.2.8 Demographic Profiles for Participating Fire Stations and 10-Day Hold Facilities**


In total, 112 fire stations were reviewed in 201 unique block groups to determine communities of color and low-income populations. Data by block groups and fire stations are presented in Table 3-9. Cells highlighted in blue and marked with a double dagger symbol (‡) meet the criteria for communities of color or low-income communities.



SOURCES: TRC, WA ECO, ESRI

- LEGEND**
- FIRE STATION STORING AFFF
  - ◆ REPORTED AFFF SPILL INCIDENTS
  - ▭ ECOLOGY REGIONS
  - ▨ TRIBAL LANDS

**FIGURE A.8-3: TRIBAL LANDS TRANSECTING STUDY AREA  
AFFF COLLECTION AND DISPOSAL PROGRAM  
FINAL ENVIRONMENTAL IMPACT STATEMENT**

  
 1:2,000,000  
 1" = 32 MILES  
 0 25 50 MILES



08/2023 WA AFFF Collection and Disposal Program Final EIS  
 Figure A.8-3: Tribal Lands Transsecting Study Area AFFF Collection and Disposal Program Final EIS  
 File Path: \\nrs01\apps\ecology\GIS\Projects\AFFF\AFFF-Final-EIS\Map\_Series\_Layered\Map\_Series\_Layered\_3-8-1\_Tribal\_Lands.aprx

**Table 3-9: Demographic Profile of Block Groups within 0.25 Mile of Participating Fire Stations**

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
Adams	Adams County Fire District 5	Block Group 2, Tract 9504	2,186	1,773 (81.1%)‡	1,091 (50.8%)‡
		Block Group 2, Tract 9505	2,032	1,867 (91.9%)‡	1,285 (63.8%)‡
		Block Group 3, Tract 9505	475	360 (75.8%)‡	340 (71.6%)‡
Benton	Richland Fire & Emergency Services	Block Group 1, Tract 101	2,363	355 (15.0%)	265 (11.3%)
		Block Group 1, Tract 105	1,585	667 (42.1%)‡	511 (32.8%)‡
		Block Group 2, Tract 105	1,776	317 (17.8%)	462 (26.3%)‡
Clallam	City of Port Angeles Fire Department	Block Group 1, Tract 9	1,181	100 (8.5%)	629 (53.3%)‡
	Clallam 2 Fire-Rescue	Block Group 2, Tract 10	1,334	267 (20.0%)	417 (31.3%)‡
		Block Group 2, Tract 15	1,194	601 (50.3%)‡	327 (27.9%)‡
Clark	Vancouver Fire Department (Multiple)	Block Group 1, Tract 411.07	1,677	236 (14.1%)	205 (12.4%)
		Block Group 2, Tract 411.05	1,507	283 (18.8%)	325 (21.6%)
		Block Group 2, Tract 411.07	1,471	543 (36.9%)‡	316 (21.5%)
Cowlitz	Cowlitz-Skamania Fire District #7	Block Group 1, Tract 15.01	1,339	133 (9.9%)	256 (19.5%)
	Solvay Chemicals, Inc.	Block Group 1, Tract 9800	559	170 (30.4%)	262 (46.9%)‡
Franklin	Pasco Fire Department - Airport Station	Block Group 1, Tract 9801	-	00 (NA)	NA (NA)
		Block Group 2, Tract 203	1,563	1,079 (69.0%)‡	849 (56.3%)‡
Grant	Cowlitz County Fire District 6	Block Group 1, Tract 104.01	1,506	240 (15.9%)	628 (41.7%)‡
		Block Group 2, Tract 104.01	1,860	508 (27.3%)	646 (35.8%)‡
		Block Group 2, Tract 104.02	2,129	909 (42.7%)‡	941 (44.2%)‡
	Grant County Fire District #3	Block Group 1, Tract 106	2,146	1,395 (65.0%)‡	247 (11.6%)
		Block Group 2, Tract 106	1,426	1,287 (90.3%)‡	620 (43.5%)‡
	Grant County Fire District #5	Block Group 2, Tract 110.02	2,182	840 (38.5%)‡	1,274 (61.6%)‡
		Block Group 3, Tract 110.02	3,166	986 (31.1%)	374 (11.8%)
Port Of Moses Lake Fire Department	Block Group 1, Tract 108	2,199	1,378 (62.7%)‡	975 (48.7%)‡	
Grays Harbor	City of Elma	Block Group 1, Tract 5.02	1,148	130 (11.3%)	342 (29.8%)‡
		Block Group 2, Tract 5.02	880	215 (24.4%)	230 (26.1%)‡
	Grays Harbor Fire District #4-Lake Quinault VFD	Block Group 1, Tract 9400	1,059	916 (86.5%)‡	494 (46.9%)‡
	Hoquiam Fire Dept.	Block Group 1, Tract 15	1,191	208 (17.5%)	528 (44.3%)‡
		Block Group 2, Tract 6	1,347	314 (23.3%)	474 (35.5%)‡
McCleary Fire/GHFD#12	Block Group 3, Tract 6	1,661	353 (21.3%)	143 (8.6%)	
	Camano Island Fire	Block Group 1, Tract 9715	1,373	31 (2.3%)	64 (4.7%)
Block Group 2, Tract 9715		973	136 (14.0%)	42 (4.3%)	
Block Group 3, Tract 9715		1,444	188 (13.0%)	252 (17.5%)	
Island	Central Whidbey Fire & Rescue	Block Group 2, Tract 9711	1,362	175 (12.8%)	204 (15.0%)

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
	Oak Harbor Fire Department	Block Group 1, Tract 9707	969	428 (44.2%)‡	239 (24.7%)‡
	Oak Harbor Fire Dept-Oak Harbor Marina	Block Group 1, Tract 9709	1,053	448 (42.5%)‡	266 (25.3%)‡
		Block Group 4, Tract 9709	505	89 (17.6%)	62 (12.3%)
Jefferson	F/V Karolee	Block Group 2, Tract 9502.02	1,304	202 (15.5%)	332 (25.5%)‡
King	Bothell Fire Department	Block Group 2, Tract 218.04	1,085	426 (39.3%)‡	220 (20.8%)
		Block Group 3, Tract 218.04	1,494	426 (28.5%)	154 (10.3%)
		Block Group 4, Tract 218.04	1,490	694 (46.6%)‡	554 (41.7%)‡
	City of Bellevue Fire Department	Block Group 1, Tract 237.02	1,003	780 (77.8%)	163 (16.3%)
	City of Bellevue Fire Department-Station 3	Block Group 1, Tract 232.02	1,924	910 (47.3%)‡	677 (35.2%)‡
		Block Group 2, Tract 232.02	1,453	759 (52.2%)‡	86 (5.9%)
		Block Group 3, Tract 232.02	1,745	1,334 (76.4%)‡	1,121 (64.2%)‡
	Duvall King County Fire District 45-Station 69	Block Group 4, Tract 324.01	1,007	256 (25.4%)	18 (1.8%)
		Block Group 4, Tract 324.02	1,801	406 (22.5%)	186 (10.3%)
	King County Fire District 20	Block Group 2, Tract 260.01	1,309	898 (68.6%)‡	157 (12.0%)
		Block Group 3, Tract 260.01	1,563	1,233 (78.9%)‡	370 (23.7%)‡
		Block Group 3, Tract 260.04	1,568	926 (59.1%)‡	65 (4.1%)
	Mercer Island Fire Department	Block Group 2, Tract 243.01	1,750	557 (31.8%)	313 (18.3%)
		Block Group 3, Tract 243.01	1,213	602 (49.6%)	228 (18.8%)
	Mountain View Fire and Rescue	Block Group 2, Tract 312.04	1,405	398 (28.3%)	29 (2.1%)
		Block Group 2, Tract 312.04	1,405	398 (28.3%)	29 (2.1%)
	Port of Seattle Fire Department	Block Group 4, Tract 284.02	1,710	1,412 (82.6%)‡	718 (42.0%)‡
	Renton Regional Fire Authority	Block Group 1, Tract 262	441	279 (63.3%)‡	147 (33.3%)‡
		Block Group 2, Tract 302.01	905	642 (70.9%)‡	112 (12.4%)
		Block Group 2, Tract 302.03	1,411	768 (54.4%)‡	332 (23.7%)‡
	S. King Fire & Rescue	Block Group 3, Tract 302.03	921	616 (66.9%)‡	382 (41.5%)‡
		Block Group 2, Tract 288.01	1,786	990 (55.4%)‡	194 (16.8%)
		Block Group 4, Tract 284.02	1,710	1,412 (82.6%)‡	718 (42.0%)‡
	SeaTac Airport Fuel Facility	Block Group 1, Tract 42.02	1,525	279 (18.3%)	55 (3.6%)
		Block Group 2, Tract 41.02	1,251	337 (26.9%)	149 (12.4%)
		Block Group 2, Tract 42.01	900	334 (37.1%)‡	118 (13.1%)
	Seattle Children's Hospital	Block Group 3, Tract 41.01	1,180	386 (32.7%)	206 (18.2%)
		Block Group 1, Tract 289.01	1,719	945 (55.0%)‡	258 (15.0%)
		Block Group 4, Tract 289.02	1,643	1,333 (81.1%)‡	986 (60.0%)‡
	South King Fire and Rescue - Station 67	Block Group 5, Tract 289.02	1,122	780 (69.5%)‡	339 (30.2%)‡
Block Group 1, Tract 262		441	279 (63.3%)‡	147 (33.3%)‡	
Tukwila Fire Department	Block Group 1, Tract 308.01	1,774	1,483 (83.6%)‡	446 (25.1%)‡	
Valley Regional Fire Authority	Block Group 1, Tract 308.01	1,774	1,483 (83.6%)‡	446 (25.1%)‡	
	Block Group 1, Tract 243.01	1,743	432 (24.8%)	121 (7.1%)	
WSDOT					

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
		Block Group 1, Tract 89	1,578	271 (17.2%)	49 (3.1%)
		Block Group 1, Tract 95	1,380	487 (35.3%)‡	97 (7.0%)
		Block Group 2, Tract 243.02	1,759	362 (20.6%)	240 (13.6%)
		Block Group 2, Tract 89	1,328	818 (61.6%)‡	96 (7.2%)
		Block Group 2, Tract 95	1,687	860 (51.0%)‡	136 (8.1%)
		Block Group 3, Tract 243.02	1,073	354 (33.0%)	00 (0.0%)
	WSDOT-Seattle Convention Center	Block Group 1, Tract 73.02	1,344	906 (67.4%)‡	148 (11.0%)
		Block Group 1, Tract 82	1,740	933 (53.6%)‡	322 (18.5%)
		Block Group 2, Tract 73.02	1,974	1,415 (71.7%)‡	447 (22.6%)
		Block Group 2, Tract 83	1,612	704 (43.7%)‡	429 (28.3%)‡
Kitsap	South Kitsap Fire Rescue	Block Group 1, Tract 924	1,486	402 (27.1%)	324 (22.0%)
		Block Group 2, Tract 924	1,770	668 (37.7%)‡	202 (11.4%)
Kittitas	Kittitas County Fire District #2	Block Group 1, Tract 9754.02	1,917	490 (25.6%)	526 (28.5%)‡
		Block Group 1, Tract 9754.03	1,252	398 (31.8%)	476 (38.4%)‡
Lewis	Cowlitz-Lewis Fire District #20	Block Group 2, Tract 9716	942	187 (19.9%)	182 (19.3%)
		Block Group 3, Tract 9716	2,378	319 (13.4%)	715 (30.1%)‡
	Lewis County Fire District #1	Block Group 1, Tract 9712	2,205	546 (24.8%)	854 (38.7%)‡
		Block Group 3, Tract 9711	1,363	297 (21.8%)	406 (29.8%)‡
		Block Group 3, Tract 9711	1,363	297 (21.8%)	406 (29.8%)‡
Mason	Mason County Fire District #13	Block Group 2, Tract 9613	1,251	353 (28.2%)	349 (27.9%)‡
		Block Group 3, Tract 9602.02	833	11 (1.3%)	307 (36.9%)‡
	Mason County Fire District 11	Block Group 1, Tract 9606	950	353 (37.2%)‡	133 (29.6%)‡
		Block Group 2, Tract 9606	2,366	413 (17.5%)	765 (32.3%)‡
	Mason County Fire District 4	Block Group 3, Tract 9610	1,252	250 (20.0%)	218 (17.5%)
	MCFD 18	Block Group 1, Tract 9602.01	1,709	146 (8.5%)	451 (26.4%)‡
		Block Group 2, Tract 9601	472	19 (4.0%)	113 (23.9%)‡
	North Mason RFA	Block Group 1, Tract 9604.01	2,142	482 (22.5%)	463 (24.7%)‡
West Mason Fire Mason County	Block Group 1, Tract 9606	950	353 (37.2%)‡	133 (29.6%)‡	
	Block Group 4, Tract 9602.02	902	255 (28.3%)	291 (32.3%)‡	
Pacific	Ilwaco Fire Department	Block Group 1, Tract 9505.02	491	54 (11.0%)	172 (37.1%)‡
		Block Group 2, Tract 9505.02	448	163 (36.4%)‡	215 (48.0%)‡
		Block Group 3, Tract 9505.01	1,127	272 (24.1%)	299 (26.6%)‡
Pierce	Central Pierce Fire & Rescue	Block Group 1, Tract 714.12	1,352	427 (31.6%)	55 (4.1%)
		Block Group 2, Tract 714.17	4,593	2,663 (58.0%)‡	999 (22.0%)
		Block Group 3, Tract 714.09	2,034	971 (47.7%)‡	1,014 (49.9%)‡
		Block Group 3, Tract 714.12	1,150	587 (51.0%)‡	52 (4.5%)
	City of Buckley Fire Dept	Block Group 2, Tract 702.07	1,571	239 (15.2%)	271 (17.3%)

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
Pierce	East Pierce Fire	Block Group 2, Tract 703.08	1,409	182 (12.9%)	170 (12.1%)
		Block Group 3, Tract 703.08	1,260	324 (25.7%)	164 (13.0%)
	East Pierce Fire and Rescue - Station 192	Block Group 1, Tract 703.14	1,873	616 (32.9%)	70 (3.7%)
		Block Group 2, Tract 703.14	1,300	255 (19.6%)	125 (9.6%)
	McNeil Island Fire Dept	Block Group 3, Tract 726.03	1,621	263 (16.2%)	580 (35.8%)‡
	Pierce County Fire District 16	Block Group 1, Tract 726.01	1,189	247 (20.8%)	104 (8.7%)
		Block Group 2, Tract 726.01	1,729	368 (21.3%)	54 (3.2%)
		Block Group 3, Tract 726.01	1,077	64 (5.9%)	134 (12.9%)
	Pierce County Fire District 26 (Greenwater)	Block Group 1, Tract 701	1,275	215 (16.9%)	239 (18.7%)
	Pierce County Fire District 5	Block Group 1, Tract 724.09	1,426	230 (16.1%)	160 (11.2%)
		Block Group 1, Tract 725.04	1,341	560 (41.8%)‡	34 (6.6%)
		Block Group 1, Tract 725.04	1,341	560 (41.8%)‡	34 (6.6%)
		Block Group 1, Tract 725.08	1,226	295 (24.1%)	181 (14.8%)
		Block Group 1, Tract 725.08	1,226	295 (24.1%)	181 (14.8%)
		Block Group 2, Tract 725.04	1,512	97 (6.4%)	109 (7.2%)
		Block Group 2, Tract 725.04	1,512	97 (6.4%)	109 (7.2%)
		Block Group 2, Tract 725.08	1,187	152 (12.8%)	38 (3.2%)
		Block Group 2, Tract 725.08	1,187	152 (12.8%)	38 (3.2%)
		Block Group 4, Tract 724.06	1,911	562 (29.4%)	41 (2.1%)
	Pierce County Fire District 5-Station 51	Block Group 1, Tract 724.07	1,906	371 (19.5%)	333 (17.7%)
	Pierce County Fire District 5-Station 51	Block Group 3, Tract 725.07	1,195	176 (14.7%)	209 (17.5%)
	Pierce County Fire District 5-Station 52	Block Group 2, Tract 724.08	2,100	258 (12.3%)	106 (5.3%)
		Block Group 3, Tract 724.08	1,222	346 (28.3%)	126 (10.3%)
		Block Group 4, Tract 724.08	1,729	415 (24.0%)	64 (3.7%)
	Pierce County Fire District 5-Station 58	Block Group 1, Tract 725.04	1,341	560 (41.8%)	34 (6.6%)
		Block Group 1, Tract 725.04	1,341	560 (41.8%)	34 (6.6%)
		Block Group 1, Tract 725.08	1,226	295 (24.1%)	181 (14.8%)
		Block Group 1, Tract 725.08	1,226	295 (24.1%)	181 (14.8%)
		Block Group 2, Tract 725.04	1,512	97 (6.4%)	109 (7.2%)
		Block Group 2, Tract 725.04	1,512	97 (6.4%)	109 (7.2%)
		Block Group 2, Tract 725.08	1,187	152 (12.8%)	38 (3.2%)
		Block Group 2, Tract 725.08	1,187	152 (12.8%)	38 (3.2%)
	Tacoma Fire District Vehicle Maintenance Shop	Block Group 3, Tract 628.01	1,377	955 (69.4%)‡	677 (49.2%)‡
Block Group 4, Tract 628.01		1,995	973 (48.8%)‡	1,038 (55.7%)‡	
Block Group 4, Tract 723.05		1,095	313 (28.6%)	196 (17.9%)	
Tacoma Fire Department, Station 6	Block Group 1, Tract 602	1,792	817 (45.6%)‡	720 (42.8%)‡	
San Juan	Center Island Volunteer Fire Department	Block Group 1, Tract 9605.02	1,657	152 (9.2%)	485 (29.4%)‡

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
Skagit	Anacortes Fire Department - Public Works	Block Group 1, Tract 9404.01	2,429	278 (11.4%)	235 (9.7%)
		Block Group 2, Tract 9404.01	910	169 (18.6%)	91 (10.1%)
	Burlington Fire Dept.	Block Group 1, Tract 9518	1,910	890 (46.6%)‡	615 (32.4%)‡
		Block Group 2, Tract 9517	3,135	798 (25.5%)	863 (27.5%)‡
	Mount Vernon Fire Department-Station 1	Block Group 2, Tract 9526	729	214 (29.4%)	129 (17.7%)
		Block Group 3, Tract 9524.01	1,153	337 (29.2%)	525 (48.4%)‡
	Skagit County Fire District #3	Block Group 3, Tract 9525	507	79 (15.6%)	144 (28.7%)‡
		Block Group 1, Tract 9527	1,351	215 (15.9%)	305 (22.6%)
		Block Group 3, Tract 9527	1,208	300 (24.8%)	35 (2.9%)
	Skagit County Fire District 10-Trailhead rest stop	Block Group 4, Tract 9526	2,072	1,050 (50.7%)‡	426 (21.8%)
		Block Group 1, Tract 9511.02	671	251 (37.4%)‡	217 (32.3%)‡
	Skagit County Fire District 14	Block Group 2, Tract 9511.01	1,396	417 (29.9%)	611 (43.8%)‡
Block Group 1, Tract 9508.03		1,441	205 (14.2%)	80 (5.6%)	
Skagit County Fire District 19	Block Group 1, Tract 9511.01	540	55 (10.2%)	100 (18.5%)	
Skagit County Fire District No. 6	Block Group 2, Tract 9519	2,882	640 (22.2%)	408 (14.2%)	
Snohomish	Paine Field Fire Department	Block Group 1, Tract 419.01	1,263	467 (37.0%)‡	172 (13.6%)
	Snohomish County Fire District #4	Block Group 1, Tract 524.02	1,375	223 (16.2%)	181 (13.2%)
		Block Group 2, Tract 524.02	1,385	363 (26.2%)	480 (34.7%)‡
		Block Group 3, Tract 524.02	1,756	370 (21.1%)	737 (42.0%)‡
	Snohomish County Fire District #15	Block Group 1, Tract 9400.02	1,373	1,009 (73.5%)‡	672 (49.7%)‡
		Block Group 2, Tract 9400.01	1,173	584 (49.8%)‡	288 (24.7%)‡
	Snohomish County Fire District 7	Block Group 2, Tract 9400.02	1,425	456 (32.0%)	327 (23.6%)‡
		Block Group 1, Tract 521.08	949	219 (23.1%)	57 (6.0%)
	South Snohomish County Fire and Rescue RFA	Block Group 5, Tract 521.07	1,507	258 (17.1%)	92 (6.1%)
		Block Group 1, Tract 418.08	1,769	854 (48.3%)	505 (28.5%)
Spokane	Spokane County Fire District 4	Block Group 2, Tract 417.01	1,679	1,148 (68.4%)	103 (6.1%)
		Block Group 1, Tract 103.05	2,791	480 (17.2%)	425 (15.4%)
	Spokane County Fire District 10	Block Group 3, Tract 104.01	3,243	1,796 (55.4%)‡	745 (79.2%)‡
		Block Group 4, Tract 104.01	3,589	1,357 (37.8%)‡	1,534 (42.7%)‡
	Spokane County Fire District 11	Block Group 1, Tract 143	1,052	68 (6.5%)	457 (43.6%)‡
		Block Group 1, Tract 143	1,052	68 (6.5%)	457 (43.6%)‡
	Spokane County Fire District 11-Only Open Field	Block Group 2, Tract 133	2,128	59 (2.8%)	264 (12.4%)
Block Group 1, Tract 112.02		873	209 (23.9%)	288 (33.0%)‡	
Spokane County Fire District 9	Block Group 2, Tract 112.02	973	108 (11.1%)	435 (44.7%)‡	
	Bald Hills Fire District #17	Block Group 2, Tract 125.31	911	433 (47.5%)‡	131 (14.4%)
East Olympia Fire District #6		Block Group 4, Tract 125.31	1,163	15 (1.3%)	527 (45.3%)‡
	Lacey Fire District 3	Block Group 1, Tract 117.20	2,293	101 (4.4%)	239 (10.4%)
Lacey Fire District 3		Block Group 1, Tract 107	1,324	315 (23.8%)	402 (30.4%)‡

County	Facility	Block Group	Total Population	People of Color	Population in Low-Income Households
	South Bay Fire Department	Block Group 1, Tract 112	1,702	484 (28.4%)	865 (50.8%)‡
		Block Group 1, Tract 122.11	1,388	218 (15.7%)	213 (15.3%)
		Block Group 2, Tract 122.11	1,530	398 (26.0%)	423 (27.6%)‡
	Thurston County Fire District 9	Block Group 1, Tract 120.01	1,025	243 (23.7%)	09 (1.4%)
		Block Group 3, Tract 120.01	2,133	888 (41.6%)‡	385 (18.0%)
	Thurston County Fire Protection District 13	Block Group 2, Tract 119.02	1,318	362 (27.5%)	265 (20.1%)
		Block Group 3, Tract 119.02	1,276	48 (3.8%)	144 (11.3%)
	Thurston County Fire Protection District 13-Station 2	Block Group 1, Tract 119.02	2,372	508 (21.4%)	183 (7.8%)
	Thurston County Fire Protection District 13-Station 3	Block Group 3, Tract 119.02	1,276	48 (3.8%)	144 (11.3%)
Thurston County Fire Protection District 13-Station. 4	Block Group 2, Tract 119.02	1,318	362 (27.5%)	265 (20.1%)	
Tumwater Fire Department	Block Group 2, Tract 108.01	1,257	714 (56.8%)‡	490 (39.0%)‡	
Walla Walla	USFS Umatilla N.F.	Block Group 1, Tract 9206	2,010	875 (43.5%)‡	583 (29.5%)‡
	Walla Walla Regional Airport	Block Group 2, Tract 9202	1,985	360 (18.1%)	424 (21.5%)
Whatcom	Bellingham Fire Department	Block Group 1, Tract 5.02	1,589	528 (33.2%)	444 (27.9%)‡
		Block Group 2, Tract 4.02	1,476	376 (25.5%)	155 (10.5%)
		Block Group 2, Tract 5.02	1,302	252 (19.4%)	582 (44.7%)‡
	Bellingham Fire Department (Fire District 8)	Block Group 1, Tract 3.01	1,927	137 (7.1%)	245 (12.7%)
		Block Group 2, Tract 2.01	1,480	571 (38.6%)‡	427 (28.9%)‡
		Block Group 2, Tract 3.01	594	41 (6.9%)	60 (10.1%)
	Lynden Fire Department	Block Group 1, Tract 103.02	1,306	219 (16.8%)	518 (39.7%)‡
		Block Group 2, Tract 103.03	2,623	470 (17.9%)	302 (11.6%)
		Block Group 3, Tract 103.02	2,161	323 (14.9%)	649 (30.0%)
	Port of Bellingham/Bellingham Int'l Airport	Block Group 3, Tract 2.01	599	197 (32.9%)	398 (66.4%)
	Whatcom County Fire District No. 7	Block Group 1, Tract 105.06	2,078	468 (22.5%)	387 (19.0%)
		Block Group 1, Tract 106	3,252	690 (21.2%)	271 (8.3%)
		Block Group 2, Tract 105.04	1,097	483 (44.0%)‡	92 (8.4%)
		Block Group 2, Tract 105.06	1,246	308 (24.7%)	593 (50.0%)‡
	Whatcom County Fire District No. 7-Station 46	Block Group 1, Tract 105.03	2,963	966 (32.6%)	1,472 (49.8%)‡
Block Group 1, Tract 105.04		1,779	111 (6.2%)	273 (15.3%)	
Block Group 1, Tract 105.05		3,843	1,419 (36.9%)‡	1,037 (27.0%)‡	
Yakima	Grandview City Fire Dept	Block Group 2, Tract 105.03	3,279	622 (19.0%)	412 (12.6%)
		Block Group 1, Tract 19.01	2,119	1,672 (78.9%)‡	1,296 (61.3%)‡
Yakima	Nile Cliffdell Fire Department	Block Group 1, Tract 19.02	1,797	1,525 (84.9%)‡	1,301 (72.4%)‡
		Block Group 1, Tract 30.03	537	12 (2.2%)	104 (19.4%)
Yakima	Nile Cliffdell Fire Department	Block Group 2, Tract 30.04	882	120 (13.6%)	149 (16.9%)
		Block Group 2, Tract 30.04	882	120 (13.6%)	149 (16.9%)
—	<b>Total for 112 Fire Stations in 201 Unique Block Groups</b>	—	<b>308,754</b>	<b>103,715 (33.6%)</b>	<b>73,256 (24.3%)</b>

Table note: ‡ Meets or exceeds criteria for communities of color or low-income communities.



In total, sixteen 10-day hold facilities were reviewed in 34 unique block groups to determine communities of color and low-income populations. Data by block groups and 10-day hold facilities are presented in Table 3-10, below.

**Table 3-10: Demographic Profile of Block Groups within 0.25 mile of 10-Day Hold Facilities**

Facility/Location	Block Group	Total Population	People of Color	Population in Low-Income Households
<b>Emerald Services-Seattle/Airport Way (King County)</b>	Block Group 1, Tract 93	1,151	487(42.3%)‡	288 (25.4%)‡
<b>Emerald Services-Seattle/Marginal Way (King County)</b>	Block Group 1, Tract 109	762	229(30.1%)	267 (35.0%)‡
	Block Group 2, Tract 109	555	207(37.3%)‡	127 (22.9%)‡
	Block Group 2, Tract 112	1,308	720(55.0%)‡	521 (39.8%)‡
<b>Emerald Services-Spokane Valley WA (Spokane County)</b>	Block Group 1, Tract 122	1,023	193(18.9%)	444 (43.4%)‡
<b>Emerald Services-Vancouver WA (Clark County)</b>	Block Group 2, Tract 410.05	917	719(78.4%)‡	586 (63.9%)‡
	Block Group 1, Tract 423	1,316	422(32.1%)	595 (45.7%)‡
	Block Group 2, Tract 423	733	163(22.2%)	386 (53.2%)‡
	Block Group 1, Tract 424	1,093	279(25.5%)	361 (59.2%)‡
<b>Heritage Crystal Clean Lakewood (Pierce County)</b>	Block Group 1, Tract 718.05	1,297	944(72.8%)‡	535 (41.2%)‡
	Block Group 2, Tract 718.05	1,630	907(55.6%)‡	745 (45.7%)‡
	Block Group 1, Tract 718.07	1,471	1,163(79.1%)‡	530 (36.0%)‡
	Block Group 4, Tract 718.07	563	353(62.7%)‡	203 (36.1%)‡
<b>Kent Facility (King County)</b>	Block Group 2, Tract 297.02	1,621	1,357(83.7%)‡	571 (37.8%)‡
<b>Milton Facility US Ecology</b>	Block Group 2, Tract 304.03, King Co.	2,171	1,226(56.5%)‡	483 (22.4%)
	Block Group 3, Tract 303.04, King Co.	1,887	1,468(77.8%)‡	852 (45.2%)‡
	Block Group 1, Tract 707.03, Pierce Co.	1,807	729(40.3%)‡	444 (25.0%)‡
	Block Group 1, Tract 9400.02, Pierce Co.	1,358	515(37.9%)‡	223 (16.4%)
<b>NRC Environmental-Seattle</b>	Block Group 2, Tract 201, King Co.	1,429	299(20.9%)	120 (8.4%)
	Block Group 3, Tract 201, King Co.	947	154(16.3%)	88 (9.3%)
	Block Group 1, Tract 506, Snohomish Co.	1,109	157(14.2%)	63 (5.8%)
	Block Group 0, Tract 9900.02, Snohomish Co.	0	0(NA)	0 (NA)
	Block Group 0, Tract 9901, King Co.	0	0(NA)	0 (NA)
<b>NRC Environmental-Spokane (Spokane County)</b>	Block Group 3, Tract 145, Spokane Co.	516	111(21.5%)	169 (33.1%)‡
	Block Group 2, Tract 201.01	263	222(84.4%)‡	43 (16.3%)

Facility/Location	Block Group	Total Population	People of Color	Population in Low-Income Households
Pasco Facility Clean Harbors (Franklin County)	Block Group 1, Tract 201.03	3,998	3,668(91.7%)‡	1,802 (50.4%)‡
	Block Group 1, Tract 207	1,261	415(32.9%)	256 (20.3%)
Pasco Facility US Ecology (Franklin County)	Block Group 1, Tract 201.02	1,960	1,960(100.0%)‡	1,139 (58.1%)‡
Seattle WWTF (Pierce County)	Block Group 1, Tract 602	1,792	817(45.6%)‡	720 (42.8%)‡
Seattle Branch (Pierce County)	Block Group 1, Tract 602	1,792	817(45.6%)‡	720 (42.8%)‡
Spokane Facility (Spokane County)	Block Group 1, Tract 122	1,023	193(18.9%)	444 (43.4%)‡
US Ecology Seattle (King County)	Block Group 1, Tract 112	1,608	1,100(68.4%)‡	536 (33.3%)‡
	Block Group 3, Tract 112	986	638(64.7%)‡	391 (42.6%)‡
	Block Group 1, Tract 264	1,137	1,053(92.6%)‡	483 (42.7%)‡
	Block Group 3, Tract 264	2,405	1,237(51.4%)‡	1,387 (57.7%)‡
	Block Group 4, Tract 264	1,494	537(35.9%)‡	345 (23.1%)‡
—	<b>Totals for 16 10-Day Hold Facilities in 34 Unique Block Groups</b>	—	<b>24,449 (56.1%)</b>	<b>15,703 (37.2%)</b>

**Table Notes:**

‡ Meets or exceeds criteria for communities of color or low-income communities.

Source: U.S. Census Bureau 2024

### 3.3 Project Impact Analysis

This analysis evaluates potential disproportionate impacts from the proposed project on communities of color and low-income household populations using findings from resource analyses, EIS sections, and demographic data. Elements of the environment with likely significant impacts are assessed in the following sections. Impacts to Tribal and cultural resources are described in EIS Section 3.9: Tribal Resources.

AFFF is a serious eye irritant, potentially causing skin and respiratory irritation, and is harmful when swallowed. AFFF also contains PFAS, which are persistent in the environment and known to adversely impact the health of living organisms exposed to sufficient quantities. These toxic chemicals do not break down easily, and they can negatively impact human health.

As discussed in EIS Chapter 5: Cumulative Impacts, the combination of widespread use and chemical persistence means that PFAS are already commonly detected in the global environment. In Washington State, PFAS have been detected in soils, surface waters, groundwater, wastewater treatment plant effluent, freshwater and marine sediments, freshwater and marine organisms, and terrestrial wildlife.

An unlikely but possible exposure to AFFF may occur if it were to leak from corroded containers, distribution pipes, or storage tanks. AFFF could spill during transfer between containers or while containers are being transported between locations. Additionally, state law does not prohibit fire departments from using firefighting foam with intentionally added PFAS in emergencies. It is more likely that firefighters would be exposed to AFFF with PFAS in this scenario.

### 3.3.1 Alternative 1: Approved Hold in Place

Under this alternative, AFFF might spill during transfer into new containers. Construction of any required AFFF storage facilities or secondary containment would occur within the developed area of the fire department. PFAS-containing AFFF used for firefighting could come in contact with soil and migrate to nearby surface water, and/or eventually migrate to groundwater.

Unless an emergency requires AFFF for firefighting or a spill occurs, no impacts to resources in areas with environmental justice considerations are expected. Additionally, construction of any required AFFF storage facilities or secondary containment would occur within the developed area of the fire department and would not affect resources.

**Table 3-11: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Participating Fire Stations**

Resource	Section in EIS	Impacts
Air Quality	3.1	Not Significant
Earth and Water Resources	3.3	Not Significant
Aquatic Resources	3.4	Not Significant
Human Health and Safety	3.7	Not Significant
Cultural, Historical, and Archaeological Resources	3.8	Not Significant

#### 3.3.1.1 Air Quality

Unless an emergency requires AFFF for firefighting or a spill occurs, no impacts to air quality in communities of color and low-income communities are expected. If a spill occurs or AFFF is deployed for emergency purposes, the partial pressure of PFAS in AFFF is very low and the resulting ambient PFAS concentrations would be much less than the significance criteria listed in Section 3.1.2 of the EIS. Therefore, the air quality impacts of Alternative 1 in communities of color or low-income communities would not be significant.

#### 3.3.1.2 Earth and Water Resources

Construction of any required AFFF storage facilities or secondary containment would occur within the developed area of the fire department and would not affect aquatic species or habitats. Additionally, unless an emergency requires AFFF for firefighting or a spill occurs, no impacts to earth and water resources in areas with environmental justice considerations are expected. Therefore, impacts of Alternative 1 to earth and water resources in communities of color or low-income communities would not be significant.

#### 3.3.1.3 Aquatic Resources

Unless an emergency requires AFFF for firefighting or a spill occurs, no impacts to aquatic resources in areas with Environmental Justice considerations are expected. Therefore, impacts of Alternative 1 to aquatic resources in communities of color or low-income communities would not be significant.

### 3.3.1.4 Human Health and Safety

If a spill occurs or AFFF is deployed for emergency purposes, the predominant exposure pathways to humans are ingestion, inhalation, and dermal contact. The risk of a release for Alternative 1 was determined to be low, and the risk of exposure through each pathway is individually low. Therefore, impacts of Alternative 1 to human health and safety in communities of color or low-income communities would not be significant.

### 3.3.1.5 Cultural, Historical, and Archaeological Resources

According to the Department of Archaeology and Historic Preservation, less than 20 percent of the study area sites are within high-risk areas for the possibility of encountering archaeological sites (DAHP 2023). The risk of impacts to cultural resources for this EIS is considered low, given that cultural resources are not located close enough to participating fire stations. Therefore, impacts from Alternative 1 on cultural, historical, and archaeological resources in communities of color or low-income communities would not be significant.

## 3.3.2 Alternative 2: Incineration

The incineration of AFFF may deposit residual PFAS in the surrounding soils. Given the relatively small emission amounts and low risk level (see EIS Sections 3.4: Aquatic Resources and Section 3.5: Terrestrial Species and Habitats), it is unlikely that this is a significant impact on the terrestrial and aquatic environments.

**Table 3-12: Impacts to Communities of Color and Low-Income Communities within 10 Miles of Incineration Facilities**

Resource	Section in EIS	Impacts
Air Quality	3.1	Not significant
Earth and Water Resources	3.3	Not significant
Aquatic Resources	3.4	Not significant
Human Health and Safety	3.7	Not significant
Cultural, Historical, and Archaeological Resources	3.8	Not significant

### 3.3.2.1 Air Quality

At the time of the analysis, the mass of PFAS that would be released from the incineration of the estimated 59,000 gallons present in participating fire departments was 4.6 grams. This total mass would be released from a tall stack over a duration of at least several hours, and the resulting ambient PFAS concentrations would be much less than the significance criteria in EIS Section 3.1.2. Therefore, the air quality impacts of Alternative 2 in communities of color or low-income communities would not be significant.

### **3.3.2.2 Earth and Water Resources**

As discussed in EIS Section 3.3: Earth and Water Resources, the incineration facilities are located in remote regions with low human population. Additionally, deposition onto soils could occur in trace or very low measurable quantities. As a result, direct contact with nearby soils by humans is a low risk. Therefore, the impacts from Alternative 2 on earth and water resources in communities of color or low-income communities would not be significant.

### **3.3.2.3 Aquatic Resources**

PFAS particulates due to the incomplete combustion of project-related AFFF would not be deposited in amounts that could cause population-level ecological effects within the study area at either incineration site. Incineration of AFFF presents a low risk of release of PFAS compounds to sensitive aquatic resources. Therefore, the impacts from Alternative 2 on aquatic resources in communities of color or low-income communities would not be significant.

### **3.3.2.4 Human Health and Safety**

Resulting ambient PFAS concentrations from incineration would be much less than the significance criteria listed in EIS Section 3.1.2. Additionally, there are no residential areas within 25 miles of the proposed Aragonite Incineration Facility in Utah or within 5 miles of the proposed Kimball Incineration Facility in Nebraska. As a result, no impacts to human health and safety in communities of color or low-income communities are expected.

### **3.3.2.5 Cultural, Historical, and Archaeological Resources**

According to the Department of Archaeology and Historic Preservation, less than 20 percent of the study area sites are within high-risk areas for the possibility of encountering archaeological sites (DAHP 2023). The risk of impacts to cultural resources for this EIS is considered low, given that cultural resources are not located close enough to participating incineration facilities. Therefore, impacts from Alternative 2 on cultural, historical, and archaeological resources in communities of color or low-income communities would not be significant.

### **3.3.3 Alternative 3: Solidification and Landfilling**

AFFF would be collected and transported to a selected landfill facility or facilities for solidification and disposal. Both facilities are “zero-discharge” facilities with no release mechanism for AFFF to migrate offsite. As a result, under this alternative, AFFF might only spill during transfer into new containers. The relative risk of release or exposure resulting from leachate, accidental spills, or releases through this disposal alternative is low.

**Table 3-13: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Landfill Facilities**

Resource	Section in EIS	Impacts
Air Quality	3.1	Not significant
Earth and Water Resources	3.3	Not significant
Aquatic Resources	3.4	Not significant
Human Health and Safety	3.7	Not significant
Cultural, Historical, and Archaeological Resources	3.8	Not significant

### 3.3.3.1 Air Quality

Unless a spill occurs, no impacts to air quality in areas with environmental justice considerations are expected. If a spill occurs, the partial pressure of PFAS in AFFF is very low and the resulting ambient PFAS concentrations would be much less than the significance criteria listed in EIS Section 3.1.2. Therefore, the air quality impacts of Alternative 3 in communities of color or low-income communities would not be significant.

### 3.3.3.2 Earth and Water Resources

The relative risk of release of AFFF to the environment from either US Ecology Idaho or US Ecology Nevada is considered insignificant because leachate is managed on site through evaporation ponds.

### 3.3.3.3 Aquatic Resources

As discussed in EIS Section 3.4: Aquatic Resources, solidification and landfilling of AFFF presents no risk of release into sensitive terrestrial environments. No impacts to aquatic resources in communities of color or low-income communities are expected.

### 3.3.3.4 Human Health and Safety

No impacts to human health and safety in areas with environmental justice considerations are expected. There are no residential areas within 15 miles of the proposed US Ecology landfill in Idaho or within 8 miles of the proposed US Ecology landfill in Nevada.

### 3.3.3.5 Cultural, Historical, and Archaeological Resources

According to the Department of Archaeology and Historic Preservation, less than 20 percent of the study area sites are within high-risk areas for the possibility of encountering archaeological sites (DAHP 2023). The risk of impacts to cultural resources for this EIS is considered low, given that cultural resources are not located close enough to participating landfill facilities or facilities for solidification. Therefore, impacts from Alternative 3 on cultural, historical, and archaeological resources in communities of color or low-income communities would not be significant.

### 3.3.4 Alternative 4: Class I Deep Well Injection

Under Alternative 4, the thorough rinsing process could result in AFFF spilling, but it is unlikely that AFFF would enter the environment due to secondary containment and other precautionary best management practices used when handling hazardous waste. Additionally, AFFF may be released during the well injection process, but only if there were an equipment malfunction that released AFFF aboveground onto the soil. If this were to happen, the spill would be cleaned, and the soil remediated.

**Table 3-14: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of Injection Sites**

Resource	Section in EIS	Impacts
Air Quality	3.1	Not Significant
Earth and Water Resources	3.3	Not Significant
Aquatic Resources	3.4	Not Significant
Human Health and Safety	3.7	Not Significant
Cultural, Historical, and Archaeological Resources	3.8	Not Significant

#### 3.3.4.1 Air Quality

Under Alternative 4, PFAS compounds evaporate when the AFFF is exposed to the air. The risk of PFAS release is very low due to the engineered and administrative controls. As described in EIS Section 7.1.3.16, the consequences would be insignificant because, as described above, the partial pressure of PFAS in AFFF is very low and the resulting ambient PFAS concentrations would be much less than the significance criteria. Therefore, the air quality impacts of Alternative 4 in communities of color or low-income communities would not be significant.

#### 3.3.4.2 Earth and Water Resources

The Advantek and US Ecology Winnie facilities are designed, permitted, and operated to isolate received waste from potable water supplies, representing a low risk of release of PFAS to groundwater. Although highly unlikely, AFFF injected underground may migrate away from the injection zone in wells that are not properly sited, constructed, or maintained, and potentially contaminate drinking water aquifers. Over long periods of time, subsurface conditions could change, and the risk could increase.

#### 3.3.4.3 Aquatic Resources

The risk of PFAS compounds migrating from groundwater to surface water is very low, as the injection depths are so deep that surface water is not intersected.

AFFF could be released during the well injection process if there were an equipment malfunction that released AFFF aboveground into the facility. In this event, the spill would be promptly cleaned up and the site remediated to prevent further transport of PFAS compounds.

### 3.3.4.4 Human Health and Safety

No impacts to human health and safety in communities of color or low-income communities are expected.

### 3.3.4.5 Cultural, Historical, and Archaeological Resources

According to the Department of Archaeology and Historic Preservation, less than 20 percent of the study area sites are within high-risk areas for the possibility of encountering archaeological sites (DAHP 2023). The risk of impacts to cultural resources for this EIS is considered low, given that cultural resources are not located close enough to participating landfill facilities or facilities for solidification. Therefore, impacts from Alternative 4 on cultural, historical, and archaeological resources in communities of color or low-income communities would not be significant.

## 3.3.5 Alternatives 2, 3, and 4: 10-Day Hold Facilities and Transportation Routes

Combustion engine vehicles would be used to haul AFFF on transportation routes. These vehicles emit criteria air pollutants and greenhouse gases. All routes have the potential to spill AFFF and affect communities. The following communities and personnel could potentially be affected by AFFF releases from an accident:

- ▶ The public in the vicinity of the accident.
- ▶ The personnel responsible for transporting the containers.
- ▶ The emergency response workers responding to the accident.

As defined and discussed in Chapter 3.10: Transportation and Truck Safety, there is a low potential for the release of PFAS during routine transportation of AFFF by trained personnel. Appropriate physical, engineering, and administrative controls would be utilized to transport the AFFF.

**Table 3-15: Impacts to Areas with Environmental Justice Considerations within 0.25 Mile of 10-Day Hold Facilities and Transportation Routes**

Resource	Section in EIS	Impacts
Air Quality	3.1	Not Significant
Earth and Water Resources	3.3	Not Significant
Aquatic Resources	3.4	Not Significant
Human Health and Safety	3.7	Not Significant
Cultural, Historical, and Archaeological Resources	3.8	Not Significant



### **3.3.5.1 Air Quality**

Air pollutants from combustion engine vehicles used to haul AFFF on transportation routes include particulate matter, nitrogen oxides, and ozone. Emissions associated with transportation would be temporary and widely spread geographically. The resulting ambient concentrations would be much less than the National Ambient Air Quality Standards summarized in Table 3.1-3 of the final EIS.

### **3.3.5.2 Earth and Water Resources**

If an accidental release of AFFF occurs during transportation, the relative risk to water resources is considered very low during transportation to out-of-state facilities. Trained personnel would handle the materials and containers would be transferred from the trucks in areas with spill control.

### **3.3.5.3 Aquatic Resources**

Trained personnel would handle the materials and containers would be transferred from the trucks in areas with spill control to mitigate any potential spill to soil or surface waters.

### **3.3.5.4 Human Health and Safety**

Overall, the relative risk of release for the transportation routes is low. For additional information on the risk of release for transportation route, see the discussion in the final EIS's section 3.10.1.2: Release Mechanisms.

### **3.3.5.5 Cultural, Historical, and Archaeological Resources**

Cultural, historical, and archaeological resources were not evaluated for transportation routes for the environmental justice report.

## **3.3.6 Alternative 5: No Action Alternative**

Under Alternative 5, the assumption is that no action of any kind would be taken. AFFF would be left as is at participating fire stations. While the no action alternative generally has the same significance impacts as Alternative 1: Approved Hold in Place, there are some differences. Under Alternative 1, it is assumed that action would be taken at some point to stabilize and contain the materials left on-site.

As noted in Section 3.3: Earth and Water Resources, because no immediate actions would take place, the relative risk of any release (other than accidental release) cannot be evaluated until an action is taken. Sections 3.4: Aquatic Resources and 3.5: Terrestrial Species and Habitats also note that there is a risk associated with degradation of storage containers and that the risk is likely to increase over time. However, there is no information available with respect to potential time horizons or durability of storage containers. As a result, it is impossible to evaluate the relative risk associated with this alternative.

### **3.3.6.1 Air Quality**

There will only be impacts in the event of an accident or upset condition. The release mechanisms for AFFF at fire stations are container leaks, spills, and piping leaks.

### **3.3.6.2 Earth and Water Resources**

Because no actions would take place under the no action alternative, there would be no project-related impacts to soils, surface water, or groundwater. The risk would remain for AFFF stored in degraded containers to leak PFAS compounds to the environment.

### **3.3.6.3 Aquatic Resources**

Because no actions would take place under the no action alternative, there would be no project-related impacts to fish and aquatic resources. The risk would remain for AFFF stored in degraded containers to leak PFAS compounds to the environment. Because participating fire stations are located throughout the state, sensitive aquatic resources potentially exposed to PFAS contamination would be widespread.

As in Alternative 1, if the PFAS-containing AFFF were used for firefighting, PFAS could come in contact with soil and migrate to nearby surface water and potentially to aquatic habitats. Under Alternative 5, it is unknown if or how many fire departments would use their held foam.

### **3.3.6.4 Human Health and Safety**

There are no human health and safety impacts associated with leaving AFFF in place that would have the potential to disproportionately affect communities of color or low-income communities.

### **3.3.6.5 Cultural, Historical, and Archaeological Resources**

According to the Department of Archaeology and Historic Preservation, less than 20 percent of the study area sites are within high-risk areas for the possibility of encountering archaeological sites (DAHP 2023). Therefore, impacts from Alternative 5 on Cultural, Historical, and Archaeological Resources in areas with Environmental Justice considerations would not be significant.

### **3.3.7 Proposed Mitigation Measures**

No mitigation measures are proposed because there are no disproportionate impacts to communities of color and populations in low-income households.

Impacts to potentially affected Tribal communities and the potential for mitigation are discussed in the EIS Section 3.9: Tribal Resources.

### **3.3.8 Significant and Unavoidable Adverse Impacts**

There would be no significant adverse impacts to communities of color or populations in low-income households from construction or operation of the proposed project.

# 4 OUTREACH

## 4.1 Outreach Area

We analyzed the population characteristics of block groups within 0.25 mile of fire stations, 10-day hold facilities, injection sites, and landfills or within 10 miles of incineration facilities. These data inform our public involvement and outreach strategy and guide project communication to all interested and impacted community members.

Limited English proficiency population information is used to tailor outreach and determine when language services, like translation or interpretation, are needed. U.S. Census Bureau 2018 to 2022 American Community Survey 5-year estimate data were reviewed to identify limited English proficiency populations in the outreach area.

**Limited English Proficiency**  
 “Limited English proficiency” individuals are defined as the population 5 years or older who identify as speaking English less than "very well" according to the U.S. Census American Community Survey 5-year estimate data.

Educational attainment data are used to tailor communication about the project. Information about educational attainment was obtained from the U.S. Census Bureau’s American Community Survey 5-year estimates (2018 to 2022) for the outreach area. To support general best practices all materials were written in plain language.

For each alternative, we also reviewed information on people over age 65 from the U.S. Census Bureau’s 2018 to 2022 American Community Survey 5-year estimates for the outreach area. These data will be considered when planning public meetings and developing communication materials. Tables 4-1, 4-2, 4-3, 4-4, and 4-5 inform demographics in the vicinity of facilities for each action alternative. The data in these tables inform public outreach, indicating areas’ limited English proficiency households, individuals older than 25 without a high school diploma or equivalent, and the population aged 65 and over.

**Table 4-1: Demographic Profile of Block Groups within 0.25 Mile of Participating Fire Stations in Washington State**

Location/ County	Facility	Block Group	Limited English Proficiency Households	Less than high school graduate (25+ years)	Population Ages 65+
State of Washington	—	all	112,847 (3.8%)	417,305 (8.7%)	1,228,940 (16.0%)
Adams Co.	Adams Co Fire District 5	Block Group 2, Tract 9504	139 (21.3%)	253 (23.5%)	234 (10.7%)
		Block Group 2, Tract 9505	134 (20.6%)	458 (41.0%)	218 (10.7%)
		Block Group 3, Tract 9505	73 (54.9%)	164 (89.6%)	0 (NA)
Benton Co.	Richland Fire & Emergency Services	Block Group 1, Tract 101	45 (4.5%)	69 (3.7%)	631 (26.7%)
		Block Group 1, Tract 105	9 (1.9%)	77 (8.3%)	191 (12.1%)
		Block Group 2, Tract 105	23 (4.3%)	94 (8.5%)	170 (9.6%)
Clallam Co.	City of Port Angeles Fire Department	Block Group 1, Tract 9	0 (0.0%)	60 (6.7%)	370 (31.3%)
		Block Group 2, Tract 10	0 (0.0%)	142 (15.5%)	216 (16.2%)
	Clallam 2 Fire-Rescue	Block Group 2, Tract 15	0 (0.0%)	106 (12.3%)	305 (25.5%)
	Clallam Co. Fire District 3; Maint. Facility/Training Grounds	Block Group 1, Tract 17.01	81 (15.5%)	20 (2.1%)	214 (17.2%)

Location/ County	Facility	Block Group	Limited English Proficiency Households	Less than high school graduate (25+ years)	Population Ages 65+
Clark Co.	Vancouver Fire Department (Multiple)	Block Group 1, Tract 411.07	15 (2.6%)	19 (1.8%)	327 (19.5%)
		Block Group 2, Tract 411.05	12 (1.7%)	63 (5.2%)	359 (23.8%)
		Block Group 2, Tract 411.07	0 (0.0%)	54 (4.9%)	160 (10.9%)
Cowlitz Co.	Cowlitz-Skamania Fire District #7	Block Group 1, Tract 15.01	0 (0.0%)	79 (9.3%)	227 (17.0%)
	Solvay Chemicals, Inc.	Block Group 1, Tract 9800	31 (9.5%)	109 (27.2%)	125 (22.4%)
Franklin Co.	Pasco Fire Department - Airport Station	Block Group 1, Tract 9801	NA (NA)	0 (NA)	0 (NA)
		Block Group 2, Tract 203	41 (7.4%)	237 (26.8%)	266 (17.0%)
Grant Co.	Cowlitz Co. Fire District 6	Block Group 1, Tract 104.01	0 (0.0%)	227 (22.2%)	260 (17.3%)
		Block Group 2, Tract 104.01	0 (0.0%)	103 (8.4%)	374 (20.1%)
		Block Group 2, Tract 104.02	58 (6.5%)	244 (17.9%)	304 (14.3%)
	Grant Co. Fire District #3	Block Group 1, Tract 106	0 (0.0%)	198 (17.3%)	298 (13.9%)
		Block Group 2, Tract 106	30 (7.9%)	575 (63.7%)	71 (5.0%)
	Grant Co. Fire District #5	Block Group 2, Tract 110.02	14 (1.6%)	148 (10.5%)	364 (16.7%)
		Block Group 3, Tract 110.02	80 (6.8%)	39 (1.9%)	335 (10.6%)
	Port Of Moses Lake Fire Department	Block Group 1, Tract 108	25 (4.6%)	237 (19.3%)	405 (18.4%)
Grays Harbor Co.	City of Elma	Block Group 1, Tract 5.02	0 (0.0%)	145 (17.3%)	294 (25.6%)
		Block Group 2, Tract 5.02	0 (0.0%)	54 (8.4%)	149 (16.9%)
	Grays Harbor Fire District #4- Lake Quinault VFire District	Block Group 1, Tract 9400	0 (0.0%)	59 (8.7%)	271 (25.6%)
	Hoquiam Fire Dept.	Block Group 1, Tract 15	6 (0.9%)	36 (4.2%)	387 (32.5%)
	McCleary Fire/GHFire District#12	Block Group 2, Tract 6	0 (0.0%)	132 (13.7%)	265 (19.7%)
Block Group 3, Tract 6		0 (0.0%)	39 (3.1%)	329 (19.8%)	
Island Co.	Camano Island Fire	Block Group 1, Tract 9715	0 (0.0%)	7 (0.6%)	471 (34.3%)
		Block Group 2, Tract 9715	0 (0.0%)	60 (9.0%)	244 (25.1%)
		Block Group 3, Tract 9715	0 (0.0%)	19 (1.6%)	487 (33.7%)
	Central Whidbey Fire & Rescue	Block Group 2, Tract 9711	11 (1.7%)	64 (6.1%)	563 (41.3%)
	Oak Harbor Fire Department	Block Group 1, Tract 9707	0 (0.0%)	57 (7.3%)	95 (9.8%)
	Oak Harbor Fire Dept-Oak Harbor Marina	Block Group 1, Tract 9709	0 (0.0%)	6 (1.1%)	0 (NA)
Block Group 4, Tract 9709		5 (2.3%)	0 (0.0%)	8 (1.6%)	
Jefferson Co.	F/V Karolee	Block Group 2, Tract 9502.02	0 (0.0%)	47 (4.5%)	519 (39.8%)
King Co.	Bothell Fire Department	Block Group 2, Tract 218.04	17 (3.0%)	0 (0.0%)	26 (2.4%)
		Block Group 3, Tract 218.04	15 (3.1%)	0 (0.0%)	220 (14.7%)
		Block Group 4, Tract 218.04	106 (18.8%)	231 (24.3%)	233 (15.6%)
	City of Bellevue Fire Department	Block Group 1, Tract 237.02	77 (13.3%)	0 (0.0%)	65 (6.5%)
	City of Bellevue Fire Department-Station 3	Block Group 1, Tract 232.02	98 (11.9%)	109 (6.6%)	977 (50.8%)
		Block Group 2, Tract 232.02	38 (7.9%)	58 (5.9%)	97 (6.7%)
		Block Group 3, Tract 232.02	132 (21.1%)	292 (28.5%)	141 (8.1%)
	Duvall King Co. Fire District 45- Station 69	Block Group 4, Tract 324.01	0 (0.0%)	0 (0.0%)	129 (12.8%)
		Block Group 4, Tract 324.02	80 (12.3%)	9 (0.7%)	181 (10.0%)
	King Co. Fire District 20	Block Group 2, Tract 260.01	12 (2.4%)	88 (8.7%)	230 (17.6%)
		Block Group 3, Tract 260.01	64 (11.7%)	155 (13.8%)	305 (19.5%)
		Block Group 3, Tract 260.04	41 (7.1%)	109 (9.0%)	500 (31.9%)
	Mercer Island Fire Department	Block Group 2, Tract 243.01	73 (6.8%)	45 (2.9%)	777 (44.4%)
		Block Group 3, Tract 243.01	24 (5.7%)	97 (12.7%)	171 (14.1%)
	Mountain View Fire and Rescue	Block Group 2, Tract 312.04	0 (0.0%)	71 (6.4%)	298 (21.2%)
		Block Group 2, Tract 312.04	0 (0.0%)	71 (6.4%)	298 (21.2%)
	Port of Seattle Fire Department	Block Group 4, Tract 284.02	216 (33.5%)	267 (26.3%)	77 (4.5%)
	Renton Regional Fire Authority	Block Group 1, Tract 262	0 (0.0%)	44 (12.0%)	0 (NA)
	S. King Fire & Rescue	Block Group 2, Tract 302.01	13 (3.3%)	144 (32.2%)	31 (3.4%)
		Block Group 2, Tract 302.03	46 (10.8%)	122 (12.8%)	151 (10.7%)
		Block Group 3, Tract 302.03	30 (8.3%)	113 (18.8%)	116 (12.6%)
	SeaTac Airport Fuel Facility	Block Group 2, Tract 288.01	38 (7.4%)	249 (17.4%)	266 (14.9%)
		Block Group 4, Tract 284.02	216 (33.5%)	267 (26.3%)	77 (4.5%)
Seattle Children's Hospital	Block Group 1, Tract 42.02	0 (0.0%)	28 (2.6%)	180 (11.8%)	
	Block Group 2, Tract 41.02	29 (6.3%)	7 (0.8%)	250 (20.0%)	
	Block Group 2, Tract 42.01	75 (17.1%)	75 (11.7%)	137 (15.2%)	

Location/ County	Facility	Block Group	Limited English Proficiency Households	Less than high school graduate (25+ years)	Population Ages 65+
	South King Fire and Rescue - Station 67	Block Group 3, Tract 41.01	33 (8.0%)	0 (0.0%)	163 (13.8%)
		Block Group 1, Tract 289.01	29 (4.9%)	70 (7.0%)	167 (9.7%)
		Block Group 4, Tract 289.02	0 (0.0%)	160 (17.7%)	151 (9.2%)
		Block Group 5, Tract 289.02	41 (8.2%)	57 (7.1%)	92 (8.2%)
	Tukwila Fire Department	Block Group 1, Tract 262	0 (0.0%)	44 (12.0%)	0 (NA)
	Valley Regional Fire Authority	Block Group 1, Tract 308.01	19 (3.1%)	372 (32.1%)	327 (18.4%)
		Block Group 1, Tract 308.01	19 (3.1%)	372 (32.1%)	327 (18.4%)
	WSDOT	Block Group 1, Tract 243.01	31 (3.0%)	5 (0.4%)	306 (17.6%)
		Block Group 1, Tract 89	0 (0.0%)	16 (1.4%)	187 (11.9%)
		Block Group 1, Tract 95	16 (2.4%)	0 (0.0%)	297 (21.5%)
		Block Group 2, Tract 243.02	20 (4.1%)	1 (0.1%)	205 (11.7%)
		Block Group 2, Tract 89	0 (0.0%)	139 (13.8%)	198 (14.9%)
		Block Group 2, Tract 95	66 (9.0%)	27 (2.1%)	161 (9.5%)
	WSDOT-Seattle Convention Center	Block Group 3, Tract 243.02	8 (2.0%)	0 (0.0%)	202 (18.8%)
		Block Group 1, Tract 73.02	0 (0.0%)	20 (1.6%)	47 (3.5%)
		Block Group 1, Tract 82	52 (4.6%)	2 (0.2%)	73 (4.2%)
		Block Group 2, Tract 73.02	182 (11.8%)	98 (6.0%)	0 (NA)
		Block Group 2, Tract 83	84 (7.9%)	98 (7.3%)	304 (18.9%)
Kitsap Co.	South Kitsap Fire Rescue	Block Group 3, Tract 82	0 (0.0%)	0 (0.0%)	544 (34.8%)
		Block Group 1, Tract 924	29 (4.6%)	34 (3.0%)	244 (16.4%)
Kittitas Co.	Kittitas Co. Fire District 2	Block Group 2, Tract 924	0 (0.0%)	145 (10.8%)	284 (16.0%)
		Block Group 1, Tract 9754.02	0 (0.0%)	27 (1.8%)	577 (30.1%)
Lewis Co.	Cowlitz-Lewis Fire District #20	Block Group 1, Tract 9754.03	0 (0.0%)	6 (0.8%)	214 (17.1%)
		Block Group 2, Tract 9716	0 (0.0%)	102 (13.5%)	218 (23.1%)
	Lewis Co. Fire District #1	Block Group 3, Tract 9716	0 (0.0%)	159 (9.8%)	578 (24.3%)
		Block Group 1, Tract 9712	0 (0.0%)	202 (13.1%)	282 (12.8%)
		Block Group 3, Tract 9711	0 (0.0%)	136 (13.0%)	238 (17.5%)
Mason Co.	Mason Co. Fire District 13	Block Group 3, Tract 9711	0 (0.0%)	136 (13.0%)	238 (17.5%)
		Block Group 2, Tract 9613	0 (0.0%)	186 (16.8%)	174 (13.9%)
	Mason Co. Fire District 11	Block Group 3, Tract 9602.02	0 (0.0%)	46 (7.1%)	246 (29.5%)
		Block Group 1, Tract 9606	0 (0.0%)	116 (16.3%)	96 (10.1%)
	Mason Co. Fire District 4	Block Group 2, Tract 9606	0 (0.0%)	148 (10.2%)	353 (14.9%)
		Block Group 3, Tract 9610	0 (0.0%)	64 (7.4%)	333 (26.6%)
	Mason Co. Fire District 18	Block Group 1, Tract 9602.01	0 (0.0%)	116 (7.0%)	797 (46.6%)
		Block Group 2, Tract 9601	0 (0.0%)	5 (1.2%)	220 (46.6%)
West Mason Fire Mason Co.	North Mason RFA	Block Group 1, Tract 9604.01	0 (0.0%)	137 (8.9%)	236 (11.0%)
	Block Group 1, Tract 9606	0 (0.0%)	116 (16.3%)	96 (10.1%)	
Pacific Co.	Ilwaco Fire Department	Block Group 4, Tract 9602.02	0 (0.0%)	21 (3.0%)	175 (19.4%)
		Block Group 1, Tract 9505.02	0 (0.0%)	0 (0.0%)	176 (35.8%)
		Block Group 2, Tract 9505.02	37 (16.2%)	69 (17.0%)	252 (56.3%)
Pierce Co.	Central Pierce Fire & Rescue	Block Group 3, Tract 9505.01	0 (0.0%)	77 (9.5%)	263 (23.3%)
		Block Group 1, Tract 714.12	0 (0.0%)	0 (0.0%)	185 (13.7%)
		Block Group 2, Tract 714.17	25 (2.0%)	262 (10.5%)	278 (6.1%)
		Block Group 3, Tract 714.09	51 (7.9%)	304 (23.0%)	158 (7.8%)
		Block Group 3, Tract 714.12	13 (4.1%)	90 (14.1%)	178 (15.5%)
	City of Buckley Fire Dept	Block Group 2, Tract 702.07	0 (0.0%)	77 (6.8%)	397 (25.3%)
	East Pierce Fire	Block Group 2, Tract 703.08	0 (0.0%)	38 (3.9%)	120 (8.5%)
		Block Group 3, Tract 703.08	0 (0.0%)	27 (3.5%)	102 (8.1%)
	East Pierce Fire and Rescue - Station 192	Block Group 1, Tract 703.14	27 (4.3%)	55 (4.3%)	212 (11.3%)
		Block Group 2, Tract 703.14	0 (0.0%)	11 (1.3%)	154 (11.8%)
	McNeil Island Fire Dept	Block Group 3, Tract 726.03	0 (0.0%)	0 (0.0%)	506 (31.2%)
	Pierce Co. Fire District 16	Block Group 1, Tract 726.01	0 (0.0%)	0 (0.0%)	203 (17.1%)
		Block Group 2, Tract 726.01	0 (0.0%)	77 (6.5%)	267 (15.4%)
		Block Group 3, Tract 726.01	0 (0.0%)	18 (2.8%)	149 (13.8%)
	Pierce Co. Fire District 26 (Greenwater)	Block Group 1, Tract 701	0 (0.0%)	127 (11.8%)	444 (34.8%)
Pierce Co. Fire District 5	Block Group 1, Tract 724.09	4 (0.7%)	59 (5.4%)	363 (25.5%)	
	Block Group 1, Tract 725.04	12 (5.6%)	161 (13.0%)	157 (11.7%)	

Location/ County	Facility	Block Group	Limited English Proficiency Households	Less than high school graduate (25+ years)	Population Ages 65+	
		Block Group 1, Tract 725.04	12 (5.6%)	161 (13.0%)	157 (11.7%)	
		Block Group 1, Tract 725.08	0 (0.0%)	64 (6.5%)	512 (41.8%)	
		Block Group 1, Tract 725.08	0 (0.0%)	64 (6.5%)	512 (41.8%)	
		Block Group 2, Tract 725.04	0 (0.0%)	36 (3.5%)	208 (13.8%)	
		Block Group 2, Tract 725.04	0 (0.0%)	36 (3.5%)	208 (13.8%)	
		Block Group 2, Tract 725.08	0 (0.0%)	0 (0.0%)	328 (27.6%)	
		Block Group 2, Tract 725.08	0 (0.0%)	0 (0.0%)	328 (27.6%)	
	Pierce Co. Fire District 5-Station 51	Block Group 1, Tract 724.07	Block Group 1, Tract 724.07	28 (3.4%)	113 (9.0%)	445 (23.3%)
			Block Group 3, Tract 725.07	0 (0.0%)	45 (4.3%)	592 (49.5%)
	Pierce Co. Fire District 5-Station 52	Block Group 2, Tract 724.08	Block Group 2, Tract 724.08	0 (0.0%)	23 (1.7%)	606 (28.9%)
			Block Group 3, Tract 724.08	14 (2.6%)	104 (12.4%)	211 (17.3%)
			Block Group 4, Tract 724.08	0 (0.0%)	15 (1.2%)	451 (26.1%)
	Pierce Co. Fire District 5-Station 58	Block Group 1, Tract 725.04	Block Group 1, Tract 725.04	12 (5.6%)	161 (13.0%)	157 (11.7%)
			Block Group 1, Tract 725.04	12 (5.6%)	161 (13.0%)	157 (11.7%)
		Block Group 1, Tract 725.08	Block Group 1, Tract 725.08	0 (0.0%)	64 (6.5%)	512 (41.8%)
			Block Group 1, Tract 725.08	0 (0.0%)	64 (6.5%)	512 (41.8%)
		Block Group 2, Tract 725.04	Block Group 2, Tract 725.04	0 (0.0%)	36 (3.5%)	208 (13.8%)
			Block Group 2, Tract 725.04	0 (0.0%)	36 (3.5%)	208 (13.8%)
		Block Group 2, Tract 725.08	Block Group 2, Tract 725.08	0 (0.0%)	0 (0.0%)	328 (27.6%)
			Block Group 2, Tract 725.08	0 (0.0%)	0 (0.0%)	328 (27.6%)
	Tacoma Fire District Vehicle Maintenance Shop	Block Group 3, Tract 628.01	Block Group 3, Tract 628.01	19 (3.0%)	25 (3.0%)	72 (5.2%)
Block Group 4, Tract 628.01			0 (0.0%)	82 (6.8%)	192 (9.6%)	
Block Group 4, Tract 723.05			0 (0.0%)	45 (4.8%)	322 (29.4%)	
Tacoma Fire District, Station 6	Block Group 1, Tract 602	31 (4.5%)	189 (12.4%)	214 (11.9%)		
San Juan Co.	Center Island Volunteer Fire Department	Block Group 1, Tract 9605.02	6 (0.7%)	30 (2.1%)	612 (36.9%)	
Skagit Co.	Anacortes Fire Department - Public Works	Block Group 1, Tract 9404.01	3 (0.3%)	66 (3.7%)	636 (26.2%)	
		Block Group 2, Tract 9404.01	21 (5.4%)	37 (5.6%)	220 (24.2%)	
	Burlington Fire Dept.	Block Group 1, Tract 9518	0 (0.0%)	224 (18.4%)	209 (10.9%)	
		Block Group 2, Tract 9517	0 (0.0%)	187 (8.8%)	612 (19.5%)	
	Mount Vernon Fire Department- Station 1	Block Group 2, Tract 9526	0 (0.0%)	92 (16.4%)	174 (23.9%)	
		Block Group 3, Tract 9524.01	57 (14.0%)	60 (9.1%)	56 (4.9%)	
		Block Group 3, Tract 9525	30 (10.4%)	0 (0.0%)	39 (7.7%)	
	Skagit Co. Fire District #3	Block Group 1, Tract 9527	0 (0.0%)	6 (0.6%)	374 (27.7%)	
		Block Group 3, Tract 9527	0 (0.0%)	13 (1.6%)	262 (21.7%)	
		Block Group 4, Tract 9526	0 (0.0%)	139 (10.1%)	393 (19.0%)	
	Skagit Co. Fire District 10- Trailhead Rest stop	Block Group 1, Tract 9511.02	2 (0.7%)	161 (34.5%)	78 (11.6%)	
		Block Group 2, Tract 9511.01	0 (0.0%)	234 (23.7%)	250 (17.9%)	
	Skagit Co. Fire District 14	Block Group 1, Tract 9508.03	0 (0.0%)	55 (5.3%)	199 (13.8%)	
Skagit Co. Fire District 19	Block Group 1, Tract 9511.01	0 (0.0%)	30 (7.6%)	65 (12.0%)		
Skagit Co. Fire District No. 6	Block Group 2, Tract 9519	51 (4.6%)	182 (8.3%)	797 (27.7%)		
Snohomish Co.	Paine Field Fire Department	Block Group 1, Tract 419.01	5 (1.1%)	7 (0.8%)	143 (11.3%)	
	Snohomish Co. Fire District #4	Block Group 1, Tract 524.02	0 (0.0%)	85 (9.3%)	111 (8.1%)	
		Block Group 2, Tract 524.02	0 (0.0%)	89 (8.4%)	354 (25.6%)	
		Block Group 3, Tract 524.02	31 (4.0%)	64 (5.5%)	249 (14.2%)	
	Snohomish Co. Fire District #15	Block Group 1, Tract 9400.02	0 (0.0%)	106 (12.0%)	273 (19.9%)	
		Block Group 2, Tract 9400.01	0 (0.0%)	101 (12.0%)	220 (18.8%)	
	Snohomish Co. Fire District 7	Block Group 2, Tract 9400.02	5 (1.0%)	104 (10.4%)	257 (18.0%)	
		Block Group 1, Tract 521.08	0 (0.0%)	45 (6.5%)	225 (23.7%)	
	South Snohomish Co. Fire & Rescue RFA	Block Group 5, Tract 521.07	16 (3.3%)	56 (5.7%)	177 (11.7%)	
		Block Group 1, Tract 418.08	105 (14.7%)	145 (11.6%)	188 (10.6%)	
Spokane Co. Fire District 4	Block Group 2, Tract 417.01	122 (18.6%)	349 (30.3%)	202 (12.0%)		
	Block Group 1, Tract 103.05	0 (0.0%)	87 (4.1%)	843 (30.2%)		
Spokane Co.	Spokane Co. Fire District 10	Block Group 3, Tract 104.01	18 (5.0%)	442 (17.5%)	216 (6.7%)	
		Block Group 4, Tract 104.01	22 (1.7%)	126 (6.1%)	259 (7.2%)	
	Spokane Co. Fire District 11	Block Group 1, Tract 143	0 (0.0%)	70 (9.0%)	197 (18.7%)	

Location/ County	Facility	Block Group	Limited English Proficiency Households	Less than high school graduate (25+ years)	Population Ages 65+
Spokane Co.	Spokane Co. Fire District 11- Only Open Field	Block Group 1, Tract 143	0 (0.0%)	70 (9.0%)	197 (18.7%)
		Block Group 2, Tract 133	0 (0.0%)	82 (5.3%)	310 (14.6%)
	Spokane Co. Fire District 9	Block Group 1, Tract 112.02	0 (0.0%)	72 (10.9%)	173 (19.8%)
		Block Group 2, Tract 112.02	0 (0.0%)	70 (10.4%)	142 (14.6%)
Thurston Co.	Bald Hills Fire District #17	Block Group 2, Tract 125.31	0 (0.0%)	173 (25.1%)	105 (11.5%)
		Block Group 4, Tract 125.31	0 (0.0%)	33 (3.9%)	104 (8.9%)
	East Olympia Fire District #6	Block Group 1, Tract 117.20	0 (0.0%)	59 (3.5%)	656 (28.6%)
		Block Group 1, Tract 107	0 (0.0%)	64 (7.0%)	186 (14.0%)
	Lacey Fire District 3	Block Group 1, Tract 112	47 (5.0%)	41 (3.5%)	399 (23.4%)
		Block Group 1, Tract 122.11	0 (0.0%)	44 (4.2%)	307 (22.1%)
	South Bay Fire Department	Block Group 2, Tract 122.11	12 (2.3%)	71 (5.8%)	480 (31.4%)
		Block Group 1, Tract 120.01	0 (0.0%)	4 (0.8%)	113 (11.0%)
	Thurston Co. Fire District 9	Block Group 3, Tract 120.01	54 (6.3%)	94 (6.3%)	306 (14.3%)
		Block Group 2, Tract 119.02	0 (0.0%)	0 (0.0%)	453 (34.4%)
	Thurston Co. Fire Protection District 13	Block Group 3, Tract 119.02	0 (0.0%)	13 (1.3%)	425 (33.3%)
		Block Group 1, Tract 119.02	0 (0.0%)	28 (1.5%)	355 (15.0%)
	Thurston Co. Fire Protection District 13-Sta 2	Block Group 3, Tract 119.02	0 (0.0%)	13 (1.3%)	425 (33.3%)
	Thurston Co. Fire Protection District 13-Sta 3	Block Group 2, Tract 119.02	0 (0.0%)	0 (0.0%)	453 (34.4%)
Thurston Co. Fire Protection District 13-Sta 4	Block Group 2, Tract 108.01	0 (0.0%)	112 (12.9%)	157 (12.5%)	
Tumwater Fire Department	Block Group 1, Tract 9206	0 (0.0%)	91 (7.2%)	579 (28.8%)	
	Block Group 2, Tract 9202	0 (0.0%)	51 (3.4%)	500 (25.2%)	
Walla Walla Co.	USFS Umatilla National Forest	Block Group 1, Tract 9206	0 (0.0%)	91 (7.2%)	579 (28.8%)
Walla Walla Regional Airport	Block Group 2, Tract 9202	0 (0.0%)	51 (3.4%)	500 (25.2%)	
Whatcom Co.	Bellingham Fire Department	Block Group 1, Tract 5.02	28 (4.1%)	55 (4.8%)	108 (6.8%)
		Block Group 2, Tract 4.02	0 (0.0%)	15 (1.4%)	265 (18.0%)
		Block Group 2, Tract 5.02	0 (0.0%)	42 (4.3%)	230 (17.7%)
	Bellingham Fire Dept (Whatcom Co. Fire District 8)	Block Group 1, Tract 3.01	38 (4.5%)	79 (5.2%)	262 (13.6%)
		Block Group 2, Tract 2.01	0 (0.0%)	57 (6.0%)	92 (6.2%)
		Block Group 2, Tract 3.01	80 (22.4%)	0 (0.0%)	338 (56.9%)
	Lynden Fire Department	Block Group 1, Tract 103.02	0 (0.0%)	86 (9.5%)	219 (16.8%)
		Block Group 2, Tract 103.03	0 (0.0%)	71 (4.6%)	334 (12.7%)
		Block Group 3, Tract 103.02	9 (1.2%)	83 (5.7%)	598 (27.7%)
	Port of Bellingham/Bellingham International Airport	Block Group 3, Tract 2.01	0 (0.0%)	0 (0.0%)	98 (16.4%)
	Whatcom Co. Fire District No. 7	Block Group 1, Tract 105.06	15 (2.0%)	24 (1.7%)	294 (14.1%)
		Block Group 1, Tract 106	0 (0.0%)	55 (2.3%)	863 (26.5%)
		Block Group 2, Tract 105.04	15 (3.6%)	88 (10.3%)	361 (32.9%)
		Block Group 2, Tract 105.06	0 (0.0%)	66 (8.9%)	158 (12.7%)
Whatcom Co. Fire District No. 7- Station 46	Block Group 1, Tract 105.03	0 (0.0%)	211 (12.3%)	373 (12.6%)	
	Block Group 1, Tract 105.04	0 (0.0%)	26 (2.0%)	376 (21.1%)	
	Block Group 1, Tract 105.05	31 (2.9%)	198 (8.1%)	446 (11.6%)	
	Block Group 2, Tract 105.03	0 (0.0%)	109 (4.4%)	639 (19.5%)	
Yakima Co.	Grandview City Fire Dept	Block Group 1, Tract 19.01	228 (39.6%)	516 (47.2%)	111 (5.2%)
		Block Group 1, Tract 19.02	177 (29.6%)	405 (42.1%)	140 (7.8%)
	Nile Cliffdell Fire Department	Block Group 1, Tract 30.03	0 (0.0%)	2 (0.5%)	116 (21.6%)
		Block Group 2, Tract 30.04	0 (0.0%)	26 (3.8%)	158 (17.9%)
—	<b>Total for 112 Fire Stations in 201 Unique Block Groups</b>	—	<b>4,155 (3.5%)</b>	<b>18,443 (8.5%)</b>	<b>55,316 (17.9%)</b>

Table Note: Source: U.S. Census Bureau 2024

**Table 4-2: Demographic Profile of Block Groups within 10 Miles of Incineration Facilities**

Facility/Location	Block Group	Limited English Proficiency Households	Less Than High School Graduate or Higher, Persons Aged 25 Years+	Population Ages 65+
<b>State of Nebraska</b>	<b>all</b>	<b>19,157 (2.5%)</b>	<b>98,753 (8.5%)</b>	<b>316,709 (16.2%)</b>
<b>Kimball County, Nebraska</b>	all	1,501 (1.1%)	369 (14.7%)	879 (25.9%)
Clean Harbors Kimball, Nebraska	Block Group 4, Tract 9545	11 (2.5%)	185 (25.5%)	266 (28.7%)
	Block Group 1, Tract 9545	6 (1.3%)	96 (12.6%)	241 (23.5%)
	Block Group 3, Tract 9545	0 (0.0%)	53 (13.3%)	123 (21.8%)
	Block Group 2, Tract 9545	0 (0.0%)	35 (5.6%)	250 (28.5%)
	<b>Kimball Study Area Total</b>	<b>17 (1.1%)</b>	<b>369 (14.7%)</b>	<b>880 (25.9%)</b>
<b>State of Utah</b>	<b>all</b>	<b>1,108 (7.2%)</b>	<b>4,462 (16.0%)</b>	<b>4,793 (11.0%)</b>
<b>Tooele County, Utah</b>	all	22,124 (0.8%)	3,220 (7.4%)	6,663 (9.0%)
Clean Harbors Aragonite, Utah	Block Group 2, Tract 1306	47 (9.5%)	221 (23.8%)	104 (6.9%)

Table Note: Source: U.S. Census Bureau 2024

**Table 4-3: Demographic Profile of Block Groups within 0.25 Mile of Landfills**

Facility/Location	Block Group	Limited English Proficiency Households	Less Than High School Graduate or Higher, Persons Aged 25 Years+	Population Ages 65+
<b>State of Idaho</b>	<b>all</b>	<b>12,302 (1.8%)</b>	<b>102,001 (9.3%)</b>	<b>302,543 (16.3%)</b>
<b>Owyhee County, Idaho</b>	all	4,227 (6.6%)	1,915 (23.9%)	2,216 (18.4%)
US Ecology Idaho	Block Group 2, Tract 9502	2 (0.5%)	205 (26.6%)	197 (18.5%)
<b>State of Nevada</b>	<b>all</b>	<b>61,531 (5.3%)</b>	<b>254,282 (13.3%)</b>	<b>503,234 (16.2%)</b>
<b>Nye County, Nevada</b>	all	21,847 (2.0%)	5,376 (13.3%)	15,820 (30.6%)
US Ecology Nevada	Block Group 1, Tract 9603	60 (7.6%)	163 (12.6%)	391 (21.4%)

Table Note: Source: U.S. Census Bureau 2024



**Table 4-4: Demographic Profile of Block Groups within 0.25 Mile of Injection Sites**

Facility/Location	Block Group	Limited English Proficiency Households	Less Than High School Graduate or Higher, Persons Aged 25 Years+	Population Ages 65+
State of Kansas	all	27,297 (2.4%)	154,485 (8.8%)	478,994 (16.3%)
Reno County, Kansas	all	25,157 (0.5%)	3,544 (8.3%)	12,438 (20.1%)
Advantek Cavern Solutions, Kansas	Block Group 3, Tract 14	10 (1.9%)	238 (22.3%)	322 (18.6%)
State of Texas	all	729,208 (7.0%)	2,512,875 (13.9%)	3,768,977 (12.9%)
Jefferson County, Texas	all	93,193 (4.8%)	25,924 (15.2%)	37,986 (14.9%)
US Ecology Winnie, Texas	Block Group 1, Tract 116	20 (3.8%)	159 (16.8%)	266 (20.8%)

Table Note: Source: U.S. Census Bureau 2024

**Table 4-5: Demographic Profile of Block Groups within 0.25 Mile of 10-Day Hold Facilities**

Facility/Location	Block Group	Limited English Proficiency Households	Less Than High School Graduate or Higher, Persons Aged 25 Years+	Population Ages 65+
State of Washington	All	112,847 (3.8%)	417,305 (8.7%)	1,228,940 (16.0%)
<b>Emerald Services- Seattle/Airport Way (King County)</b>	Block Group 1, Tract 93, King Co.	68 (12.6%)	103 (11.8%)	107 (9.3%)
<b>Emerald Services- Seattle/Marginal Way (King County)</b>	Block Group 1, Tract 109, King Co.	0 (0.0%)	16 (2.5%)	107 (14.0%)
	Block Group 2, Tract 109, King Co.	16 (5.7%)	72 (14.2%)	89 (16.0%)
	Block Group 2, Tract 112, King Co.	17 (3.5%)	192 (22.6%)	127 (9.7%)
<b>Emerald Services- Spokane Valley WA (Spokane County)</b>	Block Group 1, Tract 122, Spokane Co.	0 (0.0%)	51 (7.9%)	140 (13.7%)
<b>Emerald Services- Vancouver WA (Clark County)</b>	Block Group 2, Tract 410.05, Clark Co.	28 (10.0%)	147 (29.6%)	86 (9.4%)
	Block Group 1, Tract 423, Clark Co.	34 (4.9%)	63 (6.7%)	235 (17.9%)
	Block Group 2, Tract 423, Clark Co.	9 (1.8%)	44 (7.1%)	236 (32.2%)
	Block Group 1, Tract 424, Clark Co.	0 (0.0%)	115 (11.4%)	176 (16.1%)
<b>Heritage Crystal Clean Lakewood (Pierce County)</b>	Block Group 1, Tract 718.05, Pierce Co.	84 (15.7%)	299 (33.9%)	150 (11.6%)
	Block Group 2, Tract 718.05, Pierce Co.	33 (5.7%)	335 (31.3%)	155 (9.5%)
	Block Group 1, Tract 718.07, Pierce Co.	67 (11.7%)	128 (16.1%)	55 (3.7%)
	Block Group 4, Tract 718.07, Pierce Co.	44 (12.9%)	46 (13.0%)	111 (19.7%)
<b>Kent Facility (King County)</b>	Block Group 2, Tract 297.02, King Co.	25 (4.9%)	224 (24.1%)	148 (9.1%)
<b>Milton Facility US Ecology</b>	Block Group 2, Tract 304.03, King Co.	13 (2.0%)	60 (3.8%)	331 (15.2%)
	Block Group 3, Tract 303.04, King Co.	60 (10.6%)	83 (8.2%)	103 (5.5%)
	Block Group 1, Tract 707.03, Pierce Co.	23 (3.6%)	139 (10.5%)	163 (9.0%)
	Block Group 1, Tract 9400.02, Pierce Co.	69 (15.0%)	145 (16.0%)	78 (5.7%)
<b>NRC Environmental- Seattle</b>	Block Group 2, Tract 201, King Co.	31 (5.9%)	31 (2.8%)	358 (25.1%)
	Block Group 3, Tract 201, King Co.	9 (2.3%)	9 (1.2%)	251 (26.5%)

Facility/Location	Block Group	Limited English Proficiency Households	Less Than High School Graduate or Higher, Persons Aged 25 Years+	Population Ages 65+
	Block Group 0, Tract 9901, King Co.	NA (NA)	0 (NA)	0 (NA)
	Block Group 1, Tract 506, Snohomish Co.	7 (1.7%)	10 (1.3%)	255 (23.0%)
	Block Group 0, Tract 9900.02, Snohomish Co.	NA (NA)	0 (NA)	0 (NA)
<b>NRC Environmental- Spokane (Spokane County)</b>	Block Group 3, Tract 145, Spokane Co.	0 (0.0%)	16 (6.5%)	22 (4.3%)
<b>Pasco Facility Clean Harbors (Franklin County)</b>	Block Group 2, Tract 201.01, Franklin Co.	0 (0.0%)	71 (55.5%)	5 (1.9%)
	Block Group 1, Tract 201.03, Franklin Co.	26 (3.8%)	539 (38.3%)	15 (0.4%)
	Block Group 1, Tract 207, Franklin Co.	2 (0.5%)	107 (11.1%)	183 (14.5%)
<b>Pasco Facility US Ecology (Franklin County)</b>	Block Group 1, Tract 201.02, Franklin Co.	96 (20.2%)	287 (45.6%)	19 (1.0%)
<b>Seattle Branch (Pierce County)</b>	Block Group 1, Tract 602, Pierce Co.	31 (4.5%)	189 (12.4%)	214 (11.9%)
<b>Seattle WWTF (Pierce County)</b>	Block Group 1, Tract 602, Pierce Co.	31 (4.5%)	189 (12.4%)	214 (11.9%)
<b>Spokane Facility (Spokane County)</b>	Block Group 1, Tract 122, Spokane Co.	0 (0.0%)	51 (7.9%)	140 (13.7%)
<b>US Ecology Seattle (King County)</b>	Block Group 1, Tract 112, King Co.	88 (16.4%)	186 (16.4%)	104 (6.5%)
	Block Group 3, Tract 112, King Co.	48 (11.5%)	166 (22.6%)	162 (16.4%)
	Block Group 1, Tract 264, King Co.	106 (30.7%)	360 (58.0%)	53 (4.7%)
	Block Group 3, Tract 264, King Co.	74 (10.5%)	74 (6.2%)	129 (5.4%)
	Block Group 4, Tract 264, King Co.	0 (0.0%)	155 (12.7%)	426 (28.5%)
<b>Total for 16 10-Day Hold Facilities in 34 Unique Block Groups</b>	—	<b>1,108 (7.2%)</b>	<b>4,462 (16.0%)</b>	<b>4,793 (11.0%)</b>

Table Note: Source: U.S. Census Bureau 2024

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