

# Appendix Q

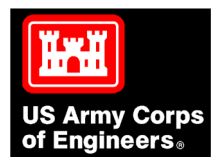
## Environmental Justice Impact Analysis

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September 2020

Chehalis River Basin Flood Damage Reduction Project

NEPA Environmental Impact Statement



# APPENDIX Q: ENVIRONMENTAL JUSTICE IMPACT ANALYSIS

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## Study Area and Approach

Environmental justice impacts could arise through impacts on two groups of people: 1) those that temporarily or permanently live within an area the alternatives could affect; and 2) those that rely on goods and services that the alternatives could affect, but live elsewhere.

The environmental justice analysis also considers people that do not live within these census block groups, but who rely on the goods and services the proposed action could affect.<sup>1</sup> Native American Tribes that traditionally hunted, fished, and gathered the resources in the study area represent an environmental justice population. The study area is shown in Figure 1.

## Minority Data

The U.S. Census Data for minority populations in the study area are shown in Table 1. One of these census block groups (Block Group 1, Census Tract 7) is in Grays Harbor County and includes portions of the Chehalis Indian Reservation. This census block group has a high proportion of people who identify as American Indian/Alaska Natives. The other four census block groups are in Lewis County. None of the five census block groups are within 0.5 mile of the flood retention facility project area. One of the five census block groups is within 0.5 mile of the Airport Levee Improvements project area (Block Group 4, Census Tract 9708). The remainder are near the city limits of Centralia and Chehalis.

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<sup>1</sup> Including these populations that reside outside the impact area is consistent with the intent of Executive Order 12898 and subsequent regulatory guidance (FIWGEJ 2016) that emphasizes investigating pathways of potential impact and exposure to identify populations who may experience potential disproportionate impacts.

**Figure 1**  
**Census Block Groups Within the Environmental Justice Study Area**

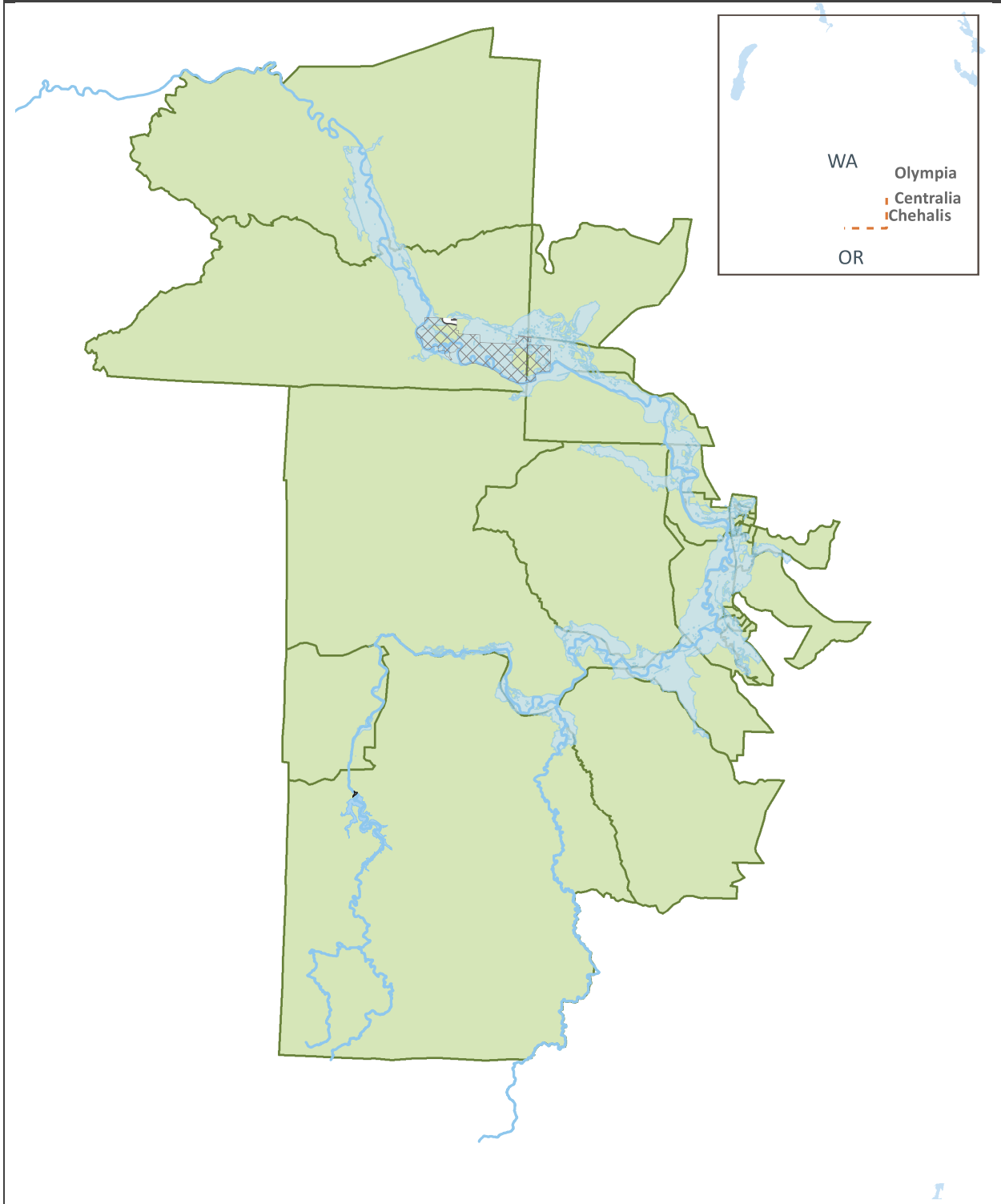


Table 1

## Population by Ethnic and Racial Minority Status Within the Study Area and Comparison Geographies, 2018

GEOGRAPHIC AREA	TOTAL POPULATION	MINORITY POPULATION	WHITE ALONE	BLACK/AFRICAN AMERICAN ALONE	ASIAN ALONE	AMERICAN INDIAN/ALASKA NATIVE	OTHER	HISPANIC /LATINO
Washington	7,294,336	24.0%	76.0%	3.7%	8.3%	1.3%	10.6%	12.5%
Grays Harbor County	71,967	12.0%	88.0%	1.0%	1.6%	4.4%	5.0%	9.9%
<b>Block Group 1, Census Tract 7, Grays Harbor County</b>	2,379	<b>28.1%</b>	71.9%	0.5%	0.8%	19.1%	7.7%	6.0%
Block Group 3, Census Tract 7, Grays Harbor County	1,705	1.9%	98.1%	0.0%	0.0%	0.0%	1.9%	3.5%
Lewis County	76,947	9.4%	90.6%	0.6%	1.2%	0.7%	6.9%	10.0%
Block Group 1, Census Tract 9701, Lewis County	1,877	2.0%	98.0%	0.0%	0.0%	1.0%	1.1%	1.5%
Block Group 2, Census Tract 9701, Lewis County	1,462	7.3%	92.7%	2.0%	0.0%	0.1%	5.1%	1.5%
Block Group 1, Census Tract 9702, Lewis County	2,578	9.0%	91.0%	0.0%	0.8%	0.0%	8.1%	17.0%
Block Group 2, Census Tract 9702, Lewis County	967	1.9%	98.1%	0.0%	0.0%	0.0%	1.9%	1.9%
Block Group 2, Census Tract 9703, Lewis County	1,474	10.1%	89.9%	0.0%	0.0%	0.0%	10.1%	9.5%
<b>Block Group 3, Census Tract 9703, Lewis County</b>	892	<b>25.4%</b>	74.6%	0.0%	19.8%	1.5%	4.1%	2.2%
Block Group 1, Census Tract 9705, Lewis County	844	11.4%	88.6%	0.0%	0.0%	0.8%	10.5%	4.0%
<b>Block Group 2, Census Tract 9705, Lewis County</b>	1,169	<b>24.0%</b>	76.0%	0.6%	0.0%	1.3%	22.2%	10.7%
Block Group 1, Census Tract 9706, Lewis County	1,180	12.0%	88.0%	0.0%	3.1%	0.7%	8.3%	6.9%

GEOGRAPHIC AREA	TOTAL POPULATION	MINORITY POPULATION	WHITE ALONE	BLACK/AFRICAN AMERICAN ALONE	ASIAN ALONE	AMERICAN INDIAN/ALASKA NATIVE	OTHER	HISPANIC /LATINO
Block Group 2, Census Tract 9706, Lewis County	844	8.1%	91.9%	0.8%	0.4%	0.5%	6.4%	31.0%
Block Group 1, Census Tract 9707, Lewis County	1,022	9.1%	90.9%	0.0%	0.0%	0.0%	9.1%	9.6%
Block Group 2, Census Tract 9707, Lewis County	791	14.0%	86.0%	0.0%	4.4%	0.0%	9.6%	18.5%
Block Group 3, Census Tract 9707, Lewis County	876	3.0%	97.0%	0.0%	0.0%	0.0%	3.0%	33.0%
Block Group 4, Census Tract 9707, Lewis County	1,627	19.4%	80.6%	0.1%	0.1%	0.0%	19.2%	25.3%
Block Group 1, Census Tract 9708, Lewis County	717	7.5%	92.5%	5.4%	0.0%	0.0%	2.1%	9.8%
Block Group 2, Census Tract 9708, Lewis County	962	9.0%	91.0%	0.0%	0.0%	0.0%	9.0%	25.4%
<b>Block Group 4, Census Tract 9708, Lewis County</b>	1,094	<b>33.5%</b>	66.5%	3.4%	0.8%	1.3%	28.0%	29.3%
<b>Block Group 1, Census Tract 9709, Lewis County</b>	881	<b>19.8%</b>	80.2%	12.7%	0.0%	0.5%	6.6%	1.5%
Block Group 2, Census Tract 9709, Lewis County	866	9.5%	90.5%	0.0%	0.0%	0.0%	9.5%	15.4%
Block Group 1, Census Tract 9710, Lewis County	749	17.2%	82.8%	6.7%	1.6%	0.4%	8.5%	7.3%
Block Group 1, Census Tract 9714, Lewis County	1,178	4.1%	95.9%	0.0%	1.3%	0.0%	2.8%	0.0%
Block Group 3, Census Tract 9715, Lewis County	2,588	3.5%	96.5%	0.0%	0.3%	0.0%	3.2%	3.5%
Block Group 4, Census Tract 9715, Lewis County	1,215	10.0%	90.0%	0.4%	0.0%	2.1%	7.4%	3.0%

GEOGRAPHIC AREA	TOTAL POPULATION	MINORITY POPULATION	WHITE ALONE	BLACK/AFRICAN AMERICAN ALONE	ASIAN ALONE	AMERICAN INDIAN/ALASKA NATIVE	OTHER	HISPANIC /LATINO
Block Group 5, Census Tract 9715, Lewis County	870	6.7%	93.3%	0.0%	0.0%	0.1%	6.6%	4.6%
<b>Thurston County</b>	<b>274,684</b>	<b>18.3%</b>	<b>81.7%</b>	<b>3.1%</b>	<b>5.8%</b>	<b>1.4%</b>	<b>8.0%</b>	<b>8.7%</b>
Block Group 1, Census Tract 127.20, Thurston County	1,083	7.9%	92.1%	0.0%	0.0%	0.9%	7.0%	13.0%
Block Group 5, Census Tract 127.20, Thurston County	946	10.3%	89.7%	1.6%	0.0%	2.0%	6.7%	4.3%
Block Group 1, Census Tract 127.30, Thurston County	2,561	12.5%	87.5%	5.0%	1.6%	2.4%	3.6%	21.7%

Notes:

“Minority Population” is defined as all people who identify as other than “White Alone.” Pacific County is not included in the table because there are no census block groups that overlap with the area the proposed action would affect, as described above in Section 5.11.1 of the Environmental Impact Statement.

Block Groups highlighted in bold meet the environmental justice screening criteria and represent populations of concern for the environmental justice analysis.

Source: U.S. Census Bureau 2020a, 2020b, 2020c, 2020d

## Low-Income Data

The U.S. Census Data for low-income populations in the study area are shown in Table 2. There are four census blocks where over 20% of the population is below the U.S. Census poverty threshold. All of these block groups are located in Lewis County. They are shown in bold italic. In an additional 11 census block groups, the proportion of people below the poverty level exceeds the proportion of the county where it is located. These are shown in bold. Of the 15 block groups with a higher percent of people in poverty than the county average, four were also identified as environmental justice populations using the minority criteria. They are indicated with an asterisk. They are indicated with an asterisk.

None of these 15 census block groups are within 0.5 mile of the FRE facility project area. Three census block groups of the 15 are within 0.5 mile of the Airport Levee Improvements project area: Block Group 4, Census Tract 9707 (36.9%); Block Group 1, Census Tract 9708 (16.0%); and Block Group 4, Census Tract 9708 (16.2%). Of those three, only Block Group 4, Census Tract 9707 also has over 20% of the population that is below the U.S. Census poverty threshold.

**Table 2**

**Percentage of the Population Below the U.S. Census Poverty Threshold in the Study Area and Comparative Geographies, 2018**

GEOGRAPHIC AREA	POPULATION FOR WHOM POVERTY STATUS IS DETERMINED	PERCENTAGE OF INDIVIDUALS BELOW THE POVERTY THRESHOLD
Washington	7,161,708	11.5%
Grays Harbor County	68,852	15.9%
<b>Block Group 1, Census Tract 7, Grays Harbor County*</b>	<b>2,371</b>	<b>19.2%</b>
Block Group 3, Census Tract 7, Grays Harbor County	1,688	8.9%
Lewis County	75,797	14.4%
Block Group 1, Census Tract 9701, Lewis County	1,861	0.0%
<b>Block Group 2, Census Tract 9701, Lewis County</b>	<b>1,462</b>	<b>17.3%</b>
<b>Block Group 1, Census Tract 9702, Lewis County</b>	<b>2,486</b>	<b>17.5%</b>
Block Group 2, Census Tract 9702, Lewis County	967	12.0%
<b>Block Group 2, Census Tract 9703, Lewis County</b>	<b>1,422</b>	<b>20.3%</b>
Block Group 3, Census Tract 9703, Lewis County	892	12.2%
Block Group 1, Census Tract 9705, Lewis County	844	1.8%
<b>Block Group 2, Census Tract 9705, Lewis County*</b>	<b>1,169</b>	<b>17.2%</b>
<b>Block Group 1, Census Tract 9706, Lewis County</b>	<b>1,180</b>	<b>16.1%</b>
<b>Block Group 2, Census Tract 9706, Lewis County</b>	<b>765</b>	<b>17.0%</b>
Block Group 1, Census Tract 9707, Lewis County	1,022	7.8%
<b>Block Group 2, Census Tract 9707, Lewis County</b>	<b>762</b>	<b>16.0%</b>
Block Group 3, Census Tract 9707, Lewis County	876	11.2%
<b>Block Group 4, Census Tract 9707, Lewis County</b>	<b>1,598</b>	<b>36.9%</b>
<b>Block Group 1, Census Tract 9708, Lewis County</b>	<b>706</b>	<b>16.0%</b>

GEOGRAPHIC AREA	POPULATION FOR WHOM POVERTY STATUS IS DETERMINED	PERCENTAGE OF INDIVIDUALS BELOW THE POVERTY THRESHOLD
Block Group 2, Census Tract 9708, Lewis County	962	12.7%
<b>Block Group 4, Census Tract 9708, Lewis County*</b>	<b>827</b>	<b>16.2%</b>
<b><i>Block Group 1, Census Tract 9709, Lewis County*</i></b>	<b><i>881</i></b>	<b><i>31.2%</i></b>
<b>Block Group 2, Census Tract 9709, Lewis County</b>	<b>809</b>	<b>18.7%</b>
<b><i>Block Group 1, Census Tract 9710, Lewis County</i></b>	<b><i>593</i></b>	<b><i>21.4%</i></b>
Block Group 1, Census Tract 9714, Lewis County	1,178	4.9%
Block Group 3, Census Tract 9715, Lewis County	2,572	6.2%
Block Group 4, Census Tract 9715, Lewis County	1,215	10.1%
Block Group 5, Census Tract 9715, Lewis County	870	4.9%
Thurston County	270,989	11.0%
Block Group 1, Census Tract 127.20, Thurston County	1,083	6.6%
Block Group 5, Census Tract 127.20, Thurston County	849	6.7%
<b>Block Group 1, Census Tract 127.30, Thurston County</b>	<b>1,915</b>	<b>19.7%</b>

## Notes:

Pacific County is not included in the table because there are no census block groups that overlap with the area the proposed action would affect, as described in Section 5.11.1 of the Environmental Impact Statement.

Bold represents block groups that have a proportion of the population below the poverty threshold that exceeds the underlying county proportion. Bold italic represents the block groups with a population below the threshold that exceeds 20%.

Source: U.S. Census Bureau 2020c

## References

FIWGEJ (Federal Interagency Working Group on Environmental Justice), 2016. *Promising Practices for EJ Methodologies in NEPA Reviews*. March 2016.

Accessed at: [https://www.epa.gov/sites/production/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf).

U.S. Census Bureau, 2020a. *2014-2018 American Community Survey 5-Year Estimates, Table B02001: Race*.

U.S. Census Bureau, 2020b. *2014-2018 American Community Survey 5-Year Estimates, Table DP05: ACS Demographic and Housing Estimates*.

U.S. Census Bureau, 2020c. *2014-2018 American Community Survey 5-Year Estimates, Table B17021: Poverty Status of the Individuals in the Past 12 Months by Living Arrangement*.

U.S. Census Bureau, 2020d. *2014-2018 American Community Survey 5-Year Estimates, Table B03003: Hispanic or Latino Origin*.