OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Environmental Justice (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/environmental-justice

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. **Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?**
   ☒Yes → *Continue to Question 2.*

   ☐No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. **Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?**
   ☐Yes
   Explain:
   Click here to enter text.
   → *The RE/HUD must work with the affected low-income or minority community to decide what mitigation actions, if any, will be taken. Provide any supporting documentation.*

   ☒No
   Explain:
   Click here to enter text.
   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The US EPA online assessment tool, EJ Screen, was used to develop findings about the subject site (US EPA 2022a). Since the site is about 18 acres, a model run was completed by outlining the boundaries of the project site (one of the tools in EJScreen). Then, a second run was completed by computing risk scores based on a ½ mile radius from the approximate center of the property. The complete model output for both scenarios is provided as PDFs, herein. A summary of the data from the two screens is provided below.

According to EJScreen, the following categories score over the 80th percentile for the state of Nevada:

EPA Environmental Justice Indices	On-site	State Percentile one-half mile
Particulate Matter PM2.5	82	89
Air Toxic Cancer Risk	75	87
Traffic Proximity	90	96
Lead Paint	88	92
Superfund Proximity	96	98
Risk Management Program Facility	79	86
Hazardous Waste Proximity	85	91
Underground Storage Tanks	86	92
Demographic Index	72	86
Low Income	92	93
Unemployment rate	91	80
Under Age 5	55	83

As an example of what this means, PM2.5 is higher on-site than 81% of other inhabited parts of the state. The data generally shows that the various factors do not change very much between being on-site or other locations within one-half mile. The main cause for this is the air pollution created by vehicles on two major freeways at the boundary of the project. In addition, other factors leading to these high percentiles are the older buildings that may contain lead-based paint and proximity to underground storage tanks or hazardous waste. The data shows the main difference between the two screens is the number of children under 5 who are exposed to higher pollution. The number of young children increases by about one-third over the project site alone when the screen is run out to one-half mile. This likely results from the children living in housing scattered around the area, especially north of Interstate 80.

Traffic data for the main highways next to the site was obtained from the Nevada Department of Transportation Traffic Information Systems (TRINA) (Nevada DOT 2022). Traffic volumes are expressed as Annual Average Daily Trips below:

Interstate 80 just west of 580	121,000 vehicles
Interstate 80 just east of 580	98,000 vehicles
Highway 580 just north of I-80	115,000 vehicles
Highway 580 just south of 1-80	163,000 vehicles

It is likely that many of these vehicles are double counted as they transition from one highway to the other. The traffic data do not tell us what portion of the trips are local, nor how many are heavy-duty trucks and buses. Regardless of these limitations, the project site is in area with a very high level of traffic, rivaling that of many major American cities.

The high metrics for low-income and unemployment rate are self-explanatory – the project is a homeless assistance facility. Most of the people served by this project are adult homeless people, many of which are un-or-under employed. The term 'demographic index' is defined as follows, "The demographic index in EJScreen is a combination of percent low-income and percent minority, the two socioeconomic factors that were explicitly named in Executive Order 12898 on Environmental Justice. For each Census block group, these two numbers are simply averaged together. The formula is as follows: demographic index = (% people of color + % low-income) / 2." (US EPA 2022b). The demographic index increases by about 20% in the one-half mile screen compared to the project site, indicating that the project site would not disproportionately impact low income or minority populations compared to other areas nearby.

CONCLUSION

This project site is similar in pollution levels to those found in the area, where many hundreds of residences currently exist (see accompanying maps). This project's location will not disproportionately impact low income or minority populations compared to other areas nearby.

See attached documents for complete EPA EJ Screen model runs.

References

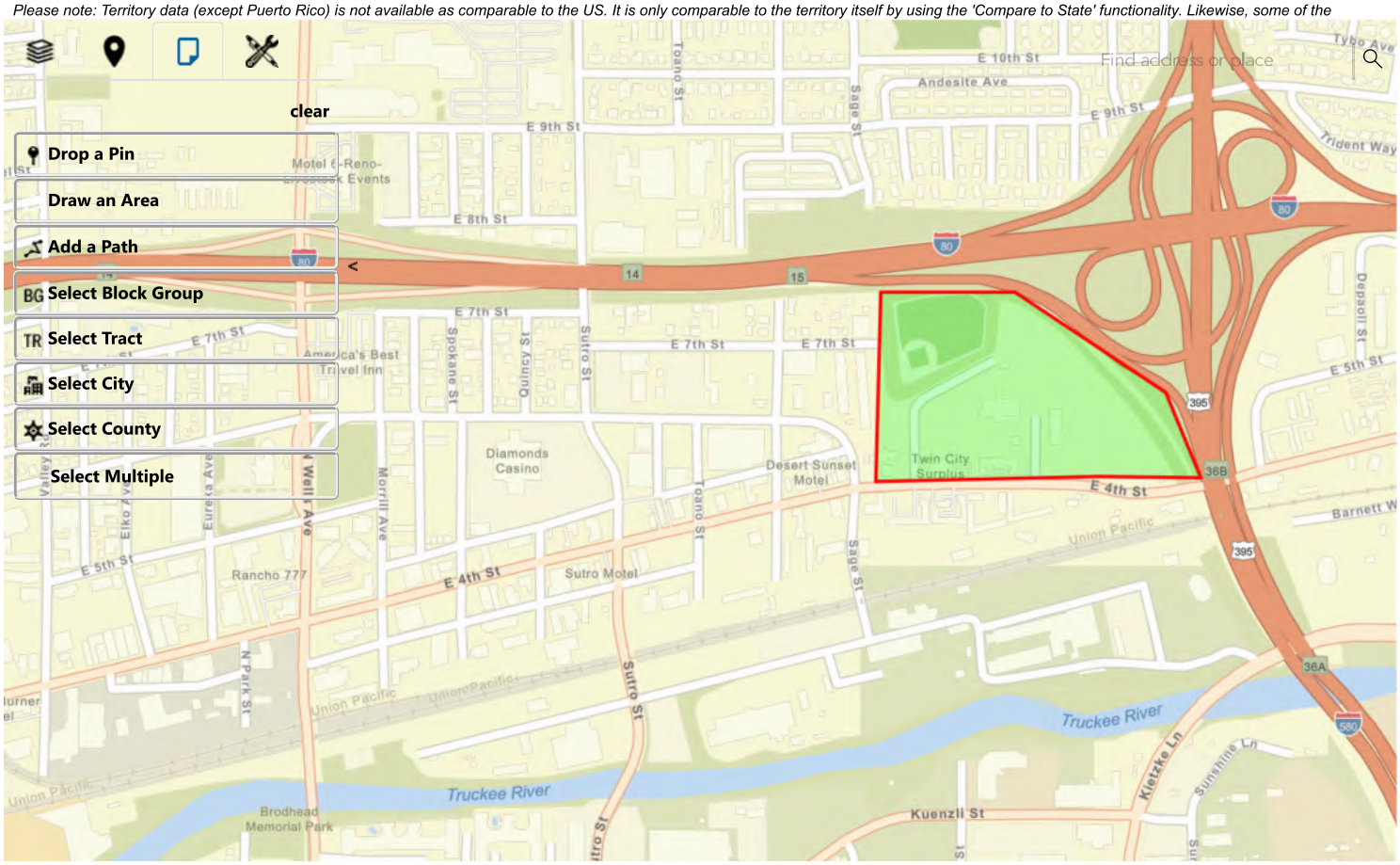
Nevada DOT. 2022. Traffic Records Information Access (TRINA). Accessible from https://www.dot.nv.gov/doing-business/about-ndot/ndot-divisions/planning/traffic-information Accessed November 3, 2022

United States Environmental Protection Agency (EPA). 2022a. EJScreen. Accessible from https://ejscreen.epa.gov/mapper/ Accessed July 27, 2022.

United States Environmental Protection Agency (EPA). 2022b. EJScreen Map Descriptions. Accessible from https://www.epa.gov/ejscreen/ejscreen-map-descriptions Accessed July 27, 2022.

EJScreen **EPA's Environmental Justice Screening and Mapping Tool (Version 2.1)** EJScreen Website (https://www.epa.gov/ejscreen/) | Mobile (mobile/index.html) | Gloss

Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the



EnviroMapper®

Esri Community Maps Contributors, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, US… Powered by Esri (http://www.esri.com/)

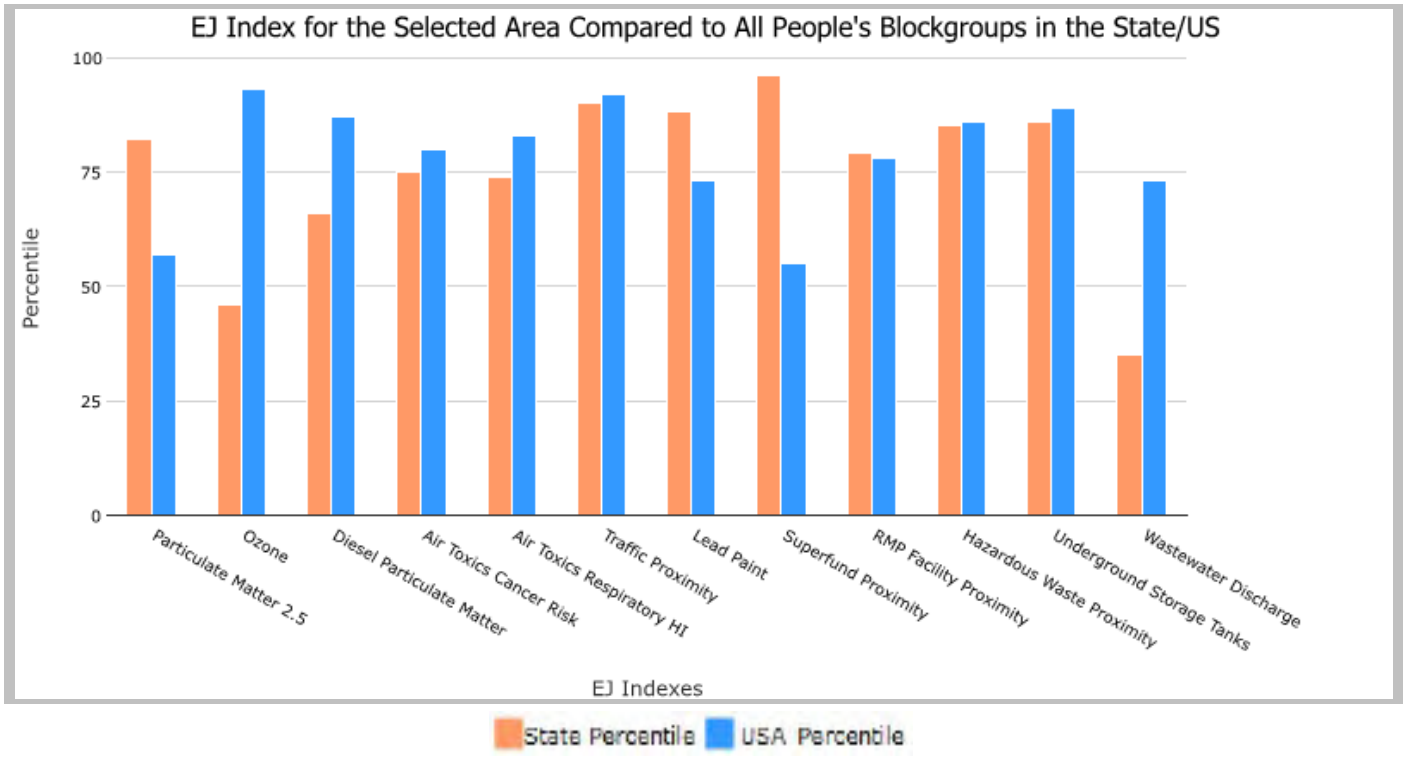
EJScreen Report (Version 2.1)

the User Specified Area, NEVADA, EPA Region 9

Approximate Population: 185

Input Area (sq. miles): 0.05

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	82	57
EJ Index for Ozone	46	93
EJ Index for Diesel Particulate Matter*	66	87
EJ Index for Air Toxics Cancer Risk*	75	80
EJ Index for Air Toxics Respiratory HI*	74	83
EJ Index for Traffic Proximity	90	92
EJ Index for Lead Paint	88	73
EJ Index for Superfund Proximity	96	55
EJ Index for RMP Facility Proximity	79	78
EJ Index for Hazardous Waste Proximity	85	86
EJ Index for Underground Storage Tanks	86	89
EJ Index for Wastewater Discharge	35	73



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

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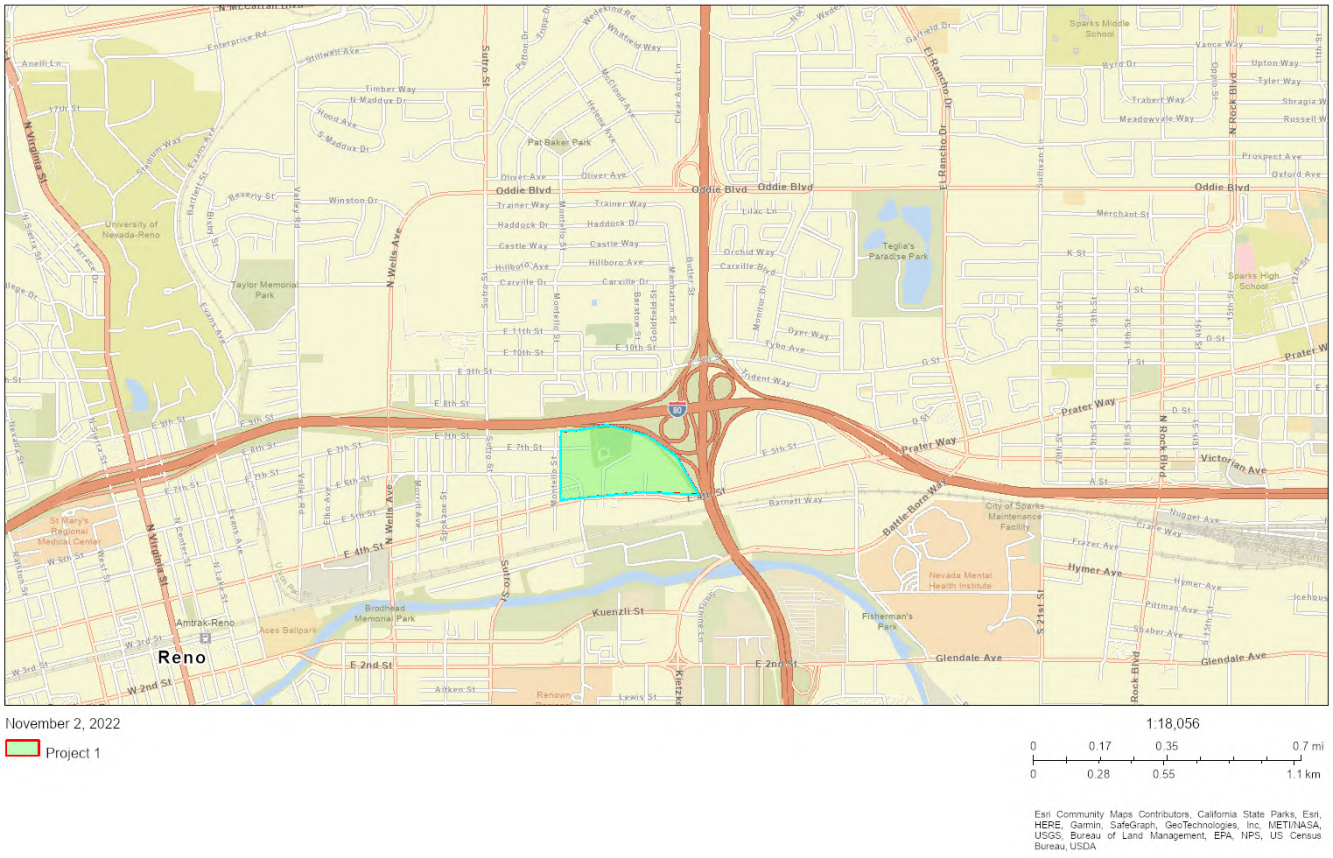

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

the User Specified Area, NEVADA, EPA Region 9

Approximate Population: 185

Input Area (sq. miles): 0.05

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	7.75	7.12	85	8.67	28
Ozone (ppb)	55	57.6	28	42.5	92
Diesel Particulate Matter* (µg/m^3)	0.468	0.439	56	0.294	80-90th
Air Toxics Cancer Risk* (lifetime risk per million)	30	25	98	28	80-90th
Air Toxics Respiratory HI*	0.4	0.34	86	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	7200	700	99	760	98
Lead Paint (% Pre-1960 Housing)	0.18	0.05	88	0.27	45
Superfund Proximity (site count/km distance)	0.026	0.014	85	0.13	25
RMP Facility Proximity (facility count/km distance)	0.54	0.42	75	0.77	60
Hazardous Waste Proximity (facility count/km distance)	3.3	2	84	2.2	80
Underground Storage Tanks (count/km^2)	11	3.3	93	3.9	90
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00061	13	23	12	45
Socioeconomic Indicators					
Demographic Index	54%	41%	72	35%	78
People of Color	41%	52%	40	40%	60
Low Income	66%	32%	92	30%	91
Unemployment Rate	15%	7%	91	5%	92
Limited English Speaking Households	0%	6%	0	5%	0
Less Than High School Education	7%	13%	35	12%	42
Under Age 5	5%	6%	55	6%	54
Over Age 64	11%	16%	37	16%	31

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

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EJScreen Report (Version 2.1)

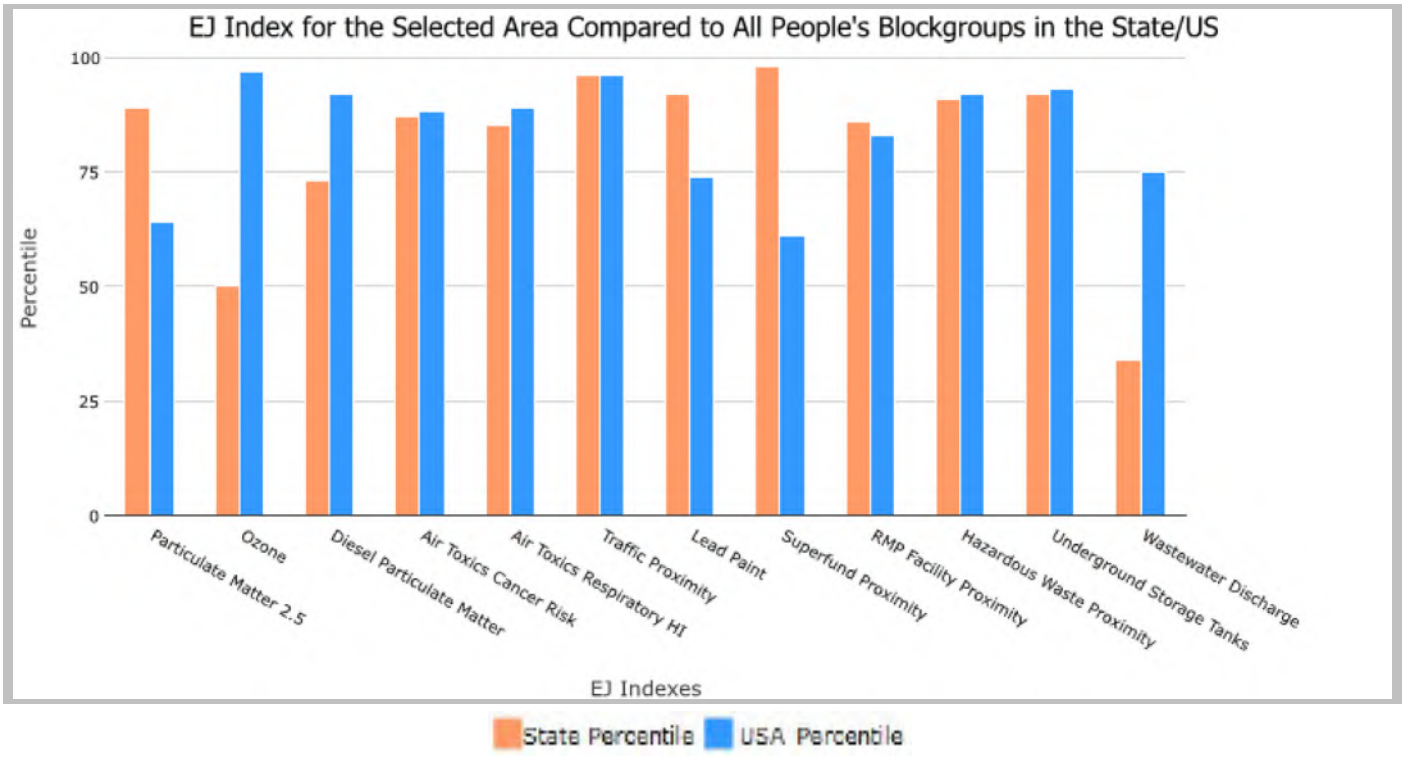
.5 miles Ring Centered at 39.534948,-119.791408, NEVADA, EPA Region 9

Approximate Population: 2,451

Input Area (sq. miles): 0.79

Washoe Cares .5 mile

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	89	64
EJ Index for Ozone	50	97
EJ Index for Diesel Particulate Matter*	73	92
EJ Index for Air Toxics Cancer Risk*	87	88
EJ Index for Air Toxics Respiratory HI*	85	89
EJ Index for Traffic Proximity	96	96
EJ Index for Lead Paint	92	74
EJ Index for Superfund Proximity	98	61
EJ Index for RMP Facility Proximity	86	83
EJ Index for Hazardous Waste Proximity	91	92
EJ Index for Underground Storage Tanks	92	93
EJ Index for Wastewater Discharge	34	75



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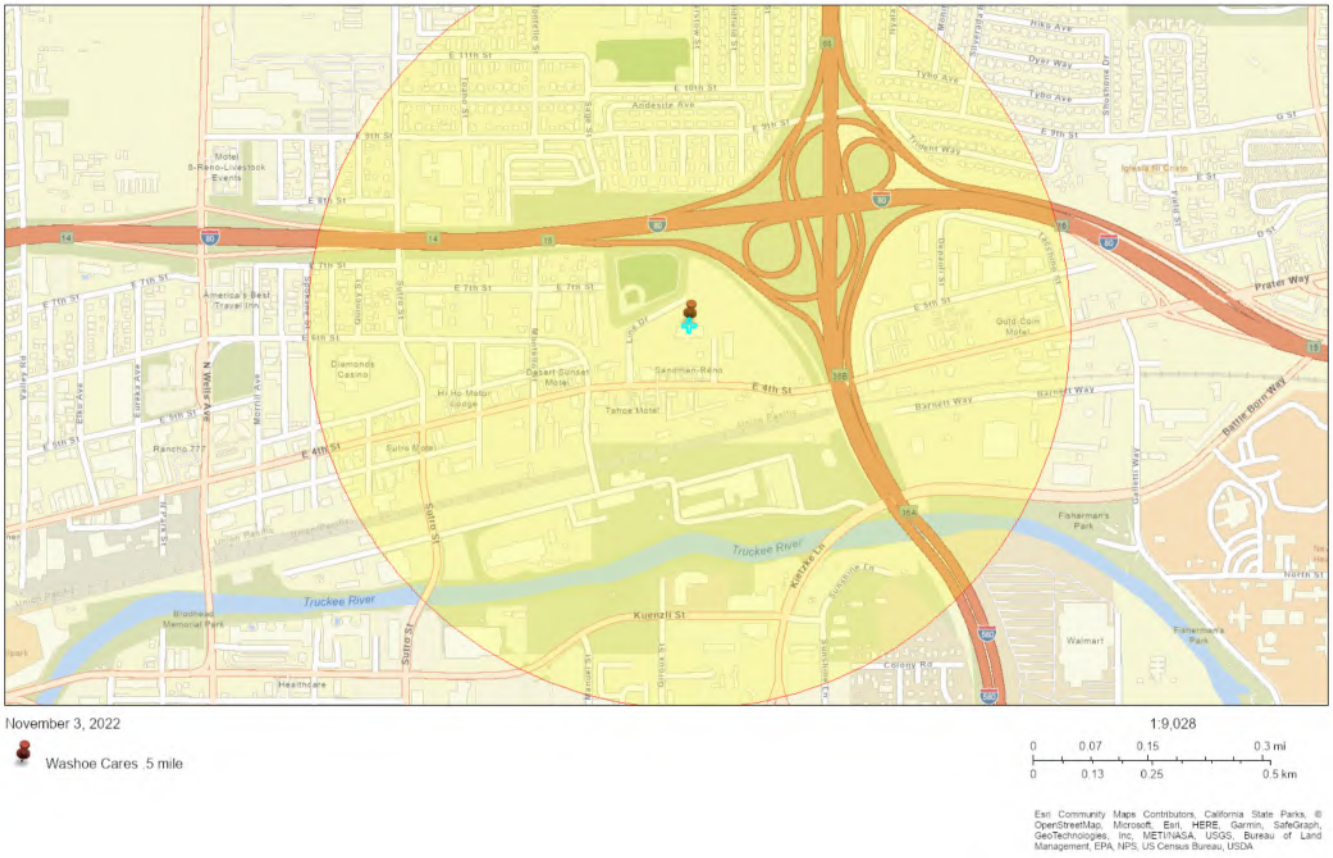

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

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Traffic Proximity (daily traffic count/distance to road)	5900	700	98	760	98
Lead Paint (% Pre-1960 Housing)	0.13	0.05	86	0.27	39
Superfund Proximity (site count/km distance)	0.026	0.014	84	0.13	25
RMP Facility Proximity (facility count/km distance)	0.5	0.42	74	0.77	59
Hazardous Waste Proximity (facility count/km distance)	3.2	2	82	2.2	80
Underground Storage Tanks (count/km^2)	9.4	3.3	90	3.9	88
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00034	13	18	12	40
Socioeconomic Indicators					
Demographic Index	67%	41%	86	35%	88
People of Color	65%	52%	70	40%	76
Low Income	68%	32%	93	30%	93
Unemployment Rate	11%	7%	80	5%	84
Limited English Speaking Households	7%	6%	70	5%	80
Less Than High School Education	17%	13%	67	12%	75
Under Age 5	9%	6%	83	6%	82
Over Age 64	14%	16%	49	16%	43

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