

## **Appendix E - Environmental Justice Analysis**

## ENVIRONMENTAL JUSTICE ANALYSIS

### Introduction

The 1994 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations, requires all federal agencies to conduct “programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, an activities do not have the effect of excluding persons (including populations) from participation, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.” Section 1-101 of the Executive Order 12898 requires federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of programs on minority and low-income populations (Executive Order 1994).

CEQ identifies minority groups as Asian, American Indian and Alaskan Native, Native Hawaiian and Pacific Island, Black or African American, and Latino. CEQ further defines minority population as any group of minorities that exceed 50 percent of the existing population within an area where a minority group comprises a meaningful greater percentage of the local population than in the general population.

### Methodology

Demographic data from the EPA’s EJSCREEN, an online environmental justice screening and mapping tool, served as the source data for evaluation. EJSCREEN incorporates demographic data from the U.S. Census Bureau. Two analyses recommended by the CEQ Guidance, Meaningfully Greater analysis and Fifty Percent analysis, were used to determine whether cities adjacent to the project area had a notable presence of minority or low-income population. Notable presence of either population would require either of the following results:

Fifty Percent Analysis: The ratio of minority or low-income population of the area of analysis equals to or exceeds 50% of the total population of the area of analysis.

Meaningfully Greater Analysis: The percentage of minority or low-income population relative of the area of analysis equals to or exceeds 50 percentile relative to the surrounding area.

The area of analysis encompassed an approximately 1-mile radius.

### Results

#### Minority and Low-Income Populations (Fifty Percent Analysis)

The area of analysis encompassed an approximately 1-mile area extending from the project area. Minority and low-income populations within the assessed area are as follows: The ratio of minority population relative to the total population of the area of analysis is approximately 65%. The ratio of low-income population relative to the total population of the area of analysis is approximately 16%.

Minority Population (%)	Low-income Population (%)
65	16

### Minority and Low-Income Populations (Meaningfully Greater Analysis)

Comparison of minority and low-income demographics from the area of analysis to those of the surrounding cities are shown below. Adjacent cities considered in the analysis included Eastvale and Corona.

The 50th percentile for minority and low-income populations are 73% and 20%, respectively. Compared to the 50<sup>th</sup> percentile values, the area of analysis for the project is lower than the 50<sup>th</sup> percentile for minority population and for low-income population.

<b>Locations</b>	<b>Minority Population (%)</b>	<b>Low-Income Population (%)</b>
Norco	45	21
Corona	83	62
Eastvale	81	19
Project Area of Analysis (1-mile)	65	16
50 <sup>th</sup> Percentile	73	20

### **Conclusions**

#### Presence of Minority and Low-Income Populations

For the Fifty Percent Analysis, the percentage of minority populations in the area is higher than the 50% threshold, and the percentage of low-income populations in the area is lower than the 50% threshold.

For the Meaningfully Greater Analysis both populations are lower than the the 50% threshold.

Based on the above, there is no notable presence of minority and low-income populations within the area of analysis for the project.

## EJSCREEN Report (Version 2019)

1 miles Ring around the Area

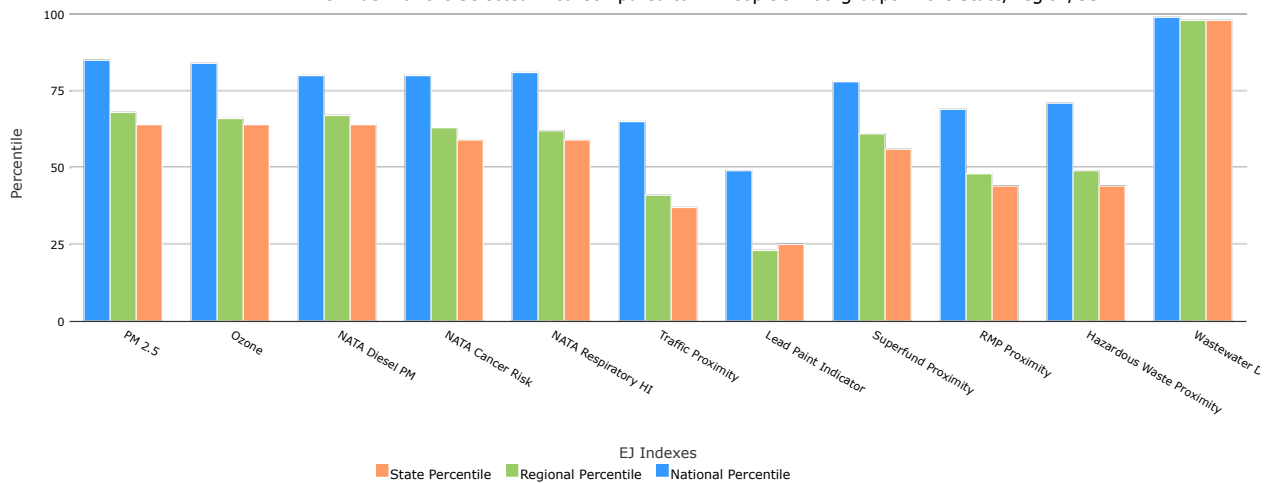
CALIFORNIA, EPA Region 9

Approximate Population: 18,113

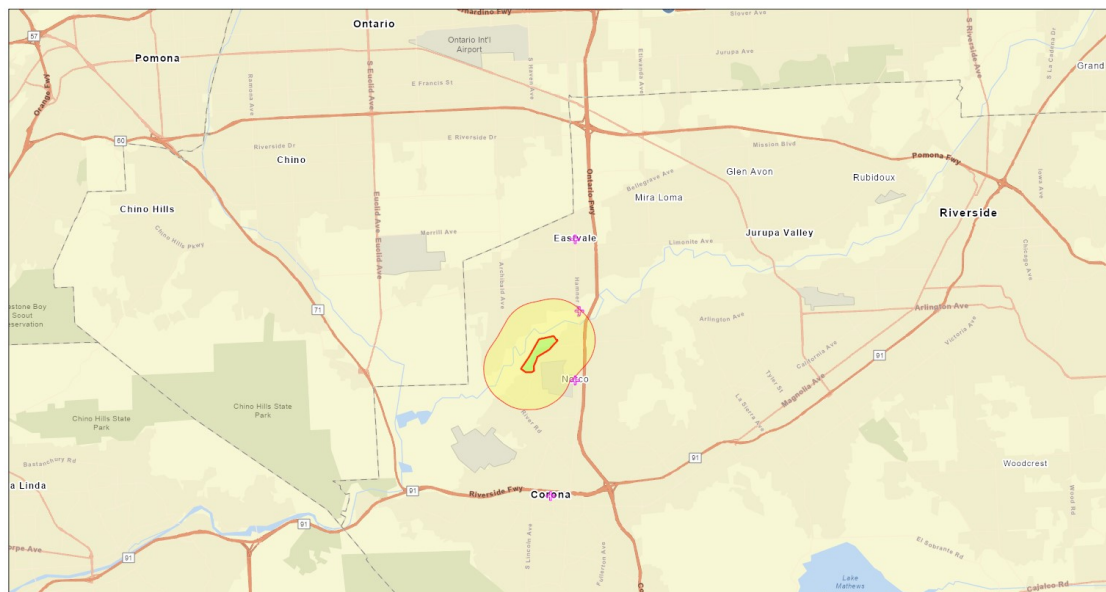
Input Area (sq. miles): 6.44

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
<b>EJ Indexes</b>			
EJ Index for Particulate Matter (PM 2.5)	64	68	85
EJ Index for Ozone	64	66	84
EJ Index for NATA* Diesel PM	64	67	80
EJ Index for NATA* Air Toxics Cancer Risk	59	63	80
EJ Index for NATA* Respiratory Hazard Index	59	62	81
EJ Index for Traffic Proximity and Volume	37	41	65
EJ Index for Lead Paint Indicator	25	23	49
EJ Index for Superfund Proximity	56	61	78
EJ Index for RMP Proximity	44	48	69
EJ Index for Hazardous Waste Proximity	44	49	71
EJ Index for Wastewater Discharge Indicator	98	98	99

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US

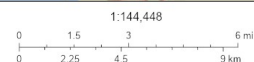


This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective 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.



April 6, 2020

- ✦ Project 6
- ✦ Project 4
- ✦ Project 2
- ✦ Project 5
- ✦ Project 3
- ✦ Project 1



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	13.2	9.78	97	9.21	98	8.3	99
Ozone (ppb)	62.1	48.2	86	48.9	88	43	98
NATA* Diesel PM (µg/m³)	0.566	0.468	68	0.479	60-70th	0.479	70-80th
NATA* Air Toxics Cancer Risk (risk per MM)	38	36	61	35	50-60th	32	70-80th
NATA* Respiratory Hazard Index	0.56	0.55	55	0.53	50-60th	0.44	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	180	2000	17	1700	23	750	46
Lead Paint Indicator (% pre-1960s housing)	0.028	0.29	21	0.24	29	0.28	21
Superfund Proximity (site count/km distance)	0.069	0.18	42	0.15	48	0.13	53
RMP Proximity (facility count/km distance)	0.26	1.1	30	0.99	36	0.74	45
Hazardous Waste Proximity (facility count/km distance)	0.65	3.4	30	2.9	38	4	56
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	10	17	97	31	97	14	98
Demographic Indicators							
Demographic Index	41%	48%	41	47%	43	36%	65
Minority Population	65%	62%	50	59%	54	39%	76
Low Income Population	16%	34%	24	34%	24	33%	24
Linguistically Isolated Population	6%	9%	48	8%	53	4%	76
Population with Less Than High School Education	16%	18%	55	17%	58	13%	70
Population under Age 5	6%	6%	43	6%	43	6%	47
Population over Age 64	9%	13%	33	14%	33	15%	25

\*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: [www.epa.gov/environmentaljustice](http://www.epa.gov/environmentaljustice) (<http://www.epa.gov/environmentaljustice>)

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. 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. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

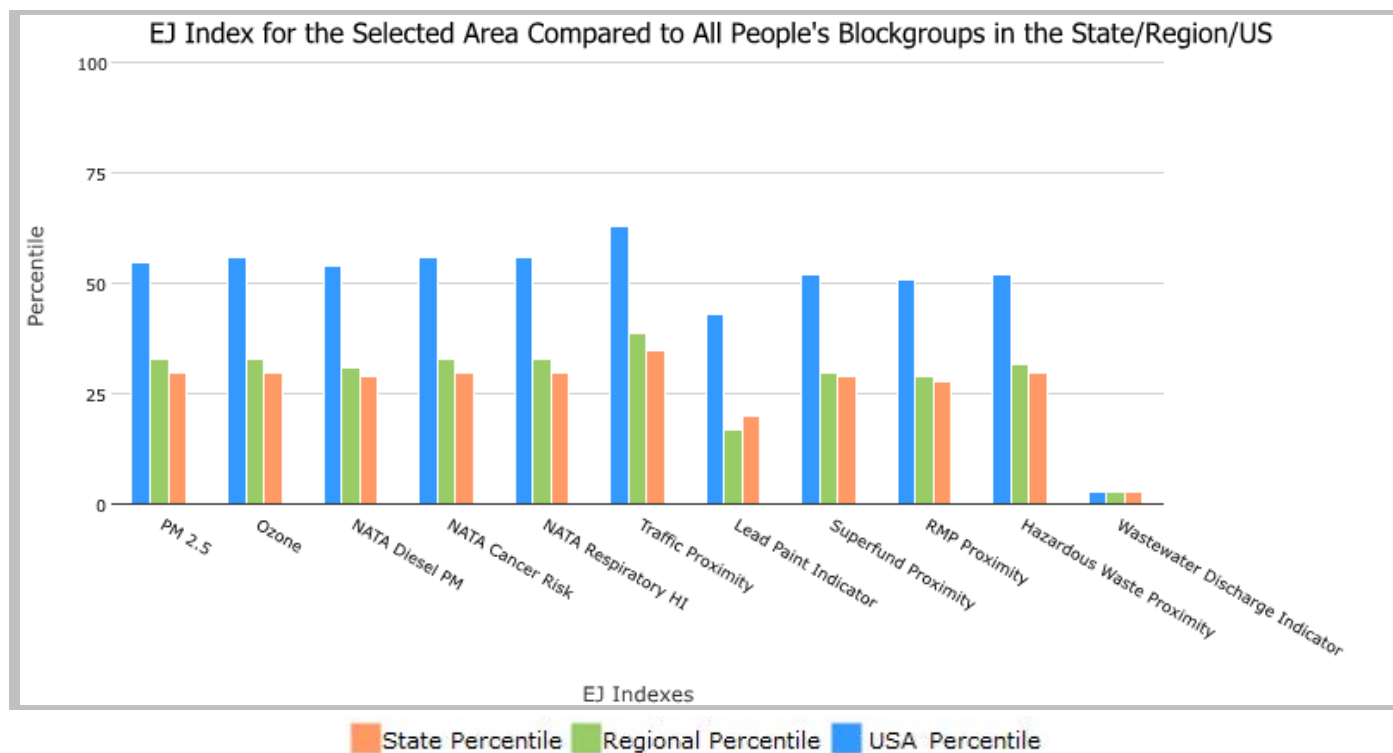
## EJSCREEN Report (Version 2019)

the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 26,737

Input Area (sq. miles): 14.00

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
<b>EJ Indexes</b>			
EJ Index for PM2.5	30	33	55
EJ Index for Ozone	30	33	56
EJ Index for NATA* Diesel PM	29	31	54
EJ Index for NATA* Air Toxics Cancer Risk	30	33	56
EJ Index for NATA* Respiratory Hazard Index	30	33	56
EJ Index for Traffic Proximity and Volume	35	39	63
EJ Index for Lead Paint Indicator	20	17	43
EJ Index for Superfund Proximity	29	30	52
EJ Index for RMP Proximity	28	29	51
EJ Index for Hazardous Waste Proximity	30	32	52
EJ Index for Wastewater Discharge Indicator	3	3	3

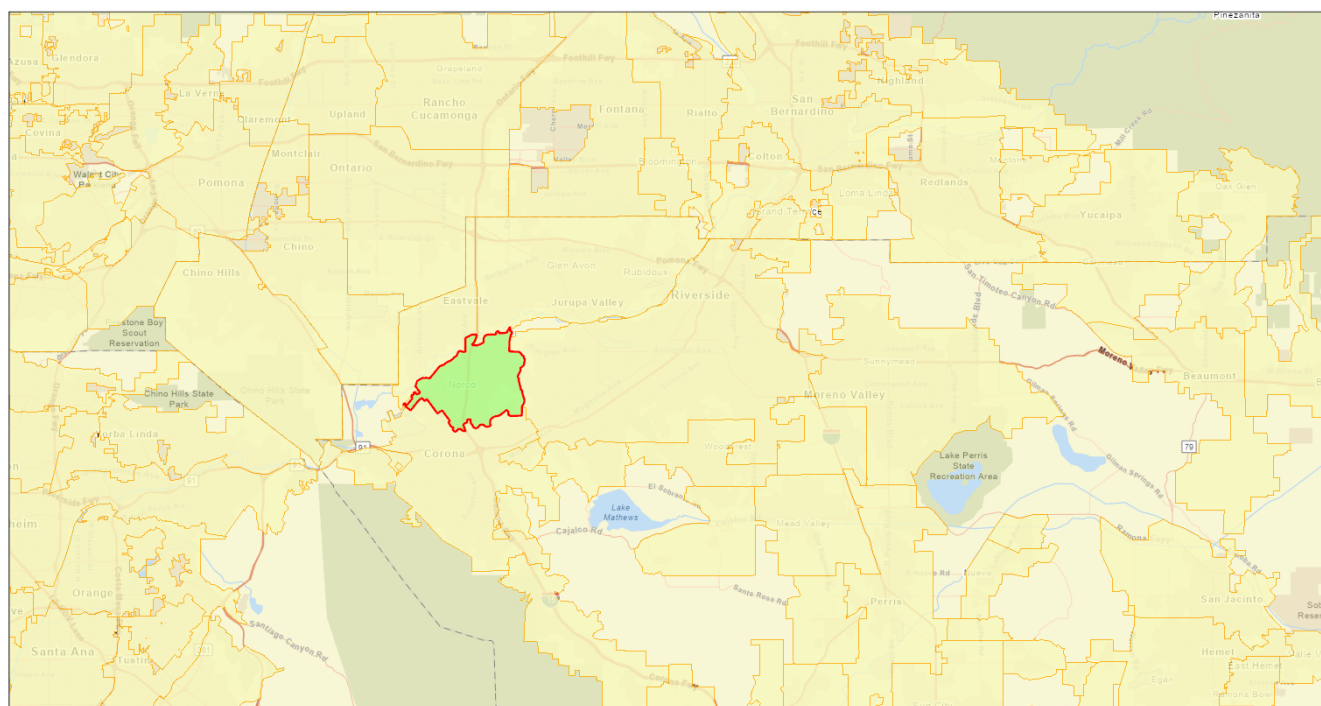


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the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 26,737

Input Area (sq. miles): 14.00



**Sites reporting to EPA**

Superfund NPL

0

Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)

0

## EJSCREEN Report (Version 2019)

the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 26,737

Input Area (sq. miles): 14.00

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
<b>Environmental Indicators</b>							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$ )	13.1	9.78	97	9.21	97	8.3	99
Ozone (ppb)	62.3	48.2	86	48.9	89	43	98
NATA* Diesel PM ( $\mu\text{g}/\text{m}^3$ )	0.526	0.468	64	0.479	60-70th	0.479	60-70th
NATA* Cancer Risk (lifetime risk per million)	37	36	56	35	50-60th	32	70-80th
NATA* Respiratory Hazard Index	0.54	0.55	49	0.53	50-60th	0.44	70-80th
Traffic Proximity and Volume (daily traffic count/distance to road)	630	2000	39	1700	48	750	73
Lead Paint Indicator (% Pre-1960 Housing)	0.19	0.29	49	0.24	56	0.28	51
Superfund Proximity (site count/km distance)	0.072	0.18	43	0.15	50	0.13	55
RMP Proximity (facility count/km distance)	0.33	1.1	36	0.99	42	0.74	51
Hazardous Waste Proximity (facility count/km distance)	1	3.4	36	2.9	45	4	64
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	1.1	17	90	31	91	14	95
<b>Demographic Indicators</b>							
Demographic Index	33%	48%	28	47%	31	36%	54
Minority Population	45%	62%	29	59%	33	39%	63
Low Income Population	21%	34%	34	34%	34	33%	34
Linguistically Isolated Population	2%	9%	24	8%	29	4%	56
Population With Less Than High School Education	17%	18%	56	17%	60	13%	71
Population Under 5 years of age	4%	6%	29	6%	29	6%	32
Population over 64 years of age	13%	13%	58	14%	57	15%	48

\* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

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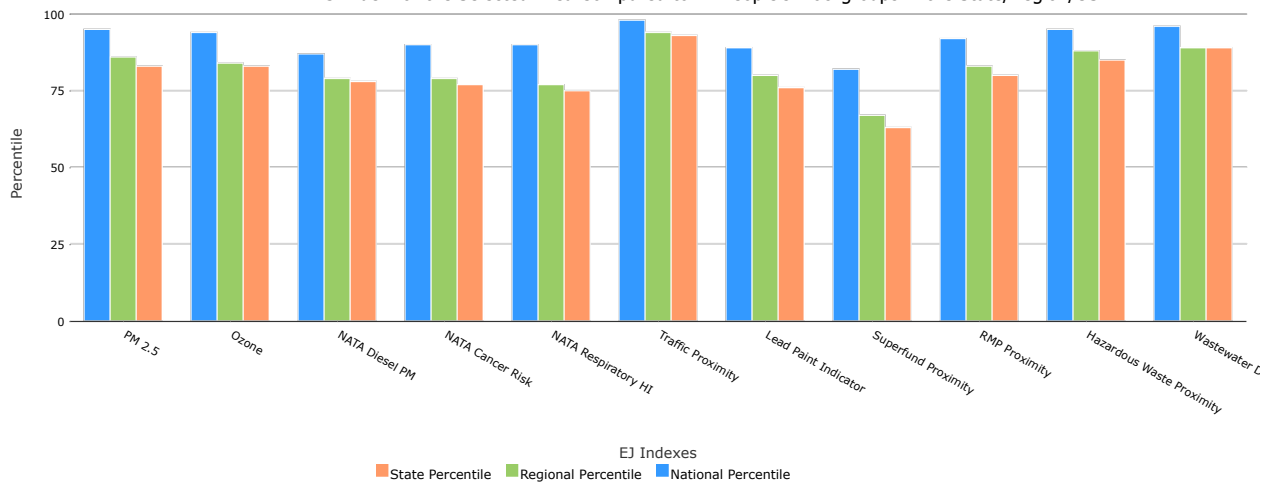
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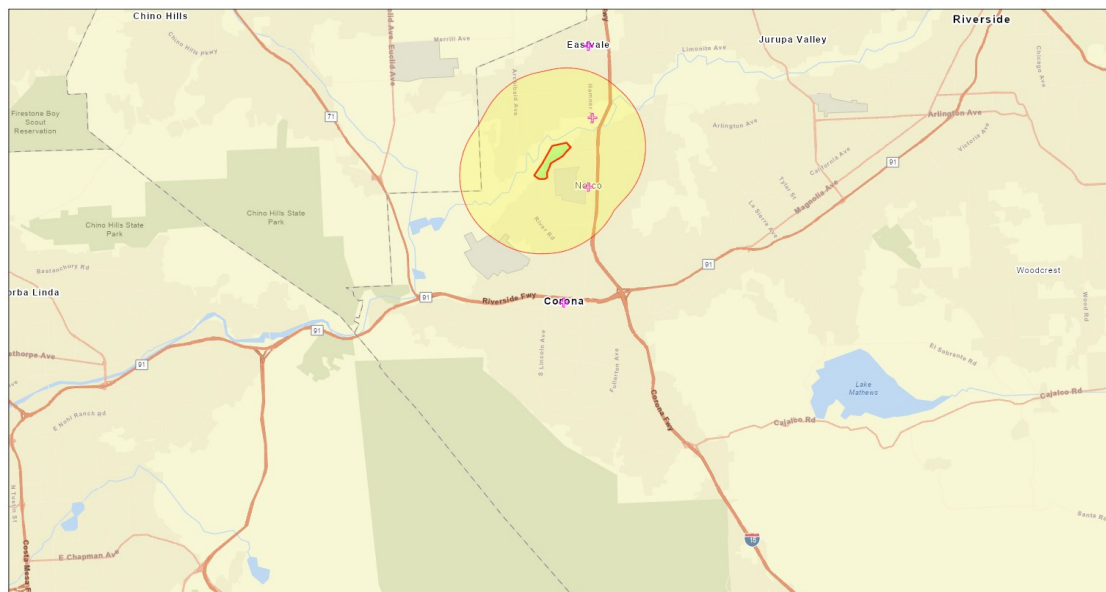
**EJSCREEN Report (Version 2019)**  
**1 miles Ring Centered at 33.879250,-117.574830**  
**CALIFORNIA, EPA Region 9**  
**Approximate Population: 20,916**  
**Input Area (sq. miles): 3.14**

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
<b>EJ Indexes</b>			
EJ Index for Particulate Matter (PM 2.5)	83	86	95
EJ Index for Ozone	83	84	94
EJ Index for NATA* Diesel PM	78	79	87
EJ Index for NATA* Air Toxics Cancer Risk	77	79	90
EJ Index for NATA* Respiratory Hazard Index	75	77	90
EJ Index for Traffic Proximity and Volume	93	94	98
EJ Index for Lead Paint Indicator	76	80	89
EJ Index for Superfund Proximity	63	67	82
EJ Index for RMP Proximity	80	83	92
EJ Index for Hazardous Waste Proximity	85	88	95
EJ Index for Wastewater Discharge Indicator	89	89	96

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US



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.



April 6, 2020

- Project 5
- Project 4
- Project 3
- Project 2
- Project 1

1:144,448  
0 1.5 3 6 mi  
0 2.25 4.5 9 km  
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	2

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	12.6	9.78	94	9.21	95	8.3	99
Ozone (ppb)	60.1	48.2	82	48.9	86	43	97
NATA* Diesel PM (µg/m³)	0.488	0.468	60	0.479	50-60th	0.479	60-70th
NATA* Air Toxics Cancer Risk (risk per MM)	36	36	51	35	50-60th	32	70-80th
NATA* Respiratory Hazard Index	0.52	0.55	42	0.53	<50th	0.44	70-80th
Traffic Proximity and Volume (daily traffic count/distance to road)	4400	2000	87	1700	90	750	96
Lead Paint Indicator (% pre-1960s housing)	0.28	0.29	56	0.24	63	0.28	60
Superfund Proximity (site count/km distance)	0.051	0.18	30	0.15	36	0.13	42
RMP Proximity (facility count/km distance)	1.2	1.1	70	0.99	74	0.74	80
Hazardous Waste Proximity (facility count/km distance)	4.9	3.4	75	2.9	80	4	90
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.1	17	82	31	83	14	89
Demographic Indicators							
Demographic Index	73%	48%	84	47%	85	36%	91
Minority Population	83%	62%	70	59%	73	39%	85
Low Income Population	62%	34%	87	34%	86	33%	89
Linguistically Isolated Population	11%	9%	66	8%	70	4%	85
Population with Less Than High School Education	34%	18%	81	17%	83	13%	92
Population under Age 5	9%	6%	81	6%	81	6%	82
Population over Age 64	7%	13%	23	14%	23	15%	17

\*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

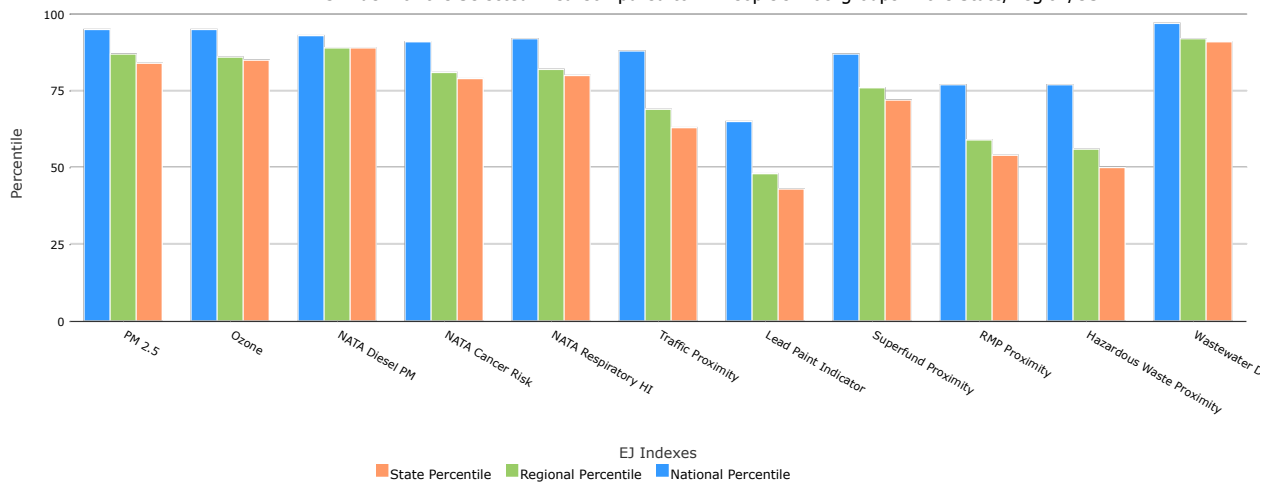
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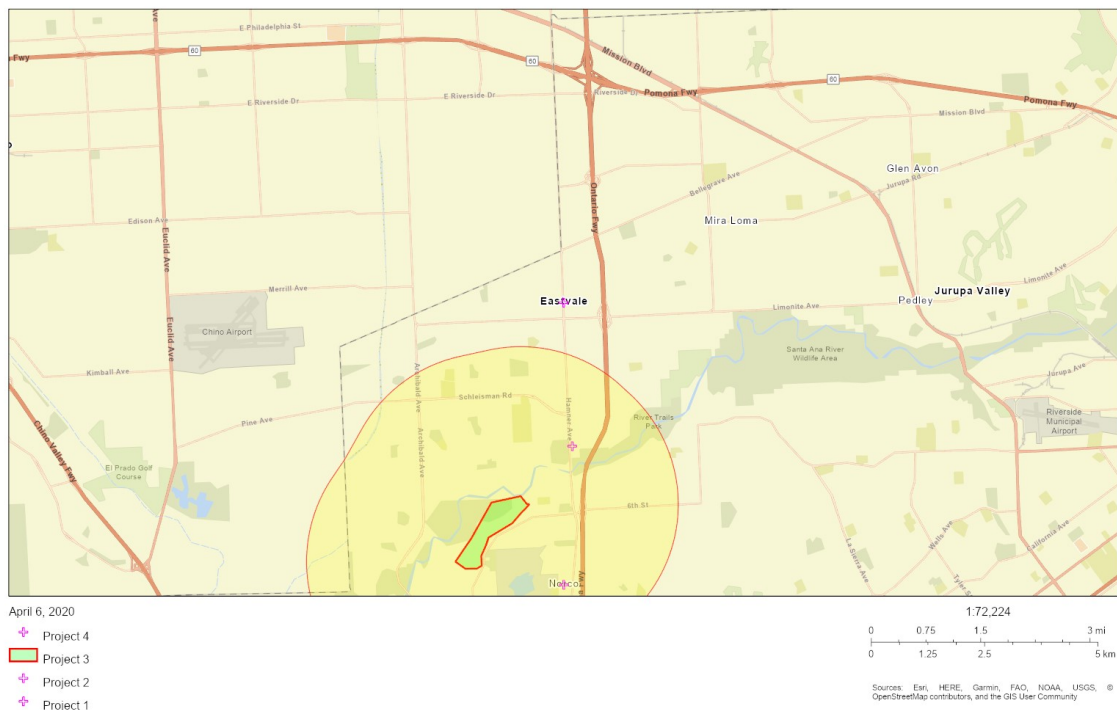
**EJSCREEN Report (Version 2019)**  
**1 miles Ring Centered at 33.978420,-117.558280**  
**CALIFORNIA, EPA Region 9**  
**Approximate Population: 16,148**  
**Input Area (sq. miles): 3.14**

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
<b>EJ Indexes</b>			
EJ Index for Particulate Matter (PM 2.5)	84	87	95
EJ Index for Ozone	85	86	95
EJ Index for NATA* Diesel PM	89	89	93
EJ Index for NATA* Air Toxics Cancer Risk	79	81	91
EJ Index for NATA* Respiratory Hazard Index	80	82	92
EJ Index for Traffic Proximity and Volume	63	69	88
EJ Index for Lead Paint Indicator	43	48	65
EJ Index for Superfund Proximity	72	76	87
EJ Index for RMP Proximity	54	59	77
EJ Index for Hazardous Waste Proximity	50	56	77
EJ Index for Wastewater Discharge Indicator	91	92	97

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US



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.



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

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	13.3	9.78	98	9.21	98	8.3	99
Ozone (ppb)	64.2	48.2	90	48.9	92	43	98
NATA* Diesel PM (µg/m³)	0.822	0.468	90	0.479	80-90th	0.479	80-90th
NATA* Air Toxics Cancer Risk (risk per MM)	40	36	69	35	60-70th	32	80-90th
NATA* Respiratory Hazard Index	0.62	0.55	71	0.53	70-80th	0.44	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	790	2000	45	1700	53	750	77
Lead Paint Indicator (% pre-1960s housing)	0.0084	0.29	12	0.24	19	0.28	12
Superfund Proximity (site count/km distance)	0.092	0.18	53	0.15	60	0.13	63
RMP Proximity (facility count/km distance)	0.2	1.1	22	0.99	28	0.74	38
Hazardous Waste Proximity (facility count/km distance)	0.33	3.4	22	2.9	28	4	45
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.47	17	87	31	87	14	93
Demographic Indicators							
Demographic Index	50%	48%	54	47%	56	36%	73
Minority Population	81%	62%	67	59%	70	39%	84
Low Income Population	19%	34%	31	34%	30	33%	31
Linguistically Isolated Population	9%	9%	59	8%	63	4%	81
Population with Less Than High School Education	14%	18%	50	17%	53	13%	64
Population under Age 5	8%	6%	71	6%	70	6%	73
Population over Age 64	8%	13%	28	14%	28	15%	21

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