

Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation

APPENDIX K

EJSCREEN DATA & MAPPING SUPPORTING THE ENVIRONMENTAL JUSTICE ANALYSIS Appendix K was created in support of the Environmental Justice (EJ) analysis for the Managed Lanes Study SDEIS. Data and maps included in this appendix, which are referenced in the text of Chapter 4, provide information on existing environmental conditions and were reviewed as additional resources to assist with the identification and consideration of EJ populations within the Analysis Area.

The following is included in Appendix K:

- Definitions for the EPA EJSCREEN Environmental and Demographic Indicators, and the MD EJSCREEN Pollution Burden Indicators and Population Characteristics (Pages 2-4)
- Raw data tables for EPA EJSCREEN indicators and MD EJSCREEN indicators (Pages 5-9)
- Summary tables with results from the review of EPA EJSCREEN and MD EJSCREEN data (Pages 10-14)
- Heat maps showing EPA EJSCREEN EJ Indexes for all 11 Environmental Indicators (Pages 15-25)

EPA EJSCREEN Definitions

The following definitions, accessed from https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen and https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen, describe the Environmental Indicators and Demographic Indicators that are used by the EPA to calculate EJ Index scores at the block group level. Also included is a definition of the Demographic Index, which is used along with the environmental indicators to generate EJ Index scores.

Environmental Indicators:

- Hazardous Waste Proximity: Count of hazardous waste facilities (Treatment, Storage, and Disposal Facility and Large Quantity Generators) within 5 km (or nearest beyond 5 km), each divided by distance in kilometers
- Lead Paint Indicator: Percent of housing units built pre-1960, as indicator of potential lead paint exposure
- National-Scale Air Toxics Assessment (NATA) Air Toxics Cancer Risk: Lifetime cancer risk from inhalation of air toxics
- National-Scale Air Toxics Assessment (NATA) Diesel Particulate Matter (PM): Diesel particulate matter level in air, μg/m³
- National-Scale Air Toxics Assessment (NATA) Respiratory Hazard Index: Air toxics respiratory hazard index (ratio of exposure concentration to health-based reference concentration)
- **Ozone:** Ozone summer seasonal avg. of daily maximum 8-hour concentration in air in parts per billion
- Particulate Matter (PM 2.5): PM_{2.5} levels in air, μg/m³ annual avg.
- **Proximity to Risk Management Plan (RMP) sites:** Count of RMP (potential chemical accident management plan) facilities within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers
- **Superfund Proximity**: Count of proposed or listed NPL also known as superfund sites within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers
- **Traffic Proximity and Volume**: Count of vehicles (AADT, avg. annual daily traffic) at major roads within 500 meters, divided by distance in meters (not km)
- **Wastewater Discharge Indicator**: Risk-Screening Environmental Indicators (RSEI) modeled Toxic Concentrations at stream segments within 500 meters, divided by distance in kilometers (km)

Demographic Indicators:

- **Percent Low-Income:** The percent of a block group's population in households where the household income is less than or equal to twice the federal "poverty level"
- **Percent People of Color:** The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial
- Less than high school education: Percent of people age 25 or older in a block group whose education is short of a high school diploma
- Linguistic isolation: Percent of people in a block group living in linguistically isolated households. A household which all members age 14 years and over speak a non-English language and also speak English less than "very well" (have difficulty with English) is linguistically isolated
- Individuals under age 5: Percent of people in a block group under the age of 5

- Individuals over age 64: Percent of people in a block group over the age of 64
- **Demographic Index:** Based on the average of two demographic indicators; Percent Low-Income and Percent Minority

MD EJSCREEN Definitions

The following definitions, accessed from <u>https://p1.cgis.umd.edu/mdejscreen/help.html</u>, describe the breakdown of Pollution Burden Indicators (Exposure Indicators, Environmental Effects Indicators) and Population Characteristics (Sensitive Populations, Socioeconomic Factors) that are used to calculate the MD EJSCREEN Overall EJScore for Maryland Census tracts.

Pollution Burden Indicator

- Exposure Indicators:
 - **National-Scale Air Toxics Assessment (NATA) Cancer Risks:** Lifetime risk of developing cancer from inhalation of toxins. Reported as risk per lifetime per million people
 - National-Scale Air Toxics Assessment (NATA) Respiratory Hazard Index: Air toxics respiratory hazard index. This is the sum of hazard indices for those air toxics with reference concentrations based on respiratory endpoints, where each hazard index is the ratio of exposure concentration in the air to the health-based reference
 - National-Scale Air Toxics Assessment (NATA) Diesel Particulate Matter: Levels of diesel particulate matter in the air. Reported as micrograms per cubic meter (μg/m³)
 - **Particulate Matter 2.5 (PM2.5):** Levels of particulate matter with a diameter of 2.5 micrometers or smaller in air. Reported as micrograms per cubic meter (μ g/m³)
 - **Ozone:** Summer seasonal average of the maximum daily 8-hour concentration of ozone in air in parts per billion
 - **Traffic Proximity and Volume:** Count of vehicles (average annual daily traffic) at major roads within 500 meters or close to 500 meters, divided by distance in meters
- Environmental Effects Indicators:
 - o Lead Paint Indicator: Percent of houses built before 1960, which likely contain lead paint
 - Proximity to Risk Management Plan Sites: Count of RMP (potential chemical accident management plan) facilities within 5 kilometers or close to 5 kilometers, divided by distance in kilometers
 - Proximity to Treatment and Disposal Facilities: Count of TSDF (hazardous waste management facilities) within 5 kilometers or closest to 5 kilometers, divided by distance in kilometers
 - Proximity to National Proximity List Sites: Count of NPL/Superfund sites (polluted sites that pose a risk to human health and/or the environment) within 5 kilometers or close to 5 kilometers, divided by distance in kilometers
 - Proximity to Major Direct Water Discharges: Toxic concentrations in stream segments within 500 meters, divided by distance in kilometers. Standards modeled after Risk-Screening Environmental Indicators (RSEI)
 - Watershed Failure: Percent of each census tract's watershed that exceeds levels of phosphorus and/or Nitrogen

Population Characteristics

- Sensitive Populations:
 - Asthma Emergency Room Discharges: Count of patients released from the hospital after being admitted for asthma or asthma-related distress

- **Myocardial Infraction Discharges:** Patients released from the hospital after being admitted for a heart attack or heart attack symptoms
- Low Birth Weight Infants: Babies born weighing less than 5.5 pounds
- Socioeconomic Factors:
 - **Percent Low Income:** Percentage of individuals whose household income in the past 12 months is less than two times below the federal poverty level
 - **Percent Non-White:** Percentage of individuals who define themselves as any race/ethnicity besides non-Hispanic white
 - Less Than High School Education: Percentage of individuals 25 and older who lack a high school diploma
 - **Linguistic Isolation:** Percentage of households in which no one 14 years old and older speaks English "very well," or households which speak only English
 - Individuals Under 5 Years Old: Percentage of people under the age of 5
 - Individuals Over 64 Years Old: Percentage of people over the age of 64
 - Unemployment: Percentage of the population over the age of 16 that is unemployed and eligible for the labor force. Excludes retirees, students, homemakers, institutionalized persons except prisoners, those not looking for work, and military personnel on active duty

EPA EJSCREEN Raw Data*

		Managed Lanes	EJ Index for Particulate	EJ Index	EJ Index for NATA	EJ Index for NATA Air Toxics	EJ Index for NATA Respiratory	EJ Index for Traffic Proximity	EJ Index for Lead	EJ Index for	EJ Index for	EJ Index for Hazardous	EJ Index for Wastewater
Block Group	Analysis Area Community	Study EJ Population	Matter (PM 2.5)	for Ozone	Diesel PM	Cancer Risk	Hazard Index	and Volume	Paint Indicator	Superfund Proximity	RMP Proximity	Waste Proximity	Discharge Indicator
4701.00 - 1	McLean	no	34	36	12	32	30	3	35	36	35	28	4
4701.00 - 2	McLean	no	19	21	4	17	15	10	20	24	15	17	2
4801.00 - 4	McLean	no	52	53	44	52	52	23	43	51	52	43	5
7007.17 - 1	Gaithersburg	yes	88	89	92	90	90	79	57	73	73	98	N/A
7007.17 - 3	Gaithersburg	yes	91	91	94	92	92	99	76	75	75	98	N/A
7007.17 - 4	Gaithersburg	yes	64	64	68	65	65	92	77	60	59	89	N/A
7007.18 - 1	Rockville	no	26	25	3	20	17	5	57	35	37	1	N/A
7007.18 - 2	Rockville	no	46	46	34	45	43	33	57	49	49	7	N/A
7008.16 - 1	Gaithersburg	yes	91	92	95	92	93	99	64	76	75	99	N/A
7008.16 - 2	Gaithersburg	yes	65	66	71	67	67	74	60	61	61	91	N/A
7008.17 - 1	Gaithersburg	yes	67	67	75	68	69	93	57	62	61	94	N/A
7008.17 - 2	Gaithersburg	no	51	51	46	50	50	26	48	51	52	13	N/A
7008.17 - 3	Gaithersburg	yes	30	29	6	25	22	9	57	36	37	0	N/A
7008.29 - 1	Gaithersburg	yes	46	46	40	45	45	18	48	48	46	7	N/A
7010.01 - 2	Rockville	no	34	35	11	30	28	4	41	42	42	11	N/A
7010.01 - 3	Rockville	no	37	37	16	33	31	9	57	43	44	16	27
7010.02 - 1	Rockville	no	40	41	23	38	36	1	47	45	44	19	N/A
7010.02 - 2	Rockville	no	17	17	1	10	8	2	41	29	28	7	N/A
7010.02 - 3	Rockville	no	38	38	18	34	32	14	37	43	41	17	N/A
7010.04 - 2	Rockville	no	22	22	4	17	15	0	32	32	34	1	N/A
7010.04 - 4	Rockville	no	47	47	41	46	46	16	41	50	50	15	N/A
7010.05 - 1	Rockville	no	20	21	2	14	12	0	8	32	32	2	N/A
7010.05 - 2	Rockville	no	48	48	40	47	46	22	31	50	50	20	N/A
7010.06 - 1	Rockville	no	39	39	27	36	34	11	36	43	42	4	N/A
7010.06 - 2	Rockville	no	18	18	4	12	11	0	57	29	29	3	N/A
7010.07 - 1	Rockville	yes	43	43	28	41	40	14	57	46	46	4	N/A
7010.07 - 2	Rockville	no	46	46	36	45	45	9	48	49	49	6	N/A

Block Group	Analysis Area Community	Managed Lanes Study EJ Population	EJ Index for Particulate Matter (PM 2.5)	EJ Index for Ozone	EJ Index for NATA Diesel PM	EJ Index for NATA Air Toxics Cancer Risk	EJ Index for NATA Respiratory Hazard Index	EJ Index for Traffic Proximity and Volume	EJ Index for Lead Paint Indicator	EJ Index for Superfund Proximity	EJ Index for RMP Proximity	EJ Index for Hazardous Waste Proximity	EJ Index for Wastewater Discharge Indicator
-	North												
7012.05 - 1	Bethesda	no	13	14	1	8	6	0	29	27	30	8	27
	North												
7012.05 - 2	Bethesda	no	5	6	0	2	1	0	22	20	24	4	25
	North												
7012.05 - 3	Bethesda	no	52	52	50	52	52	15	57	53	53	44	N/A
	North												
7012.05 - 4	Bethesda	no	42	43	29	40	39	1	45	46	47	21	29
7012.06 - 1	Potomac	no	24	25	6	19	17	4	57	35	33	14	N/A
7012.06 - 2	Potomac	no	19	20	4	14	13	11	35	30	28	15	N/A
7012.10 - 1	Rockville	no	39	39	30	36	35	23	57	43	41	14	N/A
7012.11 - 3	Rockville	no	49	49	45	49	48	44	46	51	51	9	N/A
	North												
7012.13 - 1	Bethesda	no	32	33	11	28	25	10	44	38	43	12	25
	North												
7012.13 - 2	Bethesda	no	40	40	23	37	35	10	57	44	46	17	25
	North												
7012.13 - 3	Bethesda	no	43	44	30	41	40	10	48	46	48	18	25
704245 4	North		45	46	24		42	-	4.4	47	40	20	24
7012.15 - 1	Betnesda	no	45	46	34	44	43	5	41	47	49	20	24
7012 15 - 2	Retherda	Vec	46	17	36	45	11	2	12	18	50	20	21
7012.15 - 2	North	yes	40	47	50	45	44	5	45	40	50	20	21
7012.15 - 3	Bethesda	ves	46	46	35	44	43	6	45	48	50	23	26
	North												
7012.15 - 4	Bethesda	yes	40	40	22	37	35	3	39	44	46	15	23
	North												
7044.01 - 1	Bethesda	no	28	29	5	22	19	0	6	34	38	9	21
	North												
7044.01 - 2	Bethesda	no	43	43	28	40	39	7	26	46	47	19	25
7044.03 - 1	Bethesda	no	28	28	5	22	19	0	30	34	37	9	21
7044.04 - 4	Bethesda	no	27	28	5	20	18	1	17	33	36	9	23
	North												
7045.01 - 1	Bethesda	no	45	45	34	43	42	14	17	48	48	22	27

Block Group	Analysis Area Community	Managed Lanes Study EJ Population	EJ Index for Particulate Matter (PM 2.5)	EJ Index for Ozone	EJ Index for NATA Diesel PM	EJ Index for NATA Air Toxics Cancer Risk	EJ Index for NATA Respiratory Hazard Index	EJ Index for Traffic Proximity and Volume	EJ Index for Lead Paint Indicator	EJ Index for Superfund Proximity	EJ Index for RMP Proximity	EJ Index for Hazardous Waste Proximity	EJ Index for Wastewater Discharge Indicator
	North									-		-	
7045.01 - 2	Bethesda	yes	41	42	27	39	37	3	42	45	46	24	31
7045 01 - 3	North Bethesda	no	20	30	20	24	22	2	10	12	44	19	26
7045.01 - 5	North	110		39	20	24		5	10	45	44	10	20
7045.01 - 4	Bethesda	yes	41	42	27	39	38	4	13	45	46	20	26
7045.02 - 1	Bethesda	no	36	37	19	32	30	1	19	41	42	20	N/A
7045.02 - 2	Bethesda	no	21	23	4	15	13	3	5	29	31	10	25
7045.03 - 1	Bethesda	no	14	16	1	8	6	0	0	24	27	7	23
7058.00 - 2	Cabin John	no	21	23	4	15	13	3	5	24	30	3	13
7058.00 - 3	Cabin John	no	31	32	16	27	26	8	8	31	8	6	5
7059.01 - 3	Bethesda	no	19	20	6	14	12	8	19	27	27	14	8
7059.02 - 3	Bethesda	no	38	39	28	35	34	2	35	42	39	26	7
7060.08 - 1	Potomac	no	13	14	8	9	9	29	15	21	12	28	5
7060.08 - 2	Potomac	no	40	41	38	39	39	30	41	45	44	24	7
7060.09 - 2	Potomac	no	17	18	6	13	12	7	41	28	28	18	6
7060.09 - 3	Potomac	no	29	30	16	25	25	2	36	36	35	23	7
7060.12 - 1	Potomac	no	53	53	53	53	53	50	49	53	53	53	N/A
7060.12 - 2	Potomac	yes	54	54	54	54	54	58	57	54	54	54	N/A
7060.12 - 3	Potomac	yes	59	59	62	60	60	60	59	56	56	62	N/A
7060.13 - 1	Potomac	no	28	29	11	24	23	9	30	36	36	22	10
7060.13 - 2	Potomac	no	32	32	16	28	27	1	22	39	39	24	16

*EPA EJSCREEN Indexes are reported in percentiles, comparing the indicators in the Analysis Area block groups to those of all block groups within the State of Maryland. For example, if a block group has an EJ index score of 86 for the hazardous waste proximity indicator, it means that only 14 percent of block groups in Maryland have higher values. The higher the EJ Index, the greater the potential for EJ concern. See https://www.epa.gov/EJSCREEN/overview-environmental-indicators-EJSCREEN for definitions and detailed information about the program methodology.

Raw MD EJSCREEN Data*

Census Tract	Analysis Area Community	Managed Lanes Study EJ Population	EJScore	Exposure	Environmental Effect	Sensitive Populations	Socioeconomic Factors
4701.00	McLean	no	n/a	n/a	n/a	n/a	n/a
4801.00	McLean	no	n/a	n/a	n/a	n/a	n/a
7007.17	Gaithersburg	yes	0.72	0.96	0.52	0.60	0.78
7007.18	Rockville	no	0.45	0.89	0.09	0.47	0.35
7008.16	Gaithersburg	yes	0.52	0.84	0.33	0.18	0.72
7008.17	Gaithersburg	yes	0.58	0.92	0.36	0.54	0.49
7008.29	Gaithersburg	yes	0.46	0.56	0.19	0.64	0.45
7010.01	Rockville	no	0.37	0.86	0.40	0.05	0.17
7010.02	Rockville	no	0.35	0.88	0.37	0.09	0.06
7010.04	Rockville	no	0.36	0.72	0.33	0.10	0.29
7010.05	Rockville	no	0.53	0.95	0.60	0.29	0.28
7010.06	Rockville	no	0.39	0.88	0.34	0.11	0.23
7010.07	Rockville	yes	0.45	0.92	0.18	0.52	0.19
7012.05	North Bethesda	no	0.42	0.98	0.59	0.02	0.08
7012.06	Potomac	no	0.25	0.68	0.14	0.06	0.12
7012.10	Rockville	no	0.33	0.48	0.03	0.73	0.06
7012.11	Rockville	no	0.33	0.57	0.06	0.33	0.37
7012.13	North Bethesda	no	0.40	0.85	0.43	0.17	0.14
7012.15	North Bethesda	yes	0.48	0.99	0.70	0.06	0.17
7044.01	North Bethesda	no	0.52	0.99	0.81	0.08	0.20
7044.03	Bethesda	no	0.72	1.00	0.90	0.79	0.21
7044.04	Bethesda	no	0.57	0.98	0.95	0.28	0.09
7045.01	North Bethesda	yes	0.58	0.96	0.80	0.38	0.16
7045.02	Bethesda	no	0.41	0.93	0.71	0.00	0.01
7045.03	Bethesda	no	0.59	0.84	0.87	0.62	0.02
7058.00	Cabin John	no	0.45	0.62	0.63	0.55	0.00
7059.01	Bethesda	no	0.49	0.65	0.62	0.67	0.02
7059.02	Bethesda	no	0.42	0.79	0.67	0.16	0.05
7060.08	Potomac	no	0.12	0.31	0.13	0.01	0.02

Census Tract	Analysis Area Community	Managed Lanes Study EJ Population	EJScore	Exposure	Environmental Effect	Sensitive Populations	Socioeconomic Factors
7060.09	Potomac	no	0.26	0.51	0.30	0.23	0.01
7060.12	Potomac	yes	0.50	0.67	0.17	0.46	0.71
7060.13	Potomac	no	0.40	0.79	0.58	0.11	0.13

*MD EJSCREEN data is reported in percentiles as a decimal from 0-1, comparing the indicators in each Analysis Area tract to those of all tracts within the State of Maryland. For example, a tract with a score of 0.9 is in the 90th percentile, meaning only 10 percent of tracts in Maryland have higher values. The higher the value, the greater the potential for EJ concern. See https://pl.cgis.umd.edu/mdejscreen/help.html for definitions and detailed information about the program methodology.

EPA EJSCREEN Results*

Summary	Percentile Range for the Study's EJ Block Groups	Study's Non-EJ Block Groups at/above 50 th Percentile and Corresponding Analysis Area Community						
Hazardous Waste Proximity								
8 of the Study's 16 EJ block groups are at or above the 50 th percentile								
	$0 - 99^{th}$	7060.12 – 1						
Of all Analysis Area block groups, those with the highest indices are located		(Potomac)						
in the Gaithersburg Analysis Area Community								
Lead Paint Indicator								
		7007.18 – 1						
		7007.18 – 2						
10 of the Study's 16 EJ block groups are at or above the 50 th percentile.		7010.01 – 3						
	12th 77th	7010.06 – 2						
Of all Analysis Area block groups, those with the highest indices are located	13 - 77	7012.05 – 3						
along I-270 and are concentrated especially in the Gaithersburg Analysis Area		7012.10 – 1						
Community		7012.06 – 1						
		7012.13 – 2						
		(North Bethesda, Potomac, Rockville)						
National-Scale Air Toxics Assess	ment (NATA) Air Toxics Cano	er Risk						
8 of the Study's 16 EL block groups are at or above the 50^{th} percentile		4801.00 - 4						
s of the study s to Li block groups are at of above the so percentile		7008.17 – 2						
Of all Analysis Area block groups, those with the highest indices are located	25 th – 92 nd	7012.05 – 3						
in the Gaithersburg Analysis Area Community		7060.12 – 1						
In the Galthersburg Analysis Alea Community		(McLean, Gaithersburg, North Bethesda, Potomac)						
National-Scale Air Toxics A	Assessment (NATA) Diesel PN	Λ						
8 of the Study's 16 EJ block groups are at or above the 50 th percentile		7012.05 – 3						
	eth orth	7060.12 - 1						
Of all Analysis Area block groups, those with the highest indices are located	0 - 95	(North Bethesda, Potomac)						
in the Gaithersburg Analysis Area Community								
National-Scale Air Toxics Assessm	ent (NATA) Respiratory Haza	ird Index						
R of the Study's 16 EL block groups are at or above the E0 th persentile		4801.00 - 4						
o of the study's to El block groups are at of above the so percentile	22 nd – 93 rd	7008.17 – 2						
		7012.05 – 3						

Summary	Percentile Range for the Study's EJ Block Groups	Study's Non-EJ Block Groups at/above 50 th Percentile and Corresponding Analysis Area Community						
Of all Analysis Area block groups, those with the highest indices are located in the Gaithersburg Analysis Area Community		7060.12 – 1 (McLean, Gaithersburg, North Bethesda, Potomac)						
Ozone								
8 of the Study's 16 block groups are at or above the 50 th percentile		4801.00 – 4 7008.17 – 2						
Of all Analysis Area block groups, those with the highest indices are located in the Gaithersburg Analysis Area Community	29 th – 92 nd	7012.05 – 3 7060.12 – 1						
		(McLean, Gaithersburg, North Bethesda, Potomac)						
Particulate	Matter (PM 2.5)							
8 of the Study's 16 EJ block groups are at or above the 50 th percentile		4801.00 – 4 7008.17 – 2						
Of all Analysis Area block groups, those with the highest indices are located	$30^{th} - 91^{st}$	7012.05 – 3						
in the Caithershurg Analysis Area Community		7060.12 - 1						
		(McLean, Gaithersburg, North Bethesda, Potomac)						
Proximity to Risk Management Plan (RMP) sites								
		4801.00 - 4						
		7008.17 – 2						
10 of the Study's El block groups are at or above the 50 th perceptile		7010.04 – 4						
10 of the study s Li block groups are at of above the 50° percentile		7010.05 – 2						
Of all Analysis Area block groups, those with the highest indices are located	37 th – 75 th	7012.05 – 3						
in the Gaithersburg Analysis Area Community		7012.11 – 3						
In the Galthersburg Analysis Alea community		7060.12 – 1						
		(McLean, Gaithersburg, North Bethesda, Potomac, Rockville)						
Superfu	nd Proximity							
		4801.00 - 4						
8 of the Study's EJ block groups are at or above the 50 th percentile		7008.17 – 2						
	acth acth	7010.04 – 4						
Of all Analysis Area block groups, those with the highest indices are located	36''' – 76'''	7010.05 – 2						
in the Gaithersburg Analysis Area Community		7012.05 – 3						
		7012.11 – 3						

Summary	Percentile Range for the Study's EJ Block Groups	Study's Non-EJ Block Groups at/above 50 th Percentile and Corresponding Analysis Area Community
		7060.12 – 1
		(McLean, Gaithersburg, North Bethesda, Potomac,
		Rockville)
Traffic Proxin	nity and Volume	
8 of the Study's EJ block groups are at or above 50 th percentile		7060.12 – 1
	3 rd – 99 th	(Potomac)
Of all Analysis Area block groups, those with the highest indices are located	0 00	
in the Gaithersburg Analysis Area Community		
Wastewater D	ischarge Indicator	
0 of the Study's EJ block groups are at or above the 50 th percentile		N/A
Of all Analysis Area block groups, those with the highest indices are located in the North Bethesda and Rockville Analysis Area Communities	21 st – 31 st	

* See <u>https://www.epa.gov/EJSCREEN/overview-environmental-indicators-EJSCREEN</u> for definitions and detailed information about the program methodology. Note: *PM* is particulate matter.

MD EJ SCREEN Results*							
Summary	Percentile Range for the	Study's Non-EJ Tracts at/above 50 th Percentile and					
Summary	Study's EJ Tracts**	Corresponding Analysis Area Community					
Overall EJScore							
		7010.05					
5 of the Study's 8 EJ tracts are at or above the 50 th percentile		7044.01					
	45 th - 72 nd	7044.03					
Of all Analysis Area tracts, those with the highest indices are located in	45 - 72	7044.04					
the Bethesda and Gaithersburg Analysis Area Communities.		7045.03					
		(Bethesda, North Bethesda, Rockville)					
	Exposure	-					
		7007.18					
		7010.01					
		7010.02					
		7010.04					
		7010.05					
		7010.06					
		7012.05					
		7012.06					
		7012.11					
All 8 of the Study's El tracts are at or above the 50^{th} percentile		7012.13					
All o or the study s is tracts are at or above the so percentile		7044.01					
Of all Analysis Area tracts, those with the highest indices are located in	56 th – 99 th	7044.03					
the Bethesda and North Bethesda Analysis Area Communities		7044.04					
		7045.02					
		7045.03					
		7058.00					
		7059.01					
		7059.02					
		7060.09					
		7060.13					
		(Bethesda, Cabin John, North Bethesda, Potomac,					
		Rockville)					
Envir	onmental Effects						

Summon	Percentile Range for the	Study's Non-EJ Tracts at/above 50th Percentile and
Summary	Study's EJ Tracts**	Corresponding Analysis Area Community
		7010.05
		7012.05
		7044.01
		7044.03
2 of the Study's 8 El tracts are at or above the E0 th perceptile		7044.04
S of the study's 8 Es tracts are at of above the SO percentile		7045.02
Of all Analysis Area tracts, these with the highest indices are located in	$17^{th} - 80^{th}$	7045.03
the Bethesda Analysis Area Community		7058.00
the Bethesua Analysis Area Community		7059.01
		7059.02
		7060.13
		(Bethesda, Cabin John, North Bethesda, Potomac,
		Rockville)
Sensi	tive Populations	
		7012.10
4 of the Study's 8 EJ tracts are at or above the 50 th percentile		7044.03
	6 th 64 th	7045.03
Of all Analysis Area tracts, those with the highest indices are located in	0 - 04	7058.00
the Bethesda and Rockville Analysis Area Communities		7059.01
		(Bethesda, Cabin John, Rockville)
Socio	economic Factors	
3 of the Study's 8 EJ tracts are at or above the 50 th percentile		N/A
Of all Analysis Area tracts, those with the highest indices are located in the Gaithersburg and Potomac Analysis Area Communities	$16^{th} - 78^{th}$	

* See <u>https://p1.cgis.umd.edu/mdejscreen/help.html</u> for definitions and detailed information about the program methodology.

** For the purposes of the MD EJSCREEN review, EJ Tracts are the tracts within which the Study's EJ block groups are located.



Figure 1: EPA EJSCREEN Hazardous Waste Proximity Index



Figure 2: EPA EJSCREEN Lead Paint Indicator Index



Figure 3: EPA EJSCREEN NATA Air Toxics Cancer Risk Index



Figure 4: EPA EJSCREEN NATA Diesel Particulate Matter Index



Figure 5: EPA EJSCREEN NATA Respiratory Hazard Index



Figure 6: EPA EJSCREEN Ozone Index



Figure 7: EPA EJSCREEN Particulate Matter (PM 2.5) Index



Figure 8: EPA EJSCREEN Superfund Proximity Index



Figure 9: EPA EJSCREEN Risk Management Plan Facilities Proximity Index



Figure 10: EPA EJSCREEN Traffic Proximity and Volume Index



Figure 11: EPA EJSCREEN Wastewater Discharge Indicator Index