

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

INTEROFFICE COMMUNICATION

TO: Regina Strong, Environmental Justice Public Advocate,
Office of the Environmental Justice Public Advocate
Katie Lambeth, Tribal Liaison
Executive Office

FROM: Kimberly M. Tyson, Manager *Kimberly M. Tyson*
Hazardous Waste Section, Materials Management Division

DATE: April 8, 2025

SUBJECT: Environmental Justice and Limited English Proficiency Screenings,
The Dow Chemical Company, Main Plant & Incinerator Complex and
Salzburg Road Landfill; MID 000 724 724 and MID 980 617 435,
Waste Data System Numbers 392698 and 399133

The Materials Management Division (MMD), Hazardous Waste Section (HWS), conducted Environmental Justice (EJ), and Limited English Proficiency (LEP), Screenings for The Dow Chemical Company (Dow), Main Plant & Incinerator Complex and Salzburg Road Landfill.

Based on the EJ and LEP screening, the HWS determined that Dow is not in EJ and LEP areas.

Facility Background and Extent of Hazardous Waste Operations

The Dow Main Plant & Incinerator Complex is a chemical manufacturing complex located at 1790 Building, Washington Street, Midland, Michigan. The Dow Salzburg Road Landfill is a hazardous waste landfill located at 2314 West Salzburg Road, Midland, Michigan.

Dow manufactures a variety of chemical products using a variety of process equipment including reactors, distillation and/or fractionation columns, separators, storage tanks and/or silos, boilers, condensers, thermal heat recovery, oxidation units, scrubbers, and so on, at various locations within the Main Plant. Dow also incinerates on-site generated hazardous wastes that fail land disposal restriction or treatability variance requirements under the license. Ash from the Incinerator Complex treatment process is disposed of at Salzburg Road Landfill.

The Main Plant & Incinerator Complex and Salzburg Road Landfill are authorized to operate under one Hazardous Waste Facility Operating License and occupy approximately 2,052 acres of land. Dow's license covers its hazardous waste container storage, tank storage and treatment, surface impoundment storage and treatment, incinerator, environmental monitoring, on-site and off-site hazardous waste clean-up activities, and disposal at the Salzburg Road Landfill. Many locations across the

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Main Plant also generate hazardous waste that Dow is licensed to store and treat at the Main Plant & Incinerator Complex and dispose of at Salzburg Road Landfill under the license issued by MMD. Dow has separate air and wastewater permits, and a separate solid waste landfill permit and license for other operations occurring within the complex.

Dow submitted renewal application to MMD on March 28, 2025. The MMD is required to conduct EJ and LEP screening as part of the licensing process.

EJ Screen Results

The EJ Screen was conducted using the MiEJScreen Environmental Justice Screening Tool (Version 1.0).

The EJ Screen was performed with a one-mile buffer distance from the facility's perimeter and was not increased as no census tracts had a MiEJScore at the 80th percentile or greater. Based on the results of the MiEJScreen (attached), staff determined that the community surrounding Dow would not be considered an EJ area.

LEP Screen Results

The LEP Screen was conducted using the United States Environmental Protection Agency's EJScreen Mapping Tool (Version 2.3).

The LEP Screen was performed using the same one-mile buffer distance. Because the population that speaks English "less than very well" is less than the state average of two percent and is less than 500 people, staff determined vital documents will not need to be translated.

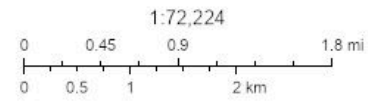
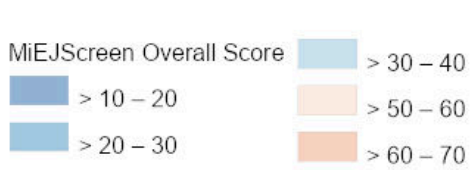
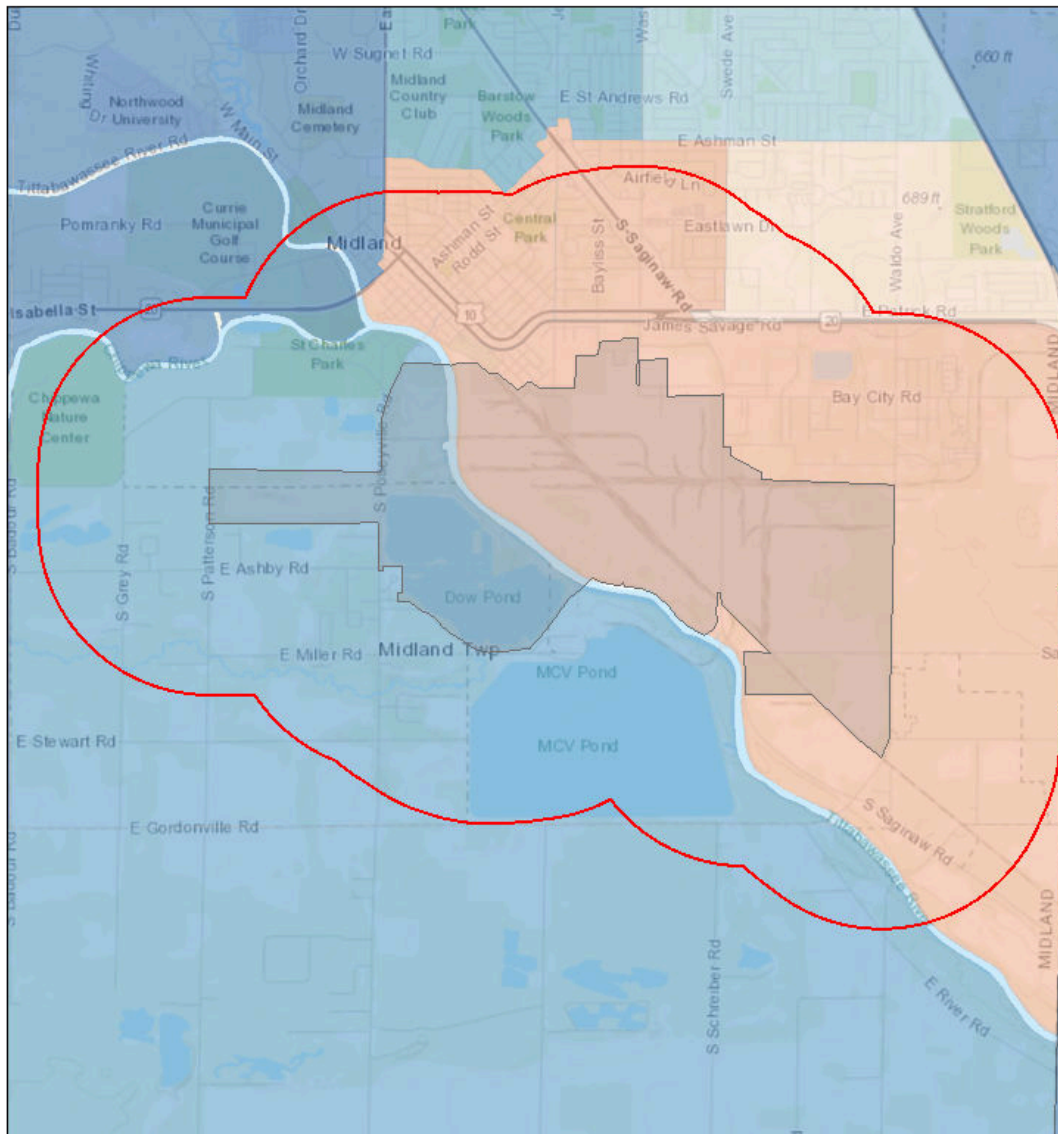
Please confirm your concurrence with the EJ and LEP results by April 21, 2025, if possible, to assist the MMD in preparing plans for appropriate public engagement.

Attachments

cc/att.: Elizabeth M. Browne, EGLE
Tracy Kecskemeti, EGLE
Kevin Bott, EGLE
Natalie Brown, EGLE
Kate Hutchens, EGLE
Elizabeth Cazallis, EGLE
Public Participation – Environmental Justice Documentation

The Dow Chemical Company Midland Plant and Salzburg Road Landfill

Dow manufactures a variety of chemical products using a variety of process equipment including reactors, distillation/fractionation columns, separators, storage tanks/silos, boilers, condensers, thermal heat recovery, oxidation units, scrubbers, etc. at various locations within the Dow Chemical Complex. Many locations across the complex generate hazardous waste which Dow is licensed to store, treat, and dispose of under the hazardous waste license issued by MMD.



Area: 19.17 mi²

Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METINASA, NGA, EPA, USDA

The EJ screen was performed with a one mile buffer distance and was not increased because no census tract had a MiEJScore of 80 or greater.

MiEJScreen Overall Score

#	Census Tract	Tract Name	County	MiEJ Score Percentile	Environmental Conditions Percentile
1	26017285600	Census Tract 2856	Bay County	34	32
2	26111290700	Census Tract 2907	Midland County	51	45
3	26111291300	Census Tract 2913	Midland County	23	19
4	26111290400	Census Tract 2904	Midland County	19	33
5	26111290200	Census Tract 2902	Midland County	68	52
6	26111290100	Census Tract 2901	Midland County	60	62
7	26111290500	Census Tract 2905	Midland County	22	30
8	26111290600	Census Tract 2906	Midland County	61	59

#	Population Characteristics Score Percentile	Total Population	Area MiSq	Population Density (People/MiSq)	Percent Unemployed
1	30	7,024	35.1	200	4
2	46	3,582	1.9	1,897	5
3	30	4,496	59.6	75	6
4	7	2,295	4.6	501	5
5	75	3,531	1.1	3,280	2
6	49	3,579	1.0	3,666	4
7	13	1,885	7.7	244	3
8	54	2,547	8.5	301	6

#	Median Household Income past 12 months	Percent of Population that is Hispanic or Latino	Percent of Population that is White alone, Non-Hispanic	Percent of Population that is Black or African American alone, Non-Hispanic	Percent of Population that is American Indian and Alaska Native alone, Non-Hispanic
1	61,983	3	94	0	0
2	54,821	5	79	3	1
3	69,038	3	96	0	1
4	77,308	2	89	4	1
5	29,171	5	87	3	3
6	46,375	3	94	1	0
7	70,959	3	97	0	0
8	39,574	2	87	2	0

#	Percent of Population that is Asian alone, Non-Hispanic	Percent of Population that is Native Hawaiian and Other Pacific Islander alone, Non-Hispanic	Percent of Population that is Some Other Race alone, Non-Hispanic	Percent of Population that is 2 or More Races, Non-Hispanic	Area(mi ²)
1	1	0	0	1	< 0.01
2	11	0	0	2	0.43
3	0	0	0	1	0.53
4	3	0	0	1	0.66
5	0	0	0	2	0.85
6	0	0	0	2	0.86
7	0	0	0	0	7.56
8	3	0	3	3	7.97

1) Environmental Conditions: Exposure Percentiles

#	1) Environmental Conditions: Exposure Percentiles	NATA Air Toxics Cancer Risks	NATA Respiratory Hazard Index	NATA Diesel Particulate Matter	Particulate Matter 2.5 (PM2.5)
1	18	27	33	13	15
2	40	85	97	22	15
3	11	11	12	10	14
4	20	29	36	14	13
5	42	97	99	22	14
6	40	77	99	20	13
7	17	30	41	13	14
8	37	76	98	16	15

#	Ozone	Traffic Proximity and Volume	Area(mi ²)
1	13	40	< 0.01
2	12	50	0.43
3	13	5	0.53
4	12	52	0.66
5	12	47	0.85
6	12	58	0.86
7	12	21	7.56
8	13	51	7.97

2) Environmental Conditions: Environmental Effects Percentiles

#	2) Environmental Conditions: Environmental Effects	Proximity to Cleanup Sites	Proximity to Hazardous Waste Facilities	Impaired Water Bodies	Proximity to Solid Waste Sites and Facilities
1	94	78	94	73	86
2	62	5	95	0	93
3	89	79	62	73	68
4	92	72	56	73	71
5	81	81	95	0	0
6	99	82	81	73	79
7	93	57	81	73	66
8	98	75	99	73	82

#	Lead Paint Indicator	Proximity to Risk Management Plan (RMP) Sites	Wastewater Discharge Indicator	Area(mi ²)
1	43	74	64	< 0.01
2	15	97	61	0.43
3	47	49	96	0.53
4	66	61	96	0.66
5	66	100	95	0.85
6	78	99	97	0.86
7	54	78	94	7.56
8	51	99	93	7.97

3) Population Characteristics: Sensitive Populations Percentiles

#	3) Population Characteristics: Sensitive Populations Percentiles	Asthma	Cardiovascular Disease	Low Birth Weight Infants	Lead Blood Level Suppressed
1	39	21	61	37	<i>No Data</i>
2	43	24	47	57	<i>No Data</i>
3	36	24	45	8	<i>No Data</i>
4	17	35	43	27	0
5	66	41	77	34	<i>No Data</i>
6	61	47	70	7	<i>No Data</i>
7	25	36	50	40	0
8	34	58	62	20	0

#	Life Expectancy Percentile	Life Expectancy	Area(mi ²)
1	30	79	< 0.01
2	1	85	0.43
3	38	79	0.53
4	17	81	0.66
5	42	78	0.85
6	77	75	0.86
7	24	80	7.56
8	40	79	7.97

4) Population Characteristics: Socioeconomic Factors Percentiles

#	4) Population Characteristics: Socioeconomic Factors Percentiles	Poverty	Percent Minority	Less Than High School Education	Linguistic Isolation
1	18	34	19	36	44
2	48	42	60	17	79
3	23	32	11	41	46
4	3	35	39	6	0
5	84	79	46	62	57
6	28	64	20	53	0
7	6	12	3	25	0
8	74	81	45	61	87

#	Individuals Under 5 Years Old	Individuals Over 64 Years Old	Unemployment	Housing Burden	Area(mi ²)
1	36	46	32	21	< 0.01
2	84	27	42	21	0.43
3	50	58	25	21	0.53
4	24	62	6	4	0.66
5	65	72	69	80	0.85
6	12	41	46	68	0.86
7	53	45	43	18	7.56
8	73	17	45	69	7.97

Location: User-specified polygonal location
 Ring (buffer): 1-miles radius
 Description: The Dow Chemical Company Midland Plant and Salzburg Road Landfill

Summary of ACS Estimates		2018 - 2022
Population		9,769
Population Density (per sq. mile)		580
People of Color Population		946
% People of Color Population		10%
Households		4,469
Housing Units		5,019
Housing Units Built Before 1950		1,667
Per Capita Income		29,819
Land Area (sq. miles) (Source: SF1)		16.83
% Land Area		87%
Water Area (sq. miles) (Source: SF1)		2.41
% Water Area		13%

	2018 - 2022 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	9,769	100%	371
Population Reporting One Race	9,414	96%	883
White	9,019	92%	365
Black	130	1%	194
American Indian	33	0%	57
Asian	67	1%	156
Pacific Islander	0	0%	11
Some Other Race	165	2%	100
Population Reporting Two or More Races	355	4%	119
Total Hispanic Population	402	4%	109
Total Non-Hispanic Population	9,367		
White Alone	8,822	90%	365
Black Alone	130	1%	194
American Indian Alone	30	0%	57
Non-Hispanic Asian Alone	67	1%	156
Pacific Islander Alone	0	0%	11
Other Race Alone	54	1%	70
Two or More Races Alone	263	3%	119
Population by Sex			
Male	4,710	48%	219
Female	5,058	52%	222
Population by Age			
Age 0-4	488	5%	80
Age 0-17	1,864	19%	135
Age 18+	7,905	81%	290
Age 65+	1,663	17%	217

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2018 - 2022

Location: User-specified polygonal location

Ring (buffer): 1-miles radius

Description: The Dow Chemical Company Midland Plant and Salzburg Road Landfill

	2018 - 2022 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	6,814	100%	269
Less than 9th Grade	89	1%	54
9th - 12th Grade, No Diploma	334	5%	101
High School Graduate	2,440	36%	161
Some College, No Degree	1,526	22%	148
Associate Degree	832	12%	80
Bachelor's Degree or more	1,592	23%	161
Population Age 5+ Years by Ability to Speak English			
Total	9,280	100%	362
Speak only English	9,020	97%	325
Non-English at Home ¹⁺²⁺³⁺⁴	260	3%	124
¹ Speak English "very well"	142	2%	104
² Speak English "well"	30	0%	75
³ Speak English "not well"	80	1%	63
⁴ Speak English "not at all"	8	0%	40
³⁺⁴ Speak English "less than well"	88	1%	73
²⁺³⁺⁴ Speak English "less than very well"	118	1%	92
Limited English Speaking Households*			
Total	42	100%	46
Speak Spanish	36	85%	33
Speak Other Indo-European Languages	2	6%	20
Speak Asian-Pacific Island Languages	4	9%	30
Speak Other Languages	0	0%	11
Households by Household Income			
Household Income Base	4,469	100%	222
< \$15,000	602	13%	166
\$15,000 - \$25,000	595	13%	156
\$25,000 - \$50,000	1,096	25%	93
\$50,000 - \$75,000	783	18%	116
\$75,000 +	1,393	31%	129
Occupied Housing Units by Tenure			
Total	4,469	100%	222
Owner Occupied	2,444	55%	119
Renter Occupied	2,025	45%	218
Employed Population Age 16+ Years			
Total	8,143	100%	334
In Labor Force	4,816	59%	202
Civilian Unemployed in Labor Force	334	7%	106
Not In Labor Force	3,327	41%	234

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified polygonal location

Ring (buffer): 1-miles radius

Description: The Dow Chemical Company Midland Plant and Salzburg Road Landfill

	2018 - 2022 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	10,834	100%	475
English	10,484	97%	469
Spanish	185	2%	104
French, Haitian, or Cajun	6	0%	23
German or other West Germanic	7	0%	25
Russian, Polish, or Other Slavic	35	0%	42
Other Indo-European	72	1%	105
Korean	9	0%	44
Chinese (including Mandarin, Cantonese)	2	0%	11
Vietnamese	17	0%	82
Tagalog (including Filipino)	1	0%	11
Other Asian and Pacific Island	15	0%	64
Arabic	0	0%	11
Other and Unspecified	0	0%	11
Total Non-English	350	3%	668

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2018 - 2022.
*Population by Language Spoken at Home is available at the census tract summary level and up.