STATEMENT OF BASIS
Arrowhead Landfill
Perry, County
Facility No. 107-0003

Introduction:
On July 2, 2010, Perry County Associates, LLC submitted a Title V Major Source Permit application for their municipal solid waste landfill, the Arrowhead Landfill. An updated application was received on February 15, 2012. Arrowhead Landfill originally submitted an application for a municipal solid waste landfill with a design capacity less than the 2.5 million megagrams and 2.5 million cubic meters on May 8, 2007. On February 1, 2010, an amended Design Capacity Report with an amended design capacity of 2.8 million cubic meters and 3.8 million megagrams was submitted. The increased design capacity resulted from Perry County Associates' decision to begin accepting coal ash from the Tennessee Valley Authority. The ash has a greater density than municipal solid waste, thus, increasing the design capacity by mass. Included in the amended Design Capacity Report was the initial Non-Methane Organic Compounds (NMOC) emission rate report, which calculated the NMOC emission rate to be 34.2 megagrams per year. In 2021, the facility completed its second Tier 2 test, which determined NMOC emissions to be 2.78 Mg/yr. This is below the 34 megagrams per year threshold; therefore, a gas collection and control system will not be required.

Arrowhead Landfill is located at Route 2 Box 110A outside of Uniontown, Alabama.

There are no current or ongoing enforcement actions against Arrowhead Landfill necessitating additional requirements to achieve compliance with permit conditions. Perry County is currently listed in attainment with all National Ambient Air Quality Standards (NAAQS).

Potential emissions are as follows:

Pollutant	Potential Emissions (tpy)
PM_{10}	16.1
NO_x	11.8
SO_2	4.61
CO	49.7
NMOC (Uncontrolled)	118.6 *
VOC	47.4
HAPs	12.8
CO_2e	92,863

*Represents the maximum potential uncontrolled emissions over the life of the landfill. Control measures will be required upon exceeding 34 Mg/yr NMOC emissions.

No other criteria pollutants are emitted in sufficient quantities, actually or potentially, to exceed the major source threshold of 100 tons per year.

Requirements:
The facility is currently subject to 40 CFR 62, Subpart OOO-Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014, because it has a design capacity greater than 2.5 x 10^6 Megagrams. It will become subject to ADEM Admin. Rule R. 335-3-19, Control of Municipal Solid Waste Landfill Gas Emissions upon final approval of that chapter by EPA. Because the landfill has uncontrolled NMOC emissions less than 34 Megagrams per year, it is not yet subject to the portions of either Subpart OOO or ADEM Admin. Rule R. 335-3-19 covering gas collection and control systems. The landfill is required to submit a NMOC report on an annual or five-year basis as long as the NMOC emissions are less than 34 Megagrams per year. The site also currently performs Tier 2 testing every five years.

Arrowhead is not a major source for HAP emissions. For this reason, and because the NMOC emission level is below 50 Megagrams per year, the landfill is not subject to Subpart AAAA, National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills. The site is also not subject to 40 CFR 61-Subpart M NESAHP, National Emission Standard for Asbestos because Arrowhead does not accept any waste containing asbestos.

The potential criteria pollutant emissions from the landfill are less that 250 tons per year; therefore, the facility is not subject to the Prevention of Significant Deterioration (PSD).

Monitoring of emissions:
Arrowhead Landfill maintains records on site of the design capacity report (in which the design capacity was shown to have exceeded 2.5 million m^3 by volume and 2.5 million megagrams by mass), the current waste in place, year-by-year waste acceptance rates, and other records to show compliance to both 40 CFR 62, Subpart OOO and ADEM Admin. Rule R. 335-3-19.

Compliance Assurance Monitoring (CAM) is not applicable as the landfill is subject to standards that were promulgated after November 15, 1990. According to 40 CFR 64.2(b)(1)(i) on exemptions from CAM, emission limitations or standards proposed after November 15, 1990 pursuant to Section 111 or 112 of the Clean Air Act are exempt from CAM requirements, and there are no other source specific standards applicable to this facility.

Environmental Justice:
ADEM utilized EJSCREEN screening tool to perform an analysis of the area. (Appendix A)

Recommendation:
I recommend that Arrowhead Landfill be issued the enclosed Title V Operating Permit 107-0003 with unit X001 for a Municipal Solid Waste Landfill with a design capacity of greater than 2.5 x 10^6 Megagrams.

John Robert Gill
Chemical Branch
Air Division

January 27, 2021

Appendix A

EJSCREEN Report

EJSCREEN Report (Version 2020)

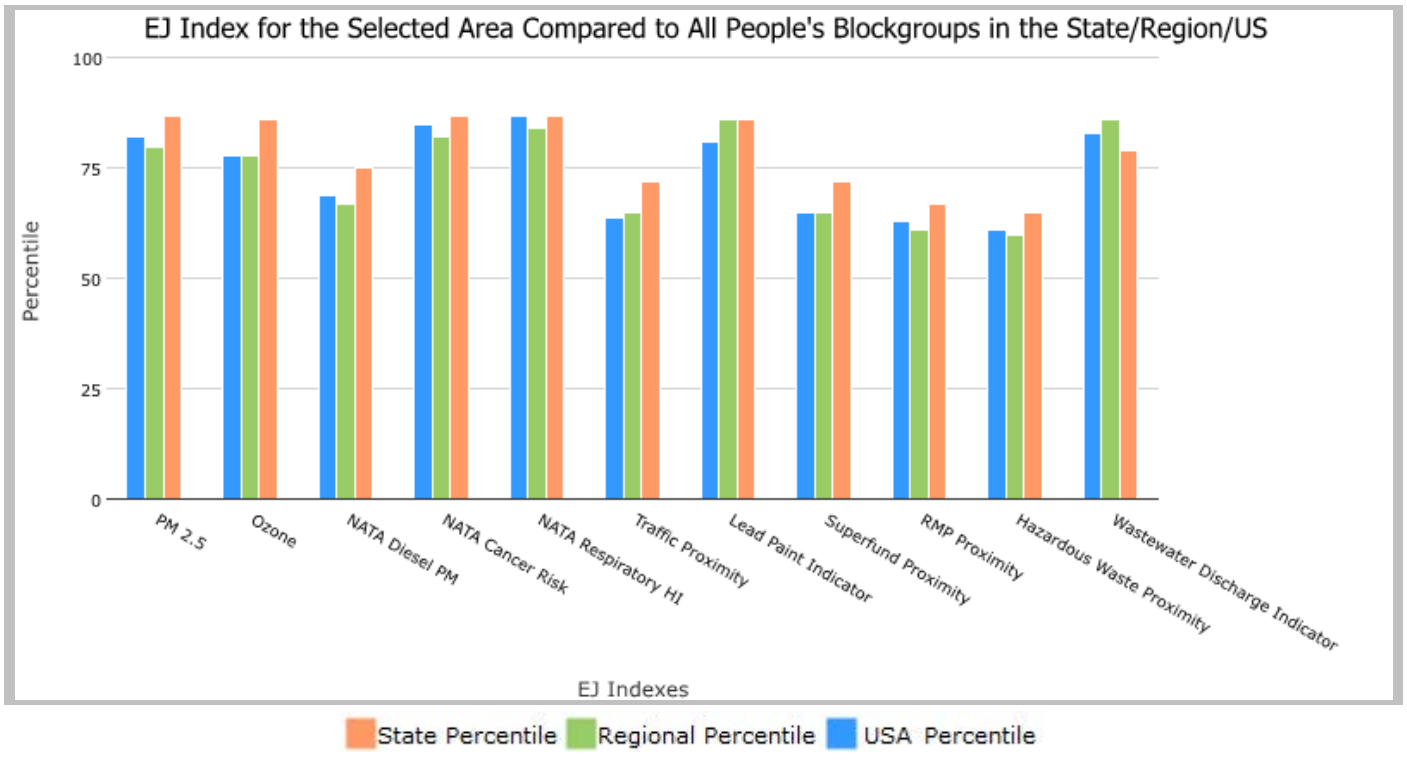
3 miles Ring Centered at 32.411944,-87.467222, ALABAMA, EPA Region 4

Approximate Population: 750

Input Area (sq. miles): 28.27

Arrowhead

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	87	80	82
EJ Index for Ozone	86	78	78
EJ Index for NATA* Diesel PM	75	67	69
EJ Index for NATA* Air Toxics Cancer Risk	87	82	85
EJ Index for NATA* Respiratory Hazard Index	87	84	87
EJ Index for Traffic Proximity and Volume	72	65	64
EJ Index for Lead Paint Indicator	86	86	81
EJ Index for Superfund Proximity	72	65	65
EJ Index for RMP Proximity	67	61	63
EJ Index for Hazardous Waste Proximity	65	60	61
EJ Index for Wastewater Discharge Indicator	79	86	83



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.

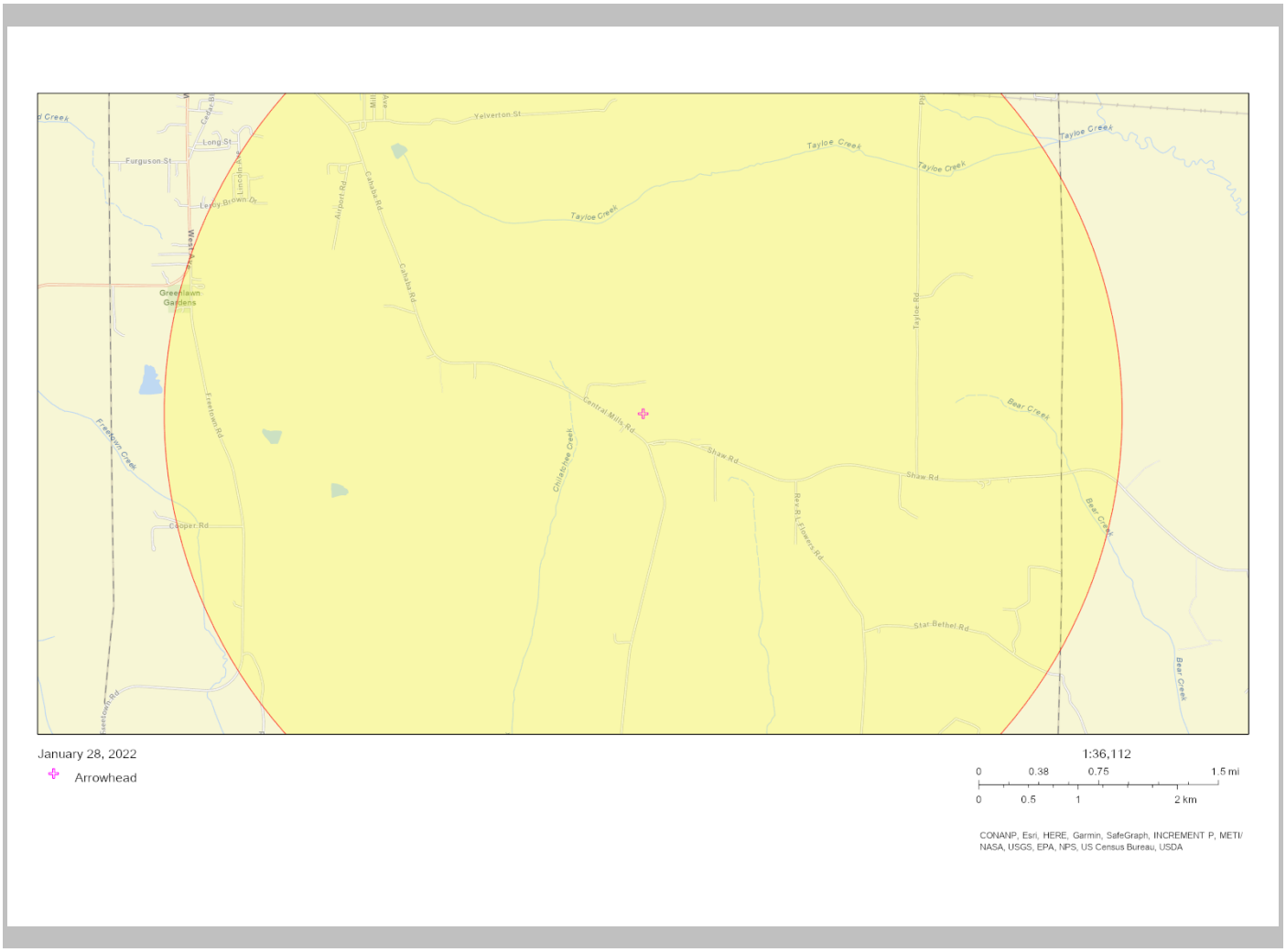
EJSCREEN Report (Version 2020)

3 miles Ring Centered at 32.411944,-87.467222, ALABAMA, EPA Region 4

Approximate Population: 750

Input Area (sq. miles): 28.27

Arrowhead



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

EJSCREEN Report (Version 2020)

3 miles Ring Centered at 32.411944,-87.467222, ALABAMA, EPA Region 4

Approximate Population: 750

Input Area (sq. miles): 28.27

Arrowhead

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	9.04	9.31	41	8.57	75	8.55	65
Ozone (ppb)	34.7	38	10	38	27	42.9	9
NATA* Diesel PM (µg/m^3)	0.14	0.346	5	0.417	<50th	0.478	<50th
NATA* Cancer Risk (lifetime risk per million)	45	43	57	36	90-95th	32	90-95th
NATA* Respiratory Hazard Index	0.71	0.65	70	0.52	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	32	220	35	350	27	750	19
Lead Paint Indicator (% Pre-1960 Housing)	0.2	0.18	71	0.15	75	0.28	52
Superfund Proximity (site count/km distance)	0.0095	0.054	3	0.083	5	0.13	3
RMP Proximity (facility count/km distance)	0.038	0.41	3	0.6	2	0.74	2
Hazardous Waste Proximity (facility count/km distance)	0.031	0.82	1	0.91	1	5	2
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00026	1.2	50	0.65	68	9.4	58
Demographic Indicators							
Demographic Index	77%	36%	93	37%	94	36%	94
People of Color Population	86%	34%	91	39%	89	39%	87
Low Income Population	67%	38%	90	36%	91	33%	92
Linguistically Isolated Population	0%	1%	71	3%	51	4%	45
Population With Less Than High School Education	20%	14%	74	13%	78	13%	79
Population Under 5 years of age	3%	6%	25	6%	25	6%	23
Population over 64 years of age	19%	16%	68	17%	69	15%	72

* 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