

2021

Path Forward Plan

*A comprehensive plan to reduce
emissions and achieve cleaner air in Kent
and Ottawa Counties*



GVMC



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1. Introduction

On November 16, 2020, Grand Valley Metropolitan Council (GVMC), in coordination with the West Michigan Clean Air Coalition (WMCAC) and the Lower Grand River Organization of Watersheds (LGROW) sent a formal letter to the Environmental Protection Agency (EPA) requesting to join the Advance Program for both ground-level ozone and fine particulate matter (PM_{2.5}) with respect to Kent and Ottawa Counties. EPA's Advance Program, established in 2012, supports states, tribes and local governments in attainment areas that want to take proactive steps to keep the air clean by promoting local actions to reduce ground-level ozone and/or fine particle pollution (PM_{2.5}), thereby helping the area continue to maintain the National Ambient Air Quality Standards (NAAQS). GVMC decided to join this program to help preserve and improve air quality in both counties. Kent and Ottawa Counties both currently meet all eligibility requirements for the ground-level ozone and PM Advance Program. The letter can be found in Appendix A.

Grand Valley Metropolitan Council is an alliance of governmental units in the West Michigan area that are appointed to plan for growth and development, improve the quality of the community's life, and coordinate governmental services. GVMC works continually to improve the quality of life in the community by supporting and participating in environmental initiatives and programs that promote clean air and water.

Because motor vehicle usage is so closely linked to emissions and air pollution, GVMC's Transportation Department has provided staff to participate on the WMCAC since 1995. The WMCAC is a partnership of West Michigan businesses, academic institutions, government agencies, industry, and non-profit organizations that work together to achieve cleaner air through the education and promotion of voluntary emission reduction activities. The WMCAC helps steer the direction of the Clean Air Action program, which issues Action Day notices when ground-level ozone or PM_{2.5} is expected to reach or exceed the Unhealthy for Sensitive Groups (USG) threshold. Educating the community about both pollutants is critically important.

LGROW, an agency of GVMC, has a mission to understand, protect, and improve the natural resources of the Lower Grand River watershed for all to enjoy, and a vision to connect water with life. LGROW brings together local municipalities and community stakeholders in a unique format to address issues facing the Lower Grand River and its watersheds. LGROW promotes community education and sustainable use of our river resource. LGROW works with communities to coordinate federal stormwater permits and with local partners through grants and donations. LGROW is committed to making the watershed an ongoing resource for all. GVMC believes that the work that we are already doing through the WMCAC and LGROW aligns well with the Advance Program and that participating in Advance will enhance our ability to make a positive difference in our air and water quality, both now and in the future. We understand that participating in the ozone and PM Advance program will allow us to further our efforts by potentially:

- Reducing ozone and PM_{2.5} air pollution, as well as other air pollutants
- Achieving continued healthy ozone and PM_{2.5} levels
- Maintaining healthy air quality and the ozone and PM_{2.5} NAAQS
- Helping avoid violations of the NAAQS that could lead to a future nonattainment designation
- Increasing public awareness about ozone and PM_{2.5} as air pollutants

- Targeting resources toward actions to address ozone and PM2.5 problems

The remainder of this plan details the work that we are currently doing through our Clean Air Action program and LGROW and defines potential ways we can grow our programs by participating in Advance.

2. GVMC's Environmental Programs

Clean Air Action Program

As stated previously, the West Michigan Clean Air Coalition steers the direction of the Clean Air Action program in West Michigan. GVMC collaborates with The Macatawa Area Coordinating Council (MACC) in Holland and the West Michigan Shoreline Regional Development Commission (WMSRDC) in Muskegon to run the program in our respective areas. We share resources, media buys, and promotional product orders to help stretch our budgets, which are funded with a combination of Congestion Mitigation Air Quality (CMAQ) funding and a local match.

The focus of the program is to educate the community about air quality and related issues, and the program calls Action Days when ground-level ozone or PM2.5 is expected to reach or exceed the Unhealthy for Sensitive Groups (USG) range. Both pollutants are defined below.

Ground-Level Ozone is a highly reactive gas consisting of three oxygen atoms (O₃). It is created when volatile organic compounds (VOC's) and nitrogen oxides (NO_x) react with sunlight. At ground level, ozone is the main ingredient in smog, which can threaten both public health and the environment.

Health and Environmental Impacts: Ground-level ozone damages crops, forests, and materials such as rubber and plastics and impacts health by causing eye irritation, decreased vision, increased asthma and chronic lung disease incidence, coughing, dizziness, nausea, and reduced heart and lung capacity.

Particulate Matter (PM_{2.5}) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of several components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small that they can only be detected using an electron microscope.

Health and Environmental Impacts: PM_{2.5} negatively impacts the environment by reducing visibility, acidifying lakes and streams, changing the nutrient balance in coastal waters and large river basins, depleting the nutrients in soil, damaging sensitive forests and farm crops, and affecting the diversity of ecosystems. Health impacts from PM_{2.5} include increased respiratory symptoms (irritation of the airways, coughing, or difficulty breathing), decreased lung function, aggravated asthma, development of chronic bronchitis, irregular heartbeat, nonfatal heart attacks, and premature death in people with heart or lung disease.

Children, the elderly, those with heart and lung disease, and those who are active outdoors are especially sensitive to ground-level ozone and PM_{2.5} pollution. On these days, we encourage sensitive groups to reduce exertion and the community in general to take part in voluntary emission reduction activities, including:

- Waiting until 6 pm to refuel or mow the lawn

- Avoiding idling (skipping the drive-thru, etc.)
- Carpooling
- Biking or walking
- Taking the bus (The Rapid in Grand Rapids and the MAX in Holland offer free rides on Action Days)
- Stopping at the click (and not overfilling your gas tank)
- Using clean burning techniques, or better yet not burning at all

There are three reasons why we ask the public to take part in voluntary emission reduction activities on Action Days. These include:

(1) Protecting the health of the community.

Both ground-level ozone and PM2.5 can cause serious health impacts (see page 3). Emergency room visits increase when air quality is poor, as people who are sensitive to air pollution often have difficulty breathing on these days.

(2) Protecting the environment.

Both ground-level ozone and PM2.5 are known to cause environmental damage (see page 3).

(3) Keeping Kent and Ottawa Counties in attainment for ozone and PM2.5.

The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for six criteria pollutants which can be harmful to public health and the environment. Two of these six pollutants are ground-level ozone and PM2.5. We need the help of the community to reduce emissions on days when air pollution levels are high so that we can continue to meet these standards. If we become a non-attainment area, we may have to implement costly control measures to reach and maintain the NAAQS.

Achieving the standards for ground-level ozone and PM2.5 has historically been challenging for West Michigan. We are at a disadvantage being located across the lake from Gary, IN, and Chicago. West Michigan does receive significant transport pollution from these areas, and with increased humidity and the amplified reflection of the sun off the water, Lake Michigan provides the perfect environment for precursor pollutants to form ground-level ozone. Therefore, it is critically important that we, as an area, do what we can to reduce our local emissions as much as possible.

According to the 2017 National Emissions Inventory, the top three sources of VOC emissions in Kent and Ottawa Counties are:

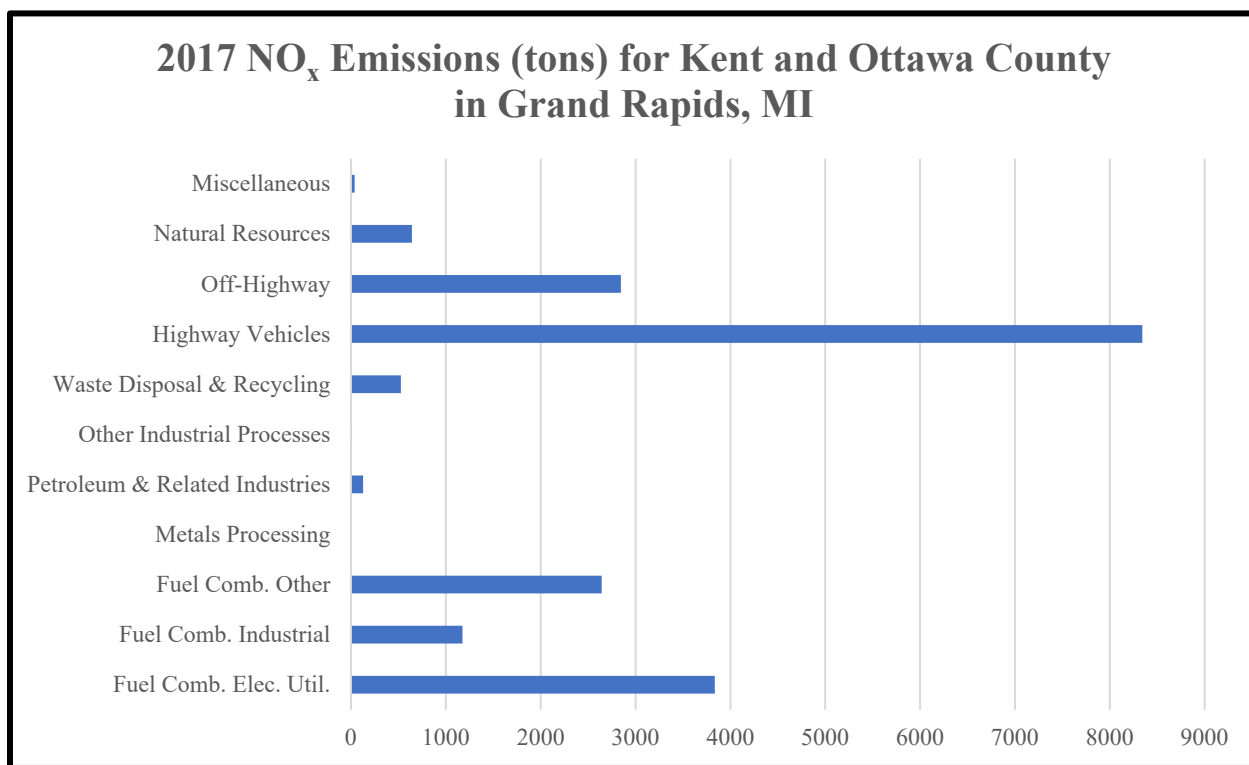
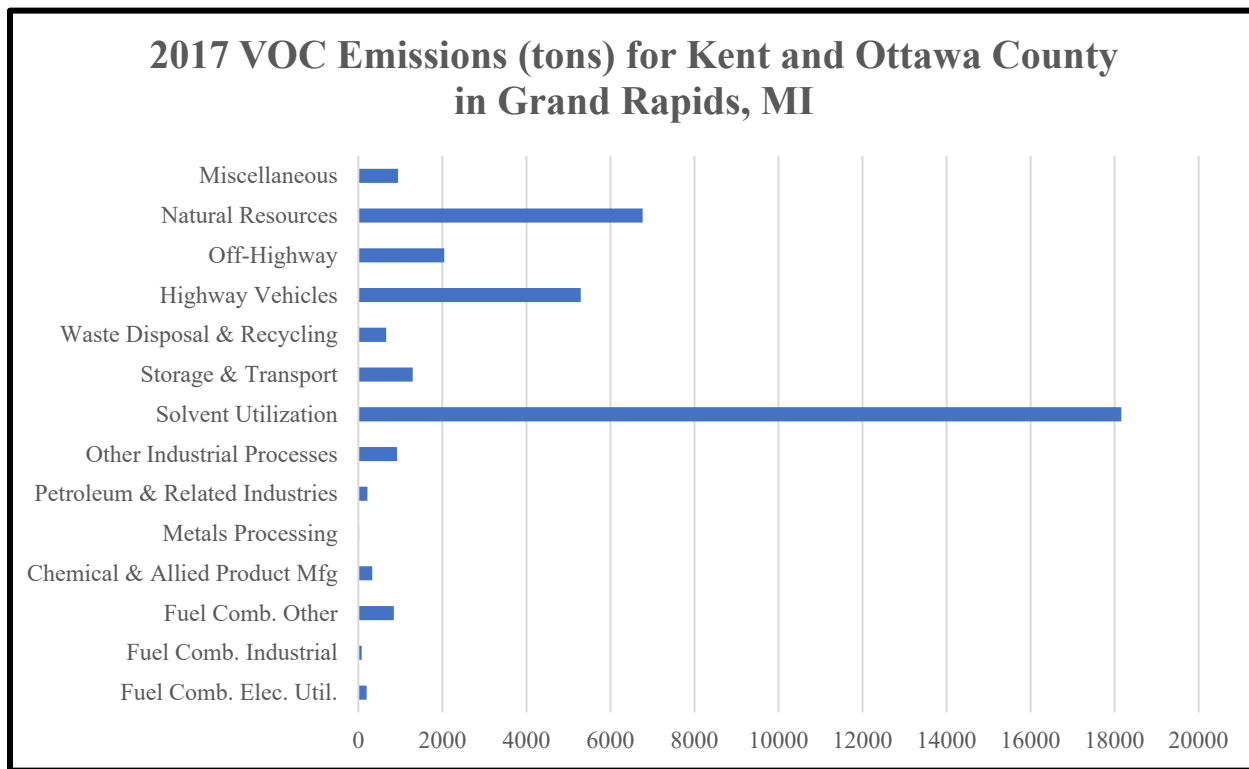
- (1) Solvent Utilization
- (2) Natural Resources (e.g., livestock, biogenic, geogenic, and miscellaneous sources)
- (3) Highway Vehicles

According to the same data, the top three sources of NOx emissions for Kent and Ottawa Counties are:

- (1) Highway Vehicles
- (2) Fuel Combustion Electric Utilities
- (3) Off-Highway Vehicles (e.g., agricultural, construction, industrial, and lawn and garden equipment)

VOCs and NOx are precursor pollutants to ground-level ozone and PM2.5. The graphs on page 5 provide additional information. As evidenced by this data, vehicles continue to rank highly as sources of emissions in our area. Therefore, it is important to continue to promote our air quality messages that

encourage the public to bike, walk, carpool, or take the bus, especially on Action Days, to maintain our attainment status.



A list of Action Days called to date is available in Appendix B. Over the past 5 years, there have been, on average, 7 Action Days per year. *Please note that the Clean Air Action program was the Ozone Action program between 1995 and 2008 and only called Action Days for ground-level ozone. Since 2009, the Clean Air Action program has announced Action Days for ozone and PM2.5, but all Action Days to date have been issued due to elevated ground-level ozone pollution.*

Currently, the Clean Air Action program is promoted in the following ways:

(1) *Media Campaigns*

GVMC works with our partners at The MACC and WMSRDC to develop a yearly media campaign that includes radio and TV advertising (local news and cable TV), as well as advertising on streaming platforms and in movie theaters. Links to our three most recent PSAs are below.

[WMCAC Rap PSA](#)

[Biking PSA](#)

[Carpooling PSA](#)

(2) *Community Events*

GVMC attends a variety of events every year, including free community concerts, Department of Public Works (DPW) week events, Earth Day events, health and wellness events, and concourse tables at the Whitecaps (a minor league baseball team). The MACC and WMSRDC also participate in similar events in their respective communities. Participating in these events allows us to engage one-on-one with citizens. Conversations that occur at these events are often educational and informative and have led to many people signing up for EnviroFlash, a free service that sends out email or text messages that an Action Day has been called around 1 pm the day prior. GVMC also gives out thousands of free promotional items at events every year that contain our logo and our web address, and sometimes a tagline. These freebies serve as a reminder to the recipients to be on the lookout for Action Days. Our promotional items currently include a tip card in English and Spanish, a magnetized chip clip that can be used to attach the tip card to a refrigerator door, fling ring “Frisbees,” reusable backpack style drawstring bags, pens, notepads, tire pressure gauges, coloring books and wooden airplanes. We also often bring our nonmotorized safety items, which include bike lights, reflective wristbands, and reflective belts, with us to these events. We have found there is a natural connection between these nonmotorized safety items and the Clean Air Action program, since we encourage people to bike or walk to improve air quality, and these items help keep them safe while doing so. A list of events GVMC attended in 2021 is included in Appendix C.

Photos from past events are on page 7.



Concourse table at the Whitecaps



York Creek Apartments Customer Appreciation Event



Building ozone molecules with kids at John Ball Park Party for the Planet

(3) Display Rotation

Every year, GVMC offers our member communities the opportunity to host our Clean Air Action display for approximately one week during the spring, summer, or fall. The MACC and WMSRDC also offer similar opportunities in their areas. GVMC staff brings our Clean Air Action display along with an assortment of freebies (see Community Events on page 6 for a description) to the locations that sign up. Over the years, the display has been a frequent visitor at the Gerald R. Ford International Airport over Thanksgiving and spring break week and Rapid Central Station during the summer. Numerous libraries have also signed up to host the display during summer reading programs or for other events. For example, Cascade Township has hosted the display over the Fourth of July at their library because it is on a parade route and the location of other related holiday festivities. Cities, townships, and village offices have also signed up to host the display.

Photos of the display and our promotional materials are below.



Display at Cedar Springs Public Library



Display at the Gerald R. Ford International Airport over spring break week

(4) School Talks

The West Michigan Clean Air Coalition worked with Janet Vail, who is a WMCAC Committee member and former chair as well as a professor at Annis Water Resources at Grand Valley State University, to develop and update an air quality curriculum for students grades K-12. GVMC has, in the past, gone into area schools to teach classes about air quality using this curriculum. The MACC and WMSRDC have also done the same.

Prior to the start of the pandemic, a student from Holy Trinity Catholic School sent a donation to the West Michigan Clean Air Coalition to help us fund the Clean Air Action program. As part of a class project, this student made homemade stress balls and sold them to raise money for a local charity. GVMC decided to use the funds we received to provide the students at Holy Trinity with Clean Air Action backpack style bags, water bottles, and air quality information. GVMC staff presented a lesson on air quantity to this student's 5th grade class as well. Our PR firm also created a [video](#) to highlight this event.

GVMC encourages the public to stay informed about air quality by calling our Clean Air Action hotline at 1-800-656-0663, by visiting our website (www.wmcac.org), by following our Facebook page, or signing up for EnviroFlash (www.enviroflash.info) to receive email or text message notifications that an Action Day has been called. Air quality forecasts are updated on the hotline and website and shared to our Facebook page when staff receive them from the meteorologists at the Michigan Department of Environment, Great Lakes and Energy (MDEGLE), which is a minimum of once a week, and more frequently during the summer. GVMC works with MDOT to put Clean Air Action Day announcements on available changeable message signs (DMS signs) on the highway and contracts with radio stations to get Action Day notices out on that platform as well. GVMC has also been working to develop stronger partnerships with area TV stations, and many local meteorologists announce Action Days during the weather segment on their evening news broadcast.

[Lower Grand River Organization of Watersheds](#)

The Lower Grand River Organization of Watersheds (LGROW) is an agency of GVMC focused on increasing the appreciation of the Grand River and its tributaries. LGROW provides education to communities about what they can do to improve the quality of the Grand River and local waterways. LGROW helps local watershed groups increase their effectiveness in protecting and improving water quality by building collaborative partnerships for funding opportunities, improving marketing strategies, and creating a central repository for watershed data and information. LGROW also provides a forum for sustainability issues of social equity, environmental action, and financial responsibility.

LGROW's Strategic Plan has three overarching goals: 1) Healthy Watersheds, 2) Engaged Communities, and 3) A Robust Organization. To accomplish these goals, LGROW has developed programs that focus on green stormwater infrastructure, data collection and management, environmental education, public outreach through social media, and creating a diversified revenue stream. Several of these programs are highlighted in the [2020 Annual Report](#).

The Grand River Rainscaping program targets residents and small business owners to raise awareness and provide education about managing stormwater on their properties. Rainscaping is a method that promotes the use of nature to restore our rivers and improve water quality. Natural systems with plants,

grasses, and trees that are designed to absorb rainfall and soak up harmful pollutants are often referred to as [green stormwater infrastructure](#).

Rainscaping for Businesses aims to connect business owners, neighborhood organizations, faith-based places, and other property owners to resources that reduce harmful pollutants, minimize impacts to our waterways and foster climate-resilient neighborhoods through the use of green stormwater infrastructure. The program will continue to evolve as we learn more about the air and water quality priorities from business owners and others in our community. We strive to advocate in partnership for equitable and inclusive participation and developed materials reflecting the diversity in culture and visions in our community.

LGROW is currently working on completing a Watershed Resilience Plan, which characterizes the threats and vulnerabilities the watershed faces from a changing climate and the resources and strengths it possesses for building resilience. The Lower Grand River Watershed is already experiencing the effects of a changing climate, including shorter winters, warmer average annual temperatures, increased frequency of extreme precipitation, and temperature fluctuations. Changing land use is also affecting the watershed. The Lower Grand River Watershed Resilience Plan will act as a guidebook for citizen-led subwatershed groups to equip them with strategies, tools, and practices that will best position them to respond with resilience to the uncertainty of the future. Engagement with communities most impacted is crucial in developing this plan to ensure that all aspects of climate change, including air quality, heat island effects, and public health, are considered. LGROW has adopted a [tool through Social Pinpoint](#) to collect information from these communities in a virtual format to be able to create a watershed-based action plan that allows communities to prepare for and adapt to a changing environment.

3. Future Plans for Expansion with Advance

Expansion plans for the Clean Air Action program will include continuing the work we have already been doing with the program AND enhancing this work with the resources we have access to through Advance. The same holds true for LGROW. As you can see in our proposed program expansion timeline on the following page, GVMC plans to start small by incorporating Burn Wise materials into our already strong Clean Air Action program. This will be a great benefit for GVMC, as adding a Burn Wise educational component to our program will help us keep our Clean Air Action program more relevant during colder months. While we will issue an Action Day advisory for PM2.5, that has not happened yet in West Michigan. Because of this, it's easy for the public to forget about the Clean Air Action program during the winter due to the lack of Action Day advisories. Having materials to post and share that are timely and cold weather related will help us bridge the winter gap for our program and allow us more opportunities to educate the public about PM2.5. Expansion plans for LGROW include increased coordination with GVMC's Transportation Department in the use of trees and other vegetation along transportation corridors to not only manage stormwater, but to also mitigate potential pollution and improve air quality.

YEAR 1: Planned Activities		
Department	Activity	Work Tasks
Transportation	Launch Burn Wise Educational Campaign	<ul style="list-style-type: none"> • Add additional Burn Wise information to our website, www.wmcac.org • Develop and print Burn Wise informational materials, including a tip card and/or door hanger • Translate new materials into Spanish • Investigate and order new promotional items related to clean burning • Share EPA Burn Wise posts on our website and Facebook page to enhance our social media presence
Environmental	Create Transportation Greening Campaign	<ul style="list-style-type: none"> • Research data on air quality changes in transportation corridors due to vegetation • Add information on website and social media • Collaborate with other Urban Waters Federal Partnership Ambassadors who are also doing this work
YEAR 2-5: Continue to build upon work we began in year one and determine additional opportunities for growth, which may include, but are not limited to, the activities below.		
Department	Activity	Work Tasks
Transportation	Expand Burn Wise Program to Include K-12 Program Curriculum	<ul style="list-style-type: none"> • Work with the EPA and partners to enhance our K-12 curriculum with Burn Wise resources • Promote the new resources to local teachers and schools
Transportation	Implement a Moisture Meter Loan Program	<ul style="list-style-type: none"> • Work with libraries, hardware stores, etc. to determine program interest and establish partnerships • Research/purchase moisture meters • Develop informational and instructional materials in English and Spanish to coincide with the moisture meter • Promote the program
Transportation	Start a Zip Code-Level Air Quality Monitoring Program	<ul style="list-style-type: none"> • Work with Just Air and other community partners, including coalitions, to purchase and place zip code level PM2.5 and ozone sensors, especially in Environmental Justice (EJ) areas • Use the data from these sensors to determine air quality inequalities • Investigate ways to remedy air quality disparities • Include this data in GVMC's transportation planning process

Transportation & Environmental	Determine Opportunities to Incorporate Green Infrastructure into Transportation Projects	<ul style="list-style-type: none"> Research green infrastructure opportunities with small businesses in transportation corridors. Strengthen collaboration between GVMC's Transportation and Environmental Departments to determine opportunities and budget to incorporate green infrastructure into transportation projects
Transportation & Environmental	Create Program to Mitigate the Heat Island Impact in Urban Areas	<ul style="list-style-type: none"> Coordinate efforts between GVMC's Transportation Department and LGROW to research strategies to mitigate the heat island impact Evaluate the strategies and available budget Implement and promote the program
Transportation & Environmental	Increase Collaboration between Departments and Area Businesses	<ul style="list-style-type: none"> Continue to coordinate efforts between the Transportation and Environmental Department Continue to work to build partnerships with businesses, organizations, and our members to help increase the reach and participation in our programs
Transportation & Environmental	Continue to Expand our Public Outreach	<ul style="list-style-type: none"> Increase our social media presence and outreach Increase "likes" and "follows" on Facebook page Start/Promote Instagram Pages Continue to research new and innovative tools to reach the public Continue to attend community events and look for other opportunities to have meaningful conversations with the public about our programs

4. Tools to Monitor Program Effectiveness

GVMC plans to monitor the effectiveness of our participation in the Advance Program in the following ways:

(1) Monitoring Data:

Kent and Ottawa County's air quality is characterized by the following monitors:

- 26-139-0005 (Jenison)
- 26-081-0020 (Grand Rapids-Monroe)
- 26-081-0022 (Evans)

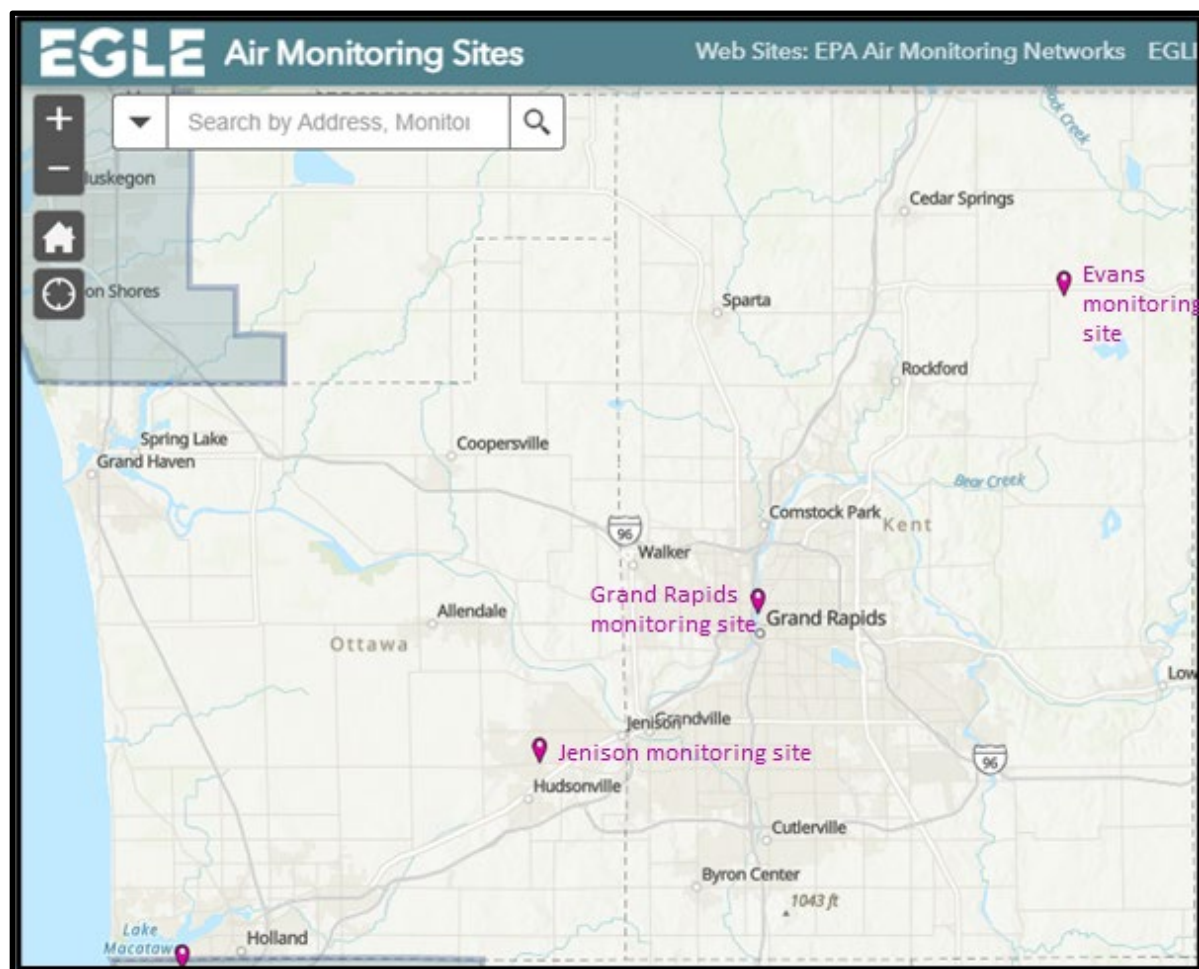
Please note that the Evans site only monitors ozone. Both the Jenison and Grand Rapids site monitor ozone and PM.

Current monitoring data shows us the following design values:

Station Name	State ID	Ozone Design Values (ppb)		
		2017-2019	2018-2020	2019-2021
Grand Rapids	26-081-0020	66	71	71
Evans	26-081-0022	64	65	65
Jenison	26-139-0005	67	71	69

Station Name	State ID	PM _{2.5} Design Values (µ/m ³)					
		2017-2019		2018-2020		2019-2021	
		Annual	Daily	Annual	Daily	Annual	Daily
Grand Rapids	26-081-0020	8.1	22	8.0	20	8.7	22
Jenison	26-139-0005	8.3	23	8.0	22	8.7	23

These monitoring locations are depicted in the map below.



Map 1: Map of Air Monitoring Sites in Kent and eastern Ottawa Counties; Map courtesy of MDOT

GVMC plans to look at this monitoring data annually to determine if levels for ozone and PM_{2.5} are increasing, staying the same, or decreasing, and make decisions on how to expand and grow the program based on the results of this analysis.

Measurable Goal: Continue to increase the number of days with “good” or “moderate” air quality through marketing efforts that educate the public on the importance of reducing emissions on Clean Air Action Days, and every day. Improvement will be gauged by the data from the Jenison, Grand Rapids-Monroe, and Evans monitors.

GVMC and the WMCAC may also work with Just Air to purchase and place zip code level air quality sensors throughout our area to determine air quality inequalities and the impacts of urban heat islands (see page 11). Currently, Just Air has placed 10 of these sensors in the downtown Grand Rapids area and has given GVMC staff access to the data. GVMC can also compare the data from these sensors from year to year, as well as the data from the placement of any additional sensors we are able to purchase in the future.

Measurable Goal (if applicable): Increase the number of zip code level air quality sensors from year to year, determine areas of air quality inequality, and work to reduce air pollution levels in these areas. Improvement will be gauged by the data from the zip code level air quality sensors.

(2) Survey Data:

GVMC leads the effort to conduct a Citizen Awareness and Compliance Survey for the Clean Air Action program every five years. This survey uses a variety of methods to collect a sample of responses from residents of Kent, Ottawa, and Muskegon Counties. The survey responses help us gauge citizens' opinions on air quality and related issues in West Michigan, including their awareness of the Clean Air Action program, the frequency of their participation in voluntary emission reduction activities on Action Days, and where they get their information about the Clean Air Action program and when Action Days have been called. Survey results help us target our marketing efforts.

Current survey results show us that:

- (1) 93% of respondents report that environmental issues within their communities are "very important" and "somewhat important" rather than "not too" or "not at all important."
- (2) Almost one quarter of the respondents participate in a voluntary emission reduction activity on none or almost none of the days.
- (3) The messages about groups especially at risk for health-related problems associated with air pollution are not prompting members of those groups to be especially active in the Clean Air initiative.
- (4) Individuals aged 35 or younger are the least aware of the Clean Air Action Day program.
- (5) Reasonably high numbers of respondents would benefit from additional education about the problems associated with ozone and particulate matter, as most have an opinion about air pollution in general but are unable to articulate the specifics of the pollutants we monitor.

Measurable Goals: Increase the overall participation rate on Clean Air Action Days through targeted advertising and new or improved outreach strategies. Emphasis should include targeting educational campaigns to parents, seniors, and those facing specific health challenges and integrating more electronic sources into our outreach efforts, such as social media and weather apps, to reach those age 35 and younger. Lastly, we can work to increase the knowledge of the community about ozone and fine particulate matter by using new public service announcements (PSAs) and other educational materials.

Whether these goals are met will be gauged through our next survey, which is expected to take place in the fall of 2026.

The survey results include a recommendation to build coalitions between environmental groups to spread specific messages about air quality along with more general messages about sustainability, which might enhance both the quality of life and the quality of health for residents of Kent, Ottawa, and Muskegon Counties. People who believe environmental issues are important to their community are more likely than others to be aware of and compliant with Clean Air Action Days, so continuing to educate this base through partnerships with other environmental organizations could be helpful. GVMC plans to continue to foster our partnerships with other environmental organizations to increase the reach of our message.

(3) Tools from the EPA:

The following tools may also be used to evaluate the effectiveness of our activities and programs:

(1) Air Sensor Toolbox

This website provides the latest science on the performance, operation and use of air sensor monitoring systems for technology developers, air quality managers, citizen scientists and the public. It offers resources for sensor performance, evaluation and use and for understanding sensor data readings. To learn more, please visit: www.epa.gov/air-sensor-toolbox

Please note that if GVMC purchases air quality sensors through Just Air, Just Air will be responsible for providing us with the data.

(2) Macro Analysis Tool - for Community-led Air Monitoring

EPA's Excel-based Macro Analysis Tool helps users compare data from low-cost sensors to data from regulatory monitors and interpret their results. The tool allows input of data from low-cost and regulatory monitors for comparison, even if measurements weren't recorded at precisely the same time, or were collected at different time intervals, such as 1-minute versus 5-minute intervals. This tool addresses one of the major hurdles in citizen-led community air monitoring projects, which is working with and understanding the data. To learn more, please visit: <https://www.epa.gov/air-research/instruction-guide-and-macro-analysis-tool-community-led-air-monitoring>

(3) Air Quality Data and Tools

This webpage includes access to a collection of EPA resources for reviewing and interacting with air quality monitoring, modeling, and emissions data. These resources include:

- Air Compare, which provides local air quality information for making health-protective decisions about moving or vacationing
- Air Data, which allows access to air quality data collected at outdoor monitors across the United States
- Air Emissions Sources, which gives information about emissions from various sources of air pollutants

- Air Trends, which shows how air pollutant emissions and ambient concentrations change over time
- BenMAP, an open-source computer program that calculates the number and economic value of air pollution-related deaths and illnesses

To learn more, please visit: <https://www.epa.gov/air-quality-data-and-tools>

GVMC will continue to evaluate additional tools to gauge the effectiveness of our programs and activities as they become available.

5. Links and Additional Resources

AirNow – www.airnow.gov

EGLE MI AIR – <http://deqmiar.org/>

EPA Advance Program – www.epa.gov/advance

Fires-AirNow – www.epa.gov/advance

Federal Highway Administration It All Adds Up to Cleaner Air – www.fhwa.dot.gov/environment/air_quality/it_all_adds_up/

Grand Valley Metropolitan Council – www.gvmc.org

West Michigan Clean Air Coalition – www.wmcac.org

Lower Grand River Organization of Watersheds – www.LGROW.org

EPA Environmental Justice Screening and Mapping Tool – www.epa.gov/ejscreen

Appendix A: Letter to Join Advance Program



GRAND VALLEY METROPOLITAN COUNCIL

ADA TOWNSHIP • ALGOMA TOWNSHIP • ALLENTOWN TOWNSHIP • ALPINE TOWNSHIP • BELLENG • BYRON TOWNSHIP • CALEDONIA • CALEDONIA TOWNSHIP • CANNON TOWNSHIP • CASCADE TOWNSHIP
CEDAR SPRINGS • COOPERVILLE • COURTLAND TOWNSHIP • EAST GRAND RAPIDS • GAINES TOWNSHIP • GEORGETOWN TOWNSHIP • GRAND RAPIDS • GRAND RAPIDS TOWNSHIP • GRANVILLE
GREENVILLE • HASTINGS • HUDSONVILLE • KENNA • JAMESTOWN TOWNSHIP • KENT COUNTY • KENTWOOD • LOWELL • LOWELL TOWNSHIP • MIDDLEVILLE • NELSON TOWNSHIP
OTTAWA COUNTY • PLAINFIELD TOWNSHIP • ROCKFORD • SAND LAKE • SPARTA • TALLMADGE TOWNSHIP • WALKER • WAYLAND • WYOMING

November 16, 2020

Advance Program
c/o Rich Damberg
U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards, C539-01
109 TW Alexander Drive
Research Triangle Park, NC 27709

Dear Mr. Damberg:

Grand Valley Metropolitan Council, in coordination with the Lower Grand River Organization of Watersheds (LGRW) and the West Michigan Clean Air Coalition (WMCAC), requests to join the Ozone and PM Advance Program with respect to Kent and Ottawa County. We wish to join this partnership with EPA to preserve and improve the air quality in both counties.

Kent and Ottawa County both currently meet all eligibility requirements for the Ozone and PM Advance programs. Neither county is currently a nonattainment area for ozone or PM. Kent and Ottawa County's air quality is characterized by the following monitors: 26-139-0005 (Jenison), 26-081-0020 (Grand Rapids-Monroe), and 26-081-0022 (Evans). Please note that the Evans site only monitors ozone. Both the Jenison and Grand Rapids site monitor ozone and PM. Existing emissions inventory reporting requirements have been met.

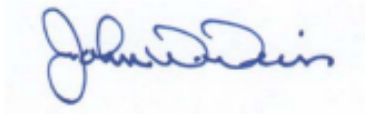
By joining the Advance program, GVMC's goal is to continue to implement and expand upon our current efforts to reduce ground-level ozone and fine particulate matter in Kent and Ottawa County to make a positive difference in our air quality in the near term. The spirit of our Clean Air Action program has been to work with the public and in coordination with stakeholders to develop an education campaign that encourages the public's voluntary participation in reducing emissions. We understand that joining the Ozone and PM Advance program will allow us to further our efforts by potentially:

- Reducing ozone and PM_{2.5} air pollution, as well as other air pollutants
- Ensuring continued healthy ozone and PM_{2.5} levels
- Maintaining healthy air quality and the ozone and PM_{2.5} NAAQS
- Helping avoid violations of the NAAQS that could lead to a future nonattainment designation
- Increasing public awareness about ozone and PM_{2.5} as air pollutants
- Targeting resources toward actions to address ozone and PM_{2.5} problems

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Thank you for considering this request. If you need additional information, please contact me at (616) 776-7604 or e-mail john.weiss@gvmc.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Weiss", is centered below the "Sincerely," text.

John Weiss
Executive Director
GVMC

Appendix B: List of Action Days to Date

CLEAN AIR ACTION DAY NOTIFICATIONS IN WEST MICHIGAN

Please note all Action Days to date have been called due to elevated ground-level ozone.

2021: May 21, June 5, June 6, August 28, August 29

2020: June 18, June 19, June 20, July 5, July 6, July 7, July 8th, July 9th, July 18th, August 26

2019: July 15, July 18, July 19, July 20

2018: May 25, May 27, May 28, June 16, June 17, June 29, June 30, July 1, July 9, July 13, August 4, August 5

2017: June 10, June 11, June 12

2016: May 23, June 10, June 11, June 19, June 25, July 21, July 23, August 4, August 10, August 11

2015: July 18, August 16, August 17, September 6

2014: July 20, July 21, July 22

2013: August 20, August 21

2012: May 24, May 27, June 9, June 10, June 15, June 16, June 19, June 20, June 28, June 29, July 2, July 3, July 4, July 5, July 6, July 7, July 13, July 15, July 16, July 17, August 4, August 24, August 25, August 30, August 31

2011: June 7, June 8, July 2, July 17, July 20, July 21, September 1, September 2

2010: July 4, August 13, August 29, August 30, August 31

2009: June 24, August 15, August 16

PREVIOUS OZONE ACTION DAY NOTIFICATIONS IN WEST MICHIGAN

2008: July 11, July 17, July 18, August 21, September 2

2007: June 16, June 18, August 1, August 2, August 28, September 5

2006: June 17, July 16, July 17, July 31, August 1, August 2

2005: June 8, June 9, June 10, June 24, June 27, July 11, July 12, August 2, August 3, August 8, August 9

2004: June 8

2003: June 22, June 23, June 24, June 25, July 3, August 15, August 20, August 21

2002: June 9, June 10, June 20, June 23, June 24, June 25, June 30, July 1, July 15, July 16, July 17, July 31, August 1, September 8, September 9

2001: June 13, June 14, June 26, June 27, June 28, June 29, June 30, July 31, August 1, August 7, August 8, August 9

2000: June 9, June 10, Aug. 31, September 1

1999: May 29, June 6, June 7, June 8, June 9, June 10, June 22, June 25, June 26, June 27, July 3, July 4, July 5, July 15, July 16, July 23, July 30, September 3, September 4, September 5

1998: May 28, June 20, June 25, June 26, June 27, July 13, July 14, July 15, July 20, July 21, September 5

1997: June 24, June 27, June 28, June 29, June 30, July 1, July 12, July 13, July 14, July 17, July 26

1996: June 28, June 29, August 5, August 6, August 7, September 6

1995: June 6, June 7, June 15, June 16, June 17, June 18, June 19, June 20, June 21, July 12, July 13, July 14, July 15, July 30, July 31, August 12

Appendix C: Clean Air Action Meetings and Events, 2021

Clean Air Action Events (2021)

Event Name	Date
Middleville Farmer's Market/Concert	11-Jun
Concourse Table at Whitecaps	24-Jun
Kentwood Concert Series	8-Jul
GRPL/GRAAAMF Event at MLK Park	22-Jul
Whitecaps Concourse Table	24-Jul
Whitecaps Concourse Table	6-Aug
Whitecaps Concourse Table	21-Aug
Grand Rapids African American Art and Music Festival	25-Sep

West Michigan Clean Air Coalition Meetings (2021):

- January 29, 2021
- May 7, 2021 (annual luncheon)
- June 25, 2021
- October 29, 2021