



PROGRESS REPORT

2010

HAMILTON COUNTY
ENVIRONMENTAL
S E R V I C E S
Air Quality • Solid Waste

Hamilton County Department of Environmental Services

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www.hcdoes.org

The Hamilton County Department of Environmental Services (HCDOES) staff is pleased to provide you with the 2010 Progress Report. The purpose of this agency-wide report is to provide timely and relevant information on recycling and air quality in one convenient publication.

Please let us know what you think about this report. Call (513) 946-7748 or email sarah.dowers@hamilton-co.org with your comments or suggestions. HCDOES Air Quality Management Division's 2010 Data Report has been published as a separate supplement to this Progress Report.

Download copies of either report from our website at www.hcdoes.org. To request a printed copy of the 2010 HCDOES Progress Report or the 2010 Air Quality Data Report, call (513) 946-7777.



HCDOES at 250 William Howard Taft Road

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Message from the Director

Our solid waste division has experienced starting new programs, working on its 15-year solid waste plan update, and adding the word “recycling” to their name to more correctly identify their mission. Now identified as the Hamilton County Recycling and Solid Waste District, they were successful in starting a bar and restaurant recycling program, providing support to over 85 events and festivals and implementing recycling in 45 businesses.

Our air division recorded successes in reaching attainment in both ozone and PM 2.5. In February 2010, our area was re-designated into attainment for the 1997, 8-hour ozone standard. Air monitoring data for the years 2008 through 2010 indicates we are meeting the annual PM2.5 standard of 15 micro grams per cubic meter and we envision being officially re-designated to attainment for this standard in the spring of 2011.

With EPA’s new ambient air quality standards for lead, nitrogen dioxide, and sulfur dioxide, additional monitoring requirements have surfaced. And to complicate our increased monitoring workload plans even more, Lisa Jackson, USEPA Administrator, announced

another delay (the third) before a new 8-hour ozone standard will be issued. USEPA now estimates a new 8-hour ozone standard will be issued by the end of July 2011. In addition to all this monitoring work, the monitoring division has also been working on a new National Core Monitoring Network (NCore) site for the last year. The site began officially collecting data in January of 2011. The purpose of NCore monitoring is to determine long term trends for pollutants, determine the effectiveness of control strategies, and help develop better air models.

Through a partnership with the Butler County Recycling and Solid Waste District and TechSolve, Inc., the Hamilton County Recycling and Solid Waste District partially funds a summer internship program, entitled the Pollution Prevention Internship Program. This 12-week work experience for college students helped local manufacturers divert over 130 tons of materials and saved local companies over \$50,000 in reduced waste disposal costs.

As the Director of the HCDOES, I cannot say enough about the excellent work our personnel perform every day of the

year. In addition to the many accomplishments previously listed, one program that stands out, because it was completed this year, is our school bus retrofit program. In 2005, HCDOES developed a goal to retrofit and/or replace 90 percent of eligible school buses, in our area, by the end of 2010. The program was a great success and 519 buses were retrofit and 63 buses were replaced in 22 local school districts. The completion of this goal resulted in the removal of approximately 16,000 pounds of pollutants from the air our school children breathe daily.

Cory R. Chadwick



Cory R. Chadwick, Director

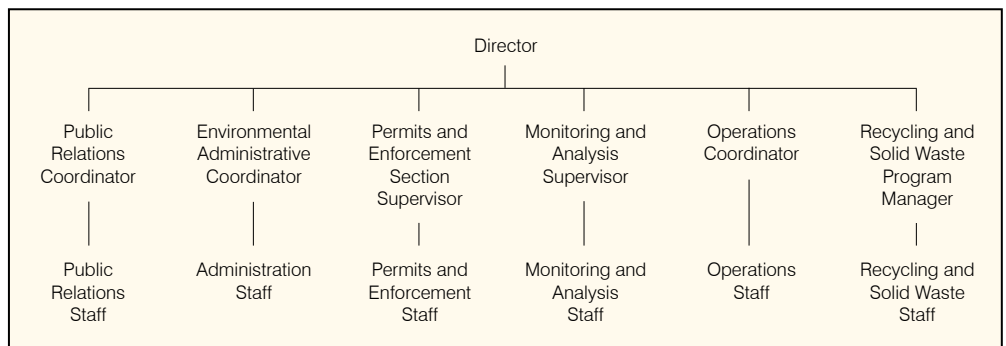
The Hamilton County Department of Environmental Services (HCDOES) houses both the Recycling and Solid Waste District and the Air Quality Management Division.

The Recycling and Solid Waste District (District) is dedicated to promoting recycling, waste reduction and responsible waste management in Hamilton County.




The Air Quality Management Division (AQMD) works with local, state and federal government agencies, businesses, communities and citizens to achieve and maintain healthy air quality. The AQMD serves Butler, Clermont, Hamilton and Warren counties in Southwest Ohio.



Department Staff



Department Organization Chart

-  Follow us on Twitter at <http://twitter.com/Department>
-  Find us on Facebook at <http://www.facebook.com/pages/Cincinnati-OH/HamiltonCounty-Department-of-Environmental-Services-Department/129972691602>
-  Check out our blog at <http://confessionsofacomposter.blogspot.com/>
-  Watch us on you tube at <http://www.youtube.com/watch?v=2YYYgNsYQjg>

Recycling and Solid Waste District

The Hamilton County Recycling and Solid Waste District (District) is dedicated to ensuring that the county achieves state-mandated goals for recycling and waste reduction. The District strives to meet these goals by providing waste reduction programs to residents, communities, businesses and schools within Hamilton County.

Vision

The Hamilton County Recycling and Solid Waste District provides ethical environmental leadership to equitably promote the public good through innovative and responsible strategies leading to the management of all waste as a resource that leads to a society that generates zero waste.

Recycling and Solid Waste District Policy Committee

State law requires the formation of a local Solid Waste Management District Policy Committee to oversee the writing and

implementation of the District's Solid Waste Plan. In Hamilton County, the Policy Committee has historically functioned as a Policy Board in the truest sense – determining recycling policy for the County.

Under State law, the Policy Committee is composed of seven members. However, Hamilton County added an ex-officio member from the waste industry in order to be more inclusive of the various stakeholders in the County.

The 2010 District Policy Committee consisted of the following members:

- Board of County Commissioners Representative – Commissioner Todd Portune
- Representative of the Largest Municipality – Sue Magness, City of Cincinnati
- Representative of Townships – Dennis Deters, Colerain Township Trustee

- Representative of the Largest Health District – Tim Ingram, Health Commissioner, Hamilton County Public Health
- Generator Representative – Joe Maas, JTM Food Group
- General Interest Representative – Wright Gwyn
- Public Representative – Dave Meyer
- Ex-Officio Member – Larry Riddle, Rumpke

The District thanks the members of the 2010 Policy Committee for their time, effort and leadership.

District Hotlines

The District is here to help! The District operates a variety of hotlines to provide the public with timely information about programs and solid waste-related issues.

Household Hazardous Waste Hotline	946-7700
Compost and Yardwaste Hotline	946-7755
Recycling Hotline	946-7766



Residential Recycling

In 2010, Hamilton County residents recycled 39,885 tons of material. Those efforts resulted in significant environmental benefits:

- Reducing 33,890 tons of greenhouse gases – equivalent to taking 25,733 cars off the road each year
- Conserving enough energy to power 7,080 average homes for an entire year
- Saving 344,467 trees

Community Programs

The District works cooperatively with cities, townships and villages in Hamilton County to achieve state-mandated waste reduction goals. The District promotes and incentivizes recycling, provides drop-off programs for residents, awards grants for special projects, and offers technical assistance on solid waste management issues.

Compost Bin Sale

To promote backyard composting, the District sponsored its annual compost bin sale. During this event, residents were able to purchase a compost bin and accessories at a reduced price and learn about composting from experts. In 2010, Hamilton County residents purchased more than 1,800 backyard compost bins.



**Thank You
for Recycling,
Hamilton County Residents!**

The District is required to meet state-mandated recycling goals. Those goals include a 25% recycling rate for the residential/commercial sector and a 66% recycling rate for the industrial sector. The most recent year that data is available is 2009. In 2009, Hamilton County exceeded both goals: 34% recycling rate for the residential/commercial sector and 82% recycling rate for the industrial sector. Businesses, residents, and institutions recycled 1.1 million tons of material in 2009.





Collection Programs

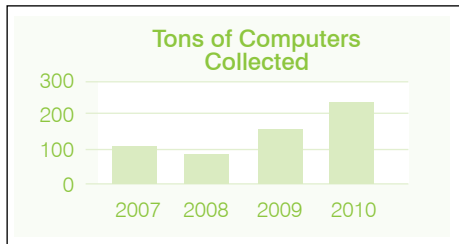
The District provides a variety of programs to Hamilton County residents for the proper disposal or recycling of special waste materials. These programs focus on materials not typically collected through curbside recycling.

Computer/TV Recycling Collection Program

Electronic waste (or e-waste) is one of the fastest growing waste streams. To address this issue, the District offered a free computer/television recycling program that was open for two months. In 2010, Hamilton County residents recycled 218 tons of e-waste through this program.



District offered a free computer/television recycling program that



Household Hazardous Waste (HHW) Drop-Off Program

One of the most popular District programs is the Household Hazardous Waste Drop-Off. This



program allows residents to drop-off products such as oil, pesticides, solvents, and cleaners for recycling or disposal at no charge to the resident.

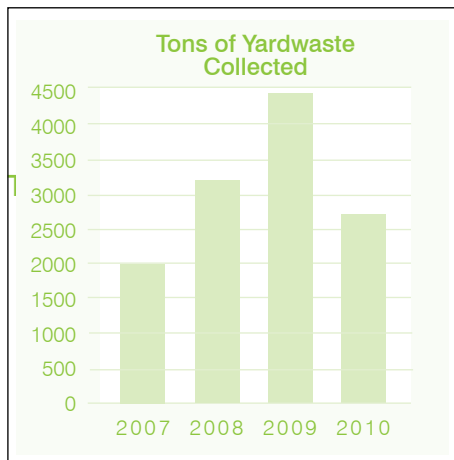
In 2010, 128 tons of household hazardous waste was properly disposed.

Yardwaste Drop-Off Sites

The District contractually operates three, free yardwaste drop-off sites for residents. More than 26,000



households use the drop-off sites annually.



The District provides funding to Keep Cincinnati Beautiful to organize tire collection events. In 2010, approximately 53 tons of tires were recycled.

The District also received a tire grant from the Ohio Department of Natural Resources, Division of Recycling & Litter Prevention. Through this grant,



funds were provided to four political jurisdictions to conduct

tire amnesty collections. In addition, grant funds were used to clean up a tire site in Miami Township. The District partnered with Hamilton County Public Health to clean the tire pile. Through this grant, 54 tons of tires were collected and recycled.



Grants

To encourage recycling and waste reduction, the District manages two community grant programs. Grant funding accounts for almost half of the District's annual budget.

Residential Recycling Incentive

Residential Recycling Incentive (RRI) funds offer Hamilton County communities a financial incentive to increase recycling. As a community increases the tons of materials collected and improves their overall recycling rate, the community receives more RRI funds.

In 2010, the District divided \$1,050,000 in RRI funds among Hamilton County communities. Funds were spent on recycling collection costs, recycling promotion, and purchasing recycled-content materials.

District Priority Grant

The District Priority Grant funds innovative recycling and waste reduction projects in Hamilton County. In 2010, the three District priorities included: recycling in public spaces; new, permanent residential recycling drop-offs; and organics diversion.

In 2010, the District awarded the following District Priority Grants:

Non-Profit Grants

- The Christ Hospital, \$21,075, initiated on-site food waste composting.
- Cincinnati Arts Association, \$15,383, purchased permanent recycling containers for the Aronoff Center.
- The Corporation for Findlay Market, \$14,900, purchased a cardboard shredder to shred unrecyclable cardboard before adding to the food waste composting system.

Community Grants

- Anderson Township, \$2,394, conducted a compost bin sale.
- City of Blue Ash, \$7000, purchased portable recycling containers for cans and plastic bottles to support all major events.
- City of Forest Park, \$1,750, conducted a compost bin sale.
- Springfield Township, \$5,760, developed a new recycling drop-off site.

Community Outreach

Every year the District works with two communities to increase their recycling rates. In 2010, the District partnered with the Villages of Lockland and Woodlawn. Through a targeted outreach campaign, the Village of Woodlawn increased their recycling tonnages by 40% and the Village of Lockland increased recycling tonnages by 16% over their 2009 amounts.



Pop Bottle recycling container

Public Recycling Container Loan Program

The District loans recycling containers to encourage recycling at public events. In 2010, recycling was available at 85 events and festivals.



Clear Tainer recycling container

Multi-Family Recycling Program

Many apartment and condominium complexes are excluded from community curbside recycling programs. The District helps these complexes begin recycling by developing a customized recycling plan, creating educational materials, and paying for the first year of the recycling contract when the property manager or condo association agrees to pay for the next two years. In 2010, the District initiated recycling in nine multi-family complexes:

- Adam's Place Condominiums
- The Greenwich on the Park
- AEPi Fraternity
- The McAlpin
- McAuley Convent
- Trinity Flats
- Jefferson Complex at University of Cincinnati
- Edgecliff Point Condominiums
- Ridgemoor Gardens

Business Programs

The District offers a variety of programs to Hamilton County businesses to assist them with waste reduction. To encourage businesses to recycle, the District provides waste assessments, technical assistance, and a materials exchange program.

The Interchange



This online materials exchange service allows businesses to advertise waste materials they have or materials they need. By exchanging these materials businesses save on purchasing and disposal costs. The quarterly newsletter, The Interchange, is distributed electronically, informing businesses of new waste regulations and profiles local waste reduction ideas.

Since its inception in 1996, over 92,000 tons of material has been diverted through The Interchange.

Pollution Prevention Internship Program



Through a partnership with the Butler County Recycling and Solid Waste District and TechSolve, Inc., the District partially funds a summer internship program. Qualified college students are placed with local manufacturers for a 12-week work experience that focuses on pollution prevention (source reduction) projects. In 2010, the District partnered with Siemens Industry, Inc. and 2trg. Through this program, interns identified more than 130 tons of diversion potentially saving the companies \$51,500.

Go Green Challenge



The mission of the Go Green Challenge is to encourage organizations, both large and small, to reduce their environmental impact. Since its inception in 2007, 157 businesses, institutions, and municipalities have joined the Go Green Challenge by setting environmental goals for their own organizations.

Recycling at Work



Because nearly half of the waste going to the landfill is paper, the District developed Recycling At Work, a program helping businesses and office complexes start recycling. The District customizes a recycling plan, finds an appropriate recycler, helps coordinate collection, creates educational materials for employees, and provides indoor collection containers. In 2010, 45 businesses started recycling through this program.

Education Program

The District continues to provide Hamilton County schools and teachers with resources and tools to reach students about solid waste management, recycling, and composting. The District presents or subsidizes a variety of solid waste-related educational opportunities for students through classroom presentations, field trips, and school-wide assemblies. Further, the District conducts teacher workshops on how to incorporate solid waste and recycling issues in their curricula.

The District's Education Program accomplishments for 2010 include:

- Presented 112 recycling-related classroom programs, assemblies, and field trips reaching 9,444 students.
- Presented workshops focused on recycling, composting, vermicomposting, and solid waste reduction to 138 teachers.
- Attended 24 special events, reaching 6,714 adults and children.

Recycling Assistance Program

Through its Recycling Assistance Program, the District offers technical assistance to schools as they institute solid waste reduction programs or expand existing recycling programs. In 2010, 14 schools enrolled in the Recycling Assistance Program.



Vermicomposting Workshop



Compost Demonstration



Recycling Assembly featuring Jack Golden

Special Projects

In 2010, the District worked on several new projects to increase recycling and respond to our stakeholders needs.

Solid Waste Management Plan Update

One of the integral functions of the Hamilton County Recycling and Solid Waste District is writing and implementing a 15 Year Solid Waste Management Plan. Beginning in late 2009 and continuing through 2012, the District is updating its 15 Year Solid Waste Management Plan. The District's Policy Committee oversees the writing of the Plan, which is updated every five years. The Plan must include the following elements:

- Demonstrate at least 15 years of solid waste disposal capacity.
- Demonstrate that the District will achieve a 25% waste reduction/recycling rate for the residential/commercial sector.
- Demonstrate that the District will

achieve a 66% waste reduction/recycling rate for the industrial sector.

- Develop outreach, marketing, and technical assistance on recycling, composting and waste reduction.
- Develop strategies for managing scrap tires, yardwaste, lead-acid batteries, household hazardous waste, and electronics.
- Examine incorporating economic incentives to increase waste reduction and recycling.

The draft Solid Waste Management Plan Update will be submitted to Ohio EPA for review in October 2011.

Bar and Restaurant Recycling Program

In the fall of 2010, the District started a new program to increase recycling in bars and restaurants. Through this program, the District provides:

- Technical assistance in setting up the program
- Indoor collection containers

- Education for employees or customers
- A decal promoting that the establishment recycles

In 2010, 12 recycling programs were implemented.

Ohio Department of Natural Resources Grants

Each year the Ohio Department of Natural Resources, Division of Recycling & Litter Prevention solicits grant applications for its Community Development Grant and Market Development Grant. Typically, the District applies for grants on behalf of businesses and communities. In 2010, the District received grant funding for the following projects:

- 2trg received a \$250,000 grant to assist with the expansion of their computer recycling facility.
- District received a \$10,000 grant to conduct tire collection events.
- District received a \$7,935 grant to implement a bar and restaurant recycling program.



Bar and Restaurant Recycling Materials





Master Recycler Program

The District piloted a new program aimed at increasing residents’ knowledge of recycling and waste reduction. The program, targeted to adults, was held over a three-week period. During the first session, held at Building Value, participants learned about waste reduction and reuse. In the second session, participants learned about the recycling process and what can and cannot be recycled. At the third and final session, held at the Civic Garden Center, participants learned how to backyard compost. The class was very well-received; more than 35 people registered for the event and there was a waiting list for another 35 people.

Litter Collection Program

The District continued its partnership with the City of Cincinnati, 3CDC, Hamilton County Sheriff, and Keep Cincinnati Beautiful to reduce litter through enforcement, prevention, and clean up. The District, 3CDC, and the City of Cincinnati each contributed funds for Sheriff services. The Sheriff provided daily litter collection through the use of community service in Over-the-Rhine, twice-a-month litter collection in nine Cincinnati neighborhoods and eight political jurisdictions outside the City of Cincinnati, and issued citations and warning letters. During 2010, 167 tons of litter was collected through this program.

New Website and Social Media

To meet the growing demands of our stakeholders to have more access to our programs, the District redesigned its website with the goal of a user-friendly experience. The District also revamped its facebook page, started a blog – Confessions of a Composter, and developed a YouTube video teaching residents about disposal of latex paint.



www.HamiltonCountyRecycles.org

Annual Recycling Awards

To celebrate America Recycles Day, the District recognized recycling leaders at the 6th annual recycling awards ceremony on November 16th.

The following recycling leaders were recognized for their efforts:

Outstanding Recycling Educator

- Gloria Lane, James N. Gamble Montessori High School

Outstanding School Recycling Program

- Wyoming City School District

Outstanding Recycling in a Multi-Family Residence

- North American Properties

Go Green Challenge Awards

- Cincinnati Northside Community Urban Redevelopment Corporation
- Messer Construction
- Reliable Castings
- Rockdale Temple

Recycling at Work Program of the Year Award

- Siemens Industry, Inc.

Public Recycling Excellence Awards

- Forest Hills Local School District

The Interchange Award

- Jones the Florist

Friend of Recycling

- John Duke

Best Community Recycling Program (less than 10,000)

- Village of Mariemont

Best Community Recycling Program (greater than 10,000)

- City of Montgomery

Most Improved Community Recycling Program

- Village of Evendale

Industrial Award for Recycling Achievement

- KPB Commercial Printing

John Van Volkenburgh Award for Recycling Innovation

- Corporation for Findlay Market



Gloria Lane,
James N. Gamble
Montessori High School



Wyoming City School
District



North American
Properties



Cincinnati Northside
Urban Redevelopment
Corporation



Messer Construction



Reliable Castings



Rockdale Temple



Siemens Industry, Inc.



Forest Hills Local School
District



Jones the Florist



John Duke



Village of Mariemont



City of Montgomery



Village of Evendale



KPB Commercial
Printing



Corporation for Findlay
Market

Air Quality Management Division

The Air Quality Management Division (AQMD) works as a local field office under the authority of the Ohio Environmental Protection Agency (OEPA) and the United States Environmental Protection Agency (USEPA). The AQMD monitors the compliance status of the businesses and industries with air pollution sources in the four-county region. Additionally, the AQMD prepares permits, conducts facility inspections and reviews, initiates enforcement actions and responds to air quality complaints.

The AQMD also maintains continuous and intermittent monitors measuring pollutants on a daily basis throughout Southwest Ohio. The AQMD performs pollen and mold counts, works with local meteorologists to determine when to issue Smog Alerts, measures air toxic levels, performs anti-tampering inspections, coordinates emissions inventory programs, oversees asbestos demolition, and observes and validates all stack (source) testing that occurs in the four-county area.



Cincinnati's Skyline, Hamilton County, Ohio

Division Hotlines/Website

The Division operates a variety of hotlines to provide the public with timely information about air quality issues.

Air Quality Index & Mold and Pollen Count Hotline	513-946-7753
Living With Allergies & Air Quality Brochures Hotline	513-946-7747
Air Quality 24-hour or Complaint Hotline	513-946-7777 800-889-0474

Please visit the Department's website at www.hcdoes.org to learn more about solid waste and air quality in Southwest Ohio. You can download this and other publications, check daily AQI forecasts, learn where to recycle and much more when you visit our website!

Permitting Activity

The AQMD's Environmental Compliance Specialists (ECSs) prepare permits outlining the applicable air pollution regulations for various types of industries. Businesses may be required to apply for and obtain a Permit to Install (PTI) or a Permit to Install and Operate (PTIO) prior to installing a new emissions unit. Businesses may be required to apply for or renew an expired Permit to Operate (PTO) in order to continue operating an existing emissions unit. The ECSs forward permit recommendations to the OEPA who issues all permits.

The AQMD also monitors the compliance status of facilities covered by federal air pollution programs such as the National Emissions Standards for Hazardous Air Pollutants and the New Source Performance Standards. Title V permits are required for businesses that have criteria pollutant emissions or hazardous air pollutant emissions greater than a predetermined major source threshold. Major source facilities with multiple emissions units are covered under a Title V operating permit.

	2008	2009	2010
Initial PTI/PTIOs*	74	78	80
Initial PTI/PTIOs Sent to Ohio EPA	64	66	69
Renewal PTO/PTIOs Sent to Ohio EPA	594	351	236

*Beginning in 2008, Ohio EPA no longer issued PTOs for non Title V facilities. All non Title V facilities are now issued a PTIO for any new emissions unit or renewal of an existing PTO.

Asbestos Activity

The AQMD is responsible for enforcing state and federal asbestos regulations. All personnel certified as Asbestos Hazard Evaluation Specialists oversee asbestos removal from commercial and industrial facilities. These Asbestos Specialists, certified by the state of Ohio in asbestos regulations and removal methodology, are permitted to enter regulated areas in order to conduct inspections or investigate complaints. If necessary, the Asbestos Specialists can collect samples of material which may contain asbestos. Collected samples can be analyzed in the AQMD laboratory by personnel trained in the microscopic analysis of asbestos.

Federal law requires that before demolition of a commercially applicable building can begin, the building must be inspected by an Asbestos Hazard Evaluation Specialist to determine if asbestos is present. If asbestos is found, federal law requires a licensed asbestos removal contractor to properly remove and dispose of the asbestos containing material (ACM) depending on the amount of ACM, the type of ACM and the condition of the material.

In December 2010, the AQMD notified contractors and municipalities that all buildings being demolished as part of an urban renewal project (even structures that would normally be exempt from the requirement, such as single family residences) were subject to the asbestos NESHAP requirement that the AQMD be notified, in writing, ten business days prior to the start of the demolition.

2010 Asbestos Activity	
Total Number of Notifications	325
Total Number of Inspections	121
Yearly Inspection Percentage	37%

* The Asbestos Hazard Evaluation Specialists at the AQMD routinely exceed a 30% inspection rate even though the OEPA only requires 15%.

Inspections

The AQMD staff conducts facility inspections and reviews operational and emission reports to ensure businesses comply with federal and state regulations. Major facilities (those with over 100 tons per year of emissions) are inspected every other year and larger minor facilities (those with less than 100 tons per year of emissions) are inspected every five years. Inspections and reviews of reports are the primary methods of identifying violations of these regulations. If a facility inspector detects violations of regulations, an enforcement action against the facility begins.

Stack/Source Testing

Source tests are conducted to determine the amount and types of air pollutants emitted from the facilities in the AQMD's jurisdiction. Samples are taken from stacks and analyzed. During a source test,

AQMD staff observe and document the third party test team's sampling efforts as well as the operating parameters of the process being tested and the equipment controlling air pollution from the source. After the test, AQMD staff review and validate the test report when it is received. Emissions determined by source testing must be below the allowable levels in a facility's air permit.

Source testing determines:

- The compliance of the source while it operates at its maximum capacity
- The operating parameters for the process and associated control equipment
- The emission factors to be used in calculating the facility's annual emissions

Some facilities are required to operate Continuous Emission Monitors (CEMs) to assure ongoing

compliance with permit limits. These CEMs measure opacity, sulfur dioxide, nitrogen oxides, carbon dioxide or volatile organic compounds. The CEM units are required to undergo annual tests known as Relative Accuracy Test Audits (RATAs) which compare the CEM readings to other certified monitors. The AQMD staff witness and validate these RATAs.

Additionally, quarterly reports of CEM data are sent to the AQMD staff that review and determine the ongoing compliance of a source. If a source is shown to have emissions greater than allowable for more than 5% of its operating time, the AQMD staff initiate enforcement action. Similarly, if a source's CEMs are found to be inoperable for more than 5% of the source's operating time in a given quarter, enforcement action will also be initiated.

Total Sources Tested in 2010

Test Type	Butler County	Clermont County	Hamilton County	Warren County	Totals
Boiler/Incinerator	17	10	33	2	62
Chemical/Other	6	0	18	1	25
Asphalt/Roofing	1	0	3	3	7
Printing/Coating	0	0	1	0	1
Totals	24	10	55	6	95

Enforcement

AQMD personnel issue a Notice of Violation (NOV) to facilities in violation of permit requirements. The NOV identifies the air quality rule violated and requires the company to submit a plan to resolve the problem. When the violations identified warrant additional enforcement actions, the AQMD can pursue enforcement locally or send it to Ohio EPA for resolution. Violations can result in fines and/or additional emissions control requirement.

Permit Program Updates

The USEPA continued to issue Maximum Achievable Control Technology Standards regulating hazardous air pollutant emissions for non-major or area sources. These rules may impact many smaller businesses which were previously exempted from requirements since they were not major facilities. For more information on these area source standards, visit www.epa.gov/ttn/atw/area/arearules.html.

Title X

The City of Cincinnati enforces a stringent nuisance regulation under Title X of the Municipal Code. The AQMD continued to work with the City of Cincinnati's Office of Environmental Quality and the City's Solicitor's Office to identify and resolve Title X violations.

	2008	2009	2010
Warning Letter	57	54	57
NOVs	48	17	30
Enforcement Cases	11	11	9
Civil Penalties*	\$512,366	\$535,130	\$3,389,455**

* Supplemental Environmental Project money included.

** This 2010 Civil Penalty included a large settlement with Ineos.

Complaint Program

The Air Quality Complaint Program allows residents to call 24-hours a day, seven days a week (excluding major holidays), to report outdoor air quality concerns. In 2009, the AQMD added the ability to file a complaint online. To view the online complaint form, visit www.hcdoes.org.

The AQMD uses monitoring equipment when possible on complaint investigations. For example, the AQMD uses a hand-held photo-ionization detector that records total organic compounds. Additionally, the AQMD added a 4-gas monitor for hydrogen sulfide (H₂S), carbon monoxide (CO), oxygen (O₂) and lower explosive limit (LEL).

In 2010, the AQMD staff had a goal to respond to 90 percent of air quality complaints within 30 minutes of submission. The AQMD achieved a rate of 88 percent. The AQMD also began logging Rumpke odor complaints received by Hamilton County Public Health into the complaint database. This procedure, at times, led to a delay in responding to complaints within 30 minutes. The AQMD continues to strive for timely and efficient responses to citizens' air quality complaints.

Total Complaints

2008: 512

2009: 422

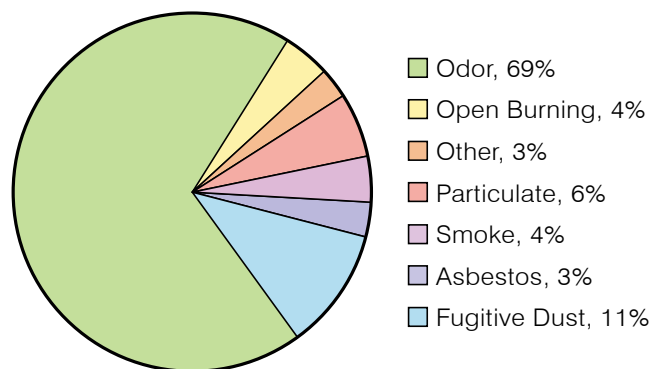
2010: 817*

* The large increase in complaints in 2010 was due to the sub-surface reaction/fire at Rumpke Sanitary Landfill.

Citizen's Canister Sampling Program

The Citizen Canister Sampling Program is another tool the AQMD uses to investigate complaints. Citizens can request a canister from the AQMD to take an instantaneous or 24-hour air sample when they perceive unusual outdoor odors or other air emissions. After taking a sample, the participant contacts the AQMD. The AQMD staff member meets with the participant, conducts an investigation, retrieves the sample and delivers the sample to an independent laboratory for analysis. The AQMD can use the results of the canister analysis as a tool to identify the source of the complaint. In 2010, twelve canister samples were taken by Southwest Ohio residents.

2010 Complaints by Pollution



Air Sampling Canister

Monitoring

The AQMD maintains a monitoring network that uses state-of-the-art instruments dedicated to collecting high-quality air quality data. This data determines the compliance status of Southwest Ohio with the National Ambient Air Quality Standards (NAAQS) established by the USEPA. Southwest Ohio is in compliance with all of the NAAQS, with the exception of the annual average for PM_{2.5} (particulate matter 2.5 microns and smaller) and the 0.075 ppm 8-hour ozone standard. A summary of the compliance status with the eight standards is located below.

To determine the air quality in Southwest Ohio, the AQMD maintains monitors in four counties – Butler, Clermont, Hamilton and Warren. There are two types of monitors:

Continuous monitors: operate constantly and measure ozone, sulfur dioxide, carbon monoxide, oxides of nitrogen and inhalable particulates. Fifteen continuous monitors are located in Southwest Ohio.

Intermittent monitors: collect airborne particles at 24-hour intervals from twelve locations in the area. Toxic monitoring data is also collected from intermittent monitors at four locations.

Annual Monitoring Network Plan

The AQMD and all air monitoring organizations are required by USEPA to submit an annual monitoring plan to the regional office by July 1st of the current year. Information in the plan includes Air Quality System Code (AQSC), street address, geographical coordinates, parameters monitored, type of monitor used, purpose of monitoring – population or source oriented and any proposed monitoring changes. The plan is available for public comment for a minimum of 30 days before the due date to the Regional Administrator.

A link to the AQMD’s most current annual monitoring network plan is available at www.hcdoes.org. This links to the Ohio EPA, Division of Air Pollution Control and the annual monitoring network plan for Ohio.

Analysis and Laboratory Support

The AQMD maintains the air quality monitoring network, provides analytical laboratory support services (such as filter weighing, microscopic analysis and pollen and mold counting), monitors all facility stack tests, tracks industrial emissions data and conducts quality assurance checks and audits for all data generated by the section.

Compliance Status Summary

In Compliance	
yes	Nitrogen Dioxide, NO ₂
yes	Sulfur Dioxide, SO ₂
yes	Carbon Monoxide, CO
yes	Lead, PB
yes	Particulate Matter, PM ₁₀
yes	Particulate Matter, PM _{2.5}
no*	24-hour average 35µg/m ³ annual average 15µg/m ³ *
yes	Ozone, O ₃ 8-hour 0.08 parts per million
no	8-hour 0.075 parts per million

*Monitoring Data shows attainment.

Monitoring Site Map Key

Corresponds to the Monitoring Site Map on the page 23.

Code	Location	O ₃	SO ₂	NO ₂	CO	PM10	PM2.5	Air Toxics	TSP	PM2.5 Speciation	Ammonia	Metals
A	Hamilton	X										
B	Middletown	X										
C	Batavia	X					X					
D	Sacred Heart School						X					
E	Colerain	X	X									
F	Verity School					X	X					
G	Taft (Department)	X		X		X	X			X	X	
H	Ohio Bell					X			X			X
I	Post Office				X							
J	Carthage					X	X	X				
K	Sycamore	X					X					
L	Lebanon	X					X					
M	Winton (Waldorf School)							X				
N	Addyston							X				
O	LPH						X	X				
P	Lockland					X						
Q	Library								X			
R	Norwood						X					

Monitoring Site Map



National Ambient Air Quality Standards

The USEPA is required to review the National Ambient Air Quality Standards (NAAQS) every 5 years to determine if the current levels of the standard are protective of public health. The review process involves extensive scientific review

of health studies. If current health studies indicate the standards need to be tightened to a level that is more protective of public health, the USEPA proposes a new level. After a public comment period, the USEPA reviews the comments and sets the standard as appropriate. In 2010, four of the six criteria pollutants

were involved in some portion of the formal process. Ambient monitoring networks nationwide will be changing to meet new monitoring requirements outlined in the new standards. The AQMD staff is preparing to implement changes to the ambient monitoring network as appropriate.

Ozone—8-hour standard, 75 ppb*

	2008-2010	2007-2009	2006-2008	2005-2007	2004-2006	2003-2005
Butler County	78	82	82	85	80	85
Clermont County	71	75	78	82	78	83
Hamilton County	79	82	85	86	82	86
Warren County	78	82	85	88	86	89

*3 year average of the 4th high 8 hour average

PM 2.5—24-hour standard, 35 ug/m3*

	2008-2010	2007-2009	2006-2008	2005-2007	2004-2006	2003-2005
Butler County	30.0	31.0	34.0	38.0	38.3	41.1
Clermont County	24.0	34.0	33.0	34.0	NA	NA
Hamilton County	31.0	33.0	37.0	41.0	40.4	40.3
Warren County	25.0	27.0	NA	NA	NA	NA

*3 year average 98th percentile
NA—Monitoring not operational to calculate this value

PM2.5—Annual average, 15 ug/m3*

	2008-2010	2007-2009	2006-2008	2005-2007	2004-2006	2003-2005
Butler County	13.5	14.0	14.4	16.1	15.7	16.2
Clermont County	11.6	12.2	12.8	14.1	NA	NA
Hamilton County	14.4	15.0	15.7	17.3	17.4	17.9
Warren County	11.8	12.5	NA	NA	NA	NA

*3 year average
NA—Monitoring not operational to calculate this value

Lead (Pb)

On December 14, 2010, the USEPA revised the NAAQS for lead. While the level of the standard, $0.15\mu\text{g}/\text{m}^3$ three month rolling average, did not change, the revision requires ambient air monitoring around sources that emit 0.5 tons per year of lead. This action lowers the emission threshold limit from 1 ton per year. Additionally, population oriented monitoring is required in metropolitan areas with a population of 500,000 or greater and will be located at NCore* sites. Population oriented monitoring is required to begin January 1, 2012.

Lead in air can be inhaled or ingested after it settles onto surfaces or soil. Ingestion is the main route of human exposure to airborne lead. Once in the body, lead is absorbed into the bloodstream and can affect many of the body's organs. Exposure to low levels of lead has been linked to learning, memory, IQ and behaviors that may extend into adulthood.

As the AQMD works with the US and Ohio EPA, it does not appear any ambient air monitors will be needed near industrial sources within their jurisdiction. Since 1995, the AQMD has been

monitoring and plans to continue monitoring for lead and other heavy metals at a location in Middletown, Ohio.

* For more information on NCore, please refer to page 34.

Nitrogen Dioxide (NO₂)

On January 22, 2010, the USEPA set a new air quality standard for Nitrogen Dioxide, NO₂, at 100 parts per billion for a one hour average. To determine if an area is in attainment of the standard, the 3 year average of the 98th percentile of the maximum daily 1 hour concentrations must be equal to or less than 100 parts per billion. The current annual standard of 53 parts per billion is retained.

Ambient air monitors will be required in areas of population of 1 million people or more. A new requirement is to locate ambient air monitors near roadways. Near roadway is defined as within 50 meters of the outer edge of a lane of traffic. Monitoring is required in areas of population of 500,000 nearest the section of road with the highest daily average traffic count. Additional near roadway monitors are required in CBSAs of 2.5 million people or more or near a road segment having an average daily traffic count of 250,000.

Under these new requirements, the AQMD will operate two (2) NO₂ monitors: a community oriented monitor and two (2) near roadway monitors. All new monitors are required to be operational no later than January 1, 2013.

NO₂ combines with Nitric Oxide, NO, to form Oxides of Nitrogen, NO_x. NO_x reacts with volatile organic compounds to form ground level ozone. Additionally small particulate matter is formed when NO_x reacts with ammonia, moisture and other compounds. Adverse health effects on the respiratory system are associated system with both these pollutants. Short-term NO₂ exposures associated with adverse health effects include airway inflammation in healthy people and increased respiratory symptoms in people with asthma.

Sulfur Dioxide (SO₂)

On June 2, 2010, the USEPA finalized a new standard for the criteria pollutant, sulfur dioxide, SO₂. The new standard is 75 parts per billion (ppb), averaged for 1 hour. An area meets the standard if the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentration is equivalent to or less than 75 ppb.

The number of ambient monitors required in a CBSA will be based on population and the total tons of SO₂ emitted divided by 1 million people. Based on the latest information, the Cincinnati-Middletown, OH-KY-IN CBSA is required to have 2 SO₂ monitors. All new monitors are required to be operational by January 1, 2013.

The new rule also requires the maximum 5-minute concentration per hour to be reported to the USEPA in addition to the hourly averages.

Exposure to SO₂ is associated with adverse respiratory effects. The elderly, children and people

with asthma are the populations most susceptible to high SO₂ concentrations. Sulfur oxides contribute to the formation of fine particulate matter (PM_{2.5}).

Ozone (O₃)

On January 6, 2010, the USEPA proposed to reconsider the current 8-hour ozone air quality standard of 0.075 parts per million (ppm) set March 12, 2008. The new proposal seeks to lower the standard to a level between 0.060 and 0.070 ppm averaged over an 8-hour period. The USEPA initiated the review to be more protective of public health. The proposed level of the standard closely follows those levels recommended by the USEPA's panel of science advisors, Clean Air Science Advisory Committee (CASAC).

An area will attain the standard when the 3 year average of the 4th highest 8 hour averages is at or below the level of the standard.

On December 8, 2010, the USEPA Administrator, Lisa Jackson, announced a delay to issuing

the final 8-hour ozone standard. The standard is to be issued no later than July 31, 2011. The delay is a result of Administrator Jackson's request of CASAC for further interpretation of the epidemiological and clinical studies they used to make their [60-70 ppb] recommendation. The USEPA will review the input CASAC provides before the new standard is selected.

Air Quality Index

The Air Quality Index (AQI) was created by the USEPA to inform the public about their local air quality conditions and what these conditions mean to their health. The AQI reports on the main air pollutants regulated by the Clean Air Act, including: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide and nitrogen dioxide. Seven days a week, the AQMD's instruments measure the level of each of the pollutants at sites located throughout the four-county region.

The daily AQI is based on the single pollutant with the highest air quality index (determined by using the NAAQS). The AQI is then reported in the newspapers, on local television and radio weather reports, on the AQI Hotline and www.hcdoes.org.

Midwest Hazecam

To provide the public with information about visibility throughout the upper Midwest, the AQMD participates in a visibility camera network. The web cam for this program is located on the rooftop of the Clifton office. To learn more, visit www.mwhazecam.net.

Air Quality Index for Particulate Matter and Ozone

Air Quality	Index	Health Guide for Particulate Matter	Health Guide for Ozone
Good	0 - 50	None	None
Moderate	51 - 100	Unusually sensitive people should consider limiting prolonged outdoor exertion.	Unusually sensitive people should consider limiting prolonged outdoor exertion.
Unhealthy for Sensitive Groups	101 - 150	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged or heavy exertion.
Unhealthy	151 - 200	People with heart or lung disease, older adults and children should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion.	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion. Everyone else, especially children, should limit prolonged outdoor exertion.
Very Unhealthy	201 - 300	People with heart or lung disease, older adults and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion. Everyone else, especially children, should limit prolonged outdoor exertion.



Midwest Hazecam—view on a clear day



Midwest Hazecam—view on a hazy day

Smog Alerts

The AQMD staff retrieves and reviews ozone and particulate matter (PM) levels as well as weather forecast information on a daily basis. If unhealthy levels of ozone or PM are expected, a conference call is scheduled by the AQMD, in cooperation with local meteorologists, to determine if conditions are favorable to issue a Smog Alert. The AQMD staff will issue a Smog Alert between 2:00 p.m. and 2:30 p.m. the day before a high ozone and/or PM day is anticipated.

Ground-level ozone is formed through a complex chemical

reaction between volatile organic compounds (VOCs) and nitrogen dioxide (NO₂) in the presence of sunlight. Sources of VOCs and NO₂ include emissions from facilities, gas- and diesel-fueled vehicles, gasoline storage, off-road engines and consumer paints and cleaners.

PM (dust, soot, ash and other solids and aerosols) can come from a variety of sources, including wood burning, diesel engines, gasoline engines, factories and power plants. Individually, these particles and droplets are invisible to the naked eye, but collectively, they can

appear as clouds or a fog-like haze.

During a Smog Alert, businesses and individuals are asked to avoid activities that contribute to greater levels of smog formation, such as driving, using oil-based paints and stains, refueling vehicles or lawn mowing. In 2010, nine Smog Alerts were issued which lasted a total of twenty-five days.

Although Smog Alerts are typically issued during the summer months, HCDOES monitors PM levels in the fall and winter in case high levels of PM dictate a Smog Alert be issued.



Smog Activities for Butler, Clermont, Hamilton and Warren Counties:

Year	Number of Smog Alerts Issued	Number of Days Smog Alert in Effect	Number of 8-Hour Ozone Exceedances	Number of PM 2.5 Readings Over 40 $\mu\text{g}/\text{m}^3$ 24-hour average
2000	1	2	25	-
2001	4	9	24	-
2002	6	18	109	17
2003	1	2	36	22
2004	0	0	5	13
2005	3	8	40	38
2006	0	0	10	35
2007	6	24	38	32
2008	5	10	46	0
2009	2	3	15	2
2010	9	25	49	4

EnviroFlash

The Cincinnati area, including Butler, Clermont, Hamilton and Warren counties, participates in EnviroFlash, an air quality notification service. EnviroFlash is a free service that provides information about air quality, including air quality forecasts for upcoming days and Smog Alerts, in the location of your choice via a daily email. For more information and to subscribe to this service, visit www.hcdoes.org and click on the EnviroFlash link.

AIRNow.gov

The AIRNow website was developed to provide the public with easy access to national air quality information. The website offers daily AQI forecasts as well as real-time AQI conditions for over 300 cities across the U.S., and provides links to more detailed State and local air quality websites.



The air quality data used in the AIRNow.gov maps and to generate forecasts are collected using either federal reference or equivalent monitoring techniques or techniques approved by the state, local or tribal monitoring agencies. Since the information needed to make maps must be as "real-time" as possible,

the data is displayed as soon as practical after the end of each hour. Data used on the AIRNow.com website is only for the purpose of reporting the AQI. Information on the www.AIRNow.com website is not used to formulate or support regulation, guidance or any other Agency decision or position.

Real-Time Particulate Matter and Ozone Maps Online

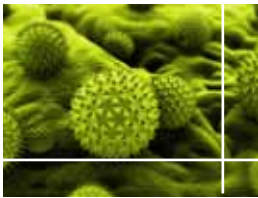
The AQMD posts online real-time maps for particulate matter and ozone concentrations in Southwest Ohio. To view the concentrations (based on hourly averages), please visit www.hcdoes.org.



Real-time map of particulate matter

Pollen and Mold

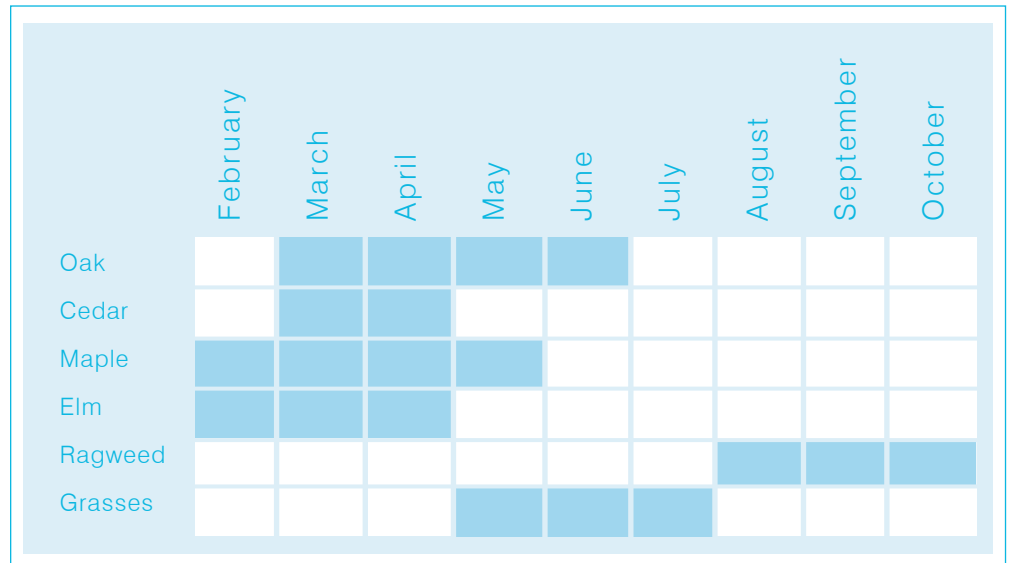
The AQMD staff monitors pollen and mold levels on a daily basis and communicates these numbers to local media. Tree and grass pollens are the most common Southwest Ohio allergens and can be almost impossible to escape (see the chart below for the blooming schedules of certain trees). Ragweed, the most allergenic plant in North America, blooms from August through November. Mold spores are also present allsummer and can even be found indoors year-round.



Magnified pollen spores

The AQMD produces a free “Living with Allergies” brochure which explains more about allergies in Southwest Ohio, their causes and how to handle their symptoms. For a free copy of the brochure call (513) 946-7748 or download a copy at www.hcdoes.org. To keep track of the daily pollen and mold counts, residents can call the Pollen and Mold Hotline at (513) 946-7753 or visit www.hcdoes.org.

Prevalent Pollen Sources by Month



Pollen and Mold Chart

	Pollen Grains per cubic meter	Mold Spores per cubic meter
Low	0 - 20	0 - 500
Moderate	21 - 100	501 - 1500
High	101 - 1000	1501 - 5000
Very High	> 1000	> 5000



Ragweed blooms from August through November

Air Toxic Monitoring Data

Air samples are collected in canisters and analyzed for 60 volatile organic compounds at four locations in the Greater Cincinnati area, including Addyston, Carthage, Winton Place and Lower Price Hill. Additionally, HCDOES operates one site in Middletown, OH in cooperation with the OEPA. Each canister collects a 24-hour composite sample on a 12-day cycle. Compounds can be reliably detected to approximately 0.2 parts ppb. Analytical results of these canister samples are reported in the AQMD's annual Data Report.

Toxic Release Inventory (TRI) Data

The TRI is an annual program which requires industry to report information on the transfer or release of more than 660 hazardous chemicals into the air, water or soil. Hamilton County has seen a steady decline in the amount of hazardous chemicals released to the air since the program's inception in 1987. Data can be found at www.epa.gov/tri.

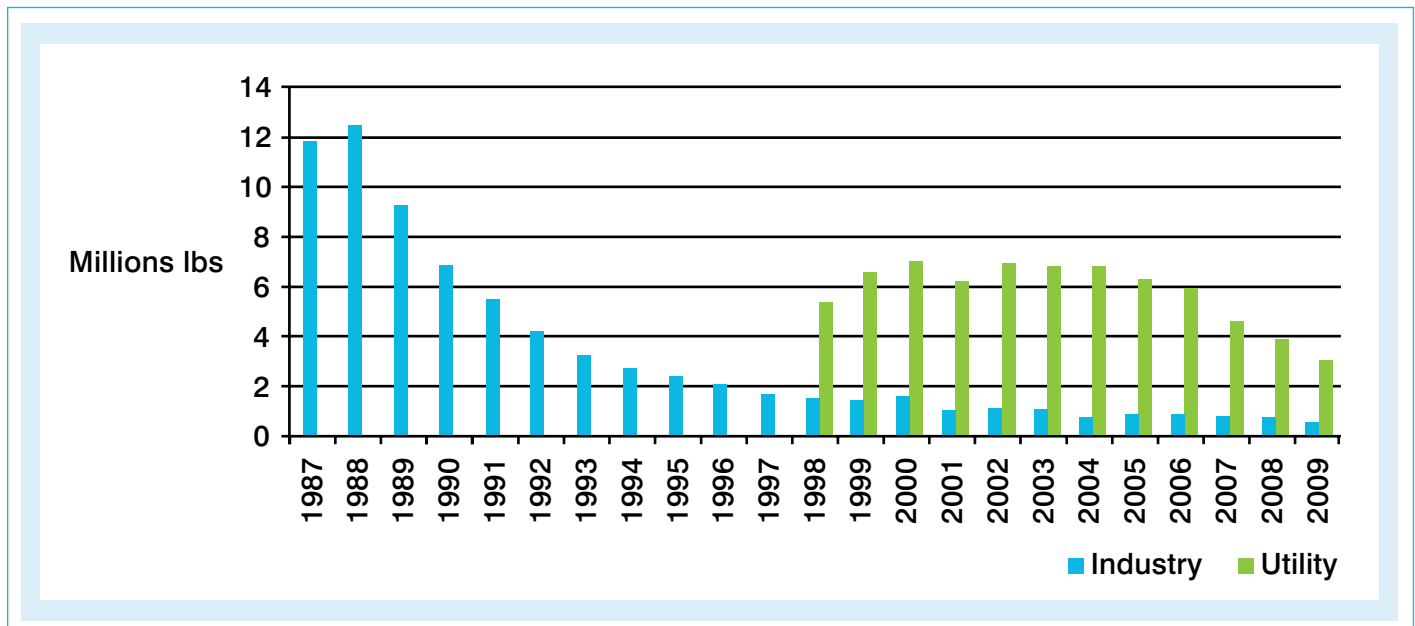
2005 National-Scale Air Toxics Assessment

The USEPA released the results of the National-Scale Air Toxics Assessment (NATA) in March

2011. Based on 2005 emissions, the purpose of this assessment is to identify and prioritize air toxics emissions across the U.S. and estimate the risk to the general population from exposure to these chemicals.

The chemical contributing the most risk at the national, state and local levels is formaldehyde which is formed in the atmosphere on high ozone days. The second highest risk driver is benzene which is a chemical found in gasoline.

Toxic Release Inventory 1987-2009



Emissions Inventory

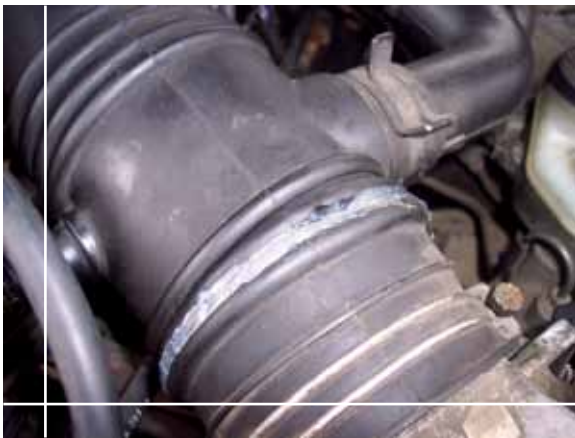
The AQMD staff collects data to determine annual pollutant emission totals. Stationary sources having a potential to emit at or above specified thresholds for the criteria pollutants are surveyed. Information received from these surveys is used to calculate annual emissions. Trends and contributions of each source are analyzed. Data may be used for dispersion modeling studies and for determining control strategies. The USEPA also uses the information to estimate the number of ambient monitor locations statewide and nationally.

Anti-Tampering Program

The 1990 Clean Air Act Amendment forbids tampering with a vehicle's emission control system. Tampering refers to the removal of any part of the car's emission control system (ex. Catalytic converter, PCV valve, thermostatic air cleaner, fuel intake restrictor, etc.). The AQMD staff performs, per their contract with OEPA, unannounced inspections of emissions control equipment of commercial fleets and responds to consumer complaints at least once a quarter.

The anti-tampering program protects consumers by saving

them costly repair fees on tampered vehicles. If a vehicle has been tampered with, the vehicle is marked as not for sale and the lot owner is notified that the emission control devices must be repaired or replaced before the vehicle can be sold. The AQMD then performs a follow-up inspection.



Example of an emission control system that has been tampered with.



Example of an emission control system that has been tampered with.

Training and Development

Keeping up-to-date on the latest air quality issues affecting our region is essential to providing the highest level of air quality services to the residents served by the AQMD. Training and development opportunities are offered to staff members from the USEPA Air Pollution Training Institute. Staff members also attend local, state and national conferences and training courses focused on a variety of air quality topics. In 2010, HCDOES staff logged 2,390 training and webinar hours.

- Smoke School: Twice a year, the AQMD sends its employees to

Smoke School. At Smoke School, employees are certified to read the opacity (lightness or darkness) of smoke and dust. By reading the smoke, inspectors can determine if facilities are in compliance with the visible emissions limits in facilities' permits.

- The AQMD's asbestos inspectors are required to obtain and maintain a license as a Certified Asbestos Hazard Evaluation Specialist. This certification requires attending an initial 40-hour training class. Each inspector is then required to attend one day of training each year to maintain his or her

certification to perform asbestos inspections under the asbestos NESHAP.

- Anti-Tampering inspectors are required to attend a one-day training class and be re-certified every three years.
- SMART Board: The addition of a new SMART Board makes webinars, web conferencing and in-house training convenient and efficient.



Division employees participating in Smoke School

Special Projects

The Division staff is actively involved in special projects on local, state and national levels, including:

School Bus Retrofits: The USEPA Grant to assist seven school districts purchase 60 new school buses was completed in August 2010. The \$1,080,000 Grant was awarded to HCDOES on June 3, 2009 as part of EPA's Diesel Emissions Reduction Act and funded by the American Recovery and Reinvestment Act of 2009. Seven school districts partnered with HCDOES to purchase 60 new school buses meeting the USEPA's 2007 diesel emissions standards.

Each school district received \$18,000 towards the purchase of a new school bus which generally costs between \$72,000 and \$78,000. The only caveat of the Grant was that the school districts had to retire 60 older, pre-1993 school buses. The emissions from the new buses are so clean that 60 new buses equals the emissions produced by one 1988 bus. Replacing these older buses with new, reduced emissions buses removes approximately 15,000 pounds of pollutants from the air

on an annual basis. As a result, cleaner, healthier rides are provided to thousands of school children in these school districts this year and years to come.

Although the grant provided \$1,080,000 towards the purchase of the new school buses, the school districts provided \$3,547,827 as their share of the bus purchases. The school districts participating in this grant project are as follows:

Loveland City School District
(4 buses)
Oak Hills Local School District
(4 buses)
Three Rivers Local School District
(5 buses)
Forest Hills Local School District
(6 buses)
Northwest Local School District
(6 buses)
Princeton City School District
(15 buses)
Mt. Healthy City School District
(20 buses)

For more information, visit the Southwest Ohio Clean Diesel Campaign website at <http://www.Department.org/CleanDieselCampaign/SOCCDC.htm>.

NCore: A new National Core Monitoring Network (NCore) site located at HCDOES' office at 250 William Howard Taft Road in Clifton officially began collecting data on 1/1/2011. The new site is one of sixty urban sites nationwide, with an additional twenty rural sites across the country. The purpose of NCore monitoring is to determine long term trends for pollutants, determine the effectiveness of control strategies on sources, help to develop better air models for pollutants and use data for determining the Air Quality Index.

As a multipollutant NCore monitoring site, the following parameters are required:

- Ozone
- NOy – total reactive nitrogen
- SO2 – trace level
- CO – trace level
- PM2.5 both intermittent and continuous
- PM coarse – PM10-PM2.5 intermittent
- Chemical speciation
- Meteorological parameters
 - Wind speed
 - Wind direction
 - Ambient temperature
 - Relative humidity

Additional parameters monitored include:

- NO₂ (nitrogen dioxide)
- PM₁₀ continuous and intermittent
- Ammonia passive sampling
- Barometric pressure
- Solar radiation

Future parameters will include:

- Lead will be added in 2012
- Air toxics may be added later

A new HVAC system was installed in the NCore instrument room to ensure the proper temperature and humidity conditions are met. For more information on the NCore multipollutant monitoring network, visit <http://www.epa.gov/ttn/amtic/ncore/>.

“Team Rumpke”: Historically, citizens have been concerned about issues that surround the operation of a landfill. In Hamilton County, Rumpke Sanitary Landfill has 200 landfill gas recovery wells on 275 acres of placed waste in Colerain Township. Starting in August of 2009, Rumpke reported elevated temperatures in approximately 12 acres of its landfill. “Team Rumpke” was developed that consisted of experts from OEPA, USEPA, Hamilton County Public Health, Colerain Fire, AQMD and Rumpke. A comprehensive action plan was developed with an overarching goal

of protecting human health and safety and preventing a nuisance situation.

The AQMD has conducted extensive amounts of air monitoring and oversight on the project. At the request of the OEPA, the AQMD located a Volatile Organic Compound (VOC) sampler and collected 24-hour samples every 6th day from the site. The sampler was operated on solar power, which permitted the flexibility to collect valid samples without incurring additional costs.

In 2010, Rumpke installed an odor control blanket to cover approximately 12 acres of the landfill to better help capture the landfill gas and reduce odors from the reaction/fire area.

Sycamore Station Update:

After months of hard work, the Sycamore monitoring station has been successfully replaced. The old shelter, which had been in place since 1975, stored a number of instruments used to measure pollutants including Hydrocarbons, ozone, CO and particulate matter. However, at 12' x 30', the shelter was oversized, inefficient and worn down from years of use. The new 12' x 12' shelter is housed at the same location as the old shelter, but the updated shelter is more

energy efficient and therefore more economical to operate.

Although the pollutants currently measured at the new station include ozone and continuous and intermittent PM 2.5, other parameters such as NO₂ may be added in the future.



Air Sampling uses solar power:

The previous PM 2.5 air sampler at the Taft site has been replaced with a newer, greener option for air sampling with the addition of a solar panel feature. This single-run sampler uses a solar panel to generate enough power to charge the deep cycle marine battery, which supplies a relatively low amount of current for a long period of time and eliminates the use of hardwire electricity to run the sampler. This allows it to operate at any location, wire free. The solar panel is angled and set to a general setting for the latitude at which it is positioned. Facing south, this allows for the panel to capture the maximum amount of sunrays year-round.

Air Quality Community Outreach and Education

The AQMD delivers comprehensive air quality education and outreach activities to students, parents, educators, businesses and community members in Southwest Ohio. The AQMD's programs and educational materials teach the importance of air quality awareness to deliver a cleaner, healthier tomorrow. Below is a sampling of the strategic education and communication activities coordinated by the AQMD:

Education

Classroom Resources:

The AQMD is proud to offer educators free materials to raise awareness of air quality issues in the classroom. AQMD distributes activity books, brochures, lesson plans, pencils and other incentives for students to teachers for free. In 2010, 13 educators throughout Southwest Ohio received free materials to enhance air quality education in their schools. AQMD



also creates and distributes a newsletter, "The School Breeze" specifically designed for educators which reaches 492 in the four-county area.

Classroom Presentations:

The AQMD provides air quality information to students through classroom presentations and



grade- or school-wide assemblies. In 2010, 8 schools in Southwest Ohio received "Do Your Share for Our Amazing Air" presentations, reaching 2,200 students. The "Do Your Share for Our Amazing Air" presentations feature science experiments and lessons to teach students about smog, ozone and particulate matter. The presentations empower students to take steps to clean up the air. Additionally, AQMD staff provided presentation to the Girl Scouts, Badin High School, St.

James Elementary, St. Catherine of Sienna, Princeton High School Green Club, Boy Scouts, and judged an Earth Day song contest at the School for the Creative and performing Arts.

Cincinnati State Technical and Community College Training Courses:

As part of Cincinnati State's air pollution class, each quarter AQMD staff members teach the



latest information on air quality permitting, enforcement and monitoring. Students are invited to HCDOES for the air pollution classes and AQMD staff show students the equipment and tools needed to monitor and analyze air samples. An AQMD staff member serves as an Industrial Advisory Board Member for Cincinnati State's Environmental Engineering Program.

Science Fair Judging: Each year, the AQMD staff participates in a variety of elementary, middle school and high school science fairs. Staff volunteers their time to serve as judges at sciences fairs throughout the four-county region.

Mill Creek Sampling : The Mill Creek Restoration Project (MCRP) is a private nonprofit organization created in 1994 to serve as catalyst for developing sustainability in the Mill Creek watershed through community-based planning and empowerment, environmental education, and economically sound ecological restoration. Staff members from the AQMD participate in the MCRP by assisting teachers from various local schools during field trips monitor water quality at various

points along the Mill Creek.

Special Projects: The AQMD staff worked with staff and students at North Avondale Montessori as Eco-Mentors in partnership with The Alliance for Leadership and Interconnection, or ALLY, to host a green schools event with Cincinnati Public Schools and the Cincinnati Health Department. The school is aiming for a Silver LEED certification. The eco-mentors worked with students in 4th-6th grades who led a school tour for the community highlighting the green features of the building. An anti-idling station and hybrid car was set up for information and education.

Outreach

No Idle Zone Campaign:

HCDOES continues to offer “No Idle Zone” signs to schools and communities in an effort to promote cleaner, healthier air by encouraging drivers to turn the key and be idle free. The signs, which read, “Turn Engine Off Breathe Better, Save Money” have successfully been distributed and posted in Hamilton, Butler, Clermont and Warren Counties. Over one hundred signs are posted in schools, community centers, daycare facilities, residential complexes and higher education institutions.



Events: The AQMD attends events in the community to speak directly with citizens regarding air quality issues. The AQMD staff aim to answer citizens’ questions while distributing supplemental information. In 2010, AQMD staff members attend local events such as health and wellness fairs, community festivals, and numerous Earth Day events to promote air quality awareness throughout the four-county region. Events attended by the

AQMD staff in 2010 include: the City of Hamilton and Christ Hospital’s Earth Day events; Clippard YMCA Healthy Kids Day; Northside 5K; U.C. Science Fair; Cincinnati State’s Earth Jam; Princeton School District’s Health Fair; Ethicon Endo-surgery Environmental Fair; St. Ignatius Fair; and Norwood Library Children’s Program.

Publications: The AQMD creates and distributes various publications from our quarterly newsletter, “The Community Breeze” to our yearly publications such as the Data and Progress Reports. These free publications range from air quality topics such as allergies and open burning to anti-idling and diesel exhaust. For a complete list of publications available, visit our at **www.hcdoes.org**.

Presentations: The AQMD conducts presentations on air quality issues to interested groups including community organizations, senior centers, local libraries and businesses.

Special Projects

Citizens United for Action Grant

Assistance: HCDOES partnered with Citizens United for Action (CUFA), to deliver air quality information and resources to residents and school children.

With CUFA, HCDOES staff sat on a panel and participated with concerned citizens for a candid discussion on air quality and everyday steps that can be taken to ensure clean, healthy air for the Cincinnati area. AQMD staff also presented air quality topics and encouraged students in eighth grades classes at Winton Hills Academy, Ethel Taylor Academy and St. Boniface to be advocates for clean air.

CAARE Asthma Partners:

AQMD staff have been assisting the Community Asthma Awareness, Resources and Education (CAARE) Asthma Partners, a childhood asthma education project, by providing data and resources regarding our region’s air quality.

To learn more about the AQMD’s outreach and education programs or to schedule a presentation, please call (513) 946-7754 or visit **www.hcdoes.org**.

Budget Summary

Recycling and Solid Waste District Budget

Revenue

Landfill Tipping Fee	\$2,864,692
Other	22,629
Total	\$2,887,321

Expenditures

Salary	\$398,058
Fringe Benefits	84,197
Equipment	5,198
Indirect Cost	25,145
Health Department	343,007
Others	134,876
Programs and Services	1,626,415
Total	\$2,616,896

Air Quality Management Division Budget

Revenue

State	
Title V	\$1,423,462
Non-Title V	705,671
Enforcement Dollars	144,848
Federal	
AQ Programs	596,100
PM2.5 Programs	251,615
Local Permit Fees	390,228
Total	\$3,511,924

Expenditures

Salary	1,906,782
Fringe Benefits	551,675
Travel	37,784
Equipment	94,828
Supplies	34,109
Contractual	219,737
Others	31,414
Indirect Cost	270,546
Enforcement Dollars	144,848
PM 2.5 Program	251,615
Total	\$3,511,924