



WISCONSIN'S NO GROWTH ZONE

The Impact of the Clean Air Act
On Sheboygan County

Jake Curtis

Associate Counsel and Federalism Litigator

Wisconsin Institute for Law & Liberty's Center for Competitive Federalism

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- **Faulty data**

The EPA is relying on data that measures pollutants generated elsewhere and that does not accurately reflect air quality in Sheboygan County. This results in a “nonattainment” designation and, consequently, onerous regulatory requirements that Sheboygan does not deserve.

- **Nonattainment designations can create “no grow” zones**

The additional costs and required offsets associated with nonattainment designations can result in entire counties like Sheboygan turning into “no grow” zones—manufacturers refrain from expanding their physical footprint as well as their labor force.

- **Other Wisconsin Counties are at risk**

While Sheboygan County has borne the brunt of the EPA's nonattainment designation, other counties, such as Manitowoc, Ozaukee, Kewaunee, and Door, are likely to be impacted by such increases in designations in the coming years.

- **Congress should act NOW**

This misuse of federal law is best—and can be most quickly—addressed at the federal level. Congress can, and should, act now to address the inflexible nature of the EPA regulations hitting Sheboygan County and others.

Introduction

Wisconsin is home to a diverse economy. Travel to northern Wisconsin, particularly in the middle of summer, and one can find a tourist destination like none other. Southeastern Wisconsin is home to some of the most recognizable Fortune 500 companies, including Johnson Controls, Northwestern Mutual, ManpowerGroup, Kohl's, and Harley-Davidson. Madison is the seat of state government and home to a world-class research institution, the University of Wisconsin.

Lesser known, but just as significant, are the industries north of Milwaukee along the shores of Lake Michigan up into the Fox Valley and into Green Bay. There, one will find some of the highest concentration of manufacturing companies in the country. From internationally known manufacturers like Oshkosh Truck to small businesses such as Plymouth Foam, Eastern Wisconsin still makes “stuff” and they do so as well as anybody in the world.

Unfortunately, far too often, the main impediment to continued growth and expansion, both in terms of manpower and physical footprint, is not lack of resources, skilled labor or technological advancement. Instead, manufacturers in Eastern Wisconsin face the daunting task of complying with onerous federal regulations, many of which key competitors, even within Wisconsin, are not required to comply with. Such a scenario puts those who choose to grow a business along the shores of Lake Michigan at a distinct competitive disadvantage.

This policy brief specifically sheds light on the ozone nonattainment designation involving Sheboygan County, the impact of such a designation on businesses in the County, the potential re-designation of other counties along the shores of Lake Michigan, and concludes by offering several immediate steps Congress can take to alleviate the onerous requirements by providing flexibility to Wisconsin to meet ozone standards.

Any flexibility provided by Congress would free counties like Sheboygan, and others, to constructively work with the state Department of Natural Resources to protect the environment while providing job opportunities for local residents, a proposition that is not, and should not, be mutually exclusive.

I. The EPA’s Nonattainment Proposed Rule

EPA’s Sheboygan Area Proposed Rule. The drama involving Sheboygan County, the Clean Air Act (“CAA”),² and the U.S. Environmental Protection Agency (“EPA”) dates back to April 30, 2012, when the area was initially designated as a “nonattainment” area, i.e., as one failing to meet the 2008 ozone National Ambient Air Quality Standards (“NAAQS”).³ However, Sheboygan’s initial nonattainment classification was only “marginal.”⁴ The EPA set a deadline for certain attainment standards for July 20, 2015 and then granted a one year extension. However, on September 28, 2016, EPA proposed a rule finding that the Sheboygan area failed to attain the 2008 ozone NAAQS by the applicable attainment date of July 20, 2016.⁵ This proposed rule would place the County in the “moderate” nonattainment category.

Moderate nonattainment areas are required to attain the standards “as expeditiously as practicable” but no later than six years after the initial designation as nonattainment, which in the case of Sheboygan County is July 20, 2018. In other words, the measured air quality must change very quickly.

Table 1. 2013–2015 Quality Assured Ozone Monitoring Data

Area	County	Monitor	2013 4th high	2014 4th high	2015 4th high	2013-2015 Average
Sheboygan, WI	Sheboygan	Kohler Andre Park (551170006)	0.078	0.072	0.081	0.077

Wisconsin’s State Implementation Plan. The requirements associated with this new rule and the designation are arduous. Wisconsin is required to submit a revised State Implementation Plan (“SIP”). The requirements include (1) an attainment demonstration, (2) the development of provisions for reasonably available control technology (“RACT”) and reasonably available control measures (“RACM”) involving volatile organic compounds and nitrogen oxides, (3) reasonable further progress in reducing VOC and/or NOx emissions in the area, (4) contingency measures to be implemented in the event of failure to meet a milestone or to attain the standard, (5) a vehicle inspection and maintenance program, if applicable, and (6) NOx and VOC emission offset at a ratio of 1.15 to 1 for major source permits. In June the Wisconsin DNR developed and released a draft attainment plan for the Sheboygan County nonattainment area.⁶ It is holding a public hearing on July 24 to receive feedback regarding the draft attainment plan. Once finalized, the request will be submitted by the DNR to the EPA for approval.⁷

With respect to the short timeline for the state’s SIP submission, Congressman Grothman observed “[t]ime and time again states are subjected to short timelines in order to comply with significant requirements from the federal bureaucracy. This change to moderate nonattainment will greatly increase the regulatory burden on Sheboygan County and its industry and therefore should not be rushed into a haphazard manner.” Grothman October 27, 2016 Letter at 2-3. It’s also important to note that in addition to submitting a SIP plan, the expectation is that the region establish actual attainment by July 2018, a nearly impossible task.

II. Foreign Pollutants and Poorly Placed Monitors

Not surprisingly, the proposed rule has received significant resistance from local and federal legislators, the local and state chambers of commerce, businesses that will be directly affected by the proposed rule and enhanced designation, and even the Wisconsin Department of Natural Resources.

It would be one thing if Sheboygan businesses were actually emitting pollutants that caused air quality in the County to fail to meet the legal standards. But they are not doing that and air quality in Sheboygan does not fail to meet those standards. There are two key errors associated with the proposed rule. First, the rule fails to account for the impact of pollutants generated from outside the County, and in many cases completely outside the state of Wisconsin. It commands the people and businesses of Sheboygan to eliminate pollution that they did not create. Second, the proposed rule is based upon data generated from a monitor that is located in a way that neither measures pollutants that are actually emitted in the County and does not accurately measure the quality of air in Sheboygan.

Foreign Pollutants

The Wisconsin DNR has noted emphatically the “EPA should not finalize this action.” *DNR October 28, 2016 Letter* at 1.⁸ This is so because it observed that “Wisconsin’s lakeshore air quality is heavily impacted by ozone precursors originating from out of state. Sheboygan County, in particular, has long suffered the consequences of diminished air quality and resulting nonattainment due to emissions originating beyond Wisconsin’s borders.” *Id.* The problem is so significant that despite the wide range of actions the state has already taken to reduce emissions under its Clean Air Act obligations, “[a]ny further actions taken by the state to address moderate area planning requirements for this NAAQS are unlikely to significantly improve Sheboygan County’s air quality.” *Id.* It urged EPA to “expeditiously and more completely address the contributions of upwind state emissions to this region of Wisconsin.” *Id.*

State Senator Devin LeMahieu and Assemblymen Tyler Vorpapel and Terry Katsma have also opined that “the ozone being detected by the Kohler Andrae monitor does not come from Sheboygan County, but [from] southern communities along the Lake Michigan shoreline such as Chicago, Illinois and Gary, Indiana.” *Wisconsin Legislature October 27, 2016 Letter* at 1. “Subjecting Sheboygan area businesses to increased regulations due to emissions being produced in other counties [or states] is unfair and simply wrong.” *Id.* at 2.

The objections of the Wisconsin DNR and the Sheboygan legislative delegation are supported by modeling showing pollutants are blown up from Illinois and Indiana, “cooked” (i.e., turned into ozone) over Lake Michigan, and then blown westerly into Wisconsin. Specifically, with respect to ozone emitted from places like Illinois and Indiana, Lake Michigan has been described as an “ozone cooker.” In particular:

These ozone problems are unfortunate artifacts of an arcane and outdated set of federal directives which rely on ozone monitors that lie along the Lake Michigan shoreline. Lake Michigan is known to be an “ozone cooker”, where transported pollutants collect and interact in sunlight to form ozone. Wisconsin’s riparian monitors pick up this transported ozone as it blows off the Lake and before it dissipates moving inland. As a result, the ozone levels measured at these monitors are relatively high and do not represent air quality within these counties. This problem is exacerbated by EPA treating multiple counties in urban areas as a single air quality planning region whose attainment designation is tied to these shoreline monitors miles away.

See *Michael Best & Friedrich LLP white paper, Creating a More Equitable and Accurate Ozone Attainment Designation Process*. Wisconsin Manufacturers and Commerce's ("WMC") Lucas Vebber has described the phenomenon in similar terms:

Heavy ozone is something we see quite a bit on the eastern coast of Wisconsin, something along the Lake Michigan shoreline. We don't really see it inland, we don't see it in other areas of Wisconsin. One of the primary reasons that we see it along the eastern coast of Wisconsin is because it's transport pollution from other states. So we see a large number of those precursor pollutants emitted from the Chicago-land area and Gary, Indiana and they combine in the sunlight over there. It's essentially an oven for ozone. It produces a significant amount of ozone which is then blown by the wind right along the Lake Michigan coast.

WILL Video Report, July 12, 2017.

Drilling down even further, source apportionment modeling from the Lake Michigan Air Directors Consortium (LADCO) suggests that "all of the sources in the entire State of Wisconsin contribute less than 10% of the ozone being detected."⁹ This means that imposing restrictions on Sheboygan businesses can do very little to affect the measured pollutants that have led the EPA to impose them.

Poorly Placed Monitors

But the problem is even worse than that. It would be one thing if the EPA was accurately measuring air quality in Sheboygan—even if that air quality was largely the product of pollutants generated elsewhere. But it's not. The second, and equally problematic, factor is the physical placement of the monitors in Sheboygan County and the EPA's reliance on the monitor detecting foreign pollutants. This is especially true when one considers the concentration of manufacturers in the County vis-à-vis placement of the two monitors.

WMC has emphasized that the EPA is exclusively relying on data from one air quality monitor (located at Kohler-Andrae State Park), instead of looking to the data collected by both air quality monitors operated by the State of Wisconsin in the County. If the data collected by the monitors detailed the same ozone levels, this would be of no issue.

But that's not the case. The Kohler-Andrae monitor is upwind from the key sources of ozone in the County. The air it measures is generally blowing into Sheboygan from major sources to the south, such as Chicago, and even Indiana and Michigan. The other monitor (located in the town of Haven) is downwind from the key ozone sources in Sheboygan. It is the monitor that picks up whatever pollutants are actually generated in Sheboygan and accurately measures the actual ozone levels in the County. The ozone levels at Haven are often significantly lower than those at Kohler-Andrae. Thus, the decision of the EPA to rely exclusively on the latter, instead of the former (or not even average the two), results in the County failing to maintain the acceptable attainment standards and triggers devastating regulations.

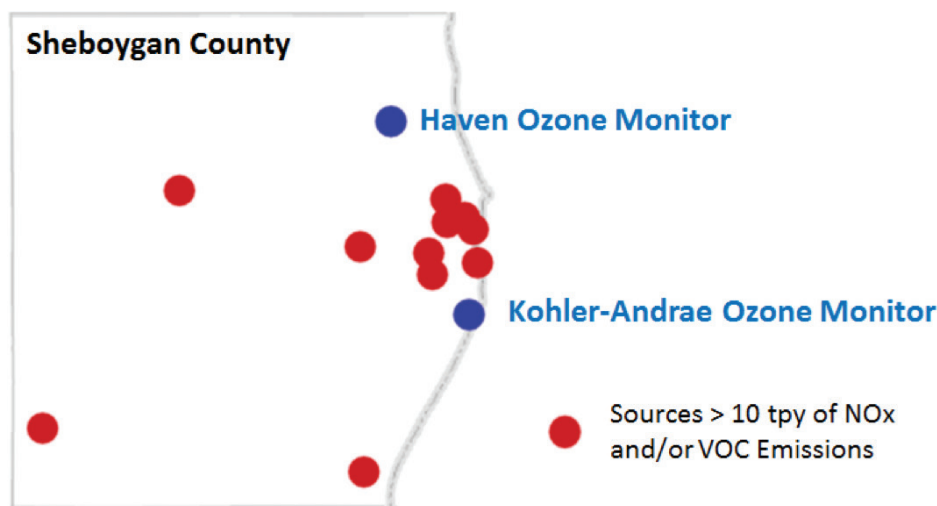
WMC describes in detail the geographic relationship between the Haven Ozone Monitor and the Kohler-Andrae Ozone Monitor:

Sheboygan County has been forced to deal with an excessive regulatory burden due to factors largely beyond its control. The State of Wisconsin has located two air quality monitors in the county. The first, located at Kohler-Andrae State Park (Site ID 551170006) along Lake Michigan, approximately 6 miles south of the City of Sheboygan, has been operational since June of 1997. This monitor is **upwind** from the City of Sheboygan. The second air quality monitor, known as the Haven monitor (Site ID 551170009), is located approximately 6 miles northwest of the City of Sheboygan and has been operational since April of 2014. This monitor is **downwind** from the City of Sheboygan. EPA's proposed nonattainment re-classification is based exclusively on data provided by the Kohler-Andrae monitor.

Facilities in Sheboygan County that emit the majority of ozone precursor emissions, namely nitrogen oxides (NOx) and volatile organic compounds (VOC), are located downwind from the Kohler-Andrae ozone monitor. The following figure shows the location of facilities with greater than 10 tons per year (tpy) of NOx and/or VOC emissions based on EPA's 2014 National Emissions Inventory (NEI). These same facilities are the ones that may be subject to increased regulations due to EPA's proposal to re-classify this area to a moderate nonattainment area, even though they are not likely contributing on days with higher ozone concentrations. This is because days with higher ozone concentrations typically occur when the winds are from the south, followed by an afternoon lake breeze.

WMC October 28, 2016 Letter at 2 (emphasis in original).

Figure 1. Locations of Sheboygan County Monitors Relative to Facilities Producing Emissions



WMC further emphasized that relying exclusively on the data collected at the Kohler-Andrae monitor, again, upwind from the few ozone sources in the County, is contrary to EPA's own policies. EPA's guidance on monitoring site selection advises that "[f]or regulatory compliance, the principle objective is to measure the ozone concentration in the high population density areas and the maximum downwind concentration from the urban region."

The problem may be exacerbated by placement of the Kohler-Andrae monitor on the shoreline.

WMC's Vebber notes:

What we see in Wisconsin is a poorly constructed air monitor network that has a lot of riparian air monitors that are very close to the shoreline picking up this ozone, not measuring actual air quality within the counties but measuring the air quality that's cooking over Lake Michigan and blowing right along the shoreline.

As we go further inland with more air monitors we see the ozone dissipates quickly and we see it's not an air quality concern for many of the counties just along the shoreline and that's largely due to the pollution formed elsewhere that enters those counties—it's not pollution that's formed within those counties.¹¹

WILL Video Report, July 12, 2017. WMC concludes that “[g]iven the location of the primary ozone precursor emission sources in Sheboygan County [i.e. the main sources of Ozone in downtown Sheboygan] relative to the Kohler-Andrae monitor...it is very likely that Sheboygan County facilities contribute a minimal amount to the state’s overall contribution.” *WMC October 28, 2016 Letter* at 2-3. Those heightened ozone levels are therefore clearly the result of out-state pollution.

A closer look at the data collected from both of the air monitors located within Sheboygan County supports the argument that reliance on the Haven monitor—the monitor downwind from Sheboygan and therefore actually collecting emissions data for Sheboygan businesses—would place the County in the attainment category, even under the lower 2015 NAAQS standard of .070 parts per million.

The WMC letter, relying on 2014-16 data from the Wisconsin Department of Natural Resources,¹² notes “the design value for the Haven monitor would be .069 parts per million (ppm), well within attainment for the 2008 ozone standard of 0.075 ppm.” *Id.* at 3. A comparison of the two sets of data included in Table 2 below establishes that the actual air quality in Sheboygan, i.e. the air affected by facilities within the County, as opposed to those outside the County or even the state, is well within 2008 and 2015 ozone standards.

Table 2. Comparison of Air Quality Data from Kohler-Andrae and Haven Monitors

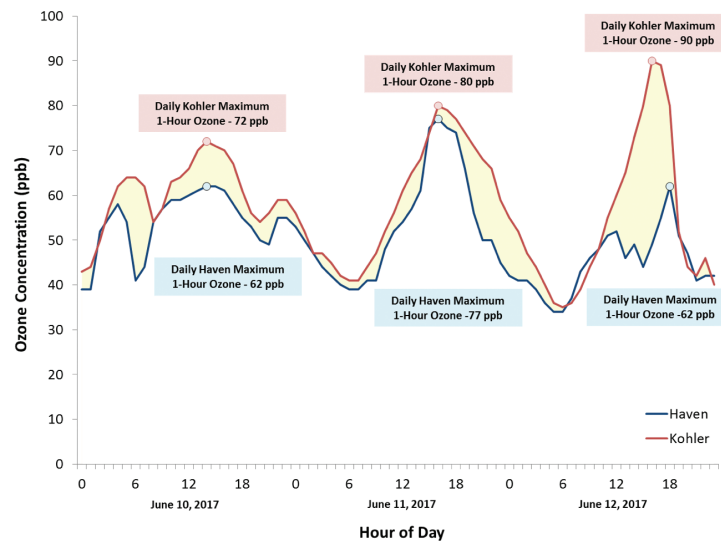
Area	County	Monitor	2013 4th Highest	2014 4th Highest	2015 4th Highest	2016 4th Highest	2013-15 Average	2014-16 Average
Sheboygan, WI	Sheboygan	Kohler-Andrae	.078	.072	.081	.085	.077	.079
Sheboygan, WI	Sheboygan	Haven	n/a	.068	.067	.074	n/a	.069

The 2017 Lake Michigan Ozone Study, directed by NASA, shows even more extremely elevated datasets along the eastern shores of Wisconsin. The main objectives of the Study is “to better understand the lakeshore ozone gradient and to evaluate and improve [chemical transport models] used for regulatory and research purposes in this region.”¹³ The mission overview of the study noted that “[p]roduction of ozone over Lake Michigan combined with onshore daytime ‘lake breeze’ airflow is thought to increase ozone concentrations

preferentially at locations within a few kilometers of the shore.”

And the study bears that out. Recently, the data produced through the Study revealed extreme variations in ozone levels between the two Sheboygan monitors. As illustrated in Figure 2, on June 12th, the difference in ozone levels reached 28 ppb. The Haven monitor, located only 3.2 miles inland, registered a ppb reading that would place Sheboygan well within attainment. Importantly, this reading came in the late afternoon, often the peak time for reading heightened ozone concentration levels.

Figure 2. Differences in Daily Maximum 1-Hour Ozone Concentrations, June 10-12, 2017

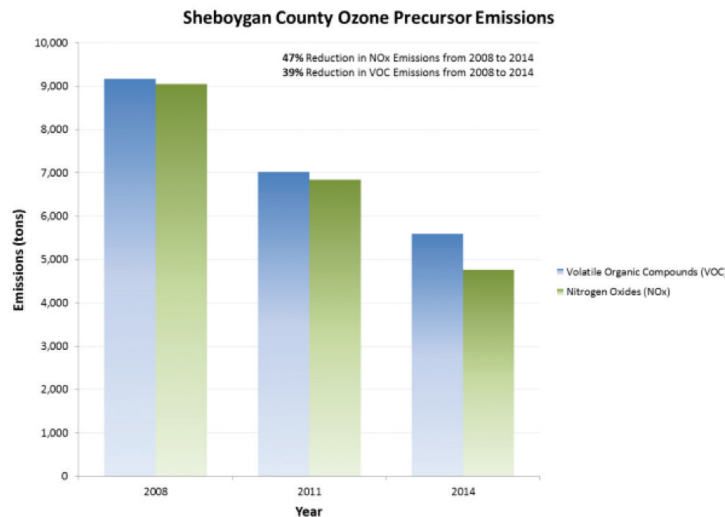


This is not a surprise. In 2014 the State of Wisconsin specifically located the Haven monitor downwind from the major ozone sources in the County in order to collect a more accurate reading. It is frustrating to those affected that EPA ignores it.

This reliance on one poorly placed monitor features an additional consequence—an accurate reflection of Sheboygan air quality shows that not only would the levels fall within attainment requirements, but the air quality in Sheboygan County is significantly improving. But this point is obscured by the nonattainment designation.

That improvement is the result of hard work. Sheboygan businesses have been working tirelessly to adopt measures that lower various emissions. But the EPA is not concerned with any progress, no matter how significant, unless and until the 2008 NAAQS standard of 75 ppb is met. WMC notes that “[s]ince 2008, ozone precursor emissions have declined dramatically in Sheboygan County based on data from EPA’s NEI.”¹⁴ *Id.* at 4. In fact, “NOx emissions have declined 47% and VOC emissions have declined 39% from 2008 to 2015.” *Id.* These reductions are significant; however, because the EPA continues to rely on the data provided by the Kohler-Andrae monitor, the reductions are simply not enough to overcome the pollutants blown into Sheboygan that contribute to the nonattainment classification.

Figure 3. Ozone Precursor Emission Reductions in Sheboygan County



In response to the proposed rule, Congressman Glenn Grothman, who has represented the area in both the state legislature and now Congress for a combined 20 years, noted that “[m]anufacturing is the largest industry in the County, accounting for approximately 37 percent of all jobs.” *Grothman October 27, 2016 Letter* at 1.¹⁵ Such reliance makes the impact of the nonattainment designation all the more devastating. With respect to the availability of the data generated by the Haven monitor, Congressman Grothman declared “I am dismayed that the EPA would ignore this data and implore you to take it into consideration.” *Id.* at 2.

State legislators have similarly registered their opposition on similar grounds. State Senator Devin LeMahieu and Assemblymen Tyler Vorpapel and Terry Katsma stated “[a]s elected officials, it’s our duty to consider all information presented to us before voting or making decisions that affect our constituents. Likewise, the EPA should be held to the same standard...the EPA should hold off on any regulatory action until it can appropriately consider the Haven monitor’s data.” *Wisconsin Legislature October 27, 2016 Letter* at 2.¹⁶

III. Wisconsin’s “No Growth” Zone

In its proposed rule, the EPA found that the determination of nonattainment does not in and of itself create any new requirements, but rather applied the requirements contained in the CAA. In a breathtaking act of bureaucratic gymnastics, the EPA found, among other things, the action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget
- Is certified as not having a significant economic impact on a substantial number of small entities
- Does not contain any unfunded mandate or significantly or uniquely affect small governments
- Does not have Federalism implications
- Is not an economically significant regulatory action based on health or safety risks

To argue the rule is “not a significant regulatory action,” does not have “significant economic impact,” is “not an economically significant regulatory action”, or does not have “Federalism implications” is nearly impossible to square with reality. The impact of the EPA’s proposed rule on the Sheboygan County economy is substantial. Among other things, the nonattainment designation adds significant regulatory compliance costs on local businesses, unfairly attaches a dangerous stigma to the County that in some cases prevents professionals from relocating, and essentially creates a “no growth” zone in which local businesses are prevented from increasing output, in the process suffocating potential job growth.

Opposition from Business Community

Three local businesses were willing to go on the record in opposition to the proposed rule by submitting comments to the EPA during the notice and comment period, as allowed under the Administrative Procedure Act (“APA”). It’s important to note that many of these firms that spoke out publicly on the issue have exemplary environmental records. These companies are not “anti-environment”. In fact, quite the opposite is true. Many of the most vocal firms are the ones that will be most directly impacted by the increase in the nonattainment designation but they also are the ones that have often remained in the County the longest, have significantly invested in the local communities, and often are run by individuals that live and raise families themselves in the County.

Kohler Company, the largest employer in the County, submitted a letter in opposition to the proposed rule. It emphasized that “[c]ompliance with these [Reasonably Available Control Technology] and [Reasonably Available Control Measures] rules to county businesses has been costly with no detectable impact on ozone concentrations as measured by the Kohler Andrae monitor.” *Kohler Co. October 26, 2016 Letter* at 2.¹⁷ Similar to the legislators’ responses, Kohler offered its opinion that the “Ozone being detected by the Kohler Andrae monitor does not come from the City of Sheboygan nor from Sheboygan County, but is transported into the county from southern communities along the Lake Michigan shoreline: Milwaukee, Chicago, IL, and Gary, IN.” *Id.*

Large companies such as Kohler are not the only ones affected. In fact, burdensome regulations far too often have the most detrimental impact on small to medium sized businesses that don’t have the capacity to absorb the costs or loss of labor associated with something like the nonattainment designation. Sheboygan Paint Company is one such example. Started in 1921 and currently employing 75 employees, the company expanded its operation to Cedartown, Georgia in 1984. *Sheboygan Paint Company October 27, 2016 Letter* at 1.¹⁸

The Company noted in its letter in opposition to the proposed rule it “manufacture[s] industrial coatings and are subject to stringent manufacturing limitations for our Wisconsin facility.” *Id.* It observed that it has “already reformulated our product offerings to reduce [Hazardous Air Pollutant’s] content which increases our cost per gallon and is not required of all paint manufacturers.” *Id.* Ominously, it predicted that “[f]orcing Wisconsin to establish a new SIP could result in our plant in Wisconsin having to transfer production to our Georgia facility which does not have comparable restrictions.” *Id.* (emphasis added).

Plymouth Foam (“PFI”) is another example of a small company that for far too long has been negatively impacted by the County’s nonattainment designation. It stands to lose even more in the event the proposed rule takes effect. It began its letter in opposition to the proposed rule noting its 150 employees provide the area with not only taxes and local spending, but also are community involved through churches, volunteering, and community leadership. *Plymouth Foam October 27, 2016 Letter* at 1.¹⁹

Plymouth Foam offered the following powerful example of the very real and direct impact of the nonattainment designation:

PFI operates as a Title V permit holder, using an RTO system to collect and destroy the components considered VOC's in the material used. This system burns natural gas and needs to maintain a minimum temperature of 1400F, which adds over \$300,000 per year to the overhead costs. Our nearest competition is in Fond du Lac County, only 25 miles west and they do not have to comply by the same requirements due to the attainment status of the county. This puts the competition at a nice advantage when quoting similar jobs.

PFI has shown over the past 5 years to be a very advanced company in their industry and constantly is adding equipment and operations to their portfolio. Their permit has not sat idle for more than 8 months and is constantly in need of change. The offsets involved put restrictions on these needed changes and with the proposed change, the increase of these offsets could restrict the future growth that customers are requesting from PFI. Id.

Nonattainment Consequences

The specific consequences which result from a nonattainment designation under the Clean Air Act can be devastating. Generally, the consequences come in the form of increased costs to industry, permitting delays, restrictions on industry expansion within a geographic area, and delay in transportation planning. There are also increased costs to businesses and consumers due to special requirements for vehicles, fuels sold in the area, and regulations attached to commercial and consumer products. Below are several key consequences:

Table 3. Nonattainment Designation Consequences ²⁰

POLICY IMPACT	EXPLANATION
Economic Development	The loss of industry and economic development can be particularly acute in nonattainment areas. Companies interested in building, or expanding, manufacturing footprints may choose to avoid nonattainment designated counties due to increased costs, delays, and uncertainties associated with the restrictive permit requirements.
Federal Highway and Other Transit Funding	Federally supported highway and transit projects may be altered or delayed in nonattainment areas if the state cannot demonstrate that a project will not increase applicable emissions levels.

Emission Offsets	Companies located in nonattainment areas must offset projected emissions of proposed infrastructure (i.e. a new plant) or a major modification to existing infrastructure by purchasing unused emissions credits from others, or by reducing one's own emissions. In ozone nonattainment zones, offsets typically must be greater than 1:1.5 (e.g. a ton of offsets per ton of emissions). ²¹ The ability to purchase emissions credits becomes increasingly difficult as the available emissions credits are used up over time. Similarly, the ability to reduce existing emissions at a plant that is proposing a major modification may be difficult or impossible for sources that already meet stringent standards and have installed emissions control equipment. Simply put, where no offset can be found, the project may not go forward.
Foreign Sources of Emissions	Certain states may have to provide compensation for contributions to ambient concentrations in an area coming from foreign sources (such as Canada) in order to reach attainment with the NAAQS.
Additional Permitting Requirements	Companies that plan to build a new facility or construct a major modification to an existing facility in, or near, a nonattainment area can be required to install the most effective emission reduction technology without consideration of cost. Less stringent controls may be installed in attainment areas. The permitting process can be expected to last a year or longer as companies work to demonstrate proposals meet application nonattainment requirements. These differences tend to discourage new business investment in nonattainment areas compared with moving to an attainment area.
EPA Involvement in Permitting Decisions	The EPA in certain cases can intervene and require permit revisions, even after a state and company seeking the permit have negotiated terms of a final permit. This can cause tremendous uncertainty, delay, and increased costs in the permitting process.
Continuing EPA Oversight	EPA oversight continues even after standards are eventually met in nonattainment areas. Before a nonattainment area can be redesignated as an attainment area, EPA must make a finding that 1) the area has met the standard (with respect to ozone standards, this requires compliance for at least three consecutive years), 2) the improvement in the area's air quality is due to permanent and enforceable emissions reductions, and 3) the area has an approved maintenance plan and an approved contingency plan that contain enforceable requirements to keep the area from lapsing into nonattainment again.

<p>Technical and Formula Changes for Commercial and Consumer Products</p>	<p>In order to meet the NAAQS standard, some state implementation plans may include regulations that would reduce the pollutant or its chemical precursors (e.g. for ozone, certain types of Volatile Organic Compounds (“VOC”)), by requiring changes to operating processes, to a products technical design, or to actual chemical formulation of commercial or consumer products, such as paint, which may result in increased costs to users or differences in performance.</p>
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Nonattainment Real World Implications

As with any policy analysis, the real world implications of a regulatory decision are best described by those who will have to (or are currently) managing the impact of decisions on day-to-day operations.

Steve Steinpreis of Plymouth Foam noted several additional concerns in a recent interview with WILL. Steve began by noting the nonattainment standards affect “ people who want to move here. They look at the air quality standards that are published out there and they put their hands up... do I really want to move to Sheboygan County?” This despite receiving ratings as “one of the most economical, people friendly, school friendly, children friendly, business friendly counties in the Midwest.” *WILL Video Report*, July 12, 2017.

With respect to the business impact, Steve emphasized the requirement to purchase new equipment. “For us to get a new piece of equipment, it takes three to four months to get through regulations to get that equipment installed. It might only take you three weeks to get the piece of equipment, but it takes three to four months to go through permitting to get that piece of equipment installed. From a business standpoint, what it’s costing us is time and money. We have a competitor that’s really in the next county—same volume in a year...their permit is two pages long, my permit is fourteen pages long. I have a lot of restrictions in my permit that I have to follow. My competitor doesn’t have those for making the same product.” *Id.*

As an environmental engineer with the consulting firm Short Elliott Hendrickson, Tom Henning is familiar with the burdens placed on businesses in nonattainment zones. Among other things, he noted that “many manufacturers need to obtain air permits from the state of Wisconsin prior to building a new facility or prior to expanding an existing facility. The air permit regulates the allowable air emissions from the plant and the types of air emission control systems the plant must use. Air permit requirements can be more restrictive for some facilities located in counties that do not meet ambient air quality standards, such as Sheboygan County. This situation can persuade owners looking to site a new facility to choose a location other than Sheboygan County. Existing facilities may choose to expand elsewhere where the requirements are less restrictive.” *Id.*

Tom explained how two requirements in particular are challenging for some facilities to comply with. First, “some new or expanding manufacturing facilities must install air emission control technology that is more stringent that required in surrounding counties. These technologies can be very expensive and result in prospective manufacturers looking to other locations to site new manufacturing plants.” *Id.*

Second, “the most challenging requirement is the need to obtain emission offsets. An offset is a reduction in emissions at another facility located in the same county that will ‘offset’ the emissions from the new or expanding facility. An owner that wants to site a new large manufacturing plant in Sheboygan County must find an existing facility in Sheboygan County with emission reductions that will ‘offset’ the emissions from the new plant.” *Id.*

The two significant problems associated with the requirement are that “offsets can be hard to find and therefore expensive or, worse yet, they might not be available. If there are no offsets available, the new or expanding facility cannot obtain the permit needed to move forward with a given project.” *Id.*

Lucas Vebber, WMC’s Director of Environmental & Energy Policy, has emphasized the concept of Sheboygan being a “no growth” zone. The designation is more than simply symbolic. It is true that the higher regulations affect the bottom lines of business and may indirectly prevent employees from relocating to the County. However, as Vebber points out, the “offsets” alluded to by Sheboygan Foam literally create nonattainment zones where no future growth or expansion is permitted unless and until an “offset” is identified elsewhere in the County. According to Vebber:

Anybody who looks to grow an operation or site a new facility in a nonattainment zone has to find emission offsets before they can grow or put new emissions into the atmosphere. If you are a business that finds yourself in a nonattainment zone the biggest thing that hits you is what’s called a nonoffset requirement. For every unit of criteria pollutant that you may put into the atmosphere... you have to find offsets that are greater than what you may emit depending on the level of nonattainment. There is a ratio that comes into play.

We call these areas “no grow” zones—**when you are a nonattainment zone you literally cannot grow.** If you add any pollution—any growth, any emissions into the atmosphere—you have to first offset that with a greater reduction than you are already putting in. So the net is a loss, it’s a no grow zone, it’s actually in fact a shrinking zone for economic development which creates trouble and problems for any area that finds itself in that situation which many Wisconsin communities are looking at now under the new ozone standards. *Id.* (Emphasis added).

Vebber added that the consequences are not simply limited to the business community. Counties that are found to be nonattainment may also face regulations which directly affect the personal lifestyle choices made by residents.

When you find yourself in a nonattainment zone residents of those areas can also be impacted depending on how severe the nonattainment is. You could find yourself having to go annually to get your dreaded emissions test. It’s a burden on the people of those counties. There’s almost any number of regulatory solutions that the state could impose on the residents of those counties, whether it’s restrictions on when you can mow your lawn, drive your car, run other engines—it’s a limitless burden that could hit the people of those communities. *Id.*

Finally, Jane Brill, Marketing and Program Director for the Sheboygan Chamber of Commerce, is all too familiar with the impact of the nonattainment designation on employee retention and attraction.²² She works closely with Sheboygan's business community—from large employers like Kohler Co. to smaller local shops like Sheboygan Paint and Sheboygan Foam. She noted "Sheboygan County has over 2,500 jobs available. We have been experiencing incredibly strong economic growth due to our world-class companies and our tourism industry. We have miles of sandy beach along one of the greatest natural resources in the world—Lake Michigan. Our border to the west is the Kettle Moraine with its amazing natural features that are remnants of the glaciers." *Id.* Her description certainly makes one want to consider relocating to Sheboygan. However, the reality has been quite the opposite.

She lamented that "even though our landscape, world class companies, quality of life, vibrant arts and culture scene are among the best in the state, we, like other Wisconsin communities, experience difficulty attracting and retaining workforce. But Sheboygan County has an additional obstacle to overcome—our perceived poor air quality." *Id.* Jane is all too familiar with the complaints made by prospective employees. She noted the obvious. "When one is considering relocating to an area, what steps are taken? One researches the area, the businesses, communities, schools, available activities and the overall environment, including air quality. The Sheboygan County Chamber of Commerce annually receives hundreds of phone calls from tourists and those looking to relocate." *Id.*

Anecdotally, she commented that "as with any community, business leaders and friends discuss what is happening. A business owner in Sheboygan recently shared a story with me of a family member looking to relocate to Sheboygan from Oregon. In researching our County, they saw our air quality rating by the American Lung Association was an F, even though our air quality is significantly improving. The family member chose not to move here. **How many others have we lost?**" *Id.* (emphasis added).

IV. Other Counties May be in EPA's Crosshairs

While the issue of the placement of air quality monitors and certain aspects of the nonattainment designations by the EPA are unique to Sheboygan County, other Wisconsin counties along the shores of Lake Michigan should take note, if they haven't done so already. Already underway are the requirements under the 2015 Ozone NAAQS, which lowers the acceptable ozone standard to 70 ppb, as opposed to the 75 ppb under the 2008 Ozone NAAQS.

On October 1, 2016, states were required to submit area recommendations to the EPA. Governor Walker submitted Wisconsin's recommendation to the EPA on September 21, 2016, that all Wisconsin counties be designated as within attainment. EPA was scheduled to notify states concerning any intended modifications to state recommendations by June 2, 2017. A week later, EPA was then to publish its notice of designation recommendations and initiate the 30-day public comment period. States would then have roughly two months to submit additional information, if any, to respond to the EPA's modification of a recommended designation. No later than October 1, the EPA was to promulgate final nonattainment area designations.

In an interesting twist, the EPA issued a one-year delay for states to submit SIPs.²³ While the reprieve has certainly been appreciated by states, it is important to note that the EPA decision simply represents a delay in submitting SIPs and more importantly, does not affect any of the nonattainment standards or in any way address the lack of flexibility. In other words, without further action the various requirements detailed above remain.

So even with the additional year, what this means for counties along the western shores of Lake Michigan is that by the end of 2018, they are likely to be facing a nonattainment designation from the EPA. In Milwaukee County, the Bayside monitor site's current 2014-16 design values register an average concentration of 71 ppb. In Ozaukee County, the Grafton monitor site's current 2014-16 design values register an average concentration of 72 ppb while the Harrington Beach's monitor site registers a value of 73 ppb. In Manitowoc County, its monitor site's current 2014-16 design values register an average concentration of 72 ppm. Finally, in Door County, the Newport monitor site's current 2014-16 design values register an average concentration of 72 ppb. All of these levels obviously register at amounts greater than the limit of 70 ppb, therefore triggering an EPA nonattainment designation.

V. Congressional Solutions

There are several actions Congress could take up to prevent these sorts of problems from taking place in the future. Many are common sense solutions that need to be considered NOW. Below are suggested revisions to the CAA that Congress can directly consider as well as administrative actions which Congress could encourage the EPA take specifically with respect to Sheboygan County.

Out of State Pollutants. As established by the LADCO modeling and explained above, Sheboygan County contributes a minimal amount of pollutants to the state. The data from Figure 2 above further shows the ozone precursor emissions have significantly fallen in the County since 2008. Therefore, as WMC and others have concluded, Sheboygan County has been unfairly affected by out of state pollutants. Congress should amend the CAA to prohibit implementation of a nonattainment new source review and other nonattainment penalties in nonattainment areas where more than 50% of the nonattainment is caused by out of state emission sources.²⁴

Position of Monitors. If a state, in concert with a local unit of government, has established a second air monitor, Congress should demand the EPA provide flexibility so that the most accurate data reflective of the actual air quality is captured and relied on for purposes of establishing attainment or nonattainment areas, as the case may be.

Specifically, Congress should allow states to move the location of NAAQS monitors, even if it is currently demonstrating nonattainment, if the move would put a monitor in a location where it measures impacts on a greater number of human receptors. In addition, Congress should allow states to eliminate a NAAQS monitor in a given county if a second monitor has been operational for at least three years. Finally, Congress should direct under the CAA that riparian monitors be used for regulating pollution transport and not for purposes of making nonattainment designations.²⁵ In other words, Wisconsin can eliminate this crushing burden on Sheboygan County if the federal government would simply get out of the way and provide the state with the flexibility to determine the best course for collecting the most accurate data.

Adjusting Nonattainment Borders. Congress should encourage the EPA to change the geographic boundaries of the Sheboygan nonattainment area to exclude those portions of the County which are clearly in attainment according to data from the Haven monitor. As illustrated by the figures above, while the Kohler Andrae monitor site's current 2014-16 design values register an average concentration of 79 ppb, above the permissible 70 ppm, the Haven monitor site's current 2014-16 design values register an average concentration of 69 ppb, below the permissible 70 ppb.

The EPA should consider minimizing the boundaries of nonattainment areas to just those areas with air quality truly representative of concentrations measured by riparian monitors, which could include splitting counties and/or changing the EPA policy for grouping multiple counties in urban areas.²⁶

In his response to the proposed rule, Congressman Grothman similarly suggested the following:

I also believe that it would be prudent for the EPA to explore the option of changing the borders of the Sheboygan County nonattainment area. The data clearly shows that there are statistically significant differences between the shoreline and areas slightly more inland. These differences should be taken into consideration when drawing the geographic borders of the nonattainment area. It does not make sense to subject areas of the county that are already within attainment to the same blanket regulations as the areas of the county that are out of attainment. *Id.*

Role of Congress in NAAQS Standards. To avoid similar situations in the future and in order to provide more effective oversight of EPA actions, Congress should consider requiring Congressional approval for any revision to a NAAQS. This would allow Congress to prevent additional regulatory burdens. In addition, Congress should require an economic impact analysis for any revision to a NAAQS, which would quantify the economic impact of additional regulations on communities such as Sheboygan County.

Extending Deadline for SIP Plans. At a minimum, Congress should encourage the EPA to use its discretion afforded in Clean Air Act Section 182(i) to allow the state more time to develop the required moderate area SIP elements. As WMC emphasized in its letter in opposition to the proposed rule, the discretion afforded the EPA is explicit:

Each State containing an ozone nonattainment area reclassified under section 7511(b)(2) of this title shall meet such requirements of subsections (b) through (d) of this section as may be applicable to the area as reclassified, according to the schedules prescribed in connection with such requirements, except that the Administrator may adjust any applicable deadlines (other than attainment dates) to the extent such adjustment is necessary or appropriate to assure consistency among the required submissions.

WMC Letter at 5. WMC emphasized that utilizing such discretion is especially timely seeing that the air quality data now available from the Haven monitor shows air quality measurements that are in compliance. Extending the timeline for the state of Wisconsin to submit its SIP would provide the County with additional opportunities to develop strategies that will help with the enhanced regulatory burden associated with a moderate nonattainment designation.

This accommodation would also recognize the near impossibility of the EPA expectation of the state. Remember, as explained by WMC, EPA's federal register notice states "Moderate nonattainment areas are required to attain the standard 'as expeditiously as practicable' but not later than six years after the initial designation as nonattainment," which is July 20, 2018 for Sheboygan County.

This means the state of Wisconsin is expected to develop a SIP that will get the County in attainment with only one year of ozone emissions measured after it begins to implement that SIP. This would require the fourth highest ozone value for 2017 to be at or below 0.059 ppm—a number that is below background levels. Nothing the state or County does (especially when the vast majority of contributing parts emanate from outside the County and even the state) could achieve such a result.

Conclusion

While the above recommendations would represent aggressive revisions to the Clean Air Act, there is room for optimism in light of President Trump's March 31, 2017 Executive Order—Promoting Energy Independence and Economic Growth.

The stated policy of the order declares that “[i]t is in the national interest to promote clean and safe development of our Nation’s vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.” The order directs “all agencies should take appropriate actions to promote clean air and clean water for the American people, while also respecting the proper roles of the Congress and the States concerning these matters in our constitutional republic.” (emphasis added)

Sheboygan County is home to dynamic companies, many of which contribute significantly to the local communities. As a County that lies along the beautiful shores of Lake Michigan, the County’s residents and employers share a love for their environment. However, for nearly twenty years the EPA has allowed a poorly placed compliance monitor to hold Sheboygan County accountable for pollution that is almost entirely generated elsewhere. The regulations that accompany the accountability required by EPA cost local businesses and create a narrative of a pollution-filled county that deflects those considering relocating to Sheboygan County.

As detailed above, the use of one poorly placed monitor may cripple the local economy, creating what many consider a “no growth” zone, where economic growth is essentially neutralized. As WMC’s Vebber summarized, “in Sheboygan County in particular, and other Wisconsin lakeshore counties, it’s something that’s not the fault of the people in those counties. They are paying for other states’ pollution and there’s nothing they can do to get out of that burden—because of an inflexible federal law.” WILL Video Report, July 12, 2017. The prescriptions included in this policy brief would in many ways alleviate the struggle Sheboygan is fighting. Congress should act NOW to provide flexibility to the state of Wisconsin and its local units of government so they can work in concert to preserve a shared environment without undermining local business.

- ¹ Special thanks to Lucas Vebber, General Counsel and Director of Environmental and Energy Policy at the Wisconsin Manufacturers & Commerce, for his significant contributions to this Policy Brief.
- ² According to the EPA, the CAA (last amended in 1990) “requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment.” The CAA focuses on two types of national ambient air quality standards—primary and secondary. Primary standards “provide health protection, including protecting the health of ‘sensitive’ populations such as asthmatics, children, and the elderly” while secondary standards “provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation and buildings.” See <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.
- ³ Standards have been set by the EPA for six principal pollutants under the NAAQS. These six pollutants are called “criteria” air pollutants. They include carbon monoxide (CO), lead (Pb), Nitrogen Dioxide (NO₂), Ozone (O₃), particle pollution (PM), and Sulfur Dioxide (SO₂). At issue in Sheboygan County is the appropriate levels of Ozone, which is considered by the EPA both of primary and secondary concern and is limited to .070 ppm, as calculated by the annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years (the previous limit under the 2008 ozone NAAQS was .075 ppm) (the “design value”).
- ⁴ CAA section 181(b)(2) requires EPA to determine, based on an area’s ozone design value as of the area’s attainment deadline, whether the area has attained the ozone standard by that date. Areas that have not attained the standard by their attainment deadlines must then, under the terms of the CAA, be reclassified to the next “highest” classification, i.e. from “marginal” to “moderate” or from “moderate” to “serious.”
- ⁵ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0001>
- ⁶ <http://dnr.wi.gov/topic/AirQuality/documents/input/DraftSheboyganAttainPlan.pdf>
- ⁷ <http://dnr.wi.gov/topic/airquality/input.html>
- ⁸ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0005>
- ⁹ See Lake Michigan Air Directors Consortium, “White Paper: Lake Michigan Ozone Study 2017.” Available at http://ladco.org/reports/ozone/post08/Great_Lakes_Ozone_Study_White_Paper_Draft_v6.pdf, stating: “LADCO source apportionment modeling studies suggest that Wisconsin contributes to less than 10% of the ozone at Sheboygan..., significantly limiting the state’s options to reduce ozone concentrations at this site”.
- ¹⁰ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0008>
- ¹¹ In addition to the inland Haven monitor, other counties are experiencing a similar dynamic with both a riparian monitor and an inland monitor located within a single jurisdiction. For example, in Milwaukee County, the riparian monitor located in Bayside shows much higher ozone levels than the two monitors located further inland in downtown Milwaukee. In Kenosha County, the riparian monitor located at the Chiswaukee Prairie State Natural Area registers much higher ozone levels than the inland Kenosha Water Tower monitor.
- ¹² Wisconsin Department of Natural Resources, “Air Quality Reports.” Available at: <https://dnrx.wisconsin.gov/wisards/webreports/generateAdvancedReports.do>
- ¹³ <https://www-air.larc.nasa.gov/missions/lmos/>
- ¹⁴ U.S. Environmental Protection Agency, “2014 NEI Data.” Available at: <https://www.epa.gov/air-emissions-inventories/2014-nei-data>
- ¹⁵ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0002>
- ¹⁶ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0006>
- ¹⁷ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0007>
- ¹⁸ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0004>
- ¹⁹ <https://www.regulations.gov/document?D=EPA-R05-OAR-2016-0277-0003>
- ²⁰ Special thanks to Steve Steinpreis, Director at Plymouth Foam, for his expertise in preparing the listing of nonattainment designation consequences.
- ²¹ The EPA maintains a full listing of ratios for all nonattainment classifications. See <https://www.epa.gov/ozone-pollution/required-sip-elements-nonattainment-classification>.
- ²² For further evidence of the negative impact the designation can have on recruitment efforts, see organizations like the American Lung Foundation, which “grades” counties on air quality and has recently designated Sheboygan County as a “failing” county for air quality standards, a grade which almost certainly startles and potentially scares away families looking to relocate to Sheboygan for employment purposes. Importantly, the methodology used by the Association to determine the “grades” relies almost exclusively on the EPA nonattainment designations. See <http://www.lung.org/assets/documents/healthy-air/state-of-the-air/state-of-the-air-2017.pdf>.
- ²³ <https://www.epa.gov/newsreleases/epa-extend-deadline-2015-ozone-naaqs-area-designations>
- ²⁴ See supra note 3. Source apportionment modeling from the Lake Michigan Air Directors Consortium (LADCO) suggests that “all of the sources in the entire State of Wisconsin contribute less than 10% of the ozone being detected.”
- ²⁵ <https://www.epa.gov/newsreleases/epa-extend-deadline-2015-ozone-naaqs-area-designations>
- ²⁶ See Michael Best & Friedrich LLP white paper, Creating a More Equitable and Accurate Ozone Attainment Designation Process.



Bloodgood House
1139 East Knapp Street
Milwaukee, WI 53202

will-law.org
414-727-9455



@WILawLiberty