



June 27, 2013

Dr. Susan Hedman  
U.S. Environmental Protection Agency (EPA) - Region 5  
77 West Jackson Boulevard  
Mail Code: R-19J  
Chicago, IL 60604-3507

Subject: Reconsideration Request - Sheboygan County Ozone Nonattainment Area

Dear Regional Administrator Hedman:

The purpose of this letter is to request that the U.S. EPA reconsider the current ozone nonattainment boundary for the 1997 and 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) for Sheboygan County, WI. This request for a narrower nonattainment area is justified because it continues to protect public health and is supported by sound science.

Nonattainment designations can have serious economic consequences and they should be limited to the geographic areas that are actually violating the applicable NAAQS. Furthermore, Sheboygan County is in a unique position given that they are impacted so heavily by out-of-state pollution transported into the area. For example, a recent analysis by the U.S. EPA, as part of the technical work conducted for the Cross-State Air Pollution Rule (CSAPR), showed that Illinois contributes 34.2%, Indiana contributes 13.6%, Wisconsin contributes 10.2%, and Michigan contributes 3.8% to Sheboygan County ozone concentrations. In addition, of the 44 counties near Lake Michigan highlighted in blue in Figure 1 (see attachment), Sheboygan County only accounts for 1.5% of the total nitrogen oxide (NO<sub>x</sub>) emissions and 1.4% of the total volatile organic compound (VOC) emissions in these counties.

Currently, there is only one ozone monitor in Sheboygan County located in the Kohler-Andrae State Park, directly along the Lake Michigan shoreline. Ozone design values at this monitor were 78, 81, and 87 parts per billion (ppb) in 2008 – 2010, 2009 – 2011, and 2010 – 2012, respectively. From 1999 through 2003, the WDNR operated a second ozone monitor in Sheboygan County located in Sheboygan Falls, WI. In addition, the WDNR currently operates one ozone monitor in Fond du Lac County, which is directly to the west of Sheboygan County. Ozone design values at this monitor were 63, 67, and 71 ppb in 2008 – 2010, 2009 – 2011, and 2010 – 2012, respectively. The location of these three monitoring sites is shown in Figure 2 (see attachment).

The WDNR analyzed comparable ozone data from the Fond du Lac, Kohler-Andrae State Park, and Sheboygan Falls ozone monitors from 1999 through 2003. On average, ozone design values were 5.9% lower at the Fond du Lac monitor and 16.7% higher at the Kohler-Andrae State Park monitor, as compared to the Sheboygan Falls monitor. Declining ozone concentrations from east to west is not a surprising result given that the highest ozone concentrations are typically observed along the lakeshore due to ozone formation over Lake Michigan being brought onshore by lake breezes, a confirmed and widely recognized meteorological phenomenon. The following table shows the ozone design values for the three monitoring sites from 1999 through 2003.

**Table 1:** Comparable Ozone Design Values

Monitor Name	1999 – 2001	2000 – 2002	2001 - 2003
Sheboygan Falls (S.F.)	82 ppb	83 ppb	87 ppb
Kohler-Andrae State Park	95 ppb (15.9% Higher Than S.F.)	99 ppb (19.3% Higher Than S.F.)	100 ppb (14.9% Higher Than S.F.)
Fond du Lac	80 ppb (2.4% Lower Than S.F.)	77 ppb (7.2% Lower Than S.F.)	80 ppb (8.0% Lower Than S.F.)

Based on the 1999 through 2003 ozone data, the WDNR conservatively estimates that the design values at the Sheboygan Falls ozone monitor would have been 67, 71, and 75 ppb for the periods 2008 – 2010, 2009 – 2011, and 2010 – 2012, respectively, if this monitor were still operating. These values were derived by selecting the highest estimated design value for each recent three-year period based on the prior percent differences when comparing the Sheboygan Falls monitor to the Kohler-Andrae State Park and Fond du Lac monitors. The Sheboygan Falls design value calculations are shown in the following table.

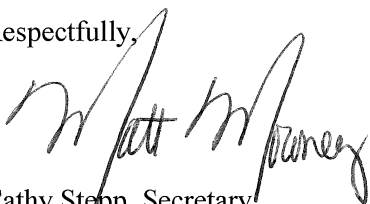
**Table 2:** Sheboygan Falls Estimated Design Values

Three Year Period	Estimated Sheboygan Falls Design Values Based on Kohler-Andrae State Park Design Values	Estimated Sheboygan Falls Design Values Based on Fond du Lac Design Values	Highest Estimated Sheboygan Falls Design Values
2008 – 2010	$78 \text{ ppb} - (78 \text{ ppb} \times 16.7\%) = 65 \text{ ppb}$	$63 \text{ ppb} + (63 \text{ ppb} \times 5.9\%) = 67 \text{ ppb}$	67 ppb
2009 – 2011	$81 \text{ ppb} - (81 \text{ ppb} \times 16.7\%) = 67 \text{ ppb}$	$67 \text{ ppb} + (67 \text{ ppb} \times 5.9\%) = 71 \text{ ppb}$	71 ppb
2010 – 2012	$87 \text{ ppb} - (87 \text{ ppb} \times 16.7\%) = 72 \text{ ppb}$	$71 \text{ ppb} + (71 \text{ ppb} \times 5.9\%) = 75 \text{ ppb}$	75 ppb

Based on this information, the WDNR believes the current nonattainment area boundary should be changed to a boundary supported by the 2010 – 2012 data, as depicted in Figure 3 (see attachment). This approach incorporates an adequate margin of safety to be protective of public health because of the abnormally high ozone concentrations recorded in 2012 due to meteorological conditions very favorable for ozone formation. For regulatory implementation purposes, the WDNR recommends that the U.S. EPA formally revise the current ozone nonattainment area to the municipalities outlined in Figure 4 (see attachment).

Again, the WDNR formally requests the U.S. EPA to reconsider the current nonattainment boundary for Sheboygan County, WI. I have directed my staff to work with the U.S. EPA to provide any additional technical information that may be needed in support of this effort. Please contact Mr. Bart Sponseller, Air Management Bureau Director, if you have any questions or need any further information from the WDNR. He can be reached by phone at (608) 264-8537 or e-mail at [Bart.Sponseller@wisconsin.gov](mailto:Bart.Sponseller@wisconsin.gov).

Respectfully,



Cathy Stepp, Secretary  
Wisconsin Department of Natural Resources

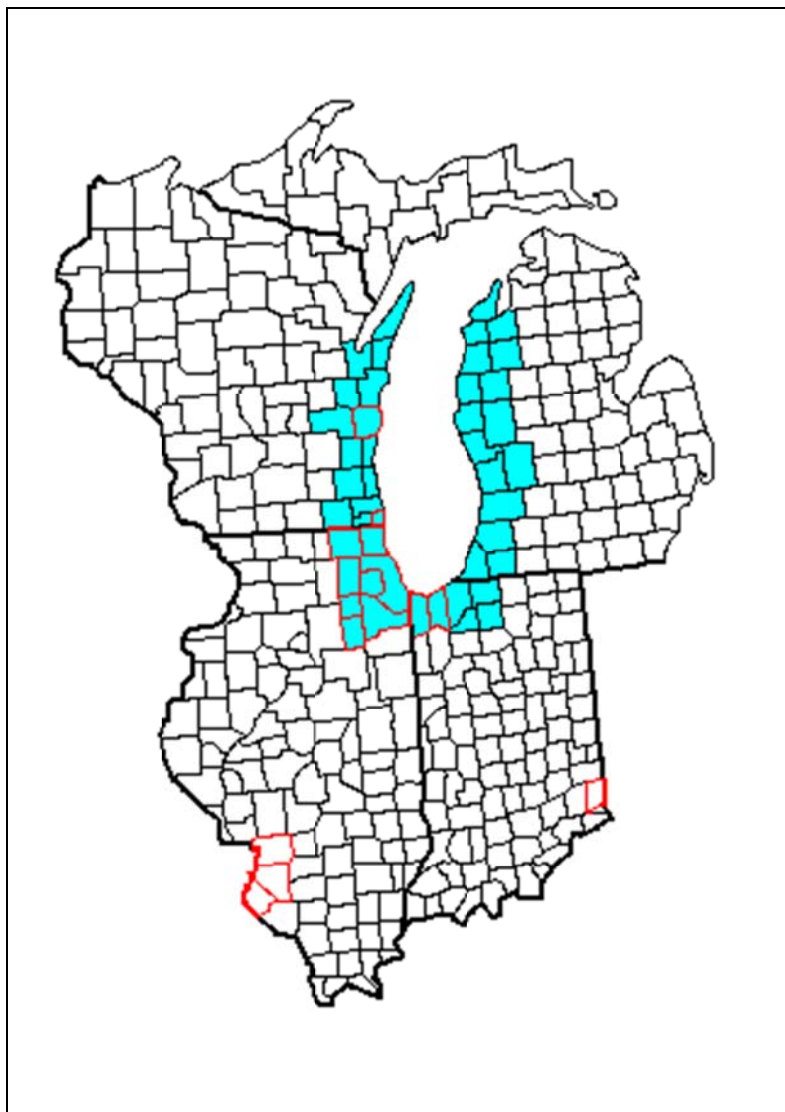
cc:

Governor Walker	George Czerniak, U.S. EPA Region V	Patrick Stevens, WDNR – AD/8
U.S. Senator Baldwin	John Mooney, U.S. EPA Region V	Bart Sponseller, WDNR – AM/7
U.S. Senator Johnson	Douglas Aburano, U.S. EPA Region V	Joseph Hoch, WDNR – AM/7
U.S. Representative Petri	Dane Checolinski, Sheboygan County Economic Development Corporation	Gail Good, WDNR – AM/7
State Senator Grothman		
State Senator Leibham	Gary Dulmes, Sheboygan County Economic Development Corporation	
State Representative Endsley	Adam Payne, Sheboygan County Administrator	
State Representative Kestell		
State Representative LeMahieu	Sheboygan County Chamber of Commerce Board Members C/O David Gass	

Attachment: Referenced Figures 1, 2, 3, and 4

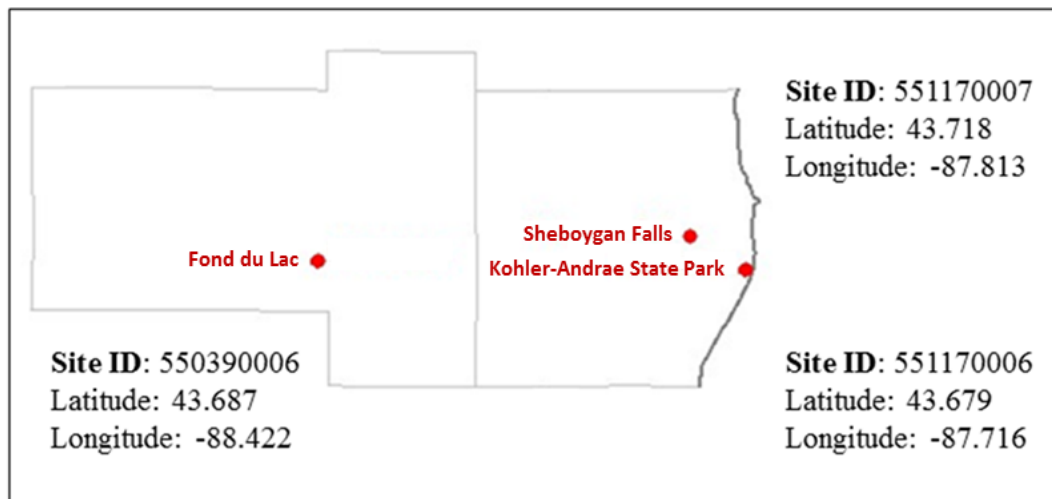
**ATTACHMENT**

**Figure 1:** Forty-Four Counties of Interest around Lake Michigan

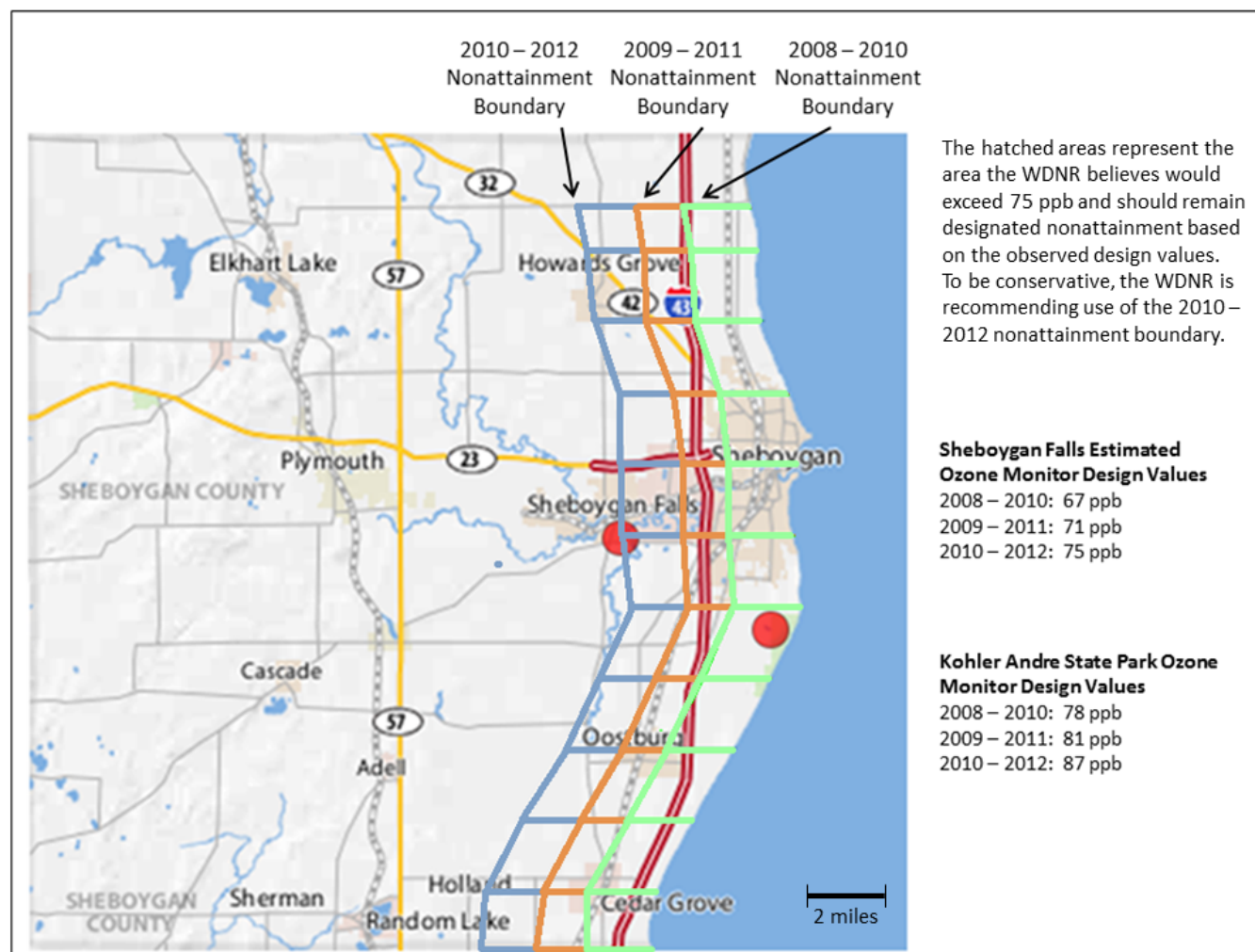


\*Current ozone nonattainment areas are outlined in red.

**Figure 2:** Ozone Monitors in Fond du Lac and Sheboygan County



**Figure 3:** Potential Nonattainment Boundaries for Sheboygan County



1997 8-Hour Ozone Standard – 84 ppb

2008 8-Hour Ozone Standard – 75 ppb

**Figure 4:** Recommended Sheboygan County Municipalities for Revised Ozone Nonattainment Area

Recommended Municipalities for Ozone Nonattainment Outlined in Blue

Town of Mosel  
Town of Holland  
Town of Sheboygan  
Town of Wilson

Village of Cedar Grove  
Village of Howards Grove  
Village of Kohler  
Village of Oostburg

City of Sheboygan  
City of Sheboygan Falls

