

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO

ENVIRONMENTAL LAW AND POLICY)	
CENTER, et al.,)	
Plaintiffs,)	
)	No. 17-cv-1514
v.)	
)	Hon. James G. Carr
UNITED STATES ENVIRONMENTAL)	
PROTECTION AGENCY, et al.,)	
Defendants.)	
)	

PLAINTIFFS' MOTION FOR SUMMARY JUDGEMENT

Pursuant to Federal Rule of Civil Procedure 56 and Local Rules 7.1 and 7.2, Plaintiffs respectfully move the Court for entry of an Order granting summary judgment in their favor. As detailed in the accompanying Memorandum in Support, on May 19, 2017, Defendant the United States Environmental Protection Agency approved a decision by the Ohio Environmental Protection Agency to ignore the problem of phosphorus pollution on the open waters of western Lake Erie that causes significant and recurring harmful algal blooms. This approval contravened the Administrative Procedure Act, 5 U.S.C. § 706(2)(A), because it was arbitrary, capricious, and not in accordance with the Clean Water Act. Therefore, Plaintiffs are entitled to summary judgment as a matter of law. Plaintiffs also respectfully request oral argument as the Court deems appropriate.

Dated: January 16, 2018

Respectfully Submitted,

/s/Madeline Fleisher

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**MEMORANDUM IN SUPPORT OF PLAINTIFFS’
MOTION FOR SUMMARY JUDGMENT**

I. INTRODUCTION

There is a severe water quality crisis in Lake Erie that the U.S. Environmental Protection Agency (“U.S. EPA”) has failed to address as required by the Clean Water Act (“CWA”). Phosphorus pollution, primarily from agricultural fertilizer and manure runoff, is causing the growth of algal blooms across western Lake Erie. This material fact is not in dispute, nor can it be. The U.S. EPA admits that: (1) these algal blooms have occurred, Answer ¶ 1; (2) phosphorus pollution can contribute to them, Answer ¶ 4; and (3) among their other adverse effects, they are “able to produce and release toxins such as microcystin, which can sicken people and pets, and also sicken or even kill aquatic life.” Answer ¶ 4. U.S. EPA also approved the 2016 decision by the Michigan Department of Environmental Quality, based on sound scientific analysis of this factual evidence, that phosphorus pollution is causing the “impairment” of western Lake Erie under Section 303(d) of the CWA, 33 U.S.C. § 1313(d). Yet U.S. EPA has allowed the Ohio Environmental Protection Agency (“Ohio EPA”) to avoid evaluating the effects of the *same* pollution on the contiguous open waters on the *same* waterbody. The agency’s decision violated the Administrative Procedure Act because it is arbitrary, capricious, and contrary to the requirements of the CWA. Accordingly, this Court should require U.S. EPA to evaluate Ohio’s portion of the open waters of western Lake Erie itself and address the phosphorus pollution causing the waterbody’s impairment, consistent with 40 C.F.R. § 130.7(d)(2).

The CWA requires states to take actions to alleviate the water quality problems that all parties admit exist in western Lake Erie. Every two years, states must “assemble and evaluate all existing and readily available water quality-related data and information” 40 C.F.R. § 130.7(b)(5). Based on this information, the state must determine whether each waterbody in its

jurisdiction meets the relevant water quality standards. If the waterbody does *not* meet such standards, the state *must* add that waterbody to its list of “impaired” waterbodies under CWA Section 303(d). 33 U.S.C. § 1313(d). The state must then transmit its “Section 303(d)” list to U.S. EPA for approval.

U.S. EPA “*shall* approve [a Section 303(d) list]...*only if* it meets the requirements of 130.7(b),” including the requirement to assemble and evaluate all relevant data. 40 C.F.R. § 130.7(d)(2) (emphases added). Adding a water body to an approved Section 303(d) list triggers the requirement for the state or U.S. EPA to undertake a process to address the pollution causing its impairment. The CWA thus codifies the principle that the first step to solving a problem is recognizing that there is one.

In this case, U.S. EPA has conceded that Ohio EPA failed to assemble and evaluate water quality data regarding the open waters of western Lake Erie. Answer ¶ 129. Even after U.S. EPA directed Ohio EPA to conduct an assessment of these waters, Ohio EPA declined and refused to include the open waters of western Lake Erie on its Section 303(d) list. Under these facts and circumstances, U.S. EPA had a mandatory duty to disapprove this list, but instead approved it.

U.S. EPA’s approval of Ohio EPA’s incomplete Section 303(d) list was arbitrary and capricious, and not in accordance with the law, in violation of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A), and the Clean Water Act, 33 U.S.C. § 1313(d) and 40 C.F.R. §§ 130.7(b), 130.7(d)(2). The Court should therefore grant Plaintiffs’ summary judgment motion. Furthermore, the Court’s order should incorporate the required remedy under 40 C.F.R. § 130.7(d)(2), which imposes a non-discretionary duty on U.S. EPA to assemble and evaluate the data regarding Lake Erie itself and determine whether Ohio’s portion of the open waters of

western Lake Erie are impaired. The Court should order U.S. EPA to complete that evaluation within 30 days, consistent with 40 C.F.R. § 130.7(d)(2), and to further take all steps required by the CWA to address phosphorus pollution in Lake Erie.

II. FACTS

A. Lake Erie's History of Harmful Algal Blooms

Ohio EPA recognizes that “Lake Erie is one of Ohio's crown jewels in terms of economic impact, natural resource value and water supply.” Administrative Record (“A.R.”) at 2085, Ohio EPA, *Financial Incentives to Address Harmful Algal Blooms* 1 (Aug. 2014). However, in recent years that “crown jewel” has suffered from extensive phosphorus pollution.

While phosphorus is often applied to crops on land in the form of manure or fertilizer as a plant nutrient, when it gets into water, phosphorus can drive excessive algae growth. This includes excessive growth of cyanobacteria, commonly known as blue-green algae. This form of toxic algae growth, which has indisputably occurred in the open waters of western Lake Erie, can produce toxins such as microcystin that harm human and animal health by affecting the skin, liver, or nervous system. A.R. at 2626, Ohio EPA, *Final Ohio 2016 Integrated Water Quality Monitoring and Assessment Report* C-28 (Oct. 2016) [hereinafter *Final 2016 Ohio Integrated Report*]. Excessive algae growth in a waterbody can also lead to depleted dissolved oxygen levels, fish kills, unpleasant odors, and other adverse effects. *Id.* Algae blooms can furthermore have a dramatic negative impact on the aesthetic value of a water body:



A.R. at 6943, National Oceanic and Atmospheric Administration Great Lakes Environmental Research Laboratory (“NOAA GLERL”), *Algal Blooms*, flickr [hereinafter *NOAA Algal Blooms Photos*], https://www.flickr.com/photos/noaa_glerl/5842556457/in/album-72157639592150973 (September 3, 2009 Lake Erie Harmful Algal Bloom photo from Ohio Department of Natural Resources).¹ These excessive growths are generally known as “Harmful Algal Blooms” (often referred to as HABs).

For the last several years, Harmful Algal Blooms have grown in western Lake Erie each summer and fall, with damaging and even catastrophic effects. Major Harmful Algal Blooms occurred in 2011, 2013, 2014 and 2015 as documented in the administrative record here. These Harmful Algal Blooms spread across the open waters of the western basin, at times covering hundreds of square miles, as depicted in satellite images from the National Oceanic and Atmospheric Administration:

¹ These and other images of Harmful Algal Blooms on Lake Erie are provided by NOAA’s Great Lakes Environmental Research Laboratory at the following website, included in the record through a placeholder link at A.R. 6943: https://www.flickr.com/photos/noaa_glerl/sets/72157639592150973/with/8741968640. Note that this website URL is from the Certified Index to the Administrative Record at 10; the URL in the actual record appears to provide a link to just one image included in that album.

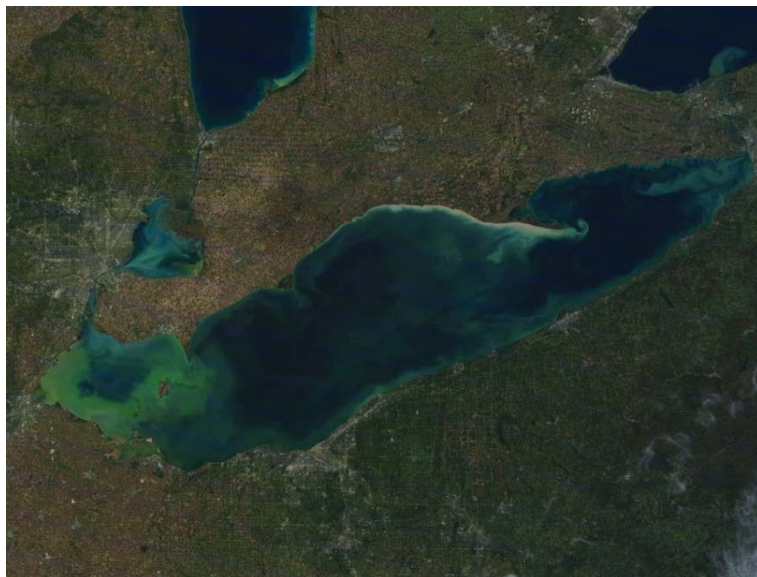
2011 Harmful Algal Bloom



A.R. at 6943, *NOAA Algal Blooms Photos*,

https://www.flickr.com/photos/noaa_glerl/11855895286/in/album-72157639592150973 (NOAA satellite image, Oct. 2011).

2013 Harmful Algal Bloom



Id. at https://www.flickr.com/photos/noaa_glerl/14851138204/in/album-72157639592150973

(NOAA satellite image, Oct. 2013).

2014 Harmful Algal Bloom



Id. at https://www.flickr.com/photos/noaa_glerl/14853579995/in/album-72157639592150973

(NOAA satellite image, Aug. 2014).

2015 Harmful Algal Bloom



Id. at https://www.flickr.com/photos/noaa_glerl/23597606861/in/album-72157639592150973

(NOAA satellite image, July 2015).

These Harmful Algal Blooms undermine the aesthetic, ecological, recreational, and economic value of western Lake Erie. They can also seriously harm public health. In 2014, a Harmful Algal Bloom in western Lake Erie contaminated the water supply in Toledo with the algal toxin microcystin at such high levels that just under half a million people had no access to safe drinking water for three days. A.R. at 2910, *Final 2016 Ohio Integrated Report* at H-4; A.R. at 2341, Letter from the Board of Lucas County Commissioners to Tinka Hyde, Director, Water Division, U.S. EPA Region 5 (Oct. 15, 2015).

Harmful Algal Blooms also regularly hinder recreation on western Lake Erie. A joint U.S. EPA report with Canada's federal environmental agency recognized as early as 2012 that "Lake Erie's ecosystem and economy are under threat from excess algal blooms that have become a regular occurrence throughout the Western basin of the lake during summer months, leading to poor aesthetics, recreational beach closures and reduced tourism revenue." A.R. at 948, U.S. EPA & Environment Canada, *Lake Erie Lakewide Management Plan: Annual Report 2012* 1 (Nov. 2012); *see also* A.R. at 2333, U.S. EPA & Environment Canada, *Lake Erie Lakewide Action and Management Plan: Annual Report 2015* 1 (Jan. 2016). According to the Ohio Travel Association: "Losses [caused by algal blooms] are felt through customers leaving early, cancellations, decreased sales, and negative publicity that chase away potential customers." A.R. at 2199, Ohio Travel Association, *Tourism and Algal Blooms: Economic Impact Fact Sheet 2015* 1 (Aug. 2015).

These harmful and damaging impacts have recurred numerous times in the last several years. In 2011, "measurements of microcystin in Lake Erie were 50 times higher than the World Health Organization (WHO) recommendation for safe recreation, and 1,200 times higher than the WHO safe drinking water limit." A.R. at 1352, Environment Canada & U.S. EPA, *State of*

the Great Lakes 2011 10 (2014). The International Joint Commission, a joint U.S.-Canadian governmental organization, estimated that economic impacts from 2011 beach closures in Ohio caused by such Harmful Algal Blooms and associated impacts on recreational fishing could amount to millions of dollars. A.R. at 1932, International Joint Commission, *A Balanced Diet for Lake Erie: Reducing Phosphorus Loadings and Harmful Algal Blooms, A Report of the Lake Erie Ecosystem Priority* 40 (Feb. 2014). Harmful Algal Blooms and excessive microcystin levels likewise led to public health advisories restricting usage of beaches in Lake Erie's western basin in 2013. A.R. at 2627-2628, *Final 2016 Ohio Integrated Report* at C-29 – C-30. Similarly extensive algae blooms then occurred in 2014 and 2015, along with continuing reports of impacts on recreation and tourism in the area. *See, e.g.*, A.R. at 2211, Jessica Denton, *Lake Erie's 2015 Algal Bloom Effects Revealed*, Port Clinton News Herald, Oct. 8, 2015.

B. Application of the Clean Water Act to Lake Erie's Pollution Problems

1. Statutory and Regulatory Background

a. Impairment Determinations and Total Maximum Daily Loads

The Clean Water Act provides a straightforward regulatory framework designed “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). Under the CWA, each state sets water quality standards for the waters within its boundaries. *Id.* § 1313(c)(2)(A). These standards include two components: (1) designated uses for the waters (such as for drinking water supply, recreational use, aquatic habitat, etc.); and (2) specific water quality criteria necessary to support those uses. *Id.*; *see also* OHIO ADMIN. CODE 3745-1-07(A).

Section 303(d) of the CWA requires each state to determine whether any water body within its jurisdiction does not support its designated uses. 33 U.S.C. § 1313(d)(1)(A). The

statutory text is mandatory: “Each State *shall* identify those waters within its boundaries for which [pollution controls] are not stringent enough to implement any water quality standard applicable to such waters.” *Id.* (emphasis added). The state must develop a comprehensive list of all waterbodies identified during this evaluation, often called a “Section 303(d) list” or “impaired waters list.” (A state generally prepares this list in conjunction with required water quality reporting under 33 U.S.C. § 1315(b) as an “integrated report.”) U.S. EPA must then review and either approve or disapprove the impaired waters list. *Id.* § 1313(d)(2).

U.S. EPA may *only* approve the state’s Section 303(d) list if the state meets all the requirements, including the requirement for the state to assemble and evaluate relevant data. 40 C.F.R. § 130.7(d)(2). Otherwise, U.S. EPA must disapprove the list. If U.S. EPA disapproves the list, the agency has a nondiscretionary duty to list Section 303(d) impaired waterbodies itself and determine the pollution loading limits necessary to reduce and remove the impairment: “If the Regional Administrator disapproves such listing and loadings, he *shall*, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable [Water Quality Standards].” *Id.* (emphasis added). In short, U.S. EPA must take specific and expeditious steps to remedy a state’s failure to reduce the pollution contaminating a water body.

Whether a state or U.S. EPA is listing a water body as impaired, that listing is significant because it triggers this requirement to establish a corresponding pollution load, also known as a “Total Maximum Daily Load” (“TMDL”), sufficient to ensure the amount of pollution discharged into a water body does not prevent it from meeting applicable water quality standards. 33 U.S.C § 1313(d)(1)(c); A.R. at 4711, Assessment and Watershed Protection Division, U.S. EPA, *Guidance for Water Quality-based Decisions: the TMDL Process* 1 (Apr.

1991) [hereinafter *1991 TMDL Guidance*]. The state implements this pollution “cap” by setting limits on permissible discharges from individual sources. *Id.* at 6 (A.R. at 4716). The state can regulate discharges from “point” sources of pollution – those that discharge through a “discernable, defined and discrete conveyance” such as an outflow pipe – through individual CWA permits. 33 U.S.C. §§ 1342, 1362(14). U.S. EPA also requires that for non-point sources, including agricultural runoff, a TMDL must include “reasonable assurances” that state regulation or other mechanisms will in fact achieve the necessary non-point source reductions. *1991 TMDL Guidance* at 15 (A.R. at 4724). This aspect of a TMDL is especially important for reducing phosphorus pollution into Lake Erie, which comes mainly from non-point sources such as fertilizer and manure runoff from agricultural fields. Complaint ¶ 41; Answer ¶ 41.

b. Water Quality Standards Applicable to Lake Erie

Ohio EPA considers Lake Erie to be the state’s “most valuable water resource.” A.R. at 1139, Division of Surface Water, Ohio EPA, *Ohio Nutrient Reduction Strategy* 7 (June 28, 2013). That value is reflected in the state’s designated uses for the lake, which include “exceptional warmwater habitat, superior high quality water, public water supply, agricultural water supply, industrial water supply and bathing waters” OHIO ADMIN. CODE 3745-1-31(A). These designated uses are defined in Ohio Admin. Code 3745-1-7 to require Lake Erie’s water quality to support, among other things, “an exceptional or unusual community of warmwater aquatic organisms,” and heavy use for swimming along with other contact recreation activities during recreation season from May 1 through October 31. OHIO ADMIN. CODE 3745-1-7(B)(1)(c), (B)(3).

Ohio implements these designated uses through water quality criteria that are set forth in either numeric or non-numeric “narrative” form. OHIO ADMIN. CODE 3745-1-7(A). Lake Erie is

subject to narrative criteria applicable to all Ohio waters under Ohio Admin. Code 3745-1-04(E), which include the requirement that “all surface waters of the state . . . [t]o every extent practical and possible . . . [be] [f]ree from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae.” OHIO ADMIN. CODE 3745-1-04(E). That provision is supplemented by Ohio Admin. Code 3745-1-37, which states that “[t]otal phosphorus as P shall be limited to the extent necessary to prevent nuisance growths of algae, weeds, and slimes” Ohio has in the past applied these provisions “to list waters impaired by nutrients and to establish Total Maximum Daily Load (TMDL) target values for nutrients.” A.R. at 1218, Division of Surface Water, Ohio EPA, *Early Stakeholder Outreach – OAC 3745-1: Developing Rules to Reduce the Impacts of Nutrients in Surface Waters 2* (Mar. 2013).

There are also two existing numeric water quality limits for Lake Erie relating to Harmful Algal Blooms. First, Ohio applies a threshold limit of 1 microgram per liter (µg/l) of microcystin as an indicator for determining impairment of public drinking water supply use under the CWA. A.R. at 2911, *Final 2016 Ohio Integrated Report* at H-5. Second, Ohio’s water quality criteria require dissolved oxygen levels to be at least 5.0 milligrams per liter and a minimum daily average of 6.0 milligrams per liter in order to support aquatic life in “exceptional warmwater habitat” such as Lake Erie. OHIO ADMIN. CODE 3745-1-35, tbl. 35-1. Ohio EPA has established numeric microcystin thresholds for recreational Harmful Algal Bloom advisory postings at public beaches, with 6 parts per billion as the “Recreational Public Health Advisory” level and 20 parts per billion as the “Elevated Recreational Public Health Advisory” level, but has chosen not to use those to determine impairment for purposes of the Clean Water Act. A.R. at 2627, *Final 2016 Ohio Integrated Report* at C-29. Similarly, Ohio EPA has considered using

numeric targets for chlorophyll *a* (which indicates the presence of algae) as a measure of offshore impairment, but has not in fact done so. *See* A.R. at 4253-4254, Ohio EPA, *Ohio 2014 Integrated Water Quality Monitoring and Assessment Report* I-30 – I-31 (Mar. 25, 2014).

2. Ohio’s 2016 Section 303(d) Impairment Assessment

Ohio EPA has refused to apply these state water quality criteria to address the impairment status of the open waters of western Lake Erie. In 2014, the state deferred an evaluation of the impacts of Harmful Algal Blooms offshore pending collection of additional data and the development of methodologies for applying the state’s narrative criteria regarding algae growths. *Id.* At the time, U.S. EPA approved Ohio’s impaired waters list, but explicitly stated that “EPA will coordinate with Ohio EPA and expects Ohio EPA to fully assess the ten AUs [assessment units] for Lake Erie and to assemble and evaluate all existing and readily available data, including EPA data, for the 2016 integrated report and listing cycle.” A.R. at 2727, U.S. EPA, *Decision Document for the Partial Approval of Ohio’s Submission of the State’s Integrated Report with Respect to Section 303(d) of the Clean Water Act (Category 5 Waters)* 15 (Aug. 7, 2015). U.S. EPA also specifically directed that “in its future assessment of the new Lake Erie AUs, . . . Ohio consider the impacts of HABs and nuisance algal growth on aquatic life use, in addition to the impacts on recreational use.” *Id.* at 16 (A.R. at 2728).

Ohio ignored this directive. Ohio’s draft 2016 Integrated Report indicated that the Ohio EPA still would not assess the open waters of western Lake Erie. A.R. at 3450-3451, *Ohio EPA, Ohio 2016 Integrated Water Quality Monitoring and Assessment Report (Draft Report)* D-5 – D-6 (July 2016) [hereinafter *Draft 2016 Ohio Integrated Report*]. The agency instead asserted its belief that “assessment and listing of the open waters under the CWA should be led by U.S. EPA in consultation with the states” *Id.* at D-6 (A.R. at 3451). On August 29, 2016, U.S. EPA

submitted a comment letter regarding the draft Integrated Report rejecting this approach as inconsistent with the Clean Water Act:

Ohio EPA needs to assess all of its waters in the Western and Central Basins of Lake Erie for all applicable water quality standards as defined at 40 CFR 130.7(b)(3). Such standards include numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. In particular, the state should assess against its narrative standard at 3745-1-04(E):

The following general water quality criteria shall apply to all surface waters of the state including mixing zones. To every extent practical and possible as determined by the director, these waters shall be: ... (E) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae ...

In assessing whether the state's applicable water quality standards are being met, *Ohio EPA should assemble and evaluate all existing and readily available water quality-related data and other information* to evaluate for factors such as:

- The extent of algal coverage
- Chlorophyll a concentrations
- Impacts to recreation, including fishing and beach warnings and closures
- Impacts to industry and commerce, including the commercial fishing and charter boat industry
- Impacts to drinking water, including additional costs to water treatment to treat for algal toxins, and impacts to residents served by water utilities
- Impacts to retail business, including restaurants and hotels
- Impacts to aquatic life

Ohio EPA should also consider the applicability of other numeric and narrative Water Quality Standards to Lake Erie. *Ohio EPA should assess the open water of Lake Erie* to determine whether or not the lake is meeting all applicable standards, and where it is not, list the appropriate impairments on its final 2016 303(d) list.

A.R. at 2469, Letter from Peter Swenson, Chief, Watersheds and Wetlands Branch, U.S. EPA Region 5, to Tiffani Kavalec, Chief, Division of Surface Water, Ohio EPA 2 (Aug. 29 2016) [hereinafter “U.S. EPA Comment Letter”] (all except second emphasis added).

In a September 30, 2016 response, Ohio EPA reiterated its original position that it would not “unilaterally develop assessment methods” for its portion of Lake Erie under the CWA. A.R.

at 2474, Letter from Tiffani Kavalec, Chief, Division of Surface Water, Ohio EPA to Peter Swenson, Chief, Watersheds and Wetlands Branch, U.S. EPA Region 5, at 2 (Sept. 30, 2016). On March 31, 2017, U.S. EPA sent Ohio EPA a final letter recognizing that “Ohio has yet to assess the open waters of Lake Erie for algal impairment.” A.R. at 3349, Letter from Robert A. Kaplan, Acting Regional Administrator, U.S. EPA Region 5 to Craig Butler, Director, Ohio EPA (Mar. 31, 2017).

On May 19, 2017, U.S. EPA nonetheless formally approved Ohio’s 2016 Section 303(d) impairment list, once again delaying the assessment of the open waters until Ohio’s next biennial listing process. A.R. at 3371, Letter from Christopher Korleski, Director, Water Division, U.S. EPA Region 5 to Craig Butler, Director, Ohio EPA (May 19, 2017). U.S. EPA stated that it “has deferred to the State’s judgment not to assess the open waters of the Western Basin of Lake Erie for the 2016 list.” *Id.* The decision document underlying the approval echoed that approach of “deferring to the State’s judgment not to assess these waters.” A.R. at 3358, U.S. EPA Region 5, *Approval of Ohio’s Submission of the State’s Integrated Report with Respect to Section 303(d) of the Clean Water Act (Category 5 Waters)* 9 (May 2017).

The State of Michigan also submitted its own 2016 Section 303(d) impairment list that designated its entire contiguous portion of Lake Erie as impaired under Section 303(d) of the Clean Water Act based on “persistent significant algal blooms mid-late summer in western Lake Erie” causing “nuisance conditions related to nutrient expression.” Michigan Department of Environmental Quality, Water Resources Division, *Water Quality and Pollution Control in Michigan: 2016 Sections 303(d), 305(b), and 314* 65 (Rev’d Jan. 2017) [hereinafter *Michigan*

2016 Integrated Report] (attached as Exhibit A).² U.S. EPA reviewed Michigan's Section 303(d) impaired waters list as required under the CWA and approved it on February 2, 2017, specifically agreeing with the state's "assessment showing that the Michigan portion of Lake Erie is impaired by nutrients." U.S. EPA, *Decision Document for the Approval of Michigan's 2016 Clean Water Act Section 303(d) List (Category 5)* 22 (Feb. 2, 2017) (attached as Exhibit B). As a result, the open waters of western Lake Erie, which are considered "impaired" within Michigan's jurisdiction, are currently not considered "impaired" within Ohio's jurisdiction.

On July 18, 2017, Plaintiffs Environmental Law & Policy Center, Advocates for a Clean Lake Erie, Michael Ferner, and Susan Matz filed a complaint challenging U.S. EPA's approval of the 2016 Ohio Section 303(d) impairment list under the Administrative Procedure Act ("APA") and the Clean Water Act. Plaintiffs assert that U.S. EPA's approval of Ohio's Section 303(d) list, despite Ohio EPA's refusal to assess the open waters of western Lake Erie and despite Michigan's impairment finding for its contiguous portion of these shared waters, violated

² U.S. EPA did not include the Michigan 2016 Integrated Report or the U.S. EPA decision document approving Michigan's 2016 Section 303(d) list in the administrative record in this case. However, those documents should have been included in the record since they were clearly relevant to U.S. EPA's determination regarding contiguous portions of the same water body in Ohio, and the documents were before the agency at the time it considered the validity of Ohio's list. See *Walter O. Boswell Mem'l Hosp. v. Heckler*, 749 F.2d 788, 792 (D.C. Cir. 1984) ("If a court is to review an agency's action fairly, it should have before it neither more nor less information than did the agency when it made its decision."). If U.S. EPA contends that it did not consider Michigan's conclusion regarding the impairment status of western Lake Erie when it later approved Ohio's Section 303(d) list, that only underlines the arbitrary and capricious nature of U.S. EPA's decision, since U.S. EPA's own guidance provides that impairment decisions for "shared waters" within the jurisdiction of neighboring states should be "as consistent as possible." A.R. at 5395. Thus, it would be appropriate for the Court to consider these documents "as either background information to aid the court's understanding, or to determine if the agency examined all relevant factors or adequately explained its decision." *United States v. Akzo Coatings of Am., Inc.*, 949 F.2d 1409, 1428 (6th Cir. 1991).

the APA and the CWA because it was arbitrary, capricious, and not in accordance with the law under 33 U.S.C. § 1313(d) and 40 C.F.R. § 130.7.

III. STANDARD OF REVIEW

The Administrative Procedure Act, 5 U.S.C. § 701 *et seq.*, authorizes judicial review of a claim that a person has been wronged by agency action. 5 U.S.C. § 702. Under the APA, a court must “hold unlawful and set aside agency action, findings, and conclusions” that are, *inter alia*, “(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” based on the administrative record underlying the action. 5 U.S.C. § 706(2). When courts review an APA claim on a motion for summary judgment, “their standard of review is set by the terms of the APA” rather than Fed. R. Civ. P. 56. *Ohio v. United States Army Corps of Engineers*, 259 F. Supp. 3d 732, 744 (N.D. Ohio 2017).

An agency’s decision is “arbitrary and capricious” within the meaning of the APA when:

the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Assoc. v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29, 43, 103 S.Ct. 2856, 2867, 77 L.Ed.2d 443 (1983). Furthermore, “[a]gency action is ‘not in accordance with the law’ when it is in conflict with the language of the statute relied upon by the agency.” *City of Cleveland v. Ohio*, 508 F.3d 827, 838 (6th Cir. 2007) (citing 5 U.S.C. § 706(2)(A); *Chevron v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984); *Holland v. Nat’l Mining Assoc.*, 309 F.3d 808, 815 (D.C. Cir. 2002)). Here, U.S. EPA’s action was arbitrary, capricious, and not in accordance with the requirements of the Clean Water Act.

IV. **LAW AND ARGUMENT**

This case is about the Defendant U.S. EPA's failure to follow the plain requirements of the Clean Water Act. Under CWA Section 303(d) and U.S. EPA's implementing regulations at 40 C.F.R. § 130.7, a state must assemble and evaluate information regarding the condition of waters within its boundaries. Based on that information, the state must identify any impaired waters that are not meeting the state's water quality standards. Where a state does not complete those requirements, U.S. EPA must disapprove the state's Section 303(d) impaired waters list and must itself undertake the listing and TMDL development process. Neither Ohio EPA nor U.S. EPA followed those requirements here.

A. U.S. EPA's Approval of Ohio EPA's Section 303(d) List, Which Did Not Include the Open Waters of Western Lake Erie as Impaired, Was Arbitrary and Capricious and Not In Accordance with the Requirements of the Clean Water Act.

Section 303(d) of the CWA requires each state to determine whether any water body within its jurisdiction does not support its designated uses. 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. § 130.7(b)(1). A state must evaluate whether existing pollution controls "are not stringent enough to implement any water quality standard applicable to such waters." 33 U.S.C. § 1313(d)(1)(A). These standards include both the numeric and non-numeric "narrative" criteria implementing a water body's designated uses. 40 C.F.R. § 130.7(b)(3).

To complete this impairment evaluation, a state must "assemble and evaluate all existing and readily available water quality-related data and information" for its waters. 40 C.F.R. § 130.7(b)(5). A state fails to comply with this requirement whenever it does not "consider" relevant information and data. *Sierra Club, Inc. v. Leavitt*, 488 F.3d 904, 913 (11th Cir. 2007).

This requirement includes the obligation to consider impairment in light of any "narrative" water quality standards, either through previously established indicators or other

methods. A.R. at 5010, Office of Wetlands, Oceans, and Watersheds, U.S. EPA, *Consolidated Assessment and Listing Methodology: Toward a Compendium of Best Practices* 3-8 (July 2002) (“[E]ven though the use of core and supplemental indicators should make . . . decision making activities more efficient, it cannot preclude the consideration of other relevant data and information. The state . . . is obliged to consider any other data that are relevant to its [water quality standards] . . .”). U.S. EPA guidance specifically lays out several alternative methodologies for assessing whether nutrient pollution is impairing a water body, including visual assessments, documentation of fish kills or beach closures, numeric targets for phosphorus, dissolved oxygen, or chlorophyll *a*, or biological assessment. A.R. at 5628-5635, Memorandum from Denise Keehner, Director, Office of Wetlands, Oceans, and Watersheds, U.S. EPA to Water Division Directors, U.S. EPA Regions 1-10 & Robert Maxfield, Director, Office of Environmental Measurement and Evaluation, U.S. EPA Region 1 at 6-13 (Sept. 3, 2013) [hereinafter *2014 Integrated Report Guidance*].

Here, U.S. EPA admits that “Ohio, in preparing its 2016 Section 303(d) list, did not assemble and evaluate water quality data regarding the open waters of Lake Erie within its jurisdiction.” Answer ¶ 129; *see also* Answer ¶ 112 (“Ohio EPA did not assess the open waters of Lake Erie within its jurisdiction”).

U.S. EPA also admits that “there was information available to Ohio EPA at the time it prepared the 2016 Integrated Report that could have been assembled and evaluated.” Answer ¶ 123. U.S. EPA specifically admits that “information exists for portions of Lake Erie including water sampling data for microcystin, dissolved oxygen, chlorophyll *a*, and total phosphorus; satellite and other images showing the presence of algal blooms; and scientific literature.” Answer ¶ 124.

Under such circumstances, U.S. EPA's duties are clear. "The Regional Administrator [of the relevant U.S. EPA regional office] shall approve a list developed under § 130.7(b) . . . only if it meets the requirements of § 130.7(b)." 40 C.F.R. § 130.7(d)(2). This regulation "cannot be read as anything other than mandatory; it sets out a list of required elements for state § 303(d) submissions and states that the administrator 'shall' only approve a list that includes all required elements." *Am. Canoe Ass'n v. U.S. EPA*, 30 F. Supp. 2d 908, 918 (E.D. Va. 1998). Because U.S. EPA admits that Ohio EPA failed to meet one of the key requirements of 40 C.F.R. § 130.7(b) – namely, the requirement to assemble and evaluate all existing and readily available water quality-related data and information pursuant to § 130.7(b)(5) – the agency was under a mandatory duty to disapprove Ohio EPA's Section 303(d) list. For this reason alone, this Court must grant summary judgment in favor of the plaintiffs.

B. U.S. EPA Must Itself Assess the Impairment Status of the Open Waters of Western Lake Erie and Establish the Necessary TMDLs.

1. The Court Should Order U.S. EPA to Conduct an Impairment Analysis and Establish the Necessary TMDLs for the Open Waters of Western Lake Erie Within Thirty Days.

Under its own regulations, U.S. EPA must either approve or disapprove a state's Section 303(d) list, and it must do so promptly. "The Regional Administrator *shall either approve or disapprove* such listing and loadings not later than 30 days after the date of submission." 40 C.F.R. § 130.7(d)(2) (emphasis added). The regulation is binary. Thus, if U.S. EPA cannot approve the state's list, it *must* disapprove it. And if U.S. EPA disapproves a state's Section 303(d) list, the federal agency is required by law to promptly make the impairment determination and develop the TMDLs itself:

If the Regional Administrator disapproves such listing and loadings [TMDLs], he *shall*, not later than 30 days after the date of such disapproval, identify such [impaired] waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS. The Regional Administrator *shall* promptly issue a public notice seeking comment on such listing and loadings. After considering public comment and making any revisions he deems appropriate, the Regional Administrator *shall* transmit the listing and loads to the State, which *shall* incorporate them into its current WQM [water quality management] plan.

Id. (emphases added). *See also Scott v. Hammond*, 741 F.2d 992, 998 (7th Cir. 1984) (holding that “[i]f EPA disapproves, it must set its own TMDL’s”).

The law is clear that timing is of the essence, and that where a state fails to act, EPA has a duty to step in and act itself. *See Scott*, 741 F.2d at 998 (holding that there exists “a duty on the EPA to establish TMDL’s when the states have defaulted by refusal to act over a long period” because “[w]e cannot allow the states’ refusal to act to defeat the intent of Congress that TMDL’s be established promptly.”). Here, too, the Court should not allow Ohio’s repeated refusal to evaluate Lake Erie to defeat the intention of Congress that such waters be promptly protected. Because Ohio EPA failed to assemble and evaluate the data and establish the necessary TMDLs, U.S. EPA must do so itself. Accordingly, this Court should enter an Order requiring U.S. EPA to conduct its own impairment analysis of western Lake Erie’s open waters and to establish the necessary TMDLs. The Order should include a firm deadline requiring U.S. EPA to complete these tasks no later than 30 days from entry of the Order, consistent with the 30-day timeframe set forth in 40 C.F.R. § 130.7(d)(2). The accelerating decline of Lake Erie water quality has put public health at risk, impacted aquatic life, and threatened the region’s economy. After many years of being aware of this problem, Ohio EPA and U.S. EPA must not be permitted to continue to “kick the can down the road.”

2. The Court Should Specifically Order U.S. EPA to Evaluate the Significant Record Evidence that the Open Waters of Western Lake Erie Are Impaired and to Establish the Necessary TMDLs.

To avoid any unnecessary further delay, the Court's remand order should specifically direct U.S. EPA to address in its required impairment analysis, and to take into account in its TMDL development, the evidence already available in the record demonstrating that the open waters of western Lake Erie are impaired by phosphorus pollution and the resulting Harmful Algal Blooms.

Satellite imagery clearly establishes that the Harmful Algal Blooms causing the Michigan Department of Environmental Quality to designate its entire portion of the western basin as "impaired" extend well into the open waters of the lake within Ohio's jurisdiction. NOAA has spent many years collecting and analyzing satellite images that identify these Harmful Algal Blooms and reflect their geographic reach. A.R. at 2632, *Final 2016 Ohio Integrated Report* at C-34. These images were one of the primary sources of information upon which Michigan relied when it decided to list the open waters of Lake Erie as impaired. *Michigan 2016 Integrated Report* at 65 ("[T]he confirmation of widespread, persistent blooms often throughout much of Michigan's Lake Erie waters . . . were demonstrated by satellite imagery processed by the NOAA."). U.S. EPA guidance confirms that this type of visual assessment is a reasonable method to determine whether nutrient-driven algal blooms are causing impairment. A.R. at 5630, *2014 Integrated Report Guidance* at 8 ("A State can determine whether a waterbody is attaining its applicable narrative nutrient or other relevant narrative criteria and designated uses by using results of visual assessments.").

U.S. EPA should also take into account Michigan's impairment listing. U.S. EPA guidance specifically provides that impairment decisions for "shared waters" within the

jurisdiction of neighboring states should be “as consistent as possible.” A.R. at 5395, U.S. EPA, *Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* 14 (July 21, 2003). In February 2017, U.S. EPA approved Michigan’s Lake Erie impairment listing, which was predicated in large part on this satellite imagery. U.S. EPA must look to this same information in evaluating whether the open waters of Lake Erie within Ohio’s jurisdiction are impaired. These images make clear that Ohio’s portion of the open waters of western Lake Erie have been consistently plagued by Harmful Algal Blooms throughout the last several years. At times, nearly the entire Western or Central Basin within Ohio jurisdiction is engulfed by algae. *See* A.R. at 2312-2317, Dr. Christopher J. Winslow, Interim Director, Ohio Sea Grant College Program, *A Close Look at Lake Erie HABS and Current Research Efforts* (Nov. 12, 2015); A.R. at 4694, Shauna Alex, *Nutrients and Algae*; A.R. at 2633, *Final 2016 Ohio Integrated Report* at C-35 (citing NOAA’s Harmful Algal Blooms bulletin website, which contains well over 100 bulletins that incorporate satellite imagery to assess the extent and severity of blooms³). NOAA’s photographic satellite images, such as the ones at the website provided at A.R. 6943, also confirm the alarming and recurring extent of Harmful Algal Blooms within Ohio’s open waters of Lake Erie. A.R. at 6943, *NOAA Algal Blooms Photos*, https://www.flickr.com/photos/noaa_glerl/sets/72157639592150973/with/8741968640 (last visited Jan. 8, 2018) (*see supra* at 5-7 for selected images).

U.S. EPA should also consider the research that the scientific community and U.S. EPA itself have developed over decades regarding the threats that algal blooms pose to these waters,

³ Note that the link to this website included in the Integrated Report is <https://www.glerl.noaa.gov/res/Centers/HABS>. The link for this website appears to have been updated to https://www.glerl.noaa.gov/res/HABs_and_Hypoxia/lakeErieHABArchive.

and the data they have collected providing significant evidence that western Lake Erie is impaired. For example, an April 2016 technical memorandum co-authored by U.S. EPA employees examined 2010 water sampling data and found that only 17% (+/- 8%) of areas of western Lake Erie within three miles of shore and less than 98 feet deep⁴ are in good condition based on chlorophyll *a* concentrations, and the majority are in poor condition. A.R. at 2412-2413, Marni Nord, U.S. Environmental Protection Agency Region 5 et al., *Technical Memorandum, 2010 National Coastal Condition Assessment, Great Lakes* 12-13 (Apr. 2016) (providing similar analysis based on total phosphorus concentrations).

There are also dozens of instances where NOAA and others have sampled microcystin at levels well above Ohio's recreational health advisory of 6 µg/l in Lake Erie, including at locations in the open waters of the western basin. A.R. at 4631, NOAA GLERL, *Lake Erie Microcystin Sampling Data*, https://www.glerl.noaa.gov/res/HABs_and_Hypoxia/WLEMicrocystin2015.html (last visited Jan. 8, 2018) (showing intermittent elevated concentrations of microcystin in western basin sampling locations since 2009); *see also* A.R. at 850,⁵ NOAA GLERL, *Particulate Microcystin Data, Western Basin of Lake Erie* (2017) (showing elevated concentrations of microcystin in western basin sampling locations all but one year from 2008 to 2016); A.R. at 4636,⁶ Stone Lab

⁴ The report refers to these areas as "near shore" areas, which are defined as being within three miles of shore and less than 98 feet deep. A.R. at 2403, Marni Nord, U.S. EPA Region 5 et al., *Technical Memorandum, 2010 National Coastal Condition Assessment, Great Lakes* 3 (Apr. 2016).

⁵ See the website provided at A.R. 4631, https://www.glerl.noaa.gov/res/HABs_and_Hypoxia/WLEMicrocystin2015.html, for specific sample results and map showing sampling locations throughout western Lake Erie.

⁶ As indicated in the Record Index at 10, this data is available for download in spreadsheet format from Ohio State University's website at <https://ohioseagrant.osu.edu/download/cvbb9> (last visited Jan. 8, 2018).

Algal and Water Quality Laboratory, *Charter Boat Captains Help Monitor Lake Erie Water Quality* [hereinafter *Charter Boat Sampling Data*] (Ohio State University database providing 2013-2016 water quality sampling data including microcystin, chlorophyll, total phosphorus, and blue-green algae measurements); A.R. at 6944, U.S. EPA, *Lake Erie Charter Boat/Stone Labs—Total Microcystin Data* (2017) (graphing microcystin data from *Charter Boat Sampling Data*).

Finally, there are hundreds of water quality samples included in the administrative record in this case showing measureable amounts of green and blue-green algae in the open waters of Lake Erie. A.R. at 4664-4671, *Charter Boat Sampling Data*. These measurements are part of an even larger body of data that shows the extent to which Lake Erie is plagued by Harmful Algal Blooms.

Defendant U.S. EPA does not dispute any of this record evidence. Indeed, U.S. EPA admits that “information exists for portions of Lake Erie including water sampling data for microcystin, dissolved oxygen, chlorophyll a, and total phosphorus; satellite and other images showing the presence of algal blooms; and scientific literature.” Answer ¶ 124. Therefore, Plaintiffs request that the Court specifically direct U.S. EPA to utilize this and other readily available information to determine the impairment status of the open waters of western Lake Erie and to develop the necessary TMDLs within the 30-day timeframe established by the law. 40 C.F.R. § 130.7(d)(2).

V. CONCLUSION

Defendant U.S. EPA violated its mandatory duty under the Clean Water Act to disapprove Ohio EPA’s Section 303(d) impaired waters list and to itself assess the impairment status of the open waters of western Lake Erie. Plaintiffs request that the Court grant this Motion for Summary Judgment and remand the matter to U.S. EPA with clear instructions to assess the

evidence of Lake Erie impairment within 30 days, as required by law, and to establish the necessary TMDLs, so that Ohio and U.S. EPA may no longer frustrate the intent of Congress that such waters be promptly protected.

Respectfully Submitted,

/s/Madeline Fleisher

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CERTIFICATE OF SERVICE

I hereby certify that on January 16, 2018, a copy of the foregoing, *Plaintiffs' Motion for Summary Judgment* and *Memorandum in Support of Plaintiffs' Motion for Summary Judgment* were filed electronically using the CM/ECF system. Notice of this filing will be sent to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

/s/Madeline Fleisher

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