

A Burning River: Why New Directives May Signal a Continuance in the downfall of the Ohio River

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INTRODUCTION

The Ohio River (“The Ohio” or “The River”) begins with the merging of the Allegheny and the Monongahela Rivers in Pittsburgh, Pennsylvania.¹ The Ohio continues for 981 miles, where it ends in Cairo, Illinois and flows into the Mississippi River.² On its way from Pittsburgh to Cairo, the river travels through, or borders, six states including: Illinois, Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia.³ The river runs through diverse landscapes including “tulip polar-oak, yellow buckeye, and oak-hickory forests[;] forested wetlands[; and] a wide range of wildlife, including rare, endangered, and threatened species such as paddlefish and winged maple leaf freshwater mussels.”⁴ Further, water from areas of Alabama, New York, North Carolina, Tennessee, and Virginia drain into tributaries that end up in the Ohio River.⁵

In the 1600s and 1700s, the Ohio River comprised the southern border of the Northwest Territory, and as many began to move west, they used the Ohio River as transportation for their families and belongings.⁶ By the 1800s, the Ohio River had become an integral commercial route for those living in Ohio, Kentucky, Indiana, and Illinois.⁷ The farmers and manufacturers in these areas used the river to send their crops and finished

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¹ OHIO RIVER FOUND., *Ohio River Facts*, https://www.ohioriverfdn.org/education/ohio_river_facts/ [https://perma.cc/2CAP-5GXD] (last viewed Oct. 15, 2020).

² *Id.*

³ *Id.*

⁴ OHIO ENVTL. COUNCIL, *Clean Water*, <https://theoec.org/clean-water/ohio-river/> [https://perma.cc/J5QJ-R8K3] (last viewed Oct. 15, 2020).

⁵ OHIO RIVER FOUND., *supra* note 1.

⁶ OHIO HIST. CENT., *Ohio River*, http://ohiohistorycentral.org/w/Ohio_River [https://perma.cc/J67J-HHY3] (last viewed Oct. 15, 2020).

⁷ *Id.*

goods downstream to the Mississippi where they were received and shipped on other vessels destined for the eastern seaboard.⁸

In addition to the agriculture, coal, and iron industries, others began to develop along the river in the nineteenth century.⁹ This led a number of cities along the river to emerge as industrial centers.¹⁰ This industrial importance of the Ohio River has all but faded. Currently, “[m]ore than 184 million tons of cargo are transported on the Ohio River each year, with coal being the most commonly transported product.”¹¹ Further, the Ohio has thirty-eight power generating facilities.¹² Included in this statistic are twenty-two coal-fired power plants, approximately one every forty-five miles on the river,¹³ one of the highest concentrations of coal-fired power plants in the country.¹⁴

Although industrialization on the Ohio brings prosperity, it also brings a number of issues for the river and its surrounding inhabitants, specifically pollution issues. In 1948, the same year that the Federal Water Pollution Control Act was passed,¹⁵ the Ohio River Valley Water Sanitation Commission (ORSANCO) was established in order to control pollution in the Ohio River.¹⁶ The states that are included in this commission are: Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Virginia, and West Virginia.¹⁷

⁸ *Id.*

⁹ OHIO HIST. CENT., *Early Industrialization*, <https://ohiohistorycentral.org/w/EarlyIndustrialization> [https://perma.cc/A4JF-8KXJ] (last viewed Oct. 15, 2020).

¹⁰ *Id.*

¹¹ OHIO RIVER VALLEY WATER SANITATION COMMISSION, *The Ohio River at a Glance*, <http://www.orsanco.org/river-facts/> [https://perma.cc/3WH7-XQ47] (last viewed Oct. 15, 2020).

¹² *Id.*

¹³ James Bruggers, *Industry Wanted This Commission to Stop Setting Pollution Standards. It Almost Gave In*, INSIDE CLIMATE NEWS (Feb. 15, 2019), <https://insideclimatenews.org/news/14022019/ohio-river-water-quality-standards-orsanco-commission-industry-coal-utility-pressure> [https://perma.cc/3WXH-PJSN].

¹⁴ Mary Anne Hitt, *Breaking the Silence on Coal and Health in the Ohio River Valley*, THE SIERRA CLUB: BEYOND COAL, <https://content.sierraclub.org/coal/posts/breaking-silence-and-health-ohio-river-valley> [https://perma.cc/4JSE-5RAZ] (last viewed Oct. 15, 2020).

¹⁵ U.S. ENVTL. PROTECTION AGENCY, *Summary of the Clean Water Act*, <https://www.epa.gov/laws-regulations/summary-clean-water-act> [https://perma.cc/M5WP-M9QL] (last viewed Oct. 15, 2020).

¹⁶ OHIO RIVER VALLEY WATER SANITATION COMMISSION, *About Us*, <http://www.orsanco.org/about-us/> [https://perma.cc/CB39-9DCZ] (last viewed Oct. 15, 2020).

¹⁷ *Id.*

The duties of ORSANCO, as defined by the Commission's website, include controlling and reducing pollution in the Ohio.¹⁸ In order to fulfill these duties, the commission "operates programs to improve quality in the Ohio River and its tributaries, including: setting waste water discharge standards; performing biological assessments; monitoring for the chemical and physical properties of the waterways; and conducting special surveys and studies."¹⁹

Further, ORSANCO coordinates response activities in cases of accidental discharges or spills in the river.²⁰ Although ORSANCO has attempted to abate these concerns regarding the river and its quality, the Ohio River has led America's waterways in industrial pollution discharges.²¹ In 2013, approximately 24,180,821 pounds of pollution discharge was poured into the Ohio River, more than double what is poured into the Mississippi River, which is ranked second most polluted.²² This is extremely concerning, as more than twenty-five million people live in the Ohio River Basin²³ and approximately five million people depend on the Ohio River for drinking water.²⁴ The concerning quality of the river has ultimately led to restrictions on drinking water, fish consumption, and recreational use.²⁵

Despite these concerns regarding the river, on June 6, 2019, ORSANCO commissioners voted to relinquish its power to set pollution standards by making these standards voluntary for the states involved, allowing them to opt out and defer to their

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ James Bruggers, *Ohio River Again Tops List For Industrial Pollution*, USA TODAY (Mar. 14, 2015, 8:08 PM), <https://www.usatoday.com/story/news/nation/2015/03/14/ohio-river-tops-list-industrial-pollution/24784863/> [<https://perma.cc/Q3J5-2CS6>].

²² *Id.*

²³ Ohio River Valley Water Sanitation Commission, *supra* note 11.

²⁴ Mary Kuhlman, *Fight Continues for Clean Water on the Ohio River as Long-Awaited Vote on Standards Comes This Week*, CLEVELAND SCENE (Feb. 12, 2019, 11:42 AM), <https://www.clevelandscene.com/scene-and-heard/archives/2019/02/13/fight-continues-for-clean-water-on-the-ohio-river-as-long-awaited-vote-on-standards-comes-this-week> [<https://perma.cc/H5DY-QZ6B>].

²⁵ Mike Perlberg, *Despite Outcry, ORSANCO Commissioners Vote to Make Ohio River Pollution Standards Voluntary*, FORWARD KY. (Jun. 17, 2019), <https://forwardky.com/orsanco-commissioners-make-ohio-river-pollution-standards-voluntary/> [<https://perma.cc/9MK5-N2RP>].

own state-specific standards.²⁶ This new proposal eliminates the mandate that states adopt these standards, and essentially makes them guidelines instead of rules.²⁷ Supporters of this new proposal maintain that the ORSANCO standards are redundant, as state and EPA standards do a similar job, and that the states still have to meet the standards, but are given options to do so.²⁸

Additionally, according to the commission, this revision “maintains ORSANCO’s Pollution Control Standards for the Ohio River to protect the uses delineated in ORSANCO’s Compact, while providing needed flexibility for member states to utilize the Pollution Control Standards or their own rigorously developed . . . water quality criteria for Ohio River discharge permits.”²⁹ Those that oppose this proposal fear that it will produce inconsistent standards and open up states to political pressures as states attempt to attract industry.³⁰ Further, critics are concerned that withdrawal from regional standards remove the safeguards that ensure that individual states cannot cause harm to other states downstream.³¹

This Note will explain the promulgation of pollution control standards and their effect on the Ohio River, the differing views on the new proposal, and why this new proposal should be eliminated in favor of more control rather than less. Part I will discuss a brief history of pollution control standards in general across the United States, the pollution and quality concerns of the Ohio River, and the standards that ORSANCO set for the Ohio River. Part II will examine the different opinions surrounding the new changes and argue that an alternative should be pursued in lieu of the new proposal that was passed. By retaining the current system (prior to the proposal) and making it more stringent, the Ohio River will not only fall in line with other

²⁶ Todd Baucher, *UPDATE: Ohio River Agency Makes Regional Pollution Rules Voluntary*, WTAP (Jun. 7, 2019, 5:02 PM), <https://www.wtap.com/content/news/Voluntary-Ohio-River-pollution-standards-considered-508608121.html> [<https://perma.cc/JW5Q-KA4D>].

²⁷ Don Hopey, *Ohio River Water Quality Standards Diluted by Multi-State Agency*, PITT. POST-GAZETTE (Jun. 6, 2019, 5:34 PM), <https://www.post-gazette.com/news/environment/2019/06/06/ORSANCO-Ohio-River-water-quality-standards-diluted/stories/201906060145> [<https://perma.cc/6XTH-XP6V>].

²⁸ *Id.*; *ORSANCO Information*, IND. WILDLIFE FED’N, <https://www.indianawildlife.org/ORSANCOinfo/> [<https://perma.cc/78VB-B5WG>] (last viewed Sept. 05, 2020).

²⁹ Perlberg, *supra* note 25.

³⁰ Hopey, *supra* note 27.

³¹ Perlberg, *supra* note 25.

waterways and their accepted use, but also increase the health of the Ohio River as well as those who depend on the river for drinking water, proper industrial use, and recreation.

I. POLLUTION CONTROL IN THE UNITED STATES, ORSANCO, AND THE OHIO RIVER CONCERNS

The Federal Water Pollution Control Act (more commonly known as the Clean Water Act) was enacted in 1948.³² The Ohio River Valley Water Sanitation Commission was also established in the same year.³³ Although both the Clean Water Act and ORSANCO purport to control water pollution in the United States and in the Ohio River, there are still many issues surrounding the quality of the Navigable Waters of the United States as well as the Ohio River.³⁴ Part A of this section will delve into a brief history of the Clean Water Act, pollution control standards, and how it works in regard to state waterways. Part B of this section will discuss the origin of ORSANCO and how it works in terms of pollution control standards. Finally, Part C will discuss, in detail, the specific pollution issues that surround the Ohio River.

A. *Pollution Control Standards and The Clean Water Act*

In 1948, the Federal Water Pollution Control Act was enacted and was the first major United States law that addressed water pollution.³⁵ The goal of the Act was to restore and maintain the chemical, physical, and biological integrity of the Nation's Waters.³⁶ After its enactment in 1948, "due to growing public awareness and concern for controlling water pollution,"³⁷ the Act was significantly reorganized and expanded with amendments

³² *Summary of the Clean Water Act*, *supra* note 15.

³³ OHIO RIVER VALLEY WATER SANITATION COMM'N, *supra* note 16.

³⁴ *Summary of the Clean Water Act*, *supra* note 15.

³⁵ *Id.*

³⁶ *Clean Water Act (CWA)*, BUREAU OF OCEAN ENERGY MGMT., <https://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/CWA/index.aspx> [<https://perma.cc/D8LB-NBY>] (last viewed Oct. 15, 2020); 33 U.S.C. § 1251 (1972).

³⁷ *History of the Clean Water Act*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/laws-regulations/history-clean-water-act> [<https://perma.cc/N2VJ-P2CP>] (last viewed Oct. 15, 2020).

made to it in 1972.³⁸ These revisions were in response to almost completely unchecked pollution of the Nation's waters, including untreated sewage being dumped into waters.³⁹

During this time, approximately two-thirds of the United States' waters had become unsafe for fishing or swimming.⁴⁰ In fact, in 1969, due to chemicals, garbage, and other substances that had been dumped, the Cuyahoga River caught fire.⁴¹ This shocking event was one of the main catalysts for the revisions of the Federal Water Pollution Control Act in 1972.⁴²

The 1972 amendments accomplished the following:

Established the basic structure for regulating pollutant discharges into the waters of the United States. Gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry. Maintained existing requirements to set water quality standards for all contaminants in surface waters. Made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Funded the construction of sewage treatment plants under the construction grants program. Recognized the need for planning to address the critical problems posed by nonpoint source pollution.⁴³

Following these amendments, the Act attained its more common name, "The Clean Water Act" (CWA).⁴⁴ "Under the CWA, [the] EPA has implemented pollution control programs such as setting wastewater standards for industry. [The] EPA has also developed national water quality criteria recommendations for

³⁸ *Summary of the Clean Water Act*, *supra* note 15.

³⁹ *A Brief History of the Clean Water Act*, PUB. BROAD. SERV. (Dec. 20, 2002), <https://www.pbs.org/now/science/cleanwater.html> [<https://perma.cc/45YB-BFRH>].

⁴⁰ *Id.*

⁴¹ *About the Clean Water Act*, RURAL CMTY. ASSISTANCE P'SHIP, <https://www.rcap.org/resource/about-the-clean-water-act/> [<https://perma.cc/8D94-28YL>] (last viewed Oct. 15, 2020).

⁴² *Id.*

⁴³ *Summary of the Clean Water Act*, *supra* note 15.

⁴⁴ *Id.*

pollutants in surface waters.”⁴⁵ Further, “[t]he CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained.”⁴⁶

This permit system, known as the National Pollutant Discharge Elimination System (NPDES), issues permits to those wishing to discharge pollutants into a navigable water of the United States which contain provisions such as “limits on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people's health. [Essentially], the permit translates general requirements of the Clean Water Act into specific provisions tailored to the operations of each person discharging pollutants.”⁴⁷

The CWA defines these “Navigable Waters of the United States” as “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”⁴⁸ Under this definition, the Ohio River is considered a part of the Navigable Waters of the United States, as it is subject to the ebb and flow of the tide and is presently used to transport interstate commerce, and thus, is subject to the Clean Water Act.⁴⁹

Under the amended CWA, every state must adopt water quality standards (WQS) to protect the nation’s waters, and these standards are subsequently approved by the EPA.⁵⁰ Further, there are federal requirements for identifying “polluted or impaired water bodies and for developing estimated loads of a particular pollutant that could be received by each water body

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *NPDES Permit Basics*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/npdes/npdes-permit-basics> [<https://perma.cc/44F7-77BK>] (last viewed Oct. 15, 2020).

⁴⁸ 33 C.F.R. § 329.4 (2020).

⁴⁹ Jared Pritts, *Identifying Waters of the U.S.*, U.S. ARMY CORPS OF ENG’RS’ REGULATORY PROGRAM, <https://dep.wv.gov/oil-and-gas/Resources/Documents/Presentations%202013/Feb%206%20presentation%20J.Pritts.pdf> [<https://perma.cc/M8MD-5ZDX>] (last viewed Sept. 6, 2020).

⁵⁰ *Water Quality Standards Program*, OHIO ENVTL. PROT. AGENCY, <https://epa.ohio.gov/dsw/wqs/index> [<https://perma.cc/2LHU-99JZ>] (last viewed Oct. 15, 2020); *What are Water Quality Standards*, ENVTL. PROT. AGENCY, <https://www.epa.gov/standards-water-body-health/what-are-water-quality-standards> [<https://perma.cc/KFE4-R4DH>] (last viewed Oct. 15, 2020).

and still meet water quality standards. This concept is often referred to as the Total Maximum Daily Load (TMDL).⁵¹

“The EPA defines a TMDL as ‘the sum of allocated loads of pollutants set at a level necessary to implement the applicable water quality standards, including: waste load allocations from point sources and load allocations from nonpoint sources and natural background conditions.’⁵² This is a back calculation procedure that “form[s] the basis of water quality based permit limitations that regulate the discharge of pollutants into surface waters under the National Pollutant Discharge Elimination System (NPDES).”⁵³

In setting water quality criteria, states may adopt the “EPA recommended criteria, adopt unique criteria to reflect site specific conditions, or use other scientifically-defensible methods to develop their own criteria.”⁵⁴ The process for approving these standards is as follows:

- (1) there is monitoring, assessment, and reporting conducted;
- (2) the existing standards are then reviewed in light of best available data and technology;
- (3) the existing standards are then revised and public input is accepted;
- (4) the EPA then reviews the proposed standards;
- and (5) EPA approves or disapproves the state standards for implementation.⁵⁵

In order for the proposed WQS to meet EPA standards, the states must include: “designated uses[;] . . . criteria sufficient to protect these uses[;] antidegradation requirements[;] and general policies affecting the application and implementation of the standards . . . In addition, the state . . . must provide the methods and analyses . . . used to develop the standards.”⁵⁶ Although the EPA does eventually have to approve the standards that states

⁵¹ Kati W, Migliaccio, Yuncong Li, and Thomas A. Obreza, *Evolution of Water Quality Regulations in the United States and Florida*, THE INST. OF FOOD AND AGRIC. SCIS. (Dec. 2007), <https://edis.ifas.ufl.edu/ae431> [<https://perma.cc/WCS3-262B>].

⁵² *Id.*

⁵³ OHIO ENVTL. PROTECTION AGENCY, *supra* note 50.

⁵⁴ U.S. ENVTL. PROTECTION AGENCY, *How are Water Quality Standards Developed?*, EPA.GOV, <https://www.epa.gov/standards-water-body-health/how-are-water-quality-standards-developed> (last viewed Oct. 15, 2020).

⁵⁵ *Id.*

⁵⁶ *Id.*

choose to implement, states do have some discretion in determining what standards to set and how they choose to implement them.

B. Ohio River Valley Sanitation Commission

The way in which the member states chose to handle regulating these water quality standards was by setting up an independent commission. In 1948, the Ohio River Valley Water Sanitation Compact was signed by the Governors of Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Virginia, and West Virginia.⁵⁷ The Ohio River Valley Sanitation Commission (ORANSCO) is comprised of three appointed commissioners from each state, as well as three representatives from the United States government who are appointed by the President.⁵⁸ Congress consented to the Compact, and the legislatures of the eight member states enacted it into law, creating what we know as the Ohio River Valley Water Sanitation Commission (ORSANCO).⁵⁹

By signing this Compact, each of the eight states agreed: to enact any necessary legislation to enable each such State to place and maintain the waters of said basin in a satisfactory sanitary condition, available for safe and satisfactory use as public and industrial water supplies after reasonable treatment, suitable for recreational usage, capable of maintaining fish and other aquatic life, free from unsightly or malodorous nuisances due to floating solids or sludge deposits, and adaptable to such other uses as may be legitimate.⁶⁰

The goal of these standards “is to ensure that the water quality of the river is suitable for the uses designated by the

⁵⁷ OHIO RIVER VALLEY WATER SANITATION COMM'N, *Pollution Control Standards for Discharges to the Ohio River 2019 Revision*, ORANSCO.ORG, (June 6, 2019), <http://www.orsanco.org/wp-content/uploads/2019/06/Final-Standards-Doc-2019-Revision.pdf> [https://perma.cc/99VY-DRUJ].

⁵⁸ OHIO RIVER VALLEY WATER SANITATION COMPACT, Pub. L. No. 76-739, 54 Stat. 752 (1940); *See* Ky. Rev. Stat. Ann. § 224.18-760 (West 2020).

⁵⁹ Ohio River Valley Water Sanitation Compact, *supra* note 58.

⁶⁰ *Id.*

Compact . . . [t]he standards recommend stream criteria to assure that these uses will be achieved, and set waste water discharge requirements to attain these criteria.”⁶¹

Further, one of the main purposes of the Compact was to ensure that waste produced and deposited in the Ohio River by any of the eight states would not “injuriously affect the various uses of the interstate waters.”⁶² The Compact also established the minimum requirements for sewage and industrial waste treatment and gave the Commission the authority to implement higher requirements of treatment when necessary:

Article IX of the Compact grants the Commission authority to issue orders upon any entity discharging sewage or industrial waste, after investigation and hearing, for the purpose of achieving compliance with requirements of the Compact. Any court of general jurisdiction or any United States District Court in the signatory states may be used by the Commission in order to enforce such orders.⁶³

Although the Commission can enforce these requirements by issuing orders and conducting a hearing with the use of courts, the Commission relies on the member states to be the primary enforcers of the requirements, which they are authorized to do by the legislation that enabled its membership in the Compact.⁶⁴ Further, the states are “authorized to administer the federal/state National Pollutant Discharge Elimination System (NPDES) as established in Section 402 of the Federal Clean Water Act.

The NPDES permits are therefore the primary means by which the Commission’s Standards are implemented and enforced.”⁶⁵ The Commission recognizes how the permitting

⁶¹ OHIO RIVER VALLEY WATER SANITATION COMM’N, *ORSANCO’s Pollution Control Standards: Answers to Your Questions About the Review Process*, OHIO RIVER FOUND., <https://www.ohioriverfdn.org/stewardship/documents/QuestionsAnswers.pdf> [<https://perma.cc/2FNU-ECPE>] (last viewed Oct. 15, 2020).

⁶² *Pollution Control Standards for Discharges to the Ohio River*, *supra* note 57 (quoting Ohio River Valley Water Sanitation Compact, Pub. L. No. 76-739, 54 Stat. 752 (1940)).

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

process and standard setting may vary throughout the states due to numerous different factors, and it's the purpose of the Commission to "provide comparable use protection and achievement of the Compact goals as provided by these standards. To that end, each signatory state will provide notice and an opportunity for comment to the Commission of any proposed or draft discharge permit to the main stem of the Ohio River."⁶⁶

The recognition of the variance in standard setting and the importance of providing comparable protections is demonstrated by the review process which begins with an announcement published in newspapers and sent to various stakeholders.⁶⁷ Public workshops are then held and anyone who wishes may submit their comments, either by attending a public hearing or submitting their comments to the Commission headquarters.⁶⁸ The Commission then reviews all the comments they receive.⁶⁹ Many of these comments are referred to other work groups of state and federal agencies personnel to address.⁷⁰

After reviewing the comments, the Commission may propose revisions to its Standards. The proposed revisions must be presented at a public hearing. The hearing is publicized in the same manner as the initial review. After considering all comments received through the hearing, the Commission will adopt revisions to its Standards.⁷¹

The proponents of the change in the current structure of ORSANCO's control over setting requirements and allowing individual states to opt out of the commission's standards instead argue having both EPA and ORSANCO standards is redundant.⁷²

⁶⁶ *Id.*

⁶⁷ OHIO RIVER VALLEY WATER SANITATION COMPACT, *supra* note 58.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² Chris Tavenor, OHIO ENVTL. COUNCIL, Comments Regarding the Ohio River Valley Water Sanitation Comm'n 2018 Review of Pollution Control Standards, <https://theoec.org/wp-content/uploads/2018/02/Comments-of-the-Ohio-Environmental-Council-Regarding-the-Ohio-River-Valley-Water-Sanitation-Commission-2018-Review-of-Pollution-Control-Standards.pdf> [<https://perma.cc/6MNU-9AWJ>] (last viewed Sept. 7, 2020).

They further state that the Clean Water Act has succeeded in its purpose and eliminating the force of ORSANCO's pollution control actually furthers the goal of protecting the environment as well as human health.⁷³ On the contrary, the EPA standards set differ from those set by the Commission.⁷⁴ For example, some states do not have stringent mixing zone designations and the EPA would have to require the states to have these, as they are not standard in terms of EPA requirements under the CWA.⁷⁵ Furthermore,

[a] side-by-side comparison of the Minimum Water Quality Criteria with the 122 Minimum Criteria established in the ORSANCO Pollution Control Standards reflects that there are at least 188 parameters...for which ORSANCO has a criteria but the State or EPA does not. Adoption of EPA-developed categorical effluent limitations or water quality-based effluent limits by a State...may not be adequate to protect the aquatic life and uses of the Ohio River.⁷⁶

Additionally, there are 252 parameters for which the EPA's criteria are less stringent than ORSANCO's standards, by at least ten percent.⁷⁷

Although proponents of the new change argue allowing states to opt out of ORSANCO's requirements will have little effect, ORSANCO has an integral role in providing protective measures to ensure the health of the river.⁷⁸ One significant reason ORSANCO is important is because it ensures states relying on the Ohio River have comparable requirements so they do not harm those downstream who depend on the river.⁷⁹ Without ORSANCO's standardized requirements, there will be disastrous consequences for the River.⁸⁰

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Pollution Control Standards for Discharges to the Ohio River*, *supra* note 57.

⁷⁸ Tavenor, *supra* note 72.

⁷⁹ *Id.*

⁸⁰ *Id.*

C. Ohio River Pollution Concerns

As discussed briefly in the Introduction of this Note, the Ohio River is consistently ranked as one of the most polluted rivers in the United States.⁸¹ This is due to activities occurring today, but also due to the lasting effects of industrialization and activities conducted prior to more stringent standards and requirements promulgated by ORSANCO and the EPA, highlighting the deep-rooted history of contamination in the river.⁸²

The banks of the Ohio River are highly industrialized and densely populated, and the river has served “as a dumping ground for local cities and industries for generations.”⁸³ In fact, steel companies in the past would dump their contaminated water directly into the river.⁸⁴ “The waterways were so acidic that the steel-hulled boats meant to last twenty years rusted out in three and the pH routinely measured less than 4” (a pH of less than seven is considered acidic).⁸⁵

A biologist who ran the source water protection/emergency response for ORSANCO stated “[i]t was so polluted, you could see it, smell it, and taste it” describing the water as vinegar.⁸⁶ Today, it is estimated that about thirty million pounds of toxic chemicals are dumped into the river annually, only accounting for toxic chemicals illegally dumped.⁸⁷ This is extremely concerning for industry, wildlife, and, most importantly, for the approximately five million people relying on the river for their drinking water.⁸⁸

The levels of toxicity in the river today are extremely concerning. During rainstorms, there is “raw sewage [that] is discharged directly into the river at over 1,350 points along the river. As a result, it stretches of the Ohio River near

⁸¹ Kuhlman, *supra* note 24.

⁸² *Ohio River*, ENVTL. LAW & POLICY CENTER, <http://elpc.org/issues/clean-water/ohio-river/> [<https://perma.cc/5L4E-HJFL>] (last viewed Sep. 7, 2020).

⁸³ *Id.*

⁸⁴ April Johnston, “*That’s Vinegar: The Ohio River’s History of Contamination and Progress Made*,” NEWARK ADVOCATE (Nov. 14, 2019, 8:10 AM), <https://www.newarkadvocate.com/story/news/local/2019/11/14/ohio-rivers-history-contamination-and-progress-made/4177162002/> [<https://perma.cc/7YNH-KJ7D>].

⁸⁵ *Id.*; *pH and Water*, U.S. GEOLOGICAL SURVEY, https://www.usgs.gov/special-topic/water-science-school/science/ph-and-water?qt-science_center_objects=0#qt-science_center_objects [<https://perma.cc/KV5L-V8NJ>] (last viewed Oct. 15, 2020).

⁸⁶ Johnston, *supra* note 84.

⁸⁷ Kuhlman, *supra* note 24.

⁸⁸ *Id.*

many major cities are closed to swimming.”⁸⁹ Additionally, there are non-point source pollutants contributed by urban runoff, agricultural activities, and abandoned and active mines contributing a significant amount of contamination to the River.⁹⁰ There are many issues regarding pollution of the Ohio River, and without the guidance of ORSANCO and their requirements governing the different member states, there will be inconsistent standards and ultimately will result in promulgation of the very issues plaguing the river and cause its’ quality to be so poor.⁹¹

1. Acid Mine Drainage (AMD)

There is also a major concern regarding Acid Mine Drainage (AMD).⁹² “Coal has been mined in Ohio since 1804. . . and has been a significant component of the . . . economy for about 200 years.”⁹³ The drainage is caused when water runs over sulfur-bearing materials.⁹⁴ Most of this drainage comes from abandoned and active coal mines, which have exposed rocks containing sulfur-bearing materials.⁹⁵

Acid mine drainage (AMD) from abandoned coal mines affects the quality of both groundwater and surface water. Drainage results from various mining methods performed in the watershed. These methods include underground mining, strip mining, and auger mining. The mining process exposes iron sulfide (pyrite) and unremoved coal contained in the sandstone overburden to air and water. These oxidizing conditions result in an

⁸⁹ *Ohio River Facts*, OHIO RIVER FOUND, https://www.ohioriverfdn.org/about_the_river/documents/ohioriverfactsversion2.pdf [https://perma.cc/S2NW-4TMH] (last viewed Oct. 15, 2020).

⁹⁰ *Id.*

⁹¹ Tavenor, *supra* note 72.

⁹² *Id.*

⁹³ Ben Stuart, Rajesh Ramachandran, James Grow, *Impact of Acid Mine Drainage on Streams in Southeastern Ohio: Importance of Biological Assessments*, WEST VIRGINIA MINE DRAINAGE TASK FORCE, <https://wvmdtaskforce.files.wordpress.com/2016/01/99-stuart2.pdf> [https://perma.cc/J4QH-T75P] (last viewed Jan. 27, 2020).

⁹⁴ U.S. ENVTL. PROT. AGENCY, *What is Acid Mine Drainage*, SAVE OUR SKY BLUE WATERS, <http://www.sosbluewaters.org/epa-what-is-acid-mine-drainage%5B1%5D.pdf> [https://perma.cc/SQ9D-59KZ] (last viewed Oct. 15, 2020).

⁹⁵ *Id.*

increase of acidity, which subsequently decreases the pH and increases the concentrations of dissolved metals. These consequences lead to an overall degradation of water quality and the inability to support aquatic life.⁹⁶

This metal-rich water is highly acidic and is one of the main sources of non-point source pollution in the river.⁹⁷ This runoff causes contaminated drinking water, growth and reproduction disruption in aquatic plants, and even corrodes bridges.⁹⁸

2. PCBs and Mixing Zones

Moreover, “many sections of the Ohio River do not meet water quality standards for bacteria and pathogens, PCBs [polychlorinated biphenyls that are industrial products or chemicals], lead, mercury, metals, organics and other pollutants.”⁹⁹ Most concerning is the high levels of mercury in the river.¹⁰⁰

Mercury is a highly toxic metal that accumulates in the bodies of fish, making them unsafe to eat. Mercury has been shown to damage the human nervous system and is especially harmful to children. Of particular concern is the fact that mercury becomes more concentrated as it passes from a mother to her fetus. Children are at risk of having to struggle to keep up in school or needing remedial classes or special education.¹⁰¹

⁹⁶ *Acid Mine Drainage*, THE OHIO RES. INST. FOR TRANSP. AND THE ENVT., <https://www.ohio.edu/engineering/orite/research/projects/acid-mine-drainage> [<https://perma.cc/8GM3-3Z94>] (last viewed Oct. 15, 2020).

⁹⁷ Stuart, *supra* note 93.

⁹⁸ U.S. ENVTL. PROT. AGENCY, *supra* note 94.

⁹⁹ *Ohio River Facts*, *supra* note 89.

¹⁰⁰ *Mercury Pollution of Ohio River Continues*, OHIO RIVER FOUND., https://www.ohioriverfdn.org/stewardship/documents/Mercury_Pollution_of_Ohio_River_Continues.html [<https://perma.cc/5TYX-854C>] (last viewed Sept. 2, 2020).

¹⁰¹ *Id.*

Mercury is deposited into the lake through the use of “mixing zones” which dilute the levels of mercury downstream to levels that meet standards.¹⁰²

ORSANCO defines a mixing zone as a portion of the water body receiving a discharge where effluent and receiving waters are not totally mixed and uniform with the result that the zone is not representative of the receiving waters and may not meet all ambient water quality standards or other requirements of any signatory state applicable to the particular receiving waters. All applicable water quality criteria must be met at the edge of the mixing zone.¹⁰³

In 2003, ORSANCO passed a ban on the use of mixing zones which would force polluters to discharge wastewater much lower in mercury concentration.¹⁰⁴ The ban allowed a ten-year grace period which was then extended to twelve years, but is currently in effect.¹⁰⁵ In contrast to this, the EPA has not yet set a ban on mixing zones, but is currently working to do so.¹⁰⁶ This is one of the most concerning differences between the EPA requirements and ORSANCO’s requirements.

Without ORSANCO control over states who opt-out of the commission, these opted-out states will be allowed to re-implement the use of mixing zones, which will continue to increase the levels of mercury in the river, and ultimately harm fish, leading to human harm through their consumption.¹⁰⁷ Mercury is extremely harmful to humans, as it produces “damage to the brain, heart, lungs, kidneys and immune system.”¹⁰⁸ This is just one of the many reasons why ORSANCO control over the

¹⁰² Kathiann M. Kowalski, *Agency Considers Further Delay on Ohio River Mercury rule*, ENERGY NEWS NETWORK (Aug. 10, 2015), <https://energynews.us/2015/08/10/midwest/water-is-now-focus-for-mercury-power-plant-pollution/> [https://perma.cc/J5PK-BVUB].

¹⁰³ *Pollution Control Standards for Discharges to the Ohio River 2015 Revision*, OHIO RIVER VALLEY WATER SANITATION COMM’N, <http://www.orsanco.org/wp-content/uploads/2016/09/2015-Pollution-Control-Standards.pdf> [https://perma.cc/XPX7-R7PT] (last viewed Oct. 15, 2020).

¹⁰⁴ Kowalski, *supra* note 102.

¹⁰⁵ *Id.*

¹⁰⁶ Diana Strnisa, *Mixing Zone*, POLLUTION ISSUES, <http://www.pollutionissues.com/Li-Na/Mixing-Zone.html> [https://perma.cc/SGF3-M68U] (last viewed Oct. 15, 2020).

¹⁰⁷ Kowalski, *supra* note 102.

¹⁰⁸ *Id.*

member states is crucial for the continuing development of a healthier river for everything between human health, clean drinking water, and ecological and environmental concerns.

3. *Harmful Algae Blooms (HABs)*

Another major concern in the Ohio River is runoff high in nitrogen and phosphorus, which feed harmful algae blooms (HABs).¹⁰⁹

Harmful algal blooms, or HABs, occur when colonies of algae — simple plants that live in the sea and freshwater — grow out of control and produce toxic or harmful effects on people, fish, shellfish, marine mammals and birds. The human illnesses caused by HABs, though rare, can be debilitating or even fatal.¹¹⁰

The algae produce a toxin called microcystin, which is harmful to the liver, “[w]hen ingested or touched, the toxin can cause stomach pain, nausea, vomiting, numbness, and other health effects.”¹¹¹ These blooms may occur naturally, but human activities in connection with the waters play a significant role in the number of occurrences of them and their intensity as well.¹¹² Studies have shown HABs thrive when there are winds and water currents conducive for their existence.¹¹³ “In other cases, HABs lead to “overfeeding,” which occurs when nutrients (mainly phosphorus and nitrogen) from sources such as lawns and agriculture flow into bays, rivers, and the sea, and build up at a

¹⁰⁹ *Toxic Algal Blooms Persist in Ohio River, But They’re in Decline*, WVXU, (Oct. 23, 2019, 9:54 AM) <https://www.wvxu.org/post/toxic-algal-blooms-persist-ohio-river-they-re-decline#stream/0> [<https://perma.cc/2N2C-VR9Y>].

¹¹⁰ *What is a Harmful Algae Bloom?*, NAT’L OCEANIC & ATMOSPHERIC ADMIN. (Apr. 27, 2016), <https://www.noaa.gov/what-is-harmful-algal-bloom#:~:text=Harmful%20algal%20blooms%2C%20or%20HABs,be%20debilitating%20or%20even%20fatal> [<https://perma.cc/5M7K-27GU>] (hereinafter Harmful Algae Bloom).

¹¹¹ *Toxic Algal Blooms Persist in Ohio River, but They’re in Decline*, WVXU (Oct. 23, 2019, 9:54AM) <https://www.wvxu.org/post/toxic-algal-blooms-persist-ohio-river-they-re-decline#stream/0> [<https://perma.cc/SW96-E334>] (hereinafter Toxic Algae Blooms).

¹¹² *Harmful Algae Bloom*, *supra* note 110.

¹¹³ *Id.*

rate that “overfeeds” the algae that normally exist in the environment.”¹¹⁴

As recently as 2019, massive algae bloomed in the Ohio River, affecting hundreds of miles of the river with toxic blue-green algae.¹¹⁵ Further, although there have been only two blooms in the last two decades, these two blooms have come in 2015 and 2019.¹¹⁶ These blooms are infrequent, occurring only twice over twenty years; however it is concerning because both instances were recent and only four years apart.¹¹⁷ This seems to be evidence the occurrences have to do with human activities surrounding the river. Without continuous monitoring and consistent standards throughout the member states by one entity, this will only continue to increase the risks of harmful algae blooms in the future which will continue to cause issues for those who depend on the river.¹¹⁸

4. *Coal-fired Power Plants*

Coal-fired power plants are abundant along the Ohio River, numbering about twenty-six in total.¹¹⁹ As crucial as these power plants are for creating energy, their activities harm aquatic wildlife through their practices.¹²⁰ Currently, coal plants discharge millions of gallons of wastewater exceeding 100 degrees into the River.¹²¹ The high temperatures of wastewater can increase the River’s temperature by as much as eighteen degrees.¹²² Some of the Clean Water permits allow the plants to release the water into the river, but plants are not allowed to

¹¹⁴ *Id.*

¹¹⁵ *Toxic Algae Bloom*, *supra* note 111.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ James Bruggers, *Industries Try to Strip Power from Ohio River’s Water Quality Commission*, INSIDE CLIMATE NEWS (May 30, 2018), <https://insideclimatenews.org/news/30052018/ohio-river-clean-water-standards-coal-power-plants-industry-toxic-pollution-orsanco> [<https://perma.cc/EHP4-96YJ>].

¹²⁰ Erin Meyer & Julie Wenaus, *Power Plants Releasing Hotter Water*, CHI. TRIB., (Aug. 20, 2012), <https://www.chicagotribune.com/news/ct-xpm-2012-08-20-ct-met-nuclear-water-20120820-story.html> [<https://perma.cc/5GJ5-CXNB>].

¹²¹ *Id.*

¹²² Reid Frazier, *Coal-fired Power Plant Putting too-hot Water into River, Groups Say*, STATE IMPACT PENN. (Jul. 16, 2019, 5:36PM), <https://stateimpact.npr.org/pennsylvania/2019/07/16/coal-fired-power-plant-putting-too-hot-water-into-river-groups-say/> [<https://perma.cc/XD3D-SRCL>].

raise the river's temperature more than two degrees.¹²³ These “[h]igher water temperatures can be bad for some fish species because it lowers oxygen levels.”¹²⁴ The high temperatures cause the fish to abandon areas and swim deeper to find cooler water.¹²⁵ This type of high temperature wreaks havoc on the fish living in the river and their habitats.¹²⁶

Coal plants are currently seeking permission to discharge water at even higher temperatures than the approximately one-hundred degree temperatures at which they are already discharging.¹²⁷ If granted, there will be increased disruption in aquatic ecosystems and thus reduced quality of the water in the River.¹²⁸ Without the presence of ORSANCO and its requirements, the individual states will be able to opt out of the set standards, allowing them to circumvent the commission implement lower standards on wastewater and discharge higher temperature water into the river.¹²⁹

Once the member state decides to opt out of the Commission, they will have the ability to lower the standards for wastewater, and ultimately affect the delicate ecosystems existing underwater, including species of fish and their habitats.¹³⁰ The ability of a state to lower these requirements will open the state up to political pressure from industries who seek to relocate to locations where they may operate under a less-stringent standard.¹³¹

As a result of these pollution issues, there are many concerns for the fish living in the River as well as those humans depending on the river for drinking water and sustenance.¹³² At one point, eighty species of muscled lived in the Ohio river.¹³³

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ Meyer, *supra* note 120.

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ Bill Reinhart, ORSANCO Approves Changes to Water Quality Standards Protocol, WVXU (Jun. 6, 2019), <https://www.wvxu.org/post/orsanco-approves-change-water-quality-standard-protocols#stream/0> [<https://perma.cc/X5LK-CA43>].

¹³⁰ *See generally Clean Water, supra* note 4.

¹³¹ Dan Hopey, *Ohio River water quality standards diluted by multi-state agency*, PITTSBURGH POST-GAZETTE (Jun. 6, 2019, 5:34 PM), <https://www.post-gazette.com/news/environment/2019/06/06/ORSANCO-Ohio-River-water-quality-standards-diluted/stories/201906060145> [<https://perma.cc/2AQS-TEXN>].

¹³² *Ohio River Facts, supra* note 89.

¹³³ *Clean Water, supra* note 4.

Currently, there are “only 50 species . . . and 5 of those are in danger of extinction.”¹³⁴ Further, “[t]here are fish consumption advisories in place for the entire length of the river. Carp and catfish should not be eaten at all, and limited consumption advisories are in place for other types of fish including smallmouth buffalo (1 meal/mo) white bass, drum, sauger, black bass (1 meal/week).”¹³⁵

On top of the pollution concerns, “[m]any acres of land cover have been converted for extraction of energy resources, tilled and fertilized for agriculture, and cleared for new residential and commercial development.”¹³⁶ There are about 164 species of fish that have been found in the river, however, “[t]he dams have drastically altered the habitat for river organisms, as they prevent fish and other organisms from moving up and down the river in their natural cycles.”¹³⁷

The continual development of the river has affected the habitats running along the rivers as well.¹³⁸ “Population growth and development, both commercial and residential, have increased over the years and have resulted in the destruction or fragmentation of thousands of acres of quality habitat to the extent they no longer provide their original function.”¹³⁹ The changes in these landscapes have allowed for “more polluted rainwater runoff, flooding, and sedimentation.”¹⁴⁰

Due to the magnitude of the pollution concerns present in the Ohio River, there is an ever-increasing need for oversight of the river and the activities conducted on it. Specifically, there is an increasing importance for ORSANCO to monitor the river and impose requirements to assist in maintaining the health of the river.¹⁴¹ Although there are requirements imposed by the EPA, because the Commission is comprised of the states through which the River flows, it has better knowledge of the river and all of the activities occurring on it, better situating the Commission to set requirements.

¹³⁴ *Id.*

¹³⁵ *Ohio River Facts*, *supra* note 89.

¹³⁶ *Clean Water*, *supra* note 4.

¹³⁷ *Ohio River Facts*, *supra* note 89.

¹³⁸ *Clean Water*, *supra* note 4.

¹³⁹ *Ohio River Facts*, *supra* note 89.

¹⁴⁰ *Id.*

¹⁴¹ *See Hopey*, *supra* note 131.

II. THE NEW SYSTEM AND THE ALTERNATIVE THAT SHOULD BE PURSUED

After several years of review and multiple public commentary periods, the June 6th vote by the commissioners of ORSANCO put into effect a new protocol allowing the individual states who are a part of the Commission to opt-out of the standards set by the Commission.¹⁴² As with many new proposals, there are those who support the new system of allowing states to voluntarily adhere and those who disagree with the move made by the commissioners.¹⁴³

Those in favor of the new system say the EPA standards and the ORSANCO standards are redundant, and thus there is no need for the Commission.¹⁴⁴ Those opposed to the new system believe there will be a race to the bottom, allowing states to abide by the minimum standards set by the EPA in order to attract new industry on the River, as well as an increase in the repugnant state of the River.¹⁴⁵ However, there is an alternative to the current system that would both promote the health of the River while eliminating the redundancy of having multiple organizations setting standards.

Specifically, the best alternative to the current system and the new system would be to defer to the EPA standards for those categories in which ORSANCO's standards are either nonexistent or equivalent to the EPA, and for those categories in which the EPA is deficient or nonexistent, require the ORSANCO standards to be implemented. Further, requiring the Commission to investigate each state's water quality issues and tailoring them from the top will assist in the regulation of each individual waterway and will ultimately improve the state of the river.

¹⁴² Reinhart, *supra* note 129.

¹⁴³ *See id.*

¹⁴⁴ Aryeh Alex, Memorandum: Proposed Revisions to ORSANCO's Pollution Control Standards, THE OHIO ENVTL COUNCIL (May 22, 2019), <https://theoec.org/press-releases/memorandum-proposed-revisions-to-orsancos-pollution-control-standards/> [<https://perma.cc/JEA3-NERP>].

¹⁴⁵ Cassie Kelly, *ORSANCO Commissioners Vote to Weaken Pollution Control Standards*, THE OHIO ENVTL COUNCIL (Jun. 6, 2019), <https://theoec.org/press-releases/orsanco-commissioners-vote-to-weaken-pollution-control-standards/> [<https://perma.cc/CVT3-MS7A>].

A. *Proponents of the Change*

The new plan proposed and ultimately passed, won on a vote of nineteen to two.¹⁴⁶ Those in support of the change state there is no reason for ORSANCO's standards, as the EPA already provides requirements for the states and the two agencies overlap, rendering ORSANCO's role useless.¹⁴⁷ Further the chair of the board, Ron Potesta, stated, in reference to the Commission, their staffing levels have gone down and the amount of work they are responsible for has gone up, ultimately making their role more difficult to carry out.¹⁴⁸ The official ORSANCO website maintains that:

The proposed 2019 Revision maintains ORSANCO's Pollution Control Standards for the Ohio River to protect the uses delineated in ORSANCO's Compact while providing needed flexibility for member states to utilize the Pollution Control Standards or their own rigorously developed and United States Environmental Protection Agency approved water quality criteria for Ohio River discharge permits.¹⁴⁹

They also maintain the new plan will have little impact on those states with standards equal to the Commission.¹⁵⁰ Further, those states opting out will be held accountable to show they are providing standards equally as protective as the requirements imposed by ORSANCO.¹⁵¹ Other commissioners say allowing states' voluntary participation will allow for accountability, while permitting the state's legislative process to develop and adopt the

¹⁴⁶ Ryan Van Velzer, *Ohio River Regulators Adopt Voluntary Pollution Control Standards*, WFPL NEWS LOUISVILLE (Jun. 6, 2019), <https://wfpl.org/ohio-river-regulators-adopt-voluntary-pollution-control-standards/> [https://perma.cc/NCV5-S8B3].

¹⁴⁷ Nick Swartsell, *States Will Be Able to Opt Out of Ohio River Pollution Control Standards, ORSANCO Board Votes*, CLEVELAND SCENE (Jun. 6, 2019, 3:02PM), <https://www.clevescene.com/scene-and-heard/archives/2019/06/06/states-will-be-able-to-opt-out-of-ohio-river-pollution-control-standards-orsanco-board-votes> [https://perma.cc/2S6B-L8KF].

¹⁴⁸ *Id.*

¹⁴⁹ *Pollution Control Standards Third Review*, OHIO RIVER VALLEY WATER SANITATION COMM'N, <http://www.orsanco.org/pollution-control-standards-third-review/> [https://perma.cc/23EW-9MUN] (last viewed Oct. 15, 2020).

¹⁵⁰ Van Velzer, *supra* note 146.

¹⁵¹ *Id.*

standards, giving the states control over what they believe should be required.¹⁵²

B. Those Against the Change.

Although the commissioners of ORSANCO voted in favor nineteen to two, there is more negative feedback regarding the new plan than there are those who believe it is a good thing.¹⁵³ In fact, there was an effort to put this change into effect in 2018, but the effort was halted due to similar public outcry.¹⁵⁴ Despite the commissioners's assurances that the states will be held accountable for their standards, many environmental and wildlife organizations, including the National Wildlife Foundation and the Ohio Environmental Council, have spoken out regarding the changes.¹⁵⁵

A spokesperson for the National Wildlife Foundation stated, "The bottom line for us is this: With many of our cities and towns dealing with unsafe drinking water, now is not the time to scale back clean water enforcement and walk away from our shared responsibility for the river. We need more, not less, protections for clean water."¹⁵⁶ Further, an attorney for the Ohio Environmental Council stated "ORSANCO was originally established to avoid a race-to-the-bottom strategy to invite polluting industries into a state. Without mandatory Pollution Control Standards applied through a regional organization like ORSANCO, we could see a return to a similar world."¹⁵⁷

With the pollution concerns and issues with the River, there needs to be more requirements for the states, rather than less. Some have even called this a "punch to the gut" and believe making the Commission standards voluntary is a move towards eliminating these requirements entirely.¹⁵⁸ Further, the

¹⁵² *Id.*

¹⁵³ Mike Perlberg, *Despite outcry, ORSANCO commissioners vote to make Ohio River pollution standards voluntary*, FORWARD KY. (Jun. 17, 2019), <https://forwardky.com/orsanco-commissioners-make-ohio-river-pollution-standards-voluntary/> [<https://perma.cc/7JG7-JF68>].

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*; Kelly, *supra* note 145.

¹⁵⁶ Swartsell, *supra* note 147 (quoting Jordan Lubetkin, National Wildlife Foundation spokesperson).

¹⁵⁷ Kelly, *supra* note 145 (quoting Chris Tavenor, Ohio Environmental Council lawyer).

¹⁵⁸ Reinhart, *supra* note 129.

elimination of a united regulatory scheme will increase the pollution received downriver from one state to another.¹⁵⁹

These downriver states will then have to increase the treatment of their drinking water, which will increase the costs associated with water utilities.¹⁶⁰ The increased costs associated will then trickle down to the consumers.¹⁶¹ Additionally, without uniform standards or respect for downriver states, the amount of pollution will likely increase and work to undo the progress ORSANCO has made in attempting to increase the health and safety of the River for those who depend on it for drinking water, recreation, and business.¹⁶²

C. An Alternative Method of Handling Requirements

There are alternative methods of operation to increase the health of the River while appeasing those concerned about duplicative efforts of the EPA and ORSANCO.¹⁶³ Specifically, the method that should be implemented is to continue to make adherence to ORSANCO standards mandatory, while eliminating any parameters serving as duplicates of the EPA's requirements. Instead of getting rid of these standards promulgated by the Commission, the Commission should retain their ability to enforce the standards on the states and, in cases where there is inequality in the standards between states or the EPA, the Commission should identify these inconsistencies and impose standards upon the states to ensure uniformity.

As mentioned, there are 188 parameters ORSANCO provides but the states and EPA do not provide for.¹⁶⁴ Although in the opposite direction of the new proposal, ORSANCO should impose these 188 parameters upon the member states. Since ORSANCO's parameters have been made voluntary, there is a loss of ability to stop polluters from engaging in conduct in those states not implementing one of these 188 parameters.¹⁶⁵

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ Tavenor, *supra* note 72.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

One specific area in which this would truly make a difference is the imposition of mixing zone bans.¹⁶⁶ Some states, as well as the EPA, have yet to impose a ban on mixing zones.¹⁶⁷ By imposing these parameters on all member states, ORSANCO will maintain the ability to put a stop to these polluters through appropriate legal mechanisms.¹⁶⁸ Imposing these 188 congruent standards upon the states will increase the overall health of the River, while providing additional equality amongst the member states parameters.

Another step to alleviate the concerns of those believing ORSANCO and the EPA are duplicative would be to defer to the EPA in areas in which they have set parameters. By deferring to the EPA in these areas, there would be a clear reduction in the efforts of the Commission and a more unified set of requirements imposed upon the states.¹⁶⁹ Further, ORSANCO would retain an ability to step-in if the EPA standards for any of those parameters were reduced or eliminated entirely. In the current political atmosphere, EPA administration of these requirements has not been nearly as focused as it should be on improving the nation's environmental issues, and allowing ORSANCO to act as a secondary "backstop" would increase the ability to set standards addressing the Ohio River's particular issues and increase the uniformity and equality amongst the states.¹⁷⁰

Finally, maintaining the Commission's current role and heightening involvement in standard setting by cooperating with state agencies and identifying inconsistencies amongst the states, will truly assist in improving the overall quality of the river as well as ensuring equality amongst the states.¹⁷¹ As it has been demonstrated, "the presence of a parameter under a State program does not insure the implementation of such parameter."¹⁷² ORSANCO can assist in locating the inconsistencies amongst the states and addressing said inconsistencies in the parameters set.¹⁷³ This will further assist in the administration of consistent standards and ultimately will

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ Tavenor, *supra* note 72.

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

lead to a more healthy river for those depending on the River for drinking, recreation, and business.¹⁷⁴

CONCLUSION

Due to the enumerated pollution issues with the Ohio River, there needs to be a change in how pollution of the River is regulated. Such a change does not call for a relinquishing of control by the one organization with the interests of the River as its' main focus.¹⁷⁵ In fact, the changes needed include increasing regulation on the River and increased cooperation amongst member states. This will also ensure those upriver will not affect the uses and the state of the River by those states downstream, which is one of the main purposes of ORSANCO, as set out by the ORSANCO Compact.

The fact that the River flows through so many states increases the complexity of the issues and the need for a guiding voice. The current change in the system is the exact opposite of what needs to be done for the health of the River. By enacting this new system, ORSANCO threatens the integrity of the work it has been doing since 1948. Further, this change may signal the undoing of the progress made with regard to the River's health.¹⁷⁶ As Chris Tavenor, Ohio Environmental Council lawyer, stated, "[i]n an era where environmental protections are threatened on all sides, we should be strengthening regional cooperation, rather than weakening it."¹⁷⁷

¹⁷⁴ *Id.*

¹⁷⁵ Tavenor, *supra* note 72.

¹⁷⁶ Reinhart, *supra* note 129.

¹⁷⁷ Kelly, *supra* note 145 (quoting Chris Tavenor, Ohio Environmental Council lawyer).