

The Politics of Water in the Upper Midwest:
Rights, Supply and Quality

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The Politics of Water in the Upper Midwest: Rights, Supply and Quality

I. Introduction

The Los Angeles area this winter -- I can't imagine what it's like to have to flee from your home because of raging forest fires being swept toward your community, fueled by tinderbox vegetation and gale-force winds. Block after block of houses reduced to charred rubble. Lifetimes of possessions wiped out; the center of family life and memories gone. Heartache, loss, dislocation. How to rebuild? Do you even rebuild?

Having lived my whole life in the Midwest, I can't imagine surroundings so arid and dry for so long, flames and smoke enveloping miles and miles around me. Sheepishly, my closest experience is whether to pull the lawn sprinkler out when the grass browns in July and August.

Living in Fort Wayne -- a town "Founded on the Rivers" -- and growing up in the Lakeside Park area in the 1960s to early 1980s, the concern was TOO MUCH WATER. Nearly every springtime we were reminded of that. During the "great flood" in the Spring of 1982, our family talked about whether the water would reach our home if the dike on the north side of the Maumee River broke. But I and my friends and people from all over the city filled and tossed sandbags -- even President Reagan joined in -- the dike held, and the "City saved itself".

Water is the source of life. Without it, nothing grows. It withers and dies. It catches fire easily. One of Jesus' poignant encounters recorded in the New Testament took place near a well with a Samaritan woman in which he drew a deeper parallel between the water in the well that sustains this life and the living water he offered that gives eternal life.¹

As in biblical times, everyone of us needs reliable sources of quality water to have life, and to grow and thrive, both on a personal level and as communities.

Quest paper presenters are given some license to vary from the assigned topic, so in light of that, I will not cover the literal geographic scope of my paper's title. In that regard, the "Upper Midwest" typically refers to Minnesota, Wisconsin, Iowa, North Dakota and South Dakota. I am going to instead shift eastward to the midwestern states around the Great Lakes, with the main focus on Indiana. In the time I have, I will only be able to give brief overviews of rights, supply and quality issues. I will also highlight recent studies, economic development projects, and proposed legislation related to Indiana water sources and use. If nothing else, I hope to "whet" your appetite for exploring and following these issues on your own.

II. Water Rights

Indiana, Ohio, Michigan, Illinois and Wisconsin -- these states, along with most of the eastern U.S., follow the "riparian rights" law which has been adopted from the English common law. Owners of land bordering streams have the right to use the water as an incident of ownership of the land. Originally, the right was restricted to a use that maintained normal levels and allowed taking water for domestic purposes only. Then it was expanded to incorporate the "reasonable use theory" which allows a riparian owner to reasonable use of the waters for business lawfully conducted on the owner's property subject to the equal rights of other owners to do the same.

Riparian rights are not ownership of the water itself, but only the right to use the water while it is flowing over or bordering the riparian lands.

In contrast, most western states with arid climate and water scarcity follow the “prior appropriation” doctrine which originated from the need to irrigate lands for crops to grow. In a nutshell, it provides that rights to water for irrigation are perfected and enforced in order of seniority, starting with the first person to divert water from a natural stream and apply it to a beneficial use. The concept of “beneficial use” limits a farmer to only that amount of water necessary to irrigate his land by making reasonable use of the water. And a senior appropriator has a right to all his water needs being satisfied before any junior appropriators get any water at all. However, junior users can prevent senior users from enlarging their rights to the junior users’ detriment.²

Another important legal doctrine related to rights in water in the United States is the public trust doctrine, which traces its roots to Roman law.³ This doctrine provides that the state holds natural resources in trust for the public and has an affirmative duty to manage those resources for the benefit of the public. In the 1892 United States Supreme Court decision Illinois Central Railroad Company v Illinois,⁴ the court held that the Great Lakes and the land underneath them were held in the public trust, invalidating a grant of most of the Chicago harbor to a private railroad company.

Today, all Great Lake states, and most others apply some form of the public trust doctrine to extend state control over navigable waterways and the land beneath them. But there have been efforts to extend the doctrine over groundwater, that water found typically collected in sand strata in subsurface soils or pooled in aquifers in deeper geologic formations. One example is a 2005 decision by the Michigan Court of Appeals, in a case brought by a Michigan environmental group against international food conglomerate Nestle.⁵ Nestle is a huge supplier of bottled water (think brands Perrier, San Pellegrino,

Aqua Panna and Nestle Pure Life). The environmental group sought to have the court stop Nestle from extracting and selling groundwater at one of its locations in Michigan. The court rejected the group's argument that the groundwater Nestle was pumping was really the property of the state.

Other efforts have been made through legislation introduced in Michigan to explicitly extend the public trust doctrine to groundwater. However, to date, such bills have not advanced.⁶

Another legal framework related to water rights in our region is the Great Lakes - St. Lawrence River Water Resources Compact ("Great Lakes Compact" or "compact" for short). The Great Lakes Compact is a legally binding agreement that has been adopted in 2007 and 2008 by each of the eight U.S. states that share the Great Lakes watershed, those being, Indiana, Illinois, Michigan, Wisconsin, Ohio, Minnesota, Pennsylvania and New York. It aims to manage and protect the water resources of the Great Lakes basin, ensuring their sustainability for present and future generations. The Great Lakes basin contains about 84% of North America's and roughly 21% of the world's surface freshwater.

The Great Lakes Compact's primary goal is to safeguard the Great Lakes against diversions of water outside the basin and promote conservation, water quality and protection of the ecosystem. It prevents large-scale withdrawals or transfers of water from the basin unless strict conditions are met. There are however, limited exceptions, and one of those exceptions was favorable to Nestle in the Michigan case. That exception allows the transport of water from the basin to elsewhere if it is in containers of 5.7 gallons or less⁷. Thus, without violating the compact, Nestle can pump, package and sell however

much it can of groundwater from the Great Lakes basin in those ubiquitous 16.9-ounce (0.5 liter) plastic bottles in shrink-wrapped 32-packs!

Another significant exception long predates the compact and is the diversion from Lake Michigan to supply the Chicago River system. The historic natural flow of the Chicago River was into Lake Michigan, until the completion of the Chicago Sanitary and Ship Canal in 1900⁸. Lake Michigan is the primary source of drinking water for the City of Chicago. Intake tunnels were constructed and repeatedly extended out into the lake in the late 1800's to as far as two miles from shore to reach fresh water uncontaminated by the extreme pollution flowing into the lake from the river. Effluent from the massive stockyards by the "Hog Butcher for the World"⁹ and the river otherwise being used as an open sanitation sewer was a public health crisis. The immediate solution was the canal, which re-directed the river's flow away from the lake and toward the Mississippi River basin by connecting it to the Des Plaines River.

The construction of the 28-mile canal is an engineering marvel, and has a very gradual slope from Chicago toward the Mississippi River basin. The Chicago Harbor Lock built in 1938 and located at the mouth of the river and Lake Michigan serves to limit the diversions from the lake and prevent the river from flowing back into the lake during significant storm events. Controlling works and sluice gates adjacent to the lock manage water levels by regulating water entering the river from the lake. Enough water must enter the river and canal system to keep water levels constant for navigation and gradually flowing to the west.

Before the Chicago Harbor Lock construction in 1938, as much as 10,000 cubic feet per second of lake water annually flowed into the Chicago River. A 1967 U.S.

Supreme Court decree in the case of Wisconsin v. Illinois¹⁰ limits the mean annual flow diversion from the lake¹¹ to 3,200 cubic feet per second, equal to about 24,000 gallons per second or approximately 757 billion gallons of water per year. That's the equivalent of 5.8 trillion 0.5 liter bottles of Nestle drinking water!

Focusing closer to home, Indiana's water use regulation has historically been very hands-off to non-existent. The reason for this is that the abundance and availability of water resources has far exceeded any demand. Even today, when the consumption is "reasonable use", there is no limit imposed by the state for any withdrawals.

However, in 1985, Indiana did enact an "emergency regulation statute"¹² which protects owners of small capacity water wells from the impacts of high-capacity groundwater pumping if it substantially lowers water levels, resulting in the failure of the small capacity well. A small capacity well is defined as less than 100,000 gallons per day pumping capacity, and high capacity is a well capable of pumping at least 100,000 gallons per day. The small well owner has the burden of proof and must, among other things, show that the owner's well and its equipment were functioning properly at the time of the failure and, if installed after 1985, were installed in accordance with applicable state standards. If the owner is successful, the Indiana Department of Natural Resources must declare a groundwater emergency and require timely and reasonable compensation to the owner, including immediately providing a temporary adequate supply of potable water at the point of use and compensation for the costs of restoring the well function and restrictions on the high-capacity pumping.

Besides this "reactive" emergency legislation, in Indiana, there are no conservation requirements in the event of droughts, and there is currently no formal system for

evaluating how new withdrawals could affect the natural ecosystem or downstream users. In essence, there are no bright-line limits on water use.¹³

III. Water Supply

Water resources are abundant in our region in comparison to many other parts of the country and indeed the world. The Great Lakes are the dominant geographical feature of the region. They form the largest freshwater system in the world by surface area. Michigan, Ohio, Indiana, Illinois, and Wisconsin all border one or more of these lakes.

Our region is also bordered by major rivers, including the Mississippi and Ohio Rivers, which are vital for regional hydrology and municipal water supplies.

The region also has expansive wetlands, where wetlands such as the “Everglades of the Midwest” in northwest Indiana play a vital role in flood control, water filtration, and biodiversity. It’s part of the Kankakee River Basin which flows from northwest Indiana to northeast Illinois. The Kankakee River once drained a vast wetland area known as the Kankakee Marsh. This marshland was one of the largest wetland areas in the Midwest, covering an area of approximately 100,000 acres, before significant drainage and land reclamation projects in the 19th and early 20th centuries.

By comparison, the largest wetland in Allen County, Indiana, is Eagle Marsh Nature Preserve, encompassing 831 acres on the southwest border of Fort Wayne. Managed by the Little River Wetlands Project, this preserve is in an area that was part of the Great Marsh, a vast wetland that once covered much of the Little River Valley between Huntington and Fort Wayne. The restoration of Eagle Marsh, beginning in 2005, represents one of Indiana's largest wetland restoration projects, aiming to return the landscape to its

natural state and preserve its rich biodiversity. Little River Wetlands Project manages a total of 1,300 acres of wetlands.¹⁴

Another reason for our abundant water is the region's topography which has been largely shaped by glacial activity during the last Ice Age. The glacial history of the region has contributed to a rich distribution of surface water and groundwater aquifers.

The region's hydrogeology is also diverse, with significant aquifers and groundwater sources that complement the surface water bodies. Sandstone aquifers are prevalent in Michigan and Ohio, providing reliable groundwater sources for municipalities and agriculture. Glacial Drift aquifers, found in Illinois, Indiana, and Wisconsin, are composed of sand, gravel, and till deposited by glaciers. They provide both shallow and deep groundwater and are crucial for water supply in rural areas, though they can be vulnerable to contamination from agricultural runoff.

There is also an important interaction between groundwater and surface water. The region's rivers, lakes, and wetlands are interconnected with underlying aquifers. Many of the major rivers, including the Chicago River and the Mississippi River, receive groundwater inputs that help maintain base flows, especially during dry periods. Surface water systems like the Great Lakes also influence groundwater levels and quality, with water from these lakes percolating into nearby aquifers.

In areas with glacial deposits like northern Indiana, water tables tend to be relatively high due to the porosity of glacial sands and gravels. Recharge rates for these aquifers can be high, depending on precipitation, but human activities (like urbanization and agriculture) can alter the natural recharge process.

In Indiana, several water studies recently have been completed, one for the Indiana Chamber Foundation and two by engineering firms commissioned by the Indiana Finance Authority. The Chamber report¹⁵ dated August 19, 2024, concluded the state has a plentiful but unevenly distributed water supply that will require a coordinated effort to manage in the future. In the northern tier of the state, including Fort Wayne, most landowners can supply their homes with a shallow well, and high-capacity wells rarely fail. The central part of the state has a mix of more productive aquifers along the major rivers (like the Wabash and the White Rivers) and less productive sand lenses that can supply small wells in the uplands. However, some counties in central Indiana have very limited aquifers and few streams, but regional supplies, from neighboring counties or utilities are likely available. Southern Indiana supplies are dominated by regional reservoirs (Lake Monroe near Bloomington, for example) and a collection of rural water districts which supply their systems from small reservoirs or water purchased wholesale from distant supplies.

The Regional Water Study of the Wabash Headwaters Region dated January 2025 prepared for the Indiana Finance Authority (IFA)¹⁶ covers 21 Indiana counties through which the beginnings of the Wabash River and watershed lie, including the western portion of Allen County. In this region, approximately 70% of the water supply is obtained from groundwater sources, with the remainder withdrawn from surface water sources. Major influences on water availability include water released from the three flood control reservoirs located within the region, these being the Salamonie, Huntington and Mississinewa reservoirs.

The North Central Indiana Regional Water Study also dated January 2025 and prepared for the Indiana Finance Authority¹⁷ studied the counties wrapping around the

western end of the Wabash Headwaters study and continuing with the Wabash River to Terre Haute. The Wabash River itself supports most surface water withdrawals within the region. The remaining water withdrawal is predominantly from groundwater wells.

The regional studies looked at the expected water demand through the year 2070, and are consistent with the Chamber report in concluding that these regions will continue to have a more than adequate water supply. These studies have been prepared pursuant to Senate Enrolled Act 416, enacted in 2017, which charged the IFA with the responsibility of gathering and analyzing data regarding current and future water demands and supplies across the State of Indiana.

At the same time, the conclusions on water supply in these studies acknowledge certain risks and uncertainties. For example, there could be some impact on supply throughout the year based on seasonal variations, such as typical dry fall and winter seasons, or periods of extended drought. Moreover, observed temperature and precipitation trends could be affected by changing climate, which could increase the variability of water supply from season to season and over time. Also, impaired surface water resources whose water quality is below minimum standards require additional costly treatment infrastructure to meet drinking water standards and could reduce the supply in those locales.

Finally, assumptions about demand increase from future economic growth and population changes could increase water use in ways not currently contemplated. For example, large data centers and potential nuclear power facilities could significantly increase demand. By the way, as an offset, coal-fired power plants which historically have needed huge amounts of water, are being retired.

In our community, Google is building a large data center. Google has been very secretive about the amount of water its facilities use. But in its 2023 Environmental Report, Google said its total water consumption in 2022 was 5.6 billion gallons. Its average data center in 2021 consumed 450,000 gallons a day, according to numbers from the Environmental Protection Agency. That's about 1500 times the 300 gallons EPA says the average household uses daily.¹⁸ Assuming a family of four in each household, that would be the equivalent to the daily needs of 6,000 people.

To put it further in perspective, according to the Fort Wayne City Utilities, the Three Rivers Water Filtration Plant today has total capacity of 72 million gallons per day, enough to supply the needs of Fort Wayne for at least the next 10 to 15 years¹⁹. Google's average daily use would take 0.625% of that daily capacity.

Google has agreed to pay for most of the cost of the extension of water and sewer lines to its facility that also would have capacity for future growth around that area. Of the \$3 million cost of the water line, Google agreed to pay \$2 million, and Google is paying all of the \$5 million sewer line cost.²⁰ Public concerns about Google's water use have subsided, certainly helped by its willingness to pay for most of the infrastructure that will then provide additional capacity to service other development in the area.

More controversial from a political standpoint is the LEAP district in Lebanon, Indiana, in Boone County, northwest of Indianapolis. "LEAP" stands for the Buzz Lightyear-sounding, "Limitless Exploration / Advanced Pace". It has brought the conversation about water resource planning and industrial development to the forefront. The development is strategically located at the midpoint of a planned 70-mile technology corridor between Indianapolis and Purdue University. In April 2023, Eli Lilly broke

ground on what it now plans to be a total investment of more than \$13 billion in drug manufacturing facilities, including a \$4.5 billion “Lilly Medicine Foundry” -- the first-ever facility of its kind, combining research and manufacturing in a single location.²¹

The one problem is water supply in this area is limited and the new massive development will hugely increase the demand. Lilly reserved 800,000 gallons of water per day for its project. But the Mayor of Lebanon, Matt Gentry says his city has struggled for adequate water for decades. The city of 17,000 falls between two watersheds and water drains away. The city has been forced to place a moratorium on new residential and other development, and the LEAP district cannot support other tenants until the water supply problem is solved.²²

While the industrial water supply may be available regionally, there are no substantial sources within Boone County. A proposal to build a water pipeline from Tippecanoe County to the LEAP district has generated strong concerns about sustainability, impacts to existing users and general water rights in Indiana.²³ As an alternative, Citizens Water, a water company in central Indiana has proposed building a pipeline to Lebanon Utilities that would tap into its Westfield and Whiteland utility infrastructure to the east of Lebanon. Citizens Water’s system includes water resources of the White River and four reservoirs, including Geist and Eagle Creek. The state approved a \$50 million bond to finance the pipeline which will bring 25 million gallons of water per day to Lebanon. Construction will take approximately six years, with interim water delivery milestones along the way. Long-term pipeline costs will not affect existing ratepayers, but will be paid for by new LEAP tenants. The state has said the Citizens pipeline is a separate effort from the Tippecanoe County pipeline which could possibly

pump up to 100 million gallons per day through a 35-mile pipeline from the Wabash River aquifers near Lafayette. That pipeline has been on hold waiting for the January water studies done for the IFA.^{24,25} As discussed earlier in this paper, these studies conclude that there is abundant water in the region.

However, some are cautioning that the results of the studies have not answered all questions about the sustainability of an annual withdrawal of 50 to 100 million gallons per day for the LEAP pipeline.²⁶ Keith Cherkauer is a Purdue University professor of agricultural and biological engineering and director for the Indiana Water Resources Research Center who provided some of the data for the two IFA studies. While he says we have a good amount of data, he doesn't think we know enough. He doesn't question that the aquifer can produce that amount of withdrawal needed for LEAP today, but he thinks more study is needed of whether the continuous withdrawal in that volume over years is sustainable. And his larger concern is there is currently no control or regulation of drilling and piping water from one part of the state to another.

In response to these concerns, Senate Bill 4 was introduced this 2025 legislative session. The bill has bi-partisan sponsorship of 21 senators, and was authored by the chair of the Senate Committee on Utilities, Eric Koch. At the end of January, it passed out of committee and then was passed by the full Senate without any opposition on February 4. On February 7, it was referred to the House of Representatives. On March 3 it will have its first reading in the House and be referred to the Committee on Utilities, Energy and Telecommunications. Given the overwhelming support in the Senate, it is highly likely the House will pass the bill and it will become law.

Senate Bill 4 establishes a process for the approval of long haul water pipelines,

which are defined as pipelines with a capacity of at least 10 million gallons per day and a destination located at least 30 miles from the withdrawal source. It also regulates interbasin water transfers. Indiana has defined hydrologically distinct water basins that this regulation would cover.

Water utilities must obtain a Certificate of Public Convenience and Necessity (CPCN) from the Indiana Utility Regulatory Commission (IURC) before constructing, purchasing, selling, or leasing long haul water pipelines. The application for a CPCN must include detailed information such as the purpose, volume, location, environmental impact, and costs of the pipeline. The IURC must hold a public hearing and make specific findings before granting a CPCN. Water utilities can recover costs through rates if they comply with the CPCN requirements.

Regarding interbasin water transfers, “notable users” (those transferring more than 30 million gallons per day) must obtain a transfer permit from the Department of Natural Resources (DNR). Applications for transfer permits must include information on the purpose, volume, location, environmental impact, and feasibility of the transfer. The DNR must approve applications if the transfer does not result in perennial overdraft or stream flow depletion and is in the public interest. Transfer permits do not expire but can be revoked, suspended, or modified under certain conditions.

Interestingly, or perhaps not surprisingly, the long haul pipeline requirements apply after June 30, 2025. In addition, the interbasin water transfer requirements do not apply to those that are under an agreement made before July 1, 2025 “concerning the limitless exploration advanced pace district and any related development”. So the law would not apply to the Citizens Water pipeline or to the long haul pipeline from Tippecanoe County

if it is under agreement before July 1, 2025. The political compromise is an acknowledgment that “the horse is out of the barn” as to the LEAP district. The political reality is Lilly’s massive development is too important to the economy of the state to delay through additional administrative approval processes.

IV. Water Quality

The federal government plays a pivotal role in regulating water quality and supply in the United States, primarily through the Environmental Protection Agency (EPA) and key legislation. The Clean Water Act, enacted by Congress in 1972, was established to regulate discharges of pollutants into U.S. waters and to set quality standards for surface waters. EPA has been authorized by the Act to set wastewater standards for industries and water quality criteria for contaminants in surface waters. The Act also makes it unlawful to discharge any pollutant from a point source into navigable waters without a permit.

The second significant legislation, the Safe Drinking Water Act signed into law in 1974, was enacted to protect the quality of drinking water in the United States. EPA establishes legally enforceable standards for drinking water to protect against both naturally occurring and man-made contaminants. Public water systems must comply with monitoring, reporting, and other requirements established by the EPA and individual states.

While the federal government sets standards for water quality, the management of water supply is primarily a state and local responsibility. However, the federal government contributes through infrastructure funding by providing financial assistance for the construction and maintenance of water treatment and distribution systems. The federal government also conducts research on water usage, availability, and quality to inform policy and management decisions. And it facilitates interstate water compacts such as the

Great Lakes Compact between states to manage shared water resources effectively.

Federal legislation on water quality was motivated by growing public awareness of the connection between clean water, human health and economic prosperity. The history of industrialization around the Great Lakes was a significant part of public perception of the need to protect our waters. The exponential growth in population and industry in the United States in the late 19th and early 20th centuries turned the Great Lakes into critical hubs for industrial activity, including steel manufacturing, pulp and paper production, and heavy industry. This led to significant pollution in the lakes. Factories along the lakeshores discharged chemicals, heavy metals, and untreated wastewater directly into the water. As urban populations grew, untreated sewage was commonly dumped into the lakes, leading to contamination and degradation of water quality. We talked about the Chicago River being a prime example. Agricultural runoff, containing fertilizers and pesticides, began to enter the lakes through rivers and tributaries, causing eutrophication, which promotes excessive algae growth, depletes oxygen, and harms aquatic life.

The visible decline of the Great Lakes was highlighted by the infamous 1969 fire on the Cuyahoga River in Cleveland, Ohio, which had become so polluted that the river literally caught fire. In the 1960s, Lake Erie also experienced severe pollution from excessive nutrient runoff which caused large fish kills and the collapse of local fisheries.

After the passage of the Clean Water Act and other key water quality legislation in the 1970s, in the 1980s and 1990s, efforts shifted toward reducing more specific, harmful pollutants and restoring ecosystems affected by pollution. The Great Lakes were recognized as being highly polluted with persistent toxic substances such as PCBs (polychlorinated biphenyls), mercury, and DDT, which bioaccumulated in fish and other

wildlife. In addition, efforts were made to reduce these contaminants through stricter regulation of industrial discharges and improved waste management. Efforts to restore wetlands, riparian areas, and other critical habitats intensified. The importance of wetlands for filtering pollutants, providing wildlife habitat, and supporting biodiversity became better understood.

The 21st century has brought new challenges for the Great Lakes, and water quality efforts have continued to evolve. Invasive species like the zebra mussel, sea lamprey, and Asian carp were introduced into the lakes, causing ecosystem imbalances and impacting water quality. Efforts to control these species, including physical barriers and chemical treatments, have become a focus of the region's environmental policies. Nutrient pollution and harmful algal blooms remain a problem, particularly in Lake Erie, where large harmful algal blooms became more frequent due to runoff from agricultural fertilizers. The U.S. and Canada responded with nutrient reduction targets, especially focusing on reducing phosphorus inputs to the lakes. Also, rising temperatures, altered precipitation patterns, and changing water levels in the Great Lakes due to climate change have affected water quality. Concerns have grown over increased algal blooms, altered aquatic ecosystems, and the loss of critical habitat for native species.

The Great Lakes Restoration Initiative, begun in 2010 by EPA, has been an important program in addressing ongoing water quality challenges. The initiative focuses on cleaning up toxic hotspots and reducing harmful pollutants in the lakes. It also prioritizes restoring wetlands and other ecosystems to improve water quality and provide vital habitat for wildlife, addressing invasive species to reduce their impact on native ecosystems and water quality, and reducing nutrient pollution, particularly in Lake Erie.

The Great Lakes Compact is also important legislative tool to prevent diversion from the lakes and manage water resources sustainably.

In Indiana, since 1957, the state has collected surface water quality data through the Fixed Station Monitoring Program. Today, it is part of the Indiana Department of Environmental Management's Water Quality Monitoring Strategy which is updated every four years, and assesses water quality in streams, lakes, and rivers to satisfy requirements of the Clean Water Act. Beginning in 2008, IDEM also has been monitoring groundwater quality across the state through sampling of residential drinking water wells and public water supplies to better understand the regional groundwater and surface water nexus. This monitoring is a critical element in identifying impaired waterways and informing the need for water treatment to achieve water quality standards.²⁷

V. Conclusion

Water in the Great Lakes region and here in Indiana is abundant, but not limitless. Regional coordination and planning are critical to ensuring that our water resources are protected and available for all consumers. The LEAP district has brought to light the need for a regulatory process in Indiana that balances the demands of economic development with sustainability of water supply for all citizens. Continual and improving monitoring of water resources are essential to providing the data for good decision making and proactive intervention, anticipating that assumptions today may not hold true in the future. Plentiful and clean water is a blessing that we can't take for granted and we must all be committed to protecting, knowing that our life depends on it.

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Quest Club

Friday, February 21, 2025

End Notes

¹ John 4:4-14.

² “Water Issues in Real Estate Law: Rights, Easements, Transactions and More”, National Business Institute Seminar presented November 14, 2024, printed materials, pp. 8-11.

³ “Michigan’s groundwater and the public trust doctrine”, Shay Elbaum, Michigan Bar Journal, June 2022

⁴ Illinois Central R Co v Illinois, 146 US 387 (1892).

⁵ Michigan Citizens for Waer Conservation v Nestle Waters North America Inc., 269 Mich. App 25, 709 NW2d 174 (2005).

⁶ Ibid., Elbaum.

⁷ Ibid., Elbaum.

⁸ “A River Reversed: How 19th Century Engineering Saved Chicago”, Canda Brown, Plain Communities Business Exchange, September 2021.

⁹ “Chicago”, Carl Sandburg, 1916.

¹⁰ Wisconsin v. Illinois, 388 U.S. 426 (1967)

¹¹ The diversion limit applies to the total lake water that enters from three points: the Chicago Harbor Lock at the Chicago River, the Wilmette pumping station on the north shore, and the O’Brien Lock at the Little Calumet River to the south. See Bruce Barker, *Lake Diversion at Chicago*, 18 Case W. Res. J. Int’l L 203 (1986)

¹² Ind. Code §14-25-4.

¹³ “Water Policy and Planning in Indiana: A 10-Year Update” dated August 19, 2024 prepared for Indiana Chamber of Commerce by Intera Incorporated (hereafter “Chamber Report”), p. v.

¹⁴ <https://www.lrwp.org/> searched on February 15, 2025.

¹⁵ Ibid., Chamber Report.

¹⁶ “Regional Water Study: Wabash Headwaters Region” dated January 2025 prepared for Indiana Finance Authority by Jabos Engineering Group Inc.

¹⁷ “North Central Indiana Regional Water Study” dated January 2025 prepared for Indiana Finance Authority by Stantec Consulting Services Inc. (hereafter “Stantec Study”).

¹⁸ “Water use for local data center unknown”, Nicole Kauffman, The Journal Gazette dated November 25, 2023.

¹⁹ <http://www.Utilities.cityoffortwayne.org/about/facilities/three-rivers-water-filtration/> searched on February 15, 2025.

²⁰ “Details of proposed data center emerge during public hearing”, Joe Carroll, Ethan Dahlen, wane.com Posted: Nov 9, 2023 / 02:15 PM EST and Updated: Nov 10, 2023 / 03:44 PM EST.

²¹ “Lilly announces new \$4.5 billion site – the Lilly Medicine Foundry – to drive innovation in drug production and make medicines for clinical trials” Eli Lilly Company press release dated October 2, 2024.

²² “Lebanon on quest for more water”, Leslie Bonilla Muniz, The Journal Gazette dated September 21, 2024

²³ Chamber Report, page 9.

²⁴ “State Approves \$50 Million Bond Financing for New LEAP Pipeline Project”, Cate Charron, Indianapolis Business Journal dated August 22, 2024.

²⁵ “Citizens Water in Discussions to Supply Water to Lebanon Utilities”, Citizens Energy Group press release dated August 23, 2024.

²⁶ “Do State’s New Studies Answer the Leap Pipeline Question? A Q&A with Purdue’s Keith Cherkauer”, Dave Bangert, Based in Lafayette, Indiana dated January 13, 2025.

²⁷ Ibid., Stantec Study.