



A White Paper on 2022  
Themes and Future Directions

# Indiana Water Summit



# The Indiana Water Summit Leadership Team & Working Group

The members of the Leadership Team and Working Group have volunteered to contribute their time, expertise, and insights throughout the year to these purposes:

- Maintaining attention and momentum on issues highlighted in the [Indiana Water Roadmap](#) or addressed during the Indiana Water Summit,
- Bringing diverse perspectives and experiences to those issues, and
- Identifying actions that can be taken or advocated between annual Water Summits in order to help protect and improve Indiana's water resources.

Coordination and support for the Summit Working Group is provided by the White River Alliance.

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Note: Organizational affiliations are listed for identification purposes only. When participating in the Summit Working Group, members are sharing their expertise and perspectives, not necessarily representing the views of their respective agencies or organizations.

## **Why This White Paper Is Important to Indiana's Future**

The participants in the 2022 Indiana Water Summit drew attention to several pressing water issues in our state, and to positive steps that can be taken to address them. There were also constructive examples of actions and progress from which much can be learned and used to protect Indiana's critical water resources.

In this White Paper we have identified five themes that draw much of that information together and a related set of actions that can be pursued in connection with each theme. This White Paper is intended to be a concise and useful resource for decision makers seeking to enhance the quality of life in Indiana and ensure economic vitality.

## **Why You Should Read This White Paper**

You have received this White Paper because you are a decision maker or industry leader who can influence water policy and practice in our state and its local communities.

We hope you'll find it informative, inspiring, and action oriented. Continued progress in improving and protecting Indiana's water resources – some of the greatest assets we have – depends on your leadership and commitment. Thank you!

## **What You Can Do To Protect Indiana's Water**

After you have reviewed this White Paper, please share it with colleagues whose roles and responsibilities relate to natural resource planning, land use, conservation, economic development, public health – in essence, water management!

In addition, you can support the Summit Working Group throughout 2023 by staying aware of our work, participating in our events, and letting us know what you think and care about.

Please feel free to designate someone in your organization, agency, or community to do so as well or in your stead.

# The Indiana Water Summit

## Themes & Directions from 2022

### Introduction

The White River Alliance convened the first Indiana Water Summit in 2018 as a means to gathering stakeholders and users across the water spectrum. The overarching goal was to broaden understanding across disciplines and lay the foundation for regional water planning. Five years later, the annual Summit and the collective efforts of those involved have built that foundation and provided a roadmap of priority strategies that will aid in the further development of the structure.

The 5th Annual Indiana Water Summit provided the clearest indication yet of the opportunities (and challenges) that lie ahead in the state's effort to undertake a regional planning process. Across two days, several sessions, and multiple speakers, important themes emerged and were detailed and reinforced by examples from around Indiana and elsewhere. Reviewing those themes and examples we can identify some directions to pursue in 2023 and beyond to advance such critical planning.

Leading that effort will be the newly established Summit Working Group. The Working Group - composed of leaders from public and private, state and local organizations, and representatives from all sectors of the Indiana water community - will follow up on Summit content and refine it into proposed actions. As referenced below, that work may include identifying collaborative projects across sectors, innovative or cooperative funding methods, policy recommendations, public outreach and education initiatives, and so on. Like the Summit, the Working Group's agenda will revolve around the Indiana Water Roadmap that has been developed through extensive input and discussion in previous years of the Summit.

The members of the Summit Working Group have volunteered to contribute their time, expertise, and insights throughout the year. We are grateful to the members for their time and contributions to help advance this effort.

You can find out more about the Working Group, the Indiana Water Roadmap, and past Summit content at [IndianaWaterSummit.org](https://IndianaWaterSummit.org).

# Theme 1

## Regional Planning and Coordination

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**The importance of regional water planning and regional-scale collaboration on projects and programs have been emphasized at previous Indiana Water Summits and were underscored at the 2022 Summit as a critical strategy to protecting water supplies.**

Attendees heard about several examples – the Central Indiana Water Study, the White River project under the state’s Regional Economic Acceleration and Development Initiative (READI), the state-local partnership at the River Ridge site in southeastern Indiana, a legislative proposal to make regional Watershed Development Commissions possible anywhere in the state, and Minnesota’s “One Watershed One Plan” program. Three major take-aways emerged from these diverse examples: 1) regional action can take many forms, 2) substantial benefits can be realized by such collaboration, and 3) the challenges of undertaking and sustaining it can be mitigated.

Regional action can involve a wide variety of stakeholders including utilities, university researchers, and government agencies and offices across multiple counties as is the case with the Central Indiana Water Study. Or, it may involve local governments across multiple counties as does the White

River READI. A combination of state and local agencies plus private firms may be involved as with the River Ridge case, or there might be a statewide template that can be adopted and implemented at various scales depending on watershed boundaries. This last example is most clearly seen in Minnesota’s watershed planning approach described by keynote speaker Julie Westerlund and proposed legislation in Indiana that would facilitate the establishment of locally-initiated watershed development commissions. There is no one best way to organize regional water stewardship efforts but several good guideposts exist.

Participants in these regional efforts all spoke of the benefits the efforts bring. Whether it’s coordinating water supply and demand projections, initiating and implementing quality-of-life projects along waterways, or boosting economic development by enhancing the natural assets of our waterways, regional efforts can bear fruit that is more difficult to cultivate separately within the confines of a single jurisdiction. Cities, counties, utilities, and other stakeholder groups have established regional partnerships and found value in them for a variety of purposes.

It isn’t easy, though. Speakers also shared the time and effort such collaborations require and the patience and persistence they demand. Progress is gradual, unfolding over the course of years. The presenters shared the frustrations of temporary setbacks, but they also emphasized the importance of not letting such impediments derail the endeavor. Successful regional efforts depend on continual communication, information sharing, and the investment of resources.

# Theme 1

## Regional Planning and Coordination

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### Take-aways and follow-ups

Although regionalism is challenging and sometimes unfamiliar, it is worth the sustained effort. Real benefits can be gained when water resources are managed at the watershed level, across various political and administrative territories and disciplines. Furthermore, the alternative – trying to improve and protect our water resources through siloed actions occurring within hundreds of local jurisdictions – is unlikely to generate the positive results we want and the sustainability we need. Therefore, the Summit Working Group will encourage regional partnerships where they emerge, advocate policies that will facilitate and support regional approaches to everything from planning to infrastructure to conservation, and promote the investment in and sharing of reliable data about our water resources that can be used at multiple scales.

### ACTION

**Regional water assessments and planning need to be raised to priority status statewide and seen through to completion. This includes:**

- ➔ Developing a schedule for the remaining regions
- ➔ Adopting a consistent framework for the regional studies, leaving room for greater or lesser emphasis of issues that are more important or less important in each region
- ➔ Communicating findings and implications with state and local economic development offices
- ➔ Integrating the regional studies into a statewide water resource assessment
- ➔ Updating state and local drought plans in light of the regional study findings

# Theme 2

## Water and the Quality of Life in Indiana: Taking an Integrated View

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**Water quality is a critical component of a robust and secure water supply. Nearly every session at the 2022 Indiana Water Summit sounded this theme in one way or another.**

It could be heard in the stories of the Fort Wayne riverfront restoration, the Grand Calumet watershed recovery, the River Ridge land redevelopment process, the work of the Indiana Agriculture Nutrient Alliance (IANA), Ohio's Blanchard River Demonstration Farms, DC Water's Clean Rivers program, and the Central Indiana Water Study's quest for a regional understanding of water demand trends and water supply options. The best of these projects embrace a holistic view of the river system and recognize that a healthy river corridor is necessary to achieve desired water quality and quantity management. Elements such as fully functioning floodplains are critical to a healthy river.

One aspect of this quality of life theme was the promise of reversing the negative effects of pollution and neglect, as seen in Fort Wayne and along the Grand Calumet. Although prevention would undoubtedly have been preferable to the costly and time-

consuming recovery and improvement of these sites, they both demonstrate what is possible with the commitment of time, resources, and expertise. We need not write off any portion of the state that has been harmed by past actions or inaction. Scenic beauty, habitat, recreation, and other values we hold for our waterways and our communities can be restored and enhanced, and when we do so, we raise the quality of life for everyone in those communities. These factors influence economic development, talent retention, and public health.

Another aspect of this theme was the importance of seeing the benefits and not focusing solely on the costs of remediation or reinvestment. Protection, restoration, and improvement of our water resources is costly – there's no getting around that. But no sound decision maker walks away from a situation solely because there are costs without asking what are the benefits and whether the costs are worth it. This was a clear message not only of the restoration projects mentioned above but of the experiences of the Blanchard River Demonstration Farms project in Ohio and the work of the Indiana Agriculture Nutrient Alliance and Indiana's Nutrient Reduction Strategy. Changing farming practices is costly, but these leaders have embraced the effort nonetheless by identifying the benefits to soil health and production yields as well as the prospect of wasting less nutrient input (and its associated economic costs). Their experience thus far demonstrates that there is enough value on the benefits side of the scale to offset the costs side.

A related aspect of this theme was the importance of taking an integrated view – water stewardship and economic development need not be in tension. How we develop and

# Theme 2

## Water and the Quality of Life in Indiana: Taking an Integrated View

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use land and how we develop and use water are really two sides of the same coin. The quality, abundance, and reliability of our water affects what we can do with and on our land, and what we do with and on our land affects the quality and reliability of our water. This was evident in the session on agriculture and water quality, in the presentations about riverfront redevelopment and watershed restoration, and in Jack Wittman's presentation of the Central Indiana Water Study which was motivated in large measure by the connection between the region's future economic development and the availability of a secure, adequate, and high-quality water supply. We don't have

to choose between water protection and economic growth – they are in fact compatible goals.

### **Take-aways and follow-ups**

Throughout 2023 and beyond, the Summit Working Group will convene and communicate with local and state officials, utility leaders, and nongovernmental advocates for our water to identify and develop win-win projects that can advance with the right combination of leadership and resources. The Working Group will also formulate policy recommendations that could encourage this kind of leadership and action throughout the state. Last but not least, identifying benefits and costs requires data, and the Working Group will collaborate with our state agencies, public and private sector leaders, and researchers to help document the outcomes of efforts to enhance the quality of life in Indiana communities through the protection of our water resources.

### **ACTION**

**Develop and implement proactive measures to enhance quality of life in Indiana through improved water management and protection. This includes:**

- Identifying and adopting model ordinances that protect waterways and wellhead protection areas, and/or updating existing ordinance provisions where needed
- Supporting the further adoption of agricultural conservation best management practices (BMPs) through incentives and technical assistance
- Incorporating construction BMPs including green infrastructure components into building permit processes with model ordinances and minimum state technical standards
- Collaboration between IDNR, IEDC, and other entities to promote as well as protect Indiana's valuable water assets and related attractive spaces



# Theme 3

## Information and Science Are Essential

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**We can and should be hopeful and energetically committed to water protection and the quality of life in Indiana, but we need to know a lot more in order to do that effectively.**

This point was emphasized throughout the presentation on the Central Indiana Water Study. We need better data on our groundwater supplies and the storage capacity of our underground aquifers, on the interactions between our groundwater and surface water flows, and on water uses in order to be able to plan more accurately and manage more effectively.

Indiana is fortunate to be a state with abundant water supplies. To some extent, that good fortune has bred complacency and an underinvestment in knowledge of that supply. Yet, we now need to know exactly how much is there, where it is, at what quality, and how it moves – especially underground. Where simple observation is insufficient it has to be supplemented by more sophisticated methods of collecting data and modelling the resource. Even with regard to our surface water, we would benefit from more information about low flows during dry periods, the ecological needs of aquatic life and how that relates to low flows, and the water quality impairment low flow can cause.

Farmers and local officials trying to protect water quality need more and better information too. The data that are needed go beyond stream sampling. Data needs include edge-of-field information about where nutrients are escaping farmland through runoff and drainage. As panelists Julie Harrold, Ben Wicker, and Jill Reinhart explained, our State Nutrient Reduction Strategy is tied to an initiative named the Indiana Science Assessment. This assessment includes improved indicators of where, when, and how excess nutrients are impairing our water quality – and just as important – how and where nutrient reduction efforts are producing desired results.



# Theme 3

## Information and Science Are Essential

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### Take-aways and follow-ups

When we say there is too much we don't know, that applies to our progress as well as to our problems. As noted above, water quality protection has costs; so does water quality impairment. How do we know whether our efforts to improve and protect our water resources are working, and how well? That can be a crucial knowledge gap. So is our lack of understanding of our groundwater supplies and their connection with our surface water. At a minimum, local communities and state officials trying to plan for economic development and population growth need to know how much water is available, of what quality, and how much is being used already in order to make informed decisions that affect the future health and prosperity of their residents.

### ACTION

**Generate and sustain a major investment in better, more current information about our water resources, their conditions, and their capabilities. This includes:**

- Improved mapping and monitoring of our groundwater aquifers, including capacity and threat assessments
- Modeling low-flow conditions and their impacts on public supplies and other water uses and on the natural environment; then feeding this information into local and state drought planning
- Continued updating of floodplain and floodway maps and flood forecasts, and downscaling climate projections for use by local planners and public officials
- Identifying habitat gaps that isolate and threaten wildlife, and water quality conditions that pose risks to aquatic habitat

# Theme 4

## The Importance of Capacity and Commitment

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**Several speakers and sessions highlighted the importance of capacity and commitment to effective water stewardship. Capacity includes financial and human resources, and commitment is the sustained devotion of those resources to efforts to improve our water resources.**

Fortunately, the financial resources available in Indiana for water improvement efforts have increased substantially recently. As explained by Indiana Finance Authority COO Jim McGoff, the State of Indiana has received funds under several federal initiatives for the refurbishment of infrastructure and for various forms of technical assistance in support of those improvements. These funds can be devoted to wastewater collection and treatment, drinking water treatment and distribution, replacement of lead pipes, and the removal and remediation of emerging contaminants. Federal requirements direct states to prioritize disadvantaged communities for the distribution and use of these funds. Most of the federal funding will remain available for five years, creating opportunities for substantial improvements to water quality and infrastructure reliability in Indiana.

However, staffing our water protection agencies is a major and

growing challenge. Indiana Department of Environmental Management (IDEM) Commissioner Brian Rockensuess emphasized this point at the Summit, as did a number of the Branch Chiefs in IDEM's Office of Water Quality who participated in a Summit panel reviewing how the Clean Water Act and other protections of human and environmental health are administered in Indiana. Increased turnover of personnel, uncompetitive salaries, and the tight condition of the job market have left IDEM with a number of vacancies. Restoring the staff capacity of the agency has become a pressing priority heading into the 2023 budget session of the Indiana General Assembly. Although IDEM staff have managed to avoid backlogs of permit applications to date, it is likely that an application backlog will begin to form this year due to vacancies. This also means there is no room in the system for technical assistance or community collaboration. A sustained effort will be needed to reverse the personnel losses of the past few years and restore the department's capacity to fulfill its important functions in the protection of our water, environment, and health.

Sustained commitment of funding and people was also an important part of the message from Summit speakers and panelists regarding regional collaboration. Riverfront restoration in downtown Fort Wayne, the restoration effort in the Grand Calumet watershed, and the other regional planning and coordination cases mentioned earlier all struck this theme. The presentation about DC Water's "Clean Rivers" program in the nation's capital also introduced a financing instrument that could be of value in large-scale infrastructure projects: risk-share bonds. In this program, investors and the project managing agency (in that case, DC Water) work out alternatives for interest payments under different scenarios based on whether the project achieves the intended financial and other targets. Yet innovative approaches like this require staff capacity and positions dedicated to community and business engagement.

# Theme 4

## The Importance of Capacity and Commitment

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### Take-aways and follow-ups

Effective water stewardship requires science and coordinated policies but also program funding and people. As the Summit Working Group designs and implements its action agenda for 2023, it will be important to leverage the short-term funding opportunities that currently exist and work to abate the long-term challenges to staff expertise and adequate program and project support – all of which are needed for sustainable progress. Leaders at the local and state levels need our support and solutions as well as our input and collaboration.

### ACTION

Develop and maintain funding and staffing at levels that are necessary to effective water management, provision, and protection. This includes:

- Implementing a systematic and sustained approach to recruiting, training, and retaining water infrastructure operations personnel
- Attracting and retaining professional staff in our state agencies that manage and protect water resources and implement conservation programs
- Developing dedicated or otherwise sustained funding streams for septic repair and replacement, wastewater treatment, green infrastructure, and conservation programs

# Theme 5

## Dialogue is Essential, Too

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**Even in a comparatively water-rich state, water and its use can be a contentious issue. In the absence of better information, people can lapse into thinking about water in zero-sum terms – more or better water for you somehow translates to less or poorer water for me. During the 2022 Indiana Water Summit, another theme that surfaced was the importance of talking and listening to one another.**

Summit attendees heard this expressed clearly in the presentation by participants in the White River READI project, who represent neighboring cities that are often in competition with one another for residents, economic activity, and reputation. Collaborating on a successful application to the state's READI program required the participants to listen thoughtfully and carefully to each other's needs and priorities, and in some instances to be willing to accept a lower priority for their community's project if another community's project was going to have greater regional impact. That isn't easy to do, but it contributed to the success of the overall effort.

Professor Landon Yoder from Indiana University-Bloomington shared findings from research he has done on regional collaborative efforts around water resource protection in Florida and Iowa

as well as Indiana. A consistent result of this social science research has been that collaborative processes that brought people into direct conversations with one another were more likely to result in agreements about how to move forward and the kind of committed efforts that produce progress.

One of the highest highlights of the 2022 Indiana Water Summit was seeing the power of dialogue happening in real time. Indiana State Representative Mike Aylesworth (who's been attending the Water Summit since its first year) agreed to serve on a panel about his legislative proposal to create a statewide framework for the establishment of Watershed Development Commissions in Indiana. His colleague and a co-author of the bill, Representative Dave Abbott, joined him on the Summit panel and shared his own ideas for legislation to strengthen our lake protections in Indiana. These two legislative leaders were joined by Jarrod Hahn, Wells County Surveyor and past president of the Indiana Association of County Surveyors who also serves on the boards of two river basin commissions in our state, and Daragh Deegan who works for the City of Elkhart and serves on another river basin commission board. Together the four of them discussed Rep. Aylesworth's proposal, the pros and cons as they saw them from their distinct and informed perspectives, and how the proposal might be modified to address diverse concerns. Rep. Aylesworth took the additional step of inviting a member of the Indiana Legislative Service Agency, Craig Mortell, to take notes that could be used later to inform modifications to the legislation before it is introduced in the 2023 legislative session. The panelists also fielded questions from the session moderator and audience. It was a demonstration of substantive dialogue in action.

# Theme 5

## Dialogue is Essential, Too

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### Take-aways and follow-ups

The advantages of dialogue are clear. People embrace the idea of dialogue in principle, but it takes work to organize and sustain the effort to bring people together – and sometimes to take us out of our comfort zones to talk and listen to those with whom we (at least initially) disagree. This year's Indiana

Water Summit reminded us of the importance and value of the work, especially when it brings together people from different perspectives. Among its other contributions in 2023 and beyond, the Summit Working Group plans to convene and participate in dialogues throughout Indiana about the value of water and how we can be better stewards of that precious resource.

### ACTION

**Advance the goals in Themes 1 through 4 by establishing and maintaining regular cross-sector information sharing, deliberation, and decision making.**

**This includes:**

- ➔ Collaborative planning exercises such as the one completed recently by the Central Indiana Drinking Water Collaborative
- ➔ Supporting and expanding the work of educators, researchers, and nongovernmental organizations that inform the general public and public officials about current and projected water conditions in Indiana
- ➔ Making digital tools more readily accessible for the public and public officials that display data and forecasts concerning rainfall, stream flows, flood risks, and water quality conditions to generate collaborative, action-oriented conversations
- ➔ Continuing the work of cross-sector forums, such as the Indiana Water Summit, and multi-stakeholder collaborations for review and discussion of water issues