TEAMWORK MAKES THE STREAM WORK: ANALYZING A RECENT ADDITION TO INDIANA'S WATERSHED MANAGEMENT TOOLBOX

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INTRODUCTION

Watershed and water resources management exists at various scales in the state of Indiana. At the smaller end of the spectrum, there exist county drainage boards and conservancy districts. Drainage boards operate at the county level and, as the name suggests, are primarily concerned with maintaining and improving surface water drainage. The County Surveyor is an elected office in each county and assists the Drainage Board by constructing, maintaining, or reconstructing regulated drains within the county. Conservancy districts are generally smaller than a county and are formed for a specific purpose, which need not necessarily be to improve drainage. Providing irrigation, collecting and treating sewage, and preventing soil erosion are all purposes for which a conservancy district can be established. Although the purposes and powers of drainage boards and conservancy districts can be quite different, both entities have the ability to levy assessments or special benefit taxes on residents within their jurisdictions to fund their resource management and improvement actions.

At the larger end of the spectrum of water resources management entities are river basin commissions (RBCs). Among the goals of establishing these entities are the promotion of flood control, conservation of soil and water resources, and cooperation among municipalities within the basin.⁵ The basins that are governed by such commissions and the powers of those commissions are determined by Indiana statute.⁶ For example, the Maumee RBC is granted authority over the land draining to the Maumee River and its tributaries in Indiana.⁷ The Maumee RBC has, among other powers, the ability to acquire land and adopt rules to restrict the future development of the floodplains within the basin.⁸ Importantly, funds necessary to perform these and other duties of RBCs are acquired through appropriations from constituent counties⁹ or grants from other government entities, individuals, foundations, or other organizations.¹⁰

In the 2023 regular session of the Indiana General Assembly, Representatives Aylesworth, Ledbetter, Hamilton, and Abbott authored and introduced a bill in the House of Representatives that proposed procedures for the formation of watershed development commissions (WDCs) in the state. 11 Essentially, WDCs combine the spatial scale and general duties and powers of RBCs with the taxing

- 1. See Ind. Code § 36-9-27 (2023).
- 2. Id. § 36-9-27-34.
- 3. Id. § 14-33-1-1.
- 4. See id. §§ 14-33-7-1, 36-9-27-39.
- 5. *Community Assistance & Information*, IND. DEP'T OF NAT'L RES., https://www.in.gov/dnr/water/community-assistance-and-information [https://perma.cc/XG25-393P].
 - 6. See, e.g., Ind. Code § 14-30-2 (2023).
 - 7. Id. § 14-30-2-3.
 - 8. Id. § 14-30-2-22.
 - 9. Id. § 14-30-2-18.
 - 10. Id. § 14-30-3-22.
 - 11. Id. § 14-30.5-2.

authority of drainage boards and conservancy districts.¹² Following a series of amendments, House Enrolled Act (HEA) 1639 was signed by Governor Holcomb on May 4, 2023.¹³ As of July 1, 2023, the provisions of the bill are effective Indiana statute. The bill created mechanisms to convert existing RBCs to WDCs¹⁴ and to create entirely new WDCs.¹⁵ The consequences of both actions will be explored.

This Note argues that the passage of Indiana HEA 1639 (2023) is likely to increase the prevalence and funding of watershed management commissions in Indiana. However, some provisions of the bill shift the emphasis of such commissions away from conservation and towards utilization. Part I provides context for HEA 1639 by providing additional details about the governance, duties, and funding of existing water management bodies created by Indiana statute. Part II briefly describes the two primary functions of HEA 1639: (1) to convert existing RBCs to WDCs and (2) to create new WDCs "from scratch." Part III investigates the consequences of converting to a WDC for each existing RBC. Part IV discusses the process of creating a new WDC by examining a likely target: the Pigeon Creek watershed in southwest Indiana. Part V provides a summary of additional concerns about the final language of the bill and the proposed governance and functions of WDCs.

I. OVERVIEW OF STATUTORY WATERSHED MANAGEMENT IN INDIANA

This section describes some of the key aspects of existing state statutory water and resource management entities in Indiana. The four kinds of entities discussed below are arranged roughly in order of increasing areal extent. In general, the descriptions will be simplified to focus on the governance, powers, and funding mechanisms provided by Indiana statute. These points of comparison will drive the discussion and analysis of the proposed watershed development commission scheme in later sections of this Note.

A. Drainage Boards and Regulated Drains

Each county in Indiana has a drainage board or comparable body.¹⁶ Each drainage board consists of either three or five voting members and the County Surveyor, who is a nonvoting member.¹⁷ The County Surveyor is the "technical authority" on promoting adequate drainage within the county and is responsible for constructing and maintaining regulated drains.¹⁸ When maintenance,¹⁹

^{12.} See §§ 14-30.5-2, -3, -5.

^{13.} Actions for House Bill 1639, IND. GEN. ASSEMB., https://iga.in.gov/legislative/2023/bills/house/1639/actions [https://perma.cc/N54L-25UH].

^{14.} E.g., § 14-30-2-25.

^{15.} Id. § 14-30.5-2.

^{16.} Id. § 36-9-27-4.

^{17.} Id. § 36-9-27-5.

^{18.} Id. § 36-9-27-29.

^{19.} Id. § 36-9-27-39.

reconstruction,²⁰ or new construction of a regulated drain²¹ is required, the Surveyor schedules an assessment for each parcel that benefits from the drain. The assessment serves to allocate the total cost of the project among the parcels based on each parcel's proportion of the benefit. This may be done by prorating the total project cost based on either the proportion of the drain's watershed occupied by each parcel or the proportion of runoff volume expected to be contributed by each parcel.²² With limited exceptions, the Drainage Board, the Surveyor, and designees of the same have a right of entry to regulated drains and land within seventy-five feet on either side of the drain.²³ Permanent structures or woody vegetation may not be placed within the right-of-way without written consent from the Board and any crops or other land uses "consistent with . . . proper operation of the drain" within the right-of-way are undertaken at owner's risk.²⁴

B. Conservancy Districts

Conservancy districts are much more varied in size and purpose. A conservancy district may be established for, among other things, flood prevention and control, drainage, water supply, sewage treatment, or improvement of water-based recreation.²⁵ A directory maintained by the Indiana Department of Natural Resources (DNR) provides a summary of the diversity of conservancy districts in the state, as well as a map showing their locations.²⁶ Upon establishment of a conservancy district, a court order proclaims the number of directors to serve on the board and defines the "areas" within the district.²⁷ The board's responsibilities include supervising fiscal affairs of the district, working towards accomplishing the goals motivating the district's establishment, and developing a plan describing the works of improvement needed for successful operation of the district.²⁸ The operational, maintenance, improvement, and other costs incurred by the district are paid by "special benefit" taxes.²⁹ As with the regulated drain expenses described in Section I.B. above, the taxed amount should equal the actual cost and should be apportioned based on benefits received.³⁰

^{20.} Id. § 36-9-27-50.

^{21.} Id. § 36-9-27-62.

^{22.} Id. § 36-9-27-12.

^{23.} Id. § 36-9-27-33(a).

^{24.} Id. § 36-9-27-33(d).

^{25.} Id. § 14-33-1-1.

^{26.} See 2019 Directory Update – Indiana Conservancy Districts, IND. DEP'T OF NAT'L RES., https://www.in.gov/dnr/water/files/con_dist_dir.pdf [https://perma.cc/ 5NM3-H2Y4].

^{27. § 14-33-2-27.}

^{28.} *Id.* §§ 14-33-5-20, -6-1 to -2.

^{29.} Id. § 14-33-7-1.

^{30.} *Id*.

C. River Basin Commissions

There are currently three river basin commissions (RBCs) in Indiana³¹ as shown in Figure 1.³² Variations among the leadership, duties, powers, and funding mechanisms of the RBCs will be discussed in more detail in Section III of this Note. Generally speaking, RBCs were created to improve drainage and mitigate flooding along large rivers in northern Indiana.³³ These goals can be accomplished through increasing infiltration, making channel improvements, restoring wetlands, regulating floodplains, etc.³⁴ To fund these activities, RBCs rely on grants or appropriations from counties within the basin; federal, state, or local government; or individuals, foundations, or other organizations.³⁵

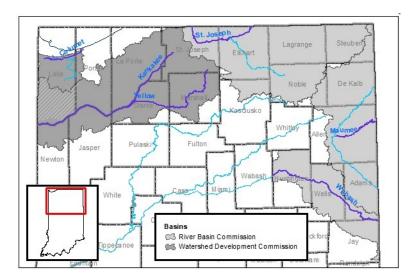


Figure 1. River Basin and Watershed Development Commissions in Indiana

D. Watershed Development Commissions

There are currently two watershed development commissions (WDCs) in Indiana.³⁶ The most relevant of these, the Kankakee River Basin and Yellow

^{31.} Id. §§ 14-30-2, -3, -4.

^{32.} Data sources for shapefiles include *Hydrologic Unit Maps*, U.S. GEOL. SURV., https://water.usgs.gov/GIS/huc.html [https://perma.cc/76K7-D3RP]; *National Hydrography Dataset*, U.S. GEOL. SURV., https://www.usgs.gov/national-hydrography/national-hydrography-dataset [https://perma.cc/M4CJ-BARW]; and *Indiana Spatial Data Portal*, IND. UNIV. INFO. TECH. SERV., https://gis.iu.edu/ [https://perma.cc/VV3T-SNGJ].

^{33.} See, e.g., §§ 14-30-2-14, -3-26.

^{34.} See, e.g., id. § 14-30-3-27.

^{35.} See, e.g., id. §§ 14-30-3-22, -24.

^{36.} Id. §§ 14-13-2, -9.

River Basin Development Commission (KYWDC)³⁷ came into being when the Kankakee River Basin Commission (KRBC) switched from an RBC to a WDC pursuant to legislation enacted in 2019.³⁸ The motivation for the transformation was to "increase . . . commerce, health, enjoyment, and prosperity."³⁹ Though "flood control and drainage" are still primary goals, the WDC has powers beyond those of the RBC, including exclusive control over "drainage and flood control activities" within a seventy-five-foot envelope surrounding the Kankakee and Yellow rivers.⁴⁰ Crucially, like drainage boards and conservancy districts, the WDC has the ability to impose a "special assessment" upon each parcel in the basin.⁴¹ Rather than calculate the necessary costs and apportion based on benefit, the WDC imposes flat rate taxes on parcels based on classification, e.g., agricultural, residential, or industrial.⁴²

II. HOUSE ENROLLED ACT 1639 (2023)

In 2023, a bill was introduced to the Indiana House of Representatives and subsequently passed by both houses of the Indiana General Assembly and signed by the governor that established two mechanisms for the creation of additional WDCs in the state: (1) conversion of existing RBCs according to a process very similar to the recent KRBC – KYWDC transformation;⁴³ and (2) the creation of wholly new WDCs.⁴⁴

A. Conversion of Existing River Basin Commissions

New sections are added to the Indiana Code to enable existing River Basin Commissions to convert to the new Watershed Development Commission framework. Separate, nearly identical language is provided for the conversion of the Maumee River Basin Commission,⁴⁵ the St. Joseph River Basin Commission,⁴⁶ and the Upper Wabash River Basin Commission.⁴⁷ The effects of such a transformation on each RBC will be explored in more depth in later sections. To summarize, using Maumee RBC as an example, the executive of

^{37.} Note that the common acronym or initialism in use for the Commission is the KRB-YRBDC. I have taken artistic license in calling it the KYWDC to make it less cumbersome and to group it with the potential WDCs that would be created in the mold of this Commission. I apologize to those already familiar with the KRB-YRBDC, but this should make it simpler for everyone else.

^{38. § 14-13-9-0.5.}

^{39.} Id. § 14-13-9-7.

^{40.} Id. § 14-13-9-18.

^{41.} Id. § 14-13-9-21.

^{42.} Id.

^{43.} Compare id. § 14-13-9, with, e.g., id. § 14-30-2-25.

^{44.} Id. § 14-30.5.

^{45.} Id. § 14-30-2-25.

^{46.} Id. § 14-30-3-33.

^{47.} Id. § 14-30-4-20.

each member county must approve a proposal to complete the transformation.⁴⁸ Each county is represented on the newly formed executive board by its County Surveyor, an additional member appointed by the county executive, and one member appointed by each qualifying municipality in the county.⁴⁹ The new WDC retains the property, rights, and responsibilities of the former RBC,⁵⁰ but shall assume the statutory powers and duties outlined in Indiana Code section 14-30.5 as well.⁵¹

B. Formation of New Watershed Development Commissions

The proposed legislation allows a county to adopt an ordinance designating a new WDC if at least 10% of the land area of the proposed watershed lies within the county. The ordinance must state the purposes for which the WDC would be established, e.g., flood control, drainage, or infrastructure, as well as the specific needs of the county that would be served by the formation of and the county's membership in the proposed WDC. Once the ordinance is adopted, the county must submit the ordinance and written request to the Indiana natural resources commission. Multiple counties may adopt ordinances and submit simultaneous requests to the natural resources commission for recognition, but the watershed delineation and stated purposes for the WDC provided by each county must be "essentially identical." In addition to the commission's own estimation of the need and predicted efficacy of the proposed WDC, there are public notice requirements to ensure that affected citizens are aware of the proposal and have the opportunity to be heard on the matter.

If the commission rejects the proposed WDC, they must notify the petitioning county(ies) in writing and provide an explanation of the denial.⁵⁸ If a WDC is denied, or a county is denied membership in an approved WDC, resubmittals correcting deficiencies are allowed.⁵⁹ If the proposed WDC receives a favorable decision, the WDC is established and the requesting county is recognized as a member.⁶⁰ Aspects of the WDC formation process will be analyzed in more detail in later sections.

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48. Id. § 14-30-2-25(b).
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^{49.} Id. § 14-30-2-25(e)(3).

^{50.} *Id.* § 14-30-2-25(f)(2) to -25(f)(3).

^{51.} Id. § 14-30-2-25(g).

^{52.} *Id.* § 14-30.5-2-1(a).

^{53.} Id. § 14-30.5-2-1(b)(3).

^{54.} Id. § 14-30.5-2-1(b)(4).

^{55.} Id. § 14-30.5-2-1(c).

^{56.} Id. § 14-30.5-2-2(b).

^{57.} Id. §§ 14-30.5-2-2(c) to -2(d).

^{58.} Id. § 14-30.5-2-2(h).

^{59.} *Id.* § 14-30.5-2-2(i) to -2(j).

^{60.} Id. § 14-30.5-2-3(a).

III. CONVERSION OF RIVER BASIN COMMISSIONS TO WATERSHED DEVELOPMENT COMMISSIONS

Potential impacts of converting existing RBCs to WDCs will be analyzed below. The analysis will begin by reviewing consequences of the 2019 transformation of the KRBC to the KYWDC. The duties and powers of the potential WDCs created by HEA 1639 (2023) are very similar to those of the KYWDC, though the "starting points" of the existing basins are all slightly different. Thus, the consequences of the change will be different for each commission. The comparisons will focus on county membership (where relevant), commission powers, leadership, and funding.

A. Kankakee River Basin Commission to Kankakee River Basin and Yellow River Basin Development Commission: A Recent Transformation

The recent transformation of the Kankakee River Basin Commission (KRBC) to the Kankakee River Basin and Yellow River Basin Development Commission (KYWDC) provides a useful lens through which to view the potential transformations of the other existing RBCs. Comparisons of potential changes for the other RBCs will follow a similar pattern.

1. Definition of the Basin and County Participation.—There are small but potentially impactful discrepancies in how the Kankakee River basin is defined for the former Basin Commission and the current Watershed Development Commission. Both definitions appear to use the U.S. Geological Survey's (USGS) eight-digit hydrologic unit code (HUC-8) watershed as a starting point. The basin for the original Kankakee River Basin Commission matches the HUC-8 watershed definition in Indiana, except that the small percentages of the watershed in Elkhart, Kosciusko, and Pulaski counties are excluded. The basin is described as the land in the participating counties "that is drained by the Kankakee River and tributaries of the Kankakee River in Indiana."

The basin definition for the KYWDC is nearly identical to that of the former KRBC, with two important distinctions. Added to the former basin definition is "[t]he area in Kankakee County and Iroquois County in Illinois that is drained by the Kankakee River and tributaries of the Kankakee River in Illinois." Thus, the reach of the KYWDC extends into Illinois, whereas the former basin was limited to Indiana.

Notably, the statute contains an additional section that reads "tributaries of the Kankakee River' refers only to rivers and streams that flow into the Kankakee River at *confluences located in Indiana*." One consequence of this "clarification" is that the language used in Indiana Code section 14-13-9-3(2)

^{61.} This assumption may be strengthened by the reference to HUC-8 watersheds in HEA 1639 (2023). *Id.* § 14-30.5-2-2(e)(5).

^{62.} Id. § 14-30-1-3 (repealed 2019).

^{63.} Id.

^{64.} Id. § 14-13-9-3(2).

^{65.} Id. § 14-13-9-4.5 (emphasis added).

regarding counties in Illinois ceases to make sense. If "tributaries of the Kankakee River" refers only to tributaries whose confluences with the Kankakee are in Indiana, none of the tributaries in Illinois are included, thus only land that drains directly to the Kankakee River in Illinois would be included.

The reasonable approach would be to interpret Indiana Code section 14-13-9-3(2) neglecting the definition provided in Indiana Code section 14-13-9-4.5, even though that definition explicitly applies to the entire chapter. The language in Indiana Code section 14-13-9-4.5 would also seem to plainly disqualify the drainage area of Singleton Ditch in Lake County, Indiana from the basin because Singleton Ditch joins the Kankakee River in Momence, Illinois. This area, shown as a white hatch in Figure 1, represents 90% of the area in Lake County that would be included in the basin were it not for the language of Indiana Code section 14-13-9-4.5. It is possible that Lake County is contributing to the KYWDC as if Singleton Ditch is still included in the basin, though it appears to be excluded by the plain language of the statute.

2. Duties and Powers.—The duties of the original KRBC and the new KYWDC are largely similar, though there are differences in language and intent. The KRBC had the duty to "coordinate the development of the basin," hereas the KYWDC is tasked with developing a plan for "flood control and drainage within the basin." Many of the additional duties regarding budgets and appropriations described, including the duty to prepare and adopt an annual budget, submit the budget to each entity appropriating money to the commission, and safekeeping the money received are identical in the old and new commissions. 68

The powers of the KRBC included the ability to conduct studies necessary to support their goals;⁶⁹ acquire personal and real property;⁷⁰ maintain, improve, manage, or lease personal and real property;⁷¹ enter agreements with agencies in another state;⁷² and appoint advisory committees as needed.⁷³ The KRBC's activities were limited to the Kankakee River basin as the basin was described in the chapter.⁷⁴ The KRBC had the power to enter into agreements with agencies in other states that were responsible for managing "part of the basin in the other state."⁷⁵ However, because the basin was explicitly defined by listing counties in Indiana,⁷⁶ agencies in other states cannot be responsible for managing part of the basin because they are explicitly excluded from the basin definition.

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66. Id. § 14-30-1-13 (repealed 2019).
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^{67.} *Id.* § 14-13-9-18(a)(1).

^{68.} Id. §§ 14-30-1-22 (repealed 2019), 14-13-9-31.

^{69.} Id. § 14-30-1-14 (repealed 2019).

^{70.} Id. § 14-30-1-16 (repealed 2019).

^{71.} Id.

^{72.} Id. § 14-30-1-18 (repealed 2019).

^{73.} *Id.* § 14-30-1-20 (repealed 2019).

^{74.} Id. § 14-30-1-5 (repealed 2019).

^{75.} Id. § 14-30-1-18 (repealed 2019).

^{76.} Id. § 14-30-1-3 (repealed 2019).

Many of the powers of the new WDC are taken word-for-word from the enabling statute for the KRBC. The wever, there are a few important differences. The powers of the old and new commissions are limited to the basin as described, but the basins are described differently, as detailed in Section III.A.1. above. Additionally, the new WDC has the "exclusive authority" to carry out specified activities "within the channels of the Kankakee River and Yellow River and within the area extending seventy-five (75) feet from the top of each bank of each river[.]" This grant of jurisdiction, reminiscent of the statutory authority of County Surveyors over regulated drains, was not given to the old KRBC.

3. Commission Members and Leadership.—The KRBC commission consisted of three representatives from each member county: the County Surveyor or member of the Surveyor's office, a member of the board of the county Soil and Water Conservation District (SWCD), and a member appointed by the County. Officer positions included a chair, vice chair, secretary, and treasurer. Apart from the officers described, the Commission also had the power to establish an executive board. The executive board consisted of the chairman of the commission and one of the three representatives from each county, chosen as determined by the Commission.

Membership and leadership of the KYWDC is markedly different from that of the previous KRBC. Voting members of the commission include the director of DNR or a designee thereof and one representative appointed by each County in Indiana. One non-voting advisory member may be appointed by the executive of Kankakee and Iroquois counties in Illinois. Whereas membership of the KRBC was largely based on job (e.g., Surveyor's Office or SWCD), membership in the new WDC is independent of employment, *per se*, but requires specified qualifications.

To be appointed to the Commission, an appointee "must have a background in" construction, project management, flood control, drainage, or similar professional background. This broadens the pool of available appointees. On one hand, this may beneficially improve the diversity of professional experience among commission members. On the other hand, it could lead to appointments based more on politics than professional experience. In practice, three of the eight current County appointees are County Surveyors, as they would have been under the previous KRBC, one is a former Surveyor, one is an engineer, one is a County

^{77.} See, e.g., id. §§ 14-30-1-14 (repealed 2019), -13-9-19.

^{78.} Id. § 14-13-9-18(a)(2).

^{79.} Id. § 36-9-27-33.

^{80.} Id. § 14-30-1-6 (repealed 2019).

^{81.} Id. § 14-30-1-9 (repealed 2019).

^{82.} Id. § 14-30-1-19 (repealed 2019).

^{83.} Id. § 14-30-1-9 (repealed 2019).

^{84.} Id. § 14-13-9-9.

^{85.} Id. § 14-13-9-10.

^{86.} Id.§ 14-13-9-11.

Commissioner, and two have agricultural backgrounds.⁸⁷

4. Funding.—The KRBC was able to receive grants or appropriations from federal, state, or local governments as well as individuals, foundations, and other organizations.⁸⁸ Within the basin, the member counties may appropriate up to \$50,000 in aggregate, apportioned to each county based on contributing land area within the basin.⁸⁹

From the period 2011–2020, the Commission received average annual revenues from grants, appropriations, and other sources of approximately \$794,000. 90 This equates to approximately \$380 per square mile of basin area per year.

Although the grants and appropriations provisions are identical for the new and old commissions, 91 the overall funding scheme is much different for the KYWDC. Perhaps the most significant change is the imposition of a "special assessment" on parcels within the basin; parcels are assessed based on the classification of the parcel within its county. 92 The assessment of each taxable parcel is prescribed as shown in the following table. 93

Table 1. Special Assessment Rates for Parcels in the KYWDC

Parcel Classification	Residential	Agricultural	Commercial, no structures	Commercial, with structure(s)	Industrial or public utility
Assessment	\$7/parcel	\$1/acre	\$2/acre	\$50/parcel	\$360/parcel

Subject to conditions, a county in the basin may adjust the assessment rate for one or more property classes or eschew the assessment scheme altogether and pay "direct support" to the commission from "any resources available to the county." Wealthier counties may choose to pay direct support rather than impose another visible tax on their constituents for political reasons. In 2021—the only year for which funding data were available after implementation of the special assessment mechanism—Commission receipts totaled approximately \$2,750,000, of which more than \$2,500,000 was contributed through the assessment. The assessment amounts to approximately \$1,200 per square mile,

^{87.} *Commission Members*, KANKAKEE RIVER BASIN & YELLOW RIVER BASIN DEV. COMM'N, https://kankakeeandyellowrivers.org/members/ [https://perma.cc/FHZ5-S2AP].

^{88. § 14-30-1-15 (}repealed 2019).

^{89.} Id. § 14-30-1-21 (repealed 2019).

^{90.} Local Tax + Finance Dashboard, IND. GATEWAY, https://gateway.ifionline.org/public/FD/overview.aspx [https://perma.cc/4BQN-US2K] [hereinafter Ind. Gateway].

^{91.} $Compare \S\S 14-30-1-15, -21$ (repealed 2019), with $\S\S 14-13-9-20, -30$.

^{92.} *Id.* § 14-13-9-21.

^{93.} Id. § 14-13-9-21(b).

^{94.} Id. § 14-13-9-21(c).

^{95.} Report Builder: Annual Financial Report, IND. GATEWAY, https://gateway.ifionline.org/report_builder/[https://perma.cc/XBB9-LDPE]. (To view annual reports, click on "Annual Financial")

or more than thrice the funding the KRBC received from 2011-2020, on average. If Lake County is contributing to the KYWDC on behalf of the Singleton Ditch watershed, the assessment of the Singleton Ditch watershed alone would total approximately \$400,000, which is more than the total annual KRBC receipts in both 2019 and 2020, according to an analysis performed for this Note. This estimate is based on parcel classifications from the Indiana Department of Local Government Finance (DLGF).

B. Maumee River Basin Commission (MRBC)

The Maumee River Basin Commission (MRBC) still operates under the river basin commission model and has not transitioned to a watershed development commission. HEA 1639 created a mechanism for the MRBC to transform itself into a WDC. 98 The implications of such a transformation are explored below.

1. Duties and Powers.—The primary duty of the MRBC is to reduce flooding. The MRBC can enter into cooperative agreements with participating counties to develop a plan to reduce flooding and increase soil and water conservation practices. The Maumee River Watershed Development Commission would have the duty to "develop a plan for flood damage reduction and drainage" within the watershed. Part of this plan, the WDC may use "generally accepted" means to "prevent or mitigate flooding" such as bank stabilization, increased water storage capacity, logiam management, construction of levees, and construction, improvement, or removal of berms and bridges. In general, the powers granted to WDCs are "for the benefit of the people of Indiana and for the increase of their commerce, health, enjoyment, and prosperity."

To achieve the goals of flood reduction and increased soil and water quality, the MRBC has the power to require the onsite impoundment of increased runoff resulting from new construction¹⁰⁴ and to, within the 100-year floodplains in the basin, acquire conservation easements, acquire and remove "improvements" (e.g., structures), and adopt rules to restrict new construction.¹⁰⁵ The WDC's ability to acquire land or easements to land is not restricted to the 100-year floodplain, as

Report"; then click on "Annual Financial Report – Full Report"; in the Report Builder. Select the County, Year, and Unit of the entity. For the KYWDC, Select "Porter" from the County dropdown, "Special" Unit Type, and then "KRBC".).

^{96.} IND. GATEWAY, supra note 90.

^{97.} County Specific Information, IND. DEP'T OF LOCAL GOV. FIN., https://www.in.gov/dlgf/county-specific-information/ [https://perma.cc/8YP2-9FRR] [hereinafter IND. DEP'T OF LOCAL GOV. FIN.].

^{98. § 14-30-2-25.}

^{99.} Id. § 14-30-2-15.

^{100.} Id. § 14-30-2-14.

^{101.} Id. § 14-30.5-3-4.

^{102.} Id. § 14-30.5-3-1.

^{103.} Id. § 14-30.5-3-2.

^{104.} Id. § 14-30-2-20.

^{105.} Id. § 14-30-2-22(a).

the current MRBCs are.¹⁰⁶ However, the WDC would be required to focus flood control activities, such as storage enhancement, on undeveloped public lands to the "greatest extent feasible before other lands are used."¹⁰⁷ Only under limited circumstances may the MRBC or potential WDC exercise its powers upon a "natural, scenic, or recreational river system" as defined by statute, within the 100-year floodplain of such a river, or within a nature preserve defined by statute.¹⁰⁸ Upon sufficient notice and right to appeal, the MRBC has a right of entry upon land lying within the 100-year floodplain of any watercourse and through non-floodplain land necessary to access the floodplain.¹⁰⁹

A notable change to the powers of the commission is that the WDC would have "exclusive authority to perform drainage and flood control activities" within the Maumee River and within seventy-five feet of either bank of the Maumee.¹¹⁰ Examples of such activities include bank stabilization, removal of sediment or trees, and channel reconstruction.¹¹¹

Whereas MRBC powers are explicitly described as contributing to "[s]oil conservation" and "[i]mprovements in water quality" the term "soil conservation" is not present in the proposed bill. To have a "purpose" to improve water quality, the WDC would have to submit a separate "water quality improvement plan" to the DNR Natural Resources Commission for approval. Although it is doubtless that those aims could be promoted through the powers available to the WDC, the need to use indirect means or clear an extra administrative hurdle may serve to disincentivize WDCs from pursuing those goals. Invocation of the terms "commerce," "enjoyment," and "prosperity" connote more of a focus on utilization of the land and water resources, rather than conservation.

2. Commission Members and Leadership.—Voting members of the MRBC from each member county include "[e]ach member of the county executive" the head of the county's SWCD, and the County Surveyor. ¹¹⁴ Officers include a chair, vice chair, secretary, and treasurer. ¹¹⁵ The commission has the power to establish other offices ¹¹⁶ and has exercised that power to elect an executive director. ¹¹⁷

The board of the Maumee River WDC would consist of the director of the Indiana Department of Natural Resources (DNR), or a designee thereof, the

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106. Id. § 14-30.5-3-4(b)(3).
107. Id. § 14-30.5-6-1(b).
108. Id. §§ 14-30-2-24, 14-30.5-6-1.
109. Id. § 14-30-2-23.
110. Id. § 14-30.5-3-4(b)(1).
111. Id. § 14-30.5-3-4(c).
112. Id. § 14-30-2-22(b).
113. Id. § 14-30-2-3.
114. Id. § 14-30-2-8.
115. Id. § 14-30-2-11.
116. Id.
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^{117.} *Maumee River Basin Commission*, IND. DEP'T OF ENV'T MGMT., https://www.in.gov/idem/lakemichigan/files/webinar series 20210203 mrbc.pdf [https://perma.cc/8CSW-B2EC].

County Surveyor of each county, an additional representative appointed by each county executive, and one individual from each qualifying municipality in each county. Those municipalities appear to be Hamilton (Steuben Co.), Auburn (DeKalb), Kendallville (Noble), Fort Wayne (Allen), and Decatur (Adams). There does not appear to be a municipality within the basin in Wells County. Removal of the requirement of SWCD board members may appear to reduce the emphasis on conservation. This is particularly so when viewed in light of the removal of water quality and soil conservation from the list of explicitly stated targets.

3. Funding.—The MRBC must prepare an annual budget¹¹⁹ and may use funds appropriated to it by political entities in member counties to do so.¹²⁰ The MRBC has also been successful in applying for state funding and grants. For example, the MRBC was awarded a \$1,000,000 Build Indiana Grant from the state.¹²¹ On average, the MRBC received \$366,000 in total receipts each year from 2011–2020.¹²² This equates to approximately \$280 per square mile of basin area.

If established, the Maumee River WDC would be able to receive funds through fiscal bodies of the member counties, as the current MRBC does, and through a special assessment of taxable parcels within the watershed in member counties. 123 The funds raised through these sources are meant to "provide special benefits to taxpayers in the designated watershed by promoting public safety and economic development that is of public use and benefit "124 The special assessment procedure is identical to that of the KYWDC, i.e., the assessment rates are identical for the various parcel designations and the collection and allowable substitution procedures are the same. 125 The standard assessment rates are the maximum allowed for the WDC and the WDC may reduce those rates if the rates are decreased by an equal percentage for all parcel classes. 126 The WDC would be required to develop an annual budget¹²⁷ and could receive appropriations from member counties separate from the special assessments, as the MRBC now can. 128 Using the standard assessment rates¹²⁹ and information from the DLGF¹³⁰ for parcels within the Maumee River watershed, the Maumee River WDC would receive approximately \$3,200,000 in annual funding independent of any county

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118. § 14-30-2-25(e)(3).
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^{119.} Id. § 14-30-2-19.

^{120.} Id. § 14-30-2-18.

^{121.} Audit Report Filings, IND. STATE BD. OF ACCTS., https://secure.in.gov/apps/sboa/audit-reports/#%2F [https://perma.cc/SL6F-V68W].

^{122.} IND. GATEWAY, supra note 90.

^{123. § 14-30.5-5-1 (2023).}

^{124.} Id. § 14-30.5-5-1(a).

^{125.} See id. §§ 14-13-9-21, -22 to -25, and 14-30.5-5-1, -3 to -6.

^{126.} Id. § 14-30.5-5-1(c).

^{127.} Id. § 14-30.5-5-8.

^{128.} Id. § 14-30.5-5-7.

^{129.} Id. § 14-30.5-5-1.

^{130.} IND. DEP'T OF LOCAL GOV. FIN., supra note 97.

contributions that may be appropriated. This is approximately \$2,500 per square mile, or approximately nine times the average receipts of the MRBC from 2011–2020.

C. St. Joseph River Basin Commission (SJRBC)

The potential St. Joseph River WDC would have the same duties and powers as the potential Maumee River WDC.¹³¹ However, the consequences of the transition would be different because the current duties and powers of the MRBC and SJRBC are different, as will be described below.

1. Duties and Powers.—The powers of the SJRBC are described in a manner very similar to those of the MRBC. The SJRBC has powers regarding easements and improvements within the 100-year floodplains within the basin, ¹³² retains a limited right of entry of floodplain lands, ¹³³ and has the ability to require retention of construction-related runoff. ¹³⁴ As the MRBC can, the SJRBC can enter into a cooperative agreement with a political subdivision(s) to develop a "plan" to mitigate flooding and improve soil health practices. ¹³⁵ However, the SJRBC plan can be to "improve water quality or mitigate flooding" whereas the motivating purpose for the MRBC plan is flood control only. ¹³⁷

The SJRBC is described as a much more collaborative and exploratory body than the MRBC. The SJRBC is to "[p]rovide a forum for the discussion, study, and evaluation" of common issues within the basin, "[f]acilitate and foster cooperative planning and coordinated management" of the basin's resources, and "[d]evelop positions on major water resource issues and serve as an advocate of the basin's interests" in addition to the other actions described above. 138

The differences in aims of the current RBC and the potential WDC are even greater here than with the Maumee. The SJRBC's current goals and powers match the water quality and soil conservation aims of the MRBC, but the SJRBC has an even greater statutory emphasis on water quality. Furthermore, the SJRBC's position as a "forum" and an "advocate" would not be explicitly preserved in the WDC structure. The WDC would retain the ability to "[p]rovide recommendations in matters related to the commission's functions and objectives" to agencies, but only if requested to do so by the agency. The MRBC's statutory authority to proactively advocate on political issues related to the basin would be lost.

2. Commission Members and Leadership.—SJRBC membership is defined much differently from basin commissions that have been previously discussed

^{131.} See §§ 14-30-2-25(g), -3-33(g).

^{132.} Id. § 14-30-3-31.

^{133.} Id. § 14-30-3-32.

^{134.} Id. § 14-30-3-30.

^{135.} See id. §§ 14-30-2-14, -3-26.

^{136.} Id. § 14-30-3-26.

^{137.} See id. §§ 14-30-2-14.

^{138.} Id. § 14-30-3-19.

^{139.} Id. § 14-30.5-3-5(3).

and somewhat reflects the more collaborative, advocative, and water quality-oriented nature of the commission. The Commission members from each county include the executive of each second class city¹⁴⁰ in the county, or, if no such city exists in the county, the executive from the county's most populous city; a member of the county executive; the county health officer; the county surveyor; and a member of the SWCD.¹⁴¹

The SJRBC has the "standard" officer positions of chair, vice chair, secretary, and treasurer.¹⁴² The executive board consists of the commission chair and one member from each county not represented by the chair.¹⁴³

The officer positions for the new St. Joseph River WDC would be identical to those described above for the potential Maumee River WDC.¹⁴⁴ The requirement of representing the health department in each county would be lost, but the representation from each "large" city would be retained.¹⁴⁵ Again, the loss of required SWCD representation can be seen as representing a de-emphasis on environmental concerns and, particularly for the SJRBC, a lessening of the emphasis on public health. Perhaps in recognition of the unique focus goals and board composition of the SJRBC, a special provision was added to HEA 1639 to allow members of the current board to automatically become advisory board members following the formation of the WDC.¹⁴⁶

3. Funding.—The Commission may receive funds from federal, state, and local governments as well as individuals and organizations. ¹⁴⁷ As with all basin commissions herein described, the SJRBC can receive appropriations from member counties, though for SJRBC the appropriations are apportioned among the counties in proportion to their contributing area in the basin. ¹⁴⁸

Receipts for the SJRBC from their various sources of funding averaged approximately \$94,000 per year for the period 2011–2020.¹⁴⁹ This is approximately \$55 per square mile of contributing area.

Applying the standard parcel rates¹⁵⁰ and parcel classifications from DLGF¹⁵¹ for the potential WDC, the special assessment for the St. Joseph River WDC would total approximately \$5,200,000. This equates to approximately \$3,100 per square mile, or more than fifty times the average annual funding level for 2011–2020.

^{140.} A second class city is a city with at least 34,000 and fewer than 600,000 citizens. See Id. § 36-4-1-1.

^{141.} *Id.* § 14-30-3-8.

^{142.} Id. § 14-30-3-11.

^{143.} Id. § 14-30-3-2.

^{144.} Id. § 14-30.5-4-1, -4.

^{145.} Compare id. § 14-30-3-8(1), with id. § 14-30-3-33(e)(3)(D).

^{146.} Id. § 14-30.5-4-5(c).

^{147.} Id. § 14-30-3-22.

^{148.} Id. § 14-30-3-24.

^{149.} IND. GATEWAY, supra note 90.

^{150. § 14-30.5-5-1.}

^{151.} IND. DEP'T OF LOCAL GOV. FIN., supra note 97.

D. Upper Wabash River Basin Commission (UWRBC)

The final existing RBC to review is the Upper Wabash River Basin Commission (UWRBC). As discussed below, the UWRBC might experience the largest increase in power of the existing RBCs following a transition to being a WDC.

1. Duties and Powers.—The UWRBC has fewer explicit powers than the MRBC and SJRBC.¹⁵² The UWRBC does not have powers regarding easements and improvements within the 100-year floodplains within the basin, but does retain a limited right of entry of floodplain lands¹⁵³ and the ability to require retention of construction-related runoff.¹⁵⁴ As the MRBC and SJRBC can, the UWRBC can enter into a cooperative agreement with a political subdivision(s) to develop a "plan" to mitigate flooding and improve soil health practices.¹⁵⁵ However, the UWRBC has the additional stated goal to "organize and coordinate the installation of trails along the upper Wabash River[.]"¹⁵⁶

Because the UWRBC currently has fewer powers than the MRBC or SJRBC, the Commission would enjoy a greater increase in power after the transformation to a WDC than would the other basins. For example, as a WDC, the Commission would have the ability to acquire land or easements to land.¹⁵⁷ The exclusive authority over flood control and drainage activities within the Upper Wabash River and within seventy-five feet of its banks is another significant increase in power, though that change is shared by the other basins described above.¹⁵⁸ The UWRBC would lose its explicit authority to "develop and promote good soil and water conservation practices and procedures,"¹⁵⁹ but the potential WDC could use indirect language in the statute to achieve the same goals, such as the "expansion of water storage capacity."¹⁶⁰ Agricultural conservation practices such as cover crops and reduced tillage can increase the storage of water in the soil itself.¹⁶¹

2. Commission Members and Leadership.—Voting members for each county in the basin are described similarly to those for the MRBC.¹⁶² They include the three commissioners, the County Surveyor, and an SWCD representative from each county.¹⁶³ As is typical, officer positions include chair, vice chair, secretary,

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152. See, e.g., §§ 14-30-2-22, -3-31, -4-12.
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^{153.} *Id.* § 14-30-4-19.

^{154.} Id. § 14-30-4-17.

^{155.} Id. § 14-30-4-13.

^{156.} *Id*.

^{157.} Id. § 14-30.5-3-4(b)(3).

^{158.} Id. § 14-30.5-3-4(b)(1).

^{159.} Id. § 14-30-4-13(3).

^{160.} Id. § 14-30.5-3-1(a)(1)(B).

^{161.} Water Conservation in Agriculture, NEV. IRRIGATION DIST., https://www.nidwater.com/water-conservation-in-agriculture [https://perma.cc/KR4C-DRYY].

^{162. §§ 14-30-2-8, -4-8.}

^{163.} Id. § 14-30-4-8.

and treasurer. 164

Like the MRBC, the UWRBC does not currently have city representatives on its board. Were the Upper Wabash River WDC to form, the municipalities that would then qualify for representation would be Huntington (Huntington Co.), Bluffton (Wells), Berne (Adams), and Bryant (Jay). The officer positions for the new Upper Wabash River WDC would be identical to those described above for the other potential WDCs. Again, rather than explicitly requiring an SWCD representative to be a voting member, they are instead represented on the non-voting advisory committee. Upon the formation of the Upper Wabash River WDC, the executive board would appoint an executive director. The current UWRBC is the only RBC that does not have an executive director, so this provision would increase uniformity of leadership roles among the commissions.

3. Funding.—There are no provisions in the statutory description of the UWRBC pertaining to funding or the receipt of appropriations from counties or fiscal entities therein. Each county typically contributes between \$1,000 and \$2,000 each year. Thus, the UWRBC relies on grants from DNR and other agencies for additional support. For the period 2011–2020, the Commission received average annual funding of \$72,000. This is approximately \$100 per square mile.

Applying the standard parcel rates¹⁷¹ and parcel classifications from the DLGF¹⁷² for the potential WDC, the special assessment for the Upper Wabash River WDC would total approximately \$900,000. This equates to approximately \$1,300 per square mile, or approximately twelve times the average annual funding level for 2011–2020.

IV. FORMATION OF NEW WATERSHED DEVELOPMENT COMMISSIONS: A CASE STUDY

The process of creating a new WDC will be explored below using the hypothetical example of Pigeon Creek in southwest Indiana. First, the evidence supporting the supposition that Pigeon Creek is a likely candidate will be summarized. Then, county membership and commission powers, leadership, and funding will be discussed. The outline will be similar to those followed for the existing RBCs above. However, in the case of Pigeon Creek, there is no existing commission with which to compare the hypothetical WDC.

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164. Id. § 14-30-4-10.
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^{165.} Id. § 14-30-4-8.

^{166.} Id. § 14-30.5-4-1, -5.

^{167.} Id. § 14-30-4-20(h).

^{168.} IND. GATEWAY, supra note 90.

^{169.} Id.

^{170.} Id.

^{171. § 14-30.5-5-1.}

^{172.} IND. DEP'T OF LOCAL GOV. FIN., supra note 97.

A. Support for a Pigeon Creek Watershed Development Commission

Pigeon Creek in Gibson, Warrick, and Vanderburgh counties is a likely candidate for a future WDC for several reasons. Cindy Ledbetter, Indiana Representative for District 75, and Tim O'Brien (District 78), who represent a large amount of the Pigeon Creek watershed, were co-authors of a previous bill calling for the creation of WDCs.¹⁷³ Representative Ledbetter remained a co-author on the bill from the 2023 session that became HEA 1639.¹⁷⁴ The issues faced by the primary counties in the Pigeon Creek basin are interrelated, but not the same in each county.¹⁷⁵ Gibson County is experiencing flooding and significant streambank erosion, Warrick County experiences flooding and logjams, and Vanderburgh County serves as the accumulator for all of the upstream issues.¹⁷⁶ To date, the approach to managing the stream has been piecemeal.¹⁷⁷ However, Vanderburgh County has recently sponsored a functional assessment of the stream to gain a better understanding of the issues they are facing and potential solutions to those issues.¹⁷⁸

B. Definition of the Basin and County Participation

The surface water outlet used to define the basin commission would be Pigeon Creek. The stream begins in Gibson County, near Princeton, and winds through southeastern Gibson County, northwestern Warrick County, and southeastern Vanderburgh County to its confluence with the Ohio River in Evansville (Figure 2).¹⁷⁹

The Pigeon Creek watershed does not occupy an entire HUC-8 watershed, the basis of many current RBCs. Instead, it is the sum of three HUC-10 watersheds: Headwaters Pigeon Creek, Big Creek-Pigeon Creek, and Pigeon Creek. Between the introduction of House Bill 1639 and the passage of HEA 1639, an amendment was added to create an additional criterion by which the DNR is to evaluate applications: "Is the territory of the proposed commission at least as large as the entirety of the same eight (8) digit U.S. Geological Survey hydrologic

^{173.} H.R. 1036, 122d Gen. Assemb., 2d Reg. Sess. (2022).

^{174.} H.R. 1639, 123d Gen. Assemb., 1st Reg. Sess. (2023).

^{175.} Christopher B. Burke Engineering, LLC, *Pigeon Creek Corridor Flood Risk Management Plan* (forthcoming 2023).

^{176.} Id.

^{177.} Id.

^{178.} Id.

^{179.} Data sources for shapefiles include *Hydrologic Unit Maps*, U.S. GEOL. SURV., https://water.usgs.gov/GIS/huc.html [https://perma.cc/76K7-D3RP]; *National Hydrography Dataset*, U.S. GEOL. SURV., https://www.usgs.gov/national-hydrography/national-hydrography-dataset [https://perma.cc/M4CJ-BARW]; and *Indiana Spatial Data Portal*, IND. UNIV. INFO. TECH. SERV., https://gis.iu.edu/ [https://perma.cc/VV3T-SNGJ].

^{180.} *Hydrologic Unit Maps*, U.S. GEOL. SURV., https://water.usgs.gov/GIS/huc.html [https://perma.cc/76K7-D3RP].

unit code?"¹⁸¹ This may prove to be a hurdle for the formation of a Pigeon Creek WDC. It is explicitly stated in the statute that if the DNR Natural Resources Commission "answers all of the questions set forth in [Ind. Code Section 14-30.5-2-2(e)] favorably[,] the Natural Resources Commission *shall* issue an order recognizing the watershed development commission."¹⁸² However, if the Natural Resources Commission answers "no" to any of those criteria (which they would for Pigeon Creek because the proposed basin would not occupy the entire HUC-8 basin), the Commission must "inform the executive of the county in writing of [the Commission's] decision."¹⁸³ Of course, the strong implication is that the Commission's decision would be to not recognize the WDC, but that result is not explicitly mandated by the statute.

For the sake of argument, we shall assume that the "loophole" above allows a Pigeon Creek WDC to form or that a future amendment to the statute enables Pigeon Creek to proceed with formation. In that event, the watershed of the Pigeon Creek WDC would be approximately 370 square miles in area.¹⁸⁴ The three primary counties each contain more than 10% of the drainage area; thus, any one or combination of those counties could adopt ordinances establishing the commission and apply to DNR for recognition. Pike County contains less than 1% of the basin and would be unlikely to participate.

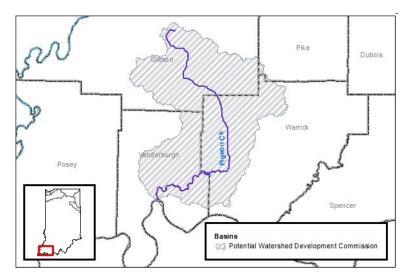


Figure 2. Pigeon Creek Watershed in Southwest Indiana

^{181.} *Compare* H.R. 1639, 123d Gen. Assemb., 1st Reg. Sess. (2023) § 14-30.5-2-2(e) (as introduced), *with* IND. CODE § 14-30.5-2-2(e) (2023).

^{182.} IND. CODE § 14-30.5-2-2(f) (2023) (emphasis added).

^{183.} Id. § 14-30.5-2-2(h).

^{184.} Hydrologic Unit Maps, supra note 180.

C. Duties and Powers

The duties and powers of the Pigeon Creek WDC would be identical to those summarized above and detailed in Chapter Three of the new legislation. As there is no current statutory watershed management body, and each county currently manages the stream independently, useful comparisons between current and future conditions are difficult to generate.

One issue that may arise with the Pigeon Creek WDC that has not been faced by the existing River Basin Commissions relates to conflicts with regulated drain management. The proposed statute would provide the Pigeon Creek WDC with "exclusive authority to perform drainage and flood damage reduction activities within the channel of [Pigeon Creek]."186 However, Gibson County and Warrick County already manage Pigeon Creek as a county regulated drain within their borders. 187 When another governmental entity within the watershed (e.g., a county drainage board) has the ability to perform "drainage and flood damage reduction activities" that the WDC would normally have exclusive authority to perform, and has the ability to collect an assessment to perform those duties, the WDC and that entity may enter an agreement under which either (1) the WDC assumes the duties and funding while the other entity relinquishes them, or (2) the other entity retains the duties and funding and the WDC relinquishes its authority.¹⁸⁸ It remains to be seen whether a (potentially) multi-county WDC would want to take control of small-scale concerns associated with regulated drains, such as blocked drainage tiles and things of that nature.

D. Commission Members and Leadership

Assuming all three primary counties (Gibson, Warrick, Vanderburgh) join, the voting members of the WDC would include the director of the DNR, or a designee thereof; the county surveyor from each county; another individual from each county appointed by the county executive; and one representative from each second class city in the watershed in each county, or, if a county does not have a second class city within the watershed, a representative from the largest municipality within the watershed in that county. The municipal representatives would come from Princeton (largest municipality in the watershed in Gibson County), Chandler (largest municipality in the watershed in Warrick County), and Evansville (second class city in Vanderburgh County). The non-Surveyor

^{185. § 14-30.5-3.}

^{186.} Id. § 14-30.5-3-4(b)(1).

^{187.} SCHNEIDER CORP., *Gibson County, IN*, BEACON, https://beacon.schneidercorp.com [https://perma.cc/3T2F-XELB] (under the "Local" tab, select "Indiana" as the State; then choose "Gibson County, IN" from the County/City/Area dropdown); WTH GIS, *Warrick County, IN Mapping*, https://warrickin.wthgis.com/ [https://perma.cc/H47S-AP84] (click the "Layers" tab; then check the box next to "Legal Drains" in the dropdown).

^{188. §§ 14-30.5-3-4(}c), -4(e), -4(f).

^{189.} *Id.* § 14-30.5-4-1(a). A second class city is a city with at least 34,000 and fewer than 600,000 citizens. *See id.* § 36-4-1-1.

member appointed by each county under Ind. Code section §14-30.4-4-1(a)(3) must meet certain professional or experiential requirements. Such an appointee "must have a background in construction, project management, flood damage reduction, drainage, or a similar professional background. The appointee must reside in the county by which they are appointed, but need not reside within the Pigeon Creek watershed.

Officer positions on the board would include a chair, vice chair, and secretary-treasurer. In addition to those elected officers, the board "shall appoint an executive director" and "may establish and fill other offices the board considers necessary. In a quorum requires a majority of the voting members of the board, In and for the board to "take action," affirmative votes from a majority of the voting members are required. In WDC would also have a permanent advisory board consisting of a member or representative of each county's Soil and Water Conservation District, In and would have the ability to establish ad hoc advisory boards to provide guidance on "particular subjects."

E. Funding

Using the standard assessment rates described in the proposed legislation and parcel data from the DLGF, the Pigeon Creek WDC may expect to receive approximately \$1,100,000 in annual funding, independent of county or city appropriations, grants, etc. that may be awarded in a given year. This corresponds to approximately \$2,900 per square mile in the watershed.

V. FORMATION OF NEW WATERSHED DEVELOPMENT COMMISSIONS: COMMENTS AND RECOMMENDATIONS

The proposed statutory language provides ample food for thought independent of its application to a particular watershed. Some implications of the language are explored below.

A. Definition of Basins and County Participation

To identify a watershed, the county ordinance must identify the surface water outlet of the proposed watershed and delineate the entire geographic area that

^{190.} *Id.* § 14-30.5-4-1(a)(3).

^{191.} Id. § 14-30.5-4-1(c).

^{192.} See id.

^{193.} Id. § 14-30.5-4-2(a).

^{194.} Id. § 14-30.5-4-2(e) (emphasis added).

^{195.} Id. § 14-30.5-4-3(b).

^{196.} Id. § 14-30.5-4-3(c).

^{197.} Id. § 14-30.5-4-5(b).

^{198.} Id. § 14-30.5-4-6.

drains to the identified surface water outlet.¹⁹⁹ In H.B. 1036 (2022)²⁰⁰ and in H.B. 1639 (2023) as it was introduced,²⁰¹ it was unclear if a WDC could be established for an "upper" or "lower" reach of a stream, and if so, how those reaches would be defined. In HEA 1639, it is implied that a WDC *could* be established for only a certain reach of a stream, rather than the whole stream, if the designated watershed for that reach corresponded to a USGS 8-digit HUC watershed.²⁰² Combining the requirement that the watershed be at least as large as a HUC-8 basin with the requirement that a county must occupy 10% of that watershed,²⁰³ the prohibition against forming a new WDC that would conflict with the existing RBCs,²⁰⁴ and the requirement that the watershed have a single surface water outlet,²⁰⁵ the maximum number of potential new WDCs that can form can be conclusively determined (Figure 3).

Excluding existing RBCs that may convert to the new management structure, there can only be seventeen WDCs formed pursuant to the new statute as it is written. The gray basins in Figure 3 are preempted from forming WDCs because they are either within existing River Basin Commissions or, in the case of the Wabash River basins on the western border of the state, their designated watershed would necessarily include territory already spoken for by the UWRBC.

^{199.} Id. § 14-30.5-2-1(b)(1).

^{200.} H.R. 1036, 122d Gen. Assemb., 2d Reg. Sess. (2022).

^{201.} H.R. 1639, 123d Gen. Assemb., 1st Reg. Sess. (2023) (as introduced).

^{202.} See § 14-30.5-2-2(e)(5).

^{203.} Id. § 14-30.5-2-0.5.

^{204.} Id. § 14-30.5-2-2(e)(5).

^{205.} Id. § 14-30.5-2-1(b)(1)(A) (use of the definite article *the* implies that the outlet must be singular).

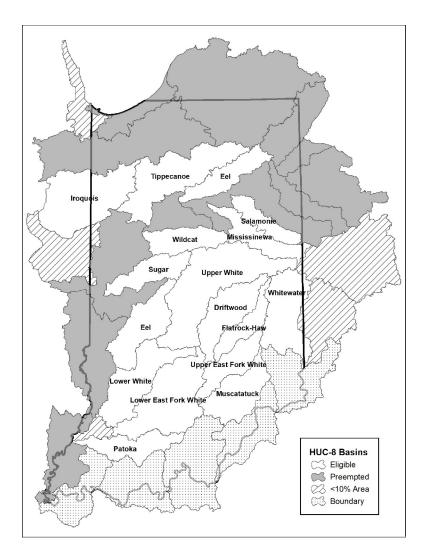


Figure 3. Locations of Potential New Watershed Development Commissions

The striped basins extending outside the eastern and western state borders are ineligible because no Indiana county contains at least 10% of the HUC-8 basin. The small striped area between Lower White and Patoka is within the state, and its entire watershed is within the state, but the watershed is so large that no county contains at least 10% of it. The stippled basins along Indiana's southern border are excluded in practice, if not by the language of the statute, because the surface water outlet would be the Ohio River, of which a majority is owned by Kentucky, ²⁰⁶ precluding WDC control.

White River, the largest Indiana river to not have an existing statutory river basin commission, can be used to explore the outer limits of inter-county cooperation that could be enabled by the new statute. In addition to the eight standalone HUC-8 basins within the White River watershed shown in Figure 3 (Upper White, Eel, Lower White, Driftwood, Flatrock-Haw, Upper East Fork White, Muscatatuck, and Lower East Fork White), there may be combinations of those basins that would also be allowed by the statute (Figure 4).²⁰⁷ For the following areal analyses, the watershed boundaries for the potential basins as defined by USGS HUC delineations²⁰⁸ were used to determine the area of each basin. Those basins were compared to county boundaries²⁰⁹ to determine the area of each county contained within the basin. The Upper White River watershed is approximately 2,700 square miles (30% larger than the KYWDC, the largest extant basin) and contains seventeen counties, four of which meet the 10% requirement to initiate the WDC formation process.²¹⁰

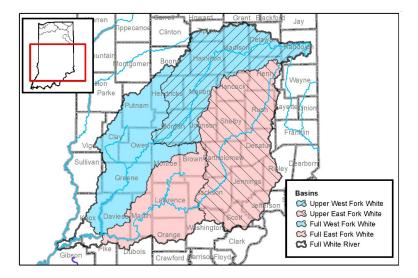


Figure 4. White River Watersheds

The West Fork White River watershed is nearly 5,400 square miles and contains thirty-three counties, none of which meet the 10% requirement.²¹¹ An

A20, https://www.nytimes.com/1981/10/21/us/kentucky-indiana-and-ohio-end-river-boundary-dispute.html [https://perma.cc/7LRU-G2CH].

^{207.} Hydrologic Unit Maps, supra note 180.

^{208.} Id.

^{209.} *Indiana Spatial Data Portal*, IND. UNIV. INFO. TECH. SERV., https://gis.iu.edu/[https://perma.cc/VV3T-SNGJ].

^{210.} Hydrologic Unit Maps, supra note 180; IND. UNIV. INFO. TECH. SERV., supra note 209.

^{211.} Id.

Upper East Fork White River WDC, including the headwater tributaries and the Muscatatuck, would contain 18 counties, 4 of which meet the 10% area requirement.²¹² The full East Fork White River watershed is similar in size to the West Fork, containing 5,700 square miles across 31 counties. In summary, the Upper West Fork and Upper West Fork watersheds as shown in Figure 4 represent something of an upper physical limit to the size of new WDCs.

Table 2. Areas and Counties for Hypothetical WDCs in the
White River Watershed

Basin Area (sqmi) Number of Counties To

Basin	Area (sqmi)	Number of Counties	Counties >10% Total Area	
Upper West Fork White	2,720	17	5	
Upper East Fork White	3,710	18	4	
West Fork White	5,370	33	0	
East Fork White	5,740	31	0	

The KYWDC has eight member counties.²¹³ The Upper West Fork White and Upper East Fork White WDCs could have approximately twice as many member counties as the KYWDC if each county in the basin joined the WDC. Not only that, but each county in the hypothetical White River WDCs would have at least three times as many voting representatives as each county in the KYWDC currently has.²¹⁴ Thus, though the 10% area requirement *does* pose a physical limit on the size of WDCs that can be formed, the logistical challenges imposed by coordinating large numbers of counties and members are likely more of a constraint on the size of a WDC than the 10% area requirement in the statute.

Before the logistical challenges of managing a large basin could set in, there exists another hurdle that may reduce the chances of a WDC forming in the first place. One of the criteria by which DNR is to evaluate WDC proposals is whether a "regional watershed study or watershed management plan [has] been conducted in consultation with the Indiana Finance Authority and the Department of Natural Resources." ²¹⁵ If performed by a private consultant, such a study and report would certainly cost tens of thousands of dollars. This is a significant outlay, potentially by a single county, before the funding mechanism of the WDC is in place to support the effort.

B. Duties and Powers

A WDC can be established for any of several purposes: flood damage reduction, drainage, stormwater management, recreation, and water

^{212.} Id.

^{213.} See Ind. Code § 14-13-9-3 (2023).

^{214.} See id. § 14-13-9-9 (one voting member from each county in the KYWDC); Id. § 14-30.5-4-1(a) (members from each county in a new WDC include the Surveyor, an appointee of the county executive, and a member from each qualifying municipality).

^{215.} Id. § 14-30.5-2-2(e)(6).

infrastructure.²¹⁶ While the proposed statute allowing for new WDCs is not "filed" under Local Resource Development, as the extant WDCs are,²¹⁷ the explicit purposes and express language evoke a much more utilitarian vibe than the statutes governing RBCs. For example, the word "conservation" only appears three times in Indiana Code chapter 30.5, always in reference to representatives of SWCDs, not the act of conserving.²¹⁸

Though the enabling language might not be overt, the new statute does provide mechanisms for conservation and non-structural flood control activities. For example, WDCs are allowed to acquire land or easements over land for the purpose of providing flood storage.219 If this power is utilized in the manner of a U.S. Army Corps of Engineers (USACE) flowage easement, the WDC would have the ability to flood lands adjacent to the stream during storm events.²²⁰ Landowners would be restricted from building new structures or otherwise using the land in a manner inconsistent with the WDC's flood storage.²²¹ These easements could be utilized passively. For example, the WDC could acquire easements over either land that already floods on a regular basis or land that would flood after the WDC removes berms or other features that currently prevent the stream from accessing its floodplain. The flowage easements could also be managed in an active manner, e.g., the WDC could add a water control structure to an existing berm that could be adjusted to allow more or less floodplain access depending on flood storage needs during a particular storm event.

One power afforded to an existing RBC that is not listed among the powers available to WDCs is the power to restrict construction within the 100-year floodplain of streams within the basin.²²² It is arguable that a WDC could restrict construction within seventy-five feet of the named water surface outlet,²²³ but that power would not extend to the full floodplain of the stream, much less the floodplains of other streams within the basin. As an alternative, a WDC may acquire structures in the floodplain²²⁴ and then remove them to increase flood storage, as can the current MRBC.²²⁵ Disadvantages of this approach relative to

^{216.} Id. § 14-30.5-3-1.

^{217.} *Compare*, *e.g.*, *id.* § 14-13-9, *with id.* § 14-30.5-2 (chapter establishing the KYWDC is in *id.* § 14-13, "Local Resource Development," whereas the chapter allowing the formation of new WDCs is placed in a new article located between "River Basin Commissions" (*Id.* § 14-30) and "Nature Preserves" (*Id.* § 14-31)).

^{218.} See id. § 14-30.5.

^{219.} Id. § 14-30.5-3-4(b)(3).

^{220.} Flowage Easements, HUNTINGTON DISTRICT, U.S. ARMY CORPS OF ENG'RS., https://www.lrh.usace.army.mil/Missions/Civil-Works/Flowage-Easements/[https://perma.cc/RL3Y-VRC6].

^{221.} Id.

^{222. § 14-30-2-22(}a)(3).

^{223.} Id. § 14-30.5-3-4(c)(7).

^{224.} Id. § 14-30.5-3-7.

^{225.} Id. § 14-30-2-22(a)(2).

restriction of new construction in the floodplain are the costs incurred purchasing and removing existing structures and a decreased ability to be proactive in promoting floodplain connectivity and flood storage.

Irrespective of what actions a WDC can take or may choose to take is the issue of where those actions can be taken. As the statute is written, a WDC must "limit its activities to the commission's designated watershed."²²⁶ As defined in the statute, the "designated watershed" includes "the entire area, both inside and outside the county" that drains to the designated water body. 227 The WDC would have "exclusive authority to perform drainage and flood damage reduction activities" within the named water body and a buffer zone seventy-five feet wide on either side,²²⁸ and could even prevent a non-member county within the watershed from performing any "construction work" or "drainage or flood damage reduction activities" within the channel or buffer without authorization from the WDC.²²⁹ Thus, theoretically, one county in a WDC-eligible basin could successfully establish a WDC and then proceed to modify the channel and adjacent overbanks within every other county in the watershed to improve their drainage or reduce their flood damages, while blocking those counties from acting in their own best interests.²³⁰ However, this possibility could be guarded against if the Natural Resources Commission decides within its discretion that a single or small number of counties is unlikely to achieve the goals of the WDC without the participation of other counties in the watershed.²³¹

C. Commission Members and Leadership

Existing RBCs have at least five voting commissioners from each county in the basin.²³² This provides for a broad representation of the interests of each county. Generally, basin commissioners include county commissioners, County Surveyors, and Soil and Water Conservation District (SWCD) representatives. Reductively, these parties could be thought to represent economic growth, utilitarian water management, and resource conservation, respectively. In WDCs, voting members will include the County surveyor, an executive appointee from each participating county, and a representative from each qualifying municipality.²³³ This retains the water management and economic growth interests, but not resource conservation. Rather than "automatically" including an SWCD representative on the voting board, the default for new WDCs is to reduce

^{226.} *Id.* § 14-30.5-3-3 (emphasis added).

^{227.} Id. § 14-30.5-2-1(b)(1) (emphasis added).

^{228.} Id. § 14-30.5-3-4(b) (emphasis added).

^{229.} Id. § 14-30.5-3-4(d).

^{230.} Note that there is a limited exception to this statement. Counties need not seek permission to perform such activities if they are responding to an emergency. *See id.* §§ 14-30.5-3-4(d).

^{231.} Id. § 14-30.5-2-2(e)(3).

^{232.} Id. §§ 14-30-2-8, -3-8, -4-8.

^{233.} Id. § 14-30.5-4-1(a).

SWCD representation to non-voting advisory board status.²³⁴ This de-emphasis of conservation may make existing RBCs hesitant to adopt the new form.

The composition of WDC boards may allow certain counties to exert more influence than others within the watershed. Because each second class city in the watershed is entitled to representation on the board,²³⁵ counties with more large cities within the watershed will necessarily have more input and more influence on whether a quorum is established or actions can be taken.²³⁶ As with Wells County in the Maumee River Basin, there is even the possibility that a county could be in a WDC and have no qualifying municipalities. It is unclear what would happen in that situation. Actions could be taken by the board without any representation at all from one or more counties if enough of the representatives of other counties are present at the meeting.

D. Funding

A summary of the current and potential future funding is provided in Table 3 below. While there are important nuances to the changes in membership, duties, and powers that would apply to the existing RBCs upon their transformation to WDCs that are independent of funding, funding is a significant factor in determining what a Commission is able to accomplish.

Table 3.	Commission	Funding and	Assessment Summa	rv

Commission	2011–2020 Average Receipts (\$)	Estimated Assessment (\$)	Funding Ratio ^C	Assessment Value (\$/sqmi) D	Assessment Value (\$/rm) ^E
KYWDC ^A	794,000	2,500,000	3:1	1,200	18,600
MRBC	366,000	3,200,000	9:1	2,500	114,000
SJRBC	94,000	5,200,000	55:1	3,100	127,000
UWRBC	72,000	900,000	12:1	1,300	1,950
PCWDC ^B	-	1,000,000	-	2,900	21,500

^ATransformed from RBC to WDC by 2019 legislation. Assessment is actual 2021 value.

It seems reasonable that normalizing by basin size produced specific assessment rates of the same order of magnitude (Table 3, column 5) since *area* is in both the numerator (explicitly in assessments based on acreage and implicitly in assessments based on number of parcels) and denominator. The

^BHypothetical future WDC. Commission does not currently exist.

^CEstimated assessment divided by average current receipts.

^DTotal estimated assessment divided by the area of the basin in square miles.

^ETotal estimated assessment divided by river miles of the named surface water outlet within the basin.

^{234.} Id. § 14-30.5-4-5.

^{235.} Id. § 14-30.5-4-1(a).

^{236.} See id. § 14-30.5-4-3(b) (presence of "a majority of the voting members of a board constitutes a quorum"), and id. § 14-30.5-4-3(c) ("affirmative votes of a majority of the voting members of a board are required" to take action).

variation in normalized assessments is based on the proportions of different land uses within each basin. It is possible to get an approximation of the total assessment for a hypothetical basin using land use data from the National Land Cover Database.²³⁷

The normalized assessment rate of a WDC can be accurately predicted based on the percentages of urban and agricultural land use within the watershed (Equation 1).²³⁸ Urban land uses such as industrial and commercial are taxed at high rates²³⁹ but occupy a relatively small percentage of most large Indiana watersheds. Agriculture dominates most large Indiana watersheds in area, particularly in northern Indiana where basin commissions currently exist, but is taxed at a far lower rate.²⁴⁰

Assessment =
$$210 \times \%URB + 20 \times \%AG - 1400$$
 ($R^2 = 0.97$) Eqn. 1

The new statute allows WDCs to set assessment rates basin-wide lower than the base amount, as long as the assessments are reduced by the same percentage for all parcel classes.²⁴¹ Separate from that WDC-wide determination, the fiscal body of each participating county may decide to independently increase or decrease the assessment rates for one or more classes of property.²⁴² For example, a county may decrease the assessment rate for agricultural land uses and increase it for industrial and commercial parcels. If independent adjustments are made and, on balance, the total revenue equals at least as much as what would have been raised by applying the WDC-wide rates, the county may retain for itself any funds that exceed 90% of the revenue that would have been raised with the standard rates.²⁴³ This may be an attractive option for counties that would like to retain more local control of their portions of the watershed. A county may also eliminate the parcel-based assessments entirely and replace the expected revenue with direct contributions from other funds available to the county, if the replacement funds total at least 90% of what would have been raised by applying the WDCwide rates.244

Apart from the assumed political popularity of reducing the assessment rates,

^{237.} *Data*, MULTI-RESOLUTION LAND CHARACTERISTICS CONSORTIUM, https://www.mrlc.gov/data [https://perma.cc/9PNY-Z79P] (For general information on the NLCD dataset, select the "Land Cover" Dataset Type; then select the "CONUS" Region; then select the "2019" Time Period. Scroll down to the "NLCD 2019 Land Cover (CONUS)" box, click the hyperlink for "More", and select "Overview" from the dropdown.).

^{238.} Urban land use is approximated using the NLCD "Developed" land use classification (grid codes 21–24) and agricultural land use is approximated using NLCD grid codes 81 and 82. *See id.* (Select "Legend" at the bottom of the Overview page.).

^{239. § 14-30.5-5-1.}

^{240.} Id.

^{241.} Id. § 14-30.5-5-1(c).

^{242.} Id. § 14-30.5-5-1(d)(2) to -1(d)(3).

^{243.} Id. § 14-30.5-5-3(d)(2) to -1(d)(3).

^{244.} Id. § 14-30.5-5-1(d)(1).

practical reasons exist for enabling the reduction of total contributions. It may be assumed that following a period of years in which new studies are commissioned and projects are undertaken throughout the basin to address newly or previously identified issues, the primary focuses of the WDC will shift from cataloging and constructing to monitoring and maintaining. At such a time, operating costs and funding requirements may decrease.

Whereas normalizing the total assessment value by land area produces comparable results for each basin (Table 3, column 5), normalizing the total assessment value by river mile of the named surface outlet(s) for each basin produces results that vary across three orders of magnitude (Table 3, column 6). River basins that are relatively linear in shape and generally conform to the path of the surface water outlet (e.g., KYWDC and UWRBC, see Figure 1, supra) have drastically lower per-river mile assessment rates than basins whose primary rivers have large tributaries (e.g., MRBC, see Figure 1, supra) or have large portions of their drainage area contribute to reaches of the river that are located in other states (e.g., SJRBC). Assuming that most of the commission's money will be spent in or near the named surface water outlet, as it appears to be with the KYWDC, it may have been more advisable to utilize a funding scheme that accounts for the length of the river and the shape of the basin. That being said, a simpler rule may have been preferable so that it would be easier to explain to those that would be subject to it and because it hews more closely to existing regulated drain assessment methodologies.

CONCLUSION

The effects of transformation of existing RBCs to WDCs vary by RBC. For all RBCs, the size and composition of the voting body of the Commission will change. St. Joseph RBC would likely see the largest change in purpose following the transition, though the difference lessened as HEA 1639 evolved to allow water quality purposes and created a specific provision to allow the current SJRBC board to serve in an advisory capacity if a St. Joseph River WDC forms.

All WDCs would have the same powers under the new statute, but because the Upper Wabash RBC currently has the least amount of power, it would see the greatest increase in its ability to implement stream improvement projects if it transformed into a WDC. All RBCs would see average annual funding increase by approximately ten times or more.

The criteria necessary for a county to propose recognition of a new WDC are unlikely to unduly inhibit their formation. Practical and logistical limitations on the size of a potential WDC will likely be more of a ceiling than the contributing drainage area requirements. Based on statutory language, WDCs formed as a result of this bill would place less emphasis on conservation and more emphasis on development and commerce than do current RBCs. It should be noted that this change in statutory language does not *necessitate* a lessening of a conservation ethic in the actions taken by a WDC or among the commissioners themselves, but it may *facilitate* it.

Severe unintended consequences could arise from a WDC's ability to act within its entire designated watershed and not be restricted to act within member counties in the watershed. A member county could potentially modify the named surface water outlet within the borders of a nonmember county within the watershed, and that nonmember county would have no ability to prevent those actions, or take actions of its own, without authorization from the WDC.

Although the funding rates available to transformed or original WDCs are much greater than the funding available to current RBCs, substantial variation still exists. Variability is largely a function of the relative proportions of urban and agricultural land use within the basin due to the different assessment mechanisms for those categories. This variability may be reduced by the WDC's and individual counties' abilities to modify the assessment amount if desired. Limited data are available regarding the necessary or optimum funding levels for WDCs in Indiana.

Overall, the additions to Indiana Code following passage of HEA 1639 (2023) could be a positive development for watershed management in Indiana inasmuch as it promotes cooperation across county boundaries. This is particularly true as large-scale influences on stream function, such as urbanization, increased agricultural drainage, and increased precipitation due to climate change, are leading to increasing flooding and stream instability across the state. However, future amendments to the statute might make the formation of WDCs more attractive and effective. For example, limiting the WDC's channel modification authority to the portions of the channel that are within its member counties may reduce political conflict between member and nonmember counties. Additionally, replacing each county's executive appointee with a Soil and Water Conservation District representative and providing more explicitly proconservation language throughout the statute may make WDC formation more palatable to existing River Basin Commissions and other nongovernmental watershed groups already in operation.