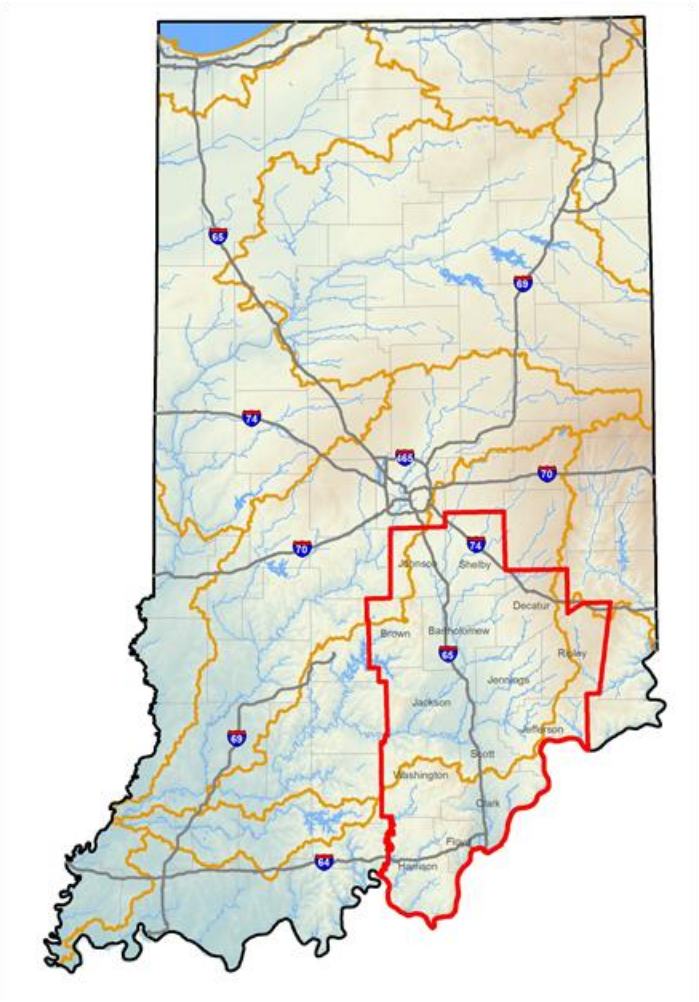
ISSUE BRIEF - Southeastern Indiana Regional Water Supply

January 2018

Issues Presented:

1. It has been well documented in past studies that planning is needed to better manage our State's regional water supplies.
2. Many water utilities in Southeastern Indiana face unique challenges in providing affordable water service to their customers.
3. The Southeastern Indiana Regional Water Supply[1] report considers three options with respect to remedying the concerns noted above: (1) continue with the Current Approach, (2) create a Regional System, and (3) create a smaller "Targeted" Regional System. A detailed description and comparison of each option is presented on the next page.



Findings:

1. The IFA report has been prepared pursuant to Indiana Code 4-4-11.7-4 for presentation to the Indiana State Legislature.
2. The study area was defined as a 14-county area in Southeastern Indiana.
3. The State has invested in the infrastructure of Southeastern Indiana to stimulate economic growth in the region. Upgraded transportation and other infrastructure has positioned the region for growth, and growth is already occurring in the large communities in the region. In smaller communities, however, growth may be stifled by a lack of high quality, resilient water supplies.
4. In the study area, there are utilities with access to adequate groundwater supplies. These utilities have played an important role in supplementing supplies for their neighbors through utility-to-utility wholesale water purchase agreements. While the Current Approach has been successful to date, it is probably inadequate to fully address current and future supply, regulatory, and affordability challenges in Southeastern Indiana.
5. The Targeted Regional System makes water available for water-intensive economic development in areas along the I-65 corridor that currently lack ready access to abundant, reliable water supplies. Operating costs for the Targeted Regional System appear reasonable, and economically attractive for utilities in the region as they consider options to address their current and future water supply challenges.
6. The higher construction and operating costs of the Extended Regional System do not appear to be justified by the incremental increase in capacity and benefits over the Targeted Regional System (see next page). The additional counties reached by the Extended Regional System, but not the Targeted Regional System, may be adequately and more economically served from other sources.

Recommendations:

1. Collaboration among utilities within the Southeastern region will be needed to effect any proposed recommendations;
2. Regional planning is needed State-wide in order to address the State's future water needs;
3. Effective long-term solutions may involve multiple regions; and
4. Appropriate scope and scale of collaboration will likely vary by region.

[1] Southeastern Indiana Regional Water Supply - feasibility and cost analysis, January 2018, is available at: http://www.in.gov/ifa/2966.htm

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Description and comparison of regional water supply options for Southeastern Indiana:

	Option 1 Current Approach		Option 2 Extended Regional System	Option 3 Targeted Regional System
Description	Independent utility planning and development of water supply and treatment infrastructure. Limited coordination of water supply planning and management. Organic growth of limited regional suppliers. Independent investments in improvements to address source vulnerability and water quality- related regulatory compliance issues.		Regional water supply extends north along the I-65 corridor to Bartholomew County, available directly and indirectly to supplement existing supplies of more than 65 utilities in Bartholomew, Clark, Decatur, Floyd, Harrison, Jackson, Jefferson, Jennings, Ripley, Scott, and Washington Counties. Johnson, Shelby, and Brown Counties would continue to be supplied by existing utilities within and adjacent to the study area.	Regional water supply extends north along the I-65 corridor to Scott County, available directly and indirectly to supplement existing supplies of more than 48 utilities in Clark, Floyd, Harrison, Jackson, Jefferson, Jennings, Scott, and Washington Counties. Johnson, Shelby, Bartholomew, Decatur, Ripley and Brown Counties would continue to be supplied by existing utilities within and adjacent to the study.
Water Sources Utilized	Existing local surface water and groundwater supplies, wholesale supplies originating from Monroe Lake, Patoka Lake, and outwash aquifers of the White, Whitewater, and Ohio Rivers		Regional groundwater supply from the Charlestown State Park Ohio River outwash aquifer, existing local surface water and groundwater supplies, and wholesale supplies originating from Monroe Lake, Patoka Lake, and outwash aquifers of the White, Whitewater, and Ohio Rivers	Regional groundwater supply from the Charlestown State Park Ohio River outwash aquifer, existing local surface water and groundwater supplies, and wholesale supplies originating from Monroe Lake, Patoka Lake, and outwash aquifers of the White, Whitewater, and Ohio Rivers
Response to Utility Challenges				
Source Vulnerability	Minimal		Provides a reliable, high quality supply option to more than 65 utilities, including 19 with identified challenges.	Provides a reliable, high quality supply option to more than 48 utilities, including 10 with identified challenges.
Regulatory Compliance	Minimal		Provides a reliable, high quality supply option to more than 65 utilities, including 29 with identified challenges.	Provides a reliable, high quality supply option to more than 48 utilities, including 23 with identified challenges.
Affordability	Minimal		Provides affordable supply option to more than 65 utilities, including 30 with identified challenges.	Provides affordable supply option to more than 48 utilities, including 21 with identified challenges.
Regional Supply Demand				
2040 Max Day	0 MGD		12.6 MGD	10.6 MGD
2060 Max Day	0 MGD		26.3 MGD	22.3 MGD
Support for Regional Economic Development	Local		Clark County to Bartholomew County (~68 miles along I-65 corridor)	Clark County to Jackson County (~47 miles along I-65 corridor)
Regional Capital and Resource Efficiency	Minimal		Potential for utilities to defer or reduce future supply and treatment investment	Potential for utilities to defer or reduce future supply and treatment investment
Capital Cost at Build-Out	Unknown		$276.9 million	$219.8 million
Operating Cost				
2040 ($/1000 gallons)	Min $2.29, Avg $7.31 *		$1.84	$1.36 with
wheeling fees			$2.34 to $2.84	$1.86 to $2.36
2060 ($/1000 gallons)	Min $2.29, Avg $7.31 *		$1.34	$1.04 with
wheeling fees			$1.84 to $2.34	$1.54 to $2.00

Notes: All costs are in 2017 dollars. The capital cost of Option 1 was not calculated; it would include all independent utility investments in supply, treatment, and conveyance infrastructure that could be avoided or reduced because of the availability of the regional supply option. The operating cost of Option 1 varies by utility and was not calculated. Values shown are the minimum and average 2015 retail rates for water utilities in the study area (Umbaugh, 2016). Fees for wheeling are based on wheeling by one intermediary utility, estimated to be $0.50 to $1.00 per thousand gallons.