



MEMORANDUM

TO: Indiana Finance Authority Board Members

FROM: Jim McGoff, COO & Director of Environmental Programs

DATE: June 20, 2024

RE: Progress update on the North Central Indiana Water Study

In November of 2023, Governor Holcomb asked the IFA to conduct a regional water study in the north central region of the state, generally comprised of the upper Wabash River Watershed. IFA staff also determined to expand the study to include the headwaters of the upper Wabash River Watershed (see attached map). Two national consulting engineering firms have been retained to perform the 50-year supply and demand study in the region. Stantec Consulting Services and Jacobs Engineering Group, Inc.

The IFA has also formed an advisory committee that meets monthly with the consultants. The committee includes the Indiana Department of Natural Resources, the Indiana Department of Environmental Management, the U.S. Geological Survey, Purdue University, Indiana University, the White River Alliance, and the Indiana Farm Bureau was recently added. IFA staff and or IFA consultants are also collaborating with regional Economic Development agencies, regional utilities, and private industry.

The IFA is committed to providing updates and since the consultants are wrapping up their work on water demand and shifting their focus to supply, we thought this to be an appropriate time to update the IFA Board Members on the progress.

Preliminary findings on historical water withdrawals in the 10-county Wabash Headwaters study area (within Indiana) as reported in the Indiana Department of Natural Resources Significant Water Withdrawal Facility database include:

- Total annual water withdrawals increased approximately 136% between 1985 to 2005, but have been steadily declining since 2005. The water-use averaged over the entire period of record from 1985 to 2022 reflects an increase of 29 percent. The majority of the variability has been seen in the energy sector (see attached graph).
- All sectors increased their use except public water supply systems (utilities), for which the data show water use decreased by approximately 11 percent over the period of record.

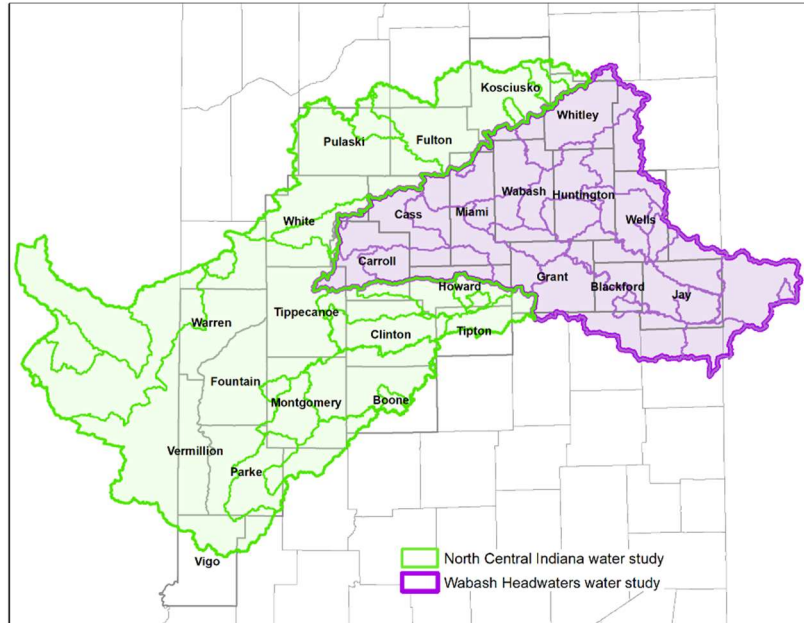
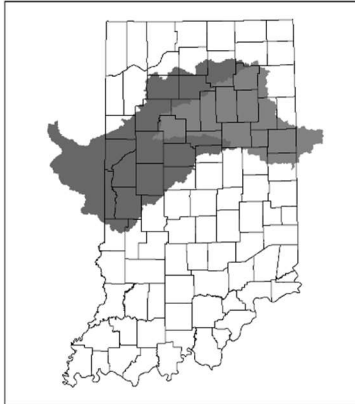
- In 1985, the public water supply sector was the largest water-use category representing approximately 63 percent of total demand, followed by the industrial sector with a demand of 32 percent.
- In contrast, in 2022, the largest water use was in the industrial sector, representing approximately 47 percent of total demand, followed by public water supply systems with a demand of 44 percent.
- Between 2007 and 2009, four new industrial facilities began operations within the region, which is reflected in an increase in water use.
- Although agricultural irrigation increased by 60 percent between 1985 and 2022, it represents a small percentage (approximately 6 percent) of overall use within the region.
- The remaining water uses include energy production, rural use (such as livestock and fish hatcheries), and self-supplied residential.
- The average water withdrawal in 2022 was approximately 63 million gallons per day, 63 percent from groundwater wells and 37 percent from surface water diversions.

Preliminary findings on historical water withdrawals in the 15-county North Central Indiana area (within Indiana) as reported in the Indiana Department of Natural Resources Significant Water Withdrawal Facility database include:

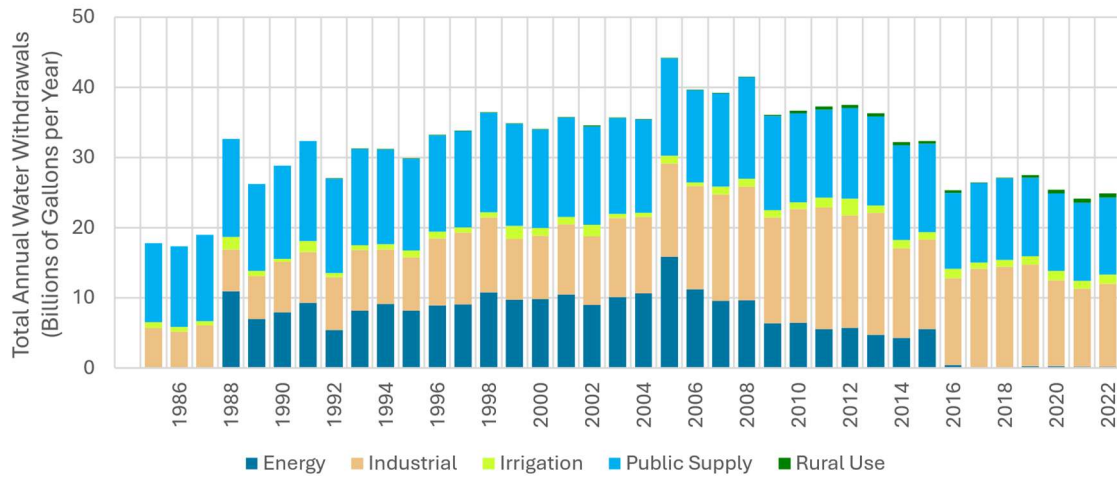
- Total annual water withdrawals increased by 50 percent from 1985 to 2006, but have been steadily declining since 2006 to 80 percent of 1985 levels. The majority of the decline has been seen in the energy sector (see attached graph).
- The top water-withdrawal categories are: the energy sector (approximately 85 percent of total), public water supplies (approximately 6 percent of total), and industrial (approximately 5 percent of total). Note that energy demand is nearly all non-consumptive water use, meaning most of the water is returned to the river after use.
- The water-withdrawal categories that have shown growth (while representing a comparatively small proportion of the total water use) since 1985 include irrigation and rural uses.
- The water withdrawal categories that have shown declines in water use since 1985 include the industrial, energy, and public water supply sectors.
- The average water withdrawal in 2022 was approximately 770 million gallons per day, 88 percent from surface-water diversions and 12 percent from groundwater wells.

The next steps for the study include collaborating with regional economic development agencies, industry and agricultural representatives, and local utility districts to estimate possible future scenarios of water withdrawals as well as estimate water availability and develop recommendations for the future of resilient water management. Potential drivers of a change in future water demand include, but are not limited to, energy transition, economic development, changes in population, and water conservation, and water-use efficiency.

Stay informed about the studies at <https://www.in.gov/ifa/regional-water-studies>.



Wabash Headwaters Total Annual Water Withdrawals



North Central Indiana Total Annual Water Withdrawals

