

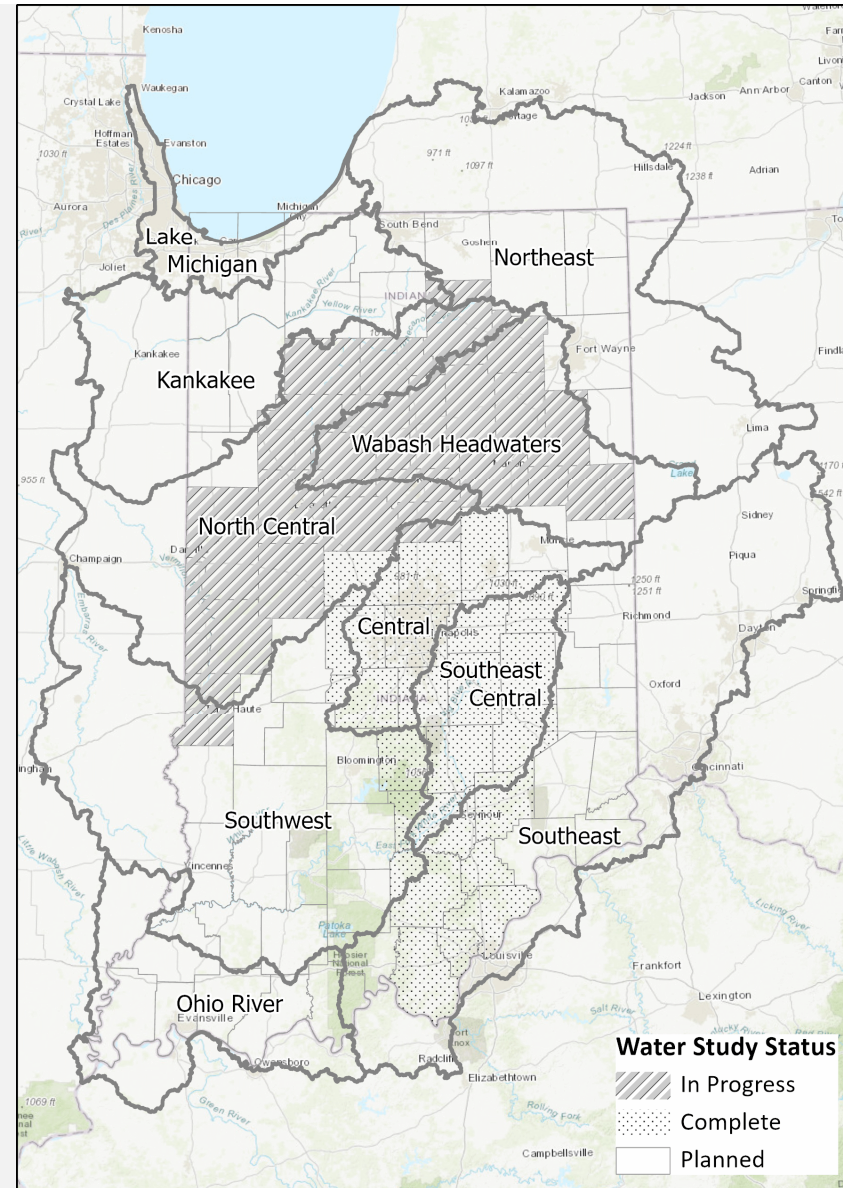
North Central Indiana & Wabash Headwaters Water Studies Informational Meetings April 18 & 23, 2024

- Introductions
- IFA's Water Study Process
- Previous Findings of IFA Studies
- Scope of Work
- Process / Project Overview
- Meet the Consultants
- Advisory Board
- IFA Website
- Next Steps
- Questions



IFA's Water Study Process

- Where have we been with past studies?
- How do these two studies fit in?
- What are the long-term hopes for the state?
 - Standardized process / comparable across studies
 - Organized outreach with utilities, economic development interests, public officials and the public
 - State-wide understanding of water resources and needs



Previous Study Findings

- Southeast
 - Interconnectivity of water utilities and supply solutions
- Central
 - Coordinated drought communication
 - Coordinated utility planning
 - Future need for water
 - Targeted investment in additional monitoring

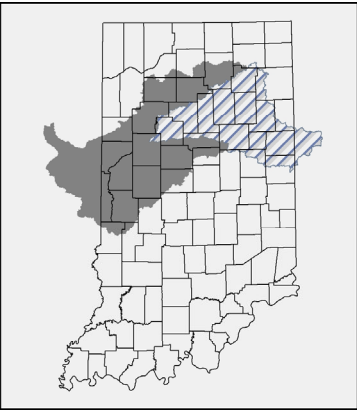


Scope of Work

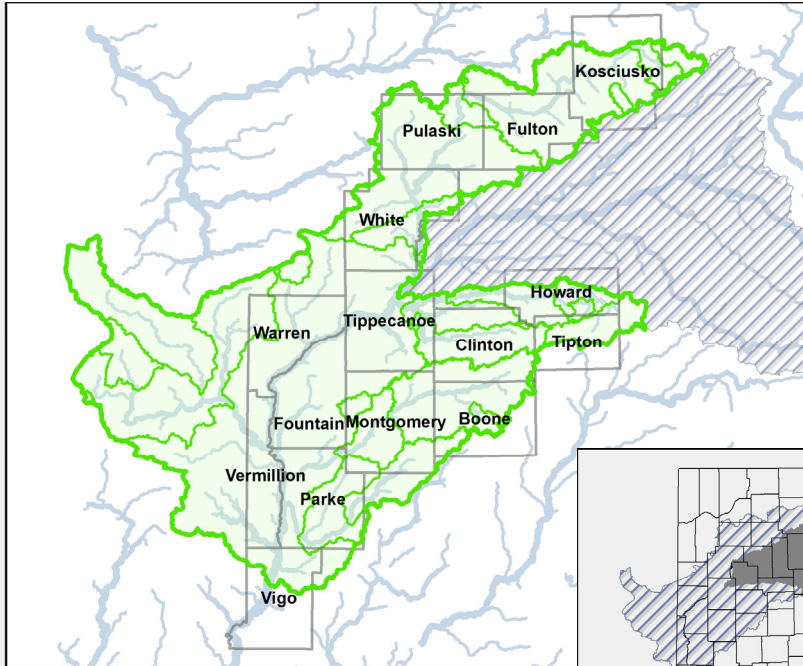
- Phase 1: A fifty-year water demand forecast.
- Phase 2: A fifty-year water supply availability forecast.
- Phase 3: Comparison of water demand and availability forecasts to identify whether enough water is available to meet the 50-year Public Water Supply needs in the region.
- Recommended next steps.




Process / Project Overview – Key Players

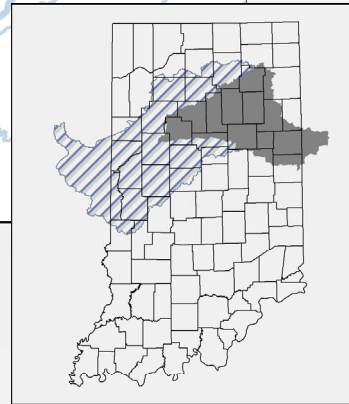
- Advisory Board
- Consultant Teams – Stantec & Jacobs
- Stakeholders
 - Utilities
 - Economic Development Leaders
 - Public Officials
 - Other Significant Water Users



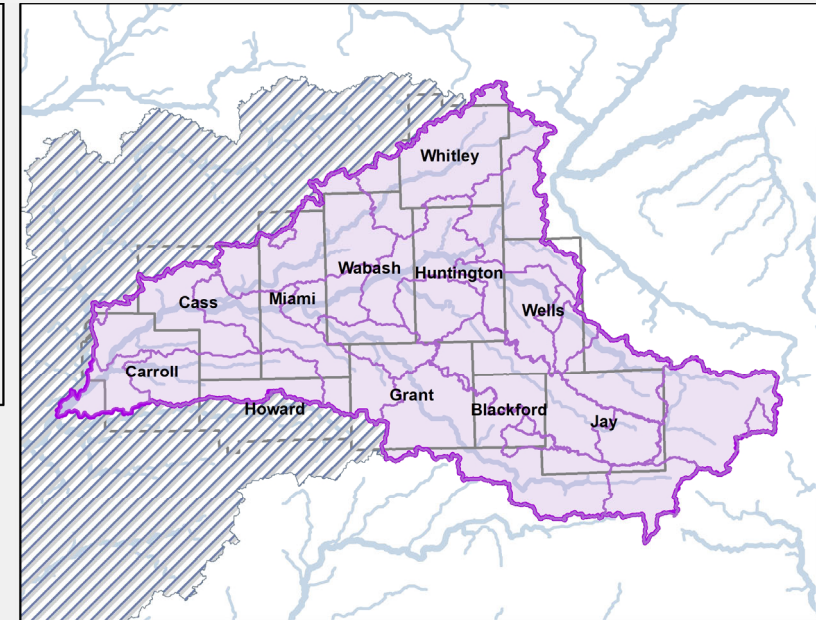
Stantec Team






-  North Central Indiana water study counties
-  North Central Indiana water study subbasins
-  Wabash Headwaters water study



Jacobs Team



-  Wabash Headwaters water study counties
-  Wabash Headwaters water study subbasins
-  North Central Indiana water study

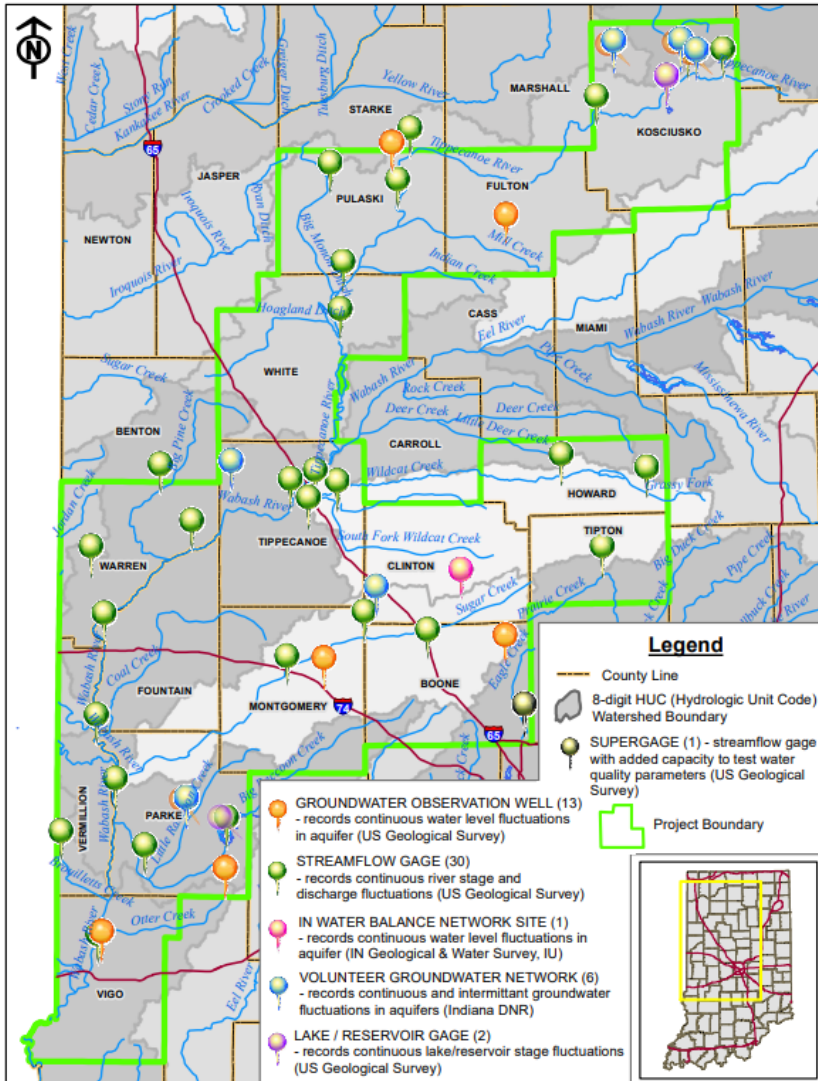
Advisory Board Members

- Indiana Finance Authority – Lead
 - Jim McGoff, Sarah Hudson
- Indiana Department of Natural Resources
 - Ryan Mueller
- Indiana Department of Environmental Management
 - Christian Walker, Alex Powers
- U.S. Geological Survey
 - Dave Lampe, Jeff Frey
- White River Alliance
 - Jill Hoffmann
- Purdue University
 - Anne Hazlett
- Indiana University
 - Sally Letsinger

IFA Website Information

<https://www.in.gov/ifa/regional-water-studies/>

- Goals of the studies and Maps
- FAQ's
- Portal for feed back
- Project Information updates and press releases
- Related Information (e.g. Indiana surface and ground water monitoring and climate monitoring network)



WATER MONITORING NETWORKS

U.S. Geological Survey (USGS) Streamgaging Network



- SCOPE: Continuous, near real-time streamflow and water-level data from which daily mean stream flows are computed and made publicly available online.
- SCALE: Nationwide network, 241 streamgages in Indiana.
- USE: Planning, forecasting, and warning for floods and drought, water allocations, regulating pollutant discharges, designing reservoirs, roads, bridges, drinking water and wastewater facilities, operating waterways for power production and navigation, monitoring environmental conditions to protect aquatic habitats, and determining safety of recreational activities.

USGS Super Gage Network

- SCOPE: Some gages in the Streamgage Network have added capacity to test water quality parameters, including water temperature, specific conductance, pH, dissolved oxygen, total nitrogen (or nitrate concentration), total phosphorous (or orthophosphate), turbidity, and/or suspended sediment.
- SCALE: Nationwide network, 16 super gages (which are a subset of the 241 streamgages) in Indiana.
- USE: Calculate concentration and loads to understand and address watershed processes and issues such as climate and land-use effects, water-related human health issues, or hazardous substance spills.

USGS Lake and Reservoirs Gage Network

- SCOPE: Instantaneous water surface elevation and reservoir storage (in select locations) data collection system led by USGS and managed in cooperation with local agencies.
- SCALE: Nationwide network, 18 lake /reservoir gaging stations in Indiana.
- USE: Planning and management of lake/reservoirs for water supply, flood mitigation, industry, and recreation.

USGS Active Groundwater Level Network

- SCOPE: The network measures water levels in wells irrespective of measurement frequency, location, or the monitoring objective.
- SCALE: Nationwide network, 212 wells (52 real-time and 160 periodic) in Indiana.
- USE: Includes but not limited to providing long-term groundwater level for planning purposes, monitoring conditions during drought, and hydrologic research including aquifer tests and individual, short-term project sites.

Indiana Volunteer Groundwater Monitoring Network

- SCOPE: Continuous and discrete groundwater level data collected through a cooperative agreement between the IDNR, USGS, and volunteer well owners.
- SCALE: Statewide network includes 60 wells (57 continuous, 3 intermittent); 53 wells operated and maintained by IDNR, 7 by cooperative partners, and data quality-assured and hosted by USGS.
- USE: Track groundwater levels to identify and assess impacts of water use and climate variability on aquifer resources.



Indiana Water Balance Network

- SCOPE: Continuous data collection to estimate evapotranspiration of water, soil moisture, and/or water level fluctuations in aquifers.
- SCALE: Statewide network, 22 sites capturing varied data
- USE: Monitor trends in water loss and gain to improve understanding of water budgets in Indiana.



Next Steps

- Contact with utilities and economic development leaders to obtain needed data – surveys forthcoming
- Concurrent study of the monitoring network with a focus on gap identification, upgrades, and agency coordination
- Promotion of IFA website updates to accept local input
- Goal is to have preliminary results by Fall

