March 1, 2019

Central Indiana Water Study

Background and Overview

Pursuant to the State of Indiana's ("State") Water Infrastructure Task Force Final Report (dated November 9, 2018), the Indiana Finance Authority ("IFA") will undertake a series of studies to identify water infrastructure needs and solutions, specific to regional areas of the State, as well as efficiencies to be gained through regional partnerships and improved sharing of resources.

Central Indiana is the second regional area to be studied by the IFA because of the progress already made by the Central Indiana Drinking Water Collaborative ("Collaborative"); a group of water utilities that previously organized themselves and conduct regular meetings. The study area for the Central Indiana Water Study assumes the same boundaries as the Collaborative, which are: Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties. The primary goal of the IFA's Central Indiana Water Study, determined in partnership with the Collaborative, is to provide the State and affected water utilities a better understanding of the supply and demand of water resources in the Central Indiana region.

The Central Indiana Water Study will consist of five separate phases.

Phase I — Regional Demand

1. Forecast water demand in the study area out to the year 2070
2. Consider all sectors: residential, commercial, industrial, and agricultural
3. Evaluate multiple overlapping growth and drought scenarios

Phase II — Regional Supply

1. Identify and then collect data necessary to have a better understanding of groundwater and surface water supplies in central Indiana, including aquifer levels and stream flows
2. Describe surface water and groundwater connections under natural conditions
3. Use mapping tools to interpret the data

Phase III — Water Availability Modeling and Optimization

1. Utilize Phase II data to construct a regional groundwater flow model
2. Using the model and Phase I data, identify and define areas of aquifer stress and potential limitations and/or surpluses under various scenarios
3. Use the model to simulate short-term and long-term water availability under various operational and climate scenarios
4. Collect localized data needed to understand the effects of utility water withdrawal operations on groundwater and surface water systems

Phase IV — Infrastructure and Cost Analysis

1. Evaluate potential infrastructure needed to address deficits forecasted in Phase III, including a cost benefit analysis, environmental siting, regulatory, and permitting conditions
2. Evaluate potential interconnections, and the technical, regulatory and operational issues that would need to be addressed in order to wheel water from one system to the next

Phase V Public Education and Outreach

1. Based on findings in Phases I, II, III, and IV, identity topics that would aid the utilities in the study area to better communicate water supply and demand issues with the residents of Central Indiana, including but not limited to lawn irrigation and drought management
2. Work with utilities in the study area to develop a regional public education message regarding the water supply and demand issues
3. Develop needed public education materials
4. Develop outreach implementation plans that include timelines and estimated costs.