The proposed study aims to improve our collective understanding of the water flow system and water resources in CH's jurisdiction and individual watersheds such as the Sixteen Mile Creek, Bronte Creek, and Grindstone Creek watersheds. The study aims to assess the status and trends in water availability by identifying and measuring water inputs (e.g., precipitation and surface water runoff) and outputs (e.g., surface and groundwater takings) into groundwater and surface water systems and including groundwater surface water interactions. The study also aims to apply a climate change lens to the assessment to gain a better understanding of the impacts that climate change has on water resources. Through this study, areas of drought and flood vulnerability can be estimated.