The Illinois State Water Survey is a state research institute that addresses the practical problems of the people of Illinois. It is the primary agency in Illinois concerned with water and atmospheric resources. Research and service programs deal with ground water (the water stored in aquifers), surface water (our lakes, rivers, and streams), and atmospheric water (precipitation, clouds, and airborne toxics). The Water Survey's main laboratories and headquarters are located on the campus of the University of Illinois at Urbana-Champaign, with major facilities in Peoria and at special study areas around the state.

The Water Survey was founded in 1895 to survey the waters of Illinois to trace the spread of water-borne diseases, particularly typhoid. In its first 15 months, the Water Survey tested 1,787 water samples from 68 Illinois counties at public request. Early research projects also involved water softening methods, sewage and wastewater treatment, and the establishment of sanitary standards for drinking water. In the 1920s Water Survey activities focused on methods to determine water levels in wells, yield testing, and a survey of the state's surface waters and municipal water supplies.

During World War II, the Water Survey participated in studies to detect and treat chemical warfare agents in water. After the war, in pioneering the use of radar to measure precipitation and track severe storms, the Survey successfully took the first radar-generated photograph of a tornado.

With rapid population growth in the 1950s and 1960s, the Water Survey attempted to identify and increase available water supplies for Illinois with research on reservoirs, wells, and aquifer development.

Most recently, the Water Survey played an important role in acid rain research, serving as the central laboratory for an international network that spanned 48 states and Canada. The Water Survey is also a prominent center for global climate change research. From research projects on "urban heat islands" in the 1970s have come many more sophisticated investigations of climate change and the impacts of global warming on Illinois.