US Army Corps of Engineers
St. Louis District

Information Paper

Kaskaskia River Basin Feasibility Study, IL

Section 5073 of Water Resources Development Act 2007

Investigations (ENR)

Location: The Kaskaskia River Basin (Basin), Illinois, from the headwaters at Champaign, Illinois, to the confluence of the Mississippi River, its backwaters, side channels, and all tributaries, including their watersheds, draining into the Kaskaskia River.

Description: The Basin has 6 functional Corps business lines and contains three authorized Corps projects; Lake Shelbyville, Carlyle Lake, and the Kaskaskia Navigation Project. These projects are major economic and environmental drivers within the nation. In FY19, the three projects had approximately 5M visitors, generated over $171.5M in visitor spending. The total population served by public water supply systems in 22 counties is 557,837 persons (2005 data). The navigation project located on the lower 36 miles of the river; ties directly into the upper Mississippi River, serves as a major transportation corridor for southern Illinois, and is one of the few navigation projects of any size with increasing tonnage trends. During the drought of 2012, the reservoirs were used to mitigate record low flows on the Mississippi River to keep river traffic and commerce moving. Three power plants use water from the basin for cooling purposes, with one being in the top five power producing plants in the world. The purpose of the study is to identify the threats that pose significant ecosystem degradation in the basin and opportunities for restoration.

Issues: The Kaskaskia Navigation Project design (1961) failed to consider plan and profile degradation by reducing the rivers length 31% and width 80%. The profile change resulted in a destructive headcut that travels at a rate of 1-mile per year and if left unimpeded could reach the Lake Carlyle Dam by 2030. Damages induced by headcutting have resulted in increased dredging, loss of private property, significant ecosystem degradation to the riverine environment and impacts to the largest contiguous stand of bottomland hardwood forest in the State of Illinois.

Importance: The authorization allows the Corps to develop a Comprehensive Plan to improve fish and wildlife habitat, attenuate flood risk, reduce sedimentation, maintain navigation reliability, improve recreation and address water supply. The authorization also allows at least one critical project to carry into construction. The critical project(s) may involve implementing river engineering solutions to impede the destructive headcut.

Phase	FY 21 Allocation
Investigations	$0

Risk: The Basin faces a number of threats including significant ecosystem degradation to the mainstem river, backwaters, side channels, creeks, tributaries and the State's largest bottomland hardwood forest. Population increase and power generation in the basin indicate that additional water demands could increase from 13 to 84 percent.

Consequence: Headcutting poses a challenge to management of the navigation channel due to increase sedimentation. The watershed faces serious threats and challenges including headcuts, nutrient loads, and water supply.

Photo of remnant contiguous bottomland hardwood forest for the State of Illinois.

Activities for FY 21: None. In February 2017, the study was placed in Inactive Status shortly after the Alternatives Milestone Meeting due to a lack of available sponsor cost-share funds. In September 2020 the Illinois Department of Natural Resources confirmed their renewed interest in serving as the non-federal sponsor. The sponsor role however is contingent upon IDNR securing grant funding.

Acquisition Strategy: No contracts are scheduled for award during FY21.

Activities after FY21: Due to its Inactive Status, no activities are currently scheduled. Approximately $204,000 of Federal funds are available, but are subject to re-programming.

Project Partner: Illinois Department of Natural Resources

Congressional Interest: Senate: Durbin (IL), Duckworth (IL); House: Bost (IL-12), Miller (IL-15).