A PUBLICATION OF PRAIRIE RIVERS NETWORK

prairierivernotes

Protecting Illinois' Rivers for People, Fish, and Wildlife

MYSTERIOUS FLOW ON THE MIDDLE FORK

BY ANDREW REHN

On April 25th, university and middle school students canoed the Middle Fork on an educational field trip when they noticed something out of place. One of the small tributaries to the Middle Fork was flowing fast and thick with milky white sediment. Upstream, the water was perfectly clear, but downstream, the water was cloudy and opaque. One canoer was alarmed that "after a stretch, the tributary water was completely mixed with the main stream and the entire Middle Fork was opaque from the light gray suspended load from the tributary."

That same day, hikers also noticed a small stream near the river flowing full from bank to bank with cloudy white water. Both the hikers and the canoers noted that the color and flow rate of the stream was unusual and striking; not your typical brown sediment runoff but cloudy, white, and flowing fast. There had not been any rain to cause a flow like that.

The white and cloudy tributary enters the river at the bottom of the adjacent image. Following the valley northward to Dynegy's property line, hikers identified it as the stream that comes from Dynegy's dam.

The canoers reported the mysterious discharge to PRN. We reached out to Illinois EPA to see if they would investigate.

The day after the event, Illinois EPA spoke with residents near the site but found nothing that could have created the mysterious flow. They did not investigate Dynegy's property, but Dynegy indicated via phone that they did not see anything unusual.

Two weeks later, Illinois EPA met with Dynegy for a follow-up inspection. At that time, Dynegy confirmed that they were responsible for the water, releasing millions of gallons, but they could not explain its cloudy white color. Illinois EPA explored portions of the site downstream of the dam but were not able to locate a source for the discoloration. They concluded that the white material could not have come from Dynegy's dam.

WHERE DID IT COME FROM?

In the Illinois EPA inspection report, Dynegy indicates that contractors on a weekly inspection of the Vermilion Power Station noticed a beaver dam blocking the spillway on April 24th, the day before the mysterious flow. The next day, another contractor removed the beaver dam, causing a flow over the spillway approximately 8 inches deep which lasted for hours.

The story seems to make sense. The math certainly checks out—the lake level was lowered by 8 inches, and the lake is approximately 100 acres, so the volume that went over the spillway (area x depth = volume) matches the volume of water we estimated and the timing from the stream gage record downstream.

// continued on page 5 //

IN THIS ISSUE //