



Indiana Department of Natural Resources

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Jay Dishman, Site Manager
Whitewater Canal State Historic Site
P.O. Box 88
Metamora, IN 47030

Dear Mr. Dishman:

I have been asked to provide written comments on the effects on the fish community as a result of pumping water into the Whitewater Canal. I am the district fisheries biologist who manages the public waters in Franklin County as well as 19 other counties.

The portions of the canal that I have observed look like a shallow, mud bottom ditch. The canal is an unnatural waterway that lacks the fish habitat that is necessary for a diverse fish community and a quality sport fishery. While I have never surveyed the fish community of the canal, the observations I have made of the habitat quality indicate the fishery would contain a poor fish community and would be dominated by tolerant species that are generally undesirable to anglers. I suspect that carp and bullheads are in high abundance in the canal.

You have indicated to me that the probable pumping rate of well water into the canal will be in the neighborhood of 1,000 gallons per minute. A summer refuge (fish attractant) will likely be created where the well water enters the canal since that water will be far cooler than the normal canal temperature. In the winter, fish will also like the area since well water is far warmer than winter water temperatures. You also said that the canal empties into the West Fork of Whitewater River approximately 3 miles downstream of the lock. With this amount of distance from where the well water is entering the canal to where it joins the WF of Whitewater, the canal water should be to a "normal" temperature before it hits the river.

The WF of Whitewater drains approximately 750 square miles of land in the area of Metamora. This would translate into an average flow of around 750 cubic feet of water per second. One cubic foot of water is 7.5 gallons of water. Therefore, in the area of Metamora, there is an

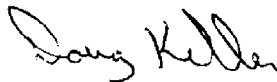
average of 5,625 gallons per second (or 337,500 gallons per minute) of water moving down the WF of Whitewater. Even if the pumped well water did not change temperature in the 3 miles of canal before it hits the WF of Whitewater, the pumping of 1,000 gallons of water per minute would have no bearing on the water temperature of the WF of Whitewater that is carrying 337 times more water.

Well water should have no adverse effect on the water chemistry of the canal. However, if the supplementing water were chlorinated, there would be concerns. You have indicated that it will indeed be non-chlorinated well water. If the well water is allowed to "fall" into the canal, then it would become somewhat oxygenated. If not, well water would provide little to no oxygen and could create a stressful area for fish.

In summary, I feel there would be no impact to the WF of Whitewater fishery as the result of the pumping of well water to the canal. In addition, I believe the fish community of the canal is of poor quality due to the habitat available and that there would be no change to that fishery.

Please contact me if you need me to expound on any of my comments or concerns. Thank you for the opportunity to comment on your proposal.

Sincerely,



Doug Keller, Fisheries Biologist
