

## **Stream and River Surface Water Harvesting Issues**

Joseph M. (Joe) Zulovich, Ph.D., P.E.

Extension Agricultural Engineer

Commercial Agriculture Program

Below are some issues that need to be addressed or at least be aware of when considering pumping water from a stream or river to provide water for direct use or to refill a water impoundment structure, pond, or lake in Missouri.

Issues and topics with respect to the Army Corps of Engineers include but may not be limited to the items in the list below. Someone interested in directly pumping water from a stream or river should contact The Army Corps of Engineers District Office that has jurisdiction for the location where pumping is proposed to occur.

- Corp does not regulate temporary structures such as a floating intake.
- A permit is not needed if there is no construction in the channel and as long as no spoil or dredge material goes into the channel.
- If bank is altered, soil must be brought back and place on the land or hauled off. Also disturbed area must be protected from erosion so that silt does not enter the channel.

Issues and topics with respect to Missouri Department of Natural Resources include but may not be limited to the items in the list below.

- One has the riparian right to use water from the river as long as it does not adversely affect the water use of other individual water users. This is true as long as one owns the land along the stream or river where the water would be pumped.
- If the pumping rate is 70 gallons per minute or greater, the Major Water User Law requires registration with the Department of Natural Resources and an annual water usage report filed with the Department.

Issues, topics, or questions one must consider when pumping from a stream or river include but may not be limited to the following:

- Ensuring that one has ownership of the land where the pumping site would be located.
- Making an estimate of the volume of water that would be pumped from the river each year.
- Consider pumping water when the river flow was such that a floating intake could be used so that no channel modifications would be needed. A floating intake would eliminate the need for a Permit from the Corp of Engineers because of channel modifications.
- Pumping when the flow in the river is above low flow should keep from having any adverse affect on any other water use.