THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Ponds in Times of Excess Water

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Wet, wet, wet best sums up the current state of things. 2019 was one of the wettest years on record. The water table most everywhere is high due to excess of water. Now, 2020 is looking to be a repeat in terms of moisture volumes seen in 2019. All this combined has an impact if you are a pond owner.

Ponds bring us much enjoyment, from swimming to fishing to aesthetics and even fire protection. Ponds, like all things, take maintenance to keep in top shape. Doing nothing is an option too, however it will end in a stagnate, lifeless, mosquito breeding zone. Now is also the time to start working towards preventing pond problems you had last year.

Recent calls that have come in are from pond owners concerned with the higher than normal pond level. Ponds are built with an inlet and should have two to three outlets. The first, being the discharge pipe and the second and hopefully the third are the spillways. A principal spillway is designed to maintain the desired water level. The emergency spillway is an exit point for when water is in excess. This allows for the safe release of excess water without flowing over the bank and potentially eroding the dam leading to total pond failure. Emergency spillways are built into ponds for when excessive inflows cannot be removed by the outlet pipe and the primary spillway. Emergency spillways are typically an earthen structure with a height slightly lower than the rest of the ponds bank to allow water to be released without flowing over the pond's embankment where not wanted. Water flowing over the pond's embankment is very dangerous as if the pond bank is already saturated with moisture, and water flows over the area, then erosion can happen leading to bank failure. The issues are that the pond can be ruined yes, but if a pond empties into a drainage way and would happen to take out a township or county ditch, culvert, or worst case scenario a bridge you could be held responsible for all repairs.

If dealing with excess water in your pond you have some options before total pond failure happens. Originally (30 plus years ago) pond outlet pipes were steel. Now, pond outlet pipes are made from heavy wall PVC pipe. This is because PVC does not rust and can be easily adjusted. If the water inlet cannot be diverted to reduce inlet flow, then the easiest option is to lower the outlet pipe. The PVC pipe is easy to cut. Even under the water line a carpenters saw can cut through it. Whereas steel pipe is very difficult and requires special equipment to cut under the waterline. The good thing about cutting the PVC pipe is that you can always place a collar or coupler and more pipe on it to get the water level back up to where you desire it or

where it was meant to be. When cutting remember the amount cut off is the level the water should drop. So an inch off the pipe lowers the water level approximately one inch.

Great caution needs to be taken anytime working around a pond's outlet pipe. First piece of equipment is a life jacket, worn for safety in the water. Second, you should have a rope around your waist and have a spotter on the bank able to pull you out if something goes wrong. Be sure to not get sucked into the outlet pipe if you must take emergency measures to lower it. The lowering of the pipe can cause water to flow very quickly and can pull you into it. For more information on pond management go to the Ohio Department of Natural Resources page on pond management. http://wildlife.ohiodnr.gov/species-and-habitats/pond-management

Other important factors on pond bank issues are never let trees to establish on the banks. Their roots can provide a point for water to seep through the dam causing the dam to give way. Ground hogs (woodchucks), muskrats, mink, etc. should never be allowed to take up residence in pond banks. Their burrowing allows water to seep into the dam saturating it and could lead to possible failure. Finally, livestock should be kept out of ponds as they can damage a bank's integrity as well as add unnecessary nutrients that will cause excess weed growth.

Lastly, I want to touch on the issue of pond safety. Every pond should have some kind of safety equipment by the pond. Drownings happen in seconds and too often. In many cases, the would-be rescuers become drowning victims themselves. It is better to throw something to the person in the water from the shore. Anything that floats will help. We have pond safety kits at the Holmes County, Ohio State University Extension office if you are interested in this. Pond safety is too often overlooked, but is a vitally, critical part of being a pond owner. If you have weed issues, your county OSU Extension office can help identify them and will have information on how to treat the various weeds common in Ohio ponds. To reach me during this stay at home order you can reach me by email at graham.124@osu,edu and I will help you. We are still open and working from our homes and here to serve you. Our web page has many resources for your convenience on COVID 19 at https://holmes.osu.edu/home

We will get through this together. Stay safe and check on each other often while practicing social distancing. If you need to contact the Holmes County Extension office, call (330) 674-3015 and leave a message or email us. Check out our web page for information: https://holmes.osu.edu
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