

Woosley, Tom

From: Woosley, Tom
Sent: Tuesday, October 6, 2020 5:42 PM
To: Welte, Jennifer
Subject: RE: Lake Lowering Information

I think Lake Petit and a few others are the ones where engineering judgement would play into it. For enforcement like for no permit then 32 might be a bit much and in that location might cause issues like slope failures. However if it is like a large crack or issue with spillway then yes I would want every bit of 32 feet and then some. My rudimentary calcs say at 32 foot drop that is about 35% of reservoir volume.

Is it ok not to give a cap?

If a cap then perhaps no more than $\frac{1}{2}$ water depth but again allowing engineering judgment in case condition of dam warrants more.

At $\frac{1}{2}$ the fish should be able to still survive and you still have some filtering of sediment.

From: Welte, Jennifer <Jennifer.Welte@dnr.ga.gov>
Sent: Tuesday, October 6, 2020 5:20 PM
To: Woosley, Tom <Tom.Woosley@dnr.ga.gov>
Subject: RE: Lake Lowering Information

Thanks, Tom. Do you suggest a cap, to address those like Lake Petit? Would we really ask them to lower by 32 feet? Is looking at $\frac{1}{2}$ the storage for that one give you a value less than 32 feet?

From: Woosley, Tom <Tom.Woosley@dnr.ga.gov>
Sent: Tuesday, October 6, 2020 4:22 PM
To: Welte, Jennifer <Jennifer.Welte@dnr.ga.gov>
Subject: Lake Lowering Information

So I looked at a set of the category I dams, privately owned, and looked at what $\frac{1}{3}$ water depth would look like. The lowest is 2 foot (a couple like that which are anomalies), then a few high ones, like Lake Petit at 125 foot tall the $\frac{1}{3}$ would be 32 feet. Taking out some of these outliers I get the average is around 7 feet and the range would be 2 to 14 feet.

I checked with David and he had looked at several and determined the $\frac{1}{3}$ water depth gets you around $\frac{1}{2}$ the volume, which makes sense and fits what we tell owners in that the top is where a majority of the storage is located.

The program staff will use $\frac{1}{3}$ of the water depth as a starting point for lake level lowering. Other factors may be considered on each dam which could adjust this amount up or down. For example, if the dam or its spillway is in bad shape it may warrant further lowering.

Hope that helps. And hopefully I addressed all you wanted. If not, let me know.

Tom