

Property Owners' Association of Deep Creek Lake, Inc.
PO Box 816 McHenry, MD 21541
April 24th, 2019



Dear John,

We appreciate the opportunity to provide our thoughts on protocols attendant to the 2019 Water Allocation Permit. The Property Owners' Assn. of Deep Creek Lake (POA) is interested in preventing breaches of the Lower Rule Band (LRB) as the boating season progresses. DNR's bathymetric data show significant late-season dock access issues well before the current LRB level is reached. In "dry" years, this becomes much worse for a large number of dock users. The protocol options outlined below are provided as a basis for discussion and exploration as you and I have discussed.

The POA offered "protecting the LRB" as one of four recommendations in our 19 February letter to Secretary Grumbles, and this was subsequently tabled at the February 28 stakeholder meeting. At this meeting, you stated that if a stakeholder suggests a change in the 2019 Permit, this should be accompanied by specific protocol changes as necessary to enact this change. This letter outlines proposed changes to protect the LRB.

We believe that in order to protect the LRB, the Dam operator must use tools with predictive capability based on some combination of existing tools as described by Brookfield and/or an evolved Water Budget Model (WBM). The use of such tools will both support LRB protection and identify "win-win" opportunities for all stakeholders as allowed by frequent 'high water' conditions. We have all noted that, fortunately, "wet" years significantly outnumber "dry" years by, at least, a 5:1 ratio.

"Protect the LRB" protocol options

We believe that the dam operator can protect the LRB with a two-pronged approach of contingency operations. First, assuming no significant in-flow, they can anticipate potential LRB breaches by using predictive capabilities far enough in advance to allow corrective action. This would provide sufficient advance notice of any necessary impact on scheduled releases. What could be called "dry year contingency operations", would be triggered when a potential breach is predicted within a defined number of days. For example, the WBM defines the "adequacy of storage remaining in the lake to support the number of days of permit requirements without an LRB breach." Thresholds such as "15 days remaining" or "5-7 days remaining" could be defined where certain options would be enacted.

The second prong of this approach are corrective protocol options when the thresholds are met which would minimize the impact on all stakeholders.

Below are two protocol options for which releases can be used as “management control levers” when projecting an approaching LRB breach.

- Option 1: a modified TER protocol designed to use less water.
- Option 2: selective cancellation of some weekday whitewater (WW) releases.

For example, if the first threshold was “15 days remaining” until projected LRB breach point, the action could be: *suspend power generation releases*. (This may well be a Brookfield practice already.)

When the second threshold, 5-7 days until projected LRB breach point was reached, the actions could be:

- Option 1--- a transition to a modified TER protocol—a “conservation TER”. This TER protocol *would meet the temperature control objectives*, but would not necessarily support the dual use of providing additional, unscheduled WW releases.
- Option 2--- Cancel one or two weekday WWR releases, per week (depending on the water level at the time) for the period of contingency operations. Advance notice would be given per current practice. The “high priority” releases currently protected by the 1’ below-the-LRB “allowance” would be preserved until the lake level reaches 6” below the LRB. (As you may remember, this change from the 1’ allowance was briefly discussed on 28 March.)
- Continued “contingency operations” until in-flow/rain relief allows return to normal operations.

The 15 and 5-7 day threshold numbers above are simply “place holders” and would be addressed as part of our planned discussion. We would hope to leverage Brookfield’s operations experience on all such protocol specifics as well as MDE’s experience in this realm.

More fundamentally, we recognize that Option 1 requires a review and revision to the current TER protocol for use under scarce water circumstances. This is not a trivial matter. There was a suggestion at the 28 March meeting that 1 vs. 2 turbine releases and throttling turbines could work for effective TER’s. *We note that you raised the possibility of convening a technical working group, and that seems to us like a very constructive next step.*

Assessing stakeholder impacts---We understand that this is an important but also difficult and inherently subjective task. There are the obvious “eye of the beholder” issues. For example, is providing late season boat access to some number of additional docks more important than preserving two scheduled weekday WW releases? Any downside for the WW community of the above protocols are a direct function of the duration of contingency operations, driven by when in-flow/rain relief “arrives.” However, once the boats at a rapidly drying dock are taken to the marina, they will not be returned for use that season.

Some qualitative points can be made. First, the “dry” years which would trigger the “protect the LRB” protocols can be projected as few and far between. Related, one must factor in the additional WW releases in the dominant “wet” years that can be afforded by a predictive methodology. Second, it wouldn’t seem to take a lot of rain to offset the depth impact of a single WW release. This was estimated to be on the order of ½ inch based on our understanding, though we turn to you and Brookfield for good data on this. Third, if there is a modest rain event during the dry period, contingency operations would be suspended and only a few “dual use”

TER WW opportunities (option 1) or 2-4 scheduled weekday WW releases (option 2) would be lost. Granting all the caveats in these estimates, the impacts seem quite modest and equitable.

Some concerns about extending TER releases through September The rationale for these extensions beyond current permit provisions has not been provided. This should, perhaps, be covered in this Thursday's fishing program presentation. Of course, the POA's specific concern is the impact on lake levels.

The March 28 presentation to address lake water level impacts was appreciated. However, looking back at the briefing and correlating the results with our own "research," we have some questions and concerns. As we understand it, the presentation shows a maximum depth effect of 1.7" for a few September releases, each with a 1/3 inch depth impact and some with an apparently increased cfs rate of > 200. This seemed like minimal impact.

However, our own "research", indicates depth impacts more like 1/2 inch/release and, more importantly, in the neighborhood of 20 releases/month if hot and dry. July, 2012, with 23 TER's, is a specific case in point (though we have not looked broadly at "hot month" averages). *So, one can calculate depth impacts on the order of 8"-11" in an already-problematic September month. This could have a significant impact on dock access. We offer a simple solution: require that the water level be above the LRB as a condition for any September TER releases*

I and my colleagues look forward to meeting with you and Brookfield to discuss next steps.

Very Respectfully,



Paul Weiler

President,