

---

**DRAFT MEETING SUMMARY**

**For Special Meeting of the Regulated Flow Advisory Committee (RFAC)**

**Meeting on July 9, 2019**

A special meeting of the Regulated Flow Advisory Committee was convened for the purpose of considering the recommendation by the Subcommittee on Ecological Flows (SEF) related to the FFMP Thermal Mitigation Guidelines and Rapid Flow Change Guidelines.

Steve Domber, RFAC Chair, started the meeting by thanking the members of SEF for all the hard work they have completed thus far. He noted that SEF was charged with evaluating the interim guidelines for two banks established by the Flexible Flow Management Program of 2017 (FFMP2017 or FFMP). One is a 2,500 cfs-day bank for the mitigation of thermal events. The other is 1,000 cfs-day for the mitigation of rapid flow changes as the result of changes to the releases, directed by the Delaware River Master, from the NYC reservoirs.

Daryl Pierce of PA Fish and Boat Commission, representing Pennsylvania on the Subcommittee on Ecological Flows (SEF), presented the recommendations from SEF related to the guidelines for thermal mitigation and rapid flow change mitigation from two banks established by the FFMP2017. SEF submitted a progress report to RFAC on June 13, 2019 outlining the findings and including a recommendation related to the thermal guidelines. The report also documented their analyses

The interim guidelines, which they were asked to review, consists of a two-phased approach. Phase 1 is in effect from 6/1 – 7/6 and is intended to prevent any exceedance of 75°F at Lordville, as measured at the USGS gage or half (1,250 cfs) of the 2,500 cfs-days of the bank has been expended. Phase 2, in effect beginning 7/7, is intended to prevent exceedances of 75°F for 2 consecutive days or any exceedance of 77°F, prior to initiating mitigation release. The use of the banks would occur if the flow at Lordville is less than 1,360 cfs, because at higher flows releases from Cannonsville have little effect. Their analyses showed that Phase 2 allows some increased thermal stress (i.e., > 75°F, > 77°F) on coldwater fishes. The analysis also showed that under the Interim guidelines, the thermal bank was not exhausted in any year, but allowed 14 days of unmitigated thermal stress due to the Phase 2 goal of preventing exceedances of 75°F for 2 consecutive days or any exceedance of 77°F. The conclusion was that the Interim Guidelines conserve water in the bank and are less protective of the coldwater community.

SEF's recommendation is known as the Simple 75 alternative. The recommendation eliminates the phases and has the goal of preventing any exceedance of 75°F at Lordville. The benefits are that use of the bank with no phases and the goal of not exceeding 75°F at Lordville is more proactive at preventing thermal stress, however, there is a greater risk of depleting the bank prior to the end of the summer. SEF members reviewed the eleven-year (2008-2018) time-series and found that 78 days exceeded 75°F

at Lordville. They used output from PST to estimate what the temperatures in the river would have been under FFMP2017 for the period of 2008-2012 and the number of thermal stress days were reduced from 78 days to 41 days (prevented 37 days). The 2017 FFMP was determined to be proactive in preventing thermal stress at Lordville. Using the Simple 75 approach resulted in exhaustion of the bank in two years (2008 and 2011), allowing 5 unmitigated days due to depletion of the bank. Overall, the Simple 75 guidelines result in mitigation of 9 more days than the Interim Guidelines.

SEF recommends that the Simple 75 be used in place of the Interim Guidelines for the following reasons:

- The Simple 75 approach offers a slight improvement for mitigation of 75°F thermal stress days over Interim Guidelines.
- Analyses show that using Simple 75 results in a net increase of mitigated days (N = 9) and eliminates the potential lethal 77°F maximum criteria as was originally permitted in Phase 2

SEF would also like to continue to work on thermal mitigation guidelines as follows:

- Validate findings using thermal dynamic model (heat flux)
- Alternative thermal criteria
- Adequacy of bank allocation, potential to combined Thermal Mitigation Band with Rapid Flow Change (RFC).

SEF has not yet completed their analyses for the Rapid Flow Change Guidelines. They have recommended using the Interim Guidelines for 2019. They are continuing to evaluate the and expect to have a recommendation by April 15, 2019.

There was discussion about the details of the guidelines. There was a thermal release of July 5-6 that followed the Simple 75 guidelines because it was anticipated that RFAC members would be amenable to the guidelines. A graphic prepared by Peter Kolesar was presented that showed the release and temperatures at Lordville. The potential thermal stress day was mitigated.

There was consensus among the Committee to submit the recommendation of SEF regarding modifications to the interim thermal mitigation guidelines and their proposed topics for future study to the Decree Parties for formal approval. After some discussion among the members, to vote on the recommendation with the added condition that SEF was to focus on evaluating the Rapid Flow Change Guidelines, prior to continuing evaluation on thermal issues. Stefanie Baxter moved to submit the SEF recommendation with the caveat that SEF focus on the Rapid Flow Change Guidelines to the Decree Parties for approval. The motion was seconded by Jen Garigliano. All approved.

There was a proposal to amend the SEF procedures to provide a deadline for recommendations that SEF wants implemented in any release season starting on June 1. Any recommendation may be considered at the discretion of RFAC. Recommendations may be made to RFAC at any time. For recommendations related to the use of releases from NYC reservoirs, it is desirable to receive the recommendation(s) prior to April 15 if they are to be implemented at the beginning of the release year starting June 1. The April

15 deadline will provide enough advance notice for consideration by RFAC, submission to the Decree Parties, development of implementation guidelines and training of NYSDEC, NYCDEP and ODRM staff. Amendments to the SEF procedures will be shared with SEF and considered at the next RFAC meeting.

The meeting was adjourned at 10:45 AM.

**Members in attendance:**

**In person:** Steven Domber, NJDEP (co-chair); Stefanie Baxter, DGS; Jen Garigliano, NYCDEP

**By phone:** Brenan Tarrier, NYSDEC; Hoss Liaghat, PADEP; Laura Bittner, USACE; Kelly Anderson, PWD; Kendra Russell, USGS; William Cocke, DNREC.

**Others in attendance:**

**In Person:** Daryl Pierce, Vince Monaco, Nick Carbon

**Phone:** Sheila Eyler, Jim Mayfield, Molly Hesson, Peter Kolesar, Jeff Skelding, Molly Oliver, Lee Hartman, Adao Matonse, Angela Padeletti

**Staff:**

Amy Shallcross, John Yagecic, Fanghui Chen, Anthony Preucil; Donna Woolf