

## **Meeting Summary for RFAC Meeting of August 16, 2023**

A meeting of the Regulated Flow Advisory Committee was held on August 16, 2023, via Zoom. Jennifer Garigliano was the chair for this meeting and began the meeting at 10 am. The meeting members introduced themselves. The summary from April 26, 2023, meeting was approved.

### **Jen Garigliano (NYCDEP) presented on the delay of the [Delaware Aqueduct Repair Project Update](#)**

Jennifer Garigliano provided an update on the status of the Delaware Aqueduct Repair. The Delaware Aqueduct is the longest tunnel in the world and NYC supplies 1.1 billion gallons of water per day to the City and eight counties north of the city. Service began in 1944 and it was last inspected in 1957-1958. In 1990 and 1992, leaks were discovered in the aqueduct near Roseton and Wawarsing. The leaks are caused by faulted limestone and are estimated to be a combined 30 million gallons per day. In 2015, a study was conducted to determine the best way to repair the leaks. The study concluded that the best solution was to repair the Wawarsing leak by grouting and build a bypass tunnel around the Roseton leak. The bypass tunnel is now complete, but the small connections from the bypass to the aqueduct still need to be made.

The bypass was originally scheduled to occur in 2022 but was postponed due to delays in the completion of predecessor projects required before initiation of the repair. In anticipation of proceeding in 2023, a temporary dewatering exercise was conducted to test the pump capacity to manage the groundwater infiltration to the aqueduct. The results indicated that the infiltration could potentially be greater than the pump capacity of the dewatering system. Due to the associated safety issues and risks with proceeding, the project was again postponed. The plan over the next several months is to increase the pump capacity in the dewatering system. An additional dewatering exercise will be conducted in October to gather more data on infiltration rates. In the spring, and Autonomous Underwater Vehicle inspection of the RWBT will be performed to evaluate conditions compared to the last inspection in 2014. Jen will provide another update on the project at a spring 2024 RFAC meeting.

### **Amy McHugh (ODRM) presented on the [FFMP 2017 Balancing Adjustment Study](#)**

ODRM completed an analysis of directed release balancing adjustment procedure, as indicated in the 2017 FFMP. The balancing adjustment is a correction for cumulative error of the directed releases. Error sources include forecasts of powerplant releases, runoff from rainfall, and baseflow behavior. The balancing adjustment is computed as 10% of the difference between directed releases and actual required releases. The study aimed to address pre-existing criticisms of the process, which included that it was not effective, overly complex, and carried a balance for a long period of time. The study structure had three main tasks: 1) data collection and model development, 2) scenario performance testing, and 3) Reporting and decision. Between each of the main tasks, workshops were held to solicit input on alternatives and feedback on model results from USGS and the Decree Party Work Group. The study concluded in June 2023 with several recommendations.

To simplify and increase effectiveness of the balancing adjustment procedure: 1) remove the 10% distribution will be removed and rely only on a maximum value (cap) for the balancing adjustment value, 2) the cap will be increased from 50 to 100 cfs, 3) the reset date will be changed from June 15 to June 1 to align with banks, diversion calculations, etc.

In 2018, a modification was made to the procedure to only apply the balancing adjustment when directed releases were greater than conservation releases. A review of this modified process identified loopholes in the logic, which will be remedied with the following recommendations, 1) apply the Balancing Adjustment for any directed release value, not just when greater than conservation release, 2) accumulate error not only when directed releases are greater than conservation releases, but also when the actual required release is greater than the conservation release, and 3) when directed and actual required release values span the conservation release value, only the portion of error above the conservation release value is accumulated.

Changes were implemented June 15, 2023, with the new reset beginning June 1, 2024. Detailed documentation is being compiled into a singular report, which will serve to memorialize the study structure, findings, workshop input, and recommendations. The report is expected to be finalized within the next few months.

### **Fanghui Chen (DRBC) presented [Flexible Flow Management Program Performance Review for the Release Year 2022-2023](#)**

DRBC conducted performance review of the FFMP for the release year starting on June 1 2022 and ended on May 31, 2023. For the 2022-2023 release year, precipitation was dry during the summer and near normal for the remainder of the year. A few large precipitation events occurred including two Nor'easters and rainfall from the remnants of Hurricane Ian. Combined storage in the NYC was influenced by the precipitation pattern and decreased during the dry summer. The combined storage remained steady or increased for the remainder of the release year. During July and August when flows were low, 20.4 BG was released from the NYC reservoirs to meet the Montague Flow Objective. The total releases for Montague including releases made during November 2022, February 2023, and May 2023 were 21.5 BG. The conservation releases spent 82 percent of the time in Table 4G. Warm air temperature in the basin led to increased water temperatures at the beginning of the release year, and thermal mitigation was used for 26 days during the hot summer months. The maximum water temperature exceeded 24 degrees C on two days at Lordville and three days at Bridgeville. Cannonsville was below the CSSO for 72 percent of the year, Pepacton was below the CSSO 68 percent of the year, and Neversink was below the CSSO 70 percent of the year. The salt front was above the normal range in August, reaching its most upstream location near river mile 79.5 in early September. The salt front remained near or below the normal range for the remainder of the release year. DRBC's FFMP Implementation Reports are available on the [DRBC Website](#).

### **Public Comment Session**

Jeff Skelding asked about the re-constitution of SEF. Jen mentioned that a new SEF charge has not been issued yet, but RFAC intends to engage SEF again. No other questions were asked.

Amy Shallcross encouraged people to look at DRBC website and [sign up](#) for the list serves for various topics that interest them and to receive notices of upcoming meetings.

### **Adjournment**

The meeting concluded at 11:30am when Steve Domber motioned to adjourn. Stefanie Baxter Seconded and the motion passed unanimously.

### **Committee Members in attendance**

- Jen Garigliano, NYCDEP (chair)
- Stefanie Baxter, DGS
- Patty Murray, DNREC
- Hoss Liaghat, PADEP
- Joseph Miri, NJDEP
- Kelly Anderson, PWD
- Steven Domber, NJDEP
- Brenan Tarrier, NYSDEC
- Amy McHugh, ODRM