Eno River Water Users Group Annual Meeting - Summary

August 22, 2025

The meeting commenced at approximately 10:00am by Mr. Linwood Peele, North Carolina Department of Environmental Quality (NCDEQ) - Division of Water Resources (DWR) – Water Supply Planning Branch Supervisor. He thanked everyone for attending the annual Eno River Water Users Group meeting, held at the Orange County Bonnie B. Davis Environment and Agricultural Center at 1020 US HWY 70 West Hillsborough, then asked for all attendees to introduce themselves (attendance sheet attached). Following the introductions, Mr. Harold Brady (DWR Water Supply Development Coordinator) provided a brief historical overview of the Eno River as a source of water for the local community. The first continuous flow records began in 1929 when the United States Geological Survey (USGS) installed a stream gage on the Eno River near Hillsborough (site of the current gage). Drought conditions in the mid-1950's led to the development of Lake Orange, constructed in 1968. Similar drought conditions reappeared in the region during the 1970's and led to a Capacity Use Investigation (CUI) in the Upper Neuse River basin by the Division of Water Resources (DWR). A formal report and recommendation were issued in 1987 to the Environmental Management Commission (EMC). The EMC subsequently issued a resolution creating the current water users group and Water Management and Operations Plan (WMOP), thereby avoiding a formal Capacity Use Area designation. The Town of Hillsborough completed construction on Phase 1 of the West Fork Eno Reservoir (WFER) in 2000 and completed construction of Phase 2 of the WFER in 2021.

Following the brief history of water use in the Eno River watershed, Mr. Louis Murray (Eno River Water Users Group DWR Coordinator) provided an overview of the required annual water use report. The report included detailed information on the annual operations and associated withdrawals by the three primary water users; the Town of Hillsborough, Orange-Alamance Utilities, and RHI Magnesita, as well as an accounting of changes in streamflow observed over the past year at the USGS Hillsborough gage. He began the discussion by noting that, unusually, no withdrawal restrictions were identified throughout the past reporting year (August 2024 – July 2025).

According to USGS data, the average daily flow over this 12-month period of 78.9 cubic feet per second (cfs) exceeded the long term 30-year (1993-2023) average of 57.4 cfs. Compared to long-term averages, the past 12-month period had fewer days with flows of less than 10 cfs (11 days compared to 126 days) and of less than 3 cfs (0 days compared to 33 days). Mr. Murray then discussed the flow and precipitation graphic, noting the flashy nature of the Eno River discharge in response to daily rainfall events. Total precipitation of 57.6 inches over the past year was higher than the long-term

average of 48.1 inches. Mr. Murray quantified the average withdrawals by the three water users over the reporting period, including the number of days in withdrawal restrictions, following the protocols set forth in the WMOP. Even though flows in the Eno River dropped below 10 cfs eleven times this past year, there were no periods of flows at this low level for seven or more consecutive days. As a result, no withdrawal restrictions were placed on the water users.

Before quantifying the monthly demands from the water users, Mr. Murray graphically described the annual discharges (water released) from both Lake Orange and the WFER. This information provided context for the flows observed at the Hillsborough gage. He then briefly reviewed the monthly graphics, noting that withdrawals were steady throughout the year.

The flood caused by the large anomalous rainfall event of July 6, 2025, adversely impacted Eno River water users and suppliers. The flows were so high from the heavy rains that the Hillsborough USGS stream gage on the Eno River was flooded and subsequently failed. Though unknown, it is suspected that flows at the Hillsborough gage exceeded the 4600 cfs recorded in 1996. This flooding event became the primary topic of discussion for the remainder of the meeting by both water users and managers.

Mr. Nathan Cates (Town of Hillsborough Water Treatment Plant Superintendent) began by sharing pictures of the Town's water supply and distribution infrastructure following the July 6 flooding event. Numerous impacts on infrastructure were observed. The primary clear well at the water treatment plant (WTP) was flooded, resulting in the issuance of a boil water notice for all customers. Immediately following the storm, the Town of Hillsborough began purchasing drinking water for several days from the City of Durham through an existing interconnection while the Town cleaned up and repaired its WTP and distribution infrastructure. At Lake Ben Johnson, the Town's in-stream raw water reservoir, flows came within six inches of flooding the pump station electrical box. For context, this elevated pump station is approximately twenty feet higher than the normal elevation of the surface water in Lake Ben Johnson. Mr. Cates noted that the West Fork Eno Reservoir (WFER) handled the rising waters very well, particularly in the recently constructed portion of the dam structure. However, the "piano key" portion of the spillway was completely submerged for the first time since the project was completed in 2021.

Mr. Wayne Poole and Mr. Dale Hamby (Orange-Alamance General Manager and Water Treatment Plant Manager, respectively) also shared photos of the aftermath of the July 6 storm. Although the Haw River pump station was completely flooded and inoperable, the Orange-Alamance water plant remained operational even though the rising water

encroached to within less than a foot of the pump motors. Fortunately, Orange-Alamance was still able to supply about 25% of the demand for the Town of Mebane, whose WTP had been completely flooded and inoperable. Mr. Pore noted that they did get water from the Town of Swepsonville periodically to help supply their southside zone. At Corporation Lake, flows were well above the top of dam, as high as had ever been recorded.

Ms. Tonya Scarlett (Plant Manager, RHI Magnesita) also provided photos from the July 6 storm. She noted two major impacts from the storm were the flooding of the river pump house and flooding of the mine entrances. Fortunately, however, the mine was back in operation a few days later.

Ms. Kimberly Radewicz (Superintendent, Eno River State Park) provided an update on issues and activities in the Eno River State Park, showing photos of the aftermath of the July 6 storm. She noted considerable damage to facilities throughout the Eno River State Park, especially along the river itself where bridges and trails were destroyed and, in some instances, wiped away. As a result, the Occoneechee Mountain trails were closed for 2 weeks, and the Cole Mill entrance remains months away from reopening. Ms. Radewicz noted that flows along one of their larger suspension bridges were more than two feet above previous record highs set during hurricane Fran. This was an estimated twenty-six feet above the normal surface elevation of the river. She noted that both chemical supply reservoirs for the *Hydrilla* management project were found despite the high waters. Because the storm was so strong, *Hydrilla* surveys will need to be conducted this year to determine if treatment in the Eno is necessary for next year.

Following reports from the primary water users, Mr. Wesley Poole (Orange County Water Resources Coordinator) provided a brief update on the management and maintenance activities at Lake Orange. He specifically noted capital improvements over the past several years on the spillway and dam structure, all of which survived the storm and prevented significantly greater damage. Roadways around Lake Orange suffered considerable damage and even though the repairs started immediately there are still places that need attention. The next major project will be replacement of the intake tower, anticipated to cost upwards of 2.5 million dollars.

Paul Fulton (Lake Orange Inc., resident) noted that, during the height of the flooding, the access road to/from his community was washed out. However, DOT workers arrived quickly and worked to keep access available. He also mentioned that Orange County was prepared to locate an ATV (4-wheeler) near them to assist in emergency medical evacuations, if needed, while the bridge was not passable. Fortunately, the bridge was restored quickly, and placement of an ATV was not necessary. Mr. Fulton concluded by

expressing his gratitude for the efforts made by these individuals in working to keep everyone safe.

The final speaker, Mr. Reggie Hicks (City of Durham, Water Resource Planning Manager) also shared photos depicting the aftermath of the storm. Mr. Hicks noted that the Little River and Lake Michie pump stations were temporarily inoperable due to SCADA being lost because of the flooding. However, he was pleased to report that the interconnection with the City of Durham served the Town well by quickly providing water service to its customers.

With no further business to discuss, Mr. Peele thanked the attendees and adjourned the meeting at approximately 11:37am.