



Fluctuating City Lake Levels a Normal Part of Efficient Water Supply Operations

In the summer and fall seasons, it is common for citizens and customers to inquire about City lakes and fluctuating water levels. Water Resources staff provides information to answer these questions using direct contact, the Annual Water Quality Report, and the City web site.

The City of Monroe owns three man-made lakes, Lake Twitty (1972), Lake Monroe (1958), and Lake Lee (1929). These lakes were constructed to supply drinking water to the City. Together they hold approximately 2.5 billion gallons of water to be used to meet the City drinking water needs. The City does allow boating and fishing recreation on City Lakes during the open season of March 1 to November 1 each year. However, the water supply needs of the City dictate the lake operations.

Water from City lakes is treated at the John Glenn WTP which has a capacity to treat up to 11 million gallons per day (MGD). The City can also receive up to 1.99 MGD from a Catawba River water supply via an interlocal agreement with Union County. The City's current peak day demand for water is approximately 9 MGD.

During the summer and fall, water is transferred from Lake Lee and Lake Monroe, to Lake Twitty. Making efficient and effective use of this stored water supply is one key to meeting City needs, while keeping the cost of water service low to our citizens. Currently, Monroe's water rates for a typical residential customer are some of the lowest in North Carolina.

Normal water supply operations can create lake level fluctuations of 10 feet +/- during the course of any summer/fall period. Low rainfall periods, like those the city periodically experiences, will make these lake level fluctuations even greater. However, City lakes normally replenish to full capacity each winter and spring season which allows the cycle of using this valuable stored water to repeat.

Long term, the City is developing additional water supply sources including potential added Catawba river supply, Yadkin river supply, and City lake augmentation as part of the City Reclaimed Water Master Plan. Any inquiries or

concerns about City Lakes can be directed to the Water Resources Department at 704-282-4601.

Lake Twitty—Lake depth at dam when full is 40 feet deep but can drop 10 feet or more related to normal water supply operations.



Water being transferred from Lake Lee/Monroe to Lake Twitty. Water discharges into Lake Twitty off Highway 200 at Stewart Creek.

