

Annual Drinking Water Report

Working to improve your system
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Droughts mean need for more water storage

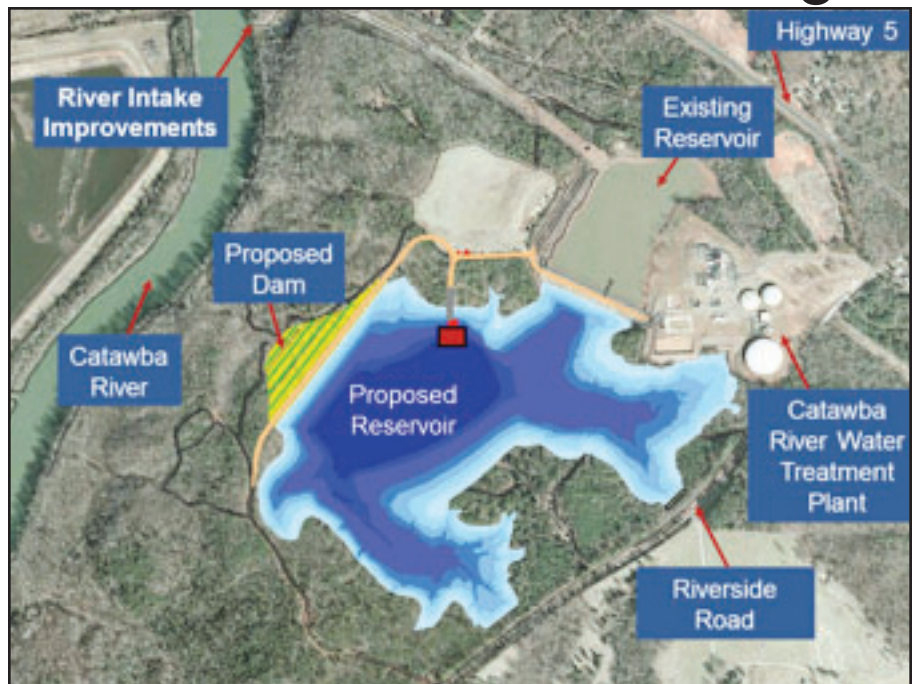
The possibility of droughts causing low flow in the Catawba River means raw water storage capacity must be increased at LCWSD's Catawba River Water Treatment Facility.

And to meet this need, LCWSD plans to expand the existing reservoir from only about three days of water storage to 30 days of storage.

"A bigger reservoir will help us make sure we satisfy customers' water needs at our water treatment facility during drought or low flow," Catawba River Water Treatment Facility Director Mike Bailes said. "This bigger reservoir won't change the amount of water taken from the Catawba River, and it will help us reduce our impact on users downstream."

The expanded reservoir is also required for the water treatment facility to remain in compliance with its withdrawal permit, which requires existing raw water storage about 10 times the current capacity.

"This project is essential to our community's quality of life, and it's important to our continued economic and community development," LCWSD Manager Mark Knight said. "The larger reservoir will be a major stride in improving the reliability and quality of our water supply for years to come. The dry weather we've been experienc-



ing lately is just a reminder of the real needs we face and the importance of completing these improvements."

The expanded reservoir capacity will allow the facility to optimize water withdrawals from the Catawba River during normal or above normal flows and store more water. That water can then be used for treatment and will reduce withdrawals during drier times.

Located near the intersection of Highway 5 and Riverside Road, the expansion will span 92 acres on the treatment facility's property.

To create the larger reservoir, an earthen dam structure with an overflow spillway that meets all federal and state

dam design and safety requirements will be built.

The dam will be set back some 700 feet from the Catawba River, and a buffer of about 500 feet of natural area will prevent the dam and the reservoir from being seen from the river.

Once built, the reservoir expansion will be filled over time as the river flows are at normal or high levels.

Because the reservoir is part of the drinking water supply system, the treatment facility will maintain required security and prevent access to the property. Public access and recreation activities on the water will not be possible.

Continued on page 2

Questions?

Call 285-6919 or 1-800-832-2126 in S.C.
only from 8 a.m.-5 p.m. and after hours

OR go to our
website – www.lcwasd.org



Behind the Lines



Mark Knight
 Manager
 28 years with the district



Stephen White
 Assistant Manager
 19 years with the district



Donna West
 Office Manager
 29 years with the district



Robbie Peagler
 Sewer Superintendent
 13 years with the district



Tommy Carter
 Water Superintendent
 19 years with the district



Margaret Flow
 Financial Director
 12 years with the district



Doug Bailey
 IL Wastewater Treatment Facility Director
 26 years with the district



Mike Bailes
 Catawba River Water Treatment Plant Director
 25 years with the district



James Hawthorne
 Staff Engineer
 5 years with the district



Todd Knight
 Quality Control Coordinator
 16 years with the district



Kristen Betlow
 Professional Engineer
 2 year with the district

Not in violation
Chlorine

Typical source:

- Water additive used to control microbes
- Parts per million corresponds to 1 minute in 2 years or a single penny in \$10,000

(MCL+ MCLG)
Maximum Allowed
4
 parts per million

Annual average
2.66

- The annual average was for water we purchased from the Catawba River Water Treatment Plant and ranged from a high of 3.11 to a low of 0.65.

Not in violation
Chlorite

Typical source:

- Water additive used to control microbes
- Parts per million corresponds to 1 minute in 2 years or a 1 penny in \$10,000

(MCL+ MCLG)
Maximum Allowed
1
 parts per million

Annual average
0.49

- Annual average was for water we purchased from Catawba River Water Treatment Plant & ranged from a high of 0.64 to a low of 0.30

Not in violation
Chlorine Dioxide

Typical source:

- Water additive used to control microbes
- Parts per billion corresponds to 1 minute in 2,000 years or 1 penny in \$10,000,000

(MCL+ MCLG)
Maximum Allowed
80
 parts per billion

Annual average
15

- Annual average was for water we purchased from Catawba River Water Treatment Plant & ranged from a high of 64 to a low of 0.00

Not in violation
Turbidity

TT: A treatment technique that is a required process intended to reduce the level of a contaminant in drinking water.

(MCL+ MCLG)
Maximum Allowed
TT

High level detected
0.09

- Highest level detected was for water we purchased from Catawba River Water Treatment Plant

More storage - Continued from Page 1

Another essential part of the project is making improvements to the river intake and pumping station systems. These improvements will not increase the daily treatment capacity of the facility, but they will enhance overall plant operations.

The intake structure is essential for the facility to make withdrawals from the river when flows are normal and high. The intake structure also helps reduce water withdrawals

during drought or low flow conditions by using water stored in the expanded reservoir.

Once the required permits are obtained, construction will begin and should be complete in 2014.

The reservoir expansion project is estimated to cost \$30 million, with LCWSD funding half of the cost and Union County, NC the other Facility owner, contributing the other half of the cost.

Not in violation

Nitrate

Typical source of nitrate:

Runoff from fertilizer use, leaching from septic tanks or sewage, erosion of natural deposits

- The Maximum Contaminant Level is set by DHEC and is the highest level of contaminant allowed in drinking water
- Parts per million corresponds to one minute in two years or a single penny in \$10,000
- The "goal" (MCLG) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

(MCL + MCLG)
Maximum Allowed
10
parts per million

Annual average
0.96
Catawba

- Annual average was 0.96 for water purchased from Catawba River Water Treatment Plant

Not in violation

Lead

Typical source:

Corrosion of materials containing lead in household plumbing

- Parts per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000

(MCL)
Maximum Allowed
(Action level)
15
parts per billion

Highest amount detected in our water
(90th percentile value)
0.0
2010 results

- Not required to sample again until Sept. 2013.
- Laboratory analysis indicates that lead is not present – No sites where samples were taken exceeded the action level

Not in violation

Copper

Typical source:

Corrosion of materials containing copper in household plumbing, erosion of natural deposits

- Action Level is concentration of contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
- Parts per million corresponds to 1 minute in 2 years or 1 penny in \$10,000

(MCL)
Maximum Allowed
(Action level)
1.3
parts per million

Highest amount detected in our water
(90th percentile value)
0.11
2010 results

- Not required to sample again until Sept. 2013.

Not in violation

Fluoride

Typical source:

Erosion of natural deposits, water additive to promote strong teeth, discharge from fertilizer and aluminum factories

- Maximum Contaminant Level is set by DHEC and is the highest level of contaminant allowed in drinking water
- Parts per million corresponds to one minute in two years or a single penny in \$10,000
- The "goal" (MCLG) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

(MCL+ MCLG)
Maximum Allowed
4
parts per million

Annual average
0.72
Catawba

- Annual average was 0.72 for water we purchased from Catawba River Water Treatment Plant and ranged from a high of 0.91 to a low of 0.36

Not in violation

Haloacetic acids (HAAs)

Typical source:

By-product of drinking water disinfectant

- Parts per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000

(MCL)
Maximum Allowed
(Action level)
60
parts per billion

Annual average
20

- Annual average was for water we purchased from Catawba River Water Treatment Plant and ranged from a high of 37 to a low of 8

Not in violation

Total Trihalomethanes

Typical source:

By-product of drinking water disinfectant

- Parts per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000
- Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increased risk of getting cancer

(MCL)
Maximum Allowed
(Action level)
80
parts per billion

Annual average
24

- Annual average was 24 for water we purchased from Catawba River Water Treatment Plant and ranged from a high of 33.40 to a low of 15.90

Not in violation

Bromodichloromethane

Typical source:

Not applicable

- Parts per million corresponds to one minute in two years or a single penny in \$10,000

Maximum Allowed
(Action level)
NA
parts per million

Annual average
0.008

- We are required to monitor and report for Bromodichloromethane while EPA considers the effects of its consumption.

Not in violation

Total Organic Carbon

Typical source:

Naturally present in environment

- TT is defined as a treatment technique that is a required process intended to reduce the level of contaminant in drinking water.

Maximum Allowed
TT

Level detected
1

- The range met the requirement. Sample frequency was monthly.

Important lead & copper information

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

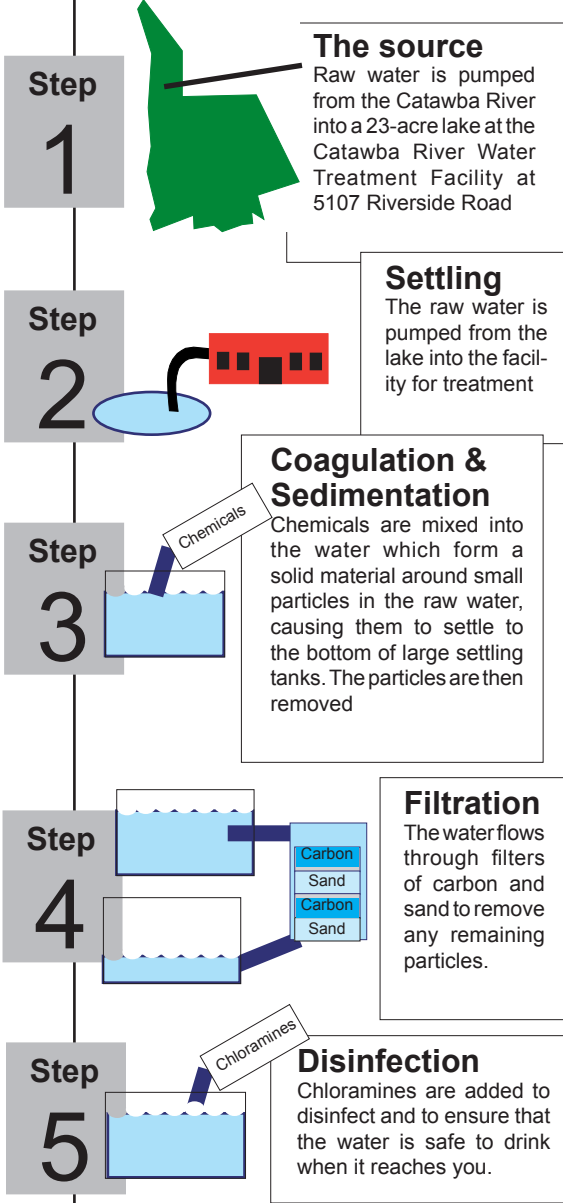
- Lead in drinking water is primarily from materials and components associated with service lines and household plumbing.
- Lancaster County Water & Sewer District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.
- When your water sits for

several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

- If you are concerned about lead in your drinking water, you may wish to have yours tested.
- Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

A Source Water Assessment Plan (SWAP) has been completed for LCWSD's water system. SWAPs, among other things, identify potential sources of contamination to drinking water supplies. To obtain a copy, please call the LCWSD office at 285-6919 or 1-800-832-2126 from 8 a.m.-5 p.m.

Where we get our water and how it is treated



As water travels over land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember the presence of these contaminants doesn't necessarily pose a health risk.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as

persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

For more information about contaminants and potential health effects or for EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline - 1-800-426-4791.

Improving our system to meet your needs

Current Projects

Phase II – Buford-Unity water improvements

Cost: \$2,210,000

Includes:

- 13,200 linear feet of 12” water transmission main line along HWY 522 from Camp Creek Road to Buford Elementary School
- New Buford-Unity 750,000 gallon elevated storage facil-

ity to provide improved water service to Buford & Unity communities

Elginwood sewersystem

Cost: \$1,800,000

Includes:

- Approximately 21,000 linear feet of 8” gravity sewer main within the Elginwood Community



The state's best wastewater system

LCWSD was named the Wastewater System of the Year by the S.C. Rural Water Association at its 34th Annual Technical Conference.

More than 450 water and wastewater professionals from across the state attended the Awards of Excellence banquet where awards were given to the state's top performing systems and personnel.

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Commissioners

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- | | | |
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The Commission meets at 7 p.m. the 2nd Tuesday of each month at Charlie's Cafe unless otherwise announced.