

## Update on Lake Auburn Water Quality 12-4-2018

We have recently been fielding calls and questions from the public with concerns about the quality of the water we are delivering. To put this issue into context, following is some Background, Historic Events, the Current Situation, and our plans for Remediation.

### Background

Lake Auburn is the only public water supply for the cities of Auburn and Lewiston. The water is treated with chlorine/chloramines and Ultraviolet light for disinfection. We also adjust the alkalinity, Ph, add blended phosphate for lead control, and add fluoride to help prevent tooth decay.

Due to the historically pristine water supply, in 1993 the Districts were granted a waiver from the Maine Drinking Water Program that allows us to deliver the water without filtering it.

The waiver of filtration has enabled the Cities of Auburn and Lewiston to enjoy some of the lowest water rates in the State. Growth is an important goal of the Districts, as well as both Cities. Reasonable water rates are very important to attracting new residents, businesses, and industries.

In accordance with recent engineering estimates, the construction of a filter plant could cost upwards of \$35 million dollars, with annual maintenance costs of \$1-2 million dollars. Water rates could double or triple as a result. For the average family, this would equate to an increase of about \$500/year. Fire protection charges to the City are mandated by the Public Utilities Commission and are based upon revenue. If water rates tripled, fire protection charges for the City of Auburn would increase by \$1.3 million/yr.

It is clearly in the best interest of Auburn and Lewiston to maintain the waiver of filtration and concentrate efforts on preserving our precious water supply.

As part of the requirement to obtain our waiver, the Lake Auburn Watershed Protection Commission (LAWPC) was formed in 1993 with the mission to protect the water supply. A secondary goal of the Commission is to promote reasonable recreational opportunities around that lake that do not jeopardize the primary mission.

### Historic Events

Since formation of the Commission our waiver has been threatened on two separate occasions.

In 1995, in-lake testing indicated declining water quality. The source of contamination was ultimately traced back to migrating gulls. The Districts contracted with the USDA to harass the birds from the lake. This has proven to be an effective program that continues to this day.

In 2012 a number of fish in Lake Auburn died due to an algae bloom that depleted the dissolved oxygen in the water. At that time, we partnered with regulatory agencies including the Maine Drinking Water Program, Maine DEP, Maine Inland Fisheries & Wildlife, EPA and numerous other experts in the field. This led to the utilities obtaining and maintaining a permit to apply a low dose of algaecide to the lake if conditions warranted in the future.

### Current Situation

In 2018 we experienced a record warm summer and fall with lots of sunshine. It has been an ideal environment for the formation of algae, and many lakes in Maine and across the country have experienced algae blooms.

On September 11, the presence of a blue green algae called Anabaena prompted the Districts to apply a low dose of an algaecide to the lake. Tests indicated that the application was effective, as algae counts in the application zone decreased significantly.

Recently we have seen the presence of other types of algae that have created aesthetic issues.

We continually test the water and it meets all drinking water standards; however, we understand that when the water smells or tastes different, people will have concerns and questions.

### Remediation

We have a team of experts on board including Consultants, Scientists, Educators and Regulators. There is a lot of interest in Lake Auburn from the scientific community due to its unique characteristics. We are weighing options for additional in-lake treatment, modifications to our current water chemistry, and management of the distribution system.

In order for algae to thrive, it needs a food source, which is primarily phosphorus that it gets from storm runoff. It also needs sunlight, and warmer temperatures. As the season changes, these things become less available. We expect to see the water quality improve naturally; however, a specific time when this will occur is hard to predict.

Lake Auburn is a fragile precious resource that is vulnerable to environmental and man-made threats. It will be very important for the LAWPC to continue to fund erosion control projects and carefully manage its land holdings in order to minimize pollution that can threaten water quality. Even if we were to lose our filtration waiver, or voluntarily add a filtration facility, our

lake protection efforts would continue, as algae can quickly foul conventional filter plants and add considerable expense to the treatment process.

In the meantime, I wish to reassure the public that the water that we are delivering meets all State Regulations and is safe to drink.

If anyone has specific questions or concerns, please contact the Auburn Water District. We thank you for your patience and understanding.

Sincerely,

A handwritten signature in cursive script that reads "Sid Hazelton". The signature is written in black ink and is positioned below the word "Sincerely,".

Sid Hazelton, P.E.  
Auburn Water District Superintendent  
784-6469