

Water Quality and Contamination
New York State Public Hearings
Testimony by Stephen Lynch, Chair, Cayuga County Water Quality Management Agency

The mission of the Cayuga County Water Quality Management Agency (WQMA) is to protect and improve the quality of water in Cayuga County. Cayuga County is located in the heart of Central New York's Finger Lakes region and has abundant water resources. The County is bordered by Skaneateles Lake to the east, Cayuga Lake to the west, the Seneca River and Cross Lake in the middle and Lake Ontario to the north. Owasco Lake is entirely within the borders of Cayuga County.

In recent years, the Cayuga County WQMA has seen a degradation of water quality in the waterbodies throughout our County. New invasive species have moved in; climate change has led to increased sedimentation; blue green algae blooms threaten recreation and drinking water quality; manure spills add bacteria and nutrients to our lakes and streams, and nutrients have led to increased weeds and algae.

Invasive Species

The Cayuga County WQMA recognizes the significant environmental, economic, and human impacts that invasive species have on the region. Water chestnut has been found in multiple waterbodies including the Seneca River, Cross Lake and Cayuga Lake. It is so thick in some parts that navigation is impossible. Owasco Lake has Asian clams which may increase nutrient levels near the County's Emerson Park Beaches triggering algal blooms. Cayuga Lake has hydrilla, one of the most invasive aquatic plant species in the world. All of these need resources to control and resources are needed to prevent new ones from coming in.



Figure 1: Water chestnut choking the channel between Howland's Island and Haiti Island

Climate Change

The Cayuga County WQMA is concerned that climate change may significantly degrade the water quality of the Finger Lakes. Severe storms have become common, resulting in sediment runoff events that can



Figure 2: Sediment flowing from Yawgers Creek into Cayuga Lake

only be described as alarming. Recent storm events have turned streams brown with sediment which then gets carried into our lakes. Sediment typically carries with it phosphorus, frequently the primary culprit in water quality impairment.

Longtime residents of Cayuga County have never seen runoff events like the ones we are seeing recently. When storms occur

before crops have been established, which has been the case frequently in the spring, an immeasurable amount of soil is washed into our waterways.



Figure 3: Sediment flowing into Owasco Lake

We acknowledge that the understanding of the impact of climate change on water quality is evolving and developing adequate responses to these impacts is challenging to say the least. Scientific expertise will be necessary to adequately address this problem. We are looking for the leadership of the NYS government to integrate the science of climate change into intelligent policy that can be implemented to protect the water quality of the Finger Lakes.

Harmful Algal Blooms

Harmful algal blooms have been found in multiple County waterbodies, but those of most concern are those that affect Owasco Lake, which is the drinking water source for over 40,000 people in the County.



Figure 2: Blue green algae bloom at the Owasco Yacht Club on Owasco Lake

According to a report by Scott Kishbaugh, NYSDEC, Owasco Lake had over a dozen confirmed incidents of blue green algae with elevated toxin levels over the past two years. Toxins and blue green algae have been found in the raw water intake of the City of Auburn water treatment system, putting at potential risk the water supply.

These blooms also interfere with the public's enjoyment of our waterbodies for recreation. Our local health department this year closed bathing beaches and issued several warnings to the public to avoid contact with waterbodies with blooms of blue green algae.

Nutrients and Manure

Many of the waterbodies in Cayuga County are impaired by nutrients. Excess nutrients can increase the growth of weeds and algae. Swimming and boating can be impaired by excessive weed growth. Rotting vegetation washing up along our shorelines creates unsightly views and gives off odors. Elevated levels of organic material such as weeds and algae in the water can cause the formation of disinfection by-products (DBPs) in public water systems necessitating enhanced treatment to remove the DBPs before the water reaches its customers. The decay of excessive organic material can also reduce the dissolved oxygen concentration in the lake below the NYSDEC standard and kill fish and other organisms that rely on oxygen for their survival.

Manure contains both bacteria and nutrients and is used by farmers to fertilize their fields. In recent years, the application of manure has contaminated both groundwater and surface water, polluting both private and public water supplies. Due to the concern of the public over the impact of manure runoff, Cayuga County created a Manure Management Working Group. The Cayuga County Legislature recently adopted the Manure Management Working Group's Fourteen Point Agenda for Action and the Cayuga County WQMA has taken the majority of the responsibility to implement this plan.



Figure 3: Manure runoff in Owasco Lake

Conclusion

Through the Cayuga County WQMA, we have committed our time and resources to protect water quality in Cayuga County, but it is not enough. Current NYS regulations are inadequate to prevent nutrient and sediment runoff, and, NYSDEC staffing is insufficient to enforce the regulations that are in

place. According to our agricultural community, funds are needed to implement best management practices and our municipalities need assistance to address storm water. Field personnel, resources and expertise are needed to help combat the spread of invasive species and control the ones that are present.

We are requesting an urgent response by New York State Government to provide the leadership, funding and resources needed to reverse the impairment of Cayuga County's water resources. Protecting the water quality of both surface and groundwater is a priority for our residents and essential to our health, livelihood, and well-being now and in the future.